Robert H. Brook

This is Ted Brown. I'm in Dr. Robert Brook's office at UCLA, and we're going to begin our interview. The date is July 28, 2003.

TB: Dr. Brook, as I look over your resume, it looks as if you took an interesting pathway to the field in which you made a significant contribution. You began your college career as a chemistry major. You went from a chemistry major at the University of Arizona to Johns Hopkins Medical School. That pathway doesn't suggest any predilection to health services research. But if you think back to that time in your life, were there any interests that may not be reflected in the chemistry major and Johns Hopkins Medical School that might have suggested concerns broader than clinical and research medicine.

RB: Well, actually, it probably started with my birth and my parents. Both parents were social workers and teachers. They moved from New York to Tucson to run the Tucson Jewish community and were involved in philanthropy and developing the whole community, so I suspect that's where my interest in this field began.

Second, at the University of Arizona, I was a dual major in chemistry and political science. And from this background of parenting and college, I was very interested in these questions to begin with.

During my medical school career, I needed a job, and was lucky enough to see a posting at the School of Public Health for a medical student who was needed to code the first sets of critical data about quality of care that ever were collected. They were collected by Paul Sanazaro and John Williamson who at that time was a professor at Hopkins; I forgot where Paul was. They really wanted somebody to read I think 12,000 to 15,000 critical instances that described, from a sample of faculty at many medical schools in the United States, poor and good care as these faculty saw it. They needed somebody to develop a manual and do it. They had tried many medical students at Hopkins who had lasted through about 30 of them. I thought it was a neat way to learn something about this field as well as to have a vacation because I could take these with me and then run around the country with them. I am probably the only human being still, to this day, that actually has read more than a few hundred critical reports, both positive and negative, about the quality of medical care. And to my amazement -- I was a second-year medical

student at that time -- virtually every one of these short vignettes was concerned with things that I already had learned about as a second-year medical school student. Virtually none of them required my turning to sophisticated medical books, which I carried around the country, but rather they dealt with - did somebody follow up a test or, to their amazement, somebody did follow up a test and actually read the x-ray and found the abnormality and treated the patient appropriately. I suspect these problems persist until today.

TB: Okay. Take me from that experience to the decision to pursue the ScD program.

RB: I think it began with that background, and I literally did all the work on that study, from, in those days, actually running the cards, punching the cards, to coding the data, to analyzing the data, to running them through card sorters, to fixing the machines, and that interest plus my background in college basically convinced me that I wanted to be a generalist and to get a degree in health services and medicine.

And at that time there were five professors of medicine around the country who realized that the medical school environment was not conducive to producing physicians who would be needed for modern times, modern

times being defined after 1970, 1968 or whatever it was. And they had convinced Maggie Mahoney who was then at the Carnegie Foundation to basically fund the Clinical Scholars Program and one of them happened to be located at Hopkins. I was interested in pursuing this joint activity and wound up as a clinical scholar. Kerr White, who was the head of health services at Hopkins at that time, was a different individual because he had been in the Department of Medicine and actually still wanted to talk to people who were in departments of medicine. Those were rare people in schools of public health in those days. And Julie Crebbins [sp.], who was the chief of medicine at Baltimore City Hospital, which was a branch of Hopkins basically, was also interested in this aspect of training and education, and I was the first person from Hopkins who actually applied and got into that program.

TB: You described in a 1997 *Health Services Research* article some of the tensions and difficulties at that time. I wonder if you could say something about that on tape.

RB: Well, I remember walking over to the School of Public Health one day having just taken care of patients, with my white coat on and a stethoscope in my pocket, and being thrown out of a class by a distinguished scholar in public health because he didn't want real doctors in it.

So the wall that existed across Wolf Street at Hopkins between the hospital and the School of Public Health was pretty high, and we were probably the first group of people who actually succeeded in dismantling it. And there were a lot of prejudices -- there still are today -- between people who believe the solution to health is a population approach and people who believe that the solution is a personal approach, and it becomes magnified because the people on the population side believe that they're getting a disproportionately smaller share of the resources that are available to deal with the problem that they believe they can fix faster with just a few more resources. That's true even today, but then it was to the point where people hardly talked to each other.

TB: Who were your fellow students in that program, fellow scholars?

RB: Well, the original class was Bruce Buchner [sp.] and Paul Durbin. Paul developed a way of looking at the appropriateness of hospital admission and then went off and founded a company, which he sold, and I've lost track of what he's doing. Bruce at one point was at the Marshfield Clinic in Wisconsin but working on quality of care.

TB: Jack Wennberg was an MPH student at that time?

RB: Yeah, but I didn't have much contact with Jack. Jack was mostly in public health, and still is. I mean, he fits the model of being a classic public health person as opposed to one of these people who went between medicine and public health.

TB: But I don't think he ever finished his residency, did he?

RB: That I do not know. But my understanding, I mean, all my knowledge that I know of Jack is he's never dealt with patients.

TB: Could you say something about the mentoring relationship between Dr. White and yourself, which you described in part in that article we mentioned?

RB: Well, Kerr and John Williamson were extraordinary individuals. Kerr actually spent individual time and really went over great books and articles that had appeared in this field. He would carve time out of his busy schedule, 45 minutes to an hour once a week, for many weeks to discuss them. And John was just a bundle of optimism in terms of what could be accomplished in this field. Anything could get done, and he had had resources and was willing to share them. They both were extraordinarily important, at least in my development.

TB: Can you say a little more about what this field meant at the time and what sense you had as a pioneer starting in a really fresh area?

RB: Well, when you begin something like that, I don't think you realize you're a pioneer. What we were worried about was quality. I got involved in this whole aspect of the field partly because of altruism, but partly also because I observed that interns and residents at Hopkins were working extraordinarily hard, and I was trying to figure out what the heck we would accomplish. We had a month off, and I said, "Wouldn't it be nice to just follow up patients that we treated and try to find out what happened to them." I was amazed that nobody had ever done that or seemed to care. I knew there were all sorts of process problems because we had trouble getting people back for appointments and getting them into follow-up care. So I managed to find a large sample of these patients and did this a number of times and was just absolutely stunned how most of what we thought we were doing "for the good of these people" turned out to be wasted effort because of lack of follow-through or follow-up. My motivations were altruism and also trying to figure out how maybe we could make our lives better by being more effective and more efficient in what we were doing.

