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Moderator: Grady C. Catterall

Panelists: Howard J. Bolnick
Sally T. Burner
M. Kent Clemens
John Sheils

Summary: Panelists discuss key public policy issues relating to access, coverage, and financing of healthcare, as well as current healthcare reform proposals.

MR. GRADY C. CATTERALL: We're going to be talking about key public policy issues relating to access, coverage and financing of healthcare. We have a really terrific panel today. I was very pleased to be able to get all these people to come speak today. We have two members of the Office of the Actuary at the Centers for Medicare and Medicaid Services (CMS)—Sally Burner and Kent Clemens. Kent will be talking about the Medicare Trustees Report and other work that he does for the Office of the Actuary. Sally will be talking about some of the special projects that she does, such as analysis of the Medicare Modernization Act (MMA) last year to determine a cost estimate. You may have heard a bit about that recently with the controversy.

Then we'll have John Sheils, a colleague of mine at the Lewin Group, talking about analysis of healthcare reform proposals in general. He did a report last fall that analyzed 10 different proposals to expand health insurance coverage in the United States and estimated the cost, tax effects and other economic effects of those

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proposals. And our last speaker is Howard Bolnick. He'll be giving us an international perspective on these issues.

The first speaker, as I mentioned, will be Kent Clemens. He's an actuary in the Office of the Actuary at CMS, formerly the Health Care Financing Administration (HCFA). Kent is the team leader of the Medicare and Medicaid Projections Team, which is responsible for determining Medicare premium rates, for producing the Medicare Trustees Report and projecting Medicare and Medicaid expenditures for the regular federal budget cycles. He's a member of the National Health Expenditures (NHE) Projection Team, which provides 10-year projections of national health spending each year. Kent earned his B.A. in mathematics and economics from Goshen College. He's a Fellow of the Society of Actuaries and a member of the American Academy of Actuaries.

MR. M. KENT CLEMENS: At CMS I work on the regular production cycles, whether it's the Trustees' Report or the budget, as Grady said. Much information is available on our Web site, www.cms.hhs.gov/statistics/actuary, on these products: the 10-year NHE projection, the budget projection and the Trustees' Report. I'm going to focus on our most recent regular cycle, which is the 2004 Medicare Trustees Report. As Grady said, Sally will talk a little later about the process of estimating the cost of legislative proposals and the interesting year we've had.

For the first time, the MMA, which was passed in December of 2003, has been reflected in the Trustees' Report. The Trustees' Report is done on a current law basis; that is, we don't anticipate any changes to the laws as they exist now. We're going to highlight a few of the major provisions that were in the MMA. Of course, there's the addition of the prescription drug coverage under Part D, which begins in 2006. Prior to 2006, there are prescription drug discount cards that are just starting to be offered now, along with transitional assistance for lower income folks. It's a \$600 subsidy for low-income beneficiaries. In addition, the Medicare+ Choice program was renamed as Medicare Advantage or Part C, and basically higher payments were given to the managed-care plans.

There were some other things that went on. Payment updates to other providers were changed. Some were increased, such as for rural providers. Some were lowered or frozen for a period of time, such as lab payments, durable medical equipment payments and so forth. In addition, some of the financing for Part B was altered. Starting in 2007, the Part B premium will be income-related — persons with higher incomes will pay a higher premium. Also, in 2005 the Part B deductible will increase for the first time in many years. It will go from \$100 to \$110, and then will be indexed.

I'm going to talk a little bit about each part of Medicare, about the financial status and current issues with each part of the program. Basically, the purpose of the Trustees' Report is to evaluate the financial status of the Medicare program.

First of all, I'll give you a brief overview of hospital insurance (HI), or Part A, as it's known. It covers facilities. That's the way I like to think of it — inpatient hospital, skilled nursing facility, certain home health payments and hospice. Its income comes mostly from payroll taxes, the 1.45 percent from employers and employees each or 2.9 percent for the self-employed. Another source, which is less important, is a portion of the income tax on the OASDI (Social Security) benefits. There are a few other items, such as interest on the trust-fund assets or premiums paid by certain folks, which are much smaller.

Chart 1 shows the short-term financial status of HI. This is a graph of the recent history and the 10-year projected expenditures and income for HI. As you can see, in the recent history, the income has exceeded expenditures, basically since the Balanced Budget Act of 1997 was passed. That was incorporated to resolve the problem of expenditures exceeding income, and it successfully did that for a while. Now with the more recent legislation (including the MMA), we expect that expenditures will once again exceed income beginning in 2010. If you looked at the tax income alone — just the payroll taxes and the tax on Social Security benefits—the expenditures would exceed that income beginning in 2004. As you can see, it skates along there for a while just on the interest.

There's a formal short-range test of financial status for the HI trust fund. It looks at the assets at the beginning of the year as compared to the expenditures during the year. If this ratio is at least 100 percent for the entire 10-year period, then the program passes the short-range test. As you can see in Chart 2, currently the HI fund does not pass the short-range test. This is the first time in the last five reports that HI has failed the short-range test. So it worsens a little bit this year.

In addition, this chart shows the trust-fund exhaustion date of 2019 that we are expecting based on current estimates. This is seven years earlier than what had been projected in last year's report. We've broken this seven-year difference out into causes. Two years we attribute to the new legislation (MMA). Two years we attribute to lower historical payroll taxes and slightly higher actual incurred claims — mostly lower payroll taxes than what had previously been estimated. Another year and a half came from adjustments to our hospital assumptions. Recent historical data have indicated that we need to raise a few of our assumptions, I believe, for utilization for inpatient hospital. We have one year of this difference that's attributable to new data that we obtained on the managed-care plans, which indicated that the enrollees in these managed-care plans were less healthy than what we had otherwise thought. Let me go into that a little further to explain how that applies.

Starting in 2006, there will be payments that will be risk-adjusted to reflect health-status. We would have paid a higher amount, on average, for a fee-for-service person, and a lower amount — in the form of a monthly premium — for a managed-care enrollee. New data came in indicating that the managed-care enrollees were a little sicker than we had thought, but still healthier than fee-for-service

beneficiaries. Thus there will be higher payments to managed-care plans than previously estimated because of these new data. So that brings us another year closer to exhausting the trust fund.

Another one-half year came from us being able to refine our models for certain hospital payments. There are rehab hospitals that have a particular payment mechanism, and we were able to model that better.

Next, I'll discuss the long term. We now not only do the 10-year projection, but we have the audacity to look at it over 75 years. There's a formal long-range test for HI that does just that. Chart 3 illustrates what we're looking at over that period. The cost rate — the yellow line at the top — is expenditures for HI as a percent of payroll. The income rate — the line basically flat along the bottom — is income for HI as a percent of payroll. And, as payroll taxes are the majority of the HI income, that is why it remains basically flat. It goes up a little bit over time due to the tax on Social Security benefits. As you can see, the income is not adequate to cover the cost, so it clearly fails the long-range test — it's not even close.

One of the measures that we report is the average gap between the cost rate and the income rate over the 75-year period, which is called the actuarial balance. The actuarial balance this year is -3.1 percent, which compares to last year's -2.4 percent. There was a gradual worsening relative to last year. For HI, MMA added a little bit, but the current issue remains what it's been for years — this growing deficit over the long range and the approaching exhaustion date.

Let's go on to Supplementary Medicare Insurance (SMI). Prior to MMA, Part B was all of SMI. Now MMA has added Part D to SMI. So there are two components. Let's look at Part B first. Part B is very different from Part A. It covers, basically, services: physician services, lab services, home healthcare, certain home healthcare services and outpatient hospital. The financing is much different also. HI comes from the payroll taxes and that's fixed in law. For SMI, the financing is reset each year. About 25 percent come from monthly beneficiary premiums and 75 percent from general government revenues. So it's automatically in balance.

Chart 4 shows expenditures and income for the 10-year projection window. As you can see, they closely match each other both historically and during the projection period. The financing for Part B isn't an issue, but the fast growth of Part B is. For each of the past four years the growth in Part B expenditures has been more than 10 percent, and we project it to be, on average during the 10-year window, about 6.5 percent.

