COMMITTEE ON HEALTH AND INSTITUTIONAL SERVICES

and

HEALTH FACILITIES COST REVIEW BOARD

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Public Hearing
on
Hospital Cost Containment

10 June 1982

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Members Attending:

For the Committee:

Rep. Alfred Brodeur
Sen. Beverly Bustin
Sen. Barbara Gill, chairman
Rep. Harriet Ketover
Rep. Mary MacBride
Rep. Peter Manning
Rep. Richard McCollister
Rep. Merle Nelson, co-chairman
Rep. Susan Pines
Rep. Edwin Randall
Rep. Alexander Richard

For the Board:

Gordon Browne
Robert Clarke, exec. dir.
David Cluchey, chairman
Richard Diamond
Robert Dyer
John Notis
Ronald Tardif
David Wihry, co-chairman

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Presentations by:



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[Transcript prepared by Cyrille White]

GILL: We will have a full day's meeting today that will run from 9:00 this morning until 4:00 this afternoon. We have some excellent speakers who have been invited by Bob Clarke and the Health Facilities Cost Review Board and Dave Cluchey to represent their position on the work that has been done. I'm going to introduce our first speaker, Carl Schramm. Carl is Director of the Center for Hospital Finance and Management at Johns Hopkins University in Baltimore, Maryland. Our next speaker will be John Cook with the Health Systems Research Corporation of Boston. He will be discussing prospective payments systems and their components. Before I turn the meeting over to Dave Cluchey, I would like to introduce the members of the Health and Institutional Services Committee: Senator Beverly Bustin from Augusta, Representative Mary MacBride, Representative Alex Richard, Representative Sue Pines, Representative Alfred Brodeur, Representative Ed Randall, Representative Harriet Ketover, Representative Merle Nelson (co-chair of this committee), Representative Peter Manning, Representative Richard McCollister. And I'm Senator Barbara Gill. I do want to inform you that we are videotaping and we will have a transcript made. The transcript of the hearing will be made available at cost and should be ready in about ten days. We are anticipating having our second meeting the week of the 29th of June. That will allow those sitting in the audience today time to respond to what they hear here today and make their own presentations. I'm told the date of that meeting is Wednesday, June 30.

I'm not trying to cut off discussion between the audience here today and the Board and the Committee, but we are trying to get as much information put forth today by those speakers that have come in from out of state. There will be ample opportunity, if not at the next meeting, then at subsequent meetings, to have a free flow of discussion.

I'll turn this meeting over now to Dave Cluchey to introduce the Board and make a few comments.

CLUCHEY: Thank you, Senator Gill. I'd like to welcome you all to this public hearing of the Health and Institutional Services Committee. First, I'd like to introduce the Health Facilities Cost Review Board members who are present here today: Dr. David Wihry, who is vice-chairman of the Board; Gordon Browne, who is the designee of the Commissioner of Human Services; Ronald Tardiff, who represents the health care industry; Robert Dyer, who is a public member of the Board; John Notis, who represents the health insurance industry; Mr. Richard Diamond, who is the designee of the Superintendent of Insurance on the Board; and our Executive Director, Robert Clarke.

We are meeting here today in part to discuss the Health Facilities Cost Review Board's report to the Governor, recommending changes in the financing of hospital operating costs in the State of Maine. The Board came to the recommendations which it made in that report after a study of some seven months which involved numerous public hearings and a substantial number of presentations, both by interested parties and by outside experts, concerning the problems faced by the health industry, problems faced by government in paying for health care services, and other issues relating to the current system for financing health facilities. We came to our recommendation that there be a change in the current system for financing the operating cost of health care institutions for a variety of reasons. Among those reasons were the fact that we perceived an inequity among various payors for health care services; we perceived striking increases in the costs of running health care institutions, which in turn were translating into much higher health insurance rates and into substantial pressures on both the State Medicaid budget and the federal government's budget for Medicaid and Medicare payments.

We have made our recommendation and what we hope to do today with a number of outside speakers is to recapture some of that seven-month process that we went through, to bring some of that information in a one-day session to the Health and Institutional

Services Committee. In undertaking to do that, we are pleased to have with us today four outside speakers who have had substantial involvement in the issue of health care regulation on the national level. Senator Gill has introduced two of those speakers. I'd like to say just a bit more about Dr. Carl Schramm. In addition to being Director of the Center for Hospital Finance and Management at Johns Hopkins University, Dr. Schramm is an economist and a lawyer, a lecturer in law at the University of Maryland. For the past five years, Dr. Schramm has been vice-chairman of the Maryland Health Service Cost Review Commission, a hospital rate approval agency for that state. Finally, he has provided consulting assistance in several states, including most recently the State of West Virginia, on the development of hospital cost containment programs. Dr. Schramm will be our first speaker this morning and he will examine the general issue of the problems that have led to the environment of health care institutions that have led to the perceived need for some change in the financing systems for those institutions, with the objective of obtaining some cost containment.

SCHRAMM: I'm pleased to come and speak in general about the environment that leads Maine and other states as well as the federal government, in a perpetual fashion, to examine the question of hospital costs, most particularly hospital cost inflation, and to examine that question with increased urgency around the question of the distribution of resources in the society. I think the best way to handle the preliminaries of my presentation is with a set of slides...

The first four slides that I'll be showing are large-scale, macro-economic slides. You might think it curious for someone to come and speak to you about hospital cost inflation to begin by looking at the Gross National Product [GNP]. Essentially, I will posit for you several theorems or propositions. The first will be that the issue before us today is really generated by forces essentially beyond health care. The reason we look at health care costs as a political problem and a problem for policy-makers is because of larger-scale forces in the society and in the economy.

Our first slide shows some historic perspective on the health of the American economy. The best pulse we have for the health of the American economy is GNP. You can see on this slide several things. The first is, of course, that the 1960s were a period of extraordinary growth in the American economy. We saw real growth, i.e., standardized for inflation, of over four percent throughout the decade of the 1960s. The 1970s, you will recall, was a period when the economy was somewhat less robust, a period when real growth was significantly diminished to about 2.8 percent. (The abbreviation CEA refers to the official scorer for the GNP, which is the Council of Economic Advisers in the White House; DRI is Data Resources, Inc., in Cambridge; WEFA is Wharton Economic Forecast Associates; and Townes & Greenspan is Alan Greenspan's forecasting outfit.) These abbreviations are attached to lines that tell us something about the Eighties. The 1980s, as we already know, are a period where

in terms of the growth of the economy--the real resources generated by the society--the 1980s will look much more like the 1970s than like the 1960s. So essentially we see from this chart a historic perspective on the extraordinary ability of the American economy to create real wealth, real resources. And that has varied over time. In the 1970s, it was significantly lower than it was in the 1960s. This essentially sets the stage for what we will see as the second proposition: political conflict over diminished resources.

The second slide shows us the other half of the big picture of the economy which is, of course, inflation. And we see immediately from the lowest line that the 1960s, the period when we had extraordinary growth in real income, was also the period when we had extraordinary,and certainly historically extraordinary, stability in prices. So that in the 1960s we saw real price movement, i.e., inflation, of about 2.3 per cent a year. The 1970s, of course, was a much more turbulent time in terms of prices. We saw price instability, with an average change in prices over the course of the decade of about 7.1 percent. Quite a different story. And when we look back to the first slide, we see the two of these slides put together tell a story about the 1960s and the 1970s. The 1960s was the period when people's real command of wealth--the family's real command of wealth--really grew. Prices were stable and GNP was rising. This is the period in America when American citizens as family members and consumers bought the second car, moved into more affluent suburbs, built more affluent suburbs, bought bigger houses. And these same consumers as taxpayers were able, off the real wealth they had generated, to take many public goods. So, as you will recall, in the 1960s most of the American states increased their commitment to the public university system. America began to take college very seriously for everyone. It was a commitment where states built lots of colleges, invested heavily in the road system, invested

in many other areas of social or public goods. It was a period when Americans were particularly wealthy historically and it was a period when Americans began to take wealth in new ways.

The 1960s was also the period when (it is now hard to believe) several times in that decade, the Congress was faced with the problem of how to spend all the money that was accumulating in the Treasury. The inflation of government costs reflected, of course, the total price stability of the decade throughout the rest of the market and the growth of GNP and incomes growth, of course, was generating off the income tax base, essentially more money than government commitments required. This led us in the 1960s to be able to think about greatly expanding our public commitment to many programs. And the 1960s, of course, was the period in which the government established the Great Society programs.

If there is a third postulate, it is that government can create new programs and essentially endow new rights--because that is what happened in the 1960s; with the Great Society, government established new rights. It gave blacks the right to vote. It gave many black people and eventually women a claim to equal employment through the EEOC. But the most important right that we focus on today was the government, with this extraordinary wealth being generated, was able to witness the enfranchisement of many citizens, particularly aged and poor and black people, into the medical system through the Medicare and Medicaid legislation that became effective in 1965. And this essentially was the expenditure, in an incremental sort of way, a dramatic increase in public commitment in the human welfare sector, which, to reflect back to one of our postulates, we were able to take that step publicly because of the extraordinary wealth being generated in the 1960s.

In the 1970s, of course, we began to have a contraction in the economy. At the same time, we began to see the consequences of the commitments of the Great Society in terms of their demand on public resources. We also, of course, were fighting an expensive

war abroad. And all of this led to extraordinary pressure on government budgets. Beginning in the early 1970s, we saw at the federal level and in some states attempts to contain public expenditure costs in the area of health care.

Now, the third slide begins to indicate some of the political pressure that I've mentioned before was growing over this question of health care. We see, as we examine the share, in terms of real wealth, claimed by the health care industry or the health care sector, the steady growth of the claim of real wealth throughout most of this century. In 1930, about 3.5 percent of all wealth generated by the economy was expended on health care; in 1965, when Medicare came on-line, it had grown slowly to about 6.0 percent; in 1982, it's almost 10 percent. So we have seen something like a doubling of our commitment to health care in the last fifteen years in terms of real resources. And as you look at that slide, it probably doesn't look quite so dramatic, but there are many ways to think about this. Essentially what we've done is double the size of the health care industry in the last fifteen years. We have spent, instead of one out of every twenty dollars on health care, we now spend one out of every ten dollars on health care. And I don't mean just public dollars; I mean all the dollars generated every year in the entire economy is now expended in support of our health care enterprise.

Now, I say that without any judgment connected to it. That is merely a fact of life. We have done that. Most Americans are extraordinarily happy with the state of medicine. And they should be, of course. For most Americans, medicine appears to be a free good. One of the postulates that we're going to offer today, Number Four, is that medicine is not a free good. As we begin to shift wealth into the health enterprise, we do it at the expense of other enterprises, both public and private. And we essentially get into what I will refer to repeatedly in this discussion as intersectoral conflict. To spend money or wealth on health care is not to spend it elsewhere. This is

a particularly political problem when the entire economy and public budget are shrinking in real terms over time, as opposed to expanding, as they were in the 1960s.

The fourth slide shows our final macro-examination of this phenomenon and largely explains why many Americans don't think that what we're here to talk about today is much of a problem. That is, it appears to many Americans to be a free good. The reason it appears to be a free good is because of the extraordinary growth of our ability to insulate individuals from the cost of care at one discrete point in time--which is to say, we have created a very effective mechanism of insurance. This slide shows the growth in the insured population over time. You can see that it's very steady and very dramatic, with about 192 million Americans now covered. So there has been an extraordinary growth in terms of the percentages of people who are covered by health insurance. One of the factors that we have to accumulate some knowledge about before we get into some policy discussions.

The next slide shows us, in terms of what real expenditures are in per capita wealth, the effects of the growth of health care prices and health care commitments to the average American. And we see the steady growth of his or her budget, or the family's budget, at the top line. And we see the gradual intrusion of the bottom line, in terms of disposable income, that has gone to health care. So, while many Americans are well insulated from the costs of it, health care, either through insurance payments or direct out-of-pocket payments for health care, has in fact begun slowly to erode the disposable income of the American family.

The next slide shows quite clearly what happened from the public perspective in a historic manner. We see here that, in 1948, at the close of World War II, in terms of real goods or resources--the real wealth that the government claimed--it accounted for about 20 percent of GNP. And between 1948 and 1953, the period of the Cold War, we saw a dramatic growth in the level of government

spending: it went from 20 to 27 percent of GNP. And, as you can see from the composition of the growth (the solid blue line representing other spending and the hatched area representing defense spending), most of the 1948-53 increase was represented by defense spending increases. We refer to this period when GNP claimed by government went to 27 percent as the period of growth in defense commitments. Now, GNP claimed by government stayed quite stable, at 27 percent, from 1953 to 1965. The year 1965 is the date when Medicare and Medicaid passed, but it's also the period when most of the Great Society programs came on-line. And we saw the dramatic increase from 1965 to 1974, from 27 percent of all wealth generated in the society claimed by government to 33 percent. And looking at the composition of these bars, we saw that through the period, 1953-65, the claim for defense had gone down steadily. But from 1965 to 1974, it went down even further, and other spending--most of which is essentially human investment or human welfare spending (and hence our title for this second growth in GNP claim is the "human welfare surge)--most of this spending was in human welfare areas: the jobs creation programs, education, nutrition programs, welfare programs, and of course Medicare and Medicaid.

Our next slide shows that, as the proportion of GNP claimed by health has gone from about 5 percent in 1960 to about 9.3 percent in 1980, most of this growth has been accounted for in the federal budget, with some growth in the state budgets. And both of these lines go into motion about 1965, which of course is when Medicare and Medicaid came on-board. I trust I don't have to explain but, just by way of a footnote for the uninitiated, I will say that Medicare is the federal program for the aged and Medicaid is the program that is shared between the federal government and the states on roughly a 50/50 basis to take care of the medically indigent--poor people who are not aged who are on state public support programs; this is the medical part of that program, half the costs of which are borne by the states and half borne by the federal government. In many respects, this

is why the states (not only Maine but many other states) have become interested in the problem of hospital cost containment, because in 1965, as they bought into the Medicaid provisions of the Social Security Act, they bought a wild budget dog; i.e., as hospital cost inflation began to move right after 1965, state budgets began to move, particularly their commitment to Medicaid.

Our next slide shows something of that price movement... This slide shows again the Consumer Price Index [CPI] ... Economists, like doctors, take pulses. And the best pulses we have are the GNP and the CPI. I should quickly add that physicians generally can do something about sick patients; economists used to think they could and now, of course, disavow any curative powers whatsoever. But, be that as it may, the lowest line throughout this chart is the CPI, which is the change in prices for all goods and services in the economy. The middle bar (the solid line that goes through the entire chart) is the subcomponent of the CPI which is expended on medical care in general. And the top line is the subcomponent of the middle line which is the semi-private room index, and that is basically the index for hospital costs. So we essentially see on the bottom the price movement for all goods and services in the economy; the middle line is the subsector of that line for all medical care or health attention; and the top line is essentially the change in hospital prices. So what we see here are a number of things.

First of all, without any regard to the movement of these prices through time, we immediately identify hospitals as the real price culprit when we look across the entire economy. As we look back over thirty years, from 1950 to 1980, there is no other subcomponent of the CPI which is continuously higher, observed throughout this period, in every year except one, than hospital costs. So you can think of everything that people buy and encounter. And over the last thirty years, there is no good or service which they have purchased which has had a continuously higher change in

prices, year to year, than hospital costs. Now, when we look at these data in terms of time, we immediately see after 1965, when Medicare and Medicaid passed, a dramatic increase in prices. And we might expect that. Medicare and Medicaid were programs that have enfranchised the poor and the elderly in terms of the medical system. It gave them cards by which they could claim hospital and physician attention of equal quality. So we immediately saw a shift in the demand curve and prices began to move upward. That is dramatically portrayed here.

The other most notable observation on this slide is that, in the period of wage and price stability imposed by President Nixon ... when domestic inflation reached 6.8 percent ... I think this is an important perspective, particularly when we examine the anti-regulatory philosophy that many Republicans espouse. It was only a short ten years ago that President Nixon imposed the grandest scheme of economic regulation that we had seen since World War II. But we see, in 1972-73, in response to the Council on Wage and Price Stability's activity, the Nixon approach to containing inflation, we saw all these prices come down. So if there is one observation that we leave this chart with, it is that, in fact, hospital prices and medical prices and the CPI in general are responsive to government action. And in many respects we might say that hospital prices are more responsive to government action than prices in general. We could expect that for theoretical reasons. Then, of course, we see that when the wage-and-price freeze was lifted, no prices rebounded faster or more dramatically than hospital and medical care prices.

The next slide shows us, more dramatically than anything else, what I would posit is the great political pressure and the great political problem that health care will cause in the future. If you think hospital prices and hospital price inflation has been a political problem in the past (and if you don't,

I'll give you some data in a minute to let you come to that conclusion)--if you think it's been a difficult problem in the past, you ain't seen nothing yet! These figures are quite recent and reflect the projections offered by the Reagan White House. These figures project the federal budget for the next five Fiscal Years in current dollars. And as we see the bottom line of the budget, it grows about 43 percent. Now, I should recall for you that we as a nation are on a two- or three- or four-point agenda. One of the points is that all Americans are going to enjoy a decrease in their taxes. A second point is that we have a political commitment to move to a balanced budget. A third point is that we will increase defense spending. And the fourth point is that we are going to do something about the extraordinary expenditures in the human welfare area. Well, I would submit to you that we can't do all four things at once. But with those things in mind, let's look at this budget, which will grow in nominal terms, at the bottom line, 43 percent in the next five Fiscal Years, out to FY 86.

Defense spending, which we are commited to making grow, will grow only 54 percent. But Line #550, which is our health commitment at the federal level, will grow 84 percent. There is no other line on that chart (save one, maybe agriculture, which is de minimis in terms of its absolute scale) that will grow faster than the health care commitment, because of the entitlement programs of Medicare, which is a federal headache, and Medicaid, which is a federal and a state headache. So if one were a politician thinking that this a problem that we somehow can keep skirting, I would suggest that the problem facing David Stockman is, if we are going to do something about increasing federal commitment to defense and other programs, and try to reach a balanced budget, something has got to be done about Medicare and Medicaid. I think the Congress will focus on that quite clearly within the next month. That same question will be before states with increased frequency; it's been in many states already. The state

budget director knows that if there is one headache he wishes he could solve above all other headaches, it's the growth of the Medicaid demand on the state's resources.

Let's move on to the next slide. This essentially offers the political evidence. Last fall, when George Gallup was commissioned to go out and ask people what they thought the major problem facing America was, with resounding voice, they told us that inflation was the most important problem facing Americans. Lowering unemployment, strangely enough, only commanded 8 percent of the primary attention of Americans. National health insurance has dramatically fallen off. This question, when asked almost ten years ago, the first answer was, we have to do something about national health insurance. You can see that that has drifted off to almost oblivion. And then solving the problems of big cities, it comes as no surprise, is a small issue for most Americans.

When we look back across the slides that I have presented so far, we come four-square to the conclusion that we are going to face political problems. And they are essentially intersectoral political problems. When I say intersectoral problems, if we are going to continue the level of commitment to Medicare and Medicaid with the same level of price inflation, the people who will be most aggrieved by that decision will be Generals in the Pentagon. We will not see growth in the defense establishment at the levels that we have committed to politically, if we continue to see health care grow. And it's odd that we've come to talk about health care costs and are beginning to talk about defense budgets. But that's essentially what the political issue is: intersectoral conflict. The issue is exacerbated because we have a dampened and declining economy in terms of its ability to develop real wealth. This issue would resolve in many respects tomorrow, if we could jump back on the GNP curve that was around five percent, with a price inflation curve that was about one percent, because we'd be turning up our ability to generate real

growth. And as the pie continued to grow, the issue about what size the pieces are falls back into the background. But that, I think, is the political issue in terms of its economic foundations.

The next slide begins our discussion about policy... This is an all-purpose graph. As I read it today, it tells us that in 1965, as we enfranchised people into the health care system, the demand curve slipped off to the right. Exactly what we would expect. Demand increased immensely in 1965. And we can look at hospital statistics in this state and every other state to prove it. People with those cards began to go to hospitals and demand care. And the curve shifted. Immediately as the curve shifted, the price went up. And ever after, we have been chasing, from the policy forum, as we have attempted to contain hospital price increases, i.e., hospital inflation, we've been chasing on three strategies. The three strategies, in a nutshell: we can pull the demand curve back in, i.e., we can teach Americans how to go to the hospital less; or we can somehow develop a system of incentives, or discouragements, that will make Americans demand less hospital care. The other approach is that we can develop many more providers of care, i.e., shift the supply curve out, and make competition sufficient that prices will come down. We'll make the supply of care cheap by making suppliers fight in a price war with each other. And we have attempted every single version of both of those approaches.

Our next chart shows that over the last fifteen years, when we look at every major piece of federal activity, it has been aimed at doing something to either the demand curve or the supply curve, with the major target being the containment of hospital costs. So when we look at the health manpower legislation of the 1970s, the issue in health manpower was increasing the number of doctors. In the last fifteen years, we have almost doubled the number of new physicians produced by American medical schools. At the same time we were doing that, i.e., producing more doctors, we also

developed a host of new medical professions. And the attempt there was not only to shift the supply curve out to meet the increased demand but also to change the texture of that supply curve, so that if doctors were expensive, a fortified nurse practitioner would be cheaper. And we would let her or him (the nurse) substitute for the doctor in an attempt to change the texture of the supply curve.

We can look also at health planning legislation, certificate-of-need legislation, which was an attempt to contain the supply. On the old axiom that a built bed is a filled bed, we wanted to contain the number of beds that were built. And of course you know that's an approach that failed miserably across the country. Almost every single one of these programs has failed miserably, has done nothing but exacerbate the situation. As we created more doctors, we found the corollary of the built-bed-is-the-filled-bed rule, which is a hungry surgeon is a cutting surgeon. So, as we produced more doctors, we produced more operations and more demand in the system. As we produced a planning legislation and apparatus at the federal and state level, we produced a culture of planning in our hospitals. There are at least three research studies that suggest, after quite careful analysis, that the effect of health planning legislation in America was to build more beds than would have been built if the Congress had never taken action in this area. If you have a vice-president for planning in your hospital, he or she is not doing their job unless they're coming to the board with plans for the next wing. What else does a planner do? You can only paint over the lines in the parking lot so many times to get that extra car in.

The fourth area, health education and prevention--here, of course, the plan was that we would teach Americans what Americans won't be taught, which is to say, despite the fact that health is almost free and despite the fact that going to a doctor is more fun than going to a social worker, despite

the fact that we all feel better when we go to the hospital (partly because we know it costs a lot), we're going to go out and teach people how to engage in wonderful practices of nutrition and exercise and how to stop smoking. And the result of that will be that they'll demand less acute care. And society will be able to provide what's needed but, because people have lived smarter, they will demand less. That's health education and prevention.

The PSRO program, which is the program by which we determine at the beginning of a hospital stay how long people will stay in the hospital--many people connected with that program think that's a quality program. That's balderdash. If you look at the Congressional intent, that program went through the Congress on the justification that if we got that program in place, we could contain the number of days that people would spend in the hospital. And this program operates, as most of you know, to establish, at the beginning of a hospital stay, the expected length of the stay, forcing the physician to justify more days in the hospital once that target has been reached. Again, the evaluation studies indicate that this program has cost a lot of money and has reduced the length of stay no days in any region of the country.

