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EXPERIENCE OF FOREIGN NATIONS IN CONTROLLING HEALTH CARE COSTS

HEARING

BEFORE THE

COMMITTEE ON FINANCE UNITED STATES SENATE

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FIRST SESSION

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CONTENTS

OPENING STATEMENTS

Page

Moynihan, Hon. Daniel Patrick, a U.S. Senator from New York, chairman, Committee on Finance 1
Grassley, Hon. Charles E., a U.S. Senator from Iowa 2
Hatch, Hon. Orrin G., a U.S. Senator from Utah 3
Riegle, Hon. Donald W., Jr., a U.S. Senator from Michigan 4

COMMITTEE PRESS RELEASE

Finance Committee Announces Hearing to Examine Experience of Foreign Nations in Controlling Health Care Costs 1

CONGRESSIONAL WITNESS

Shikles, Janet L., Director, Health Financing and Policy Issues, U.S. General Accounting Office, Washington, DC 5

PUBLIC WITNESSES

Evans, Robert G., Ph.D., professor of economics, University of British Columbia, and director, Program in Population Health, Canadian Institute for Advanced Research, Vancouver, BC 27
Marmor, Theodore R., Ph.D., professor of public policy and management, School of Organization and Management, Yale University, and fellow, Canadian Institute for Advanced Research, New Haven, CT 34
White, Joseph, Ph.D., research associate in the Governmental Studies Program, the Brookings Institution, Washington, DC 39

ALPHABETICAL LISTING AND APPENDIX MATERIAL SUBMITTED

Durenberger, Hon. Dave:
- Prepared statement 51

Evans, Robert G.:
- Testimony 27
- Prepared statement 52
- Response to a question submitted by Senator Grassley 60

Grassley, Hon. Charles E.:
- Opening statement 2
- Prepared statement 61

Hatch, Hon. Orrin G.:
- Opening statement 3
- "U.S. Health Care at the Cross-Roads," a OECD report 62

Marmor, Theodore R.:
- Testimony 34
- Prepared statement 149
- Responses to questions submitted by Senator Grassley 185

Moynihan, Hon. Daniel Patrick:
- Opening statement 1

Riegle, Hon. Donald W., Jr.:
- Opening statement 4

Shikles, Janet L.:
- Testimony 5
- Prepared statement 172
- Responses to questions submitted by Senator Riegle 178

Page

White, Joseph:
Testimony 39
Prepared statement 179
Responses to questions submitted by Senator Grassley 185

EXPERIENCE OF FOREIGN NATIONS IN CONTROLLING HEALTH CARE COSTS

WEDNESDAY, OCTOBER 13, 1993

U.S. SENATE,
COMMITTEE ON FINANCE,
Washington, DC.

The hearing was convened, pursuant to notice, at 10:04 a.m., in room SD–215, Dirksen Senate Office Building, Hon. Daniel Patrick Moynihan (chairman of the committee) presiding.

Present: Senators Riegle, Daschle, Packwood, Danforth, Chafee, Durenberger, Grassley, and Hatch.

Also present: Senator Wellstone.

[The press releasing announcing the hearing follows:]

[Press Release No. H–38, October 8, 1993]

FINANCE COMMITTEE ANNOUNCES HEARING TO EXAMINE EXPERIENCE OF FOREIGN NATIONS IN CONTROLLING HEALTH CARE COSTS

WASHINGTON, DC—Senator Daniel Patrick Moynihan (D–NY), Chairman of the Senate Committee on Finance, announced today that the Committee will conduct the second in a series of hearings on topics related to health care reform. Next week's hearing will examine the experience of foreign nations in controlling health care costs.

The hearing will begin at *10:00 a.m. on Wednesday, October 13, 1993,* in room SD–215 of the Dirksen Senate Office Building.

"Other nations have grappled with the problem of galloping health care costs, and continue to do so," Senator Moynihan said in announcing the hearing. "Surely as we embark on the enormous enterprise of restructuring our health care system, it is only prudent to inquire as to what has been tried elsewhere and how those efforts have fared."

OPENING STATEMENT OF HON. DANIEL PATRICK MOYNIHAN, A U.S. SENATOR FROM NEW YORK, CHAIRMAN, COMMITTEE ON FINANCE

The CHAIRMAN. Good morning to our distinguished witnesses and our guests. This morning, we continue with our series of hearings on the general subject of health care.

Today we are going to look at the experience of some of the other nations that have already approached this issue, often in different ways. The pattern of American social policy, in many respects has been to follow in one or two generations the innovations that were put in place in Europe, for instance. In this case we would also be attending on the experience of our neighbors to the north, the Canadians. We have some very learned witnesses. We are looking forward to hearing them.

Senator Packwood, why are all of the members of your side of the aisle here to learn about what them socialists did?

Senator PACKWOOD. That is because, Mr. Chairman, the Republicans have introduced their health plan.

The CHAIRMAN. I see. [Laughter.]

It is going to be that kind of morning.

Senator DANFORTH. And we assume, like NAFTA, we are going to have to provide the votes to get something done. [Laughter.]

The CHAIRMAN. Why did I not just read the script? [Laughter.]

Senator Danforth, I think you were here first.

Senator DANFORTH. I have no statement, Mr. Chairman.

The CHAIRMAN. Senator Durenberger?

Senator DURENBERGER. Mr. Chairman, I cannot out do you.

The CHAIRMAN. Senator Grassley?

Senator GRASSLEY. I do have an opening statement.

The CHAIRMAN. Please do.

OPENING STATEMENT OF HON. CHARLES E. GRASSLEY, A U.S. SENATOR FROM IOWA

Senator GRASSLEY. I think the subject of this hearing is very well chosen. We need to look at all the available experience in the world for ways to reduce our health care costs and to rate the increase of those costs.

Since Canada and the European countries approach this problem in ways that differ from our own, we obviously can learn from their experiences. Furthermore, some of the methods that are used abroad are being suggested for use here, particularly in the Clinton Administration bill. So a good airing of how these methods work abroad will be helpful and useful to us.

At the same time, it seems to me to go without saying that the United States differs from other countries in very many important ways. Our population is different. Our political system is different. Our culture is different and, of course, our physical size is different.

So assuming global budgets work in other countries, we need to ask whether they work as well containing costs and allocating health care resources fairly across the country if we adopt that approach here in Washington.

We need to ask whether subjecting the allocation of health care resources to an essentially political budgeting process would create a kind of hyper politics with all of its irrationalities, given the enormous portions of the national economy that we are talking about here—14 percent, an economy the size of Italy.

We need to ask what tradeoffs are involved in using these kinds of cost control mechanisms. Frankly, it is a little hard for me to believe that we will just eliminate unnecessary care and administrative waste with such methods and then live happily ever after with everybody enjoying the very best health care without paying much for it.

In any case, Mr. Chairman, that is all I have to say on the subject and look forward to our witnesses.

The CHAIRMAN. Thank you, Senator Grassley; and very pointed questions they are.

Senator Hatch?

OPENING STATEMENT OF HON. ORRIN G. HATCH, A U.S. SENATOR FROM UTAH

Senator HATCH. Mr. Chairman, I do not want to take long. I welcome today's hearing on the experiences of foreign countries. I recognize, however, that transnational comparisons do not always work well, because of a variety of cultural differences.

I would just like to point out two critical transnational comparisons that should not be forgotten. U.S. hospitals attract patients from all over the world. We are also the world's leading exporter of health care technology and expertise. Perhaps the reason for this pre-eminence is that the United States does spend more for health care, thus providing the requisite entrepreneurial climate for health care innovation.

I would like to hear the comments of the witnesses on the issue of coupling employment and health insurance. I agree with the negative conclusions about this relationship that were written in the recent Organization for Economic Cooperation and Development publication, "U.S. Health Care at the Crossroads."

In that report, OECD said that "the linkage is archaic and makes no more sense than linking automobile insurance to people's employment. It restricts the individual's choice of insurance as employees are effectively obliged to accept any group insurance plan that the employer chooses, thereby limiting the presumed advantage of a decentralized financing system. It also acts as an impediment to labor mobility and is costing the Federal Government $40 billion per year in tax subsidies."

I hope the witnesses will also describe how other countries deal with the medical liability and antitrust problems. These are two areas which I believe push up considerably U.S. health care costs. It would be important to learn the extent to which other countries maintain fee-for-service medicine and how successful other countries are in developing innovative technology.

I would also like to hear how extensive covered benefits are in other countries. For example: Do they cover prescription drugs and dental care?

Finally, I hope we will examine the bottom line issue: Controlling the costs of health care, including the soaring costs associated with Federal programs such as Medicaid and Medicare. How have other countries sought to reduce costs? Have attempts by other governments to control costs resulted in a loss of quality or loss of access or rationing? Is there not a trend abroad to look for U.S.-style market-based approaches, such as required co-payments and deductibles?

These are all important questions. I cannot stay because I have a very important Western States Coalition meeting that I have to attend. But I am interested in everything that is said in these particular areas and all areas as well. I thank you for giving me this time, Mr. Chairman.

The CHAIRMAN. We thank you. Senator, did we hear you say that was an OECD report?

Senator HATCH. Yes.

The CHAIRMAN. Perhaps you would share it with us.

Senator HATCH. I will be glad to get it for you. I do not know if I have it with me.

The CHAIRMAN. Yes.
Senator HATCH. But I will be glad to share it with the Committee.
The CHAIRMAN. We would put it in the record perhaps.
Senator Riegle, good morning.
[The OECD report submitted by Senator Hatch appears in the appendix.]

OPENING STATEMENT OF HON. DONALD W. RIEGLE, JR., A U.S. SENATOR FROM MICHIGAN

Senator RIEGLE. Thank you very much, Mr. Chairman. First of all, let me thank you and commend you for having this hearing to really look at what is going on.

The CHAIRMAN. These are bipartisan hearings, as you know.

Senator RIEGLE. As they should be. In fact, some of us were talking across the party aisle yesterday, about exactly the best way and how to proceed in that fashion.

I would just like to note for the record that the data that I have shows that the per capita health care costs in the United States—the latest year I have is for 1991 that are comparable—shows a figure of $2,867. That far exceeds any other country that we know about.

The closest country in per capita health care spending is Canada. Their comparable figure for that year was $1,915. But that is almost $1,000 less per person. Then, of course, every other country comes in much below that. And, of course, we have the highest per capita costs with the anomaly that nearly 40 million people have no health insurance.

The German system is often cited in broad terms as being similar to the United States since it is an employer-based system. They also have a special what are called sickness funds which negotiate with providers to determine payment fees. We, in fact, use those funds as a model in our HealthAmerica proposal—Senators Mitchell, Kennedy, Rockefeller, and I put together.

So I am very interested in carefully looking at how Germany has managed to be successful in meeting its health care needs in its society and still appear to be doing a very effective job in holding down health care costs. So I view this as a very important hearing and I thank you for conducting it today.

The CHAIRMAN. Yes, sir.

Therefore, we go to our first distinguished witness, Hon. Janet Shikles, who is the Assistant Controller General of the United States, and is head of the Human Resources Division. Dr. Shikles succeeds Larry Thompson, who is so well known to us all.

You have brought some—the ever-prepared General Accounting Office has brought its own name tags. [Laughter.]

Nothing is left to chance. Mr. Gutowski, good morning to you, sir; and Mr. Laetz, good morning to you, sir.

Ms. Shikles, you may proceed just as you would like. You can put your paper in the record as if read and then proceed. We have plenty of time for you. We want you to take your time.

STATEMENT OF JANET L. SHIKLES, DIRECTOR, HEALTH FINANCING AND POLICY ISSUES, U.S. GENERAL ACCOUNTING OFFICE, WASHINGTON, DC

Dr. SHIKLES. Thank you. Mr. Chairman and members of the committee, I am very pleased to be here today to testify on the approaches used by the German health care system to control the growth in health care costs. Germany's experience is instructive for the U.S. because its health care system provides coverage for all residents, and like our system, it relies primarily on employer-based financing.

Also, Germany has been able to keep its share of GDP spent on health care relatively constant over the past decade while, as you know, our share has grown dramatically.

In looking at the German system, most Germans obtain their health insurance through membership in one of about 1,200 so-called sickness funds. These are basically publicly-chartered, non-profit corporations. These funds are required by law to provide a very comprehensive benefits package, which includes dental care and pharmaceutical drugs.

The sickness funds are financed primarily through legally mandated contributions shared equally by the workers and the employers. This contribution rate operates basically like a payroll tax, where a fixed percentage of the employee's gross income or compensation is deducted from each pay check and then is transferred to the sickness fund.

Since the mid-1970's the German health care reform initiatives have concentrated primarily on trying to keep this contribution rate stable. They have done this by trying to link any increases in spending in the health care sector to increases in revenue growth of the sickness fund.

Our earlier work included an analysis of some of the initiatives that they put in place. We found that when they imposed expenditure targets and caps on the physician sector they were successful in slowing down the spending. In fact, we found that they reduced real spending by as much as 17 percent between 1977 and 1987. And, in fact, German physicians are among the few in Europe who have actually seen their income decline. It is because of the effectiveness of these expenditure targets.

In the 1980's Germany also put in place global budgets on their hospitals. But these we found did not work that well because there was no enforcement mechanism and so they did not really adhere to the budgets.

Now in spite of a whole series of cost control initiatives dating back to the mid-1970's, health care spending continued to out pace inflation in Germany. By the late 1980's and the early 1990's, there was growing pressure for reform that in spite of all these initiatives there was a belief among all sectors—physicians, hospitals, payers—that there was still a lot of inefficiency in the system.

This was also at the time when they were experiencing the very high costs of reunification and a slow down in their economy. Then what triggered the latest round of reforms was that in 1991 that contribution rate, which you can think of as a payroll tax, jumped from over 12 percent up to 13 percent.

At that point, it is a barometer that the public watches. It is publicized in the newspapers. The retirees watch it. So there is so much political pressure then on the Parliament, the Ministry, that they have to bring that rate down. It is unacceptable.

So they responded and what they did is, they passed last December and put in place effective January 1 the German Health Care Structure Reform Act. What this did is imposed very tough, nonnegotiable expenditure limits on the four major health care sectors—physicians, hospitals, pharmaceuticals, and the dental care services.

These limits are going to remain in effect for the next 3 years. The goal is to stabilize the contribution rate and also save about $6 billion this year.

What they have also done is put in a whole series of mechanisms to put reforms in the system to try to get at the underlying cost drivers. They have an oversupply of physicians, so they want to constrain the number of physicians who can practice. They are putting in tougher measures to tackle the diffusion of technology. They want to change the way they are paying hospitals to get more efficient; and they are doing several other things.

The goal is that if they get these in place and they are successful that they will then take off the expenditure lids.

We have been able to obtain some early data from the German Health Ministry about how well these are working. So far, according to the Ministry and the date of their report into us, they are working very well in terms of reducing spending.

They have announced that the average cost per sickness fund member actually failed by 2.7 percent in the first 6 months of 1993. This is in contrast to an increase in spending of over 9 percent last year. The major areas where the spending has fallen were in the pharmaceutical and dental areas. These are areas that really have never had global budgets applied to them before, and this is where they expected to get quite a bit of savings.

In summary, the recent German reforms we think illustrate the continuing cost pressures facing all industrialized nations. In spite of two decades of ongoing efforts to contain costs and a record better than most other countries, Germany still found it necessary to embark on significant changes this year.

What is instructive about these efforts to contain health care costs we think is that, first, they do have in place an ability to respond to these constantly changing market conditions. One, because they already have universal coverage; and second, they have a uniform administrative mechanism which makes it easier to monitor provider fees and utilization. So they can track what is going on. They can find out if they have problems, make the corrections.

Second, the implementation of the tough measures that they have experimented with since the mid-1970's that they will be testing and implementing over the next several years are facilitated, we believe, because they have a very detailed process of negotiation and collaboration.

It is not totally the Federal Government saying, this is the way it will be. In fact, all players are participants. They have something called concerted action that was set in place in the mid-1970's that

includes about 64 members of pharmaceutical companies, physicians, hospitals, payers. Everybody comes to the table and tries to collaboratively work out, if this is your goal of keeping the contribution rate stable, how can we work together rather then one group imposing it on the other.

And finally, what you find in the German system when you study it is, that they recognize that an area as complex as health care, you will never get it stable and you will never get it right. So they use the concerted action mechanism and a lot of other groups to work at it every year.

In spite of these reforms that they put in place last January that they do not have implemented totally yet, they are already working on their next round. This is driven by the fact that there is new technology coming on line every day, that their population wants, which drives up cost pressures.

They have more serious demographic problems than we do. They have a much higher proportion of their population who is aged, who are much higher users of services; and they have a very inadequate, very deficient long-term care system, which is causing them a lot of problems that they have to deal with that.

And they feel that they continue to have inefficiencies in the systems that they will need to keep working on. So they expect to have their next round of reforms introduced in December.

Mr. Chairman and members, this concludes my statement and I would be happy to answer any questions.

[The prepared statement of Dr. Shikles appears in the appendix.]

The CHAIRMAN. We thank you, Dr. Shikles.

There are going to be questions right along the row here. I am going to ask you the first one. I was talking with the head of one of our pharmaceutical companies and I asked him about who is producing the new patents and about the process to get a patent in this country.

There are very great distinctions in this area between the United States and Britain. Apparently in Britain you can get a new drug on the market in about a year, as against the much longer period here, and a very short window of a patent monopoly followed by generic competition.

I asked him who were producing the patents. And without any bias that I could distinguish, I said, are the Germans still at it? He said, oh, no, they are out of it. And I was astonished. After all, the German universities, developed the chemical work in the first half of the 19th Century, that created the pharmaceutical industry.

He said it is now the United States, Britain, and Japan.

Dr. SHIKLES. Right.

The CHAIRMAN. And he said it was his impression that these cost controls have driven the German pharmaceutical industry into abeyance of sorts. It is only his impression. Obviously, you are agreeing, in terms of who produces new patents in science is a good indicator.