Another interesting issue, which we won't go into in depth, is the way the physician payments are made. There's a sustainable growth rate system. Updates to the physician payments are based on past actual expenditures compared with the target level, and not just the target level for the past year — the cumulative target level from a base year versus the cumulative actual expenditures. If the cumulative

actual expenditures exceed the cumulative target, then in future years, payments will be reduced to recoup that "overpayment" over the target. And so you need to go below the target for a number of years to recoup this difference.

What happened with the MMA was the actual cumulative was already over the target. Then the MMA increased the updates for the physicians for 2004 and 2005, worsening the situation. Starting in 2006, the current law projection is for seven consecutive maximum negative updates for the physicians; basically 5 percent cuts for physician payments for seven consecutive years. And in the report we characterize this as unlikely.

Part D was added to Medicare with the MMA. Part D provides prescription drug coverage to beneficiaries beginning in 2006, as well as this transitional assistance and the prescription drug discount cards for 2004 and 2005. The financing is very similar to Part B in that it's reset annually. There's a monthly premium. There are general revenue transfers. In addition, there are state transfers, which are a reduced portion of the Medicaid payments that states otherwise would have made, but are no longer making, for dual eligibles. And just to note: The Part D account and the Part B account are separate. There's no provision to transfer assets between them. They must each be evaluated individually and then collectively to give us the SMI trust-fund status.

Chart 5 is just an illustration of the long-range expenditures to show the bump up for Part D in 2006, and it also shows a little bit of the growth rate and the relative premium size for Parts D and B and then total SMI. There are some issues for Part D. It adds a new benefit. It adds more expenditures to Medicare. In 2006 we're projecting that it will increase total Medicare expenditures by 25 percent. In addition, for the most recent five years (if you look at the total health sector in the United States, not just Medicare), prescription drugs was the fastest growing component. We project Part D to grow faster than either A or B—about 9.7 percent during the 10-year window. Another thing I'd like to note is that we have no actual program data for D, of course; it hasn't started. So the projections, as uncertain as they are, are even more uncertain because we don't have anything actual to base them on. We note that in the report also.

At the end of the report, it's always noted that these issues should be addressed, and they should be addressed sooner rather than later. Then more gradual remedies can be implemented, and it's possible to give some advance warning to those who would be affected, both beneficiaries and taxpayers.

MR. CATTERALL: Our next speaker is Sally Burner. Sally is special assistant to the chief actuary at CMS, where she serves as the principal technical assistant in the areas of legislative and regulatory policy development for healthcare reform. She started her career as a computer specialist, first with the Social Security Administration and then later with the Health Care Finance Administration (HCFA) – the precursor to CMS — working in various areas on health claims processing and

payment. She then came to the Office of the Actuary in 1984, where she was encouraged to become an actuary. She followed that advice and became an ASA five years later. While in the Office of the Actuary, Sally worked primarily on the development of actuarial models for evaluating the impact of healthcare reform proposals on the economy and on the federal budget. She was lead analyst on the HCFA team that estimated the premium and subsidy cost for the Clinton administration's Health Security Act proposal in 1993. More recently, she developed the estimates for modernizing the Medicare program under MMA last year.

MS. BURNER: I'm going to talk about our non-traditional products. Kent talked about the things that most people know the Office for, but we have another big role: to provide data and analysis to help inform the health policy-making process. Our main customer is, not surprisingly, the administration. One would think that would be one customer, but it's multiple customers. We get requests directly from the White House, from the Office of Management and Budget, from the Department of Health and Human Services and from within CMS. They aren't always asking for the same thing, or they each have a variation on the same thing. We get tugged and pulled in a lot of different directions.

Our other customer is Congress. The Congressional Budget Office (CBO) makes the official estimates for any piece of legislation that is brought forth. Their duty is to provide federal budget and mandated spending cost estimates for all bills other than appropriation bills when a full committee of either House reports them.

Before a committee reports the bills, either the members of Congress or their staffs have ideas for proposals, but they are not sure that they will work. A lot of times they ask us to look at things and tell them whether they're technically feasible, or to help them with actually producing new legislative language. But usually the question is, "We have X number of dollars — what can you do with that amount of money?" For example, they might say, "We want to add a drug benefit to Medicare. We have this pot of money. Tell us what the benefit package can look like, what the deductible would be, etc." We've been doing this for a very long time, but every once in a while, we run into trouble. Most people probably know about what has happened most recently, and we have run into problems on earlier occasions as well.

In 1997, the Balanced Budget Act formalized our relationship with Congress, saying that "The Office of the Actuary has a unique role within the Agency and that is to serve both the administration and the Congress. While a chief actuary is an official within the administration, this individual and his or her office frequently must work with the committees of jurisdiction within Congress on the development of legislation. The independence of the Office of the Actuary with respect to providing assistance to the Congress is vital. The process of monitoring, updating and reforming the Medicare and Medicaid programs is greatly enhanced by the free flow of actuarial information from the Office of the Actuary to the committees of jurisdiction in the Congress."

As you probably have read in the news, that flow stopped last year. We ended up with "Scoregate" (that's one of the names for it). Before MMA was passed, there was the House version, H1, and the Senate version, S1. We were asked by both committees to provide analysis primarily on the cost of the drug piece because that's the biggest piece, but we were also looking at what we thought participation would be in the new Medicare Advantage Program.

We produced the estimates, but they were never released to Congress. They were stopped by the administration. This came to light when, shortly after the bill was passed, we did the next year's President's budget, and because it was then law, the estimates for MMA were included in our budget estimates. We came out with estimates that were about \$150 billion higher than CBO had estimated, and this caused quite a stir in Washington, D.C. My boss, Richard S. Foster, testified before the House Ways and Means Committee. This is now under investigation by the Office of the Inspector General, the Congressional Research Service and the Office of the General Counsel to see if anything was done illegally or inappropriately in preventing us from giving our estimates to the Congressional staffs that requested them.

Life for the last several months has been rather interesting. You talk about your 15 minutes of fame; Richard is now going on his third month of fame. It takes away from his ability to do the other work that the Office needs to do, but it's also a very important issue. Congress wants us to be able to provide them with information, and we feel that that is part of what we're supposed to do. It's supposed to be a free flow. It's not supposed to be censored by the administration, so, hopefully, we'll get back to that way of doing things.

I want to talk a little about the types of analysis that we do. Most of the things that we're asked to do are program-specific. They're looking at ways to change Medicare and Medicaid. For instance, it didn't end up in MMA, but they did a lot of work on looking at changing the benefit structure — instead of Part A and Part B, making it look more like the kind of insurance that most of us have — with a single deductible, for example. We also are often asked to help with proposals that affect the overall healthcare system. The Health Savings Account (HSA) is certainly an example of that. Also, we've looked at other kinds of proposals to cover the uninsured.

Another thing we do, that is probably unique — the kind of thing the CBO doesn't do — is impact analysis. For instance, suppose someone proposes to add a co-payment to the home health benefit. We and the CBO both give an estimate of what the cost will be. But the effect on individuals is quite different. If you add a co-pay to a home health benefit, you'll probably have very little effect on 65-year-old to 75-year-old males. It might have a very large impact on 85-year-old and older females. So not only do you want to know the overall cost, but you want to know what the impact on specific subgroups is so that you don't do something that

appears to be fair or reasonable, but actually is really unfair to a particular subgroup.

Of the methods and analyses we use, the one that I use most often and the one that I am most familiar with is the microsimulation model. In the Office of the Actuary we have about 30 economists, and they think they know something about modeling as well. They keep trying to tell us that they can help us, especially in doing things like a long-range forecast — the 75-year projection. If you were at yesterday morning's opening session, you heard that if you take healthcare and you just extrapolate it out 70 years, you will consume all the GDP, which is probably not a reasonable outcome. The economists have told us we need to look at other things and do econometric models, which will keep our estimates within some range of reasonableness.

We also have used stochastic models. Two years ago, we added stochastic estimates to the SMI trust fund. Kent was the chief analyst on that. If we don't know anything about a topic, which is every once in a while, we call in experts and consultants to help us.