I remember my exit interview with the dean of the medical school at Hopkins who would see everybody. I don't know how much time he spent with everybody. But when I left medical school, I said, "I'm going to be a generalist and probably go into public health or health services." The conversation ended when I said that. He had no advice, just said goodbye. It was exactly a two-second conversation. So you remember those kinds of events.

And we would worry, with David Rogers, who was at Hopkins at that time, and Julie Crebbins [sp.], would anyone ever hire us with this kind of weird mixed training, because, clearly, the thing that was most difficult was not the content, because there was a field of health services at the School of Public Health, but it was the fact that we were daring to walk across the street and then return. It was the uncomfortable feeling that we wouldn't be accepted by either camp because we were these bridge people that would never be accepted, never offered a job, and that kind of stuff, and we would routinely beat up on David and Julie to say, "Are you really sure that anyone's ever really going to hire us?"

TB: Wouldn't you say there was some real anxiety about public health?

RB: Oh, sure. There was an extraordinary amount of anxiety. There's, I suspect, anxiety with any young person trying to get a job. But there was no person who had ever been hired anywhere to do this in a joint way.

TB: Can you tell me something about how you selected your thesis project? Did it grow organically from your earlier concerns?

RB: Let me take a step back. On rounds at Hopkins, many times we had been talking about what to do for patients, and I would look it up and try to find some of the evidence. And in those days, the world was even more hierarchical than it is now.

I would describe Hopkins in those days, the medical side, as sort of Maryland aristocracy. I came from Arizona to go to Hopkins, and I grew up in a city where everyone lived in houses built on slabs as far as the eye can see, and in a very integrated community. I found myself in an extraordinarily segregated town where religions, ethnic groups, and race certainly lived block by block. And then the medical school was made up of a group of people I'd had no experience with, the faculty. They were people who, by and large, appeared to me to have towns or streets in Baltimore, Maryland, named after them, and it was really Maryland aristocracy. And coming from the West to watch

these very dedicated people, and they spent their whole lives in medicine, you know, work seven days a week. Many of them took off only Sunday morning, and they would show up after church on Sunday afternoon, sometimes in tuxes, and would be willing to sit down and teach. But it was a sort of aristocracy that was very, very different.

And so I approached this environment with some trepidation. But coming from the West, I felt comfortable asking questions. The answers came back very often that were not anything I could find that was evidence based. They were basically opinion. And when they said their opinion, you didn't question it, and I didn't exactly relish that kind of interchange. I got myself into trouble more times than I would care to admit.

And so when I began my work in quality, I was very concerned that the methods that we used to measure quality should be internally consistent and valid. I picked a study to try to understand how one would perceive what quality of care was when looked at from different points of view, because I wasn't allowed to do that when I was memorizing by rote the various things that we did in those days at Hopkins.

TB: You published a couple of important articles that I assume came out of that project in 1970-71, before you

completed your ScD. Do you remember the reaction of your senior or other colleagues at Hopkins when those articles came out?

RB: Well, the most interesting early experience, which I should have learned more from than I did, in this field was when we did a follow-up study from Baltimore City Hospital. City hospitals at that time had the best emergency departments, certainly in the state of Maryland. Baltimore City's was well staffed, it was new, people were experienced, and I had followed up people out of that emergency department and shown that care was really very bad in terms of follow-up. This hospital really served a blue-collar clientele, not an inner-city clientele.

And when I published that article, we worked really hard with the *Baltimore Sun*, which is a first-class newspaper, to write a press release that would not damage the hospital. Even prior to that, when I submitted that article to the *New England Journal of Medicine* and they accepted it, the editor wrote back -- and I wish I'd kept a copy of the letter -- demanding that the dean of the medical school send a letter back to the *New England Journal* that would hold the *New England Journal* harmless for any liability suits based on the publication of this article. I suspect it's the first and only time in the

history of the *New England Journal* that that occurred, but I don't know that for a fact. So I have at least one record.

So we worked really hard and got a very, very good story out of the *Baltimore Sun*, but the headline was not written by the person who writes the article, so the headline was sort of "Care Sucks" or is terrible or something like that. I don't remember the exact headline, but whatever it was it of course made the hospital administrator angry.

Now, there was another circumstance. This article was published in December, and at the end of December the house staff in those days would rotate, so we would have four days off either over Christmas or over New Year's. And I was off that time, gone, and the other group of house staff were on, and so the hospital administrator basically said to the reporters after the story appeared, "Come and I'll show you that we really run a first-class place." And he walked into the emergency room with reporters sort of following him through the swinging doors to find a scene where the house officers hadn't shaved for four days because they'd been on for four days. And actually, the first scene was one of a big house officer running after a nude patient whose lungs, he was trying to listen to before

he would commit her to a psychiatric institute, which was the proper thing to do, to make sure that there was not any medical problem. But you can imagine that after this scene, the hospital administrator did not talk to me for a while. Dean Rogers and Julie Crebbins [sp.] signed the letter to the *New England Journal*. Otherwise, the article never would have been published. There was a lot of bravery on the part of the hospital itself because they were willing to be identified as the place where the study was done, which today might not happen, forty years later. And there were some sort-term consequences in dealing with the press.

TB: Any other memories of that period up until 1972 that you'd like to record?

RB: I guess you're talking about the period before I left Hopkins to go into the Public Health Service.

We used to have sessions, as the Clinical Scholars Program began at Hopkins, which we would hold in the early morning at breakfast. It was really a very interesting time because we would have these groups of probably three cohorts because the program was longer then, so probably ten or so people really unique people. Many of them have gone on to do extraordinary things. We would have a guest who would come in, and we were totally irreverent about who

they were. They would have an hour and a half before they actually were able to have their cup of coffee and a doughnut. We peppered them with so many questions that it's unclear in retrospect how they ate their doughnut or drank their coffee. But they were memorable sessions of trying to understand how policy and health care worked in Baltimore.

TB: Who were some of these people?

RB: I no longer remember all their names. They held positions like head of the health department, and I just don't remember their names.

TB: Okay. Let's move forward to the period 1970 to 1974. You're a commissioned officer in the Public Health Service posted to the National Center for Health Services Research, as I understand it. Could you tell me something about what was happening at the center, how it functioned at that point in the still very young field in health services research, what some of the tensions and political problems were as you experienced them at that time?

RB: Well, I was in the first corps department. In those days everyone was drafted, and there were corps departments in the Public Health Service when you finished your training, and I was in the first one. Again, I was the first clinical scholar and the first corps department

assigned to the National Center, which was this new agency. Cartwright [sp.] had been the head of the board, I believe, that helped establish it, and Paul Sanazaro -- I can't remember whether he was still there running it when I showed up or had just left, but he was the one who picked me.