The United States, Britain, Japan, and to find Germany not in that ranking—Germany, where the development of organic chemistry produced everything this side of aspirin to morphine to cocaine. What do we conclude in that regard? Or, what are we to be asking ourselves?

Dr. SHIKLES. Well, we need to be asking ourselves—it is a very complex issue and you have to look at each country, and actually we are doing work for the Congress on that issue.

If you look at England, which is a leader in producing patents, they are very tightly controlled. They have a very unique system where they actually control the profits that companies can make.

Senator PACKWOOD. Which country?

Dr. SHIKLES. England.

The CHAIRMAN. The United Kingdom. Do not forget that.

Dr. SHIKLES. The United Kingdom. [Laughter.]

The CHAIRMAN. That is where penicillin came from.

Dr. SHIKLES. The United Kingdom.

Germany, actually, I am not sure that that argue they gave you is accurate in that Germany has had the highest prices until 1989 and the highest utilization——

The CHAIRMAN. So that is thought not to——

Dr. SHIKLES. There are other problems for the Germany pharmaceutical industry that are not necessarily related to the prices because they have been one of the largest markets, and had the largest prices, and were really totally unregulated until 1989 when they started—

The CHAIRMAN. But you would not see an effect this soon?

Dr. SHIKLES. No. They are starting to come down now. It does not have to do so much with the prices as they feel that in Germany what is going on is physicians—there is an oversupply of physicians. People go to the physicians a lot. They prescribe a lot. So they are very high users of drugs. So that is what is coming down.

So when we have met with Merck, for example, they have seen a huge drop in their market share in Germany, but it has to do with that issue.

So what is going on in the industry gets into some environment protests. They have missed out on the whole biotech drug because of things coming out of World War II. There are other things going on.

The CHAIRMAN. I see. Thank you very much.

Senator Packwood?

Senator PACKWOOD. In Germany everyone, except for some very high salaried workers, has to join some fund; is that right?

Dr. SHIKLES. About 90 percent of the people are in the statutory sickness fund, about two-thirds of those people had to join. You have to join if your income is below $41,000. If you are above that, you have a choice.

Senator PACKWOOD. And most people do join?

Dr. SHIKLES. Most people choose.

Senator PACKWOOD. In looking at your report, the two types of funds—the substitute funds; and the geographic funds—have about 80 percent of the market.

Dr. SHIKLES. That is right.

Senator PACKWOOD. What is the method of enforcement for those who have to join?

Dr. SHIKLES. They have to join because there is a payroll deduction. So if you——

Senator PACKWOOD. So, if they go to work the employer deducts it and sends it in for them.

Dr. SHIKLES. That is right.

Senator PACKWOOD. Okay.

Dr. SHIKLES. And if you are unemployed, your unemployment fund pays it. If you are retired, your pension fund pays it.

Senator PACKWOOD. They just take it out of your fund before you get it?

Dr. SHIKLES. That is right.

Senator PACKWOOD. Okay.

Dr. SHIKLES. You cannot see a doctor without the sickness fund voucher.

Senator PACKWOOD. And you never see the money? Literally it goes from your retirement or your unemployment or your salary to the fund?

Dr. SHIKLES. That is exactly right.

Senator PACKWOOD. Okay. Now, the premiums vary, according to the GAO report, from 8.5 to 16.5 percent.

Dr. SHIKLES. That is right.

Senator PACKWOOD. Does that mean they vary as a percent of payroll?

Dr. SHIKLES. Right.

Senator PACKWOOD. Now, why is that? Why is there such a variance?

Dr. SHIKLES. The variance is historical because Germany always—the sickness funds concept came out of these old guilds. So many people join a fund because of where they live. Some join because their company offers it.

What has happened over time in these 1200 funds is that some of these funds—coalminers, for example—end up with a larger number of retirees, more people who are sick, have a lot of health problems. And the funds are self-financing. The Federal Government does not step in and make up a deficit.

Senator PACKWOOD. So some funds just have a lot higher costs than other funds because of the demographics of their members?

Dr. SHIKLES. That is exactly right. And they have lower payrolls. And yet the payments are all standardized so they have to pay out.

Senator PACKWOOD. Well, that is why I was intrigued. The payment is not progressive. If you work for a company and you join the company fund—let us just use a hypothetical. Let us say the company has 1,000 employees and the fund costs $1 million a year, $1,000 a person. The company pays half; and the employee pays half, as I understand it.

Dr. SHIKLES. Right.

Senator PACKWOOD. Does that mean that every employee pays the same amount regardless of the employee's salary?

Dr. SHIKLES. No. If I understand your question, it is based on how much you earn.

Senator PACKWOOD. So somebody making $20,000 would pay more than somebody making $10,000?

Dr. SHIKLES. That is right.

Senator PACKWOOD. They would pay the same percent?

Dr. SHIKLES. That is exactly right.

Senator PACKWOOD. Okay.

Dr. SHIKLES. Yes.

Senator PACKWOOD. So it is not progressive in that sense. Somebody who makes $1,000 a month pays 5 percent and somebody who makes $50,000 a month pays 5 percent.

Dr. SHIKLES. That is right.

The CHAIRMAN. In the mode of our health insurance in OASDHI.

Dr. SHIKLES. Yes, that is exactly right.

The CHAIRMAN. Up to a limit.

Dr. SHIKLES. That is exactly right.

Senator PACKWOOD. Now, you are at liberty to join any fund you want to join?

Dr. SHIKLES. No. The Germans are interesting in that they have free choice of doctors, specialists, hospitals. They typically do not have a choice of the sickness fund. It has to do with, if you work for a company that offers a sickness fund, you have to join that fund.

Senator PACKWOOD. Oh, you do?

Dr. SHIKLES. Yes. If you are in a geographic area and you are a blue collar working, if you live in Hamburg or something, you will join the Hamburg Regional Sickness Fund.

Senator PACKWOOD. In other words, every employer does not belong to a fund; is that right?

Dr. SHIKLES. That is correct.

Senator PACKWOOD. Well, how is it decided whether or not an employer has a fund and belongs to a fund?

Dr. SHIKLES. I think it has just evolved over time. There used to be 20,000 or more of these funds and they are collapsing. I mean, they are dissolving. Then those company funds are then merging into the local sickness fund, because you quoted the statistics that most people are either in a regional sickness fund, so they would be in the District Sickness Fund, unless they are a white collar worker, and then they are able to join the substitute fund.

Senator PACKWOOD. Join the substitute fund.

Dr. SHIKLES. That is right.

Senator PACKWOOD. So it is an employer choice as to whether the employer wants to join a fund or offer the option?

Dr. SHIKLES. Yes. Tom is based in our German office. Do you want to elaborate?

Mr. LAETZ. I think the incentive for many of the company funds to develop was that they could by self-insuring themselves in a sense, they could charge a lower contribution rate. So if you were a company of engineers, you could come in at the lower level and you would be benefiting your employees by in a sense requiring that they contribute less and your company would contribute less.

Senator PACKWOOD. Now, how would you save money by self-insuring? Unless you are experience rating and the company would be lower.

Mr. LAETZ. Right, exactly.

Senator PACKWOOD. Okay, it is on an experience basis. You do not want to join a fund that has a potpourri of demographics if your particular demographics would be lower cost?

Dr. SHIKLES. That is right.

Mr. LAETZ. That is right.

Senator PACKWOOD. Okay.

Dr. SHIKLES. If you look at your company and you think that the company is high salaried and pretty healthy and not many retirees, then you might want to set up your own fund.

But what I should emphasize is that that is—and I did not mention in my oral statement—was that they are not going to allow that anymore. What has happened is, some of these companies have been able to get away with not paying their fair share.

Whereas, the sicker, poorer people have paid a higher rate. You are going to see that change actually starting next year. They are going to move to this rate equalization process.

Senator PACKWOOD. Sort of a community rating where everyone will pay the same amount.

Dr. SHIKLES. Exactly.

Senator PACKWOOD. You will have the same funds and the same setup, but now you are just basically going to sweep everybody into one common pot in terms of dividing the expenses.

Dr. SHIKLES. Yes. There will be some variations because they want to maintain the—this is all very cultural. But it is going to look very close we think. And as a result, you are seeing a lot of merging of sickness funds.

Tom has just come in from Germany and was telling me that even the sickness funds themselves expect that maybe in each State you are going to get down to two main funds—one regional fund and one substitute fund.

Senator PACKWOOD. Thank you, Mr. Chairman.

The CHAIRMAN. Thank you, sir.

Could I just ask for the record, this system would be in place now for almost a century, would that not be right?

Dr. SHIKLES. Oh, at least, yes.

The CHAIRMAN. Yes. And how can we know that it has been there for almost a century? Terminological evidence. If it was started last decade, the sickness funds would be called wellness funds. [Laughter.]

Senator Danforth?

Senator DANFORTH. Ms. Shikles, you said that new technology is being made available every day and the population in Germany wants that new technology. Is the population able to get all the new technology that it wants in Germany?

Dr. SHIKLES. Yes. That is a very difficult issue and it is one that we and other researchers are constantly trying to figure out when you do these international comparisons. Because, as you know, we all worry about it is one thing to tell us that they do a better job of spending less, but what is the effect of that. Can I not get the tests that I need and what is the quality of the care?

I cannot give you a good answer. Nobody can give a good answer to that. The reason is, that when the surveys that have been done by our researchers—there is a recent one comparing, for example, Germany, the U.S. and Canada—and they survey practicing physicians in each country.

You ask the physicians, can you get the tests you need, can you get the technology for your patients, do you feel good about the quality of care? The German doctors say they rank very high—higher than our doctors. But it is very hard to cut across those cultural differences. The training is a little bit different.

I have been to German hospitals, talked to German doctors. They look similar.

Senator DANFORTH. White coats, gloves.

Dr. SHIKLES. Right. They all look the same.

What you really need to know, they have less technology than we do, although they feel that—and I could tell you about it—it is out of control, which I could mention. So if you look at them, they have less than us in many areas, more than us in some, and yet they feel it is out of control.

The CHAIRMAN. They feel their technology is growing.

Dr. SHIKLES. That is right.

So in these 1993 reforms they have gotten tougher on technology diffusion out in the community. What you really want to know is, what is the difference for the patients, patient outcomes. And there are no data.

When you look at just the real obvious statistics that are not that helpful to you—life span, then infant mortality—they do fine. What we really want to know is, if a patient did not get a bypass surgery, what was the difference. And we do not have that data on Germany. We really do not have it in the U.S.

Senator DANFORTH. But the way this whole debate on health care is evolving in our country is a kind of "free-lunch" approach, it seems to me. In other words, the American people are being told, well, we are going to control costs and we are going to maintain or even improve the quality of health care.

And, therefore, when we talk about containing cost we are really talking about somebody else. We are really talking about doing something to somebody else, not you. You will not feel it, except you will have a more efficient program and a cheaper program, and a better program to warrant you for that. And 51 percent of the American people are now saying, yes, I'm for that.

So that was really the reason for the question.

Dr. SHIKLES. Right.

Senator DANFORTH. I mean, is there any indication in a very tightly controlled system like Germany that there are tradeoffs with respect to the consumer of health care.

Dr. SHIKLES. We and other researchers have not been able to pick up the obvious queuing. Their waits for certain procedures seem to be about like ours. So there are not those real obvious measures.

One difficulty in looking at Germany is that because of what happened in World War II, they collect almost no data on an individual's medical condition. So they have really excellent data on what they are spending on services better than us in many cases. So they can tell you up to the minute.

Whereas, we have real lagged—we do not even have good data on what States are spending. We do not have good data on outcomes or spending. They have very good spending data.

Senator DANFORTH. Okay. So you just do not know.

Dr. SHIKLES. No.

Senator DANFORTH. Let me just ask you one other question if I can. You said at one point in your testimony that in Germany they realized that in their effort to control costs—a very, very control

oriented system—that they realize that they do not at any point in time quite have it right.

Dr. SHIKLES. Right.

Senator DANFORTH. And, therefore, they are constantly reviewing it and constantly changing it. Some people have said in the past with respect to price controls that they might be good for a time, but it is like keeping a lid on a boiling pot.

Is this becoming kind of a frantic effort in Germany to keep the finger in the dike and then move the fingers around so that leaks do not break out? In other words, if you get into this system of a very tight cost control situation, does it become more and more frantic as time goes on?

Dr. SHIKLES. I do not know that I would characterize it as frantic. I think they just recognize that this is such a difficult area, because they finance it through the payroll. It is very visible to the worker what they are spending; and the worker makes sure that they do not raise that rate.

So it gives you that discipline to constantly try to get inefficiencies out of the system. They have incredible numbers of inefficiencies in their system right now that I could tell you about or they could tell you about that has nothing to do with quality of care, that has more to do, like us, with political power or culture or that they have been trying to get out since the early 1970's.

So I do not think it is frantic. I think though it is recognition that you have. Tomorrow you may have a new drug that is expensive, but it would be better to get it out, individual the drug, than hospitalize the person. And you do not want to have—in a regulatory controlled environment, you want to make sure that the lid is not so tight that you do stupid things.

Senator DANFORTH. Thank you, Mr. Chairman.

The CHAIRMAN. Thank you, Senator Danforth.

Senator Durenberger?

Senator DURENBERGER. Thank you, Mr. Chairman.

Thank you, Janet. Let me just begin by thanking you for kind of a long history of being helpful to all of us individually and collectively.

Dr. SHIKLES. Thank you.

Senator DURENBERGER. And to say that the contribution that GAO has traditionally made in trying to understand health policy has really been very helpful to all of us.

I need to ask you, what is going to sound to some of my colleagues a technical question, but it deals with the issue of risk adjustment. We are living in a world now in this country in which—I do not know whether it is 2,000 or whatever it is—but there are all these insurance companies running around out there trying to sell their product by avoiding risk.

The ones that make the most money are the ones that get to sign up the healthy and the young and the rest of that sort of thing. You cannot really run a system in this country or any other country, I suppose, that starts to introduce more efficiency into the care delivery system unless you can overcome the issue of risk adjustment. In fact, I think the Clinton proposal and the proposal of the Republican Task Force and others is that we change the insur-

ance company to an accountable health plan and provide incentives for that new company to actually try to assume risk.

In other words, go on out there and seek business, not just the healthy business, but to seek a variety of business.

As I understand it, the German system has done some risk adjusting between sickness funds in order to try to equalize individual contribution rates. I am told that that depends in part on income and part on the number of dependents, on age, and sex, and so forth; but it does not have in it a case severity element.

The Clinton proposal adopts something similar, but it includes health status as opposed to the severity measure. I wonder if you can just help us understand, because I may not be asking this question as well as I should, but can you help us understand why the way the Germans have approached the whole issue of risk adjustment is less complex than the one that is proposed by the Clinton plan.

And based on your work with the Medicare program, do you have some idea of the expense and the administrative difficulty that might be involved in adapting the Clinton risk adjustment system?

Dr. SHIKLES. Well, this gets back to the points that Senator Packwood was making, that what the Germans are going to do starting next year is that they have in their sickness funds people paying for the same package of services have because it is a payroll based contribution rate.

If they ended up in a sickness fund with—this is very relevant to your point—a lot of sick people or retired people, blue collar people, so there is a lower payroll base, they were paying more out of their salary for the same benefit package.

So in the 1993 reform—this has been a longstanding problem and they just have not been able to politically tackle it. They did this year. German officials have actually contacted us on how we do it. So I do not know how far along they are, but they are planning to implement it next year.

It is exactly what you said. It is easier than what we have in mind because they are really just trying to reduce the inequity in terms of the payroll deduction. So they are only going to use the payroll base, the number of dependents, sex and age.

And I do not know how that will work for them. I do not know that they have figured it out. Because they want to calculate that and then distribute money across the funds. We are guessing that the funds will just decide that it is just not worth it and consolidate.

We have done a lot of work in the United States looking at Medicare, because this, as you know in Minnesota, this has been a longstanding problem here, we do not know how to do it. So what has happened is we have overcompensated because we have not done it very well in the Medicare program to HMOs.

We have overpaid some HMOs that maybe were not so good and we have underpaid HMOs in Minnesota and Washington State and some other States. We are doing work now for the Congress on that issue. All researchers agree that you have to do something the Germans are not looking at, and that is the health status indicator. We do not quite know how to do that. We need to do some research.

I was recently out talking to Kaiser officials in California. I know they internally, a large HMO company, Signa, Kaiser, Blue Cross/ Blue Shield, are also doing a lot of research to figure out how to predict costs. It is a very difficult issue.

Senator DURENBERGER. I raised that when the First Lady was here and I used the comparison between the New York TEFRA risk contract being paid $500 plus some and Minnesota $300 and some, how one went up and the other one went down.

Dr. SHIKLES. Right.

Senator DURENBERGER. I am sure that got the Chairman's attention, as well as Mrs. Clinton's. It does point out a critical problem with whatever we assume is our current technology base. And yet, there is an opportunity here that we ought not to pass up.

Dr. SHIKLES. Well, I have talked to Bruce Vladick about it, the HCFA Administrator, because we do not think you have to wait for health care reform. You have your huge Medicare program that is still basically fee-for-service when you have so many changes going on in the under 65 program; and yet you go out and talk to HMOs and really excellent HMO programs who feel they either cannot participate or are participating because they feel it is publicly important and are losing money.

So we have got our policy. There is lots we can do to make this a fair program.

Senator DURENBERGER. Right.

The CHAIRMAN. A subject to be continued.

Senator Grassley?

Senator GRASSLEY. To be continued right now. Just one little follow-up. You say you do not know how to do this, and you are trying to develop it, and you are doing a lot of study. But since it is so basic to two or three of the major plans that we have proposed for health care reform, and even your suggestion that we could use it even if we did not have health care reform, do you have any idea when the methodology and the information might be available?