I want to talk about two of the micro-models that we used for estimating the cost of the Medicare Prescription Drug, Improvement and Modernization Act, better known as the MMA. It had 12 parts or titles. Title 1 is probably the one that's best known. It's the one that adds the prescription drug benefit to Medicare. Title 2 is Medicare Advantage, which is basically renaming the current Medicare+ Choice Program, and the other titles cover other areas, including HSAs.

First I'm going to talk about how we went about estimating the cost of the prescription drug piece. For most of the things we do, we have tons of claims data. If somebody wants to increase the Part A deductible or something like that, we have a mountain of information on how many admissions there are and that kind of thing. When it came to evaluating drugs, since it's not currently a Medicare-covered service, we didn't have any claims data. This was the problem also back in 1987, with the first Medicare catastrophic coverage act, when they tried to add drugs the first time. We didn't have any information on drugs. So shortly after that, CMS started doing a Medicare current beneficiary survey. This survey collects information on Medicare beneficiaries. It collects information on spending on all types of healthcare, not just the services covered by Medicare. We get the information on what people spend on drugs. In addition, it contains a lot of demographic information, and it has information about the other sources of insurance. We know if a person has an employer plan or Medigap; what their health status is; and also their income and asset information, which we use in estimating the cost of low-income subsidies. It's a really great source of information for non-traditional Medicare kinds of products. That's the basis of our prescription drug model.

This is an oversimplification, but generally the way this process works is we know the current level of drug spending by individuals. We take that spending and we

apply the parameters of the proposal and calculate how much would be paid by the program and how much the beneficiary would still be facing out-of-pocket. We increase or decrease total spending depending on the change in out-of-pocket. If their out-of-pocket would go up as a result of the proposal, then their total spending would be reduced and vice versa — if it would go down, then the total spending would go up. We do this through different induction factors.

Then we recalculate the program spending and the out-of-pocket based on the new total spending and tabulate the results. That sounds pretty simple. And if this were all there was to it, CBO and CMS estimates would have been almost identical because CBO also uses the Medicare Current Beneficiary Survey as the basis for its model. So we both have the same underlying drug expenditure distributions and the same other factors. But it's a little more complicated than that. There are assumptions that have to be made about participation rates. Because it's a highly subsidized benefit (it's subsidized at about 75 percent, I think), we assume 90-something percent of the elderly will participate. There's also a late-enrollment penalty. So between the high subsidy level and the late-enrollment penalty, we've assumed that 90-something percent of those eligible will participate, whereas CBO estimated somewhere in the low 80 percent range.

There are also several interactions with Medicaid. One is dual-eligibles, those eligible for Medicare and Medicaid who get their drug coverage paid for by Medicaid. Now (as a result of MMA) Medicare will be paying for it. But instead of letting the states off the hook altogether, there's a claw-back provision, which is really a strange thing. Basically, it's a maintenance of effort on the part of the states over a period of time for the federal government paying part of what the states would have paid had this benefit not been enacted. Low-income subsidies is another area where we have quite a bit of difference from CBO on how many people will show up in each of the three different levels of subsidy. There's also the interaction between the subsidies and Medicaid. Somebody comes in and applies for a low-income subsidy, and it is discovered that he actually is entitled to full Medicaid. So not only do we now have the cost of the drug benefit for that person, but you now have the cost of his becoming a Medicaid-eligible person.

There also is the employer's decision regarding retiree drug coverage. An employer that currently is offering retiree drug coverage can maintain that coverage, and if it is actuarially equivalent to the new Part D benefit, the government will pay the employer a subsidy to maintain that coverage. Then that employer's retirees will not join Part D. Their employer coverage will be their primary drug coverage. An employer may decide to not be the primary, to drop their drug coverage and just wrap around the new benefit. They might decide to drop coverage altogether. Each of those options has a different impact on our cost estimates. These are some of the things where we differed in our assumptions from CBO, and we ended up with \$100 billion difference in our estimates. This is a fairly large discrepancy.

Next I'm going to talk about the Medicare Advantage piece. Basically, Medicare+ Choice has been renamed Medicare Advantage. When something has a bad rap, the government's solution is to change the name. That's how we got to be CMS instead of HCFA. Nothing else changed, just the name. MMA increases Medicare Advantage payment rates significantly, and it also increases the updates over time. It also establishes Medicare Advantage regional plans that follow the PPO model, and this is new. There are currently no regional plans. They're doing this because there are a lot of rural areas that don't have access to any kind of managed-care plan. They're hoping that plans will come in and become regional providers. They don't know how many regions there are going to be, somewhere between 10 and 50. They're doing a study on that right now. And if a plan wants to operate in a region, it has to take everybody in the region. It can't say, "I'm going to take these three counties and I'm not taking those two counties."

MMA establishes a competition program starting in 2006. I think that's using the term loosely. What started out as premium support four or five years ago has turned into really a minimal amount of competition. I'll talk a little bit more about that in a minute. And there are some additional reforms. For this we didn't model it on a person-level basis. We modeled it on a county-level basis. We have Medicare plus Choice. We have current data on payment rates for the counties. We know the number of beneficiaries in the different counties and whether they're in traditional fee-for-service or in an HMO. We know current HMO plan data. We know what their costs are from the Adjusted Community Rate (ACR) process. And we also have information from a PPO demonstration that we can go into. It gives us some information on PPOs for the last couple of years.

The competition piece of this is that payments to regional PPOs are not based solely on a statutorily set rate; instead the plan bids are a component of the plan payment. There's a benchmark that has two pieces: the statutory piece, which is the weighted average of the county rates; and the plan component, which is the weighted average of the plan bids. The plan bids affect the benchmark for regional plans.

Plans bid what they need to provide the basic Part A and B coverage. This is leaving D out of the equation because right now we're talking about A and B. If the beneficiary picks a plan whose bid is less than the benchmark, 75 percent of the difference is returned. Originally, this was going to be rebated in the form of cash to the beneficiary. It was decided that this wasn't a good idea. Even though it's the beneficiary's money, it's rebated back to the plan, and the plan then uses the money for providing supplemental benefits or buying down their part B or D premiums. The government keeps the other 25 percent. If a beneficiary picks a plan where the bid is greater than the benchmark, they're responsible for paying the full difference between the benchmark and the bid.

For this one we had to model it using a slightly different process than for the drug benefit. First, we had to make assumptions about whether there would be

participation by health plans. We assumed that because of the increased payment rates – there are also risk corridors, stabilization funds and other things to sweeten the pot – that we indeed would have health plans willing to participate as regional PPO plans. Then we had to estimate what the plan bids would be. That's where our PPO demo data came in, and we also depended on some information from Tricare, which is the military's healthcare system that had a similar process for determining what the plan bids would be. Of course, we have better knowledge for the HMOs of what their bids are likely to be because we have their current data.

The biggest part was modeling beneficiary choices. One choice is staying in traditional fee-for-service. If beneficiaries do that and they want Part D, they have to go out and choose a prescription drug plan. If they want some of their out-of-pocket costs covered, they can choose a Medigap plan to go with their traditional fee-for-service Medicare coverage, but their coverage under the two plans isn't coordinated. They can go to (or stay in) an HMO plan. If they do, their Part D coverage will be provided through that plan. Or they could go to a PPO. And the advantage there is that they have less restrictive networks, but it's still one-stop shopping. That is, they would be able to get their supplemental benefits, their drugs and their basic benefits all through the same plan.

In order to model this, we looked at fee-for-service beneficiaries and compared what they currently have (in the way of benefits and premium costs) with what they would have if they went to an HMO or if they went to a PPO. Using utility functions, we determined what the optimal choices would be for different groups of beneficiaries. People move among programs depending on the comparison between the various premiums and benefits. We ended up with a total participation rate in the Medicare Advantage program of about 30 percent, split 50-50 between PPOs and HMOs. This was the second big difference between our estimates and CBO's. In their estimates, they said no PPO plans would participate. So they have zero participation in the PPO part of it, and they also have the HMO enrollment declining from 12 percent down to 10 percent, something like that. They actually have the managed-care piece of the program declining pretty significantly. We ended up with a \$40 billion difference for this piece of it.