Emergency medicine. We have made extraordinary strides in the science of trauma medicine. Much of that has been done under the flag of cost containment, strangely enough. The Congress buys the justification--and I think in this case it's correct, except that the cost of trauma medicine, certainly in Maryland, which has one of the most extensive trauma services--is extraordinary. But the justification here is that, if we can intervene effectively in traumatic cases, we can reduce the long-term, extraordinary costs of chronic disability and ailments. And so much of our air-evac system and so forth, that you think is just there to make all Americans healthier, really is there in large measure because the Congress bought a justification that it would reduce prices in the long run.

Children's health activities. That's the same as health education, attempting to dampen demand by insuring that children get all the prevention they can in the early stages of life so that long-term, costly, chronic disability at late stages of life would be reduced.

Antitrust activity is an attempt to break up cartels on the supply side.

Deductibles and co-insurance. We are attempting to make Americans pay something, or at least Congress has when it attempts to impose a co-insurance arrangement or a deductible arrangement, to make Americans internalize the cost of their care again.

Primary care is much like preventive care.

Second-opinion surgery. Again, the Congress passed laws that forced people--or at least paid for people--to get a second opinion when surgery was indicated, to insure that only necessary surgery would be done, thus reducing the total costs of the surgical burden.

Now, those are all the approaches that Congress has taken in the last fifteen years. But if we return to the previous slide, all those approaches are basically attempts to influence either demand or supply. There is a third approach, which is basically the approach attempted in states, and that is to establish a regulated price in the market, without in the short run paying much regard to supply and demand factors. What I am saying is essentially that we could walk up to this chart and put our finger someplace in the middle, and state governments have essentially said: This will be the price in the market, and we will attempt to contain the forces of supply-and-demand. We will attempt to disregard those in the short run by placing a regulated price in this market. We will essentially approach our hospital industry as we, the states, have approached our public utilities industry. We will establish a regulated price, insuring the interests of the citizens in reduced costs, but also attempting to conform the

market to rational principles and somehow protect the hospital industry itself.

I think it is useful here to move to an analysis of the impact of the state commissions on hospital price behavior in the United States, which is our next set of slides. Here we see, on the top line, the price behavior in the 45 states which have done nothing in the area of cost containment. This is their price behavior from 1970 to 1980. The solid line on the bottom reflects the six states (it adds to 51 because we have included the District of Columbia in the top line)--Maryland, Massachusetts, Connecticut, New York, New Jersey, the State of Washington--which had passed bills in the early 1970s to regulate the price of hospitals, much as they regulated the utility industries in their states in terms of prices. These bills were, by and large, passed in the early 1970s. As you recall my list of states, they are basically Northeastern states. They are basically the states that, in the 1960s, established rather generous Medicaid programs, so the Medicaid cost pressures on the state budget were more acute in these states. And also, in the case of New York to be sure, these were states where the eligibility requirements were tested beyond belief by the influx of many immigrants. So the population of Medicaid-eligibles was very large, and the programs were quite lush, or relatively lush, and the cost pressure was intense. Now, these states, by and large, passed these bills in the early 1970s. And, in the case of Maryland, in 1971, the General Assembly set up the Health Services Cost Review Commission, of which I've been a member for five years and for which Dr. Cook performed immensely capable service for a period of years. The enabling legislation permitted the commission four years in which to generate the baseline data that would be necessary to establish its rate-setting regime. Hence, while I say we passed these laws in the early Seventies, we see the effect of the laws really come on-stream about 1976. And we saw, from 1976 to 1980, a marked and statistically

significant difference in the rate of price changes in these six states. These six states, on average, had an inflation rate that was three to four percent below the national experience.

As the next slide will indicate, the rate of price inflation in these six states was equal to the rate that was experienced in the rest of the country. So we don't have an anomalous situation of observing reduced price inflation in states that didn't have high price inflation. In fact, these states had higher-than-average rates of price change, relative to the nation in general, before the regulatory regimes were in place. In all likelihood, they would have continued to be inflating the price of care in these jurisdictions at higher than the national average. For example, in Maryland, we are bounded by Virginia, Pennsylvania, Delaware, and West Virginia. In all four of those jurisdictions, over the last five years, the rate of price increase has been higher than in Maryland; and in most cases, higher than the national average.

Now, our next few slides will show you the experience in each one of the regulated states. The first is Connecticut; the second, Maryland; next, New York, New Jersey, the State of Washington. From the last five slides, you can see that only in the case of Washington do we find a less-than-significantly-different impact in the rates of inflation. In Washington, we can say that their commission and their agency has probably not had any statistically significant impact or effect for political reasons, which we can talk about later in the day.

Now, our next set of slides will take us into a particularly interesting area. What they show is financial data from our Maryland hospitals. Many times, when we begin to think about the question of hospital cost containment, we immediately hear from hospital administrators, in particular, and secondarily from trustees, to the effect that rate regulation will be the ruination of our hospital industry... Virtually every hospital adminis-

trator in America--save those who work in some of the regulated states--has been trained to conclude that rate regulation would be the absolute death of this industry, would terribly upset that particular hospital, would mean that the hospital would begin to consume its capital reserves, and would probably threaten the imminent close and demise of that institution in the given community. As all you elected officials are particularly aware, hospitals are not without clout in the legislative forum.

These data, I think, are compelling and they are important to consider. The data speak to the bottom lines of Maryland hospitals over the last ten years. To give you a synopsis of what you are about to see, you will see a state with 54 hospitals (not a very big state; our state only has four million people). We have a big city, which is Baltimore, with 19 hospitals. And we have many small towns. We even have a hospital with only 38 beds--a small, rural hospital on the Eastern Shore, which looks like Maine, except that the temperature is about 30° higher, on average.

The first slide shows the bottom lines. It is from 1975 to 1978. And we see that the profit picture has improved steadily through the early years of the regulatory regime. The next set of slides will show economic ratios. And, right through 1980, for example, the operating profit/loss ratio has improved all the way along. Profits in Maryland hospitals last year exceeded $11 million. And these are profits that were experienced by the vast majority of hospitals. One of the particular groups of hospitals that squeals at the prospect of regulation are teaching hospitals and big city hospitals. I should say that, of the $11 million profit that was experienced in Maryland last year, the Johns Hopkins Hospital, which is 1100 teaching beds in a major institution, made $4 million profit under the state rate-setting mechanism. So this shows the operating profit/loss picture.

The second slide in this series shows the net profit/loss picture. Again, favorable; and increasingly favorable throughout the regulatory period. As you look at these, you must recall the chart we showed where Maryland's rate of price increase was lower than the rate of increase in prices for the nation. So our hospitals are getting healthier under the regulatory regime in terms of finances. At the same time, our citizens are experiencing lower rates of inflation. (Dr. Cook reminds me that I should point out here that rate regulation came on-stream here in 1975; the law was passed in 1971, but the regulatory regime took effect in 1975.)

Our next slide shows net profit/loss by number of hospitals. So of the 49 hospitals reporting data here, 37 in 1980 had profits, 12 had losses.

The next slide shows us the operating margins--improving steadily since 1975, when the commission took hold.

Here we have the total margin. And the final slide arrays the way hospitals expend their dollars. We see here, throughout the period of regulation, that operating expenses other than wage expenses (which is the white part of the chart) have grown as wage expenses have declined. And depreciation expense stayed roughly stable throughout this period.

Now I'd like to dispense with the slides and make a few final comments. I hope what I've accomplished here is to set the stage in terms of a national perspective and to relate to you some data on the way several states have handled the issue. I think, from the states' perspective, the Maryland legislature, the New York legislature, New Jersey, Connecticut, Massachusetts, and Washington, as well as several states that have taken this step since--and we don't have data for yet--have essentially thrown their arms up in despair, waiting for the federal government to come up with an effective program to contain hospital cost inflation. They have moved forward with what appeared to

be a dramatic step of their own. Let me assure you that, in terms of historic flow of our society, state hospital cost containment experiences--the action taken by legislatures--really marks an assertion by state legislatures to grab back a piece of legislative initiative that, over time since certainly the New Deal, has steadily eroded to the federal legislature. It is a significant step in that respect.

As the states threw up their arms in despair, waiting for the federal government to ease the pressure on their Medicaid budgets, they turned to the mechanism that they invented. Regulation as a phenomenon in the United States was invented in the legislature of the State of Illinois when, under pressure from the grange movement to protect consumer-farmers from the excess market abuse of the railroad industry, the legislature essentially stepped into the marketplace, which was dysfunctional or malfunctioning--abusing citizens--and established a regulatory mechanism (the Illinois Railroad Commission, which presaged the Interstate Commerce Commission) which would attempt to return to the industry a fair rate of return. For, in fact, the Congress understood that America could not grow without its railroad industry. It would protect the consumer-farmer from the excesses the industry could inflict on them. In many respects, I think we're at that same juncture.

If we wait for the federal government to move, the State of Maine's budget could be stressed to the limit, as could other states'. I think what Maryland has done, and its sister states have done subsequently, has been to come to the realization that the Illinois legislature reached in the 1880s as regards the railroad industry. That is, if we continue to feed our hospital industry at the rate which it demands, there will be fewer public dollars to rejuvenate public housing, to rebuild our state highways, to continue service to our farmers, to continue growth of industry and reconstruction of our ports.

That is essentially the trade-off the Maryland legislature understood existed in 1971. And it continues to be the trade-off we face in the 1980s. But it essentially now is in the hands of the state regulatory commission.

Now, you cannot hear these remarks--particularly if you wear a hospital trustee's hat or a hospital administrator's hat--without thinking immediately that I am anti-hospital. But nothing could be more simplistic or further from the truth. And I speak now not only as a citizen but also as a regulator. As a regulator, I am as proud as I can be of the fact that, through our staff and my fellow commissioners, we can point to output data that is positive in two respects: The rate of inflation in Maryland is much lower than it would have been if we weren't in existence. And our hospital industry is in much healthier condition financially than it would have been if the state regulatory system were not in place. So that's the data on my anti-hospital perspective. Let me tell you the philosophy of my "anti-hospital" perspective.

Just like the Illinois legislature in the 1880s, legislators and commissioners in the 1980s understand that the American hospital is an institution that is here to stay. Americans are in love with medicine. And they should be. There have been extraordinary wonders brought to Americans in terms of extended life by modern medicine. The hospital is the focus of modern medicine, and becomes increasingly the focus as technology becomes more expensive and the human capital necessary to support the increased sophistication in technology concentrates in the hospital. Those are forces that no one can stop--and no one should stop. But, at the same time, we have in our system, with its total insurance mechanisms, we have created an industry with an unbounded and avaricious appetite for funds. Increasingly, those funds come from the public. Over 45 percent of every dollar expended in the average American hospital is a public dollar, coming from Medicare or Medicaid. The next 40

percent comes essentially from Blue Cross, which is arguably pretty public money. Blue Cross payments essentially look like withholding taxes. I have no choice, as a professor at Johns Hopkins, but to pay to my employer (because he takes it out) my Blue Cross premium to a quasi-public corporation. It sure looks like public money to me; from my perspective, it looks like a tax. So, in many respects, our public and private hospitals are being supported with public monies. And notwithstanding the arguments of trustees (who have in many respects forgotten what that hospital is about), those hospitals are public trusts. The people who died and left money to start them, or the Sisters of Charity who ran around and collected money to start them, or the Associated Jewish Charities that taxed the members of their religious group in a given community to start those hospitals--started them as eleemosynary, charitable enterprises. And the trustees essentially are there as traditional fiduciary trustees in the stead of the community and the public-spiritedness of the founders as they related to the community. However, because of the overwhelming economic incentive, many trustees--but, more importantly, many hospital administrators and planning officers--behave as if these hospitals should operate like profit-maximizing businesses. That's not to indict those people; those people, as I said, operate in the face of overwhelming economic incentive. We have a system that is essentially a cost-plus reimbursement system. ¶ We have in our system of hospitals as the most critical employees the physicians, who have no economic connection or nexus with the hospital in which they work. Again, we don't indict physicians. Physicians face overwhelming pressures to operate in hospitals and to demand more than is necessary in terms of resources being applied for each patient. We know that for the average doctor in the United States, the rate of return on the time he spends in the hospital, versus his office, is five times. So the doctor who spends an hour in the hospital will find it five times

more economically rewarding to be practicing in the hospital for that hour than he or she would in his or her office.

What we're here to talk about today, I think, is essentially changing those incentives. From the state's perspective, it is largely impossible to change the incentive. Our mechanism of insurance is essentially a national insurance system. Our mechanism of reimbursement for the hospital and the physician is essentially a national mechanism. All that a state can do, it seems to me, is to step in and attempt to rationalize the market in the face of some of these mechanisms. It can take the first steps to create the consciousness about the problem and to put a budget in place that will offer guidance to the hospital, to the trustees, to the insurance system, and to the physician. That's a first step. After that, I think the responsibility shifts to the physicians primarily; to employers, to unions, to trustees; and, at some point way down the line, to hospital administrators--to begin to behave more rationally about how to reform the system. Hopefully, one of the things Dr. Cook will talk about today are some of the mechanisms that some communities have started to put in place to really make very basic reforms in the reimbursement system.

I think the legislative proposal in front of you is one that essentially raises the issue and sets the first step in place, which is global budget constraints. That's a very important and critical step. It's a step that immediately begins to redound, if it's effectively executed, in terms of lower experienced rates of inflation. Citizens in Maine, if they were to enjoy the same rate of dampened inflation as the citizens in New York and in Maryland in other states have enjoyed under these regimes, would experience millions of dollars in foregone expenditures in health care--that are theirs to expend elsewhere.

As my final comment, I can say to you that it's my personal belief that Americans might, in fact, be healthier if they had

the cost of one extra day every year in the hospital--$2-300 a day --in reduced insurance premiums, which meant that all people in America were taking fewer days in the hospital. They might be healthier if they had that $200 back in their pocket and went to Maine for a vacation. I know that appeals to all of you. I don't mean it to sound like pandering to this audience. Americans would be healthier if they had more money to spend on vacations. The great advances in Americans' health status have not come through interventive, late-stage, acute-care medicine; they have really been advances in the public health system. I think the political issue before Maine, and before a number of jurisdictions which are looking at this issue, is: How do we dampen the flow of resources into the acute-care system, when in fact the citizens of this jurisdiction and America might be better off if we increased the quality of our housing, the diet and nutritional status of Americans, the educational levels, the quality of our roads, our alcoholism prevention programs, and the vast array of incredibly creative programs that Americans over the years have decided were important enough to commit public dollars to?

GILL: Thank you very much, Dr. Schramm. Are there questions from members of the Board or the Committee?

NELSON: I noticed in your graph that, in 1975, when the legislated regulation began, there was a decrease uniformly in the hospitals' profits. Eventually, after that first year, when things got in line, then you saw a gradual increase. Is that what you found to be true?

SCHRAMM: Jack Cook lived with the regulations in 1975, which was before I was on the Commission, so he has a much better data base to operate on to answer that question.

COOK: The Commission actually took its time in establishing the rates of each individual hospital and, by the end of 1975, it had actually set rates at only one hospital, which was Sinai, on February 1, 1975. The Commission's overall establishment of rates for the system wasn't complete until July 1, 1977, when it got a Medicare waiver. So, basically, what you were seeing in 1975 was a residue of the old system.

NELSON: Is that something to be expected, when we begin to set in place whatever we decide to do--that there would be a period of time when things would look pretty grim, and then it would move up in terms of profits of hospitals, etc.?

COOK: It's possible. It would depend upon the profitability of the hospital system now. For example, if the hospital system were generating profits of 4-5 percent--margins which are generally not regarded as necessary by the various regulating bodies in the United States--I would think you would have an initial reduction in profitability. If, on the other hand, they were in the position of the Maryland hospitals--very close to zero operating margin--it would seem to me there would be a certain likelihood that the profits would increase upon the establishment of a rate-setting commission.

BUSTIN: There must be something in writing that shows what the rates are in Maryland, rates per diem, for instance, in hospitals or nursing homes.

SCHRAMM: At this point, I'd like to introduce Steve Reynolds, who works in our center. Steve is sitting here with the computer printouts on every state in the country. So he will now tell you what the rates are in Maryland and in Maine.

REYNOLDS: Do you want a daily rate, or per case, or per patient day?

BUSTIN: I just want to get some sense of the comparison between Maryland and Maine.

SCHRAMM: I believe the best figure would be the per-case rate, what the whole cost of a hospital stay is. The per-case rate in the U.S. in 1980 was $1848.98; in Maine, it was $1715.17; and in the regulated states, it was $2099.45.

REYNOLDS: The figure for Maryland is $2137 per case. That's adjusted for the outpatient business. It's really total expenses in the hospital, divided by the number of admissions, but you have to factor out the out-patient business in the hospital, so it really just measures the in-patient expenses.

BUSTIN: So is it fair to say that you don't have a comparison?

REYNOLDS: All those figures that were given are also adjusted for the outpatient business. They're all comparable.

McCOLLISTER: You showed a lesser percentage going to wages as hospital costs went up. This would lead me to believe that the wages in hospitals weren't keeping pace with the other costs in society. This is one thing that bothers me about this type of program.

SCHRAMM: That's a totally incorrect approach. Essentially, when we looked at that chart, all you saw decline was the full wage bill. The hospital labor forced declined. In fact, the hospital wage level grew faster in our state and in all the regulated states than the wage bill for the average worker in the United States. One of the particular areas that I like to point out is that nurses, who are the largest segment of the labor force in these hospitals, have seen their wages go up faster in the six regulated

states than they have in the nation as a whole.

McCOLLISTER: But the number of nurses per hospital has been reduced?

SCHRAMM: No, the number of employees in some hospitals; in others, the number has gone up. I should say that that points to one of the political problems that undoubtedly Mr. McCollister is referring to. This was no more acutely made than in New York City--a city that had thousands of excess beds. When the Governor attempted to shut some hospitals in New York City, he quickly discovered that at least as important a product as the production of health care was the production of jobs in those hospitals, which creates a terrible problem in terms of downsizing the industry. But I should also point out that buying hospital care is really a consumption good. You shouldn't make any mistake about that. Hospital employees are essentially employed in consumer activities. And a dollar spent there is a dollar just spent. They are not employed in productive manufacturing activity, where a dollar spent will redound in terms of visible goods that can be used to increase wealth in general. It may sound flippant, but it's true that days in the hospital in many respects are like baseball tickets: the money is expended and the society is not made wealthier for it.

TARDIFF: You gave us some figures on cost per case of around $1700 in Maine, $1800 in the U.S., and in the regulated states $2000. Does length of stay have any bearing on these figures, or is length of stay pretty much the same in all those areas? And could you tell us why the figure is admittedly higher in the regulated states than it is in the non-regulated states?

COOK: I'd be happy to comment on that. I believe that it is generally true that length of stay in the regulated states is higher, and was in fact higher prior to regulation. I believe

that the four states that have the highest lengths of stay in the country are Massachusetts, New York, Michigan, and Maryland. As you can see, three of those four are states which are under regulation. It's also perhaps appropriate to comment that the admission rates in those states are relatively low, so that there seems to be some trade-off between the rate of admission and the overall length of stay. The complete antithesis of the Eastern situation is found in California and Washington and Oregon, which have very low lengths of stay (case-mix adjusted or otherwise) but relatively high admission rates.

CLUCHEY: Are you suggesting, then, Dr. Cook, that in the regulated states the less serious cases that would result in very short lengths of stay in hospitals are not being admitted originally to the hospital, and that may justify the longer length of stay?

COOK: No. I think the reason there is a difference in length of stay has to do with medical practice patterns. In general, in the Northeast--for reasons which I presume are related principally to the training of physicians--patients simply have a longer length of stay. To be frank, I don't really understand entirely why it's the case, but it isn't because they have a lower number of relatively unacute patients hospitalized.

WIHRY: I would just like to get the issue of quality of care on the table, because I think it's a question that always arises when we talk to people in Maine about our proposal. It seems to me that if a program such as the one we're proposing is to lower the cost per patient-day, for example (forgetting the access question for a moment), it will do that either by lowering the price of inputs or lowering the quantity of inputs. You've already made reference to that phenomenon. My question is: To what extent can you do either of those without affecting the quality of care which patients are receiving once they're in the hospital?

SCHRAMM: I think there are a couple of ways to approach that. First of all, empirically, we've never encountered any evidence in Maryland that has come up through our PSRO system (the quality watchdog) that anything has decayed at all. So the empirics are that we have never once been faced in our Commission's life with a hospital arguing, or a physician arguing, that resources weren't available to provide state-of-the-art medical practice. The other approach to it is that we have in fact had very positive indications, very explicit statements from physicians on the other side of the coin, that, by imposing resource constraints, quality has probably gone up. That is to say, the real issue we deal with in rate regulation is ancillary costs. And many patients are probably exposed to too much ancillary-cost-generation medicine, i.e., too much testing. We've had untold legions of physicians come before us and say that our regulations have in fact imposed a consciousness in the hospital that there was too much testing going on, and that the patients are probably better served now. Jack, would you care to comment?

COOK: I would suggest that, with regard to the quality argument, it would make sense to attempt to define it more carefully than is usually the case concerning the quality of medical care. My own view is that the concept is not sufficiently well defined to permit analytical investigation of the impact of anything on quality, and that the standard measures that one might adopt (mortality, nosocomial infections, readmission rates, etc.) are such as to indicate that prospective rate-setting probably has some positive benefit, but the data themselves are so imprecisely defined and collected that it's hard to say anything very definitive. Dr. Block, who is going to talk this afternoon and who is the President of the Rochester Area Hospital Corporation, I think, will have some sensible things to say about that, because Rochester is one of the places in the United States that has gone to great

lengths to develop a data base which can begin to consider those issues and quantify them in such a way that one can meaningfully say that quality has improved, or not improved.

SCHRAMM: I should also say that, in Maryland, one of our regulatory philosophies is that the Commission stops at the hospital's door. We set the budget; and what goes on inside the hospital is the hospital's business. Our perspective is that the state regulatory agency is not to set itself up in place of the administrators or the trustees or, most importantly, the physicians. The physicians are the ones best skilled in the practice of medicine. So, from time to time, we get letters, for example, from a nurse recently, telling the Commission how it is that a patient died in an Emergency Room because of the cost review commission--that there weren't sufficient drugs or something at hand when that patient came in at that moment. That is just out-and-out despicable behavior on the part of either a physician or an administrator or a trustee, who portrayed that condition to the nurse. That's not the Commission's business. That hospital in fact made a profit that year. So that's an internal decision.

GILL: If there are no further questions, I think this is a good time to take a break before we go on to the next speaker. But I'd like to introduce the staff of the Health and Institutional Services Committee: Chris Holden and David Elliott. Would those of you who intend to participate in our next meeting please let them know who will be presenting and what organization you represent, so we can work up the agenda and know just how much time we should allocate to each participant. That would be helpful if you would do that.

CLUCHEY: Our next speaker this morning is Dr. John Cook. Dr. Cook's training is in mathematics and he has used that background in a variety of hospital rate review programs over the past dozen years. He has been on the staff of the New Jersey rate-setting agency and was chief rate analyst for the Maryland program. He was the principal consultant involved in the design of the prospective payment program of the Illinois Health Finance Authority. He is the chief reimbursement consultant to the Rochester Area Hospitals Corporation, and was the principal consultant to Massachusetts Blue Cross in the design and implementation of its present contract with Massachusetts hospitals. This is the first contract, I might add, for Massachusetts Blue Cross which is based on the principles of prospective payment. As most of you know, the change from a retrospective reimbursement system for financing hospital operating costs to a prospective payment program is the centerpiece of the Board's proposal. Dr. Cook will make a presentation to us this morning on prospective payment programs and their components.