I mean, are we talking about 10 years from now or just a little while from now?

Dr. SHIKLES. Oh, no. We have methodologies that we are testing. I mean, there are methodologies that you can use. We would like to know which ones work the best in terms of producing the results that you want and the results would be that you want HMOs that really will want to participate and spend their money on quality services and you want to compensate their fairly.

The methodology we have in place now is still pretty primitive. It is something we tested some time ago and it has not worked well for a long time. We think that the HCFA administrative could be, you know, taking sections of the country, for example, and actually testing methodologies that we know about. And we could start learning right now how well they work. It is a question of adjusting.

Senator GRASSLEY. Well, again, how long are you talking about here before something might be available? If we are making gigantic changes in our health care system through an enactment by Congress, and this is part of it, we ought to have som certainly, if this is going to be such an essential element, when the information and the basis will be available.

Dr. SHIKLES. Well, I know that there are some demonstration tests going on now. We have a report that we will be releasing to the Congress, I think, in January, although we could come and talk to you about it sooner, where we have some recommendations we think you could, the administration through the Medicare program, could put in place right away. They are starting to look at that, which would help currently existing HMOs where you could begin to get more information.

I think we need to do this. We have needed to do it for some time. We could start doing this, I would think, by next spring. So you could begin to collect data over the next several years.

Senator GRASSLEY. All right. Let me go on to another subject here. The GAO paper on German reforms dealt with the fact that one of the developments leading to the reforms was large variations in the contribution rates of the different sickness funds. How big were these variations and what caused the variations?

Dr. SHIKLES. Well, the variations range from 8 to about 16 percent. Again, that is split 50/50 between the employer and the employee. It had to do with—the major problem was in, as Senator Packwood talked about—the large local sickness funds. These are the large geographic funds that end up taking all the blue collar workers in a region, as well as the unemployed, a large number of retirees, welfare recipients.

So they tend to have a lower average salary more like more disabled, more elderly who use more services. Because it is a self-financing system, they have had to pay out higher costs. Because the only way they can do it is raise the contribution rate.

Senator GRASSLEY. Were the roots for these reforms prior to the reunification of Germany or were these the direct result of the budget problems that the Germans are facing because of reunification?

Dr. SHIKLES. Well, the budget problems because of the reunification have definitely contributed to putting more pressure to get the reforms through. But the roots of the problem go back.

Senator GRASSLEY. I should not say the roots of the problem, but the solution to the problem. Did that movement start prior to the budget problems that came because of reunification?

Dr. SHIKLES. Yes. I think that these have been recommendations that they have been trying to get in place since the 1970's, but just did not have the political ability to do it.

Senator GRASSLEY. So the budget problems drove bringing the reform about then?

Dr. SHIKLES. It got them focused, yes.

Senator GRASSLEY. Are you able to tell us what the administrative cost level in Germany is compared to the United States, and if the administrative costs are lower why they are lower? And I ask you this because high administrative costs in the United States are often attributable to the multiplicity of insurers. And in Germany, as I understand it, there are 1,241 of these sickness funds.

Dr. SHIKLES. They run about 4 or 5 percent, the administrative costs in Germany. The reason you do have 1,200 sickness funds, they employ a lot of people. The reason the costs are not higher than that is that they do not have lots of different policies. Every-

body has the same coverage. You do not have any questions about whether—everyone is covered.

If you are a resident in Germany, you have health insurance. And you have the same really rich benefit package. So all the sickness fund does is give a voucher. The patient and the doctor never see income. So you do not have all the things that we do in our system.

Senator GRASSLEY. So then we have less—this is my last question.

The CHAIRMAN. Take your time, Senator.

Senator GRASSLEY. So the point is, we have so many different policies. When we have a more basic policy, just learning from the German experience, our administrative costs will go down. Is that the lesson to be learned?

Dr. SHIKLES. I would think so. That if you have one standardized benefit package, so you are not—you go into our hospitals and they have hundreds of people; you go into a German hospital and they might have about 60. So you are not saying, this person is covered for ten days and that person is not covered for that benefit, but they have to pay a co-pay. You do not have any of that going on. That is tremendously costly for our providers.

Senator GRASSLEY. Remind me of our administrative costs compared to that 4 or 5 percent said for Germany.

The CHAIRMAN. Mr. Gutowski?

Mr. GUTOWSKI. I think it is just a few percentage points higher on average. It is lower in the Medicaid program, higher in private insurance. When you get a weighted average of them all, I think it is 6.5 or 7 percent.

The CHAIRMAN. Could you give us that in a table, sir?

Mr. GUTOWSKI. Pardon? I think we have something.

Dr. SHIKLES. Yes, we can give it to you. Medicare runs around 4 percent.

Senator GRASSLEY. That extra 1.5 percent would be billions of dollars, I suppose.

Dr. SHIKLES. That is right.

Senator GRASSLEY. Is that $25 billion or something that we were talking about because of inefficiencies?

Dr. SHIKLES. Yes. Also, our administrative burden is disproportionately applied to small businesses and small insurers, too.

The CHAIRMAN. Could I make a point which we raised just the other day? Perhaps we could ask you all to think about this. The term "administrative cost" has become a pejorative term. You want to get rid of administrative costs.

Is that the case indeed?

Dr. SHIKLES. No.

The CHAIRMAN. Could I just ask maybe a professional question of you? If a large hospital has an accounting department, that would be called administrative cost; would it not?

Dr. SHIKLES. Right.

The CHAIRMAN. Do you think an accounting department should be abolished as a superfluous imposition on the ever-suffering taxpayer or do you not think the accounting department is fine?

Dr. SHIKLES. Obviously, from the General Accounting Office I think it is important. [Laughter.]

The CHAIRMAN. The administration well done is to your advantage.

Dr. SHIKLES. Yes. I think what is happening to administrative costs is that you have a lot of really important and good activities mixed up with some things that we feel are burdensome and we should not be spending money for.

The CHAIRMAN. It is like that old budget item that went waste, fraud and abuse; and we said, let us cut that out.

Dr. SHIKLES. Right.

[Additional information submitted follows:]

Question. 1. How do administrative costs in the German health care system compare with such costs in the U.S. health care system?

Answer. The cost of administering health insurance in the United States varies significantly by sector. In 1989, the cost of administering health insurance in the private sector was 13.4 percent, and 3.1 percent in the public sector. Overall administrative costs in that year were about 7.7 percent of all insured health care expenditures (or 5.8 percent of total expenditures).

In the German health care system, administrative costs of health insurance in the German statutory system, which covers almost 70 percent of direct health care expenditures, for 1990 were approximately 5.1 percent. Uwe Reinhardt has estimated that the administrative costs for private health insurers in Germany at about 16 percent. Overall administrative costs for health insurance in the German health care system are estimated to be about 5.2 percent of total insured expenditures. However, these estimates exclude most capital costs.

While there are no reliable estimates of the administrative costs in hospitals, physicians offices, and other health care sectors for either country, we believe that administrative costs for these sectors are significantly lower in Germany. Identical billing arrangements are used by all payers, and, in the case of hospitals, the simple per-diem reimbursement methodology means that German hospitals do not need the large billing and accounting departments found in U.S. hospitals. In the case of physicians, the anticipated introduction of "smart cards" may result in further reductions in administrative costs.

The CHAIRMAN. It turned out there was not a budget item called waste, fraud and abuse.

Senator Riegle?

Senator RIEGLE. Thank you very much.

First of all, let me congratulate you on a terrific piece of work here——

Dr. SHIKLES. Thank you.

Senator RIEGLE [continuing]. On both the background work that precedes today, but also your testimony and your responses to questions. I want to just quickly run through a few things.

When you take the figure of 14 percent of GNP for health care costs in the United States, what is the comparable figure for Germany?

Dr. SHIKLES. It is about 8.9 percent.

Senator RIEGLE. 8.9 percent.

Mr. Chairman, if I may, off your point earlier, about Germany having a long history that goes back at least 100 years.

Dr. SHIKLES. Right.

Senator RIEGLE. I am very struck by the point that she is indicating that the cost of their health care system, such as she has described, is running at about 8.9 percent of gross national product versus some 14 percent here. I think that is a stunning differential, given the fact that they have a universal system. And, albeit, in the character of their country, it sounds to me as if it is working reasonably well.

Dr. SHIKLES. That is right.

Senator RIEGLE. You know, it has its cultural aspects to it. Let me ask you this: What are the Germans going without? In other words, there is this concern that somebody is going to be at the end of the line in a more encompassing system and because of rationing or de facto rationing somebody does not get something in Germany or an Americanized plan that is universal. What are the Germans going without in any material way in the way of health services?

Dr. SHIKLES. Well, the benefit package that everybody gets is extraordinarily comprehensive. I mean, they are one of the few countries that covers dental benefits. It includes orthodontia and periodontal disease.

The CHAIRMAN. Health spas.

Dr. SHIKLES. They do cover spas. It comes out of the German health tradition, the tradition of Germany. But they use the spas for recovering heart attack patients who then go and learn a healthier life style and exercise. Now whether we would think that was an important benefit, I do not think so. But there are two——

Senator RIEGLE. We might have to open up those old sulphur spring spas in upstate New York and in Mount Clements, Michigan. I mean, you know, we will get people soaking in these mineral waters.

The CHAIRMAN. Franklin D. Roosevelt swore by it.

Dr. SHIKLES. Also smoking. They have a very high rate of smoking. So they are trying to reduce smoking. They will reimburse for that.

There are two areas in what I have said is an extraordinarily rich benefit package that they are very weak on, that they will tell you they are weak on. That is in mental health benefits. They cover some inpatient, but it is not good. And their whole long-term care system looks just like ours. Paid for through welfare. It is not a good system.

Senator RIEGLE. Let me stop you there in the interest of time.

Dr. SHIKLES. Okay.

Senator RIEGLE. You mentioned that and I appreciate that distinction because those are expensive elements to try to put in a comprehensive plan. But what you hear about in terms of the stories in these more comprehensive national systems, is that people are waiting for serious surgeries, that somebody needs to have a gall bladder removed and it takes forever—you know, this is sort of gist in the area——

Dr. SHIKLES. We did not find that.

Senator RIEGLE. Pardon? You did not find that?

Dr. SHIKLES. Germany has about a third more physicians per person than we do.

Senator CHAFEE. More?

Dr. SHIKLES. More per person than we did.

The CHAIRMAN. Per thousand persons.

Dr. SHIKLES. That is right. So they are producing 12,000 new physicians every year. So people go to their physicians a lot. They go about, on average, 11 times a year to a physician. We go about five times.

They have more hospital beds. People are hospitalized more often. They have higher occupancy.

Senator RIEGLE. But when I hear all that, and yet I hear that they are running at 8.9 percent of the gross national product and we are at 14 percent, you know, there is obviously something fundamentally at work here that causes them to be able to have these kinds of comprehensive benefits available.

I gather in your answer earlier to somebody on the other side in terms of whether the health outcomes are better, say for, white males 55 to 60 or, you know, however they are going to be measured categorically, did I understand you to say that GAO does not have data that it is comfortable with in terms of what the health outcomes look like across the society or am I wrong on that?

Dr. SHIKLES. Well, there are general health outcome data, you know, life expectancy. Those are all good.

Senator RIEGLE. Do they look as good as ours?

Dr. SHIKLES. Yes. I think maybe better.

Senator RIEGLE. All right. So would it be fair to say they are at least as good as ours?

Dr. SHIKLES. And I think better. Right.

Senator RIEGLE. And you think better.

Dr. SHIKLES. And their population is more satisfied with their health care system than we are with ours. The reason the way——

Senator RIEGLE. Can I ask one other thing just before I move off that point. How are health professionals paid in comparable salary terms to the way health professionals here would be paid?

I mean, do they sort of notch into the pay scales in Germany at a level that is comparable here to the United States or do they earn more or less?

Dr. SHIKLES. The hospital physicians are salaried; and the community physicians are paid on a fee-for-service basis. The community physicians are among the highest income earners in Germany, but they make on average much less than our physicians.

Senator RIEGLE. Can you give me a comparable?

Dr. SHIKLES. I think it is about $90,000 to $100,000 for a general practitioner; and ours would probably be about a hundred higher than that.

Senator RIEGLE. Could I just ask one other question at this point?

The CHAIRMAN. Please.

Senator RIEGLE. That is, what a lot of physicians say to me, you know, we have a whole educational preparation track that physicians must come down in terms of interning and many come out, you know, loaded with a lot of loans and debt that they have to pay off over a period of time.

Dr. SHIKLES. Right.

Senator RIEGLE. I am hearing that more and more from physicians who go into that area of work. Would that be comparable for physicians?

Dr. SHIKLES. They have no debt.

Senator RIEGLE. They have no debt?

Dr. SHIKLES. Their medical education is paid for. So they have no debt. But the way——

Senator RIEGLE. I am just wondering, maybe in order to track back to the tap roots of how you organically change a system, whether we need to off-load some of this debt which in turn then,

I think, requires sort of an income requirement that may in effect start to skew the whole system here in a way. But I do not mean to make it sound as if that is the only aspect of this problem.

But it sounds to me like this may be one of the things that sort of knocks our system out of kilter and may be hurting doctors too in certain ways.

Dr. SHIKLES. Some of the reasons that they are able to have run such a tight program and spend less, but really cover their people well, is that they have no medical debt for doctors. Senator Hatch asked about malpractice. It is a much less significant problem for them. Premiums are much lower, although it is a growing issue.

They have definitely constrained the incomes of providers, particularly physicians.

Senator RIEGLE. But it obviously has not hurt the ability to get physicians. You say they have more physicians per capita.

Dr. SHIKLES. That is right. They feel their major problem is they are producing——

Senator RIEGLE. So, I mean, it obviously has not worked as an economic disincentive, although that is obviously within the construct of their system.

The CHAIRMAN. I must say that several members of our next panel have been vigorously agreeing with you on the front line. So we will get to that.

Senator RIEGLE. Thank you very much.

The CHAIRMAN. Senator Chafee?

Senator CHAFEE. Thank you, Mr. Chairman. Mr. Chairman, I know of your deep interest in our universities in this country and how we struggled in this committee to assist those universities through the Tax Code. I want to point out the success that our Universities have had and the recognition they have received.

I think it is no coincidence, and indeed it is a cause for great pride, that the announced Nobel prize winners come from the great universities in this country—MIT; University of Chicago; Yale; I believe Princeton; and the University of Washington at St. Louis, headed by Senator Danforth's brother have all received Nobel prizes.

Mr. Chairman, I think we all ought to be very proud of what has taken place in connection with the awarding of these Nobel prizes.

I was attending a microbiology meeting over the weekend and it was pointed out that the Japanese do not win Nobel prizes and they are disturbed about that. They do not ascribe it to prejudice or anything like that. It is just something about the research in their universities that somehow does not parallel ours. Maybe it is the freedom we give our researchers.

Whatever it is, as a Nation, I think we should be very, very proud that so many Nobel prizes come to our researchers and our universities.

Now, a question for Dr. Shikles. Do I understand that the tax on the wages of a German worker is 13.4 percent for health care?

Dr. SHIKLES. It is half of that. They split it. That is the average nationally and they split it with the employer.

Senator CHAFEE. Oh, I see. So it is 6 percent, plus. Is there a cap to it?

Dr. SHIKLES. There is a cap at about $41,000.

Senator CHAFEE. Now, this is in addition to normal income taxes. How about the Social Security, what do they do with that? Is old age pension a separate thing?

Dr. SHIKLES. Yes.

Senator CHAFEE. So I think we had better understand that this is costing every worker in Germany close to 7 percent of his or her wages, up to, what did you say, $41,000.

Dr. SHIKLES. Yes.

Senator CHAFEE. Second, I think it is very important that we understand that when we are looking at comparative health care costs in this country; we permit people to run around with guns on their hips and such is not true in Germany. I mean, this is a tremendous difference that adds to our health care burden.

I have here a chart that just shows gun murders. In the United States there were 14,300; and Canada, our next door neighbor, 186; England, 60; Germany, I do not have. But I would suspect Germany is right in there about 60. These are deaths, you multiply that probably by three for terrible wounds where victims are hospitalized, it gives you some indication of the difference between the hospital costs that are incurred in the United States vis-a-vis those other countries.

So it is with a whole series of other, what we could call life styles, in this country. I would suspect that the number of pregnant teenagers in this country is far higher than it is in those other countries that result in low birth weight babies and so forth. Do you have any data on that?

Dr. SHIKLES. No. You are exactly right. They do not have the number of teen pregnancies that we do. They also do not have the number of low birth weight babies because they have a very extensive prenatal coverage. Everybody is covered. Everyone gets very extensive services. It is a very rich package. So they work very hard. All women get prenatal care and there is care after birth.

Senator CHAFEE. Mr. Chairman, there has been a little bit of discussion here about the outcomes research. In other words, what works and what does not. Could you just touch on that for a couple of minutes as you see it in Germany? I believe in our country this research has not been developed very well. One of the things that our plan, the Republican Senators' plan has, as does the Clinton administration plan, is a greater accent on so-called outcomes research.

How do they do in Germany?

Dr. SHIKLES. Well, they do not do it. We could not agree with you more. That one of our real dilemmas in trying to consider how to reform our system, is that we do not want to do something—I mean, we know that we have more technology and we do more things to people.

We would like to know whether that produces better outcomes. Because if it does, then most of us would say, we would rather run a more expensive system. We do not want to jeopardize that. We do not want to jeopardize our great universities that are producing this research that we are able to take advantage of.

We know in small cases, but we have so underfunded outcomes research in the past that we do not know if—we do more bypasses than anyone in the world and we do not really know—we know

that costs us a great deal. We do not know if that produces healthier people.

Germany does fewer bypasses. On very gross statistics, we are about as healthy as each other. They have higher cholesterol problems. You mentioned we have more guns. They have a higher aged population. So the older you are the more you use the health systems. So they would argue that they have many of the same different life style problems that we do.