Now that the MMA has been passed, things have slowed down considerably. We've been working on Medicare reform for the last 10 years. There still will be things, I'm sure, coming down the pipe. There probably will be changes to the drug benefit. The MMA has a lot of holes in the legislative language that need to be corrected or better defined.

MR. CATTERALL: The next speaker is John Sheils, vice president of The Lewin Group. He joined Lewin in 1980. He's a nationally recognized authority on health-system reform. He led The Lewin Group's analysis of President Clinton's proposed Health Security Act in 1993. More recently, he has directed several projects on coverage expansion initiatives for state agencies and organizations around the country. John's the only person up here who is not an actuary, but he has been

exposed to actuaries before, so we anticipate no ill effects. John received his M.S. in public policy from Carnegie Mellon University.

MR. JOHN SHEILS: Today I want to discuss some analysis we've done trying to analyze the impact of expanding coverage for people who are uninsured in this country. I want to talk to you about some of the mechanics of how we simulate this as well as some of the policy implications of what we're looking at. I'm thinking of this as a how-to kind of presentation.

First I'm going to talk about the distribution of the population by primary source of insurance coverage in the country. The employer-covered population accounts for 58 percent of all coverage. There are actually about 42 million uninsured people in this analysis. We show Medicaid covering about 27 million people. In fact, it covers many more people than that, but Medicare also covers many of those individuals. We thought of them as Medicare beneficiaries because that's their primary source of insurance, so if anyone is going to be stumbling over that number, that's the explanation.

There was a bill that was just recently passed in California, Senate Bill 2. I don't remember its long name. But the bill essentially requires employers to contribute to the cost of insurance for their workers, and it's really a landmark piece of legislation. Actually, this same type of bill was enacted three times before, but was repealed before it was ever implemented in Massachusetts, Oregon and Washington State. We'll have to see whether California can make it work. Under that bill, if you have more than 200 workers, you have to contribute to the cost of covering your workers either by paying a tax, which they called a fee, or by buying them insurance.

Let's talk briefly about some of the impacts. We're going to see the percentage associated with employer coverage growing. That is, we're going to have more employers covering more workers. We're going to have fewer uninsured people, and we expect there to be fewer Medicaid people, because some of the workers we're talking about are low-income people who qualify for Medicaid. And those low-income individuals now will have employer coverage as the primary source of coverage.

There are a host of impacts there that all translate into a lot of policy discussion. Employers are concerned about what it's going to cost them. Everyone's interested in what happens to the number of uninsured. The state pays for about half of the cost of Medicaid. The people who are trying to pay for the newly enacted bill in California, in particular, are counting on savings from Medicaid to help them pay for some of the benefits that they provide to lower-income people under the program. There are a number of impasses and a lot of constituencies affected. What happens to uncompensated care? That's a big question for hospitals, for example.

There are proposals we've looked at that would cover everybody under one single program. Think of it as maybe covering everybody under Medicare, for example, though I guess after the prior discussion, that's a pretty horrifying thought, isn't it? But you could think of it that way. There are other programs that are designed to reduce the number of people covered by employer coverage without eliminating it altogether. And we would estimate those effects and those cost impacts on the different parties.

For our microsimulation model, which we use for estimating the impact, we start with a database of individuals. Actually, it's a database of households. It includes information on every individual in the household. It gives us information on employment status, sources of insurance coverage, income and also health expenditures. We're using Medical Expenditure Panel Survey (MEPS) data, collected and tabulated by the Agency for Healthcare Research and Quality (AHRQ). The data that they produce give us a representation of what each family looks like — their characteristics, including work status and coverage. It also shows what they spend on health care during the year, how many services they used, who paid for those services, how much was paid for by their insurance, how much was paid out of pocket and how much might have been paid by a secondary source of insurance coverage, which is pretty common with the Medicare population.

The simulation starts off by noting a fundamental choice here. Is this a program that's mandatory or is it an optional program? Mandatory means all employers must offer you coverage; that's an example. All individuals must have coverage; that's another example. Optional coverage would be giving employers tax credits to help them buy insurance, expecting that some employers would respond by starting to offer insurance. Or we'll give people individual subsidies, and maybe they'll sign up for coverage. But some of them won't. Not everybody who's eligible for Medicaid signs up, even though there's generally no premium. So if we're doing an optional coverage simulation, we have to have this separate piece of modeling.

We identify in these databases the number of people who are eligible for these programs. Some of the programs are targeted at people who live below the poverty level. Well, it's pretty straightforward to figure out from the database who meets that criterion. Some say that employers must start offering coverage. We know how many people are employed. We know how many don't have employer coverage offered to them now, so it's pretty straightforward to identify those people. Once we've done that, we use the data to figure out what happens to health services utilization. Newly insured people use more health care, and it depends on which services are covered and which aren't. Then we have enrollment in managed care, which, of course, makes a difference in the cost. We then go to expenditures where we take into account a broad range of effects, such as provider payment levels and whether you're currently getting covered under Medicaid. Medicaid pays less than Medicare and Medicare pays less generally than private insurance. So how you're paying providers makes a big difference.

Who's going to pay for it? Health care is this great big hot potato that historically people have loved to pass to the government, which passes it back to the private sector, and it goes back and forth. What are the premiums going to look like? What kinds of taxes are going to be required to pay for this? Will there be any savings to existing programs? There are taxes on employee benefits that are sometimes proposed as part of this. There are offsets to — that is, reductions in — uncompensated care. Also, we look at subsidies in the form of premium subsidies and tax credits. That's what most people are talking about these days. And then finally, we get impacts on households, who's paying more, who's paying less and why. For employers, we ask the same kinds of questions and then take into account what type of spending the government is covering.

One of the things that we do in here that's interesting is we take each individual in our database who has employer coverage. We assign them to a health plan, based on an actual survey of actual health plans of employers so that we have information on the characteristics of the employer, which is going to be very important for doing certain simulations. With the report we did for the Robert Wood Johnson Foundation (RWJF), we looked at some very elaborate reforms and redesigns of the U.S. health care system. But interestingly, we have two presidential candidates now; one is talking about tax credits to help uninsured people buy coverage, and the other is talking about a combination of approaches relying partly on expansions in the Medicaid program for lower-income people. So we're not talking about great big health system reforms; that proposal isn't on the table this election. It was in the Clinton campaign, but it's not here now.

Here it's a question of which approach do you use to expand coverage. So I picked a couple of examples. One proposal is by Judith Feder and her associates, and another is by Mark Pauly. They both expand coverage for Medicaid or the state children's health insurance program, both programs being for low-income people. Benefits would be available under the Feder program to people who live below 150 percent of the federal poverty level (FPL). For a single individual, the FPL is something like \$9,000; for a family of four it's about \$15,000. That's the kind of income range you're talking about. They'd let people buy into the Medicaid program. They'd actually buy insurance from Medicaid by paying a premium, which would be subsidized. The subsidy would vary with the income of the family. Mark Pauly's proposal covers people under Medicaid through 135 percent of the federal poverty level.

Mark Pauly proposes an individual tax credit. This is where individuals who buy insurance on their own can pay for it and then the federal government will give them a break on their taxes to help pay for that coverage. Actually, in Mark Pauly's plan, most of us have employer coverage and most of us make a contribution. There's an amount deducted from our paycheck every month and that amount is really your contribution to the premium. Under his program, people could get a tax credit for that. They could get some money back for that as well, if they're low-income people in particular. The Feder proposal doesn't do an individual tax credit,

but it does an employer tax credit. Firms with low-wage workers essentially would be eligible for a very sizable tax credit from the small, lowest-wage firms; as high as 50 percent of the total premium payment by the employer would be reimbursed.