COOK: I'd like to use as a reference for my discussion today a short handout, entitled "The Components of a Prospective Hospital Financing System." My perspective on the topic is one which, as you can gather, was largely generated from my experience in Maryland, working for a public utility commission, and subsequently further developed by my experience with Jim Block, the President of the Rochster Area Hospitals Corporation. I was the principal technical consultant for the design of the system in Rochester, which became effective January 1, 1980, and which, to a large extent, represents a transition from Maryland--which, to a certain extent, reflects some of the limitations of the Maryland statute and the abilities of the Maryland commission to carry out fully what they would like to do under the prospective hospital financing system. My principal objective today

is to discuss with you, in a fairly non-detailed way, what a hospital financing system is, and what it is not. What it is not is the five thousand pages of Medicare regulations included in the health insurance manual and updated and republished frequently. That manual gives the definitions of costs for Medicare, the methods of allocating those costs to the centers, and the determination of how much Medicare will pay. For the most part, accountancy is regarded in an excessively important light as a part of hospital finance. And one of my hopes would be to dispel the importance of particular accounting issues in financing programs in general.

On the first page, I have listed what I regard as the principal elements of any hospital financing system. The first is the definition of the elements of cost. All hospital financing systems begin by considering the actual costs of the particular hospitals that are to be subject to the system. There are two issues associated with the elements of cost which are of particular interest. The first is, how does one finance capital? And the second is, how does one build into the hospital's payment system some provision for working capital? All business, including hospitals, need working capital in order to finance the delay in the payments which they receive from their / purchasers of care--a delay which will not be tolerated by the employees whom they have to pay in a timely fashion. Neither of these issues seems to me to be of burning importance. And both have been settled, I believe satisfactorily, by either the working capital financing mechanisms of Maryland and New Jersey, which we will get to later in our discussion. ¶ The other important issue regarding the elements of costs involves a principle, and that principle is one which is generally supported by rate-setting systems but not by the rate-setting system in New York State. And that principle is that the hospital's expected income should equal reasonable costs. That is essentially a principle which says that an efficient and an effective hospital should remain solvent. And that is a

part of the Maryland statute, it is part of the New Jersey statute, it is part of the Illinois statute; it is not, however, part of the payment system in New York State.

The second basic element of a hospital financing system are standards and penalties. For the most part, most rate-setting systems do not invoke either standards or penalties to any significant extent. In Maryland, over the course of the first three years of regulation there, hospitals were subject to detailed budget reviews. On balance, these reviews reduced the hospitals' base costs by approximately one percent. It was, generally speaking, the view of the staff that the amount of energy and money expended in base cost reviews was not warranted in light of the impact on the hospitals' overall level of financing. There is only one exception to this, and that is New Jersey, where hospitals are paid on the basis of cost-per-case. There is there an automatic incorporation of a specific standard cost-per-case in the rate-setting mechanism--a standard which is used with increasing stringency over time, but which I believe initially only reduced hospital payments by about one percent in its initial application.

The principal reason, you should understand, why standards and penalties are not invoked is that it is very difficult, given the available data, to make valid comparisons between hospitals. Budget review is a complex and, to a certain extent, tedious process which, in its more advanced stages, almost certainly requires the integration of medical record abstract data and, in many instances, the incorporation of billing data to assess whether or not the resources employed in the provision of patient care are efficiently and effectively rendered. The bottom line with regard to standards and penalties, in my opinion, is that there should be none, on the grounds that, generally speaking, we don't know enough about the hospital industry to levy them with any equity.

Adjustments to the base are the most complex feature of a hospital financing system. Much work has been done on the adjust-

ments which are herein referred to as "the economic factor." The intention of an economic factor is to measure the expected reasonable inflation in the prices which hospitals pay for the goods and services which they purchase in providing patient care. The most important component of that factor is wage levels. And most rate-setting commissions peg the allowable rate of increase in wage levels to an external proxy, such as the percentage increase in wage levels for service industry workers. In New Jersey, it's the percentage increase for a wide variety of non-supervisory workers in the Northeast. In Rochester, it's the rate of increase in non-supervisory employees in the manufacturing component of the society.

The remaining elements of most economic factors would include food--obviously, hospitals must purchase food in order to provide meals to their patients--laundry and linen, x-ray films and solutions, and so forth. I think it's quite fair to say that the various persons who have worked on the economic factor, including Carl Schramm, who developed the one that is employed in Maryland, have developed the method of monitoring and projecting inflation as it impacts hospitals to a sufficiently precise extent to warrant the comment that there basically are no issues related to one's ability to do this, but rather policy questions regarding what proxy, for example, should be used for the labor adjustment.

The second set of adjustments to the base are described, variously, as volume, intensity, and case mix. The first issue of volume is normally handled by allowing hospitals to receive a certain percentage of their average costs per day or per case or per Emergency Room visit for each additional day or case or ER visit that they realize. The principal economic issue is what percentage of the average do you apply; in other words, what do you assume the hospital's variable costs will be. Intensity is generally not recognized as an element of payment

in hospital financing systems. The principal exception, I would say, is in Maryland, where hospitals which are on a case-based system receive a one percent allowance for intensity each year. Case mix is an important element in any hospital financing system, and it's very fortunate here that there is a large medical record abstract data base which would allow a rate-setting commission to incorporate adjustments for changes in case mix in the hospital's allowable costs. In general, the claim by hospitals that their case mix is increasing in complexity appears to be true. My own studies would suggest that it's on the order of one to two percent per year.

Having made those adjustments--most of which are done by formula--there are another series of adjustments which normally must be made by judgment. These include the incorporation of Certificate-of-Need or new service expense in the hospital's rate base and, additionally, unavoidable-factor cost increases, such as, for example, those which would result from fundamental changes in the hospital's labor market. The hospitals in Atlantic City illustrate this point, where the introduction of casino gambling drove wage rates upward at a rate of 15-25 percent per year, and housing costs at approximately the same rate. The finding of the New Jersey commission in that instance was that the hospital wage rates in that area should be pegged to a local index rather than to the Northeast index, which I mentioned earlier.

The fifth, and most important, feature of any hospital financing system is the basis of payment. There are a wide variety of choices in the basis of payment, and many have gone astray on the shoals of choosing the wrong basis of payment. Maryland did in the first two years. We chose in those years as the basis of payment the individual charges which the hospitals render to their patients. We decided, for example, to regulate the charge per patient-day in the medical-surgical service, the charge per Emergency Room visit in the outpatient service, the charge per

laboratory test, and establish in an aggregate way a limitation on charges in pharmacy and medical supplies. I offer those, of course, only as examples, simply intended to illustrate that there are a vast number of charges that must be regulated, if you choose charges as the basis of payment.

An alternative basis of payment is illustrated by the New Jersey system. In that instance, for inpatient services, the charge is made essentially on the basis of the diagnosis of the patient. The hospital is paid a flat rate for acute myocardial infarctions, a different flat rate for normal deliveries, and so forth. I'll discuss the basis of payment later on in connection with a description of all of the financing systems which, in my judgment, are of any importance. And I want to emphasize again that it is an absolutely crucial feature in drafting a piece of legislation.

The other systems' features, with perhaps one exception, are fairly unimportant. That exception has to do with equity among classes of purchasers of health care. Basically, the issue is: What should the differential be between the rates which Blue Cross must pay and the rates which private persons and commercial insurance carriers must pay? I believe that Maryland has forged the way in consideration of how those differentials should be computed, although New Jersey was the first state to complete a study of differentials--a study which currently estimates that the Blue Cross differential should be 8.88 percent, or thereabouts.

Let me turn to the next page and talk about one of the fundamental considerations in the philosophy which Maryland has brought to prospective rate-setting and which clearly dominates rate-setting as it has developed in Rochester and through the Massachusetts Blue Cross contract. That philosophy is that hospital cost containment should be brought about by introducing appropriate incentives into the hospital financing system. Now, basically, there are two ways in which to introduce incentives in the financing system. The first is to make payments on a prospective basis,

By that, I mean to determine the amounts that the hospital will be paid in advance, rather than after-the-fact. Medicare, Medicaid, and, in many states, Blue Cross determine the amount that hospitals will be paid after-the-fact, and base those determinations exclusively on the amounts that the hospitals spend. So if a hospital wants to generate more income from those payors, it simply needs to spend more. And, conversely, if a hospital spends less, it will receive less income from those payors. It is not hard to see that retroactively-calculated cost-based reimbursement has incredible perverse incentives relative to controlling overall hospital expenditures.

The second, and perhaps more important, element of a financing system in which incentives can be introduced is the basis of payment. So what I have listed along the side are the various optional bases of payment which obtain in one or another of the various financing systems in the United States. The first, which I have discussed briefly, is charges--the individual charges for the services which hospitals render to patients. Maryland initially was a charge-based system. Massachusetts is a charge-based system and so is Washington. On balance, I think it's fair to say that charge-based systems are the least effective vehicles for controlling hospital costs.

The second basis of payment is the per diem. The per diem is actually available only to major third-party payors. You can't charge individual patients on a per-diem rate and have any equity in the system. Per diem reimbursement is used by New York to control Blue Cross and Medicaid payments. It was used in New Jersey to control Blue Cross and Medicaid payments. On balance, it contains incentives to reduce the cost per unit, i.e., the cost for individual laboratory tests and the nursing cost per patient day; to reduce the ancillary volume, i.e., the number of tests; but it does not include any incentives to reduce length of stay, to eliminate admissions, or to promote planning.

I have recited the five principal incentives that could be introduced by various bases of payments. And those incentives are listed across the top of the page.

Going down to more aggregate bases of payment, you can see that if you establish rates, as is the case in New Jersey and as is now the case for most Maryland hospitals, on the basis of payment per case, you introduce the incentives to control the cost per unit, i.e., the cost per laboratory test or nursing costs per patient day; to control the ancillary volume per day, i.e., the number of tests, drugs, medical supplies, or diagnostic or therapeutic services that are rendered per patient-day; you introduce incentives to reduce length of stay; but you do not have incentives to eliminate admissions or to promote planning.

A fourth possible basis of payment is the total budget of the hospital. You can establish in advance a total, prospectively-set budget for an institution, with minor retroactive adjustments. And the establishment of that budget introduces incentives certainly to control the cost per unit. All reductions in cost per unit correspond to increased income to the individual hospital, which it may use at its discretion. In addition, it clearly provides incentives to reduce ancillary usage per day: the less tests, the less supply costs, the less laboratory technicians, the more discretionary income for the hospital--income, I might add, that the hospital almost invariably plows back into alternative services for the community. It clearly provides an incentive to reduce length of stay. Again, a fixed, prospectively-established budget implies that you want to treat the patient as effectively as possible, thereby incurring the least amount of cost, and have the patient discharged in as timely a fashion as possible. Fourth, the establishment of total budget as the basis of payment gives the hospital an incentive to eliminate admissions--by doing outpatient surgery, by doing outpatient screening. By performing services in less-costly settings, both the hospital and presumably the less-costly setting benefit. And so establishing

the total budget as the basis of payment introduces an important incentive in that it eliminates admissions--an incentive which is not present in any of the preceding three bases of payment. It does not, however, promote planning--for the reason that the establishment of total budget almost always takes into account the increased cost of planning activities. And so the hospitals still face very powerful incentives to have their planners, as Carl suggested, stop painting the parking lot and start planning for the building of the next wing.

Finally, the fifth basis of payment which is possible is that of the regional limit, or equivalently, the capitation payment. It is my understanding that that is the basis of payment proposed here. I think it is an especially exciting choice that the Board made because, as you can see, the establishment of a regional limitation not only includes incentives to reduce unit costs, ancillaries per day, length of stay, marginal admissions, but it also introduces an important additional incentive: to promote planning among the individual institutions. The introduction of economic incentives in place of planning agencies has unbelievable results with regard to the willingness of hospitals to cooperate with one another. Establishing in advance an amount of money which hospitals can draw upon for additional services puts the hospitals in a situation of natural checks-and-balances. No one hospital wishes to come forward with a preposterous proposal with regard to service expansion, because it knows, quite rightly, that it will hurt the other hospitals, since it will deplete the amount of funds available for them to expand their services and programs. Hence, it introduces into the financing of hospital care that one element which the Founding Fathers of our Constitution found to be absolutely essential-- checks-and-balances--where the hospitals themselves are placed in the position, to a large extent, of determining their fate, of determining how to plan on their expenditures.

In general, I think it's important to underscore one of the points which Carl made. The philosophy of the Maryland commission is essentially to give hospital managers as much prerogative as possible in making decisions with regard to the resources of those individual institutions, and to delegate to the physicians appropriately the decision as to which tests, which services, which patients should receive which care. What prospective rate-setting does is to place around those decisions a framework, which is a framework that each of us faces, and which every corporation, organization, and individual in the world has faced since the beginning of time. That is, a need to limit resources to some preassigned, fixed amount. You and I, for example, limit our resource consumption in accordance with our income, or else we're in bankruptcy court filing periodically. Corporations do the same, or else they go the way of Braniff. Governments are also subject to limited resources constraints. And so the key to prospective rate-setting is to establish, in a rational way, a limitation on the amount of money available for a particular good or service--in this case, hospital care--and then to give those persons most knowledgeable about the delivery of those services the choice as to what to provide and what not to provide.

It is my view that, for the near term, the decisions regarding what not to provide can be done in such a way as to have absolutely incontrovertibly beneficial effects on patient care. Strong Memorial Hospital (which Dr. Block might wish to talk about) saved millions of dollars under the prospective rate-setting program by introducing a more effective review system for hospital-acquired infections. They were therefore able to reduce their length of stay, reduce their use of antibiotics, get patients out more rapidly, and divert the resources which formerly would have gone to infected patients to other goods and services, including the development of a fairly extensive outpatient oncology unit. And so it seems to me that there is, within the idea that health care ought

to be provided efficiently, the germ of the idea that health care ought to be provided effectively, and that they should go hand-in-hand.

On the next page, I have attempted to use this framework--the framework that I developed on the first two pages--to describe each of the six systems which Carl enumerated, with the exception of Connecticut. (Connecticut, I should add, is a state whose prospective rate-setting system I have much admiration for, but I have not included it in this list.) Let me begin, on the right-hand side, by talking about Maryland, since that was the system that I have had perhaps the most experience with. The elements of cost in Maryland are essentially defined, on the level of operating expense, i.e., non-capital expense, in accordance with Medicare regulations. Now, some accountants may react with horror at the idea that I am suggesting that not only Maryland but every other rate-setting system is essentially using Medicare regulations to define operating costs. And there are no doubt differences between one state and another. But the differences, from the point of policy, from your perspective, are so negligible and so unimportant that you should disregard them. In the area of capital, several rate-setting agencies or rate-setting programs (since Rochester's is not really a rate-setting agency) define capital costs essentially in accordance with Medicare definitions. Here, again, to keep the accountants happy, I should mention that there are many ways in which you can depreciate a capital asset. And it may be the case that the depreciation schedules are slightly different than the depreciation schedules in New York. But, for the purposes of policy, those issues are basically irrelevant. And the impact on the hospitals' finances are also very small, entirely marginal. And so I would suggest that they be shunted aside as irrelevant.

Now, I mentioned that there were two alternative systems of financing capital expenditures which were important. They were

both developed by a partner in the accounting firm of Haskins & Sells, William Ryan, who did some remarkably good work in Maryland and repeated it in New Jersey, with some improvement which Maryland has perhaps not yet adopted. His capital financing method was called the capital facilities allowance. Basically, what it allows hospitals is price-level depreciation on equipment and the greater of price-level depreciation or debt service on buildings. The difference between price-level depreciation and depreciation recognized under Medicare is that, under price-level depreciation, the change in the time-value of money is accounted for. In particular, if you were to depreciate a refrigerator that cost $1,000, using historical cost depreciation, you would assign to each year of the ten-year life of that refrigerator $100; that is, all the assignment of cost would be on the historical expense, the $1000 that you paid for the refrigerator. If you were to do it on the basis of price-level depreciation, in the first year you would take one-tenth of your historical cost and assign that as the depreciation, i.e., $100; but, in the second year, you would take into account the fact that the price of the refrigerator was increasing--going, say, to $1100. And so, in that second year, you would count depreciation to be one-tenth of the current price, $1100, or $110 rather than the $100 under price-level depreciation. (If you haven't followed that, it really doesn't matter. Again, it's not very important, but it does give hospitals, I think, a fairer basis for financing capital than historical cost depreciation does.)

Standards and penalties were the second element of hospital financing systems. Rochester (reading from left to right) has none. New York has relatively stiff penalties for Medicaid and lesser penalties for Blue Cross. Massachusetts has essentially no penalties although, from time to time, the regulations change and there is consideration of some. I might add that, in New York, the overall impact of those penalties is about one percent

per annum. Budget review in Rhode Island and Washington are, I suppose, an analog of penalties. In general, I think there is not a significant amount reduced from the budgets of any of those hospitals. In New Jersey, there is the standard of the average cost per DRG (diagnostic-related groups). If, for example, you are serving patients with acute myocardial infarctions for $2000, and the average cost among comparable hospitals is $1800, you will be paid slightly less than $2000; the balance between the standard and the actual cost to the institution is governed by a very complicated formula. But I did want to mention that there has been some introduction of penalties in New Jersey as well as standards. Actually, it works both ways in New Jersey. If your hospital was providing care for patients with acute myocardial infarctions, in the example that I gave, at less than the standard, i.e., less than $1800, say $1600, you would receive more than $1600. In Maryland, there are no standards now. There was an original round of standards which results from the budget review process that I described earlier, and which I personally feel was useful for policy reasons but not for containing hospital costs.

With regard to the economic factor, I have listed the various persons who have developed economic factors. John Rossman, I think, is the principal person on this list. A panel of economists in New York developed theirs. Carl Schramm was on that panel. The Harbridge House developed an economic factor for Massachusetts and Rhode Island. Washington doesn't have one. New Jersey's was developed by Rossman. And Maryland's was developed by Carl Schramm.

The volume adjustments in the various states--you'll recall that's the second important adjustment that needs to be accounted for in a financing system--is based on admissions in Rochester, days in New York, individual units of service in Massachusetts and in Washington, and admissions in both New Jersey and Maryland.

The various cost assumptions associated with those various systems are listed below.

Finally, with regard to the adjustments, a two percent working capital allowance was provided for the Rochester hospitals. There are no other adjustments in New York; essentially none in Massachusetts. Under budget review, it's impossible to say because there it's determined by the budget review organization. In New Jersey, there are no additional adjustments, other than the exceptions, which I'm going to discuss in a moment. And in Maryland, there is the one percent per year intensity factor.

I just want to step back for a minute and try to get the big picture here. What we're saying, for example, for a particular hospital, focusing on New Jersey for a moment--if we want to know what rates the New Jersey hospital would realize in 1983, assuming that was the first year that the DRG program went into effect for that hospital, we'd begin by looking at the costs of that hospital in 1982. We would look at the operating costs and the capital costs. The operating costs would be defined by Medicare regulations; the capital costs would be defined by Bill Ryan's capital facilities allowance. We would adjust those costs for inflation, pursuant to Rossman's methodology, and retroactively we would adjust them for differences in the level of admissions between 1981 and 1983. And we would use those costs to establish an amount per DRG. We would allocate those costs to acute myocardial infarctions, to normal deliveries, to tonsillectomies, etc. And in making those allocations, we would simultaneously determine how the hospital performed relative to its peers. And based on that performance, we would add or subtract a little bit, depending on whether it was above or below the standards of its peers. And that rate would be the amount that each person who came into the hospital in that disease category would pay, subject only to the exceptions that I'm going to describe below. In short, the system is very

simple. You start with base costs. You adjust for inflation. You allocate to the cases. And later you make a volume adjustment if you serve more or less patients. All that technology is available. And all that technology is working, I believe, quite well in New Jersey, which had a rate of increase in cost per admission in 1980 of about 10 percent, which was 3 or 4 percent below the national average, and which, on a national basis, would represent a reduction in health care costs in that year of $3.2 billion.

Let us move on to the exceptions. Every system has a set of formulas and a judicial body which reviews exceptions. The most important exceptions are the exceptions to the cost base for additional new services, which I have labeled "CON," or Certificate of Need. In New Jersey, the amount that a hospital will receive for certificate-of-need expense is determined by the hospital rate-setting commission. Similarly, in Maryland, Washington, Rhode Island, Massachusetts, and New York--not so in Rochester, where the determination is actually made by the hospitals themselves. We'll talk in some detail about the Rochester system later. There are other exceptions. For the most part, they are of the sort that I talked about in discussing the Atlantic City case. You need to have an exception mechanism to adjust for fundamental changes in factor costs. I personally believe, in Maine, you need an exception mechanism to take into account the influx of specialists into rural areas which did not previously have such specialists.

Let's move on now to the basis of payment in each of these systems. Under Maryland, the basis of payment is charge per case, or the case. In New Jersey, the basis of payment is the case, defined in terms of DRGs. In Washington, the basis of payment is charges. In Rhode Island, I put down per diem, but I'm not sure (I actually haven't talked with the people in

quite a while, but I'm reasonably sure that's the way they set Blue Cross and Medicaid rates in Rhode Island). In Massachusetts, the basis of payment for charge-payors is charges; for Blue Cross, it happens to be total budget. In New York, the basis of payment for Blue Cross and Medicaid is the per diem. In Rochester, it's the total inpatient allowable costs; in other words, for individual hospitals, the basis of payment is actually the total budget.

The other features of the program which I think are of prime importance are what we call rate-to-rate. What is meant by that is that the amount which an individual hospital receives in the second and subsequent years of any of these programs is derived not from their costs in any particular year but from the amounts of payment which they were eligible to receive in the preceding year. This is a fundamental and radical departure, which was developed in Maryland. It is certainly the most important idea that came out of Maryland. What it says to the hospital administrator is this: If, in a particular year, you are able to keep your costs below the level of the allowable costs, defined by the rate-setting agency, i.e., the level of income that you are reasonably expected to receive, then in the next year, and in the next year after that, there will be no implicit penalty ever levied on you for reducing your costs--because that margin that you generate (the difference between your income and your expenses) is a margin that you can keep forever, for the reason that we never revert to expenses as the basis of setting your rates, but rather always gear it off the level of approved income. So that you have seen on Carl's slides, in connection with Maryland, that the net income of the industry from 1975 to 1980 improved in lock step, year after year. In 1981, it actually dropped slightly; and in 1982, it is anticipated that it will go up again. But one reason for that (and that is in stark contrast to New York) is that, in Maryland, the hospitals' levels of payment are derived--using all these adjustment factors--from the preceding

year's levels of payment rather than cost. And what that gives the hospital industry is the opportunity to be solvent, no matter what the situation. The main reason for bankruptcy--and virtually the only reason for bankruptcy--is if you have a hospital that has an enormous proportion of its payments made on a cost base and a high level of charity and bad debts. If you have a hospital in that situation, you are doomed to bankruptcy. In New York, 36 hospitals went under--for the reason that the New York system was not a prospective rate-to-rate system. In their most recent filing to the federal government, the New York State Office of Health Systems Management proposed a Medicare, Medicaid, and Blue Cross financing system that was entirely rate-to-rate. It was, in fact, largely modeled on the Rochester system. So that is a crucial factor in any financing system. As I said, I think it was the most important idea that was introduced as a result of the activities in Maryland.