Most people in doing research on health care find that the major cost driver is technology. All this new technology that we are bringing on line that is very expenses—and that gets back to your main point—we do not know if it produces good outcomes or not and we need to know that to know how to finance it.

Senator CHAFEE. Thank you, Mr. Chairman.

The CHAIRMAN. Thank you.

Senator CHAFEE. I just hope we will not, as we get into these health care programs, lose sight of outcomes research importance because it is such an easy thing to cut.

The CHAIRMAN. Right. Can I just say two things to you, Senator? Next Tuesday, the 19th, we will be discussing teenage pregnancy. The illegitimacy ratio in the United States has now reached 30 percent. We will get to the bullet as pathogen one of these days. Guns do not kill people; bullets kill people.

Senator CHAFEE. Well, I am a co-sponsor of your bill, Mr. Chairman, and I have room on my bill to ban all handguns for you to join as a co-sponsor.

The CHAIRMAN. Right, sir. And also to say that on your interest on outcomes, our hearing on outcomes will be the week after next. It is either the 26th or the 28th.

I would like to welcome Senator Wellstone, who has just joined us for the morning.

Senator WELLSTONE. Thank you, Mr. Chairman.

The CHAIRMAN. Our last questioner in this cycle is Senator Daschle.

Senator DASCHLE. Thank you, Mr. Chairman. I appreciated Senator Chafee's chart. I noticed an interesting statistic in the Wall Street Journal this morning that I had not seen before. Last year we had over 500 murders in Washington. In 1960 we had 175,000 more Washingtonians, but we had 81 murders. It is a dramatic increase in the number of murders in the last 30 years.

Now, to return to the subject of today's hearing.

Ms. Shikles, I have been very impressed with your testimony and the answers to your questions. Could you talk a little bit about the reasons Germany has chosen not to subscribe to greater competition as a method of cost containment?

I have the impression that they are going in just the opposite direction. They are finding that they have to constrain costs with even tighter budgeting. There are those who argue that we can control costs effectively through competition alone. Could you address how Germany has faced that question and reached their conclusions?

Dr. SHIKLES. I do not know that they ever really can state—I think they use those words sometimes. But when you look at what they are doing, it is not really competition.

Some of it comes out of, they have a very strong feeling among the population that the population wants the right to choose his or her own physician and specialist and hospital. So they feel very strongly about that. And I think no politician is going to take that on and expect to survive an election. I mean, it is such a strong part of their health care system.

So I do not know that they have the option of considering, for example, competing health plans. I know they have sent delegations over here. We have met with some of them, looking at our HMOs. But I would be surprised if that takes root, just because it comes out of this commitment that the population has the right to choose.

Senator DASCHLE. Are you implying that competition would result in less choice, or that they perceive it to result in less choice?

Dr. SHIKLES. You would have to introduce it into the system that they already have in place. So I am only implying that to try to——

Senator DASCHLE. Using that as a base?

Dr. SHIKLES. Right.

Senator DASCHLE. I see.

Dr. SHIKLES. I only mean to suggest that using your system as a base, if you tried to, they feel that they would like to get more. Many Health Ministers we have talked to would like to get more competition among some of the providers. They feel that would get better service and maybe innovation and faster.

But because they are so rooted in this individual physician, they are just barely moving to a two-physician practice, and that the patient if they do not like that doctor they can go to another doctor the next day, I think it is cultural.

Would you agree, Tom?

Mr. LAETZ. Well, I think they have taken price out of the equation.

Senator PACKWOOD. Taken what?

Mr. LAETZ. They have taken price, the actual financial deliberations, out of the issue. It is really competition on quality of service. You choose your physician not based on what that physician charges because the costs are covered. So you choose that physician on your own personal opinions of that physician and the quality of service rendered.

Dr. SHIKLES. All the payments are standardized. So they would never then introduce a variable rate scale.

Senator DASCHLE. Let me ask you in the time I have left about this pejorative word we often times use—rationing. In Germany, they are talking about a greater tightening of controls under a budgetary imposition. Do you find that Germany's budget has resulted in rationing that would be viewed as unacceptable in this country?

Dr. SHIKLES. We did not find it. But I want the caveat that we have not been able because the data do not exist generally to systematically match procedures done in Germany to here. But we did not find it.

One reason, I think, is because of the way they do their budget limits, budget expenditures. They set the expenditure, how much they say they want physician spending, can only go up 3 percent next year. So the sickness funds then say that is all we will pay next year, that amount of money.

Then they turn it over to the physician associations and the physicians themselves decide on the spending. So I think, and people who have looked at their system feel, that that is why you do not see really the question or some of the problems that you might find if it was just the Federal Government saying this is all we will spend.

So it very much just these are our guidelines. We can only spend 4 percent next year because the income in the sickness funds is only going up that amount. So that is all we have. So it is perceived as fair. Then the physician associations meet and decide about reimbursement.

Senator DASCHLE. Let me squeeze one last question in.

The CHAIRMAN. Please.

Senator DASCHLE. The impression I have from your answer to Senator Riegle's question about the ratio of patients to doctors, which apparently is better in Germany than in the United States——

Dr. SHIKLES. That is right.

Senator DASCHLE. [continuing]. Can one quantify access generally in terms that would allow us to compare?

Dr. SHIKLES. I do not think so. I do not think so.

Senator DASCHLE. Could we examine the number of patients' visits to a hospital or a clinic compared to what they are on a per capita basis?

Dr. SHIKLES. In those measures, they are all like twice, three times what we are.

Senator DASCHLE. The number of patient visits is higher, as well as the number of doctors per patient?

Dr. SHIKLES. That is right.

Senator DASCHLE. Thank you.

Dr. SHIKLES. They use their system a lot.

Senator DASCHLE. Thank you.

The CHAIRMAN. May I just thank you for the wonderful testimony. Senator Packwood commented on it. You talked about cultural differences. There is one cultural difference that leaps right out at you. In Germany, physicians make six times the average wage. In Japan they make twice the average wage. It was the most prestigious position—maybe bankers do better.

So at that level, you do not want people to go to medical school. The United States is up at five; Canada is just over about, a little bit between three and four. This is an interesting piece. We will pass it around.

But first to thank you very much, all three of you, Ms. Shikles, Mr. Laetz.

Senator PACKWOOD. Can I ask just one last question in her testimony?

The CHAIRMAN. Of course, you may do.

Senator PACKWOOD. Janet, you say, I am quoting, "Germany is attempting to increase competition between sickness funds by giving workers a greater choice of funds and narrowing the difference in contribution rates assessed by the different funds. By 1997 most Germans will be allowed to choose their sickness fund each year."

That gives me the impression their options are expanding. But I got the feeling from your testimony their options were contracting.

Dr. SHIKLES. You mean their choice. Right. I think the Ministry wants to give people more choice in terms of what sickness plan exists. But at the same time, the funds themselves will probably consolidate, so you are right. For those people who are locked into one fund now, they will have a choice.

Senator PACKWOOD. They will?

Dr. SHIKLES. Yes. The choice may be narrower than it is right now because we think there will be some consolidation.

Senator PACKWOOD. But at the moment they may be locked into one fund?

Dr. SHIKLES. That is right.

Senator PACKWOOD. Even if there is 1,200. So they might have 500 funds left, but they would have a choice of 2 or 3 funds of the 500.

Dr. SHIKLES. That is right. Right. It does not really matter though because all these funds, the benefits are the same.

The CHAIRMAN. Senator Riegle, you had one question.

Senator RIEGLE. Mr. Chairman, I will be very brief.

First, I would like to give you some questions to answer for the record since time does not permit today.

Dr. SHIKLES. I would be happy to.

[The questions appear in the appendix.]

Senator RIEGLE. But also, Mr. Chairman, just to underscore the point that she made earlier, that even with the German system, they have never tried to do a one-time fix. This is a dynamic process. They change it all the time and we are going to have to do exactly the same thing here. So we cannot get frozen in the notion that there is going to be a one-time pre-casting here.

The CHAIRMAN. They have been at this a century. Right.

Senator RIEGLE. Thank you.

The CHAIRMAN. Well, thank you very much, each of you. It has been hugely helpful and we look forward to continuing in just that pattern.

Now we are going to hear from a most distinguished panel of scholars who have followed this subject at home and abroad. We are most honored here today to have Dr. Robert Evans, who is professor of economics at the University of British Columbia; and director of the program in Population Health of the Canada Institute for Advanced Research at Vancouver.

Dr. Evans, I think we were lucky enough to find you in Toronto or thereabouts.

Dr. EVANS. On my way.

The CHAIRMAN. On your way.

Theodore Marmor, an old and good friend. Professor Marmor is a professor of public policy and management at the School of Organization and Management at Yale University. He is also a fellow of the Canadian Institute for Advanced Research in New Haven.

And Dr. Joseph White, who is welcome and saying plainly a research fellow at the Brookings Institute.

We are here now and we will just follow our listing. Dr. Evans, good morning, sir.

STATEMENT OF ROBERT G. EVANS, PH.D., PROFESSOR OF ECONOMICS, UNIVERSITY OF BRITISH COLUMBIA, AND DIRECTOR, PROGRAM IN POPULATION HEALTH, CANADIAN INSTITUTE FOR ADVANCED RESEARCH, VANCOUVER, BRITISH COLUMBIA

Dr. EVANS. Thank you. Good morning, Mr. Chairman.

The CHAIRMAN. If you have written statements, we will put them in the record. You have plenty of time to read, if you would like, lecture if you choose.

Dr. EVANS. No. No, lectures take 50 minutes.

The CHAIRMAN. Yes, that is true.

Dr. EVANS. I do not think we have quite that much time. I have put a written statement into the record and I am now just going to speak very briefly to that.

The CHAIRMAN. Fine.

[The prepared statement of Dr. Evans appears in the appendix.]

Dr. EVANS. But I think first I would like to pick up the last point from the previous discussion, which is the notion that you are dealing here with an ongoing process that one might think of as a game that is taking place between payers, providers and users of care.

The initial comment by Senator Grassley to the effect that you are never going to find the system that you can then put in place and live happily ever afterwards, that is certainly one of the overwhelming messages from the international record. What you are really doing is creating a set of rules which will then be modified by a continuous interaction. There is no ideal system we know of.

Following from that——

The CHAIRMAN. There is no ideal system?

Dr. EVANS. There is no ideal system, no, not in this life.

The CHAIRMAN. Not in this life.

Dr. EVANS. Here is no continuing city.

What we do have, of course, are better and worse solutions to a set of common problems. I am not actually going to speak that much about Canada, although the Canadian experience will underly all of my remarks because you cannot escape from your own history.

My colleague, Professor Marmor, will, in fact, speak to Canada, and I am going to try to draw some broader generalizations about the international experience. There are a couple of reasons for that.

One is that if you try to talk about Canada in the U.S. context or relative to the U.S. experience, you very rapidly are perceived as a proponent and advocate. I am quite capable of being very critical of Canada when I am at home. But when you try to describe it to Americans, it always comes across as advocacy because the comparisons are what they are.

So I feel more comfortable trying to draw the broader generalizations out of the international experience. It is also, I think, in some ways more interesting for Canadians because we, too, have a number of opportunities to learn from others' experience, not all negative; and we have not exploited those opportunities nearly as much as we might.

As we look around internationally over say the last 5 years, there is, I think, something that strikes one quite quickly. That is the extent of the interest in major structural reform. We have heard a

lot about what is going on in Germany. I was really very pleased with that testimony because obviously there is a lot more there that I know about. But it happens to match the broader generalizations that I am going to try to make.

The same sorts of processes are going on in Sweden. We have had Royal Commissions in every providence of Canada except one—Quebec—which did not have a Royal Commission, of course, but had a commission of investigation into our system, all within the last 5 years. The Dekker reforms in Holland; the White Papers in the U.K.

Suddenly, as it were, within a relatively narrow time band and almost universally, everybody is looking at their systems in greater depth than they have for the previous decades. That is happening regardless of the kind of system—socialist Sweden; or the capitalist United States— which is not capitalist, but likes to think of itself as such.

It is happening regardless of the level of expenditure—the very cheap United Kingdom; the relatively expensive Canada and Germany. It is being attributed to cost problems and yet all of those countries have been more successful in controlling costs in the decade of the late 1970's and early 1980's than they were in previous decades.

So we have this anomalous observation that suddenly there is all this excitement about what we have got to do to contain health care costs in countries with very different systems and actually very different cost experience.

I think it is worth pointing this out because I think the explanation for this again came out in the previous testimony on Germany. What we are dealing with here is a reform process that has been triggered off by external events.

If you look at the surrounding economic environments in all of those countries—the reunification problem was mentioned in Germany—we have had a couple of really very severe recessions in Canada in the early 1980's and again in the late 1980's.

If you look at national incomes per capita in all the countries of the OECD, they are down quite markedly in the 1980's from what they were in previous decades. So my interpretation of what is currently going on is, that you are seeing health care systems that were adapted to a previous higher growth environment and were deemed satisfactory then, that are now continuing to behave as before, but in a much tighter external environment.

I think that is what is driving the pressure for reform internationally. And if that is so, then it is extremely important for Americans not to get confused into thinking they are participating in this process, because the American experience is unique.

The American situation is one of a much wider array of different kinds of problems, not just on the cost front, although obviously also on the cost front, but on all the array of American differentnesses that you know about in your health care system—the problems of coverage, the problems of equity, the problems of cost, the problems of effectiveness, the problems of public satisfaction and so on.

I beg your pardon, am I to take the warning light?

The CHAIRMAN. No, sir.

Dr. EVANS. Thank you.

The CHAIRMAN. You have come a long way and have waited patiently.

Dr. EVANS. I think what you need to keep in mind is this general pattern in which you participate only to a very limited degree. The general pattern is one of the development of reasonably satisfactory health care systems, which are now being placed under pressure by external economic events.

Or as one of our medical spokesmen has put it, there is nothing wrong with the health care system, but there is something wrong with the Canadian economy.

I would position that historically by saying that since the war we have gone through about three phases in most of the western countries. The first phase was one of relatively rapid economic growth, combined with even more rapid growth of health care systems. That was the period of dramatic expansion in health care.

The second phase, whose timing is a bit different from one country to another, was of continued economic growth, but of health care systems that were administratively penned in to grow at roughly the same rate as the rest of the economy, with some considerable strains around the edges.

Now we are in the third phase where the economic growth has slowed off considerably. The administrative mechanisms which we all developed for containment of costs, which were reasonably successful, are still successful. But they must now be applied substantially more rigorously in the past and we are generating a much more powerful political backlash in all of our countries, though taking various forms.

So the interest in reform is, I think, a response to those kinds of internal political pressures. The difficulties of dealing with containing health care systems are not primarily technical or administrative, but are, in fact, political. They are the problems of containing the momentum of health care systems that have an internal growth momentum of their own.

That is how I would characterize the international experience. We have not yet worked out—we are in the process of trying to work out—politically acceptable mechanisms of containing an extraordinary powerful internal momentum.

That is being confused—as a political debate it tends to be confused—because there are several interests that are at stake in trying to prevent that containment from occurring. Obviously, the providers of care at all levels are concerned that their income aspirations, their professional aspirations, their historical ways of doing things are under threat.

Here again, I would like to link up with the previous testimony—that the problems that we have are, in fact, of quite long standing, their roots go back a long way. The trigger is the external event. The roots are patterns of behavior within health care, which we have never straightened out very much. Certainly it is true in Canada. You heard it is true in Germany. I think it is true internationally, that we have not dealt with a number of problems that we knew were there and we are now being forced to face them.

That is generating resistance among providers. It is also calling into question the universality and comprehensiveness of our sys-

tems because those features always involved tax-financed systems or social insurance financed systems, always involved substantial transfers of net income from the relatively healthy and wealthy to the relatively less healthy and wealthy. That is inevitable in any kind of collectively funded system.

As you bring into question the foundations of your system, you raise the opportunities to try to reverse those transfers. That is what a lot of the pressures for privatization are about. They are attempts to redistribute income back the other way, couched in the language of health systems reform.

And naturally, any opportunity to move large amounts of money from one set of pockets to another is bound to have a certain political popularity. As an economist, one cannot pass a value judgment on that; one can just observe that that seems to be what is in play.

I want to come back to the issue of the internal momentum of health care systems, because as part of a political debate, that is very often presented as the result of external forces at work. And the kind of external forces that you will all have heard a lot about are demographic ones, the aging of the population that is allegedly driving health care costs and we simply have to react to that, and technological pressures. We heard again earlier this morning about the continuous advance of technology and new products, new drugs, new machines constantly coming on the market.

One that has been favored by some economists, is the notion that as a service industry the health care sector is uniquely resistant to productivity increase and therefore you have to keep putting more money into it because it is just not able to advance as fast as the rest of the economy. Actually, that argument is a little less powerful since most of our economies have not been advancing all that fast in productivity. Then there is the overarching diagnosis, public expectations. If the people want it, we have to produce it.

All of those I would suggest are efforts to transfer attention from internal processes to external processes, to move the issue away from asking why our health care systems do what they do, and moving over to saying, well, they are simply reacting to external forces. There is nothing else they can do. Please send more money.

And each of those points is intuitively appealing. As for the demographics, we know older people use more care, we know our populations are getting older, we know we are getting older ourselves, we know we are using more care year by year.

The CHAIRMAN. True.

Dr. EVANS. But when you actually do the arithmetic, you find that the effect of demographic factors is about a quarter to one-fifth of the total increment in health care spending per capita. So that just does not explain what is happening.

The CHAIRMAN. Joe Newhouse, at MIT was going through some of these things. He was making the same point last week.

Dr. EVANS. Okay. Good. Because we have done some of the earlier research on that and I am glad to see it is finally filtering into the consciousness.

The CHAIRMAN. Below. South of the border as we say.