I want to talk a little bit about the mechanics. I mentioned that not everybody who's eligible for Medicaid enrolls; nationally a little less than 70 percent of people who are eligible for the program actually sign up. No one fully understands why that is. It's free coverage. There's no premium. There are no co-pays. One of the interesting things about Medicaid is that you don't have to maintain your Medicaid coverage continuously to be covered by Medicaid when you use health care. In Medicaid, unlike any other kind of "insurance" you can think of, when you go into the hospital, you can actually get yourself enrolled at that point. If you're uninsured and Medicaid-eligible, the hospital will try to get you enrolled if they can, and they usually do a pretty good job of that. You're covered for your health services for the prior three months. They call it retrospective eligibility. So there's no reason to stay covered except, of course, if you maintain your coverage you're going to be able to get primary care. You're going to be able to go see your pediatrician and so on. But the consequences of failing to maintain your coverage are quite minimal so that may be one of the reasons why people aren't signing up.

We wanted to see the impact of requiring a premium from those people who would participate. We looked at the experience from some programs around the country that require a premium for certain people to sign up for their programs. It shows that participation right off the bat drops by about 37 percent if you require a premium. In TennCare, a Medicaid program in Tennessee, they made a mistake. They printed up bills that were supposed to go to the people who had signed up for their program and they left them downstairs. They were stamped and everything and they just forgot to mail them or just didn't send them out. Well, a few months later they finally did send them out, and when they did, they found a 25 percent reduction in the number of people participating in the program just because they finally got a bill for it.

What about the tax credits? Tax credits are available here only if you decide to go out and buy insurance. How would you model enrollment for that? Well, basically what we've done is we have said we're going to assume that the tax credit is interpreted by the individual as a reduction of the price of insurance coverage. Economists would say that of course that's what it is, but it's not necessarily the case that people will think about it that way. We've assumed that they will. The premium has been reduced by the fact that you can now get a tax credit. We, as well as other economists, have done analyses of the impact of price on the likelihood that people will buy coverage. For people with \$10,000 in income a year, the estimate is that a 1-percent reduction in price results in an increase in the percentage of the people with coverage of about .55 percent.

Now, we use that as a guideline to figure out how many people are going to come in. You give me the savings, and then I can do this arithmetic, figure out what the

savings are, what the change in the probability of having coverage is, and we can then figure out how many of them sign up. What's interesting about this is that it is derived from an econometric analysis, and in this analysis the price elasticity changes with your income level. People with higher incomes are less sensitive to price. Older people are less sensitive to changes in price than are younger people, so we take that into account in figuring out who signs up.

That becomes interesting because in the end we have to figure out what the demographic characteristics are of the people who signed up for it. Why? Because we have to go to Grady, who is an actuary, to figure out what is going to be the actuarial cost of that coverage. We need that information so our model gives inputs to Grady, and Grady gives us outputs from his black box.

Next, I did an analysis of what happens to employers when there's a change in the price of insurance. Let's consider small firms. Basically, a 1-percent reduction in premiums results in a .91 percent increase in the percentage of firms offering coverage. This, again, is econometrics. These price elasticities vary with the size of the firm. Large firms are pretty insensitive to price; kind of like older people who are pretty insensitive to price. Large firms do it, and that's that, but with small firms there's a great deal more sensitivity and responsiveness.

A wise old cost estimator once said to me that you have to have more courage to give a range estimate than a point estimate. With a point estimate everyone knows you're going to be wrong, but with a range estimate the results better be somewhere within that range. I did point estimates. This is just to show you that it does give us numbers. We're looking at the Medicaid expansion and the Feder proposal. It comes to a total cost of about \$44 billion.

It reduces the number of uninsured by 11 million people, but it also says that the number of people enrolling is 19 million persons. Nineteen million people enrolled, but only 11 million of them were uninsured. The remainder, 8 million, are people who are dropping other sources of coverage to come into this program now that it's available. Some people drop their employer coverage. Some people drop their non-group coverage and come in, so there's a change going on there. Under Mark's proposal, he doesn't extend eligibility under Medicaid as high as Feder does. His proposal generates \$32 billion in costs.

We show the Feder employer tax credit giving us a very small change in the number of people with insurance coverage. That's a controversial item. We think there are economists who would suggest this number should be about four times as large as it is. Four times 0.7 is 2.8. That still isn't a lot of the uninsured. So this is a proposal that really doesn't have much of an impact on the number of people getting coverage, both in our estimates and implicitly in other people's estimates.

The tax credits for Pauly are interesting because of how many people we have enrolling. Eighty million people qualify for the credit. These are people who buy

insurance now and have to pay for it out-of-pocket or the workers who get a tax credit on what they've contributed. But the reduction in uninsured people is only about 12 million people. So the primary impact of this policy is to help people who already have insurance coverage pay for it. People would say that this is not a very well targeted program. You're spending a lot of money, but you're giving it to people who already have coverage. Arguably they're not the ones that we should be paying the most attention to. So you could make the case that this is a poorly targeted program.

We have the total federal cost broken out here. This is assuming that the federal government will pay for it all, and that's about \$50 billion under the Feder proposal and \$102 billion under the Pauly proposal. The Feder proposal covered about 12 million people. The Pauly proposal covered roughly twice that with about 20 million; but Pauly's proposal is about twice as expensive.

MR. CATTERALL: Next is Howard Bolnick. Howard is an adjunct professor at Northwestern University's Kellogg Graduate School of Management. He's also the cofounder and chairman of the board of InFocus Financial Group. In addition, he's chairman of the newly formed International Actuarial Association (IAA) Health Section. Howard is also a past president of the Society of Actuaries. He was president in the 1988-1989 year. He has written extensively on health insurance and health-care reform.

Notably, as a vice president of the American Academy of Actuaries, he was the lead person in charge of putting together the series of 16 monographs that the Academy published on the Clinton health-care reform proposal. He's also spoken widely on these subjects, and by widely I mean all over the world: Croatia, Slovenia, Hungary, Russia, Mexico, Australia and the United Kingdom.

MR. HOWARD J. BOLNICK: I'd like to take these issues that we've discussed (both from a descriptive point of view and from a detailed projection point of view), and look at them from an overall policy point of view. In doing this, I'm adopting a framework that's much more European than it is American. It's much more the way the Europeans will look at their health care systems, which, by the way, have their own sets of problems trying to deal with the questions and problems that they have. Let's see how it applies to the United States.

I want to discuss what we can learn from economic insights, the structure of markets and cultural imperatives — something that Ed Hughes mentioned yesterday — and take a very brief look at where we might be going. I'll share my take on long-term projections, which I can't cover in any real depth here, but I hope to give you just a little bit of flavor of it. There's a paper being published in the *North American Actuarial Journal (NAAJ)* later this year on the subject, which I find fascinating. Then I'll try to draw some implications for U.S. health-care financing.

The problem in the United States is true pretty well across the world. Developed countries have a goal that looks very much like this: They would like to have universal access to high-quality, cost-effective health care for their health care systems. But they also have a number of objectives underneath it to get to more detail. Under cost, they'd like to have an equitable system. They'd like to have one that's affordable. They'd like to have a system that's sufficient where they'll be able to have adequate resources now and in the future. They look at quality and would like to be sure that the system is both effective, it does what it needs to do, and is efficient, it does it as cheaply as possible.

People who either talk about or actually manage to get to universal access are constantly worried about the problem of social acceptability of their systems. There isn't a system out there in the world where there isn't a significant portion of the population that complains about it and says it's broken, let's start over again. We in the United States aren't unique in that situation. This creates some perpetual stresses that people who are managing these systems have to deal with. There's this concept of stewardship. In most countries, there's somebody who's responsible for the overall system and has to balance the different needs of the people who are in the system, the providers and all the people who pay into it. Here in the United States, it's relatively difficult to figure out who might be the person who has stewardship. I think it rests with the federal government, but they don't really have purview over the entire system in the way that European governments do.

There are three perpetual problems. The first is one of feasibility, simultaneously achieving a balance among cost, quality and access. The second problem is one of sustainability. Let's say I have the problem solved this year. How can I manage to have that happen over a series of years, as measured by something like Medicare's 10-year projection or 75-year projection? Things may be fine now. How do we manage to keep that over a long period of time? And the final problem is one of satisfaction because health care is so important to people. Citizens have expectations, patients have expectations, everybody has expectations. How do you manage to have a system that fulfills these expectations and minimizes the concerns that people have?