There are three rate-to-rate systems in the United States as of now. They are in Rochester, New Jersey, and Maryland. And all of those systems have been endorsed by the federal government and have received Medicare and Medicaid waivers. That is, both the Medicare program and the Medicaid program have waived all federal rules and regulations pertaining to reimbursement and have adopted the payment levels of these various programs in lieu of their own financing mechanism.

Special attention has been given to Maryland and Rochester, particularly in a recent essay by Alfred Kahn, as directions to go, at least in the short term, for the financing of the hospital industry.

Finally, I have listed all the payors who are involved in the program. On balance, a program is better if it incorporates more payors than less.

Let's again try to step back for a minute... What we have tried to do here is to give you, in capsule form, the principal components of all of the hospital financing mechanisms in the U.S.

The message to be derived from this basically is that the technology is available for implementing a wide variety of prospective rate-setting systems. And, in particular, the technology is available for implementing a system which begins with a statewide revenue limitation. Shortly, I'll describe very briefly how the Rochester system works, and then Dr. Block will describe in considerable detail how the administration and voluntary cooperation of the hospitals has made that the most successful payment system in the history of the United States. So the bottom line is that, as far as the technical issues are concerned, they are essentially settled and the mechanisms are available to implement a statute of the form that the Board proposed.

On the next page, I have considered some of the details of the financing system in Rochester. I want to just mention that, when we were working in Maryland, we saw that initially we had made two fundamental mistakes. The first mistake was trying to control individual charges. As you saw in the preceding sheets, the incentives involved with the control of individual charges are quite inadequate. You don't have incentives to control length of stay, resource use per case, and so forth. The second mistake that we made in Maryland was that we didn't promulgate a labor wage proxy in advance. We didn't tell the hospitals in advance what we thought reasonable increases in wage rates would be. That was a disaster, particularly because hospital workers have, over the last decade, in general received wage increases which are significantly above the aboverage wage increases in the labor sectors of the economy that are comparable to hospitals, i.e., the service industry sector. We corrected both of those problems in the GIR system, the system that we've described here. But we encountered a third problem which has been essentially insoluble by virtue of the limitations of the statute. That problem is that, through rate-setting, it appears almost impossible to provide hospitals with any incentives to plan properly,

i.e., to control the expansion in a rational manner of the additional services that they wish to provide. Now, Rochester took a very important step forward--voluntarily, I might add, since it was a contract that was signed by the hospitals and the major third-party payors and was without the intervention of a government regulatory agency--to voluntarily limit the overall amount of revenues of the hospital industry in Rochester. And that, in technical terms, is a transition from the basis of payment being per case, as it was in Maryland, to payment being based on the entire region. If you will recall the incentives that I described under those systems, the Rochester system provides very powerful incentives to control the expansion of services. And it does so by a system of checks-and-balances which is entirely consistent with the idea that cost containment should be brought about through the introduction of incentives in the financing system, rather than direct government controls.

Now, what I've done here is to describe briefly how that Rochester system works in the framework that I've already provided. That is to say, in terms of the elements of cost, the standards and penalties, the adjustments, the exceptions, and so forth. The elements of cost, as we indicated on the preceding page, are per Medicare. In Rochester, they are identical with Medicare. There are no standards and penalties for the reasons that (a) I don't personally believe enough is known to exact penalties very rationally and, (b) since it was a vountary contract, it would be very hard to get the hospitals to agree to significant penalty reductions going into a voluntary program. The adjustments to the base, i.e., the 1978 Medicare costs, were the economic factor, which was developed by Rossman and turns out to be about 21 percent from 1978 to 1980. And their adjustments for increases in volume--this adjustment formula on the inpatient side is essentially the same as the Carter Cost Containment Act--which says that if

you increase admissions by less than 2 percent, you get nothing; over that, you get 40 percent. If you decrease admissions, nothing is taken away. So there are very powerful incentives built in through the volume system to decrease admissions. And on outpatients, the system is neutral. It basically just pays more or less depending on whether or not the hospital has had an increase in outpatient volume. There the idea is to stimulate outpatient services as a substitute for inpatient services. I might add that I do not think it is a good thing to stimulate outpatient services for the sake of stimulating outpatient services. I don't think hospitals ought to be given monopoly power against, for example, doctors' office buildings or commercial labs, in competing in that marketplace. The exceptions provided under the Rochester system are certificate-of-need project costs. There will, I believe, be a case-mix adjustment eventually. And other exceptions are to be specified by the RAHC board. ¶Now, all of these exceptions come from a fund which is equal to two percent of the preceding year's allowable cost base. So the amount of money available for case-mix, for volume change, for certificate-of-need is extremely limited, being only two percent (that's about $6 million) of the preceding year's allowable cost base. The basis of payment is the total allowable cost to the entire region. It's about $300 million in Rochester. And Medicare, Medicaid, and Blue Cross all pay their proportionate shares, as determined in accordance with Medicare's accounting. The other systems' adjustments and exceptions are paid from the so-called contingency fund (which is somewhat of a misnomer), and that is established in advanced by contract. The Rochester system is entirely a rate-to-rate system; that is, in 1981, the amount that the hospital industry is paid is derived entirely from the amount that it was paid in 1980. In 1982, the amount the industry will be paid is derived entirely from the amount paid in 1981.

I don't mean to steal any of Dr. Block's thunder, but the results for the first two years were practically unbelievable. In 1980, hospital costs in Rochester increased 10 percent; in 1981, they increased 10 percent, or 10.7, depending on how you count physicians' expense. In comparison to the national average, the first year represented a reduction of 7 percentage points below the national average; the second year, 8.6. That's 15.6 percent reduction in what would otherwise have been the expenditures in the Rochester community. That's about $13 billion a year after the first two years of operation, if it were to be applied successfully on a national level.

The bottom line is that there is no question that the incentives, coupled with careful administration, the willingness on the part of hospitals and doctors to cooperate, and the development of a data base, will produce and can produce incredible reductions in the rate of increase in costs in a particular area, and probably result in improvements in the effectiveness of the care delivered there.

Now, on the next page, I have described, by way of two diagrams, the simplicity of the Rochester system. I think simplicity is an important feature of any financing system. To determine the total amount that was available for the industry in 1980, we took the hospitals' 1978 actual costs per Medicare, increased them by the trend factor plus 2 percent, got to the 1979 cost base, increased that by the trend factor plus 2 percent, plus grandfathered certificate-of-need projects. And that became the final 1980 dollar amount for the hospital. Now, that's slightly a misnomer; that's not what the hospital was paid. The dollar amounts for the hospitals are then summed together to determine the final aggregate dollar amount for the region. In general, the trend factor is about 10 percent, so we were increasing the amount of revenue that the hospital received by about 11 percent per year. Now, the point of this diagram is its simplicity. This is an adequate payment system in that it has clearly under-

written the cost of the Rochester hospitals. The Rochester hospitals have realized a remarkable increase in their solvency under this program. Health care services have been expanded in Rochester. And this is the whole system. The whole aggregate level of payment is described adequately by this diagram, i.e., the programs need not be complicated.

On the next page, I have described the amounts that were paid to individual hospitals in Rochester. Here, again, we begin with the hospital's 1978 actual costs. For them, we increased the amount by the trend factor plus one percent to reach the 1979 amount. We then increased it by the trend factor plus one percent and throw in grandfathered certificate-of-need expenses. And then, after the fact, we adjust for the level of volume which the hospital realized insofar as it differed from the 1978 amounts. The volume adjustments, for the most part, are very simple. But I would rather not go into detail on exactly how that is done. Again, the point is that the financing system is extraordinarily simple. The key technical considerations were in the development of the trend factor and in the judgment of what was necessary to underwrite the grandfathered certificate-of-need expenses and the increased cost to the industry beyond that which was required just to offset the impact of inflation.

So, again, the technology is available for developing such programs. There is, I think, a reasonable question that perhaps you in Maine should ask yourselves: Is it the case that, because we have a lower cost per day or a lower cost per admission, that we should not consider an alternative financing system? It seems to me that that would be an inappropriate conclusion, for reasons which I've already implied in my discussion, namely, I have been consistently opposed to the application of penalties and standards in the development of hospital financing because I did not believe that you can compare with any level of precision two hospitals. I think that my views on that are slowly changing as the data bases in New Jersey and Maryland and Rochester develop. But I

think, for the most part, when these systems were begun, it was not appropriate to compare hospitals, one to another. And so, too, it seems to me extraordinarily difficult to compare, for example, cost per admission in Maine with cost per admission in New York. Why is that the case? First, I suppose, because Maine has, quite rightly, a natural referral pattern into Boston. If I were in Maine and suffering from an acute tertiary disease, I would be more inclined to go to Mass General probably than any of the major teaching institutions in Maine. Secondly, it seems to me clear that the level of wages which must be paid to an RN in Kennebunk are significantly different than the level of wages that must be paid to an RN in Manhattan, or in Boston, or in Baltimore, or in Rochester. And so the level of factor costs is quite critical. The most important consideration is: what proportion of the state's GNP is going to health care, rather than what is the absolute cost per admission. So, for that reason, it seems to me that the main thrust of prospective rate-setting should be understood to be independent of the level of costs, but rather focusing on the rate of cost increase. And the reason that the rate of cost increase is so critical is because the rate of cost increase is what drives insurance premiums. And insurance premiums, in turn, drive a significant component of employee compensation. And right now, in the United States over the last four months, overall consumer prices have increased 0.4 percent. So that the vast majority of corporations in this country are unable to realize any additional price increases--be it in airlines, in steel, in automobiles, in high tech, in shoes, in paper pulp, in shipbuilding, or whatever. The vast majority of industries in this country cannot realize additional income from increases in prices.

Now, as a chief executive officer of a firm in which a compensation policy is being driven, as it was in Massachusetts, by 30 percent Blue Cross premium increases--given that you can realize no additional revenue from price increases--what must you do? You must have layoffs, or you must have increasing

productivity on the part of your workers. In my own mind, every additional employee in health care represents the fractional deletion of an employee in manufacturing, construction, or agriculture, because the additional costs of health care are additional premiums, premium increases, in the manufacturing sector. That's additional cost to the manufacturing sector. And those costs can only be offset by increased productivity or layoffs, since you can't generate additional income in the manufacturing sector now.

I think the interrelations between the economies--the trade-offs that Carl talked about at the government level--are occurring at the state and local levels. To a certain extent, to take an extreme case, Kodak's ability to compete depends in part on their ability to purchase relatively low-cost, effective health care. So I leave you with that thought and close by reiterating my point that, while hospital financing may appear to be a highly complicated system, the bill proposed by the Board in broad outline is certainly one that can be implemented--and implemented, it seems to me, in a manner which would serve not only the citizens of Maine but also the health care industry and the physicians as well by controlling health care expenses and thereby making Maine's a significantly stronger economy in the long term.

GILL: Are there questions for Dr. Cook? I'd like to take exception to one of the statements you made. I think we have developed tertiary centers in this state so that a lot of our patients aren't going to Boston, because we have excellent care within the state now. In that case, it may be as well to look at alternative financing, if that was the reason for not looking at alternative financing.

BUSTIN: I'm not clear about the rate of cost increase and what it should or should not be based on.

COOK: I think I said that the revenue increase for the hospitals should not be based on their actual costs; that it should be derived from their preceding year's allowable revenue.

MANNING: On the second page, you mention regional limits. What happens in a state like Maine, where you might have a hospital in Fort Kent and the next hospital is in Presque Isle, which is quite a distance? Do you feel that that should be considered a region? I can see it perhaps in the Portland area, or maybe the Bangor area. I think in the Augusta area they've already done something like this, combining hospitals. But what happens in a rural state such as Maine?

COOK: I think that the principal emphasis of a regional limitation would be in giving the planning agencies a framework for making decisions about which certificate-of-need projects to approve. Right now, the problem is that the certificate-of-need process works relative to a standard which is almost undefinable, i.e., to assess whether or not the service is needed. The thrust of what Carl said and what I've said is that one has to look at the foregone opportunities associated with so-called needed expenditures. So, therefore, what needs to be done first, it seems to me, is to establish the overall level of financing that you want to provide for new services, either legislatively or through a judicial body, as proposed in the Act. And then have the planning agency work within that framework. Personally, I think that if the overall limitation could be allocated to certain regions, and those regions have hospitals that work together as they do in Rochester, that would be an important complement to the system. In other words, if you could have, by way of the financing system, incentives built in for the Portland hospitals to cooperate with one another, or for the Augusta hospitals to cooperate in the planning arena, that would be beneficial. The thrust of your

question, I take it, is, could we get two geographically distinct hospitals to cooperate with one another. I would think that the implied answer is no. I don't think there is any sense in thinking that hospitals up in the northern part of the state are going to come down and cooperate with hospitals in the south.

MANNING: I wasn't really looking at Portland and Fort Kent. I was looking, for instance, at Fort Kent and Presque Isle, which are about ninety miles apart. I don't know of any hospitals in between.

MacBRIDE: We have one in Caribou and Van Buren

MANNING: Also, have you found in Rochester... We have in this state a city which is very political when it comes to hospitals. Have you found that it took a while for the hospitals to cooperate with each other?

COOK: I think there was a history in Rochester of hospitals cooperating with one another. I also think that the Rochester Area Hospitals Corporation, of which Dr. Block is the President, has done an extraordinarily good job in dealing with those types of issues. I want to make it clear, as Felix Rohatyn once said, you can't get miraculous results with a formula; you actually have to get people who are willing to manage in terms of those results. And, to a large extent, the system in Rochester is successful not so much because of the design of the financing system but because of their capability to respond to it. I think what that suggests here is that one ought to be fairly gradual in the extent to which one places growth limits below the national average on the Maine hospital industry.

CLUCHEY: Dr. Cook, could you describe the thinking that went into selecting hospitals' 1978 actual costs as the base for the total amount available for reimbursement in the Rochester system?

COOK: The program was being developed in 1979, principally between April and October, so the 1978 hospital costs were the last costs that were audited and actually incurred. The only other option that was obvious would have been the 1979 costs, and there are certain perverse incentives in introducing 1979 incurred costs as the base when you haven't completed 1979.

CLUCHEY: One follow-up question: How did you determine the trend factor for 1979 and 1978 which you used to bring the 1978 actual costs up to the amount that was the reimbursable amount available for the Rochester hospitals in 1980?

COOK: Initially, the trend factor is projected, much as the CPI now might be projected throughout the year. It's projected using a specific methodology. Then, after the fact, the hospitals' allowable cost base is adjusted to represent the actual experience in price increases that the hospitals have experienced, as measured by these proxies. In other words, if you think of the CPI as an analog of the economic index, there is initially a projection made of the CPI. And you could think of that as the amount, for example, that the hospitals would be paid on an interim basis. And then, completely independent of hospital activity, the actual price change of the CPI, or, by analogy, the actual price movement as measured by the economic index, comes into effect. And that's how much the hospitals ultimately realize. In a sense, the system is not entirely prospective. The rationale for that is that, if you project inflation in hospital prices to be 7 percent, and in actuality the price movements in x-ray films and drugs and medical supplies are 14, you shouldn't put the hospital industry at risk for that difference. And, conversely, if you project 7 percent and they come in at 5, you shouldn't give the hospitals a windfall. So there is, in all of these systems, a certain element of retroactivity. But the retroactivity relates to indices which are entirely independent of the hospital industry.

CLUCHEY: So the trend factor is a correction for inflation?

COOK: Yes

BRODEUR: Following up on Mr. Cluchey's question, where is the cost saving? Is it in the discretionary power of the hospitals to make their own decisions and not have to worry about the kinds of things they have to report to the government? Is that a big part of it?

COOK: No, I would say that the incentives in the financing system are what the hospitals respond to. In Rochester, for example, the hospitals have been very effective in maintaining relatively low cost per unit and in limiting the rate of increase in ancillary services per day through, on the one hand, jawboning with the medical staff about that issue, and also through detailed financial analyses which are presented to the boards of trustees for use in their own budget-setting. We produce very detailed financial analyses to give to the boards. They then take action on those as a part of the budget system. For example, we would identify at one hospital relatively high housekeeping costs, or relatively high malpractice insurance premiums, or relatively high nursing staff. And the hospital would normally do some further analyses to determine if the apparent problems were real; and if they were, they would take action on them. Again, I want to emphasize that the success of Rochester is not to be associated solely with the system but to the ability of the hospitals and of RAHC to respond to those incentives by making that information available to the hospital trustees and managers.

BRODEUR: So it depends on the hospitals' cooperation with that system?

COOK: Yes. In a sense, it's analogous to a market. You're trying to live within a certain level of revenue. And you make the most

rational choices that your information base will support to be able to cut your costs to that level of revenue.

BRODEUR: What prevents a hospital system from saying that we need to have all the stuff, we need to have more, and will continue to raise its prices--and therefore is to be granted higher cost reimbursement?

COOK: Under the contract, that's illegal; they can't raise their prices above the amount that is stipulated in the Rochester contract. If you're asking me, what if we just have a whole bunch of recalcitrant, obstreporous managers--there's nothing you can do about that. They'll spend money until they go bankrupt presumably.

McCOLLISTER: Would you expand on your comment concerning the controlling of wages?

COOK: I cited that as one of the two fundamental mistakes we made in the early stages in Maryland. The first consideration was the question of how are hospital workers paid, given their skills and mix, relative to other comparable categories of employees in the labor market. To a certain extent, that question can't be answered, in that there are some employees in hospitals who are essentially unique to hospitals. I think, for example, RNs are people whose skills cannot be compared directly to the skills of other employees. But the vast majority of hospital workers can: housekeepers, laundrymen, personnel managers, data processing, patient billing--all those functions have counterparts in nursing homes and hotels and restaurants and so forth. The evidence from the various academic sources (Feldstein at Harvard and Fuchs at Stanford) and the evidence from personnel surveys carried out by the Baltimore hospitals was that the hospital industry enjoyed a very favorable position in the wage market; that is, in general, hospital employees were paid above their counterparts

in the various service industries. Now, that's not surprising, because, on the one hand, in the Fifties, the hospitals were virtually the employers of last resort. There was an argument that a lot of catch-up needed to be done. And after Medicare it was certain that there was a lot of catch-up. Hospital employees, I believe, were paid about 3 percent per year more than their counterparts in business and industry. But by the 1970s, in most parts of the country, hospital employees had more than caught up. And yet wage increases continued to move very rapidly. Now, what we did in Maryland was that we neglected to establish any reasonable standard for pay increases for hospital workers. And so, in the depths of the recession in 1974-75, the hospitals negotiated with their unions. Johns Hopkins, in particular, negotiated an overall compensation package of about 14 percent. There was nothing in the economy that suggested that that was reasonable. It was no more reasonable then that it is now, when massive layoffs are being carried out in various other sectors of the economy. And so what we did was to say to the hospitals, from now on we're going to give you, in advance, a reasonable standard for overall increases in your compensation package. And if you live with that, we'll never ask any questions. And if you don't, you'd better show that you've come out very bloody from a union negotiation, or we're not going to give you any more. So what we set as a standard, in one instance, was the rate of increase in that portion of the labor market which the hospitals were in, i.e., the rate of increase in service industry workers. In other words, if service industry workers in general received 9 percent, we automatically gave hospitals 9 percent. For a time, we pegged it to the CPI, which meant that if the impact of inflation on the purchasing power of those employees was 8 percent, they would automatically get 8 percent. And of course they could get additional amounts by improving productivity. That's one of the ideas of fixing a budget in advance, where workers could share in additional income that the hospital received as a result

of increases in productivity. So the main thrust of what I was saying was (a) that we should have set it in advance, (b) we should have made it an issue earlier, and (c) it was one of the rare instances in hospital rate regulation where the hospitals fully agreed with us. It was a case where they understood very clearly that they enjoyed a privileged position in the labor market and that they hadn't taken a very tough line with their employees, and that it was appropriate, particularly given the incredible level of security you can enjoy as a hospital employee, to hold the line on wages to some reasonable standard.

McCOLLISTER: Did the unions also agree?

COOK: Yes. If you take their signing a contract, they agreed, even if they weren't overjoyed.

McCOLLISTER: I see that as government giving the hospitals a pretty stiff whip at the bargaining table.

NOTIS: Dr. Cook, I think you feel quite strongly that the Rochester system is far and away the most successful of those that have been mentioned here today. Is that true?

COOK: Yes

NOTIS: There must be a number of reasons for that. Probably it's simple to administer and there have been great reductions in expenditures. I think you've mentioned those. I'm wondering what prompted, in that area, this spirit of cooperation, which certainly does exist. What was their problem?

COOK: I don't want to pre-empt Dr. Block

NOTIS: All right, then I will carry it a step further. Is this program in Rochester the only one that has been talked about that

has not had any government or state intervention through legislation?

COOK: Yes

NOTIS: What, in your opinion, is the potential for lifting that kind of system and putting it into place in other parts of the country?

COOK: Without legislation?

NOTIS: Yes

COOK: Virtually none

GILL: I'd like to know why you feel it couldn't be done without legislation?

COOK: I'd like to leave that to Dr. Block. He may have a different view entirely. But I think it was spurred partly by the relatively disastrous position financially that the Rochester hospitals were in as a result of the alternative which they faced, which was the legislation of the state government over Medicaid and Blue Cross payments.

NOTIS: I wondered what prompted this spirit of cooperation and the initiative that was taken by the third-party payors and the hospital administrators?

COOK: I don't want to set up my friend, Dr. Block, but I think it's also extremely important to emphasize again Rohatyn's comment that you're not going to solve fundamental social problems by formulas, and that there was much in the history of Rochester which led to this cooperation. On the other hand, from my perspective, the ability to

apply something like that in San Francisco, where the hospitals voluntarily sign up for trend-plus-two, is just out of the question without some kind of reason on their part. The hospitals in the United States, outside of the Northeast, are in very comfortable situations.

BUSTIN: A couple of comments and a couple of questions. It seems to me that in setting a wage rate, which is really what you're doing, becomes nationwide, that the unions would take a very strong position on that. So that it may work in Rochester and it may, if the trend continues, not work in other places because the unions would not want that kind of thing. That's one thing that occurs to me. Another concern I have is whether you know Maine well enough to give us some advice or some comments on the regional limit capitation. This ties in with Representative Manning's question, how does this work when we have such a vast land area? For instance, what occurs to me is that you might take the Bangor area as a region (and we already have regionalized by putting the Gardiner hospital together with Augusta because they're only six miles apart), the Portland hospitals, and the Lewiston hospitals--those are the three major areas, I believe. And then maybe have another region of just rural hospitals, and divide your money up that way. Do you know Maine well enough to do that? The second question is on the rate-to-rate. I'd like to have you expand on that. You said something about the number of people served--whether or not their expenses went up. I didn't quite catch that, so I'd like to have you expand on that.

COOK: With regard to your first question about whether or not I have sufficient knowledge of Maine to know how or in what manner the revenue cap ought to be developed, I don't think I do. I am confident that a system could be developed which would be very gradual in nature and, as was the case in Rochester, grandfather in most certificate-of-need projects. After two or

three years, I think one would gain enough insight into what the possibilities were for hospital cooperation to be able to move beyond accepting all certificate-of-need decisions as given, to establishing some reasonable limitation within which the certificate-of-need agency was to operate.