Dr. EVANS. You are ahead of the game, because most of the public rhetoric is still focusing on the fallacy. That, I think, again, is

the sign of a political debate rather than a technical or an administrative one.

The second one on technological progress. Again, we had it touched on today. The point of a health system is not to produce a lot of health care. It is to produce health. Nobody in their right mind wants health care. We take it for granted, far too easily, that more procedures introduce more health.

There is a group down at the University of Washington, that have not been mentioned earlier today, but there is a group in Washington who has been doing some very direct comparisons between British Columbia and Washington State.

They have recently published a piece on mammography which is quite fascinating. They have discovered that the mammography rate is twice as high in Washington State as it is in B.C. Clearly, technological superiority of the United States.

The funny thing is that when they tracked actual breast cancer patients, they found that the delay time to diagnosis from first symptoms was nearly three times as long in Washington State; and the delay time from then until surgery was, in fact, not nearly as big a difference, but it was longer in Washington State.

They were somewhat puzzled by this. Those were the data. Their interpretation was—this is Steve Katz and his group—their interpretation was that there is enough of a false negative rate in that technology that it distracts the physician. He gets the false negative and he says, okay, everything is fine. I do not have to worry.

We were talking earlier about, "Do we have the detailed data on the impact of technology?" The answer that was given earlier is correct—no, not a heck of a lot. But we do have some and more is emerging.

What it tells you is, do not too readily assume that more is better. We know that intuitively. But the data is coming in and confirms that. That is not an argument for therapeutic nihilism, but it is an argument for not making your judgments too quickly and glibly.

On the whole question of service economies and can technological change take place that reduces costs in health care, you bet it can. Again, new anesthetic agents make it—and I am here to tell you about this since I have recently been a patient of the Canadian system—new anesthetic agents are such that you can wake up and be walking around half an hour after surgery without falling over and being sick and all those things as you did 30 years ago.

This enables you to put many more people through on a day care surgical basis that you might otherwise have had to keep in the hospital 3 days. I could multiply those examples. But that is a clear example of it.

The CHAIRMAN. Yes.

Dr. EVANS. Finally, on the expectations side, you have in this country been running for a number of years now major campaigns to encourage people to go and get their cholesterol read. That is creating expectations. Public expectations do not arise in a vacuum.

In Canada, we are trying to do the reverse. Our epidemiologists have concluded that you probably should not be going and getting your cholesterol read on a continuing basis if you do not have other risk factors that draw you in. And if you do, yes, there is some evi-

dence that drug treatment can lower your death rate from heart disease, but it raises it from other things, so there is no evidence that cholesterol screening and treatment lowers the overall death rate.

So you may simply be choosing one form of death rather than another and not postponing it. [Laughter.]

Now, you know, there are a lot of people in the industry who do not like that data, but it is very clear. It comes out of a number of randomized trials.

So the point I am getting at there is that public expectations again are not an external factor. They are something created within the health care industry.

Now, having gone over this interpretation of momentum, what do you do about the internal momentum? I think there are three heads under which successful cost containment must proceed. Or, I would rather say, successful management of a health care system for improved outcomes at lower costs, because cost containment per se is not a sensible obective. I think the evidence is quite clear that the outcomes are there to be achieved at lower costs. I think that any argument that you cannot cut costs without cutting outcomes and quality, is for the United States sheer nonsense. It is totally unsustainable.

It is totally unsustainable for Canada, where we have gone through this in some depth. Or for Germany. Conceivably for the U.K. You are talking there about a much lower level of expenditure and I would not want to comment on that. Sweden on the other hand, lots of examples there of where you could improve efficiency. That is again a heavily funded area.

So the notion that you cannot improve your efficiency just does not hold up. But what have you got to do to do it? Well, the general terms, I think, are you have to improve the effectiveness of what you do and try to get rid of some of the ineffective stuff. That means not only figuring out what works and what does not, which the United States I think is leading the world in at the moment, but also trying to figure out how to translate that into actual practice where I do not think anybody has any good examples.

And again, we have heard from the German testimony that cost containment does not depend on your ability to do things right and to avoid doing the wrong things, but successful management may. So you have to figure out much more to do the right things.

But second, you have to contain, control, manage, your capacity. You cannot keep training more doctors and then hope indefinitely to hold your costs down. Sooner or later they are going to get mad at you. So you do have to think a lot more about capacity. That includes not just head counts, it includes a lot more primary care physicians in this country, for example, and a lot less specialists.

And exactly the same in Sweden. It is not just a market problem, you know, it is a misallocation of resources which happens in very different systems.

And third, you have to communicate with your public a lot more clearly as to what the problems actually are, because if they do not understand you, you know better than I, you cannot lead if your public just thinks the problem is something totally different. Or as an old Manitoba expression has it, the first man over the barricade

gets the spear through the chest. This is bad for your political health.

Now to get more specific, all the countries that have been successful in health care cost containment seem to have done it through some form or other of—I am not sure whether I want to call it global budgeting; the British call it cash limits. The way you control costs is to figure out what all the sources of revenue of the system are, get hold of them all and hang onto them.

You can do that through a single-payer system. That is the simplest logically. You can do it as the Germans have by having multiple payers, but making sure they are all closely coordinated. The Germans have cultural methods of coordinating their behavior that may not be accessible to the rest of us, certainly not to Americans. We have heard that from some of the German commentators. You know, you tell them what is necessary and they do it. [Laughter.]

I am quoting one of my German colleagues, a certain Mathias Graf von der Schulenberg put it that way.

Whether you could do that elsewhere, not clear. But one way or another it looks as if you have to get hold of all the revenue inputs and clamp those. Or at least we do not know of any other way of doing it. Put it that way.

Conversely thinking about competition, nobody has successfully used competition as a global cost containment strategy that I know of. Maybe you will be different in the United States. Maybe the United States is unique in enough ways that that is the way to go.

Senator PACKWOOD. Where has it been tried at?

Dr. EVANS. Well, it has been tried in Ontario, for example, with the Health Services Organizations in which they capitated groups of physicians. It was hoped they would respond to various sorts of ambulatory care incentive payments and so on. The impression they have now in the Ministry is that it has largely led to selection of patients rather than competition and efficiency.

On the other hand, constructively it has been tried in Sweden within an overall global budget. They seem to have eliminated their waiting lists within the last year by simply saying that if you are on a waiting list for more than 3 months for a set of procedures—you know, the usual things, hips and eyes and so on—then you can go anywhere in the country you want, public or private, to get the care and your home county council must pay for it.

Suddenly the waiting lists seem to have disappeared. As the county council is exposed to this kind of financial risk, competition in a sense, they said, right, we can fix this; and they did.

Within Stockholm, which is the largest of the county councils by far, they have opened up opportunities for people to go to different clinics and different centers and bring their money with them. They do not carry vouchers in the technical sense. But when you go to a place, you draw the money after you.

This is another message from the international experience, that, yes, incentives on providers work a lot. They are very powerful. You people demonstrated that very early on with your DRG system. Suddenly your hospital occupancies crashed in a year. You know, that changed the financial pressures and suddenly people moved out of hospitals.

You did not contain your overall costs because you had not made the incentive structure broad enough. But I am not here as a professional economist to argue that incentives do not work; I am only taking the view from my political science colleagues. Incentives are very powerful, but do not assume that an economist can tell you what they are going to do. Targeting them is tricky.

I think one of the general messages that people are getting internationally is the critical role of primary care and of the gatekeeper. They are trying to figure out where—and this varies from one system to another—to place that gatekeeper function.

Again, I am struck by the fact that the Swedes are now trying very hard to figure out how to get rid of all the specialists in their system or to convert them into primary care practitioners.

I guess where you would sum that up, because obviously we have some more things to talk about, is that it is clear that you need more management and not more money in most of our systems. It is not clear exactly where to embed that management, and that probably does depend on your past history. Our logical place to embed it is in provincial government. So that seems to be the direction we are going.

The Swedes are trying to embed it within the county councils. But that is tough because they have historically been the representatives of the industry.

The Brits have created or have built on their pre-existing management structure to localize management. So I think internationally we are all looking for where to place that management process.

The CHAIRMAN. Good. I think we have heard, if I am not mistaken, the first exposition of the Bauhaus School of Health Care which is, "Less is More."

Dr. EVANS. Absolutely. Yes.

The CHAIRMAN. We will put it down.

Dr. Marmor, we welcome you, Ted, most especially. We will just continue this conversation.

STATEMENT OF THEODORE R. MARMOR, PH.D., PROFESSOR OF PUBLIC POLICY AND MANAGEMENT, SCHOOL OF ORGANIZATION AND MANAGEMENT, YALE UNIVERSITY, AND FELLOW, CANADIAN INSTITUTE FOR ADVANCED RESEARCH, NEW HAVEN, CT

Dr. MARMOR. Thank you, Mr. Chairman. What I have done is to prepare some material for you. I hope you will put that in the record.

The CHAIRMAN. Of course.

[The prepared statement of Dr. Marmor appears in the appendix.]

Dr. MARMOR. I really would like to use this time to address some of the topics that have already come up and carry on a conversation that opens up the back and forth.

I really have really three points I want to make today. One is a simple distinction, which is in my outline really, a distinction between learning about——

The CHAIRMAN. And learning from.

Dr. MARMOR. [continuing]. And learning from. That distinction seems to me to be blurred a good deal in the discussion. it is hard

enough to learn about and get accurate information. There is a big step between that and learning from or drawing lessons from.

I just would urge us in our discussion to be clear. For instance, you can go to almost any context and find some representation of the costs of medical care in international comparison about which there is an argument. You cannot draw any lessons from that until you can establish that roughly speaking the Germans spend on the order of 9 percent of GNP; and roughly speaking the Americans spend on the order of 14 percent of GNP.

That is something to learn about. Then what you draw from it is a much different thing. But if you are spending all your time wondering whether it is 14.3 or 8.9 your brain will be addled in the process of trying to draw lessons.

So learning from, learning about different processes. Surely expertise can be brought to bear on the learning about. A lot of different things are brought to bear on the learning from.

The second major point I want to make—and I am really going to follow very much on Bob's presentation earlier. He has really made a series of generalizations that when I get to talk about Canada, I am only going to be interested in where I disagree with him.

Because the picture we have got is German characterization, the more general characterization, the Canadian characterization for me in this paradoxical way, sitting next to a Canadian, and then Joe will do whatever Joe wants to do on that since he covers all these processes.

But the main thing I want to emphasize second is that in learning about foreign experience and trying to draw lessons from it, I want to underscore and emphasize that between Canada and Germany, two of the systems that are under discussion today, you have two somewhat different roads to universal coverage and cost containment.

There are some generalizations that apply to both systems and all systems. But I want to emphasize that the striking thing to me is the comparability in results in Germany and Canada, despite the fact that they have taken somewhat different institutional roads to it.

Now let me try to illustrate that. Canada illustrates in its most stark and simple form, the use of a single-plan, single-payer tax supported form of health insurance. In 10 Providences of Canada, as I am sure you all know, you have got the equivalent of a public bureaucracy substituting for a Blue Cross/Blue Shield plan of 40 years ago with service benefits.

They are distinguished by everybody being in the same boat within the Providence—one plan, common terms. They are distinguished by having nothing in the way of cost sharing that is of any significance whatsoever—service benefits. They are distinguished by being portable in the sense that wherever you find yourself in Canada you move along, and portable across jobs, and across statuses.

They are distinguished by having clear public accountability, a clear identification of who is to answer for the balance of cost and quality and access. And finally, there is a commitment in these systems, under those tax base systems, to the aspiration of making the care that is financially available, physically and actually acces-

sible in some order that is determined by medical need and not the size of your pocketbook.

And the result of that in the Canadian context is a barring of coverage for the same services through any kind of private needs. That is the Canadian system, I think, in very short compass.

Now, the German system does not use the general form of tax supported health insurance. It connects and has in the past tied insurance status to your employment source. Now you could say that a proportional contribution is to every mother, father and child in the world the functional equivalent of a tax.

But what I want to emphasize is that they have begun with the employment relationship of going back as you were suggesting 100 years ago, and they have vacuumed up the funds through this device, rather than vacuuming up the funds through both income tax, sales taxes and other means as in Canada.

But however you vacuum the funds, they have vacuumed them up into systems that are held accountable for balancing cost, quality and access. The institutional means and the institutional details differ enormously. Consider 1,200 different funds in Germany; 10 Providences in Canada. Incomparable.

Wrong in my judgment. Wrong in the sense that what you have in both systems, and you have in Australia and all the rest of them as well, is various institutional devices for as Bob was saying, collecting or vacuum up the funds, and then distributing them to providers in which you have very broad ranges of benefits.

You do not economize by cutting out benefits. You economize in both systems in clearly comparable ways. You pay less per activity than we do in the United States. You spend less on the movement of paper and activity of that kind, the waste that you were talking about.

I was charmed by your point about fraud, waste and abuses on no budget item. I would like to return to that subject if you would like to follow-up on it.

But there are three sources basically. It is not so mysterious. I must say the discussion of it is as if the human brain cannot embrace it. There are three things that make us very different in our expenditures.

One is that we pay more for comparable activities. Our fees are higher. Our rates of payment to hospitals are higher. Our salary rates are higher. That is why. It is maybe a point of the difference between us and Canada, perhaps something on that order.

Second, we spend more on the process of making this financing and delivery system work, apart from medical care. That is, the personnel per person in our system is more intense, but it is not all medical care. That is for the non-medical care personnel; and, of course, the classic version of this is line them up in Vancouver General Hospital and line them up in Seattle General Hospital and only line up those people who handle paper, having to do with money terms on it. It turns out, going back to your accounting, that the ratio is about 10 to 1. I mean, it is utterly astounding.

While it is true—and I think you made a very good point about we surely do not want to have something ideal with no administration. You want a sensible administration is what you want.

But let me just emphasize on this cost control point, on the comparative point, that that accounts for quite a lot. There is subtlety here that is often lost. The costs of administration are not one thing. There are at least three different things.

One is the cost literally of administering the insurance, the movement of money around. The difference between premiums in and payments out. That is the carrying cost of administration; and that is the direct ones.

The second source of administered costs are the costs of living with that system of financing and provision, which are built into the budgets of hospitals and physicians' offices and consulting firms. That is the apparatus which we do not count as direct administrative costs.

Then third, which is completely uncounted in our system and very important, Mr. Chairman, in my humble judgment, is the costs of administration which can be best understood as frustration, complexity, uncertainly, the difficulty that anybody has in figuring out what they are entitled to, from whom, under what terms.

Now the last one is non-pecuniary. We do not measure it And the first two, we are very much higher than anybody else. This is an area of immense significance. But what I want to urge you to think about is that if I compared Germany with Canada or if I included Japan or included Australia, I am sure I can show you the administrative costs of all three are much less. But very significant is the administrative cost differential on the first two.

That is an important element in our difference. We cannot get away from it. It is not simply the costs of paper in the hospital. It is the marketing of insurance. It is the review, pre-certification, post-certification. it is the apparatus we have developed, which is a much more serious problem, I think, than you appreciate if you concentrated on the accounting departments of hospitals.

And finally—I mean there is lots more that I could go on to——

The CHAIRMAN. Finally of the three things that distinguish the United States.

Dr. MARMOR. That is right, the third of the three that help to explain cost differences but do not fully exhaust it. The third is the one that was really alluded to by the Republican members of the committee.

I must say that the discussion so far and the questions raised, all strike me as extraordinarily thoughtful. I do not know how to put this without seeming——

The CHAIRMAN. Go right ahead, Dr. Marmor, any time. [Laughter.]

Dr. MARMOR. I was going to say it seems to be unusually thoughtful. But you can imagine. [Laughter.]

That is not quite what I meant to imply. [Laughter.]

What I meant to say is that there looked to me in the questions a real quality of searching for sensible responses rather than scoring points. What I want to try to do on this is to be as candid as I can about what I do not know; and as candid as I can about areas that I have been an advocate of in another context, but not in this context.

So the third one I want to speak to, the third element, is really what is called the intensity of medical intervention, the intensity

of medical intervention. Both a measure of technological intervention and the personnel associated with the carrying out of medical care interventions.

There is no question that that is one of the dimensions in which we differ. We do more and we do more around the more we do when we have people who are sick. But I want to sharply distinguish that from the point made by Janet which seems to be very significant and illustrated just as well by Canada as by Germany, namely, the accessibility of physicians in Canada and in Germany, and the accessibility for most hospital requirements is greater than in the United States.

Greater in the sense that, if you really need care, you get it very quickly in the hospital. And more important, if you need to see a physician, you are going to see a physician quicker in those systems. That is why their rates per capita business per year are higher than us, tremendously higher in Germany, and somewhat higher in Canada.

Their bed days per 1,000 are higher in Germany and higher in Canada. That is an ambiguous measure though. If Bob is right, if more is not necessarily better, we ought not to celebrate and they ought not to celebrate they have used more bed days per 1,000.

But I just want to, as a fact, a fact about—not drawing lessons from, a fact about—we have this picture—and I think, Senator Riegle, you were referring to it—this picture of the rest of the world as draconian rationers of medical care with Germans, Swedes, Canadians, Australians, literally dying in the streets as they live within their tightly bound systems. This is not accurate.

The last thing, if you will forgive me for going on just a little bit longer.

The CHAIRMAN. Dr. Marmor, please.

Dr. MARMOR. Well, I am sensitive to the fact that there are a lot of people here waiting. But let me just make a couple of points about the type of mythical claim about foreign experience that I think maybe we could engage in a further dialogue about.

The one, I guess, I would emphasize. Two I want to emphasize. One is that in order to have universal insurance on anything like the models of abroad, that requires extraordinary increases in intrusive bureaucracy. That is just not the case.

I think this is one of the lessons of foreign experience, that if the terms of insurance can be made more straightforward, if the bargaining about the rates of payment can be done in the form of a citizens cooperative, in which citizens are not the major actors in it but that is done through other institutions, it does not have to be anything like as complex and worrisome as we now have it or, frankly, as complex as I think as some of the proposals would have it in the future. That is point number one.