The agency had an extraordinary amount of money in those days. I can't remember the budget, but I think it was $60, $70, or $80 million, something like that, but if you fast-forward that money 30 years later, it's probably more than it has now. I was sort of a project officer, which meant I had an extraordinary ability to go out and meet every one of the people, literally, in the field that was doing anything in health services research methods or health-status measurement or quality-of-care measurement. I was able to travel and meet these people and probably had, by the time I left, the best understanding in the U.S. of what this deal was about. Because I was able to do that, I also was able to help get what are now the quality improvement organizations off the ground and the work done there. I also worked very hard at getting a lot of the methods work in this field started. So it was a unique time, and there weren't a lot of politics at that time about the agency. It was just a unique time.

We made some observations that are extraordinary and blew away many misconceptions when we began to work in trying to get doctors on an area-wide basis to accept some responsibility for quality. You would have thought, or at least I would have thought, given my bias, that this would occur in liberal states, in northeastern states, in California, and didn't occur in the deep South. But one of the sites was Mississippi, and there was a general practitioner in Mississippi named Milton Costello [sp.], who basically ran the Mississippi PRO, or PSRO, as it was called, or EMCRO, as we called it, the Experimental Medical Care Review Organization. He was a general practitioner in the Delta region of Mississippi. This was the '70s, not exactly in a bastion of liberal thought. And we would go down and ask him why he did this. There were two doctors in his office. They were there the day before yesterday. They were standing and not sitting, and each of them had two guns, six-shooters on their hips, and they were asking me the same question. And he pointed to the only certificate that was posted in his office where he saw patients, but we had no idea what it was. We went over and read it, and he happened to be the past three-time president of the Mississippi Gun and Rifle Association.

And I remember going to Albemarle County, which was the birthplace or home of Jefferson, and watched two very conservative doctors discuss the need to measure quality of care on an area-wide basis, and watched one doctor get up and call this guy a communist, put his hand over his chest, sing "The Star-Spangled Banner," then do the "Pledge of Allegiance," and then walked out with virtually the entire audience. Now, the guy he called a communist had never voted to the left of whatever was the most conservative candidate running in the county and couldn't understand how, by mentioning quality of care, he had just swung over from being an ultraconservative to a communist in all of two minutes. But those were the experiences in the field.

We site-visited one project in Alabama where a group of physicians or, I don't know if they were physicians, from Dartmouth had actually placed physician assistants down in this town, and we went down to site-visit them. Usually when you site-visit somebody, people don't want to have you show up any earlier than you need to show up and leave as soon as possible. We discovered that they wanted us to come the night before. We didn't do it. We flew into the northern very poor area of Alabama and showed up in the morning, and were told really extraordinary stories by these physician assistants. They had been accepted, and

the doctors had realized that the physician assistants were better trained than they were. So instead of the physician assistants working in the office as assistants, they were doing hospital-based care, and the doctor was staying in the office and took care of colds. I'm not sure it was legal. It was probably the right thing to do for the health of people. But the wives of these physician assistants have been totally unable to get any integration into the community even though they had been there almost two years and they have gone to church regularly. They've done everything.

We were invited to come for lunch because we had been almost their first adult contact within two years. We heard just how the transition went from people who came down from the north to help out and were accepted professionally, but how the families and culture of these people were not accepted. So there were these kinds of experiences, which sort of, in those two years, convinced me that this country is big and broad and everything is not really rational and intellectual.

TB: We can go back to Washington. We see some evidence from the time, at least retrospectively, that there was some difficulty beginning to affect the agency and the field. Nixon was apparently a little suspicious of

something left over from the Johnson administration. From various reports, the Institute of Medicine was involved at one point in trying to evaluate the field of health services research. There's some evidence that the agency budgets began to go down through the '70s. And at least as the story is told by some, by the early '80s people in the field of health services research were worried enough to try to create an advocacy group, which grew into the Association for Health Services Research, to try to reverse the political fortunes. There's an article written by Dan Fox when he was at the Center a few years after you were, when Jerry Rosenthal was the head, I believe. He describes an attempt to organize consensus groups so people could get on the same page because there was beginning to be dissension within the field as to what should be the priority areas of health service research. Does any of this ring true? Does it match your experience? Do you have any reflections on this?

RB: Well, I have recollections over many years. This is a field where most of us write in the English language, and it's relatively easy to understand the conclusions as opposed to those in the molecular biology field, where if there are nine people who really understand the article, that's good. Everything we do is exposed, and there are

very different paradigms in this field, and there always have been. And I indicated some of that. There are people who believe that the whole answer is in population health. There are people who believe that their discipline, economics, is going to solve the problems, if only we have the right incentives, and you can just go down the list.

I was a very interestingly trained person. I was trained interdisciplinarily, so before I got my first real job, I never was an expert in anything. I didn't have to defend the field of sociology, anthropology, political science, economics, or even medicine because I was trained as this person that knew a hell of a lot about a lot of different things, at a reasonable depth, but certainly not at the level that a person who came out with a Ph.D. in any one of these fields would know, and I realize that. I realized it from the very beginning, and I've run my life since then that way, that anything I did would have to be done in an interdisciplinary way with interdisciplinary teams. And there was almost nobody, and there still is, unfortunately, a dearth of people that really are trained to think about the world in that way.

Part of it also is that academic institutions still foster this. Academic institutions promote you if you're a single author of a single paper in your journal as opposed

to the *Journal of Health Services Research*. None of us want to write for a health services journal. We'd like to write for general journals if you're in an interdisciplinary field.

So I think we shot ourselves in the foot too many times, and we continue to do it today. And we do it because we are, many of us, so disciplined now that we can't look at the broader picture and try to put it together in some way that makes sense. And when what you write is easy to read, you confuse everybody. If you walk into a politician's office and one person says this and one person says that and one person says this, well, a politician's response is, "The hell with all of you." And it took this field a long time before it learned that lesson. I still don't think it knows it today.

But you can also look at the field another way. If you look back over the last 30 years, the field has been a smashing success. We ought to declare a victory and go on and do something very different. When I began in this field, there were no ways of measuring quality. There were no ways of measuring health status. Nobody really understood how to measure access. People were just beginning to understand how to measure indirect and direct costs and those kinds of things. We can do all that now.