Your second question, I believe, was related to rate-to-rate. Let me do that by an example. Let's suppose we have a hospital which, in 1980, had allowable costs--or what, in effect, would be patient revenue--of $10 million. And the hospital, through responses to the incentives of the financing system, operated at $9 million. Now you have two choices in deciding how you're going to set the rates in the next year. You can either set them on the revenues of $10 million, or you can set them on the cost of $9 million, or you can set them based on some average between the two. A rate-to-rate system is a system which sets the hospital's next year's revenues on the basis of the $10 million. In other words, it does not revert to cost in establishing the revenue level of the hospital. So the idea is, if the hospital responds to the incentives and in some year develops a million-dollar operating margin, the million dollars is set aside and goes to funds that the board has at its discretion. They may well spend all that, plus the next million in the next year. But the idea is to provide very powerful incentives for the hospitals to economize. If you continually base your rates on costs, long-term planning on the part of the hospitals will always take that into account. And they will therefore naturally see a reduction in costs as being tantamount to a long-term reduction in revenues.

BUSTIN: How do you see that affecting the insurance rates?

COOK: The benefit for the insurance companies resides in having a difference between the rate of increase which is allowed and the rate of increase which would otherwise be expected. In Maryland, for example, the rate of increase in revenue might be,

say, 11 percent per admission, whereas in the national average, the rate of increase in revenue might be 14. So the insurance companies--the Blue Cross plans, the commercial carriers and, perhaps more importantly, the government--makes out, because, instead of realizing the national rate of inflation in its payments, it realizes two or three percent below the average every year.

BRODEUR: Let me see if I understand what you're saying. What you would do is set an allowable cost and prospectively reimburse a region and a hospital, separately but somewhat combined, in terms of what they will get?

COOK: Yes

BRODEUR: How about underserved areas--where some areas need to catch up to others in terms of the kinds of services they provide. How would that be affected?

COOK: I think if the services were certificate-of-need expenses, they would be services which would be approved by the agency and funded through the certificate-of-need monies available. If the under-service had to do with a lack of physician specialists, I would recommend that you incorporate additional hospital monies to finance the care of those patients as an appealable item under the system.

BRODEUR: You said that when you reduce costs such as ancillary costs that a hospital could plow back the profits into the community. What do you mean by that?

COOK: For example, the hospital might choose to increase the level of staffing in some departments where, for whatever reason, it begins to view that as being inadequate. It could increase the wage rates of the employees above the amount provided in the trend factor. Or

it could use the monies, for example, to develop alternative services. It could, for example, use the monies for start-up expenses for out-patient surgery; for start-up expenses for renal dialysis.

KETOVER: Have you heard that the Reagan Administration is expected to ask Congress for legislation allowing Medicare recipients to take their Medicare dollars and buy into a government health insurance plan for the elderly, to take their benefits in the form of a voucher and buy a private health plan?

COOK: Yes, I believe that's the Enthoven proposal

KETOVER: Are you in favor of all this? I know a lot of the elderly are not in favor of this at this point.

COOK: I think that the Enthoven proposal might be a good long-term solution, but I think that in areas like Maine it's particularly problematic, because in isolated rural communities the providers of health care are appropriately in an absolute monopoly position. A town of 10,000 people shouldn't have three hospitals, so there shouldn't be a natural framework for competition. And I personally question whether or not you can introduce enough competition in small isolated communities so that you're not really putting the Medicare beneficiaries at risk by giving them the amount of the voucher and saying, okay, go out and buy it. It's not clear to me that the supplier market is sufficiently competitive to insure that they could buy the same level of services.

MANNING: You've indicated that San Francisco and other places around the country enjoyed a better atmosphere than they do in the Northeast. Is that because of the cold weather, or are there other factors involved?

COOK: I was talking principally about the atmosphere that the hospital's financial officers are in, which is very sunny. The principal determinant of the strength of the hospital industry in any particular locale is two-fold: first, it depends on the level of charity and bad debts the individual hospitals have to face. As I said before, that's the main reason for bankruptcy. The second is whether or not your Blue Cross contract is geared to charge-based reimbursement. If you can be paid in any manner by Blue Cross on the basis of charges, given that you're automatically paid by the commercial carriers on commercial charges, no matter really what your cost levels, you can always generate enough money to underwrite it--the reason being that the purchaser, namely you or I if we go into the hospital, is completely indifferent to the price under insurance contracts. So we're willing to let the insurance company pay anything. And the employer, who is actually being hurt, is just beginning now to organize and try to do something about the problem.

MANNING: You indicated the problem with charity and bad debts. Do you find that more in the larger cities than you do in the smaller rural towns?

COOK: Yes, I would say in general. I think there are some pockets of poverty where charity and bad debts are high in rural areas, but the highest level of charity and bad debts in Maryland occurs at County Hospital in Prince Georges County, right outside Washington, D.C., and Provident Hospital, which is a hospital serving a primarily indigent black community in western Baltimore. There are no rural hospitals that have charity and bad debts on the level that those hospitals experience.

GILL: We're going to hear more about the Rochester system this afternoon, but, as far as the State of Maine, if we went into

prospective reimbursement for hospitals, is there a chance that we wouldn't see really a dramatic increase in the curtailment of health care costs or hospital costs? Would the effort be worthwhile? Is that a possibility, that the savings wouldn't be there?

COOK: The industry, I believe, is on the order of $4-500 million. And so, if you were to provide a reasonable transition period and realize pretty much a standard level of cost containment--three percent per year--that would be $12-15 million. So I would think you'd have a reasonable return, even if you only considered it from the Medicaid budget.

GILL: Are there any other questions? If not, we're going to break for lunch now. We will return at 1:15 p.m. to hear from Dr. Block.

GILL: We will continue our presentations with Dr. Block. I'll let David Cluchey give you a little of his background.

CLUCHEY: Our next speaker is Dr. James Block, a medical doctor, a pediatrician, who received his undergraduate degree at Haverford College and his medical degree from NYU. Dr. Block went into practice in the Rochester area and at one point was the director of ambulatory services at Genesee Hospital in Rochester. Currently, Dr. Block is on the faculty of the University of Rochester Medical School and is President of the Rochester Area Hospitals Corporation. He also is a member of the senior staff of the Robert Wood Johnson Foundation. Dr. Block is here today to give us some additional information about the health facilities cost containment program in existence in the Rochester area.

BLOCK: In talking about Rochester, I do hope that we can think more of the generic issues that are implicit in the Rochester experience and their applicability to Maine, as opposed to the specific program in Rochester, New York.

I thought I would begin, for those of you who do not know where Rochester, New York, is: it's on Lake Ontario in upstate New York, directly across from Toronto, Canada. Most people don't realize that New York is predominantly a rural state and are not aware of the nature of the politics in Albany, which is the state capital, as the result of its being both an urban and a heavily rural state. There are several major cities in upstate New York: to the far west is Buffalo, in the middle is Rochester, to the east is Syracuse, and further east is Albany, directly north of New York City.

I'd like to speak to you about the Rochester Area Hospitals Corporation and I would like to suggest that a discussion of the Corporation is probably the most important thing that I have to share with you. First, I think it's important to stress

that the hospitals which are members of this corporation have come together on a voluntary basis. Secondly, all of the hospitals in the entire metropolitan area have joined the corporation, and have joined on a voluntary basis, into this reimbursement experiment. The hospitals vary substantially in size, from a major university teaching hospital (Strong Memorial) to several secondary community teaching hospitals. There is one chronic disease hospital (Monroe Community) and two small rural hospitals, Lakeside Memorial and Noyes Memorial, which are in rural areas of the overall metropolitan area. These hospitals also sit in two counties and they are serving a population of approximately one million people.

The Rochester Area Hospitals Corporation was formed in July of 1978. And in the spring of 1979, they began to take the first steps in designing what has become the reimbursement experiment. The Corporation consists of two trustees from each of the participating hospitals and from the University of Rochester, making a total of twenty votes on the board of directors. There are several major policy groups within the Corporation. The chief executive officers of the participating hospitals make up the Administration Committee. This committee meets on a weekly basis. As President of the Corporation, I chair that committee. And the chief executive officers, with me, develop and recommend policy for the hospital industry, which is then recommended to the various committees and to the board of the Rochester Area Hospitals Corporation. That is a unique and very exciting kind of activity. I'd like to repeat that, because I think you should keep in mind, for the State of Maine, the possibility of building a program that allows for the kind of leadership and participation of the industry on a voluntary basis. This program that I am describing is entirely nongovernmental, entirely voluntary, but in many respects we have worked in a cooperative effort with the State of New York to bring it about. What I have described for you through the chief executive officers' committee is a very exciting policy committee,

where the hospital directors meet on a weekly basis to evaluate policy for the industry.

The Medical Advisory Committee is made up of two physicians from each of the participating hospitals. They meet on a monthly basis. They have an executive committee that meets biweekly. And, as a group, they evaluate medical policy for the community. Both of these committees also participate in certificate-of-need review for new projects, as the Corporation is the first step in the certificate-of-need process in New York State. After these two committees review certificate-of-need applications, they are then forwarded to the Finance Committee of the board, and then to the full board for final review.

The fiscal directors of the participating hospitals also meet on a monthly basis to develop fiscal policy for the industry, as well as common data systems and the sharing of common information.

The board has several active committees. Perhaps the most important from the perspective of this proposed legislation is the finance committee of the board of the Rochester Area Hospitals Corporation. It's a very interesting committee in that its members are not all members of the board of the corporation. The membership of the finance committee of the board is made up of the chairman of the finance committee of each of the participating hospitals. So the board members from each of the participating hospitals who are the finance committee chairmen of those boards meet together twice a month to review fiscal policy for this corporation. They also participate in budget review of each of the participating hospitals and in financial analyses of each of the participating hospitals.

We have many other committees. We have just completed a very extensive community hospital planning process, where all the hospitals have jointly reviewed the capital needs and bed needs for our community through 1985 for medicine, surgery, obstetrics,

and pediatrics, with a committee structure made up of 85 people on 4 separate committees.

What I'd like to stress is the importance of a voluntary committee structure that allows for the participation of the industry in the management of the industry. All of this is possible because of the more rational nature of the reimbursement system, which Jack Cook described this morning.

I also would like to emphasize that the Rochester Area Hospitals Corporation is not a corporation which manages the hospitals. On the contrary, the combination of the kind of participation that occurs in this corporation, as well as the incentives in the reimbursement system, have led to greater management autonomy for the individual chief executive officers and their medical staffs. They now have a predictable income, they have a predictable climate within which they can manage, they have much more extensive data with regard to the performance of the hospital industry. And hospital boards are now in a position where they can more effectively evaluate management and more effectively evaluate the product of the industry. For the first time, they are working in a predictable environment.

The program that I'm going to describe is called the Hospital Experimental Payments program [HEP]. This slide depicts the cover of the Hospital Financial Management Association magazine, which featured this experiment in its issue of September, 1981. We refer to the experiment as HEP. As you can see, under the HEP program, as described on this slide, hospital expenses in Rochester are depicted by the yellow line. And you can see that, in 1980, hospital expenses increased in Rochester approximately by 10 ten percent; in 1981, just slightly over 10 percent. You can contrast that with the nationwide experience, which is the green line, and you can see that hospital expenses increased, in 1980, at approximately 17 percent; and in 1981, at 18.5 percent. Now, those may not sound like very significant differences, but let's

stop for a moment and keep in mind that the hospital industry in the United States is now costing somewhere in the range of $140 billion a year. The difference between 10 percent in Rochester and 18.5 percent in the nation is 8.5 percentage points of $140 billion, which translates into $14-15 billion a year--enough to finance the entire federal Medicaid program.

You can also see that the rest of the hospitals in New York State remain under very tight regulation. Many have been driven to insolvency. And yet their expenses are still increasing at nearly two percentage points higher than the Rochester hospitals. You can see from the blue line that the Consumer Price Index is now moving in a direction totally divergent from nationwide hospital expenditure increases, as well as from New York State and the Rochester hospitals. I was doing some quick mental calculations earlier, trying to picture where I would put Maine on this graph. My understanding is that hospital expenses in Maine increased approximately 15 percent in 1981, as compared to 10 percent in Rochester. The 5 percentage point differences, on a $400 million industry in the State of Maine, is worth about $20 million a year to the State of Maine, had the hospitals in this state performed at the same level as the Rochester hospitals. That's only on expenses. Had one thrown in revenue as well, the number would probably be substantially higher. So one might argue that somewhere between $20 million and $30-35 million a year might be saved if the hospitals in Maine performed on the same line as the Rochester hospitals.

Now, what are the factors that drove the Rochester hospitals into this program? And what are the factors that caused concern, both for the federal government and the state government? I'm sure that Carl covered these well in his presentation this morning, so I will go through this very quickly. This slide is one which you've seen variations of in the past--an effort to depict health expenditures as a percentage of GNP. We were designing

this experiment in 1979, when health care expenditures represented about 9 percent of GNP. We knew that the federal government was quite concerned about the red line, which essentially suggests exponential increases in the costs of health care from approximately 1960 to 1980. We projected that line out to 1990, and point "C" represents an anticipated percentage of GNP, if health care expenditures continue to increase at the rate that they have since 1960. Point "C" represents 15 percent of the GNP, which I'm sure would be politically unacceptable in this country. And if we find health care expenditures approximating 15 percent of GNP, we're going to see a very different health care industry in the United States. The yellow line represents movement of health care expenses in New York State, projected out as a result of New York State's regulatory efforts. And you can see that there is a substantial difference between the New York and the federal level. In fact, New York reimbursement has been so tight that it has resulted, as I indicated earlier, in insolvency for many New York State hospitals. Specifically in Rochester, in 1977, we had an aggregate loss among our hospitals of approximately $7 million. The trustees of the hospitals felt that this was not an acceptable way in which to manage an industry. We approached the State of New York, looking for a viable alternative to state regulation, particularly the type of state regulation which was initiated in Rochester.

The trustees were actually very straightforward in their presentations to the state. Basically, they said to them, why don't you just tell us how much money you're willing to spend in Rochester, give us the money, and go home and leave us alone. In essence, that is what has occurred. We established a revenue cap. And that cap is depicted by the blue line. Basically, you can see that we obtained slightly more revenue than would have been available to us on the yellow line. At the same time, we have substantially bent the green line, for the federal government, and assured them that the Rochester hospitals would perform

on that blue line. If our expenses exceed that blue line, we simply have to eat it. So that blue line is, in essence, our revenue cap.

I think that this slide was shared with you this morning by Carl. It basically tries to give you some perspective on why these costs are of such great concern to federal and state governments. You can see the ever-increasing percentage of expenditures of both federal and state governments for health care costs. Federal health expenditures are distributed in the following way, with 22 percent of total expenditures being for Medicaid and about 57 percent for Medicare (this was in 1980). I don't know how close this is to the budget in the State of Maine, but I'm told that, on average, in a typical state budget it's about 50 percent for health, education, and welfare; and between 12 and 15 percent for health care, predominantly the Medicaid program. So clearly the costs of health care have a profound impact on governmental budgets.

Realizing this, and realizing that we had to take different steps in Rochester, we began to design a new reimbursement experiment. I thought it would be useful to share with you a historical perspective on Rochester. This slide shows an advertisement run in a local newspaper in 1966. At that time, the hospitals reported that they were able to provide all the necessary care to the community for approximately $36 million. This ad was run four days before I started my internship at Strong Memorial Hospital in Rochester. And I always find it interesting to look back on it, because I chose the University of Rochester for my internship because of its reputation as an excellent medical center. And I assumed at that time that it offered a full breadth of services that would provide me with the best education and would meet the community's needs. It's interesting to look at this in some perspective now. As you can see, there were approximately two million laboratory tests performed in Rochester in 1966. And

there were about 6000 employees. This is the same graph that I showed earlier, and I simply superimposed the $36 million figure on the health care expenditure growth line to give you some sense of the impact of these inflationary factors on health care expenses. One can simply take the $36 million, put it at the 1966 point on this growth curve, and move up to the point of our negotiated revenue cap in 1980, which was $275 million. And you can see that, over the fourteen-year period, health care expenses in Rochester moved from approximately $36 million to $275 million. That movement is, in fact, a description of the movement of health care expenses in what is viewed as one of the more tightly planned health care communities in the country, where we have 3.2 acute beds per thousand and relatively high occupancy levels and relatively efficient hospital industry. You can imagine, therefore, what these numbers would look like, for example, in Birmingham, Alabama, where they have over 9 acute beds per thousand population. It gives you some insight into the nature of the problem we're facing.

Now, the reimbursement experiment that we designed was really rather straightforward. Jack Cook has already described it for you. We began with the hospitals' 1978 actual costs, developed a trend factor that would anticipate inflation, added a small amount for working capital, made adjustments for certificate-of-need projects, and came up with a projected revenue cap for the total community and individual revenue caps for the hospitals themselves.

Now, what's important about this system is that when one puts in place a prospective revenue cap, one changes entirely the incentives under which the industry functions. Those incentives are changed because, historically, if one reduces one's costs, one reduces one's revenue. In this system, if one contains costs, it does not affect the revenue; one is able to keep the entire difference between expenses and revenues. Secondly, hospitals, as you know, produce units of service.

And as long as revenue is tied to units of service, there are profound incentives to expand those units of service. Under this system, with the revenue being predictable, there are powerful incentives to evaluate the appropriateness of units of service--whether they be admissions, length of stay, ancillary testing, or other components of the hospital industry.

This slide simply depicts the way in which the community's overall revenue cap is calculated. I'd like to stress that, in addition to there being a revenue cap on operating revenue for the hospitals, we do have the contingency fund about which Jack Cook spoke. The contingency fund represents two percent of the revenue cap. The revenue cap is now approximately $300 million, so it's a $6 million annual fund. That contingency fund is used to pay for volume adjustments. It's also used to pay for the net operating expenses associated with new certificate-of-need projects. Now, that's a very important point, because what it means is that there is a revenue cap on the amount of operating expenses which can be added to the industry each year as a result of new projects. So not only is there a cap on operating revenue for the existing industry, but there is a cap on the level of expansion that can occur each year. Now, within the Rochester Area Hospitals Corporation, the hospitals together review each other's certificate-of-need projects. And they know that when they approve a project, they are drawing down on the amount of money that is available to add to operating expenses for the community in a given year, which means that they are each very concerned about the programs that are added, and that they are willing to sit around together and analyze the appropriateness of these new services and the need for those new services in the community.

I'd like to change direction now. You've heard a lot today about overall approaches to reimbursement of the hospital industry as well as overall concerns about hospital cost containment. I'd like to emphasize what I consider to be the second most important

point in the Rochester program. The first is voluntarism and the ability of the hospital industry to come together, to join with government, and to join with payors in addressing the problems. I think that's of critical importance. It's in the interests of physicians and hospitals and government and the payors to curtail the rate of increase in hospital costs. It is the only way, in my opinion, that we're going to maintain a voluntary industry in this country. And it's the only way that the poor and the aged and the patients who need medical care are going to have care available to them at an affordable level. So we all must join together. We cannot view ourselves as adversaries. The patients do not view us as adversaries; they view us as in bed together. And that's exactly where we ought to be, working on their behalf. So I stress that. And I hope that the legislation that is introduced in the State of Maine will create a climate that allows for the joint participation of all parties in the active implementation of the program.

The second important message that I'd like to share with you today has to do with the nature of hospital management. If one is to understand what is driving hospital costs, one needs to look more carefully at the functions of a hospital. Clearly, hospital costs in this country have been driven by overall inflation. And there is not a lot that hospitals can do about that. Hospital expenses are also driven by capital needs. And to the extent that there is a viable certificate-of-need process, and to the extent that the industry cooperates in a voluntary effort to assure that there is appropriateness in that process, capital costs can be relatively well contained. However, the other interesting factor that is driving hospital costs is resource consumption per case. And resource consumption per case is in fact a rather pretentious way of talking about medical practice, which is what I would like to discuss for the next several minutes.

This slides looks at laboratory testing in two common diagnostic entities. It's drawn from a report that was published by the National Center for Health Services Research. And as you can see, the average patient with acute appendicitis, admitted to a community hospital in 1951 in the U.S., had approximately five laboratory tests. The average patient admitted to a community hospital in 1951 for a routine delivery had approximately five laboratory tests. In 1971, that number had increased to 30 for the average patient with acute appendicitis, and to 14 for the average maternity case. I do not think that there were significant biological changes in these patterns of illness during that period, but there were significant changes in the nature of medical practice. I also do not mean to suggest that this movement is necessarily inappropriate. What I would like to suggest is that it is imperative that, when this movement occurs, someone knows about it. If a chief executive officer, the president of the medical staff, the medical director, the chief of medicine, the chief of surgery, the chief of pediatrics--if they are not aware of these trends, and if these kinds of trends are not the very essence of the management of hospitals, we will not effectively curtail the rate of increase of costs; nor will we, at the same time, assure that quality medical care is being provided.

I am often asked the question: If one introduces a revenue cap, will that contribute to the deterioration in the quality of medical care? The most honest answer that I can give to that question is: Who would know the difference? On what basis is the quality of medical care now monitored? What do any of us know about the performance of the hospital industry? What do we know except subjective interpretation? What do we have except very minimal monitoring of utilization review? Why is utilization review looked upon as something that is external to the management of the hospital, as opposed to the very essence of the nature of the management of hospitals? What I am suggesting is that, for hospital management to be effective, we need

clinical managers, we need physicians who understand the importance of resource consumption, both in terms of costs and, more importantly, in terms of the quality of medical care.

Another example is laboratory testing. As you can see, in 1977, there were five billion laboratory tests performed, at a cost of eleven billion dollars. This is doubling every five years in the United States. And it is one of the key factors driving hospital costs. I would add, parenthetically, that that newspaper ad which I shared with you earlier suggested that there were two million laboratory tests performed in Rochester in 1966; in 1980, one of our community hospitals performed two million laboratory tests, just fourteen years later.

Perhaps another way of looking at what I am suggesting with regard not only to cost containment but to the quality of medical care is to analyze the nature of hospital management. This slide projects a hypothetical hospital with inpatient costs of $20 million. Those inpatient costs are derived from 10,000 admissions, at an average cost per admission of $2000. The average cost per admission of $2000 is derived from an average length of stay of 7 days, and an average daily service cost, for hotel services, of about $225, plus the average number of ancillary units--whether those be laboratory tests, x-rays, drugs, physical therapy, EKG--times the average cost per ancillary unit, of $17. It's a very straightforward picture. But what I would like to suggest to you is that our traditional view of hospital management is that the chief executive officer can in fact effectively curtail the rate of increase in costs. And yet, in reality, if we want our chief executive officers to be concerned about costs (or, on this slide, to be concerned about the green), you notice that the green represents only three of the six critical variables in these equations. The other three are in the white coats. Physicians and other professional staff have a very significant impact on the number of admissions, the average length of say, and the average

number of ancillary units ordered. And it is very clear from these equations that those are critical factors in driving total costs. If the professional staff is not involved in planning, budgeting, and monitoring of the hospital, it cannot be a managed hospital.

This slide is simply to reinforce that point, as does the next.