Point number two has to do, and the last point I want to make for this part, has to do with the discussion of competition versus regulation, international experience as a cost control device. Nobody else in the world has thought that you could have the control of costs for a universal system by having competing plans and competing plans with different prices to be the mechanisms by which you would control costs. Nobody.

Nobody has tried it. Nobody has planned it. But in the Netherlands, they have been for the last 4 or 5 years planning around with slight versions of that, by allowing the premium to vary just a little bit, the Decker reforms. That is the only place in the world—the Netherlands.

Most of the talk about competition versus regulation I think confuses the foreign experience, because the foreign experience, I think—I cannot remember, I think it was Bob who said it—I think the foreign experience, the Canadian experience in particular illustrates this, is quite straightforward in the mechanisms of cost control.

You have a powerful buyer, either one or many are coordinated. They bargain about price and volume and they know what they are going to spend roughly at the beginning of the year and they have competition for those funds. The political will arises from the competition for the funds that are going to be expended. That is the constraint. And the political mechanism is the negotiation about volume and use, volume and rate.

And the capacity to do so arises from administrative, a long tradition of holding people responsible for getting their job done with clear lines of accountability, which has a way of drawing into that activity. And I worry—this is the point I want to make on this and I will stop. What I worry about is, both misreading the foreign experience into thinking that administrative skill and competence is not important, it is.

Those negotiators are in an ongoing game, as Bob was suggesting, and they need to come back the next year. It is a permanent negotiation and their skill level is very important.

And the second one is, I worry about drawing a misleading interpretation that one meaning of competition, which is price variation of insurance plan, is seen as the only kind of competition. What we see elsewhere is intense competition for the use of services and the use of providers because there is considerable choice and flexibility about whom you use.

And if every system that we are talking about is fee-for-service, I can tell you, if I were paid for every student who came into my class, I would pay more attention how many came into my class. That is the economic incentives.

You have competition for custom. You do not have price competition on the prices of insurance premiums. With that I will stop.

The CHAIRMAN. Very well. Joseph White is going to talk to us on the international experience on controlling health care costs.

STATEMENT OF JOSEPH WHITE, PH.D., RESEARCH ASSOCIATE IN THE GOVERNMENTAL STUDIES PROGRAM, THE BROOKINGS INSTITUTION, WASHINGTON, DC

Dr. WHITE. Mr. Chairman and distinguished members of this committee, I am honored to appear today in front of such thoughtful Senators and with such eminent colleagues.

My written testimony summarizes my understanding of other nation's approaches. It could not, of course, provide a guide to implementing any of those policies. There is a great deal of literature by some very thoughtful people, and I particularly commend to you some of the work by other members of the health care study group

that Professor Marmor and I have helped organize, such as Christa Alferstetter and William Glaser and Victor Rodwin, about the experience of actually administering some of these other systems.

My colleagues here at the table have said most of what needs to be said, I think. I would like to add a few points.

First, other countries manage lower costs in a national guarantee because they have different systems of health care finance—not delivery, finance. These systems do not require lower levels of cost or lower levels of rates of cost growth. But they allow those countries to choose, and they have chosen to have slower cost growth recently. Before, they chose to have higher cost growth.

Other countries' instruments for cost control are varied. But I think they come out to be essentially the same in practice. One is that each has institutions that increase the bargaining power of payers relative to providers over the observed experience of American markets.

I am always struck when advocates of managed competition say, well, when you have 5 or 6 insurance plans instead of 20 competing with each others and trying to pay the doctors and the hospitals, then the 5 competing plans will have more market power and each of them will be able to get a better price.

Well, if market power is the question and if 5 plans is better than 20 or 5 insurers is better than 20, then 2 or 1 may be even better. And what other countries do is, they have either a single payer or a way of structuring a negotiation between all payers and the providers.

Except in those areas where there are no fees for service, such as a publicly budgeted hospital, each has some version of a fee schedule, though some include exceptions of various sorts.

Now there is a lot of talk about fee schedules are price controls and price controls are bad. But what that leaves out is the fact that fee schedules for medicine have absolutely no relationship to price controls on normal markets.

There are three normal critiques of price controls. The first one is that they are an administrative monstrosity in which you are trying to regulate all these transactions and you could never enforce them. Well, in fact, it is our current health care system of varied bargaining among God knows who about individual prices and discounts here and discounts there that is the administrative monstrosity.

In a system with an agreed-upon fee schedule, it is much easier for everybody to know what the prices are supposed to be. There is much less administration. It is much easier and it is, in fact, quite easy to track whether those are the fees that are, in fact, being paid.

The second standard criticism of price controls says that price controls do not work because they only work temporarily and once the price controls are taken off, you will have an even bigger burst of inflation, which is totally irrelevant to medical fee schedules because they never get taken off.

The third argument about price controls says that they distort the underlying logic of supply and demand so that you get a misallocation of resources. Yet in the case of medical care, once you have insurance of any sort, there is no underlying process of price

adjusting supply and demand, for the simple reason that there is no price constraint at the point of service, as the people at the Heritage Foundation would point out, and as the designers of managed competition would point out.

Once you have insurance, there is not a price constraint when you get served. They think that is a problem. I think that is the point of insurance. So that when you need medical care you can get it and it does not depend on your income or whether you happen to have the money stashed away at the moment.

Unfortunately, you cannot exactly borrow for most medical treatment. Because if it is really severe, people will not loan you the money.

Third, each of these nations' budgets a substantial part of medical provision. Particularly, there is a move towards either budgets or the functional equivalent of budgets for hospitals. They budget at the level of specific institutions, not just the system.

In fact, I am not sure, I guess the Canadian provinces come closest to having an overall budget for their systems. But even there, of course, if more people show up than expected to get services for which fees are paid, the States or Provinces, as I understand it, are going to end up paying more than they expected to.

Britain is the closest thing to budgeting an entire system. But that is only meaningful if you can find some institutions, some ways of translating that into costs for actual care. The easiest place to do that is at the level of the hospital. You say, "hospital: here is a budget." It is much harder to do it for doctors, for ambulatory care, although the Germans did find a way.

Each has managed the capacity of its system, both to limit costs and to increase equity of access—to make sure the facilities are in the right place, which our market system does not ensure. And they do it through controls on the access to capital, not just on capital investments directly, but on the access to capital.

Now everybody also has a different way of funding medical education than we do, which is in response to the concerns of Senator Riegle. You do not want your doctors to have those kinds of debts. It is a bad idea.

These similarities do not stem from similar cultures, but from the fact that medical costs increase in all systems for essentially the same reasons. And medical care involves essentially the same activities requiring similar responses.

There is a lot of talk about cultural differences and that will affect what gets defined as proper care. For example, we do not do the spas, but the Germans do. The Japanese take a lot more drugs.

But medical care is a technology which is roughly the same everywhere. It has the same roles, and is essentially the same activity everywhere. The doctors and the nurses fight about the same things everywhere. The doctors developed the same basic ideology virtually everywhere over the course of the last century.

I mean, it is essentially the same activity and in response to essentially the same controls or incentives or opportunities or whatever.

Now, what are the consequences in practice of these various forms of cost control that other countries use? As far as I can tell, it is very hard to make an argument that health care is worse in

other countries. When specific comparisons are made on specific usages, such as cardiac surgery, that certainly does not seem to be supported and Professor Evans cited a good example also.

I do think there is evidence that the United States provides more extensive or intensive care to the elderly and that those of our elderly who make it to age 80 probably do better in terms of the care they get afterwards if that is what is affecting their life expectancy than anybody except the Canadian elderly, who still do better than we do.

But on balance, it is just very hard to make an argument that our care is better than other countries. But we do spend more on specific things. We spend much more on bureaucracy and Professor Marmor spoke to that. Usually when you talk about administrative savings and waste, fraud and abuse, it is talking about doing something that you are already doing, but doing it better.

No. When we talk about administrative savings on the American medical system, it means getting rid of some of the things we do. We do not want insurance companies doing underwriting. It is a bad idea.

Second, we do pay higher prices for much of what we buy.

Third, we do use more resources per service. We tend to use more people and more equipment to perform the same tasks. Victor Fuchs and one of his colleagues had a very nice piece in the New England Journal of Medicine last month, I believe, about trying to figure out why Canadian hospitals cost less for the same treatment as American hospitals.

It had something to do with, in fact, capacity controls. If you have a piece of equipment and you use it to capacity, then the cost per use is lower.

We do seem to provide extra amenities for some people. Obviously, for the people who go to our big city charity hospitals, the amenities are not very good at all. But because our hospitals compete for the well insured, they spend a lot of money on trying to look attractive to those customers. And we do buy more of certain kinds of service.

Americans make fewer office visits to physicians than in any of the other six countries that I have looked at—Australia, Great Britain, Canada, France, Germany, Japan. We have fewer hospital beds per person and we have lower occupancy rates. But we do have very high rates of a number of expensive treatments, such as cardiac surgeries.

The bottom line, as far as I can tell is that, yes, relative to trend we can reduce our cost by adopting some of the measures that other countries adopted. That does not mean our costs will go down. They will not. These are fundamental reasons why health care costs are increasing.

[The prepared statement of Dr. White appears in the appendix.]

The CHAIRMAN. Thank you. You said the United States should be able to reduce its health care costs by the year 2000 by 2 percent of GDP compared to its trend. So it would be at 17.5 instead of 19.5, something like that.

Dr. WHITE. That is purely a ball park figure, looking at it as best one could make a judgment. For instance, of course, the adminis-

tration is projecting something of about the same size or a little smaller. I am saying that is not unreasonable.

The CHAIRMAN. That is not unreasonable. I do not want to ask solely the questions, but could I ask Dr. Marmor and Dr. Evans, would they think that a reasonable thing for this committee to attempt.

Dr. MARMOR. Goodness, yes. I mean, I think that part of the conversation is really quite bizarre is the assumption that there is some natural law of increase that must happen. So that if the trend line is 19 percent, you think you are at great victory if you are at 17.5 percent.

I think the really impressive thing about Bob's comparative work is that when the Swedes got excited about this in the late 1970's and early 1980's, they actually reduced the proportion of their income going to medical care from 10 to 9.

We have this odd vocabulary in which cuts are described as reduced rates of increase, a very peculiar matter. And if we are the most expensive system in the world, I dare say that is a conservative estimate of what is possible. But I can tell you this, that there are certain ways of going about doing it which are sure to fail.

Dr. EVANS. I am not sure if I understand the question wholly. The last trend I saw was 18 percent by the end of the decade from CBO.

Senator PACKWOOD. It is more.

Dr. EVANS. It is more than that now? And you are saying reducing it by 2 percent from trend, meaning that you will go only from—well, if it were 18, you will go only from 14 to 16 percent over the course of the decade and this is success?

Senator PACKWOOD. That is right.

The CHAIRMAN. Dr. White said it, not me.

Dr. EVANS. I do not wish to participate in this discussion. [Laughter.]

The CHAIRMAN. Senator Packwood, help me. I am in trouble.

Senator PACKWOOD. In Oregon, we have recently adopted a Medicaid waiver procedure. We literally have ranked the procedures. You do not quite want to say on cost. That might be the wrong way to phrase it. Some of them we are not going to pay anything for because the treatment is not effective. There is no point in spending money on things that do not work.

But it is alleged to be rationing, although clearly it is for Medicaid and we ration Medicaid now. At the moment, Oregon covers you up to about 60 percent of poverty and then does not cover you. So in this list we say, we will go to 100 percent of poverty and we will cover childless couples, but we are not going to give everybody the same service we used to give and we will prioritize it.

Most people, I think, would look at the list and really would not quarrel much with the priority list. At the top is preventive medicine and prenatal care and at the bottom are things that just do not work.

Is that a wrong way to be going about things? Because it sounds the way you discuss, the three of you, like most of these other countries do not do that. That they pay for almost everything no matter what.

Dr. EVANS. I think there are two ways to responding, probably lots more. But at least two come to mind in responding to "Is that wrong." Is it wrong in some sense to have a health care system that cuts out the things that do not work? No. That is exactly what——

Dr. MARMOR. I want to wholly associate myself with that remark.

Dr. EVANS. Yes, that is exactly what you want to do. Actually, I was on a panel with Dr. Kitzhaber that was being interviewed by one of our leading TV interviewers a few years ago. This was all discussed and the question was raised, which I thought was passing wonderful. "But surely, Dr. Kitzhaber, it is unethical to withhold treatment from people who are in such terrible circumstances just because it does not work?" [Laughter.]

I did not want to participate in that discussion either. [Laughter.]

So, yes, of course, that is what you want to do. And, of course, not only do you want to eliminate the things that do not work and indeed do harm. That turns out not to be trivial.

We have a recent report from the National Breast Screening Survey, for example, that shows pretty conclusively from the randomized trials that screening women who are under fifty does, if not harm, at least no good.

The response by the radiological community could only be described as hysterical. The nature of the attack on that study is such as to make you somewhat despair, not only of human intelligence, but also of human goodwill and everything else.

So that is not a trivial thing to try to do, getting rid of the stuff that does not work. I think beyond that there are things that in some sense do work, you know, removing of tattoos and reversal of sterilizations and a whole variety of things. You may say, well, yes, it works; but it is not altogether clear that this ought to be part of a public plan and does not work enough to be worth paying for and so on and so forth.

I think the real question of "Is it wrong?" is, is the Oregon approach the most effective or the only way of achieving those results as against simply constraining the budget of the overall system and then saying, okay, you guys figure out what to do.

Senator PACKWOOD. Let me ask you, do none of the other countries that you talked about—I use the word ration carefully—do they not say there are some things they are simply not going to pay for?

Dr. MARMOR. Yes, they do. But they do not—none of them use the Oregon approach, of a listing of 500 to 1,000 procedures and try to put them in a cost benefit order. That, I think, is an extremely important international point.

No other place in the world has regarded this as the necessary feature of the rationalization of the benefit package.

Dr. WHITE. And part of that is because, of course, what Oregon is doing is something different from running a national health care system. There the question is, is it a good idea for Oregon when the problem is: given that you do not have universal health insurance, how to choose to allocate care among those people who cannot get it otherwise.

In other words, Oregon's problem is what to do about Medicaid and it is making a trade-off within Medicaid. It is not a cost control of an entire system issue at all. It is how do we find money to care for more of the people who are not covered.

Senator PACKWOOD. But each of you apparently have indicated that these other countries do not cover some things for whatever reason.

Dr. MARMOR. For example, just recently in Ontario they removed the removal of hair as a medical care procedure. Cosmetic surgery almost everywhere is not treated as a reimbursable expense, and all that sort of thing.

But I think the point, Senator Packwood, is not that. The point is when German physician associations in geographic areas are given a pool of money, they are not given a pool of money in a ranked list of procedures, but they have to think about what sort of procedures are being priced at what level and whether the volume of it makes any sense or not.

I think the core difference is this. The Oregon approach seems to want to say, this is worth doing, that is not worth doing. Because on average, A is effective and B is not. The trouble is B is effective for some people; and A is ineffective for some people. That average argument is not what sensible physicians will want to operate with. What they are going to want to operate with is to be able to adapt within their budget, to some conception about the worthwhileness of this procedure and to leave some flexibility. The paradox is——

Senator PACKWOOD. Well, do they make decisions then as to yes patient A will get the treatment and patient B will not?

Dr. MARMOR. Oh, sure, all the time.

Dr. EVANS. That is what doctors do all the time.

Dr. MARMOR. All the time.

Dr. EVANS. That is being a doctor.

Dr. MARMOR. Rationing in the sense of deciding who gets what when, and in what order is a necessary feature of a rational medical—of any kind of medical care system. The question is on what basis.

And the difference between the Oregon basis and the others is that the budget control gives signals down the line that there is not money for everything. But it does not tell you that some things get zero and other things get a lot. It does not preclude priority setting.

I will give you another example from the Canadian context, and Bob may want to elaborate. The example used, but another one about pap smears. Pap smears are very important elements of preventive medicine. But doing a lot of them all the time is foolish. So the payment system may well reflect a constraint on how much that kind of asymptomatic treatment is given.

I think there was a scientific group that met in Canada and advised the governments not to pay for pap smears more often than X.

Dr. EVANS. Every 3 years.

Dr. MARMOR. Every 3 years. Now that is an example of rationing the availability of money for certain kinds of care against a back drop of a useful procedure that can be uselessly expanded. That is a very different approach than the Oregon approach.

Dr. WHITE. There is an extremely important theoretical point here, and practical point here. You can find there are also some situations where you want to set standards as to how often you do specific identifiable procedures that are essentially preventive. The administration is basically, as far as I can tell, in its outline of its coming proposal, its 240-page outline, making a number of sensible judgments about that.

Yes, you want to decide what procedures are worth paying for and what are not, to the extent you can decide that in advance. But patients vary tremendously. And given that patients vary tremendously and have different other things wrong with them and are in different conditions, first of all, the principle of rationing, if you want to call it that, that I certainly would prefer is you give guidelines to physicians. But the main thing you do is you leave it to the physicians to decide because they see the whole patient.

The problem with the Oregon approach as an approach for an entire system, is that the Oregon approach is not simply denying things that are clearly useless. It is making judgments of relative probability of being useful. It is then saying that the care you get depends not on who you are in your particular condition, but on whether your particular condition fits some politically and bureaucratically defined rules beforehand.

Senator PACKWOOD. Whereas, in the other countries the doctor makes the decision as to whether this particular procedure is useful. And if an 80-year-old says I would like this X treatment, the doctor says to himself or herself, no, I do not think so; and that is a final decision.

Dr. MARMOR. No, because in most of these systems you go to another doctor.

Senator PACKWOOD. Until you find one that will do it.