If you look across the world you won't find what I'll call a balanced system — one where cost, quality and access goals and objectives are fulfilled, and everybody is happy and nobody complains. It just doesn't exist. Every system is in one way or another unbalanced. Here in the United States, I think the characteristic unbalance that we have is clearly that it costs a lot of money. In parts of the system, particularly the working-age population, it's based on a risk-based premium where there are no effective cost subsidies between the sick and the healthy, the older part of it, the younger part of it, and the poor part and the richer part, which is something that most systems strive for, and we'll touch a little bit more on this.

We have a rather uneven quality across the country. We have in some areas the best health care in the world. No one can go and say they have better health care

than we do. However, in parts of our inner cities, I think we have almost Third World health-care levels. So we have an uneven quality. And with respect to access, everybody in here, I'm certain, is well aware that we have somewhere in the low- to mid-40 millions of people who are uninsured, and we have a whole large group of people who are underinsured on top of that. Those are the characteristic unbalanced parts of our U.S. health-care system.

What can we learn from looking at things from various points of view: an economic point of view, a structural point of view and a cultural point of view? This is a point that Ed Hughes mentioned yesterday that I will emphasize today, and I agree totally with what he had to say. Chart 6 shows one of my favorite charts in the whole world. This is a measure done by the World Health Organization that compares on the vertical axis what's called health-adjusted life expectancies, which is a population measure of health. You can look at it as an adjustment to life expectancy where you take a look at life expectancy, and then for people who are alive you do a little deduction for the fact that some are not in good health. The poorer their health is the more the deduction. Obviously, health-adjusted life expectancy is going to be less than life expectancy. And you can see that it increases on the vertical axis.

On the horizontal axis is total health spending in 2001 based on the measure of purchasing power parity — an attempt to try to equalize spending across different currencies. You have a characteristic graph that is very interesting. On this graph, it looks like for countries that spend less than \$1,500 purchasing power parity, their health-adjusted life expectancy falls off and can fall off fairly rapidly. But there are about 25 or 26 countries, developed nations, mainly the EU, United States, Canada, Japan, Australia and a few others that spent at least that \$1,500 level in 2001. They're all hanging around that line of about 70 years of health-adjusted life expectancy.

I think the most interesting statement about this is that from \$1,500 on up to the biggest spender in the world, being none other than our wonderful country at just under \$5,000 of purchasing power parity spending in 2001, there's no improvement. There's no improvement in health for that additional spending.

This brings up the question: What do we get for spending three times the minimum? Where do we spend it? What do we get for it? If I could answer that question, it would be really wonderful, but there is a lot of speculation and there are interesting pieces that come out of exploring this chart.

The other thing we know is that health-care spending almost everywhere increases faster than growth in real gross domestic product (GDP). It comes about for three reasons. A study in *Health Affairs* showed that the most important reason for health-care spending growth in excess of GDP is technology. It accounted for, in the study, roughly 70 percent of the cost increase from 1960 to 1993. This is consistent with what Ed Hughes had to say. Other pieces that affect it are demand; that's the

additional disposable income that people have, plus the expansion of insurance coverage. Aging hasn't accounted for much in terms of the reasons why health-care costs increased in the past 40 years.

One of the things that's very interesting is the idea of how these pieces fall together when we say technology is so important in cost increases. A gentleman named Burton Weisbrod, who is a medical sociologist formerly at Northwestern University, now retired, published an article titled "The Health Care Quadrilemma," which talked about how in our system there is a cycle or a dynamic where whatever health technology becomes available is essentially demanded by people in our system, is paid for by insurance so that people developing health technology understand that they will, in fact, be paid for their efforts, and it increases the scope of health care. It increases the cost of health care and, yet, is paid for through the third-party system. The argument that the article goes through is obviously much more detailed than I'm able to present in just a few minutes. But for those of you who are interested, there's a citation and I encourage you to take a look at his paper. He gives some insight, I believe, to one of the fundamental dynamics that we have here in the United States. And one of the reasons that our costs are so high is this interaction between the insurance systems, medical technology and who we are as people and what we demand.

There's another dynamic that we need to look at if we're thinking about health care systems and where they might go, and that's what I call market behavior. Now this is a dynamic that relates to the structure of an insurance marketplace, in this case, or a health-care system, whether it is a public system or a private system. There are other variations on it. But they have characteristic rules of engagement: choice from consumers, choice of who's playing in terms of serving that market, and government rules.

Once you know what a structure looks like, there's a characteristic consumer behavior that you're going to experience in that market. In insurance, most notably, risk aversion and the search for individual equity cause major problems with adverse selection and moral hazard, which affect the marketplace. And if you know the structure and can predict the consumer behavior, I can tell you pretty well what insurance companies or other risk bearers are going to do in designing risk-management tools to compensate for these consumer behavior problems. When you look across the world and ask yourself questions about public markets versus private markets, we need to recognize that private markets are characterized by choice. People have the choice of joining or not joining. Insurance companies have the choice of joining or not joining. And those create a market failure problem.

This is a wonderful quote. I use this in my class at Northwestern and we spend about three weeks trying to understand it because it's counterintuitive. It's from Nobel Prize winner Joseph Stiglitz and Michael Rothschild in the paper that got Stiglitz the Nobel Prize. It says, "Economists generally prescribe competition as a solution for markets that do not work well. Insurance markets differ from most

other markets because in insurance markets competition can destroy the market rather than make it work better." It's counterintuitive, but give me a few weeks and I can demonstrate to you and prove that this is entirely true.

We had problems caused by the market because of these behavioral problems — moral hazard and adverse selection — and there's also another range of problems that need to be dealt with. What happens then is that private markets have certain dynamics. There are clearly adverse selection and moral hazard problems in there. There are a number of problems with the feasibility of insurance and, on the other hand, when it comes to looking at satisfaction (another area that health systems are looking at), most notably insurance companies in private markets are going to compete to satisfy buyers' needs and wants. So they're going to want to provide customers with whatever they need or want from the health-care system. But we need to have certain risk-management tools that are necessary to balance these open systems, which cause potential problems with people being charged more than other people and people being excluded from the system. So the structure creates all these particular issues, which then redouble back in public policy talks to, "Gee, look at that insurance company and what they're doing."

On the other hand, a public system that offers no choice (like Medicare with no choice of health plans) doesn't allow any opportunities for people to decide to join or not join, and it doesn't allow any competition within. As we know, this is changing. But note that adverse selection goes away because everybody's in and what you know about your health doesn't matter. However, moral hazard problems, that is, the use of the system to get more care than you would get without insurance coverage, or in order to ask for more technology and other benefits from the economy, still is there. There are issues of feasibility, but many of them are reduced in public systems. From a satisfaction point of view, the system is a government bureaucratic system and tends to deal more with what people need rather than what they want out of a system. Many of the constraints you hear about in Europe come from this kind of view of things.

Each system has its own characteristic risk-management tools and there are arguments floating around that are very important, but I'll have to let you read these things yourself. There are arguments pro and con for public insurance systems based on concepts of social justice, which, particularly in Europe are very, very strong arguments. These words that we never hear in the United States, quite interestingly, "social solidarity," ring clear in practically every paper or conference that you come across in Europe about social insurance systems. It's very interesting because I think you can read pretty much any journal of health insurance, health affairs or health policy here in the United States and you'll never see the words "social solidarity."

FROM THE FLOOR: Can you define that?

MR. BOLNICK: What it means is we're all in it together. The rich are going to help pay for the poor; the healthy for the unhealthy; and it always implies some sort of tax-based system. We actually have social solidarity in Medicare and Medicaid, but I defy you to find that word used when we talk about them.

There are also arguments from economic efficiency and, likewise, on the private side there are arguments from social justice essentially saying these concepts of social solidarity aren't what people want. There are arguments from economic efficiency and choice. Ed Hughes talked about this yesterday — the cultural imperatives and their political implications, and how important who we are as a people and how we think about our society is for the design of the health-care system. I can't emphasize this more strongly than Ed did. This is an incredible constraint on health-care systems. Who we are as Americans informs what we can do with what our system is, and what our options are. You can see a lot of decisions that are made can certainly relate both to personal ethics and this concept that we're all in it together. Again, I don't have time to really go through this, but this is something that will be a lot more discussed in a paper that will be out later this year in *NAAJ*.