In the reimbursement experiment which is now functioning in Rochester, we tried to address these issues. We do not attempt to manage the hospitals by any means, but the hospitals have asked us to prepare community-wide clinical and financial analyses, so that they can share with each other the impact of the provision of care in their own institutions. We are now in our third generation of these analyses. And this year we will be combining these two; we will no longer provide hospitals with individual clinical and financial analyses. We will be combining them into what we are calling an integrated analysis. Because, in the last analysis, one has to fully integrate clinical and cost information, if one is to understand the nature of the hospital industry. In fact, the outcome of the integration of clinical and financial information leads, for the first time, to the definition of the product of this industry. Once we have a clearer understanding of the product of the industry, perhaps we can evaluate its quality, its effectiveness, and the cost of producing it. It is that direction that we are moving in.

The goal, then, ... as a part of the reimbursement system... and I would strongly urge that in the State of Maine you consider this as a part of your legislation ... as a part of this reimbursement experiment, the hospitals have agreed to share financial and clinical data, so that we can in fact build a common language for the management of the industry. Without this common clinical and financial language, all of us concerned about the industry will remain ignorant and unable to understand it. We have committed

ourselves in Rochester to building a language so that, for the first time, physicians, chief executive officers, businessmen, and government leaders can speak to this industry with an understanding of the product of the industry.

These ideas are not at all new. They were first suggested by Dr. Codman, who was the medical director of the Massachusetts General Hospital in 1913. He presented these ideas in an address to the Philadelphia Medical Society in a paper entitled, "The Product of a Hospital." He was subsequently fired at MGH. And these ideas have never been accepted, to my knowledge, anywhere in the United States. I think it's very unfortunate. I don't know how many of you are familiar with the Flexner Report, which was critical in changing the nature of medical education in the United States, in that it, for the first time, stressed the importance of the biomedical sciences as a basis for medical education and brought about very substantial changes in the quality of medical education. It is tragic that Flexner and Codman did not get together and provide a balanced perspective on the importance of the biological sciences with epidemiology and statistical evaluation of the nature of the product of the industry.

What I have here are typical reports provided to hospital boards by the big eight accounting firms. One is from Peat Marwick & Mitchell, another is from Arthur Anderson, and maybe the last is Price Waterhouse. The only reason I show you these is to remind you that hospital boards frequently go through a ritual in their annual meetings of hearing about the audit and hearing about the financial status of the hospital, and feeling somewhat relieved if there is an operating margin. And then usually, after a few drinks, they go home. I'd like to suggest to you that if the annual meeting does not include a clinical audit, if you do not have as a hospital trustee a clear perception of the quality of the product being produced by your hospital and the cost of producing it, you are not really being given an

audit; you are simply being given a traditional financial statement, which really grew out of the history of the Internal Revenue Service and its relationship to corporations, as opposed to the tax-exempt needs of hospitals and the needs of patients as citizens.

Therefore, I would like to reinforce the importance of a data base. We are now in the process of completing the development of what is probably the largest hospital data base in the United States. We have all medical abstract data from all admissions to all of our hospitals. We have patient billing data, financial and statistical data, and wage and salary survey data. We are now able, through computer programs, to fully merge all of this information so that we can generate management reports that will allow chief executive officers and physicians to function as managers in this industry. We are able to produce a variety of reports: cost per DRG, case-mix-adjusted length of stay, case-mix-adjusted cost per case, physician information reports, and so forth.

This is an example of a hospital product. This happens to be a relatively uninteresting and not very glamorous product, but it is a product nonetheless. This is an inguinal hernia. As you can see, this is DRG #198 [diagnostic-related grouping]. This particular slide depicts 234 inguinal hernias, with an average length of stay of 3.7 days. As you can see, one can look at the direct, indirect, and total costs for producing this product. And one can look at it across relevant departments: level of laboratory testing, diagnostic radiology, etc. It is this level of insight and variations in the cost of production of products that is imperative if we are to understand not only costs but the quality of medical care. It is through this kind of information that we found 7 percent variations, between 10 and 17 percent, in the frequency of Caesarean sections in our community; variations in the frequency of hysterectomy rates among institutions; variations in the cost of laboratory testing among major diagnostic entities. These reports are generated constantly for our hospitals, with

the hope that they will lead to better quality medical care at the most reasonable cost.

I would add that we do not have any physician information in our data base. We are able to describe the costs of provision of care by physician, but we do not know physicians' names, nor do we ever want to know physicians' names. But we do indicate to hospitals that there are substantial variations in practice by physicians, as depicted through this kind of data system.

We have found, for example, in a recent certificate-of-need process, one of the institutions requested a renovation project with an approximate cost of $40 million. The institution felt that they needed, as a result of that renovation project, to continue to operate approximately 275 beds. We reviewed the data and suggested to them that, based on their occupancy levels as well as their length of stay, case-mix-adjusted by DRG, that we did not think they needed 275 beds. In fact, we were able to suggest to them that, if their average length of stay for case-mix-adjusted DRGs had been identical to the best hospital in Rochester, they would immediately have gained 40 beds--simply by reducing their length of stay, case-mix-adjusted. On the other hand, we suggested that if they simply performed at the community average, they would have gained 25 beds, case-mix-adjusted. That's one example of the way in which community-wide data can provide insight into the nature of medical practice and hospital management. When the hospital followed up, they found that there were very few diagnostic groupings within which the average length of stay was out of line. Once again, there were very few practices involved. It was interesting that we also found that laboratory testing was excessive in the same areas. And we also found that the stay of patients who were requiring nursing home care was excessive in the same areas.

So I would like to suggest that, the more we understand the system and the more we understand the data, the better we'll be able to manage these institutions.

These slides simply show clinical and financial analyses of the sort which we produce. This is a type of financial analysis. Hospital A is a hospital in Rochester. Here we're looking at comparable costs among our institutions. We do the identical analysis for each hospital, with the fiscal directors of all the hospitals having agreed on the methodology and having agreed on the comparable nature of the statistics we're using. As you can see from this particular slide, if you look at laboratory testing per net admission, the one full-time-equivalent employee in Hospital A in Rochester produced 152 tests, whereas in the Maryland market basket comparison (and we use a group of hospitals from the Maryland data base for comparability in some of our reports), one hospital employee produced 255 tests. So it appeared as if we had a production problem in this hospital. We then looked at total expenses. And in Hospital A, laboratory expenses per admission were $156, compared to $85 in the Maryland market basket. And when we put the Rochester line on here (which is not on this slide), the Rochester average was about $93. Hospital A pursued an analysis of its laboratory as a result of this study. And in a two-year period, it reduced overall laboratory costs by $700,000. The hospital's operating budget is about $50 million, so $700,000 was not an inconsequential savings in that hospital budget. Once again, because of this reimbursement system, by reducing that level of expenditure, they kept the entire savings.

I think I'll stop here and answer any questions you might have.

MacBRIDE: I wonder if you would explain a little more just how these hospitals in Rochester decided to get together. Why did they get together? What was the instigating force? Also, were those hospitals competitive before for services and specialties? My other general question is about the impact

on the quality of service to the people of the area. Did they feel that this new system of reimbursement and a cap would affect the quality of the services?

BLOCK: There has been a recent good history of cooperation among the hospitals in Rochester. We've had relatively good hospital planning for the last 20-25 years. And it certainly contributed to the willingness of the hospitals to work together. In addition to that, I think a very significant factor was the very difficult and capricious reimbursement climate in New York State, which, as I indicated, led to an aggregate $7 million loss for the hospitals in Rochester in 1977. That gave them substantial impetus to look for a better answer. I think it is not as compelling to many hospital industries throughout the United States to join in this kind of system, when one looks at the existing revenue levels for hospitals. I think, however, that it behooves the hospital industry in any state in the U.S. to be very concerned about the level of hospital expenses that we're seeing in this country, because I am convinced--and I think many others are convinced--that unless we find a way to more adequately control the rate of increase in hospital costs, we're going to see ultimately drastic changes in the voluntary hospital system in this country. Also, I would like to stress that, although many people view cost containment as inimical to quality medical care, I don't think that there is very good evidence to substantiate that position. On the contrary, it seems to me imperative that hospitals and doctors begin to learn more about the products of the hospital before they take that position. If anything, there is profound evidence that the most costly care may not be the best care.

Your second question, I believe, had to do with the revenue cap and whether a revenue cap would undermine the quality of medical care. I think only in the most severe circumstances

would that be obvious. And I can't stress strongly enough that none of us know very much at all about the quality of our medical care system.

I can give you a vignette that will perhaps give you some insight into what I mean. We have a very fine medical school in Rochester. And when we began to get our first reports out of the community-wide data base, as a pediatrician, I was interested in looking at some of the pediatric profiles. And I was looking at the tonsillectomy rates in Rochester. I was fascinated by the fact that Medicaid patients in our community had many fewer tonsillectomies than the average child that was reimbursed through Blue Cross. I took those reports to the professor of pediatrics at the medical school and sat down and talked with him about this. As he was looking at the first report, he said to me, I can't believe that we did 1200 tonsillectomies in Rochester last year! I think many of you probably know that pediatricians do not readily support tonsillectomies, and that there is an ongoing struggle between pediatricians and general surgeons and others with regard to the performance of tonsillectomy. He was quite distressed to realize that 1200 tonsillectomies were performed in the community. That was a little awkward for me, because he sort of ran ahead of the discussion--in that I had to point out to him that this report was only on three hospitals, not nine. Now, the importance of that story is that he is the professor of pediatrics in the community. He meets with most of the pediatricians on a regular basis. He is responsible for the major educational programs for pediatricians in the community. And he had absolutely no idea how many tonsillectomies were being performed in the community. Nor did he know anything about the nature of those tonsillectomies. Nor did he have any insight into morbidity or mortality or cost associated with that particular disease. And that's not to suggest that he wasn't doing his job. Nor is it to suggest that he knows any less than anyone else. The fact of the matter is that

we know very little, because it has not been the nature of hospital management, nor has it been the nature of the defined responsibilities of medical staffs and physicians, to be familiar with this kind of information.

Dr. Codman suggested, in 1913, that we should know something about the product of our industry. We still do not. So it's very difficult to respond to your question about the quality of medical care--except to say that overall statistics suggest that medicine is doing something right in this country and things are going very well. My own impression is that the quality of medical care in the United States is very high and we have many excellent doctors. But at the same time, it's imperative for us to monitor what we're doing, if we're going to control costs and also control quality.

NELSON: Earlier a question was asked of Dr. Schramm about why he thought that this Rochester experiment was implemented and didn't need legislation but was done without legislation. Perhaps you might address that question, since we are now wrestling with the thought of legislating this kind of hospital cost containment?

BLOCK: I think that Jack Cook made the point that, in some respects, the Rochester hospitals were responding to existing legislation in the sense that they were suffering as the result of the reimbursement climate in the state. I really don't feel that I can speak to the issue of whether legislation is required or not. It seems to me that legislation would probably be helpful, in that it would create a common understanding among all parties, including government, of the nature of what is to be done. I think one of the fine things that has come out of the Maryland experience is that the Maryland Cost Review Commission had enough wisdom to implement a program in a cooperative manner with the hospitals and with the payors. It seems to me that whether or not you have legislation is not nearly as important as the

attitude with which the state pursues this critically important problem. I can't stress enough my belief that it should be done in such a way that there are positive incentives for the industry to curtail costs and maintain the quality of care, as well as positive incentives for government and the industry to act together on behalf of patients--as opposed to creating an adversarial climate, which I feel would not succeed and would ultimately not be in the best interests of patients in the state.

NELSON: Could you be very specific as to what you believe to be positive incentives?

BLOCK: I think positive incentives are incentives that are consistent with good management and with the professional objectives that hospital chief executive officers would establish for themselves, and consistent with the kind of professional objectives that physicians should establish for themselves as providers of medical care. They should not be regulated with artificial and rather capricious constraints on their behavior. On the contrary, the system should be designed to bring about the best of professionalism. I think that prospective reimbursement systems can do that, creating in essence a neutral reimbursement climate that allows people to perform at their best, as opposed to encouraging people to circumvent existing regulatory patterns.

NOTIS: Putting it in a cruder way, would you say that the fact that hospitals are allowed to keep the reductions in expenditures acts as a positive incentive? In other words, if they can operate more efficiently, they are guaranteed so much revenue. Isn't that really what they're responding to?

BLOCK: I certainly think that would be one of the positive incentives. It would not make a great deal of sense for a chief executive officer to curtail expenses, if, as a result, revenues

would be reduced. That is unfortunately one of the perverse incentives that exists in the traditional system.

DYER: These systems are intended to induce hospitals to improve operating efficiencies, of course, through such things as reduced admissions and reduced length of stay. However, it is MDs that determine and control patient care decisions. If they have no financial stake in this, how are they intended to function in this atmosphere and how do they accomplish what is intended?

BLOCK: Again, I would stress that one of the unfortunate attributes of the management of hospitals that has evolved in this country is that physicians have been left out of the management team and do not have a direct responsibility for resource allocation within hospitals. It's not only unfortunate in its impact on hospital costs but it's even more unfortunate in its impact on the knowledge of the quality of medical care. I cannot stress enough the importance of having doctors involved in the analysis of clinical and financial information within hospitals. After all, it's the very essence of professionalism. If you are a physician and you spend most of your working life practicing medicine, you should know something about the quality of what you're doing relative to others and the nature of what you're doing. I'm not suggesting that financial incentives are not important for individual physicians. They are important. But professional incentives are even more important from the point of view of patient care. And we need to strengthen the concept of clinical management within hospitals, if we want to bring about the most appropriate incentives, which are professional ones. What is the quality of the care we're producing and how much does it cost--regardless of how a physician is being paid to produce it? That's not to say that physician reimbursement is not an interesting and difficult issue. But it's not the topic under discussion.

DYER: It fits in with the concept of prospective reimbursement, does it not, in that we hope that the physician also will help to constrain costs?

BLOCK: It could. It is a much more complicated activity to begin to entertain new reimbursement systems as they relate to professional fees. And there have been very few that have been successful, other than organized HMOs and IPAs. I don't think we want to pursue that today.

MANNING: To follow up on that, was there any pressure put on by the private sector in Rochester, which the other two speakers mentioned, where it really affects their profitability when their Blue Cross rates are going up, as are their Worken's Compensation rates? Were there any pressures put on by them to the Rochester group?

BLOCK: I would not say that there were pressures per se. I think that that was perhaps overstated in terms of the motivating factor. My impression of business leadership in Rochester is that they have been very enlightened, to the extent that they have participated in trusteeship at the hospital level and at the level of the Rochester Area Hospitals Corporation's board. They realize that it's in the best interests of local industry to have a viable, solvent, excellent hospital system. That's good for their employees. They also realize that it's good for their employees to have the most cost-effective system, because it means that people are going to have more take-home pay when they have to pay less for benefits. So they have contributed to leadership in Rochester. There's no question about it. But it's been a very positive kind of leadership, as opposed to negative pressure or regulatory environment. The message that I would have for the average businessman who is concerned about health care costs is, if they sit on hospital boards, or if they have colleagues who sit on hospital boards,

they ought to begin to act like businessmen. It seems to me that what we're trying to suggest to you is that this is an industry that can be managed. It's an industry whose product can be defined. It's an industry whose costs can be understood. It's an industry for which the quality of the product needs to be better understood. And industry knows a lot about doing that. And it's about time that businessmen who sit on hospital boards begin to take that seriously. That's what has happened in Rochester. We're learning from industry. They're learning from the hospital industry.

MANNING: Are you familiar only with Rochester, or are you familiar with Maryland, for instance, at all?

BLOCK: Not in any great degree. I've visited quite a few hospitals around the country.

MANNING: Rochester is a smaller area, compared to the State of Maine. I'm wondering if in the other states... When we start dealing with this, we've got to look at the fact that if we're going to get some flak from the hospital administrations (which I understand from the Health Facilities Cost Review Board that they're being picked apart already). What I'm trying to do is to find allies to go up against the hospitals, because the hospitals in this state have a pretty powerful lobby in the legislature. I'm just wondering... I hear businessmen talk about it, but, as you said, they probably really don't understand it or don't do anything about it. They talk about their Blue Cross going up, their Workmen's Compensation going up, but they don't really attack what are the issues. I'm just wondering whether there was any pressure in Maryland, in New Jersey, by the businesses of those states to help curtail costs.

BLOCK: I really can't speak to the history of those programs. I can't answer that question, but I think if you're running into resistance from the industry, it's just going to take more jawboning. In my opinion, it requires a constant effort at redefining one's own self-interest. And if the hospital industry thinks that it's in their self-interest to have expenditures increasing at the rate of 15 percent a year, and revenues at perhaps 17 or 18 percent a year, they're sorely missing the point. The industry will be destroyed by that. It's not in their interest. They will be regulated by the federal government or the state government ultimately, to a point that will be intolerable. In addition, there is no clear evidence that expenditures at that level are necessary to provide quality medical care.

McCOLLISTER: You said that if this system was in place in Maine today, we'd save $20 million. Who are those who would not be receiving that $20 million? Is there any group of industries or segments of the population? Is it pharmaceutical companies? Where does this $20 million go that we don't need to spend? Who's getting it?

BLOCK: There ultimately should be a reduction in expenditures for the Medicaid program, which certainly would impact on state expenditures and ultimately on taxes, I would assume, if things are done in the State of Maine as they are in the State of New York. So that it should benefit the average taxpayer, to the extent that Medicaid expenditures are controlled. Conversely, to the extent that there are continual reductions in the availability of federal funds for the Medicaid program, it could protect low-income citizens in this state, to the extent that one has additional incremental money to maintain existing benefits that you might otherwise have to cut with reductions in federal

expenditures. So I would think that, at least with regard to Medicaid, one could anticipate possible alleviation of state budget problems and/or protecting low-income citizens who might lose benefits. With regard to Blue Cross, one could also anticipate slower rates of increase in premiums as a result of these programs. There would be a reduction in Medicare expenditures. Those would not have an immediate direct impact on the State of Maine. It would relieve the federal burden and it's very difficult to extrapolate on what the implications of that would be. But, overall, it seems to me that the most important benefit of bringing this kind of program into place is that it should contribute to stabilizing the hospital industry, contribute to its long-term solvency, and hopefully contribute to maintaining a hospital industry in the State of Maine that's affordable for the average citizen over time.

McCOLLISTER: I agree with what you're saying, but you cannot pinpoint as to who is now getting this money, who will not be getting it in the future? In your own area, who didn't get the money that you saved? Who would have gotten it if you hadn't done this?

BLOCK: I think, had hospital expenses increased in Rochester at a greater rate, the hospitals would have received additional money and there may well have been additional utilization of services that was not the case in Rochester in this past year. So there may have been additional increments of service provided, as well as additional money flowing to the hospitals.

NOTIS: Your experiment in Rochester has shown that hospitals will respond to positive incentives. Are these incentives strong enough in Rochester (can you tell yet?) so that the hospital administrators have become aware that they have to influence, by training and making physicians aware of what's going on--has it been shown yet in your

experiment that the hospitals' administrators are now changing the behavior patterns and the practice patterns of the physician community?

BLOCK: I think there is no question that an awareness of medical practice is very substantially higher than it was prior to the experiment. And there is much greater discussion within the hospitals of the importance of the analysis of medical practice as a part of managing hospitals. We are now seeing the beginning of experimentation in new forms of hospital management that have begun in the last six months, testing new approaches to planning, monitoring, and budgeting hospital departments that result in the utilization of much more merged clinical and fiscal information.

WIHRY: I'd like to follow up on Representative McCollister's line of questioning. I think the issue he was raising is that the benefits from this kind of program have been fairly well spelled out for us today. As a politician, I think he's concerned about who's going to get hurt. And there are several aspects to that. One is whether the patient is going to get hurt--in the sense of having lower quality care, once he or she gets into the hospital. Another question is whether access to hospital services has been limited, so that there are people who otherwise would be getting hospital services who are now denied those services. The aspect he is questioning, I think, is whose income is reduced as the result of this kind of a program. It seems to me from what you and Jack have said that a lot of the savings comes from a reduction in the use of ancillary services. And I think it's the income of manufacturers of testing procedures, kits and so forth, who are probably affected by that. I think that's the kind of question he was getting at, because that's ultimately what is going to determine the political

feasibility of this kind of program, if a statutory approach is required, which I think it probably will be in Maine. So I would ask again that question from the same point of view.

BLOCK: I had attempted to answer it before. I will try again. I think, first of all, who's getting hurt is sort of an overstatement. One person's hurt is not necessarily another's. We're talking about relatively marginal and modest changes because the base is so big. You're talking about a $4-500 million base in the State of Maine. Every percentage point difference is a substantial amount of money. So we're talking about very modest changes that should not be too painful. Secondly, it seems to me that the first consideration when you're talking about health care should be the patient. And if we have any concern at all about hurt, that's where we should begin. We need to be concerned when laboratory testing is doubling every five years. We need to ask some questions about whether or not that is in the best interest of patient care. We simply don't know. And, at a minimum, the hospital industry has a responsibility to answer that question. It seems to me that the government of the State of Maine has every right to ask the question: What do you know about resource consumption in the hospitals? How are you monitoring it? And are you sure that this ever-increasing level of resource consumption is in the best interest of patient care? Those are reasonable questions for government to ask, if you're concerned about hurt. Now, clearly, it is possible that a revenue cap program could reduce access. But I think it's highly unlikely. I think it's extremely unlikely that such a system would be abused by the industry and could not be appropriately monitored by the industry. If anything, one need not talk about very substantial reductions in admissions, as opposed to simply reductions in length of stay. One may talk about changes in admission patterns and doing more in outpatient and less in inpatient. But I don't see any significant change in the willingness of hospitals to provide

access to care. I don't really think, from my perspective, after working on this for several years, that anyone involved in the situation is wearing a black hat or a white hat. I don't think there are good guys and bad guys. I think we're all victims of a very archaic reimbursement system that has unfortunately had perverse incentives in it. And I think we're all victims of an unfortunate approach to hospital management that has left the professional staff ignorant of the nature of medical practice--both the chief executive officers and the physicians. And that has to change. To the extent that we change the reimbursement systems and that our managers are no longer ignorant of what they're doing, the quality of medical care in our communities will improve.

WIHRY: One of the initial responses from the industry to our proposal was to raise the spectre that, because hospitals would have to work within a budget, by December they would simply be turning patients away, having run out of money. I take it that is not happening in Rochester and I'd like you to tell us what it is about your system which prevents that sort of thing from happening.

BLOCK: When people hear about change, their initial reaction is to resist it. Frequently, in the course of that reaction, they may overstate their concerns or their anxiety. I would anticipate that would be the case in Maine. I certainly would be quite surprised to see hospitals turning away patients in mid-December--if for no other reason than that most of them don't complete their audits until March and may not know they were that far behind. We simply have not had that problem. And I don't anticipate that it would be a problem here.

CLUCHEY: Dr. Block, you were asked about the involvement of business in the implementation of hospital rate controls. What about Rochester? What was the business involvement in the implemen-

tation of the Rochester reimbursement system?

BLOCK: The business involvement was entirely through hospital trusteeship. People from the leading corporations are represented on various hospital boards. They certainly provided the leadership to those hospital boards in bringing about the Corporation and in support of the reimbursement experiment. Once again, the message is not complicated. It began with the financial vice president of one of the large companies who was the finance committee chairman at one of our large community hospitals. It happened to be a community hospital that had a very competent fiscal director. The only problem was that the fiscal director spoke a language which was incomprehensible to the finance director of one of our major corporations. This gentleman simply said, I'm not going to be willing to live in this kind of environment. If I'm going to be chairman of the finance committee of this board, you're going to make hospital finance comprehensible to me. If I can run a multi-billion-dollar corporation, I can understand this $50-million budget. And that was the beginning of a business rebellion. It was the beginning of saying that there must be a way to understand this industry, and that we cannot hide behind the principles of Medicare reimbursement, or the idiosyncracies of penalties as they relate to occupancy levels, or whatever it might be, to avoid more stringent, more thorough internal financial planning and budgeting and the introduction of more appropriate industrial approaches to corporate planning, and to the analysis of the nature and quality of the product being produced.