Dr. MARMOR. You might. But even if you go to the doctor to try to do it and it involves expense of hospitalization, you are in competition for those scarce resources. That is where it makes a difference that your hospitals are——

Senator PACKWOOD. So there is a form of rationing?

Dr. MARMOR. Absolutely. There is no alternative to that.

Dr. EVANS. Hang on. I guess I am more favorably disposed toward the Oregon system than perhaps some of the Americans here, because the process that you described, certainly in Canada, and I think more generally, of "Give the money to the doctors and let them figure it out," that is far from perfect either.

The CHAIRMAN. And that is the way of the world and so are we.

Dr. EVANS. I understand that. But I did want to come back to your 80-year-old, because it happens there is a piece published in the New England Journal last month by William Molloy from McMaster who has been doing a lot of work on this, looking at how doctors react to the presentation of a gravely ill 80-year-old man presenting at the emergency room with a series of symptoms suggesting that he is on the verge of checking out.

What Molloy found systematically in his group is that the response that you get by the treatment people will depend very much on how closely they are associated with that person. If you are a doctor at arm's length from the individual, you hit him with everything you have got.

If it is a member of your family, you are a lot more careful. And if it is you, you choose palliative care. I am quite serious. Under those circumstances, what the patient wants may be less, not more.

The CHAIRMAN. That is sort of counter-intuitive, is it not?

Dr. MARMOR. Right.

Dr. EVANS. Not really. Think about it.

The CHAIRMAN. Well, when you think about it.

Senator Riegle? I think our remaining time—we are in the afternoon.

Senator RIEGLE. It is fast passing here. First of all, let me thank all three of you. This has also been I think a wonderfully helpful discussion today. I wish the whole country could be participating in this discussion.

I will tell you what I come away with in listening to what has been said this morning, with the earlier witness and the two of you, that is, that what we probably ought to be doing is to try to bend the American system toward something that has certain features that we are seeing both in Canada and in Germany. I mean, in other words, a blend that would work for us but that would take us down a track that would start to give us some of the virtues that seem to be accruing there. Not that there is any perfect system.

But at the same time, if that is generally sort of right, I am not hearing a ringing endorsement for managed competition. What I think I am hearing——

The CHAIRMAN. Does anybody have a bell? [Laughter.]

Senator RIEGLE. [continuing]. Both on the lines and between the lines is that you are saying as you sort of assemble your own perspective that the notion that somehow managed competition is an avenue to the right blend of outcomes, does not really compute very well. Is that a fair summary?

Dr. MARMOR. It is important enough question and we may have different answers.

Senator RIEGLE. Yes, and I would like to hear all your answers.

Dr. EVANS. I like managed competition. I am an economist. I was trained that way. I think it is a great idea. I loved it when I first discussed it with Victor Fuchs at a seminar at Harvard in 1968 when I was a graduate student. And the main outlines come out there, although the details have become much more sophisticated since.

But I grow old in the service, and I think that managed competition or the whole competition idea may be one of those things that is, like the gallium arsenide lasers, the technology of the future. Always has been. Always will be. [Laughter.]

Dr. MARMOR. If you got an answer from that, Senator Riegle, you are better than I am. But I think that was not a ringing endorsement. [Laughter.]

Senator RIEGLE. A little Rubik's cube in there.

Dr. MARMOR. But I want to present it a little bit differently. I think managed competition can be either understood as a label which is misleading or as a symbol for a particular proposal.

As a label, I find it extremely unattractive. Unattractive in the sense that it is oxy-moronic. You do not manage competition. You manage resources. And you regulate competition. If they said that

straightforwardly, I would say, let us get to the details of how you propose to manage resources and regulate competition and on what basis.

So I do not like the label. But as a plan, that is looking at the President's proposal, which he has put under this umbrella, what I would emphasize is two quite different things. I know it sounds odd to have two thoughts at once in my head, but I do.

The two thoughts I have is, if you were comparing the President's proposal on the dimensions of universal coverage, on the dimension of comprehensive with the benefits, on the portability of benefits, on the effort to locate responsibility for cost and quality, on all four of those dimensions anybody like myself would place themselves with my history in back of those things.

Those are elements that I think are common across what he is proposing, what issues I have been. I think to not see these is mutually exclusive.

Senator RIEGLE. Those are goals.

Dr. MARMOR. Those are goals and there are some instruments for them. For example, federalism here is unusual, a very unusual thing to have a federal. By which I mean federal, national, state combination. It is an unexpected feature. It is actually Canada in drag is the way I would put it.

The CHAIRMAN. No. [Laughter.]

Dr. MARMOR. Sorry. I withdraw that remark.

But what they differ in, Senator, is the theory of cost control and the plausibility of arranging delivery changes in a time frame fast enough to get costs under control even if the system would do so were it in place. On those dimensions, I differ in my estimate of the speed with which it can happen, and I differ very much in my estimates of the likelihood that will work as planned. Both dimensions. Both slower and less likely to produce the effects.

So I for one would opt in a second for a simpler, more reliable, less fancy device to get down this road of cost control than I would for a fancier, more appealing theoretical device that I cannot find empirical experience to give me confidence that will do what it said.

I regard that as a nuanced reaction to the question.

Senator RIEGLE. No, I understand.

Dr. MARMOR. And people try to force you into it.

Senator RIEGLE. Let me give you an argument to add to yours and then I want to go to Dr. White. That is, it also depends on where your start point is. If your start point is at 14 percent of GNP and you are on your way to 19 percent and you are hoping maybe you only get to 17 percent, that creates a level of urgency.

Then if you take 40 million people uninsured, that creates a level of urgency that does not give you, you know, sort of the Rube Goldberg route, circuitous route to get there. It seems to me, you have to sort of cross-wire your answer. You have to make your answer happen faster and with a high degree of confidence because you are already late, so far behind the curve that you cannot afford to horse around with something that is going to take a long time to maybe work. That is what I get out of this.

Dr. White, what are you saying?

Dr. WHITE. Ring. Ring. Ring. Ring. Ring.

Basically, you have to distinguish between managed competition as a theory and the President's plan as a theory. As I stated in my written testimony, every possible theory of cost control is in the President's plan. There is a lot of talk about the managed competition, but everything else is there in one form or another at some point.

There is something to be said for that. Redundancy backups and so on are a good thing in general. Managed competition as a theory has a good side and a bad side. I mean, as a set of proposals.

I think the idea of having HMOs and integrated delivery networks as a form within a system, as a possible check on the behavior of fee-for-service, as a direction in which the whole system is evolving as people, patients, and doctors choose it voluntarily, is an excellent idea.

It is something we have and for historical reasons these other countries do not. I think it should be encouraged. But I think given what the trend has been over the last few years in evolving towards that kind of form, which has been slower than people claim; given the difficulties in terms of capital investments and the actual preferences of doctors and patients in terms of whether they want to be in that form, which they basically do not; I do not think that you can rely on the cost control among these accountable health providers as the fundamental form of cost control.

So what I am searching for is a way to combine what other countries have done with elements of the managed competition proposals to get a system that could arguably be better than either.

The CHAIRMAN. Well, I think on that note——

Senator RIEGLE. We can pursue this, but I think we have taken it as far today as perhaps we can.

The CHAIRMAN. Yes. But I do think we have heard—let me ask you now. Have we heard festina lente, make haste slowly here? To roar right into a fleeted system asks for unanticipated consequences of all manner.

Dr. WHITE. I do not think I would agree with that in the following way. In that if you move quickly into a system with the major elements of which you have evidence, and you have experience, and you have examples, of how to manage it, then you are much less likely to get unanticipated negative consequences than if you walk quickly into a system with which you do not have much experience. So slow versus fast depends on which you choose to do.

Dr. MARMOR. I think I understood you to be saying be cautious about moving quickly into something you do not have much confidence that you know how to run. That I agree with.

But I do not agree that we ought to treat this as something which we have to do years and years of more research on to figure out what works.

The CHAIRMAN. Yes.

Dr. MARMOR. That I really disassociate myself from. I think that we have most of the institutions in place. We have had negotiations, instruments, and American counterparts to corporatism in the Medicare program on both the physician side and the hospital side. I would argue that we can move deliberately if we do not fool ourselves that to hold out for the perfect is the right lesson to draw.

The CHAIRMAN. That we will find that perfect——

Dr. MARMOR. That we will find that. The risk adjustment discussion was a good example of that. It is an illustration of trying to do everything to avoid the most obvious point about universal health insurance, which is to spread the risks as widely as possible.

The CHAIRMAN. Dr. Evans, why don't you have the last word, since you are once again standing here looking down upon us and saying sooner or later you will catch up with civilization.

Dr. EVANS. I was carefully trying to avoid that, Mr. Chairman.

The CHAIRMAN. You did. You did, sir. I thought I had to say it myself.

Dr. EVANS. Well, I think the last word from an outsider should be suitably modest, that the complexity of your problem certainly dwarfs anything that we deal with now or have ever dealt with, that what kinds of solutions you are going to find will be unique.

I do not think an outsider is competent to answer questions like you should do X or you should not do Y. But I think the point that was made about the very different cultures from the rest of the world, coming to in some ways similar kinds of solutions, is one that I think you should take to heart.

Because at the end when you do find the right answers, they will look very much in their outcomes like the same sorts of things that everybody else has done. The mechanisms will, indeed, differ. I do not think there is any question about that.

The CHAIRMAN. That is a nice point on which to conclude. Thank you, gentlemen, so very much. It is hugely generous of you, Dr. Evans, to come down all this way.

Dr. Ted Marmor, it is good to see you again, sir.

Thank you, Dr. White.

[Whereupon, at 12:34 p.m., the hearing was adjourned.]

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APPENDIX

ADDITIONAL MATERIAL SUBMITTED

PREPARED STATEMENT OF SENATOR DAVE DURENBERGER

Mr. Chairman, I welcome the opportunity today to more closely examine the attempts of other countries to control health care spending. However, I caution all of us to take a careful look at the various systems and their application to reform of the health care system in the United States.

The foreign health care systems have maintained a smaller amount of spending per capita or as a measurement of percentage of GNP than the United States. But no system has succeeded at controlling the rate of increase in health care costs. And, no system has the means to satisfactorily evaluate health outcomes. Therefore, it is difficult to even compare the systems to one another and measure their value to consumers in this debate.

I believe that the goal of health care reform in this country is to guarantee equal access to high quality care—through universal coverage of the financial risks. Today we have unequal access to health care—by both geography and income.

As we know, there is more than one approach to achieving our goal. I recommend the managed competition approach that contains health care costs by strengthening the market power of consumers.

Yet managed competition is not easily compared to Canada, Germany or the current U.S. system where fee-for-service medicine dominates. As I have stated many times before, Minnesota is delivering quality health care at a lower cost. It is that system that I would prefer to hold up in comparison with other systems.

On the other hand, some of my Senate colleagues have an opposite approach. They want to establish a single-payer system like the one in Canada—administered at the state level.

Under such a system, there would be only one payer for health care in any state. A national health board would set standards for benefits, and work with the states to develop health budgets. Government would cap the annual increase in health care expenses to the rise in the overall cost of living.

This proposal is supposed to contain costs. But a much more likely result of enacting his single-payer system is the *rationing of access* to health care, and the *reduction of its quality.*

Let me illustrate how the proposal would work if it were applied to running a restaurant instead of a health care system.

Let's say you own a restaurant with a very big menu. The government gives everyone in the country a restaurant services card. This card entitles them to anything on the menu they want, at any time, regardless of how hungry they are, or what their needs are.

Now assume that you—the restaurant owner—are required by the government to serve all the people who come in with their cards. Then the government will tell you how much you can spend over the next year—and no matter how many customers you serve or what kind of food you serve them, *you will never receive more than that initial budget.* The government will also tell you what they will pay you for every individual item on the menu.

What happens if everyone comes in the first few months of the year and orders steak, the most expensive item on the menu? What happens to the budget?

This is what happens. The government will cut the level of its reimbursements for steak. If demand continues to rise, the reimbursement rates will go down *again.* In all likelihood, your supplies and operating expenses will end up exceeding what the government pays you for the steaks you serve!

What will you do? Probably, your first response will be to buy a cheaper cut of meat. *You will reduce quality*—even if it means that you risk being fined by the quality inspectors. And if your bottom line falls below your budget allocation, you may simply go out of business.

To a business person, does this make any sense? Will you be motivated to compete with other restaurants to serve highest quality at lowest prices? Absolutely not.

Yet this is precisely the kind of system some are advocating for U.S. health care.

They contend that this system only gets at greedy providers. That may well be the intention. But in government, intentions are not the point. *What we have to examine is not intentions—but the likely consequences of our actions.* In the unlikely event that a single-payer bill is passed, health care consumers will face truly dire consequences.

They will have to pay more—in higher taxes—for a system of lower-quality health care. The average Canadian pays 46 percent of income in taxes—and the Canadian health care system still can't control inflation. *We have to do better than that—and that's why I urge the proponents of single-payer legislation to take another look at the managed competition approach to health.*

I have been working with the "managed competition" experts for the past 14 years. What we together are telling the President is that the managed-competition experiments under way in California and Minnesota prove that it will bring health costs under control.

The key is to do the reforms in the right order. *First* we create—community by community, all over America—the system of managed competition. That way we bring down costs. *Then*—once the practice of medicine has changed and costs are being contained by a sound, working market—we can extend health coverage to all Americans.

Universal coverage is our goal. And managed competition is our best strategy.

PREPARED STATEMENT OF ROBERT G. EVANS

1) Reform of health care systems is either under discussion or underway in most countries in the developed world. Several features of this process stand out:

a) It is simultaneous to a number of countries, and recent;

b) These countries have very diverse forms of health care organization and payment;

c) Reform is generally described as motivated by financial pressures; but

d) It is occurring in countries where expenditure on health care is very high (the U.S., Canada, Sweden) and where it is very low (the U.K., New Zealand), both absolutely and relative to total national income.

2) The virtual universality and simultaneity of this urge to "reform" whatever health care system a nation may have, may mislead Americans into believing that their own peculiar problems with health care are general throughout the developed world. This is not true. America is unique in its range and severity of problems with health care; the United States is NOT a country like the others.

3) The dimensions of American uniqueness are well known, and long-standing, although they have been growing more severe over time:

a) Coverage - none for many,
- seriously inadequate for many more,
- insecure for an indeterminate number.

b) Costs
- by far the highest in the world,
- the most rapidly rising,
- with least developed means of control.

c) Efficiency
- the payment system wastes now [illegible] $100 billion a year in administrative overhead,
- extensive over-use of "high-tech" diagnostic and surgical procedures.

d) Equity
- large differences in access and quality of care, depending upon income,
- high proportion of costs borne by those at lower income levels, and sickest,
- unusually high relative incomes for providers (particularly physicians).

e) Health Outcomes
- unimpressive, relative to other developed countries, though
- unclear how much of poor performance is a health system problem.

f) Public Satisfaction
- lowest among developed countries surveyed.

4) But in the other countries of the OECD (with the exception of the "Mediterranean tier") there has for years if not decades been general satisfaction with the overall structure of the health care system. The rhetoric and political theatre of crisis has been part of the normal budgetary processes of many of these systems, but there has been a broad consensus supporting the existing arrangements.

5) The recent interest in major structural reforms has not resulted from a sudden "failure" of those arrangements, still less from an "explosion" of costs -- the data do not support such rhetorical claims. The general problem has been a decline in overall rates of economic growth.

6) Roughly speaking, Canada and the countries of western Europe have gone through three phases in the post-war period:

a) Rapidly rising health care costs, increasing as a proportion of rising national incomes; followed by

b) More slowly rising health care costs, making up a relatively stable proportion of rising national incomes; and now

c) More vigourous attempts to limit health care costs, so as to hold them to a constant share of much more slowly growing national incomes.

7) These phases have coincided with changing perceptions both of the relationship between health care and health itself, and of the dynamics of modern health care systems. Rather than responding to "needs" in a more or less predictable (and bounded) way, such systems appear to expand indefinitely until they reach an effective external limit. In most systems outside the United States, the establishment of universal coverage was associated in phase 2 with the development of mechanisms to impose these limits through the public (or quasi-public) reimbursement systems.

8) The United States is the obvious exception. Never having succeeded in moving from phase 1 to phase 2, the U.S. lacks both universal coverage and effective mechanisms for cost control. The ineffective mechanisms which have been developed through the private sector have failed to control the costs of clinical care, while generating an extraordinarily large and expensive private bureaucracy without parallel anywhere in the western world.

9) The successful mechanisms applied in other countries have focused on two aspects of the health care system:

a) Prices, wages, and total budgets;

b) Constraints on capacity or capital:

10) Countries with significant parts of the health care system paid by fees for service begin with negotiated uniform fee schedules, go on to limit opportunities for extra billing, and then try to impose some form of global control on payments. "Socialized" systems in which most health care workers are employees necessarily include direct wage negotiations, but these may be under more or less stringent controls, and may be within the framework of overall "cash limits".

11) Capacity constraints may be applied to:
a) Physical capital:
b) Human capital: or
c) Technical/intellectual capital or "know-how".
Since in health care capacity of whatever form tends to generate its own "demand", measures to contain overall costs are likely to be unsuccessful or at least politically very difficult if they are not matched by simultaneous measures to limit capacity. (Do not keep training more doctors if you hope to contain the growth of physician expenditures -- or keep subsidizing new pharmaceutical research, if you are concerned about escalating drug costs!)

12) Generally speaking, all countries have found that the only way to limit cost escalation is to take control of all the revenue flows into health care, and limit them. This can be done by a "single-payer" system (Canada), or by a closely coordinated multiple payer system (Germany). Indirect measures -- such as limiting "demand" through deterrent fees -- have been conspicuous failures.

Control of physical capacity has been relatively easier than control of human capital -- both numbers and levels of qualification. The latter tends to be driven by the economic and professional interests of provider groups themselves; the former by community concerns for income and employment creation. The proliferation of "specialoids" is a problem in both Sweden and the U.S., for example, despite the very different organization and funding systems. Control of the proliferation of technical capital is particularly difficult; it has been possible primarily through control of the equipment in which it is embodied.