All the statistical and epidemiologic methods have been pretty well worked out. There's not going to be a lot of advance in the supply field. The methods and tools are all there now. They have to be updated because the science of medicine changes so that the tools, unlike other fields, that measure a pound can stay the same, but these tools will need to be updated.

But, we really should declare success in what we've done because we can do all these things that we couldn't do 30 years ago. So even though we keep shooting ourselves in the foot about how to impact policy, from the perspective of developing the tools and science of the field, that's been done, and it's been done very quickly by a small number of people.

TB: Now let's move to California and 1974, when you begin at RAND and at UCLA. Can you tell me a little bit about how that was structured and how it's evolved over the last 30 years or so?

RB: Yeah. I actually began working with people in California earlier than that. When I was in the government, the health insurance experiment was beginning and there was nobody in the country, literally, at that time that understood anything about measuring health status or quality of care, and the health insurance experiment

needed that methodology. So Tom Rockwell and Joe Newhouse actually visited me while I was in the government, and I got permission from Mitch Robert, I believe was his name, who was then the head of the Center, to work with them while I was still in the government. I'm not sure that could happen today, but at that point I was able to do that. So I began working on this study and actually changed dramatically the methods that were used in the health insurance experiment.

And then when I was looking for a job, I said there were two places in the East, to go to either Harvard or Hopkins, which were the two obvious places, or come out West. But I grew up in the West, and coming out West would have been the easier thing to do, but what was even more amazing was Dave Solomon at that time was head of Medicine at UCLA and John Rice was head of RAND. Basically I said, "I want to do this kind of policy work, and I want to be in the medical department." And it was almost impossible to conceive of that happening in any medical school and that still is the case today. I said, "Why can't I work in both places?" So they figured out a way of making me an employee of both places. That probably has been the reason why we've been so successful in training so many people in this field, and probably still remain the world-class place

to do this work. I mean, I doubt whether any place has had this record for so many years in any field -- it's been over 30 years. I suspect that the RAND-UCLA axis is the best example of interdisciplinary health services research in the world for these last 30 years.

TB: Has it been difficult to balance your commitments and responsibilities to both institutions, and has that changed over time?

RB: When I came here, I immediately began to write a grant to get Robert Wood Johnson Foundation funds and bring the Clinical Scholars Program to UCLA, because there was nobody else to do it, and literally, because the field was empty at that time. I had to do a little bit more administration and program development than I advise my new trainees to do now. I would have loved to spend a little bit more time clinically than I did. I spent probably about 20 to 25 percent of my time clinically in the early years but would have loved to have spent a third to a half of my time clinically. I've been extraordinarily lucky that I personally have been able to function almost at will across these two institutions. I clearly don't fit into either one, but function, again, as this bridge person between them.

And, yes, there've been ups and downs. They usually relate to money, credit, power, those kinds of things that institutions value, but there's been enough leadership at the senior level at both RAND and UCLA, even in the face of budget cuts and where does the overhead go and where does the Xerox machine get placed and all that kind of stuff, to basically maintain this relationship and cooperate, and it's been wonderful.

TB: Do you have essentially one integrated life here, or do you have two parallel lives with different sets of colleagues and projects and responsibilities?

RB: Well, I have different sets of responsibilities, but it's amazing how integrated. I mean, I can meet my clinical scholars at RAND; I meet RAND people, and RAND people teach at UCLA, and we've got people with joint appointments. People marry each other. I mean, it's a pretty integrated structure. There are separate bureaucratic structures. When I have to get advanced at UCLA, it goes through a UCLA process; when I have to get advanced at RAND, it goes through a RAND process, so there are two separate processes. But the intellectual activity has been pretty well integrated.

TB: Share some more about the health insurance experiment per se. Say something about, perhaps, the style

and division of the work and what you contributed particularly to the project. In some of your papers, you make the interesting distinction between the health economist's approach and the medical approach. I wonder if that speaks to interesting intellectual differences or tensions that might have shown up in the project and how they got resolved.

RB: Well, first, Joe and I had an unusually productive and collegial relationship. We became good friends on the health insurance experiment. He was an extraordinary health economist. I think when he began the health insurance experiment the project he was most happy about was a project with Beverly Hills to see how books are checked out of the Beverly Hills Library. And so we both were extraordinarily naïve. But I believed that working together was important; so did he. And very early on, we agreed that we would rotate authorships, and I know of no sets of young PIs who have been so successful in actually holding to that. We weren't talking about people at the end of their career. We didn't write sole-author papers in one journal or another, and both of us were constantly under pressure for that. And what was nice is that we sort of held the line on this and basically developed an interdisciplinary and collegial team.

The kinds of things that were jointly decided were, first, the length of the experiment, and next, how people would be divided, basically the question of how many actual health plans, different plans did we need, and the tension was between trying to estimate demand curves and trying to get enough people in small enough groups so we could actually have some decision differences to measure differences in health at the end of the study. Joe and I spent a lot of time discussing these subjects from both a medical and economic point of view and reached an agreement that turned out to be a pretty good one. Then my job was literally to run everything that related to collecting information and conceptualizing and measuring health status and quality of care.

Again, my experience at the National Center was wonderful because I knew everything that was going on in the field at that time, probably the only one in the country that actually knew and had seen, listened to everyone, and that was in my previous life.

I managed to come out to RAND knowing the people that were measuring social and mental health, so I was able to take Joe to places like Yale and the National Center for Health Statistics, and introduce him to people. And we begged and borrowed and stole, with their permission,

questionnaires, questions -- nobody worried at that time about whether you could make money on a questionnaire, the field was too young -- and basically managed to very quickly measure what I said we wanted to measure: health. I told Joe that the way we ought to measure health is conceptually that the WHO definition, which Kerr White had spent hours telling me about, and we ought to measure positive and negative mental, physical, and social health. Medicine ought to be about positive mental and physical health. Well, nobody had ever tried to measure that before. I added physiologic health, being a physician, and we went about doing it.

We needed to find every question or questionnaire and we used untested, non-valid questionnaires that we didn't know anything about at the beginning and went about designing an extraordinary battery of instruments, which, as far as I can tell basically has become the template for measuring health in everything, from health policy to clinical studies. There has been some progress between then and now but mostly a shortening, and I was really the one that, up to that point, developed real health measures.