KETOVER: We've been talking about costs of hospitals, but I don't think anyone has mentioned the cost of doctors' fees and the competition that has been going on amongst doctors. We have been told that there is definitely a glut of doctors. Have incentive programs and fixed fees been implemented in the Rochester program? I know we'll be discussing doctors later on, but since you're here,

maybe this would be an opportunity for you to give us some input on that.

BLOCK: We do not have a program that relates to physicians' fees specifically. We do have several HMOs functioning in the community. We have three group-practice HMOs and a rather substantial IPA, which are forms of prepayment that do impact to some extent on physicians' fees. But we do not have an overall experiment involving physicians' fees.

BUSTIN: I may have been getting the wrong message, but, referring back to Representative McCollister's concern about who's getting hurt, it doesn't seem to me that anybody is getting hurt. If I remember one of your charts, I think what you were talking about were economies of scale--the higher number of examinations that were being made at one hospital at a lower cost. Isn't that economy of scale and isn't that what we're talking about? And if you're talking about economies of scale and cost/benefit ratios--which I really resent applying to human needs--then you really are serving more people at less cost. Is that correct? Am I getting the right message? Is that what is happening in Rochester?

BLOCK: We may very well be serving more people. That's possible, yes. I'm not suggesting the kind of strict cost/benefit ratios that one normally introduces when one considers rationing. On the contrary, it seems to me that another imperative reason for the hospital industry and the medical profession to join in efforts at cost containment is to avoid rationing. I'm appalled at discussions of rationing that I'm already hearing in this country in the suggestion that we're not going to be able to provide needed care to everyone and we're going to have to choose who shall get care and who won't. It seems to me that that's real hurt. That's tragic and that's unnecessary. The challenge to the hospital industry and to physicians is to learn to be prudent

providers of medical care, to protect the patient, as opposed to allowing any of these precious dollars to be wasted on frivolous activity.

NOTIS: I think you referred to an "archaic" reimbursement system that is in existence. I'm not going to defend archaic systems, but weren't they designed to accomplish a specific purpose, which may have been fulfilled and are no longer needed? As I understand it, what they were trying to do with those reimbursement systems was to improve access and "quality of care." It seems to me that probably now society is asking, How much can we afford? And do we have enough access and enough quality?

BLOCK: I think that the concept of insuring for hospital care is a critically important one. That's what was introduced in this country by common agreement that the risk of hospitalization was such that it required a pooling of funds to insure the average citizen that their bills could be met. I have had no problem at all with the concept of insuring and did not intend to suggest that that was archaic. However, the technical methodologies that have resulted in the implementation of the flow of payments from various payors, I believe, are today out of date and should be altered. It is those technical underpinnings of the insurance concept that the legislation being proposed for the State of Maine would address. It seems to me that there are more positive incentives that can be introduced, and real benefits that can be gained from prospective payment and predictable revenues, as opposed to retrospective payments as well as inequitable cost distribution among payors that have existed for many years.

MANNING: It's been addressed by a couple of the nursing home people in my area that the state has already gone into the nursing home area prospectively. This is a minor point, but do you find that

the nurses in the Rochester area tend to go more to the hospitals rather than the nursing homes? In other words, what I'm hearing is that there are problems because the hospitals pay more than the nursing homes. And there is a critical shortage now in the nursing homes for nurses. Can you address that?

BLOCK: I think it is true that, in the average situation, nursing staff will receive a higher level of compensation in hospitals than in nursing homes, assuming they're at the same level of training and experience. The problems in the nursing home industry, however, are extremely complicated. I'm sure you're aware of that. We are just now beginning to address the problems in the nursing home industry in our community. I would anticipate that, if you are able to implement progressive legislation here with regard to hospitals, you'll be back here in a few years looking at long-term care, because I think it's probably the most serious domestic social problem that we're going to be facing. We anticipate very serious difficulties in maintaining adequate care for the chronically ill and aged, even in our own community. We are just beginning now to redesign the reimbursement system in long-term care.

KETOVER: Could you explain the geriatric evaluation team? That's something we would be interested in.

BLOCK: Geriatric evaluation teams were started in the Rochester hospitals this past year. I would add, parenthetically, that, as I indicated earlier, we do have a contingency fund which is equal to two percent of the revenue cap. Half of that contingency fund is used to pay for volume adjustments and for expenses associated with new certificate-of-need projects. The other half of the fund is available at the direction of the board of the Rochester Area Hospitals Corporation to address relevant issues in the hospital community. During this past year, we used funds from the contingency

fund to introduce geriatric assessment teams in each of our hospitals. We did this because we have a serious problem in the community with what we call the back-up of long-term care patients in hospital beds, who should be at lower levels of care--either Skilled Nursing Facility or health-related facility or home care. And we are unable to place them rapidly because of what is viewed as inadequate Medicaid reimbursement in the long-term care industry. We also have found that patients awaiting placement in long-term care tend to deteriorate while they're in the hospital, unless very aggressive rehabilitation steps are taken very quickly. So we introduced the geriatric assessment teams to identify patients as quickly as possible who have the potential for becoming long-term care patients or back-up patients, and to move quickly to discharge them to home care or more appropriate levels of care, or to introduce rehabilitation programs. Those teams consist of a physician, a nurse, a social worker, and perhaps other allied professional personnel in each of the hospitals. They have proven to be very effective in bringing into focus some of the subtleties of the geriatric problems that are implicit in good hospital management. Once again, the availability of the data base and the willingness of people to analyze the nature of what is occurring in the hospital contributed to a willingness to establish these teams. I would just add that, although I am President of the Hospital Corporation, during the past year I have probably spent half of my time focusing on new directions in long-term care and initiating the design for a new reimbursement system in long-term care, because we view it as such a critical problem.

GILL: Dr. Block, I appreciate your taking all these questions. At this time I'm going to ask Dr. Carl Schramm to present a few figures he has developed which will explain cost per case, so I'm going to turn it back to him.

SCHRAMM: You will recall in my remarks earlier today, someone had asked about the dollar costs in Maine compared with the rest of the country. To be sure, the cost per case in Maine is lower than the national average, and lower than the average in the six regulated states. A comment that I heard at lunch was somewhat troublesome: If we're so low, we shouldn't take any action.

All I'd like to do is present just a few seconds' worth of data and a comment, which comes first. When one compares figures such as the Maine cost per case, which is $1715, with the U.S. average, which is $1848 (for 1980); or the cost per day in Maine, which is $216, versus the U.S. average of $245, versus the regulated states, which is $257 -- I don't think people in Maine should walk away from those statistics saying, that's wonderful, we're lower than the national average. Because, particularly as regards the six regulated states, I think the key variable by which all of these absolute numbers should be measured is the income per capita in these states. The six regulated states include Connecticut, New York, Massachusetts, Maryland--all of whom are in the top ten in terms of per capita income. I'm not sure where Maine ranks, but I'd be surprised if it's in the top half in terms of per capita income. (It's 48th? Okay. You learn, as a professor, to take cautious guesses.)

The other cut at this data, of course, is to look at the policy perspective that I portrayed this morning, which focuses on the rates of change. That, in fact, is the indicator of how fast resources are shifting around in the economy to this area. We've looked at an annualized percent of change for five years, from 1975 to 1980. And when you look at the cost per case--how much a person pays for the entire stay--the U.S. five-year annualized average is 12.5 percent per year increase; in the regulated six states, it's 10.7; and in Maine, it's 14.5. There may be a reporting problem here, but it is statistically significantly higher. When you look at the change in the cost per capita, the U.S. is running at 13.4 percent increase per year;

the regulated six are at 11.7 percent; and Maine, again, is higher than both, at 15.1. And when you look at total hospital expenses, the U.S. average over the last five years is 14.6 percent increase; in the regulated six states, it's 10.8; and Maine is running at 16.2. So in each of these areas the experience in Maine is not favorable in terms of trend. I would submit that that is the most important statistic to keep your eye on; not the absolute numbers. And when you look at the absolute numbers, they're perilously close to the very rich states, when there is obviously a vast disparity in the per capita wealth of the populations.

BUSTIN: Could you explain what you mean by the rates of change, which seems to be a key factor in this investigation?

SCHRAMM: It's basically just the percentage increase from year to year. It's the percentage rate of change. For example, if you made $10,000 last year and you make $11,000 this year, you would have a 10 percent rate of change.

BUSTIN: And that is the decisive factor?

SCHRAMM: Yes. Everyone who studies this will recommend to you that you keep your eye on the inflation rate, and not on the absolute numbers particularly. It's the change in the rate which is the variable that tells you how the system is doing.

PINES: In those statistics that you've given, does that include your waiver? Is the percentage included, because Maine does not have a waiver for Medicare-Medicaid, but those six regulated states do?

SCHRAMM: Not all six, but in the case of Maryland and New Jersey, they do include the waiver experience when it obtained. It didn't obtain throughout the entire period, but it reflects the

operation of the waiver in every case where appropriate.

NOTIS: I would agree with you that those numbers you gave us are cause for concern. There are some people, though, who would react by saying: What should they be? What should the percentage of state product spent on health care be? Are the ones that are lower than Maine right? Or is Maine wrong?

SCHRAMM: My position, which is pretty clearly articulated in the article that a number of you have seen from the Harvard Journal on Legislation, is that in my view it is properly a political decision. I really don't have an absolute sense of that. I think it's for the legislature to articulate in those terms.

BUSTIN: Looking at these figures, it seems to me that you can't really say what's happening. You could say, for instance, that maybe those other states are delivering more health care to more people than we are at a lower cost. We are maybe delivering less and at a higher cost. Isn't that true?

SCHRAMM: I don't think you can tell that by looking at those figures. If there is a message in there, it's quite the reverse, which is to say, when you look at the cost per case, it's rising faster by two or three percentage points than the U.S. average.

BUSTIN: I understand that, but it seems to me, the more costs rise, the less people get served. That's just been my experience with government.

GILL: Are there any other questions? If not, we're going to take a short break.

CLUCHEY: Our next speaker is Dr. Gary Gaumer. Dr. Gaumer is a senior health economist with Abt Associates, a consulting firm in Cambridge, Massachusetts. He is the assistant project director of the National Hospital Rate-Setting Study, which is a five-year comprehensive analysis of all of the hospital rate control programs which are in existence currently in the United States. In addition, he has directed a number of other studies, including efforts to evaluate the impact of second surgical opinion programs and to measure medical manpower needs. Finally, he has published numerous articles as well as several monographs on a variety of topics in the health care area. I might also add that Dr. Gaumer has previously consulted with the Board in the preparation of the report that it submitted to the legislature in December, 1981, specifically with regard to the performance of the Voluntary Budget Review Organization in Maine. Dr. Gaumer will speak to us this afternoon on the results of prospective payment programs so far.

GAUMER: What I want to do is talk with you today about some of the consequences of prospective reimbursement systems on a much broader scale than has been discussed throughout the day. We have heard a lot about Rochester today. In fact, Rochester is not one of the programs that we're studying because it's so new. So what I'm going to be doing is giving you a little bit broader perspective on the kinds of systems that have been in existence, some of which you've heard about, and focus primarily on the consequences of those programs. My talk is going to be split into two sections. The first section is going to discuss some of the preliminary findings in the area of process of rate-setting: the ways in which these programs are implemented, the kinds of changes that have been necessitated where states have found, after the fact, that they've made mistakes, the kinds of problems they've encountered, the ways they've chosen to overcome those

problems. The second part of the talk will be on some of the quantitative effects of the programs on costs and other kinds of outcomes.

The study that Dave Cluchey mentioned we're doing is not completed. We will be continuing on for about another year. Most of the quantitative findings that I'll report are what you could call preliminary findings. They're based on the results of the programs from about 1970 to 1978. Our subsequent work in the next year will update that a bit. The study we are doing is financed by the Health Care Financing Administration, the federal agency that is responsible for the Medicare and Medicaid programs. As you may or may not know, they are serious these days about trying to find out how to save some money in the Medicare and Medicaid programs. They are actively considering some proposals having to do with instituting some kind of prospective payment program for the Medicare beneficiaries. So our work is leading directly into their policy decisions at a federal level.

Let me begin by telling you that the programs we're studying are rather large in number. There are basically nine programs that I'll present here--Maryland, New Jersey, Connecticut, Massacusetts, New York... In addition to those programs, for some of the quantitative work we're doing, we've studied six others. Some of you who know something about the history of prospective reimbursement systems will note that some of these programs are now defunct. They existed during a period in the 1970s and went out of existence, for one reason or another. I think the Colorado program is an example of that. Again, our interests were basically to try to find out what the effects of these programs were, although some of them may have been short-lived. So we have included some of those programs in our sample that wouldn't necessarily be important in terms of studying the process in 1980.

Process findings. A couple of trends that we have observed might be of some importance. In terms of the way these programs

have been organized, the kinds of authority that have been granted them by state legislatures, we've observed several things that I think are important to note. In many states, we observed a trend where programs have started as voluntary and had a way of becoming mandatory. Obviously, the legislation here in Maine is possibly evidence of that same sort of tendency. Many of the programs have moved in the direction of organizing themselves through commissions, rather than having the program run out of a state agency, or having the program run out of the hospital association, or having a program run out of Blue Cross. There are some significant advantages in commission-based programs, not the least of which are their semi-independence of the state budgeting process. Programs such as the one in New Jersey (and New Jersey is in the process of changing) started out in a private setting and then the state took it over and ran the program out of the State Department of Health. It turned out that every time the state had a budget problem, they decided they would do something to the budget for the rate-setting agency, which is not uncommon. It turns out that that is not a particularly stabilizing force in terms of keeping track of hospital reimbursement. So that commissions have largely become the dominant form of organization, sealed off from the vagaries of year-to-year budgeting for state agencies.

In other areas, there have been a lot of changes in the methodologies that these programs employ. Listening to Jack Cook, for example, about the way in which the Maryland system has changed over time--that's not uncommon. Most of these programs have changed more than once from the point at which they originated. These changes are largely the result of learning. If you remember nothing else from what I say today, you should realize that the programs that we are evaluating and that you are hearing about are in the form of experimentation. The world really doesn't know yet what the best form of hospital cost control is. In fact, the Rochester program that looks quite promising and shores up a lot of the

weaknesses of other programs, is in fact the first attempt at that kind of program. So that we are essentially iterating from one approach to another approach. Basically we're learning. And there isn't anyone who can convince us that there is one and only one good approach to hospital cost control. There's nobody that can even make a statement: This is the best approach to hospital cost control. About the strongest statement we can make right now is: This may be the best approach that we've seen to date. But we're still learning.

In the process of learning in the area of methodology, the primary policy problem that agencies have had to struggle with in terms of making revisions in the program, is trying to resolve the balance between stringency of the program and equity to the people who have a stake in the program--equity across payor groups, equity across hospitals. How do we make the program tough but keep it fair? Or, how do we make it fair without giving up some of the stringency? In this context, there are several methodological changes that I think one can learn from.

Many of the programs started out as ~~either~~ very formulistic programs where basically the rate was computed on a calculator and there was no person-to-person negotiation in the whole process. The New York system is very much like this. Other programs were what we generally call budget-review programs with lots of negotiation. They've very soft programs in the sense that formulas aren't used a lot. Over time, what you see across states is that these prototype programs converge. You find the formulistic programs having to admit more negotiation or more liberal appellate rights into the program in order to provide more equity to hospitals, in order to take account of differences between hospitals. You find some of the soft budget-review, heavy-negotiation programs admitting to more formulistic elements. We talked about some of them this morning. We heard about inflation-adjustment systems, such as the one in Maryland, that are very formulistic components of a program. That's not uncommon.

You also find a tendency in these programs, over time, to become much more sophisticated about how they group hospitals for peer comparisons, and about how they treat case mix or patient severity, in the process of computing the rate. These kinds of modifications in the program represent a technological advance in hospital reimbursement. It's the sort of advance that would be a positive one in the sense that it's going to allow the agency that is administering the program to get a much better grip on the kind of product mix that the hospital is producing, and the agency will be much more confident when it says that this hospital looks about like that hospital in making peer comparisons. In the discussion of the Rochester program, we heard about the difficulty of understanding what the hospital is producing and how well it's producing. And some of these advances in treating case mix and peer grouping are attempts by prospective reimbursement agencies to become better equipped to deal with those thorny problems (that probably never will be solved completely).

Another trend that's worth noting is that many of the programs have added payors since their inception. Most of the programs started out with possibly only the Medicaid program, or possibly Medicaid and Blue Cross, and over time they picked up commercials and Medicare. So what we're seeing is that programs that started out with one or two third-party payors have added payors over time. There are a couple of reasons for that. Principally, from the regulator's point of view, there is a feeling that prospective reimbursement programs that include more payor groups are stronger inherently, because they have control over a larger percent of the hospital's patients. So apparently there is more leverage over the hospital by having more payors participate. From the point of view of the payors, there is also an incentive to increase the number of payors. Excluded payors have often had difficulties dealing with a rate-setting agency in their state. Many of you have probably ~~have~~ heard of a concept known as

cross-subsidization, or cost-shifting. It is possible, because of the arbitrary nature of many of the administrative or overhead expenses incurred by a hospital, to assign those expenses to one department or another. And it turns out that if one is fairly clever about accounting, it's possible to move those costs around in such a fashion as to increase the total year-end reimbursement of the hospital. In fact, many of the accounting and consulting firms earn a lot of revenue from year to year in helping hospitals sort of manipulate costs to work on this margin. The bottom line is that many payors find it untenable not to be participants in a rate-setting system, if there is one, because what happens is, as the excluded payor, sometimes costs get shifted. Medicare is having a problem in that respect in the State of New York. Medicare does not now participate in the New York program and it pays the cost of care. So whatever the hospital can document as cost of doing business, Medicare is going to pick up all or some high percentage of that. What has apparently happened in New York is a tendency for hospitals that are suffering under very severe reimbursement limits for Medicaid and Blue Cross to shift as many costs as possible to make it look like they're being incurred by the Medicare-eligibles that are being served by that hospital, because Medicare will pick up those costs and not ask any questions. So that Medicare is finding it a handicap to be excluded from that system.

There are a couple of residual problems that rate-setting agencies have had to face and haven't really been successful in solving. We talked about volumes of care this morning, controlling lengths of stay, controlling the use of ancillary services. These kinds of problems are still with us. When I come to the information I have to share with you on the effects of these programs, you'll see that there are some severe problems in this area. Many states have attacked the problem by putting the hospital at risk for changes in the use of ancillary services. Rather than keeping the system neutral with respect to how many ancillaries

are used (if the amount goes up, then we reimburse more; and if the amount goes down, we reimburse less), some systems are moving to a per-case reimbursement, with the DRGs and a flat amount for myocardial infarctions and a fixed amount for obstetric cases, where the hospital suffers if physicians prescribe too many tests for those patients. Some states are even going to penalties to help control volume. The State of New York, for example, imposes a penalty on hospitals that have lengths of stay that deviate by too much from the norm for their peer group. So if their length of stay gets out of line, their reimbursement rate goes down. Basically, the volume problem has not been solved, and that will continually plague the industry. I'll come back to that point a little later.

Two other points I want to make on the programs that we have studied. The first has to do with the way in which these programs are implemented. There are three strategies for implementation. You'll see the top block on this chart represents a group of states (Maryland and Washington) that used an approach called "delayed implementation." In the middle is phased implementation. And on the bottom is immediate. Basically, what this distinction means is that the states on the bottom (New York, New Jersey, Connecticut, Arizona, and Minnesota) when they got legislation, they immediately started reviewing budgets or setting rates--whatever their program allowed--and got on with it fairly rapidly. The two states in the middle (Western Pennsylvania and Massachusetts) phased in their implementation. They started up fairly quickly with a limited number of payors, the Medicaid program for example, and deliberately didn't include other payors until later. In the states of Maryland and Washington, implementation was delayed. They got their legislation, they hired a staff for an agency, and they didn't review any budgets or set any rates for several years. They proceeded very slowly. Now, it turns out that this distinction is very important. The states that started quickly had problems. They had problems with getting their data

systems straight, with due process (sometimes they circumvented due process because they had to get on with it and they paid for it later). They had legal challenges to the system. They had problems because in many cases, in trying to move quickly, they alienated providers and an adversary situation developed. We heard about that a little earlier today. Basically, immediate implementation seems to be very highly correlated with problems. No question about it, it's universally true.

Remember all the nice things we heard about Maryland earlier in the day--and Washington has a similar kind of program... I think it's very clear that Maryland was able to proceed to develop a fairly stringent program without alienating the industry because they took a very methodical and slow approach to getting that program off the ground. I don't want to dwell on this point. I think it makes a lot of common sense. Jumping in with both feet before you know what the consequences might be is likely to set you up with many problems. Probably the best example of those problems is Connecticut, where they started with a system that Jack Cook told you he admired very much. There is probably nothing inherently wrong with that system. But, for those of you who know something about Connecticut's system, you will know that Connecticut is probably second only to New York in terms of the adversary spirit that exists within that state. And many of those problems came as a result of the kinds of liberties that were taken with due process, and the sort of political niceties that simply weren't attended to, in the process of getting that program off the ground too quickly. They also made the same methodological mistakes that were made in Maryland. We talked about charge controls, trying to control charges in every department--that's what they did in Connecticut. And after about two years, they looked at the data, and what they found was that, in fact, the charges hadn't been going up by any more than they were approving. The problem is that the volumes of care had been rising very rapidly. As a result, P x Q

was rising markedly. They had been controlling the Ps but not the Qs (the prices but not the quantities). Now, in retrospect, that looks like a dumb mistake. And Jack said here this morning that, in retrospect, Maryland made a dumb mistake. The problem is, if you move too quickly, the only way you're going to see these problems is in retrospect. I think that's obvious, so I won't say any more about it.

One other aspect of these programs that I didn't hear raised today was the cost of running them. These numbers are cost per facility per year to run the rate-setting program. The systems arrayed are quite different. And the industries they represent are quite different; some have lots of hospitals and some have very few (Western Pennsylvania only had 23 hospitals in the program). And costs are obviously going to vary as the number of hospitals varies. But I think you can get some sense about the order of magnitude here. Just some quick calculations suggest $3000 a facility is already being spent in this state, with the program of the Board and the VBRO. Of course, we're talking about 1977 versus 1981 or 1982, but you're not out of the ballpark here. These costs are obviously not astronomical. In terms of orders of magnitude, what they represent is about one to three cents per thousand dollars of hospital revenue. We talked about how big the industry was in Maine. And you can multiply it by somewhere between one and three cents per thousand dollars of revenue to get an approximation of what that program would cost in this state. The administrative costs are really not the issue I want to talk about.