There are differences in the way people think, in their personal ethics and the social ethic that is around the two different types of systems. One is driven by social solidarity, in which costs are paid for by some sort of progressive financing, tax-related, income-related and the constraint on the system is I can only spend as much as I can get in through that kind of taxing system. So while costs are constrained at an overall global budget, the government will spend all that money. They try to spend it on getting essential care; the care that people really need to be healthy. And if you'll remember my chart that I said was so interesting, it seems as though a spending level of about one-third of what we spend in the United States can make people as a population as healthy as we are. There is in here some sort of an implied idea, I believe, that we could somehow constrain costs and be as healthy as a population as we are now. And clearly, social solidarity implies, and the system is driven, by everybody being involved with it.

On the other hand, ideas of individual equity are based on costs being based on actuarial fairness issues, which we're all well aware of, differentiating risks and charging each person for his level of risk. The types of constraints that are used in these systems are managed care and cost sharing. We're now seeing a big change from the hope for the benefits of managed care to the hope for the benefits of consumer-driven healthcare. I'm kind of skeptical about both of them having major effects on the cost of a health-care system. Quality issues are really gauged toward assuring individuals that they get all the care that they want when they want it. Not all the care they need when they need it — all the care they want when they want it. In these systems membership is based on the ability to pay. There are some subsidies, obviously, in the employer system, but health care is not viewed as an entitlement.

Going a layer deeper, how do you determine whether you have social solidarity or an individual equity system? You get in the concepts of distributive justice, which are very interesting, but you have to ask what kind of economic good health care is. If a society believes, as we do, that health insurance or health care is something that ought to be freely exchanged through markets, then you end up with a system as we have where individual equity predominates, where people are able and want to get more care because they want their wants fulfilled and there are fewer constraints in the system. If, on the other hand, a society has developed a social solidarity ethic where that predominates, you're going to get less care more aimed at needs and more constraints on the system one way or the other.

Could you change from one to the other? I think this is a very interesting quote from a modern man from the late 1400s, Niccolo Machiavelli. He says, and I think quite rightly so, "There's nothing more difficult to manage, more dubious to accomplish nor more doubtful of success than to initiate a new order of things. The reformer has enemies in all those who profit from the old order and only lukewarm defenders in all those who would profit from the new order." I think what happened 10 years ago to the Clinton reform proposal probably demonstrates that concept in the United States quite well. We aren't going to be able to change very far from the kind of system that we have now.

What might happen in the future? This gets to the issue of sustainability. When you think about what costs might look like 50 to 100 years from now, most projections that are done take essentially the existing system, the existing dynamic and the existing vector and project them forward. But this is an area that really interests me. How do you get a handle on what might happen and then, backing up, if you can see some options of what might happen in the future, what does that mean for health-care policy today? I'll argue that going over a long period of time you would approach these issues by looking at what life expectancy is. Within that population pyramid, you would look at the biological morbidity; that is what burden of disease exists within those different sub-populations at different ages. And then, once you had an idea of the burden of disease, you'd have to ask yourself the question about what I'll call economic morbidity. What are the scope, intensity and cost of medical care? This is kind of a layered, structured approach to looking at things.

Chart 7 shows there are wide differences between what might happen over a 50-year period if you were to put different scenarios together from the best that could happen to the worst that could happen in today's dollars. This is a graph that just looks at U.S. health care today, which is about \$4,900 per person and says 50 years from now if nothing changes, we're not talking about any economic growth, what the dollar cost would be. You can see that reasonable scenarios might be anywhere from costs aren't going to increase much, to costs might be almost two-and-a-half times what they are today in the worst of all cases.

The reason for this is that life expectancy is getting longer. What's happening to biological morbidity is that people tend to be living healthier and living longer. And

when you start analyzing the economic morbidity, which is the most difficult part to get a handle on, we see that the drivers of health-care costs in the long term are probably things external to the system: the medical technology, which is this dynamic we talked about before, and then, secondly, the way the ethics and the type of lifestyle that we, as a society, choose to live. There's a lot of evidence behind the idea that lifestyle is a major contributor to the burden of disease in a society.

What do I take out of this in terms of the preferred health-care system and apply it to the United States? First of all, we have to have some sort of enlightened government stewardship. Yes, we will have political debates about things. We need to have sufficient financial resources to provide for all the things we need to make people healthy, and we need to have some sort of adaptive system that allows for continual improvement in health care. Health care today is entirely different than 50 years ago. Fifty years from now, I think we can likely say the same thing will happen. A doctor today wouldn't be able to understand it. He would be amazed by health care 50 years from now. I think what we need is some sort of universal core public health care financing system that covers health care needs. But because people's wants differ and some people want more, there needs to be some sort of way that people could buy more care if they want it. And unlike in the United States today, the line between what the public sector does and what the private sector does needs to be clear, with no holes or gaps between what the two sectors cover, such as exists with our 42 million uninsured today.

What might this system look like? I think, given the path dependency of societies, we aren't going to move far from where we are, and the one real change that we can make is in the working-age population that is not poor. We'll likely see if we can make some changes in our health-care system, to create some sort of obligation for employers to provide coverage, and some sort of means to subsidize individuals whose employers don't provide coverage. The first proposal to do this was back in the Nixon administration. We toyed with it a number of times. If there's going to be change, I think it's going to be in that direction with some sort of voluntary private health insurance to allow people to buy more things if they want them.

The question is where would that leave us if we were to get there? When we go back to our issues of costs, quality and access, I think that cost is a problem today. It will be a problem in the future. This particular scenario doesn't really address any of that. With respect to quality, because we wouldn't have the uninsured to deal with, it wouldn't necessarily end the quality gap between the Medicaid population and the privately insured population, but kind of take the approach of bringing up the bottom, at least part of the way. With respect to access, it certainly would make a lot of difference to have universal coverage or near universal coverage. From the last point of view, would it solve all of our problems? Would everybody be happy with our system? No, that will never happen.

Chart 1

HI Expenditures and Income

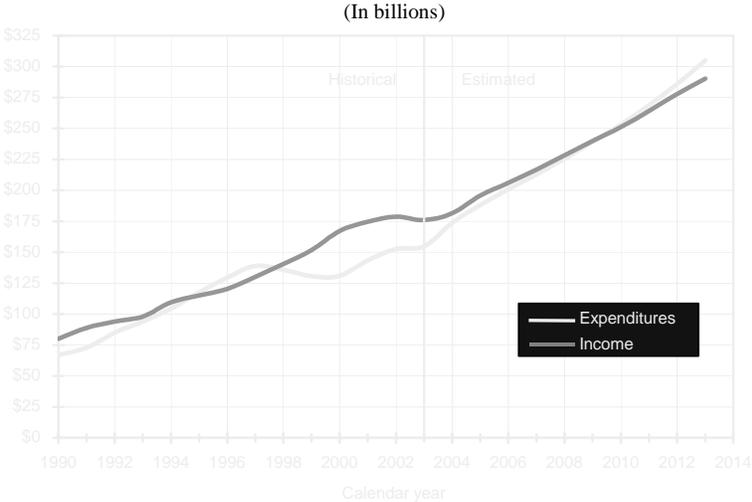


Chart 2

HI Trust Fund Assets

(Assets at beginning of year as percentage of annual expenditures)