I also realized from my interaction with the people at Hopkins that there would be a lot of critique of everything that we did, so I spent hours with Joe and Ken Marcus and

others making sure that we covered everything from bother and worry to disability days -- everything that we could possibly measure -- because there would be a lot of people out there that, if we didn't find positive results, would want their favorite measure to be included.

And what was nice about Joe was that he gave me more and more of the budget to do this. I don't know how the budget finally divided up, but I suspect that of the analytical budget and the implementation budget, other than the insurance premiums we paid, I probably wound up with 80 percent of the budget. And Joe, to his credit, really understood that that was going to be the key outcome here. It was not just measuring the change in use but measuring all these quality and health status things.

And all the methods that we developed to measure quality, health status, and others are the origin of the various forms that exist today.

TB: What would you say were the biggest surprises?

RB: Well, the biggest surprise was that I went into the study believing that I would prove that health care makes a difference, even though I should have known better. Even with my experience at Hopkins with follow-up and everything, the disaster that medical care was really about, I actually still held the belief that going to a

doctor more will make you healthier, and I thought we would have enough measures to actually prove that that was the case. So the first major surprise was, that wasn't true.

The second major surprise, even though I was trained in health services research and population-based medicine, was just how high a proportion of the population is not very sick even though there are a lot of health behaviors and risk factors that were high.

The third finding was that when you looked at how people cut down their use of care, they cut down care for essential things in the same proportion that they cut down things that were nonessential, so it really was a mess. I was left defending for years, still to this day, that reducing a financial barrier between the patient and the doctor was good for the patient's health, or at least it's not harmful for the patient, saves a lot of money, so you can increase wages for people and give them more money as opposed to wasting it on the medical-care system, and that was really a shock.

TB: You did find populations and certain conditions for which access to free care did make a difference -- hypertension management and vision care. Did you stumble upon this finding?

RB: No. We actually had a thought that if we found anything, we'd find it for those things that were treatable. Our work showed that the screening we did at the beginning, physical for hypertension, probably produced about two-thirds of the benefit we found for treatment of hypertension, and it was certainly a better buy than providing free care. But we knew that the conditions that were most likely to be affected would be those that were easiest to treat, that were prevalent, and so we were looking for things like vision and hypertension. But those were small, I mean, they were effects, but compared to the overall things that we found, it was really very disappointing.

TB: Can you tell me a little bit about the political tenor of the group? Original funding was from the federal government in anticipation of national health insurance. You suggested that your own values would be on the liberal, progressive end of the spectrum. On the other hand, some of the RAND economists were at a different position on the political spectrum. I don't know about Joe Newhouse's political values. Was there any sort of discussion, tension, ferment, interesting exchanges along these lines?

RB: Remarkably little. I mean, we were all pretty much scientists. The first paper that we wrote, I think

had 90 drafts, 90 that were drafts. We had to address questions in terms of how do we analyzed the data, and we developed a system that kept political considerations out as much as we could by actually working through a process where we didn't know the way the results would come out by plan and actually try to deal with these results in a blinded way without knowing their direction, so that the analyses were actually driven without a political agenda. And it's been very interesting.

One of the things we found was that people on free care had more bed days than people on non-free-care plans. I thought that was a negative. People don't like to spend time in bed. I presented those results to a radical group of social scientists, and they thought that the best thing we found in the health insurance experiment is how free care and doctors actually protected people by giving them time off to go to bed, away from their evil employer. So it's been an amazing roller coaster.

Joe Newhouse and I had one set of experiences, which I'll never forget. When we were trying to elicit support for doing this study, we would run around the country together. And we met with our first site in Dayton, and we met with the Medical Society. We wanted them not to endorse it necessarily but to at least cooperate. It was

going really well. We had a lunch meeting, and at the end of it, one of the doctors yelled at us that we were communists. And we said, "Why?" And he pulled out an article from some rag that showed a picture of Kennedy, Teddy Kennedy on the front of it, and it was "The RAND health insurance experiment, a force for socialized medicine," or something like that.

And so we didn't feel too good as we got on the plane to fly to Seattle and then went to the HMO, the Health Cooperative of Puget Sound and met with their committee to discuss randomizing people into that HMO. And they had on their board a number of people who supported national health insurance in the United States. That meeting was going really well, and it was now late. This was after dinner. And then all of a sudden somebody raises their hand and says we're fascists. And so we were communists eight hours ago; now we're fascists. Why were we fascists? We were fascists because instead of really implementing health insurance, the government was going to run an experiment.

So we got on the plane that night -- those were the days you could still take planes in the evening -- and came home to Los Angeles. And it was the first time I ever saw

Joe Newhouse drink more than two bottles of liquor at any one time; it was quite a day.

But both organizations, to their credit, let us go ahead with the study. But it was interesting to see just how the study was received.

TB: Did the association with RAND, as an organization that had advised the military starting in World War II have any political effect?

RB: I really don't know the answer. There were people when we began at UCLA that would have nothing to do with RAND because of what they thought RAND was. It's interesting. If you look at what RAND did intellectually and how it advised the military, most of this group of people would probably want to be part of RAND as opposed to not be part of it, but that's a different story. But, yes, the reputation of RAND did play that role.

And even today, if you look at op-ed pieces coming out of RAND, even though the health program is now the largest program at RAND, I suspect the perception of the world is still that it deals with intelligence and military events, and it is a large part of RAND. I suspect that when they pick the next president of RAND, whenever that occurs, it'll be somebody who has experience with military, just

like the next person that is picked to run UCLA will probably be somebody who deals with medicine.

TB: What do you think, when all is said and done, has been the real impact of the RAND experiment?

RB: Well, it may very well have produced the amazing economy that we had in the '80s and '90s because, literally, free health care disappeared, and all those trillions of dollars actually went into people's pockets to buy computer chips and games and movies and whatever else people do with money. And it stimulated a hell of a lot of business and may very well have been the major reason why this economy did so well. Also, it made possible the managed-care take-off, which I still think is the way care is going to move in the future. You know it's had some time to show that there's a difference between managed care and cost sharing and free care, and it saved money. So therefore it stimulated the whole managed-care movement. I think it had pronounced effects.

It's a shame we weren't able to randomize elderly people, because that would have helped shape Medicare policy.

TB: I want to come back to some of these issues in a moment, but I'd like first to follow another line.

What do you think the impact of the field of health services research has been on careers in medicine? How does your identification with the kind of work you've done fit together with making a career in medicine? I wonder if you could sort of generalize for me.