What I want to talk about is the cost-effectiveness of the functions that are performed by these groups, whether commissions or state agencies. Think about that for a second: one to three cents per thousand dollars revenue. For Rochester, we were talking about eight to ten percent savings in costs. So that the cost-effectiveness of prospective reimbursement programs in general can be seen from the fact that their administra-

tive costs are a fraction of one percent and documented cost savings are on the order of two to ten percent. So that in cost-effectiveness terms, we're dealing with a very cost-effective administrative function. In all fairness, these costs do not measure the costs to the industry of putting up with this particular administrative function. It doesn't count the costs hospitals incur in trying to respond to the agency. It doesn't include any costs that might accrue to the hospital association in dealing with the agency. I'm sure that in terms of overall cost effectiveness, if we're talking about savings from two to eight percent, we're talking about a very cost-effective function.

Let me go on to some of the quantitative findings. Here are the kind of numbers people have looked at from AHA data. These are states ranked in terms of the percent increase in total hospital expenses, from 1976 to 1979. What you'll find is that the numbers at the bottom of the chart (blocked out in yellow) are the mandatory prospective reimbursement states. You'll see Maryland there. And if the Rochester system happened to be in effect and happened to be picked up independently of New York, it would be way down at the bottom of that list. Maine is seventeenth on the list. Again, this is cost per capita, and you find the same sort of pattern. Maine here is fourteenth. And the rate-setting states are all blocked off in yellow down at the bottom. Now, this is not definitive proof that rate-setting is cost effective, because obviously we're talking about rate-setting states in places like Maryland, New York, Massachusetts--where costs were very high to begin with, and they may just be receding toward the national average. So this may be a fluke. In fact, the purpose of our analyses in our project was to construct statistical methods for identifying what the true effect of prospective reimbursement was. It doesn't bear any resemblance to this kind of presentation, but I think the results are fairly clear that prospective

reimbursement has provided a system of incentives for hospital managers that have caused them to react in a very strong way. I hesitate to say in a uniformly positive way to those incentives, because in fact, as you look across the country, you will find that some of the effects that have followed from the introduction of prospective reimbursement have not been totally favorable. On balance, what one can say is that the incentives provided to hospital managers by prospective reimbursement have created changes in hospital management behavior. There's no question about that. That's the first step. Obviously, if you want to change behavior, you've got to put in place the incentives that will cause that.

A second-order question is, Have those changes in behavior been in the right direction? And I think there is universal agreement that the incentives have been in the direction of containing hospital costs, or containing the rate of inflation. The story on some of the other aspects of behavior, I'll talk about as we go along.

Let me show you a chart like the ones you saw earlier. This is the percentage change in expense per patient-day in five regulated states. What we've done on this chart is to show, on the red line, what the percentage changes in costs in those five states were, from 1970 to 1978. The green line shows what the CPI was doing during that same period of time. The blue line shows what the performance in those five states would have been, had prospective reimbursement not intervened in the process. It's not "all other states"; it's basically a control group. Now, these results are based on a sample of 2800 hospitals, with data on each one from 1970 to 1978. It's split about half and half: about 1400 hospitals are in prospective reimbursement states and about 1400 are spread around the rest of the country (essentially a 25 percent random sample). So that what we have in that blue line is a sort of statistical control group. It's what those hospitals on the

red line would have looked like, had prospective reimbursement not been introduced. That's the interpretation of that blue line. You can see that prospective reimbursement in those five states has driven down the inflation rate considerably. And if you want to contrast the performance relative to the CPI, what we're saying here is that the introduction of prospective reimbursement has driven down the rate of inflation almost to the point, by 1978, at which the rate of inflation is equal to the rate of inflation of input prices (this is CPI, it's really not an input price index). What we are getting in those five states is inflation down to the point at which the rest of the economy is inflating--which isn't necessarily enough, but that's what this is showing.

I've also got some data on the performance of rate-setting programs in terms of expense per admission. In this case, we had seven states rather than five which showed significant effects of prospective reimbursement. It's the same sort of picture. Through the introduction of prospective reimbursement, we've been able to move a long way between what the inflation rate would have been and the CPI.

Just to give you a sense of what these states are and what the orders of magnitude are, what we're saying is that there is compelling evidence in these data to suggest that the programs that are in place, in many cases, were tough enough and compliance with those programs good enough by hospitals, to together achieve a sizeable reduction in the rate of inflation. Many of the programs that we observe (and I'll go through them state by state) have achieved favorable results under mandatory regimes. Seven of the nine mandatory programs were effective in one way or another. In fact, a couple of the voluntary programs that we studied (three out of six) also showed significant cost reductions. It's clear that the cost reductions in mandatory programs were bigger than the ones in voluntary programs, but nevertheless the voluntary programs in some cases were effective.

Orders of magnitude. In terms of reductions in expense per patient-day, we're talking about a range that runs from places like New York and Maryland, where the programs were responsible for cutting about ten percent off the cost per day; in other states that were significantly affected by prospective reimbursement, it's two-three-four percent. On inflation rates, the effect has been between two and six percent knocked off the annual inflation rate. Now, the numbers that were reported for Rochester were larger than that (eight to ten percent).

Let me quickly run through the state-by-state findings. First, Connecticut. In terms of percentage change in expense per case, it looks like the program has been effective in Connecticut. Maryland, in 1978, the rate of inflation in cost per case was 8.5 percent. And the blue line indicates that if they hadn't had prospective reimbursement, their rate of inflation would have been 12.7 percent. That's the gap between the red line and the blue line. Massachusetts, same pattern. Here's a voluntary program, Minnesota. This is a program that is essentially run by the hospital association. There is some legislation, but essentially it's a hospital association program. Another program we talked about this morning is New Jersey's. Again, the vertical line represents the introduction of the program and the consequences thereafter. I'll not run through all the other charts. I think that's enough to give you a flavor of what's going on. In New York, the inflation rate in expense per admission was 7.7 percent in 1978; without the program, it would have been 12.3. That's a rather large difference. (This was the picture I wanted to show when questions arose earlier in the day about why Rochester set up its own program. The Rochester program was set up in the context of a statewide prospective payment program that was doing this to the rate of inflation in the hospital industry as well as some other things that were causing hospitals to go into the red.) Obviously, under

a program with a big bite in terms of cost containment, there was an incentive for the Rochester program to start up.

One of the questions this morning that didn't get answered completely was: How are these effects occurring? Where are the savings coming from? There are several places where the savings could arise. They could arise from reductions in hospital volumes, like tests and other ancillary procedures. Savings could result from doing without labor that might otherwise have been used, cutting staffing or driving down wage rates through better bargaining leverage provided by the agency. There are a lot of ways one could conceive of cutting services, eliminating a department that's not particularly cost-effective. One could conceive of various mechanisms. What we've been about quite recently in our study has been to try to examine some of the sources of these savings. Other people have also studied this, and everybody is finding the same thing: that prospective reimbursement around the country is providing the sort of incentives to hospital managers that cause them to react in such a fashion as to reduce the inflation rate of hospital care. Everybody is agreed on that. The numbers vary from state to state. But what there is not agreement on is the consequences. Where is the saving coming from? Is it coming out of inefficiency in the hospital? If it is, then everybody makes out like a bandit. On the other hand, if the saving is coming from reductions in the quality of services, so that the patients bear the burden, then we'd begin to wonder about it. Are the payors bearing the burden? Is it coming out of the hide of Blue Cross or the commercial carriers? But basically where is the savings originating?

We haven't got complete answers, but we've begun to look at some of these things. The first area that we have an interest in looking at is the area of volumes of care: lengths of stay, numbers of ancillary procedures, etc. We talked about that earlier in the day. Here is a pie chart that shows how the inflation

rate for community hospitals providing inpatient care can be decomposed. In other words, if the inflation rate was fifteen percent, how is that divided? You'll see that about half the inflation rate is due to the growth of prices and wages, i.e. inflation in the cost of things the hospital has to buy. About 6.5 percent of the inflation in hospital expenditures is due to population growth. Hospital input prices in excess of the GNP deflator--that 10.2 percent is basically the fact that the prices of the things that hospitals are buying are going up faster than GNP. So really the inflation rate is about 60 percent. Now look at the other two things: intensity-per-admission and admissions-per-capita. Those are both volumes. Something on the order of one-third of the inflation rate in community hospitals is made up of volume increases. Simply increasing the number of admissions per capita and increasing the cost per admission. That's 21.9 percent and that is the area that many rate reimbursement systems want to focus on. Their argument is that admissions per capita (12.3 percent) isn't something they can do much about, because it's controlled by physicians. (They can do something about it, but most would abdicate on that.) And what they do worry about is the 21.9 percent. So a full one-fifth of the inflation rate in hospitals is due to the increases in intensity: lengths of stay and ancillary use. You saw the figures earlier about number of tests done and how that has been increasing over time. That's what that 21.9 percent and it's also changes in lengths of stay.

What we've done is to take a look at the volumes of hospital care and tried to determine if the introduction of prospective reimbursement has been consequential on those volumes. What we found are the following sorts of things. (I'll review this only very briefly.) Most prospective reimbursement systems have a tendency to provide incentives which cause hospital managers to increase lengths of stay. That's not necessarily something one

would want to encourage. Let me add two important caveats. One is that the programs we were studying, between 1970 and 1978, did not include programs that reimbursed on the basis of cost per case, a flat amount for all normal deliveries or heart attacks. Those kinds of programs exist now. And those kinds of programs have a built-in incentive to cause hospitals to reduce, or certainly not increase, lengths of stay. If they keep a normal delivery in for four or five or six days, they take a bath, if they're reimbursed a flat amount. In fact, the encouragement would be to get them out of the hospital after one, two, or at most three days. Now, unfortunately, in our data set it was not possible for us to include per-case reimbursement systems. In fact, what we found in our data set were programs that reimbursed on the basis of per diem. The programs in New York, New Jersey, Rhode Island reimbursed a certain amount per day of care. Those programs have widely been known to encourage hospitals to increase lengths of stay; and in fact they do, because if you keep somebody in an extra day, you get more revenue and every day of care is reimbursed. That's a pernicious incentive. Many of those programs have changed. New Jersey has changed its program. New York has reacted by putting a penalty on length of stay, which I mentioned before. They continue to reimburse on per diem, but in order to try to counteract the pernicious incentive of that unit of payment, they've put on a penalty. One of the findings that we can report on is that, in spite of the penalty, lengths of stay have gone up in New York--apparently as a result of the prospective payment program. What that means is that the incentive to increase length of stay caused by the per diem unit of payment overrides the penalty; in other words, the penalty is not big enough. Basically, across the board on these programs that we studied, we found an increase in average length of stay of 0.4-0.6, or about one-half day. This is not simply trends in lengths of stay; this is increases in lengths of stay that we're pretty sure we can attribute to

the introduction of prospective payment programs. Now, what that's doing to programs around the country is causing them to think very carefully about the choice they're making in terms of unit of payment. Jack Cook presented you with a table that showed units of payment vis-a-vis incentives. If you look very carefully at that table, what you'll find is that per-case reimbursement has positive incentives on lengths of stay, to encourage reductions in length of stay. In fact, programs like the one in Rochester, that cap the whole budget, saying this is the amount of money you're going to have to live with for the year, also have incentives to keep down lengths of stay. But all the other programs have the pernicious incentive to increase lengths of stay.

Some other findings, moving on from volumes. We've also looked at the impacts of prospective reimbursement on the use of labor, wages, and payroll. I'll try to review that quickly. What we found is that the introduction of prospective reimbursement has been associated with fairly sizeable reductions in hospital payroll per patient day, per admission, whatever. It seems that there are fairly large economies in the area of staffing as the result of the introduction of prospective reimbursement. Generally, these labor effects have been responsible for explaining about half of the total cost reductions that I showed you before. A prospective payment program in the state of Maryland, for example, has been responsible for reducing the level of cost-per-day by 10 percent. The findings from our study will show that staffing reduction has been responsible for about half of that 10 percent, which is roughly labor's percentage of the cost of care in a normal hospital. How is the reduction in payroll coming about? The evidence is pretty clear on this point.

We looked at whether or not it was coming about as a result of substituting cheaper labor for more expensive labor. We looked at whether or not it was causing wages to inflate at a lower rate. And we looked at whether or not it was due

to simply having less labor around in the hospital. And it is the last. It turns out that the savings in payroll that account for about half of the cost savings are almost totally explained by reductions in the number of staff per patient day, per admission. The hospital is getting by with fewer full-time-equivalents. It turns out that there are some instances where there is an effect on wages. And there are some instances where there is an effect on skill-mix, substituting one type of labor for another. The wage information is not that important, but the skill-mix is interesting.

What has happened is that where there has been an effect of prospective reimbursement on the mix between RNs and LPNs, which is what we were studying. We found that the effect was to encourage the use of RNs--more RNs relative to LPNs, which some people would find counter-intuitive, substituting the more expensive labor for the cheaper labor. But people who look very closely at wage rates for RNs and LPNs will find that, in many cases, RNs are a lot better buy at their wage rate, relative to LPNs. Basically, the belt-tightening pressure that comes from prospective reimbursement has caused hospitals to try to substitute the most cost-effective form of labor. Now, that shift to RNs might have something to do with the recent difficulties we've been experiencing in terms of an RN shortage in hospitals. They've certainly got a lot more RNs than they ever had before. It simply may be that they're not able to acquire them as fast as they would like to substitute them for other types of staff.

Let's talk now about scope of services. We looked at whether or not prospective reimbursement was responsible for hospitals' off-loading services, or hospitals' initiating sharing agreements for services, joining with other hospitals in joint purchasing and that sort of activity. Our finding here is that the introduction of prospective reimbursement seems to have minuscule, almost undetectable, effects on the rate at which

hospitals adopt services, the rates at which hospitals off-load services, and the rate at which hospitals share services. There are some indications in some states that hospitals are less likely to adopt certain kinds of services--ICUs, social work--and some others showed some possible smattering of effects. But basically we can't really say at this point that much of the cost savings we're observing is due to hospitals off-loading services.

One of the areas where that's not true was discovered in our analysis of the impact of prospective reimbursement on the accessibility of care. This is a very important area. One of the things policy-makers are very worried about are the deleterious side effects of prospective reimbursement. Do programs that encourage hospitals to tighten their belts cause hospital managers to react in ways that are harmful to patients, such as limiting the accessibility of certain groups of patients to hospital services? In this case, we looked at 22 of the major metropolitan areas around the country, some of which have prospective programs and some of which didn't. We tried to look at the utilization of out-patient services and emergency services in these places. As you know, in many major metropolitan areas, hospital OPDs and sometimes ERs are often the predominant source of ambulatory care for inner-city groups. That's not necessarily as it should be; that's simply the way it is in some of these areas. Policy-makers are concerned about the impact of prospective reimbursement either causing hospitals to close in those areas or shut off some of those services, where those communities would have no recourse in buying those needed services.

The results of this analysis showed that in fact there had been a reduction in the utilization of out-patient services which was correlated with the introduction of prospective reimbursement. It looks like most of it is happening in New York State. Everyone knows that there were lots of hospital closures in New York. The hospitals in Brooklyn in particular

have been having severe problems with bad debts and charitable care, and the rest of their patient mix is basically Medicaid. They don't have many patients who are paying full charges. And many of those hospitals apparently have closed down not their OPDs but have reduced the hours of operation of some of those departments, cutting back on the volume of their services. The reason they've done that is that many of their bad debts are incurred in the OPD and ER. So if you were going to cut back your product line, you might think about cutting back on the products which are losing the most money.

This particular analysis doesn't necessarily indicate that the shutting down of ambulatory services provided by hospitals in urban areas is all bad. It may be that there was too much of that type of service being provided in the first place. You have a standards problem when you look at the data in determining whether there is too much or not enough. All I can say now is the finding that outpatient service reductions have occurred in some of the major metropolitan areas as a result of prospective reimbursement is cause for us to dig a little more deeply in that area.

The last area I want to talk about is quality of care. There were some questions about this earlier. We don't have anything definitive to report, but let me give you my impression of what is in the literature. The quality of patient care in hospitals, as it relates to the introduction of prospective reimbursement, has been studied a fair number of times. As Dr. Block would no doubt agree, nobody is quite sure how to measure the quality of care. And most would agree that these studies were all flawed. But every time researchers have attempted to look at the consequences of prospective payment programs, or any kind of hospital regulation for that matter, they have been unable to find any kind of adverse effect on quality of care. There is one exception. That was in New York City (Downstate)

where an evaluation was done of the impact of that program, and there was a suggestion that the rate at which hospitals were able to get full JCAH accreditation was reduced as a result of the introduction of prospective reimbursement. That doesn't necessarily mean that patients were suffering, but it certainly means that the cost-cutting that ensued from prospective reimbursement made it more difficult for hospitals to comply with the standards of the Joint Commission on the Accreditation of Hospitals. It's not a good sign, but it may not mean anything about quality of care.

We've looked at that same data. We've looked at it across all the programs that we've studied. In fact, the situation in New York is much more complicated than Dowling reported. Our analysis of accreditation data showed no significant findings relating prospective reimbursement to accreditation, with the exception of New York. And what we found was that the New York program began in the very early 1970s, and there was a major reform about 1976 to tighten up the program and impose length-of-stay penalties. What happened was that in both Downstate New York and Upstate New York, all over the state, as a result of the early program, there was a reduction in the rate at which hospitals were getting full or provisional accreditation. In 1976, when the program was changed, in Upstate New York (Rochester, Buffalo, Albany, etc.), the accreditation rate continued to fall; in Downstate (New York City), the accreditation rate took a sharp increase in 1976. It looks as though many hospitals Downstate closed as a result of the introduction of prospective reimbursement, and the ones that closed had fared much less well with the JCAH. So that as a result of the failures of those hospitals, the average accreditation level went up. In other words, a lot of bad apples went out of business.

In terms of quality of care rather than accreditation, the evidence from other studies is that there has been no effect. In places like New York and Connecticut, where the degree of

resentment of hospitals and hospital associations is very high, if there was any evidence that reflected poorly on prospective rate-review programs, we would have all heard about it. It's not because people haven't looked; it's simply because people haven't been able to find any dirt in that particular area. We've done some recent work looking at patient outcomes in various prospective reimbursement states, which is a little closer to quality of care than accreditation. We looked specifically at New York, thinking that if there's any place where we'd be likely to see an adverse effect on quality of care, it would be in New York, wherethe program has been tougher and has been in existence longer. To date, we've been unable to find any kind of deleterious or adverse effect in terms of patient outcomes, measured by fatality rates, readmission rates, and some other measures of patient outcome. That doesn't mean that prospective reimbursement is not having an adverse effect on quality; it means that nobody has been able to document it to date.

As I said, our study is in progress. Most of our time in the next year will be spent in looking at three major areas that are short on evidence with which to make policy decisions. HCFA is in the process of thinking through a policy decision on this point. There are three major gaps in the literature. One of them is in the area of quality. Nobody has done a really definitive study, and I don't think HCFA is going to wait for it. They're going to make their decision and get on with it, on the basis of the preliminary evidence that there isn't any adverse effect. But there are two other areas to be concerned about. One is in the area of financial viability of hospitals. Many of the industry representatives around the country have been very concerned, as they have been in New York, about the effect of prospective reimbursement on the financial solvency of hospitals. Nobody has really been able to get a handle on that yet, so there's work to be done

there. And nobody has been able to get a good handle on the effect of prospective payment programs on inter-payor equity--the extent to which one payor benefits more than another payor. There is a lot of anecdotal information, but nobody has been able to link definitively the introduction of prospective payment programs to changes in the way payors have fared around the country.

GILL: Are there any questions?

MANNING: Would you recap the three questions you're investigating?

GAUMER: Quality was the first. Financial viability was the second. And what I would call cross-subsidization was the third. The evidence that was presented about the Rochester and Maryland programs today suggests that quality is getting better, that financial viability is getting better, and that all the payors are happy. That's what we heard from Jack Cook and Dr. Block. So there is some evidence on a casual level, but there has not been any sort of definitive, statistical study in those areas. If you asked somebody in New York, they would say, we don't know about quality, but it looks bad because of the JCAH issue. On financial viability, the hospitals are going down the tubes faster than we can count them. In the area of cross-subsidization, I think the commercial carriers are being driven out of the state by the prospective payment program. Medicare is probably taking a bath because they don't participate in it. So the answers to the questions would vary from state to state, because the programs vary from state to state. And the sentiment about the program varies likewise. The only way to get a real handle on what is going on is to do a statistical rather than a subjective analysis.

GILL: Thank you very much, Dr. Gaumer. David Cluchey is going to give us a short wrap-up.

CLUCHEY: I've reported to the Committee in the past on the Board's report. And I won't keep you any longer with a rehash of our recommendations. There are a couple of issues that have arisen over the course of the day, though, that I think it would be appropriate for me to comment on.

Gary referred at one point to a conversation we had at lunch about the current costs of health care cost regulation in the State of Maine. We just made some rough estimates. I've made it a little more definite. Between the Health Facilities Cost Review Board, which is paid for by the state, and the VBRO [Voluntary Budget Review Organization], which is financed by the hospitals, we're already committing in excess of $6,000 per institution in this state through our voluntary cost containment program currently. The evidence that we saw presented on the mandatory programs indicates that, for the same money, in terms of administrative costs, we could be running a rate-setting program. Frankly, I find those figures pretty surprising.

In general, what we have recommended in our report is that the state undertake a prospective payment system for health facilities; that that prospective payment system be equitable, i.e., that each payor pay the same for the service rendered, unless it can justify some sort of differential based upon savings that it provides to hospitals. Finally, we've recommended that there be a maximum limit established for operating revenues collected by hospitals in the state; and that that maximum revenue limit be established by a public body.

Those are the basic principles of what we recommended in our report. In the course of the seven-month study that led to that report, we undertook to develop with the hospitals, with the major payors for services, a consensus about what a cost containment program would look like. At the close of the study, we thought we'd achieved that. But apparently we didn't, because now most of the major parties involved in the industry

are opposed to what we've recommended for cost containment.

We are going to continue over the course of the summer and into the fall to develop the details of a program. We have a series of issues that we're going to attempt to flesh out. The first of those issues is the question of equity among payors, which we will be considering at a meeting of the board on July first of this year. We have hired Dr. Cook to consult with us and to work with us on the development of discussion papers on each of these issues. The discussion papers will be circulated prior to the Board's meetings. And of course the Board's meetings will be public, as they have been to date.

We would hope that the concerned parties--the payors, the providers--would participate with us in the discussion of the details of a prospective payment system for the State of Maine. I think Dr. Block put it well in suggesting that, with the cooperation of the parties, a system can work; without it, it's much more difficult. And so we look forward to fleshing out the original proposal that we made over the course of the next few months, and we hope to see many of you participating in that process.

GILL: I'd just like to comment that we didn't discuss today the last draft that some of the members of the Health & Institutional Services Committee saw at our last session. But this was primarily an educational meeting for the Committee, as will be our next meeting on June 30th. I will get an agenda out to you in the mail as soon as possible, indicating allocation of time and which groups will be presenting testimony. After that second meeting, the Committee hopes to sit down and decide how many further meetings we'll need, and whether we'll need to bring in any experts of our own, as we review this and talk about the possibilities of prospective reimbursement, or the draft report, or other suggestions the Committee might come up with. So we won't really have any information until after the

second meeting, as far as how many more meetings there will be this summer and what direction we intend to go. But I just wanted to let you know that. And I really appreciate your stick-to-it-iveness. This has been a long day and we've had a lot of information. I think the Committee has been hungry for information on this. We've been after the Governor and after the Board to let us see the drafts as they came along, anticipating that we would have it for legislation last year. So this time, if we do have legislation, we'll be versed in all aspects of it hopefully. I thank you for your attention.

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