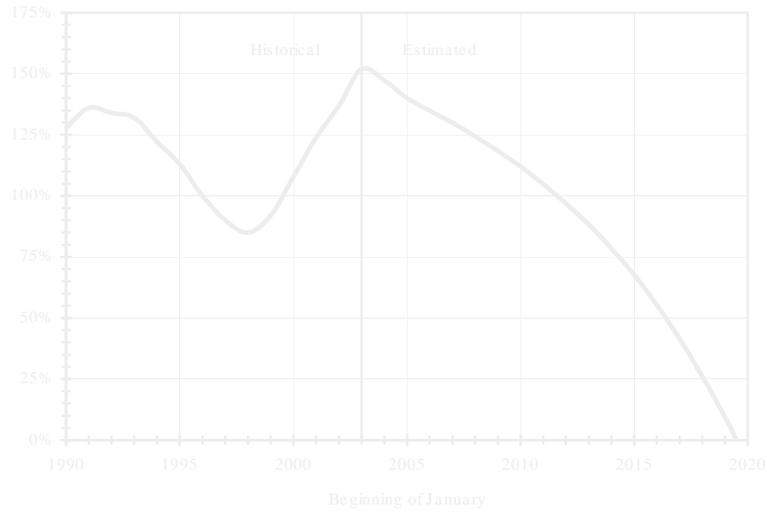


Chart 3

Long-Range HI Income and Costs

(Under intermediate assumptions; as percentage of taxable payroll)

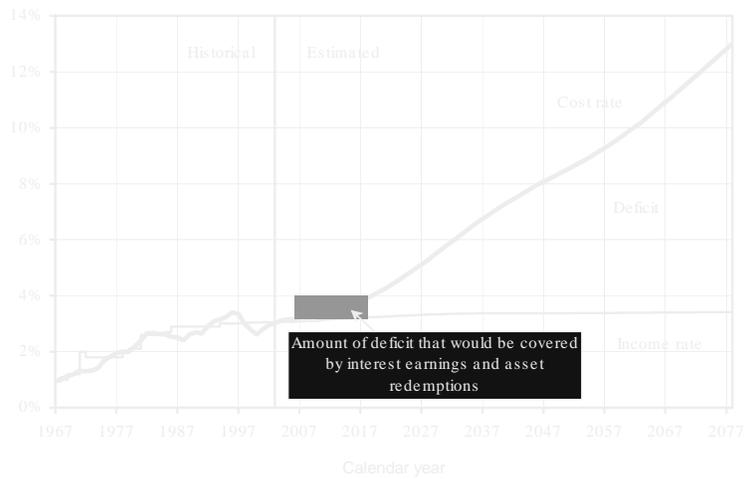


Chart 4

Part B Expenditures and Income

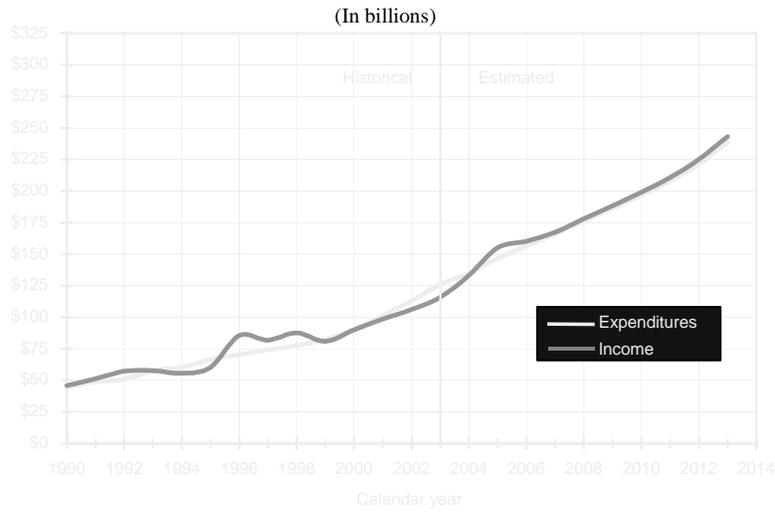


Chart 5

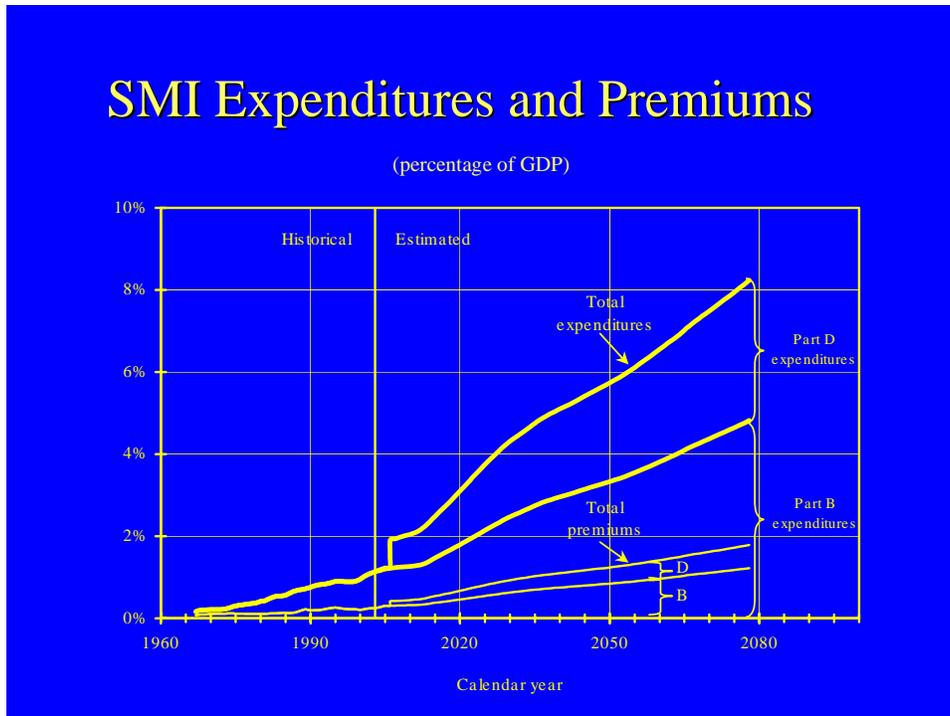
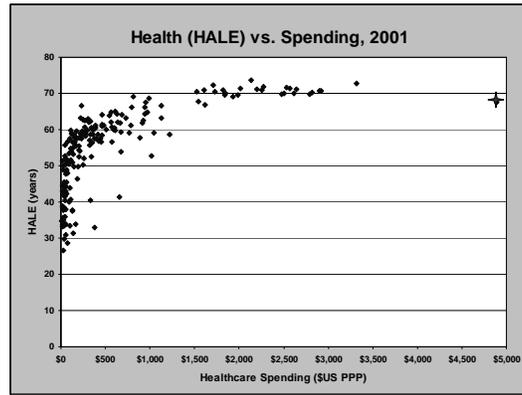


Chart 6

Quality Health Outcomes Are Costly...

- Population health (HALE) improves significantly with spending until reaching about \$US 1,500 (PPP)
- Population health does not appear to improve with greater spending
- Population health decreases significantly with less spending
- USA, 2001
 - \$4,887 healthcare spending
 - 67.6 HALE

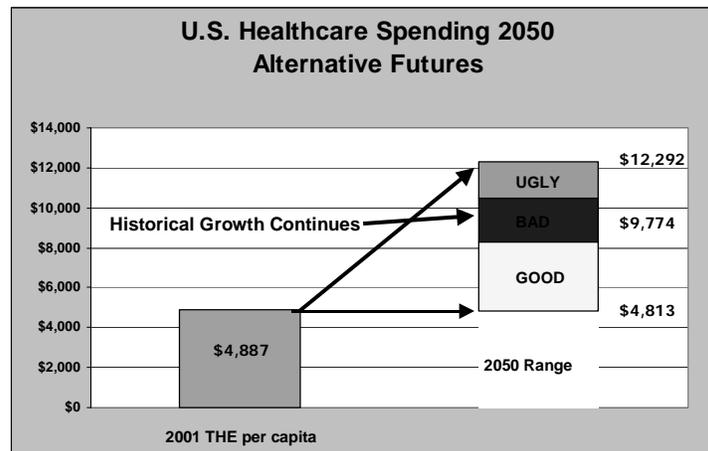


Source: World Health Reports (WHO) 2002 and 2003



Chart 7

Future Healthcare Cost Scenarios



Key Drivers: Technology, Lifestyle, Ethics