RB: Well, we have now established ourselves as a legitimate part of the medical research establishment, and there are now a number of former clinical scholars who are now chiefs of medicine and deans, and medicine is trying to move forward, unfortunately, in my belief, at way too slow a pace. But the whole movement towards behavioral medicine, backed up by social science theory and studies about how talking to patients and how patients' expectations make a difference, have formed a whole new curriculum. This can shape primary care and change the education of doctors from the beginning, to teach doctors about issues relating to the population basis of evidence-based medicine. I don't think the movement towards evidence-based medicine, the Cochrane Center, could have developed without this group of people that led it, many of them coming out of this kind of a background.

So with the whole movement of medicine towards incorporating interpersonal relationships, the goals of medicine, have changed. When I began, people would talk

about death and disability, the big D's in medicine, and now people have talked to me about positive sex life, positive mental health. We're no longer talking about keeping adolescents off drugs but we're talking about getting adolescents to have experiences that are positive as opposed to negative. And all of this changed because of this group of people. And all of the organizations in medicine have felt this.

Is it sufficient? No. We still are moving along the lines that most of the money is going into -- either molecular genetics or molecular biology. And should there be more investment in this field? Yes. Should we be trying harder to reduce disparities in health between where we are now and three miles away? The answer is yes.

TB: How easy will it be for chairs of medicine to be chosen from the new fields you've mentioned?

RB: I think it's a little harder, I mean, at this moment, because I think the NIH money is a large issue in many medical schools, so it's clearly harder, but it's happening, and that's good news.

Now, there's a whole new field that needs to develop. The health services research field can't stay where it is at the moment. I do not believe that this field has much more to give in the way it's been usually crafted other

than to do mechanical kind of work. And what do I mean by that? Well, we know how to do cost-effectiveness analyses, and there'll be a need for somebody to turn them out. We know that if you change a coinsurance from $5 to $15 versus $10, it's going to affect use of drugs, so we need somebody to study it, turn it out.

What really is critical for the new vision of the field is to get communities involved in this kind of work so that the results are actually used. The problem of the moment is not doing one more study that shows that blacks die younger than whites. What really is needed is to fix the problem. Right? I mean, I can take many of my papers that I wrote 30 years ago and I'm sure just change the date and it would get published, and that's not true of any other field.

And so what we really need is to do almost a paradigm shift and try to figure out a way of becoming more active in a research way to incorporate community participation in the old respect of community leadership with what we're doing so that the stuff gets implemented and change occurs.

TB: Any ideas how that could be accomplished?

RB: Well, we're actually trying to do that now. We're actually trying to train people. If I had the ability to control some stuff, the answer would be I think

we could make it happen. I think that, just like the medical schools eventually hired people that did health services research, the medical schools need to hire people that basically make improving health in the community in which the medical school lives a priority, and that does not necessarily mean they need to do randomized trials or research. They need to facilitate the interchange of information in communities in a way that makes this happen.

I believe that all medical schools and academic centers, as their primary mission, ought to be producing appropriate care. And until they figure out how to produce appropriate care, they should not worry so much about basic science and other things. The university can worry about basic science and producing maybe a cure for disease A, B, C, or D. But an academic medical center, or certainly medical centers providing care, better improve dramatically the care it's giving, and most academic centers at this moment are producing pretty mediocre care. So these are the kinds of things that need to be changed, and we really don't have a place in the world where any institution is producing excellent care.

TB: Are there partnerships here between UCLA and the surrounding community?

RB: Yeah. They're on the wall there. And we have developed partnerships with the new Clinical Scholars Program. The Robert Wood Johnson Foundation has funded, I think partly by my pushing pretty hard, real partnerships. They're going to have the community help select the physicians in the program. They're going to be jointly running the policy advisory committee. I mean, we're really going to try to push. And these kids -- I say they're kids but they're in their thirties -- are at the same place of anxiety and frustration that I was 30 years ago, wondering who in the hell is going to hire them and take care of them and value them as well, and we keep saying the same answer is, "Well, we hope this world really recognizes the importance of this kind of activity and actually does it."

TB: And this is a project that Robert Wood Johnson is supporting?

RB: Yes. It's part of the Clinical Scholars Program.

TB: Is there anything that AHRQ is doing with translational research that will help in this?

RB: I think they're still stuck. I don't want to say anything negative -- and this is the problem in this field because anytime you say anything negative, what it results in is the field being defunded. I think we are still stuck

in this country at a governmental level, at a bureaucratic level, and at a medical school level in an old paradigm for this field. That's not saying we don't need people to do this kind of stuff, because you have to keep the information up to date and current, and we need people that are going to improve quality and do all these kinds of things. But, we need a new paradigm, a new vision of this field, of the same sort of vision that produced new markers of quality, new ways of measuring health status, new ways of testing out the relationships between economics and health care. What's the new major vision and creative thing that needs to be done? Well, the real creative thing is, instead of studying these problems, eliminating them, and that takes a different approach and a different group of people.

TB: Let me bridge from that to a curiosity I have about your political orientation in health policy. I'll give you my biases.

I was pleasantly surprised to find that you were co-author with Nicole Lurie twice and that you published with Kevin Grumbaugh [sp.], because I associate both with the progressive wing of health policy people. How reflective of your own political commitments and priorities are those professional associations?

RB: I'm not sure it's political. I mean, I trained David Satcher. I trained virtually 90 percent of the people who do this. Most of them wind up being Democrats. I wish I had trained some Republicans because it would be good to have well-trained Republicans to run some of these jobs. Unfortunately, we don't find a lot of Republicans in this field. And this should be bipartisan. This is not an issue of Democrats or Republicans. This is an issue of fixing huge problems that both parties realize are problems. There may be different ways of fixing them and different emphases, but we have a Secretary of HHS dedicated to improving the health care of the American people. So most people, irrespective of political party, would like to see health as a major priority.

I believe that right now -- and we've been writing about it -- the outcome of all American interactions with the world ought to be the improvement in the health of the country or the people in the country with which we interact, whether it's by trade policy, military policy, or state policy, it doesn't matter.

TB: Let me ask you about an article you published in June 1991 in *JAMA*. I think your opening line was, "The best thing we can do to improve the health of the nation overall is to cover the health insurance of the uninsured."

RB: Yeah. I still believe that.

TB: That sort of defines your political position, doesn't it?

RB: No. I mean, there's no question that we could show that there are probably around 20,000 who die in this country each year because of lack of health insurance. So the bottom line is, we have to fix that problem.

I've now got to the point where I believe that this is going to require some activism. I really believe the way to get everyone health insurance in this country is for doctors and nurses to agree to provide the same level of health care to the wives and husbands of all congressmen and congresswomen that they do to the uninsured so that anyone can get emergency care when they get run over by a Mack truck, but if you want anything else, you're going to have to wait for 12 hours. Just let them have to wait for 12 hours to get the sore throat of their kid fixed, and we will have a basic health plan in this country pretty quickly. If we only did a job action like that across the country, you might get something actually done. And it wouldn't hurt anybody, and it would actually demonstrate to people that have power the problem with medicine.

The problem with medicine has been that we don't say that we have elected a group of people that reflect both

conservative and liberal ideologies, but there's a need for a basic health plan on which we sort of all agree. Remember the plan that Nixon proposed? As far as I was concerned, it would have solved a hell of a lot of the problems that we've had. But it was proposed by Nixon and because it wasn't perfect the Democrats turned it down. But what we ought to say to a Congress or a president is, as doctors and health professionals, you determine how you want to do this. If you believe in competition, that's fine. If you believe in one health plan, that's fine. But you've got to believe in something. I mean, you have to give kids primary education. You have to give them something. And we as health professionals have to say, "You've got to give them something."

TB: So you have no formal position or affiliation with any advocacy organization?

RB: All the work that I've done shows that any specific plan is going to produce problems, and they're going to have to be fixed. I mean, the incentives have to be consistent. We don't want to do some of the things we've done with perverse incentives, which made life just awful. You need to basically change the medical model.

We have a real serious problem, and it's that physicians are spending $1.4 trillion with a medical

structure and model that was designed to spend $50 million at the turn of the twentieth century. And it's awful.

TB: You've testified before Congress on several occasions. You've also been on various task forces. Can you reflect generally on your role in trying to influence national policy?

RB: I've not been very successful. Let me give you a negative experience. RAND does both military and domestic work, and health overlaps both. I'm in charge of the health program, and one large piece of work that we did was to look at possible causes of the Gulf War syndrome. We did extraordinarily extensive independent, objective work, and came across some problems with a drug that's used to prevent death if you're exposed to a nerve gas. We worked up a 500-page report and then had to tell somebody.

Well, our client at that time was the military, and I believe it was the assistant secretary of health for the military -- I'm blocking on it -- health affairs today is what they call it, convened a meeting at what used to be the old Shoreham Hotel. I don't remember its new name. And we walked in to present this report, and literally, if somebody had dropped a bomb on that room, I think most of the three stars and four stars in the military would have been eliminated.

And they spent hours grilling us. They had read the report. They were briefed; they were prepared. At the end of it, they said, "You know, we really have to make a decision. We have to decide because we are going to be exposed, we believe, to nerve gas at some future point. We have to decide whether we're going to use this or not use it. We have to decide what we're going to do in training." There was somebody to listen to the damned results and to look at them.

When the health insurance experiment was finished -- and today that study might cost about a third of a billion dollars, maybe a half of a billion dollars -- I never briefed the secretaries. The most important experiment ever done in this field and I never briefed the secretary on the effect on health. I never had a conversation with anybody, as far as I remember, at HHS. The congressmen, the senators, the heads of the largest organizations, they never heard a briefing. I'm sure individual staff people have read a paper. Some of those results may have been read by Hillary and Bill (Clinton) -- we were told that a lot of our papers were part of their briefing books when they went to bed at night -- but there's never been a personal briefing about what the hell we found in any of this work.

We did this enormous study of appropriateness of medical care to children. A large percentage of care is inappropriate. There's never been a briefing of anyone that's listening for more than 10 seconds.

TB: Well, there's the article by Brad Gray in *Health Affairs* -- on the transformation of the old NCHSR to AHCPR, and the role that your results and Wennberg's in influencing Henry Waxman. Does that ring true to you?

RB: I didn't follow that closely enough to know. I know that Henry Waxman comes from this district. We actually briefed him. We briefed him when we did the DRG study, which is the only national clinical study to evaluate the impact of DRGs on quality of care and health. But, overall, you're talking about one-sixth of the economy, one-seventh of the economy. It's a huge part of the economy, and nobody's home. There is nobody that can get the attention of the 30 or 40 key decision-makers in the administration and Congress to actually sit and spend a day.

If you go to a meeting of the cardiologists, on day one they showcase the major things that they've done. But the people that are there are not the ones that are going to use it. In national health policy there is nobody home. Nobody even believes that they should take the time to

actually read content. I don't know what these people do. And it would be fascinating to see if they even spend one day a year reading about one-sixth of the economy, which they aren't taking care of. I suspect they do, but they've never done it with me, and they've never done it in any serious way with any health services researchers that I've met.

TB: There's a second Brad Gray article in *Health Affairs* which talks about the near-death experience in AHCPR. As Gray tells the story, part of the political problem was that AHCPR was seen as being implicated with the Clintons because it was costing out certain options that the Clintons were considering and therefore was perceived to be biased towards the Clintons. Then there was the backlash from the back surgeons over clinical practice guidelines and so on which lead to significant de-funding decision and looked very dangerous for the Agency's survival. Does that ring true?

RB: Yeah, although I would tell the story a little differently. I believe the lesson learned during that period of time was that the government will play no role in developing guidelines or "should" statements about care, and that's tragic. The analytical tools that the Agency spent money on will not to be used in the U.S., and it's

sad. And so the Agency's gone off to do stuff that is much less relevant. My God, we told them what to do, came very close with the federal government to getting it done, and it just all blew away.

So I think, unlike every other system in the world where there is both top-down pressure and bottom-up pressure, we have decided that, as a country, we are going to do very little in terms of trying to provide actual guidance as opposed to just synthesized information.

TB: You've done some international work with WHO and with specific investigators in other countries. Is there more hope elsewhere?

RB: Well, I mean, it's very interesting. We developed probably the best way to measure the quality of primary care, and now part of it's been tied into the contract for general practice in the U.K. I just came back from Australia, and they're considering tying in a decision-making tool for both patients and doctors before people undergo cataract and gallbladder surgery. So who knows who's going to vote first?

TB: A couple more questions, and then I will finish my list. If you want to add any other dimensions or perspectives, please do.

You've recently been recognized as a major contributor to this field, and got various medals and awards and so on. Can you imagine telling yourself that what you've accomplished in the field is already at a very high level, and now it's time to move on?

RB: Oh, absolutely. It's absolutely time for the field as a whole to declare victory and move on. I mean, we still need support. For instance, we developed these manuals for measuring quality unsupported by the government. One was supported by foundations and one by Pfizer. Both of them are state-of-the-art tools for measuring quality of care for a general group of people. But they will to be updated as medicine changes.

Is it a government responsibility? Does everybody agree? How does it get managed? But if you ask me, is this going to be cutting-edge research? The answer is no. It's not cutting-edge. It's like my seeing patients. It's something that ought to be done and done well, but it's not cutting-edge, new, innovative research. The real cutting-edge stuff that needs to be done is to try to not just develop tools and all this, but to make something happen.

And I believe that the first issue is this question of insurance. There is absolutely no question that you can't be a civilized country and not have health insurance for

everybody. We have to figure out how we're going to make that happen.

But, once we've accomplished that, we really have to figure out how to deal with the asymmetry between what people know about what they want and what doctors think they ought to have, not to mention the self-interests of doctors. We need to create an efficient system so we can look forward to doing other things we want to do as a country. Whether it's giving money back to the people or waging war or buying more cosmetics, I don't care.

We don't want to spend all the money on health care, and we have to figure out how not to do this. And it's going to get worse as people get older and more resources go to older people. This is the exact group of people who have the harder time making decisions about what to do. We've had problems up to now. Most people dropped dead when I began medicine from a heart attack or from cancer. Now when you live to 90 and 100, because your mind has slipped a little bit, deciding complex tradeoffs about medicine ain't gonna be where the world is at. You're going to have to figure out a way of changing incentives and tools and to get people to work in a different way, and that's where the frontier is at in terms of trying to make something happen.

TB: Do you think that the likeliest source of funding will come from the philanthropic sector rather than the government sector?

RB: I don't know where it's going to come from. How bad does it have to get before somebody does something about it? I mean, I think there needs to be a lot of work that needs to be done now to fix this.

Part of it has to be developing constituencies and working on trying to understand where people are at. To me, the major failing of what I've done is -- why is it that it's so difficult to get people to understand how dangerous to themselves the mediocre health system is? And why haven't people gotten upset about it and demanded that everybody take some action or they throw all the turkeys out? Why hasn't that occurred? There are more deaths in the hospital in the United States because of lousy care than we lose in wars. Nobody cares. Everyone says just, "Well, it won't happen to me. I trust my doctor." How do we get over that and begin to figure out how to do something here so that we actually can make some real changes. I think getting different groups of people together to look at the medical models would be really exciting, getting OR types, manager types, bringing business and health services research together, that have

been sort of at odds with each other, and try to really figure it out. How do you develop the same transformation in health care that occurred in the steel industry?

TB: Do you see yourself doing that?

RB: I hope to. It depends on whether anyone wants to do this while I'm still alive. I don't know what's going to happen in the next 10 or 15 years.

TB: Any final reflections on any part of our conversation?

RB: I've enjoyed my career up to now. I mean, what's really, really interesting is the people that I've trained or helped educate are an extraordinary group of people and have leadership roles, and it's nice to know how well they've done, and they're a fun group of people to be around.

I think the problem has been, how do you organize for more effective change? And how do you get all these people that we've trained to band together in some way to help begin a process that produces the kind of fundamental change that we need in the health system?

But everyone gets a little frustrated. People worry about whether they're going to eat tomorrow. Well, that's a consideration, and I think we need to move on and make

this transformation occur. And it may take some radical things.

One of my trainees, Mark Chassin, who became the health commissioner of the State of New York, before he became a clinical scholar, led a strike at Harbor Hospital which is now Harbor-UCLA. The strike was because they were running out of antibiotics before the end of the fiscal year, or at least out of the ones they thought they needed, and so they had a sick-in strike. They admitted every patient that came into the emergency room to the hospital, and very quickly, the hospital came to a crashing halt. And the supervisors, within a day or two, found the money to buy the antibiotics.

So how do you begin to think through this field in this kind of a way of using what we have found? There ought to be a system to make sure that, if you need a procedure because it's going to increase the likelihood of you living, you ought to get it or at least be offered it.

We did this study in Los Angeles. Los Angeles has the largest rate of coronary artery bypass surgery. That's why a lot of geographic-variation data makes no sense. LA has the highest rate of bypass surgery in the world. We actually went through medical records of people that had the study that leads to that decision, coronary

angiography, and we identified a group of people that met every medical criterion for benefiting from having bypass surgery. Twenty-five percent of them weren't offered it, even in the place in the country where we were doing a lot of stuff that didn't need to be done. So on the one hand, we do all this stuff that doesn't need to be done, and on the other hand, we don't even have a system that offers this stuff to people who need it. We then followed them up, and the people that didn't get it died at much higher rates.

TB: Were these important racial or ethnic associations?

RB: No. There were no racial or ethnic associations. And these were all people with insurance. This is basically sloppiness. What happened to the angiography report is it went into the chart. Nobody really called the patient, or the patient came back for the visit before the report got into the chart so the doctor never saw it. Probably nobody did. We don't really know the process of what happened, but the sloppiness is just extraordinary.

And so in every part of medicine where violations of protocols on clinical trials have been studied, there are error rates of 25 and 50 percent. And so you take all these expensive cancer drugs. You'd probably do

extraordinarily better if you just followed the protocols. But they're complex; they're difficult to do. It requires the kind of medicine that we don't practice.

When I was trained as a doctor at Hopkins, the pill we gave for hypertension was a combination pill called Apresoline, Reserpine and a diuretic in very small dosages with very few side effects, and it was very effective in controlling blood pressure.

Now, 40 years later, only a third of the country is controlled. We have all these fancy new medications. But, we spend more of our time academically arguing which is better or whatever, and thousands and millions of dollars in clinical studies, and we are back where we were 40 years ago. And we just need to think through how we're going to deal with medicine and what medicine really is all about. Unfortunately, my belief is that the last place that that's occurring is in the academic medical centers, because the power of the NIH has been so great in terms of basic science and the concept of the Nobel Prize. I mean, if I were in any other field of medicine, I would have gotten a Nobel Prize for the work I've done. But because the Nobel Prize is for basic science in medicine, and because grants from the NIH is what makes medical schools prestigious, we have spent much, much too little effort trying to make

these academic medical centers places where people learn how to do safe care, where state-of-the-art techniques and tools are used to help people make the best decisions, with their health professionals, that will improve their health.

END OF TAPE