13) The current interest in reform is not a result of the breakdown of these administrative techniques for control. Rather the deteriorating general economic environment imposes a difficult political choice. Either controls must be applied much more rigorously, restricting health care sectors to much lower rates of overall growth than they have become accustomed to, historically, or those sectors must be permitted to take an increasing share of national resources.

In the former case, new health priorities must be supported by drawing funds from old, rather than by constantly adding new money, as in the past. Hence the provider rhetoric of "cut-backs", which while false in aggregate, _is_ true of particular programs, facilities, and people. In the latter case, new resources must be raised by taxing, borrowing, or permitting the return of "private" funding. None of the options is attractive.

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12) The political responses of providers to tighter controls differ across systems, though in all cases the intent is to try to maintain historical patterns of expansion. In "socialist" systems, budgetary controls result in declining workloads and increasing waiting lists; in fee for service systems practitioners try to expand patient throughput and to tap private sources of funds. In both environments, the rhetoric of system decay and imminent collapse escalates, regardless of the actual levels of provision or the efficiency or effectiveness of current resource use. "Reform" of whatever stripe, is the response of payers to these escalating political pressures.

13) For Americans, however, it is very important not to be taken in by this external rhetoric, which is then recirculated with amplification in the American debates. The general problem of health care policy in the developed world outside the United States is how to contain the internal expansionary momentum of modern health care systems in a way which is politically acceptable, and does not threaten the health or well-being of the populations they serve. This is a <u>political</u>, not a technical problem.

14) There is no doubt, on the evidence, that effective, humane, and responsive health care can be provided to modern populations, at or below the costs now experienced in the "high end" countries such as Canada or Sweden, though the U.K. may be more of a question. Each of the independent public inquiries into health care in the various Canadian provinces reached the same conclusion; the system needs more management, <u>not</u> more money. But it cannot be done while simultaneously preserving the economic and professional aspirations of all those who now work in, or who hope to work in, and be well paid from, those systems. And therein lies the problem.

15) Much of this evidence has been available for years, if not decades. In Canada, for example, observers of the health care system have since the mid-1960s been pointing to the overuse of hospital beds, and the inexplicable variations in patterns of hospital use and surgical practice. The political difficulties and costs of acting on what was generally known -- at least among students of health care — have until recently outweighed the potential economic benefits of more careful management, in all of our health care systems. The social consensus was more easily maintained by simply adding more funds, while this could be afforded. Now, in all systems, people are trying to address problems which have always been there.

16) On the other hand, the external economic pressure has also reopened old arguments about the roles of the public and the private sector. Providers, threatened with more severe economic restraints, are increasingly interested in extracting more money from patients, either directly or through private insurance. The U.S. system thus becomes an attractive example, demonstrating very clearly how a mixed and fragmented funding systems can assure the industry an ever expanding supply of funds, no matter what is going on in the rest of the economy.

17) Providers interested in keeping the money flowing, and avoiding embarrassing questions about how it is being used, find potential allies in two other groups. Tax-funded public payment systems distribute the burden of payment roughly in proportion to people's incomes, or even progressively. A shift from tax finance to user pay or private insurance would shift the financial burden away from the more to the less healthy an wealthy, <u>i.e.</u> transferring net income <u>to</u> the healthy and wealthy.

The establishment of universal public systems, along with making health care services more equally accessible, represented a very significant income transfer from higher to lower income people. Increased private funding would shift transfer some of that income back. At the same time it would give those with greater ability to pay, improved access to health care.

But payers for care would also benefit. Caught between the political costs of raising taxes (or "social insurance premiums") and those of trying to contain health care systems, "blaming the victim" and transferring costs from public to private budgets becomes an increasingly popular option -- even if overall costs go up and efficiency and equity go down.

18) The political nature of the problem explains why so much of the associated rhetoric is divorced from, and wholly resistant to, the evidence. Standard claims made include:

a) Aging populations represent a steady expansion of "needs"; more and more resources must flow into health care just to meet those needs;
b) Technological advances increase the benefits that health care systems can offer, but at ever increasing costs;
c) Health care is "service intensive", so the possibilities for productivity increase are minimal;.
d) Public expectations are increasing without limit.

All of these claims (and others) have the common characteristics that they identify a process taking place _outside_ the health care system itself ("We're doing the best we can, in responding to the external pressures on us."), which generates an over-riding claim for more resources to meet new "needs". They thus reverse the conclusions of the Canadian Commissions -- and most of the European reformers -- "Not more management, more money!" They are also false.

19) Extensive research has consistently shown that the sources of utilization and cost escalation among the elderly are _not_ demographic, but result from changing -- and questionable -- patterns of care for the elderly themselves.

Technologies themselves are neutral, it is how practitioners choose to use them that determines whether or not they generate increases in "needs". No one challenges the evidence of widespread inappropriate use of technology, in or outside the U.S.; the advocates of expansion simply ignore it in pressing their case.

Moreover there are many technological innovations in health care which are labour-saving, it is simply not true that labour-intensive service industries are immune to productivity increase. But the behavioural responses of providers of health care typically convert such innovations from "substitutes" to "add-ons", and this has been going on for decades.

And finally, public expectations are not generated in a vacuum. They are deliberately created by providers of care, sometimes through overt advertising, sometimes through managed "news" stories, and most often directly in the clinical contact. The American experience with cholesterol screening is an obvious example. The central problem is that all the economic rewards (and many of the professional) go to those who create unrealistic expectations, and then seek the resources to respond to, if not meet, them. Those who try to adapt expectations to reality -- in effect "de-marketing" -- rarely gain more than professional satisfaction.

20) Containing the internal momentum of health care systems, in a way which is both politically acceptable and advances the health status of the population served, requires policies and actions on four levels:

a) More efforts to identify appropriate health care, including more understanding not only of what "works" and what does not, but also what it is that people themselves really want -- which is often not "more". Contrary to the claims of those who make their livings selling services, people (even Americans) do not want health care services. They want to be healthy. And research is increasingly demonstrating what should in any case be intuitively obvious, that in many important circumstances, "Less is more".

b) Much more work on how to translate what is already known about what works and what does not, and what people actually want, into clinical practice. The gap between what is known, and what is done, appears to be increasing. Providers of health care tend to be relatively responsive to efforts to get them to "Do things right" -- quality of care has universal support, at least in principle. But "Doing the right thing" is a much less familiar concept.

c) Better adaptation of capacity to priorities. If you want more generalists, do not keep training ever more specialists -- and permitting them to charge fees which yield much higher incomes than those of generalists! If you want more home support for the elderly, do not keep flowing funds into academic health science centres, and do not permit nurses and other professionals to practice "credential escalation", foreclosing the opportunities for less extensively trained personnel who can actually provide the care that is needed And so on.

d) Much better communication with the general public -- a problem in all systems. So long as all the rewards go to those who create false expectations and mis-represent issues and facts, it will be very difficult to maintain a constituency for reform.

21) The American experience with private insurance illustrates this last point very clearly. The extremely counter-functional role of private insurance in the U.S. is so widely recognized that even The Economist made its elimination the first of its health care recommendations to President Clinton, last November. (The other two were; "Get rid of fee-for-service, and stop talking about Canada".) Yet the industry is too big and powerful to remove from its strategic position. So instead, the Clinton reforms keep the industry in business, while seeking to shift it into a new product line.

Underwriting -- risk selection and pricing -- is a product no one wants any more. Universal coverage requires community rating as well as coverage of the whole population. What is wanted now is effective management of clinical services, with minimal administrative costs. But underwriting is what insurance companies do -- that is insurance. So why assume that insurance companies are best suited to this task? Because, like Mount Everest, they are there. Every one in the field may understand that they are part of the problem, not the solution; but the American public does not.

22) Looked at from this perspective, however, employment-based coverage may make political sense. There is no doubt that administratively the Canadian style of single-payer system, based on tax revenues, is more efficient, less costly to run, and more equitable, than say the German, and certainly than the new American, whatever it turns out to be. On the other hand it also concentrates all the political pressure at one point, on the provincial cabinet, with the ministers of health and finance as lightning rods. The health care industry itself is a permanent and powerful political constituency advocating expansion; there is no institutionalized "voice on the other side" to balance the political debate. In the German system, by contrast, employers

and employees are (said to be) much more conscious of the direct implications of health care spending for themselves, and more willing to support the public policies necessary for containment. And indeed, in recent years Germany has been more successful in cost containment than has Canada. Similar forces may have been at work in the famous American examples, in Hawaii and Rochester.

23) On this interpretation, some inefficiency in funding may be a price to be paid for political balance. But it is important to notice that this has nothing to do with the usual economists' nonsense about "user fees" and "consumer choice". Individuals are not capable, by their choices of care type or source, of exercising effective control over any country's health care system. Indeed the American experience of the past decade shows clearly that corporations are not effective either. Management absolutely requires public policies and enforcement, but those require broad public support, which in turn depends upon broad understanding. And that may be where placing employer and employee groups "at risk" comes in.

24) International experience does not to this point provide any firm guides as to the details of successful "reform"; even the White Paper reforms in the U.K., presented politically as a success, are described by insiders as "too soon to tell". But certain generalizations do seem to be supportable.

a) If one is serious about cost control, the only way this has yet been achieved is through global budgets, cash limits, or the equivalent. Other mechanisms -- fee or capacity controls -- can limit the rate of escalation, but sooner or later providers will work around them. There is as yet no experience to support the idea that structural changes can remove the dynamic instability of health care systems, the internal growth momentum. There are hypothetical scenarios, but no supporting evidence.

b) There is absolutely no basis for concern that cost containment must result, in the near term or ever, in threats to health or well-being, at least in the heavily funded systems like Canada, Sweden, Germany, or the Netherlands. In the United States, the idea is absurd. Quite apart from the approximately $100 billion or so spent on functionless paper-pushing, in the "reimbursement arms race" between providers and payers, there is also the extraordinary (in world terms) generosity of Americans toward their physicians.

More generally, in no system has there been anything like adequate attention paid to assuring that the care being provided is appropriate in terms of patients' needs and wants, or efficiently provided.

c) Well-targeted changes in incentives directed at providers can bring about large and rapid changes. "Intractable" waiting lists in Sweden disappeared in a matter of months when wait-listed patients were given the right (after three months) to go anywhere in Sweden for their care, and charge it to their home County Councils (who run the health care system, and pay for it). In the U.S., ten years ago, the introduction of the Prospective Payment System had an immediate and large effect on hospital use. (It did not affect overall costs, because its focus was too narrow, but the process of care changed dramatically.)

d) Primary care organization and payment is probably critical to the efficiency and the effectiveness of the rest of the health care system, even though it accounts for only a very small proportion of the costs, because that is where the (relatively) "informed buyer" resides. The "gatekeeper" role of the primary provider is emphasized in the U.K., Canada, and Hawaii, for example, and Sweden is trying to shift its specialist-oriented system in this direction.

e) "Competition" has yet to be shown, anywhere, to have the positive effects so often claimed for it in theory. Providers seem to be as smart as buyers and regulators, sometimes even smarter. They fully recognize the intent of efforts to increase competition, and seem able to coordinate their behaviour in response -- whether in Minneapolis or in the Netherlands. (Adam Smith pointed out this problem some time ago.) Maybe vigorous anti-trust enforcement can address this, though there is no strong anti-trust tradition outside the U.S.

The root of the difficulty may lie deeper -- a well-functioning health care system requires extensive coordination and cooperation among different providers. Moreover there is a well-recognized relation between quality of outcome and frequency of procedure performance, which indicates the desirability of procedural sub-specialization and cooperation within specialties. It is difficult to reconcile this with cut-throat competition.

f) It is not yet clear (I think) whether efforts to develop protocols and guidelines for clinical practice, on the basis of research evidence, and then to use information and incentives to insert these into actual practice, will be successful in making health care systems more efficient and effective. (It is clear, as Jack Wennberg explained very clearly some years ago, that they will not in themselves contain overall cost escalation.) The Oregon initiative is a particular version of trying to modify clinical practice by very specific external constraints, on what procedure-condition combinations will and will not be reimbursed. The contrary view is that changes in the structure and the incentives of clinical practice, if one can find the right mix, will lead clinicians to make the right decisions themselves -- under, of course, a binding overall expenditure constraint. (This, I believe, is Arnold Relman's view, for example.) The two approaches do not appear to be mutually exclusive.

g) Very generally, while it seems clear that our health care systems need "Not more money, more management", it is as yet far from clear where this management can most effectively be located. Governments? clinicians, individually or in groups? private businesses, either as employers or as health management contractors? purpose-built non-profit agencies? to some degree patients themselves? Combinations of the above, with the combination varying depending upon the particular issue in question? There is room for some experiment.

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November 29, 1993

Senator Charles E. Grassley,
United States Senate,
Committee on Finance,
Washington, D.C. 20510-6200

Dear Senator Grassley:

Subsequent to my testimony before the Senate Finance Committee on Foreign Experience in Controlling Health Care Costs (October 13), you submitted a question about the "equivocal note" on which that testimony ends. Having declared firmly that "It is clear that you need more management and not more money in most of our systems", I then said that "It is not clear exacty where to embed that management." You then asked whether these comments implied advocacy of a series of experiments to see what the best method of management would be.

While I can see on re-reading the testimony that this might be a reasonable inference, I definitely did not mean to advocate putting the health care reform process, in the United States or any other country, on hold while formal "experiments" are carried out.

What I believe is happening, is that in a number of countries those responsible for making health care policy, administering the health care system, and actually delivering care, are trying to develop more effective management either within their present systems, or through natural extensions or modifications of those systems. As Professor Marmor has shown in his research, health care policies and practices in every country are evolutionary, developing out of past traditions and institutions. "Revolutionary" changes, usually aren't.

Thus we are seeing a number of different national "styles" in the attempts to improve management, all with the overall objective of improving the effectiveness of the health care provided, and the efficiency with which it is provided and paid for. One might think of the different national approaches as "experiments", on a world scale. But within each country they are not experiments, but real-time commitments of policies and people.

(In fact I am rather dubious of formal experimentation in the policy field. People who know that they are engaged in an experiment behave differently from those who are working in real time. They are not quite like white rats. Indeed setting up an "experiment" can be an effective way of avoiding changes in policy, by delaying action until the window for intervention has gone by.)

That said, there is still much to learn from the different national experiences -- what "works" and what does not, and to what extent successful approaches can be transferred across national/system boundaries. So in short, my final remarks about where management can most successfully be embedded represent a belief -- not very original now in the health care research community -- that we need to try to keep a close and a clear eye on other countries' experiences. We are all wrestling with similar problems, but bring different cultural and institutional histories to those problems.

The problem with keeping a clear eye, is that so many interests, economic and other, are bound up in the outcomes. So there is an enormous incentive to generate myths and promulgate nonsense about experiences in other systems. Ironically, the more relevant other experience becomes, the more effort will be put into distorting and misrepresenting it.

Yours sincerely,

Robert G. Evans
Professor

PREPARED STATEMENT OF SENATOR CHARLES E. GRASSLEY

Thank you, Mr. Chairman. I think the subject for this hearing is very well chosen. We need to look at all the available experience for ways to reduce our health care costs and the rate of increase in those costs. Since Canada and the European countries approach this problem in ways that differ from our own, we can probably learn from their experience.

Furthermore, some of the methods used abroad are being suggested for use here by the Clinton administration. So a good airing of how these methods work abroad should certainly be helpful.

At the same time, it goes without saying that the United States differs from these countries in very many important ways. Our population is different. Our political system is different. Our culture is different. Our physical size is different.

So, assuming global budgets work in other countries, we need to ask whether they would work as well to contain costs and allocate health care resources fairly across the country when set in Washington.

We need to ask whether subjecting the allocation of health care resources to an essentially political budgeting process would create a kind of hyper-politics, with all of its potential irrationalities, given the enormous portion of the national economy we are talking about.

We need to ask what trade-offs are involved in using these kinds of cost control mechanisms? Frankly, it's a little hard to believe that we'll just eliminate unnecessary care and administrative waste with such methods, then live happily ever after with everybody getting all the health care they need.

In any case, Mr. Chairman, that is all I have to say for the moment. I am looking forward to the testimony of our very knowledgeable expert witnesses today.

78-788 O - 94 - 3

[Submitted by Senator Orrin G. Hatch]

U.S. HEALTH CARE AT THE CROSS-ROADS

(Organisation for Economic Co-operation and Development)

Introduction

Health-care reform has moved to the top of the policy agenda in the United States, as the high and rising costs of financing the system have intensified a long-standing debate about the affordability of, and access to, health care. While the intensity of U.S. health care – as measured by physician education, staffing per hospital bed and other standards – rose substantially in the 1980s, an increasingly broad spectrum of the population has begun to worry about health-care finances. Many individuals are facing rapidly rising health-care insurance premiums and out-of-pocket expenses. There are also indications that insurers are less willing to cover bad health risks than before, as mounting costs force them to seek new ways of economising. Employers, who provide the bulk of health-care insurance for the non-aged, are increasingly worried about the soaring cost of premiums. Federal and state governments, which run two large public programmes – Medicare (purely federal) for those over 65 years of age and Medicaid (joint state-federal) for some of the poor – are concerned about the growing strain on their finances. These developments affect those most in need of insurance; that is, those at risk of having, or those who already have, chronic and expensive illnesses. Against this general background the heightened fear of unemployment in the recent recession and its aftermath has also played a role in raising the profile of health care, as the heavy reliance on employer-provided group insurance plans means that losing, or even changing, a job can result in losing health-insurance cover.

The U.S. health-care financing system has two characteristics that define the current policy concerns: high and rising costs and a substantial number of people without adequate health-care insurance. These characteristics also distinguish the United States from other OECD countries. Far more is spent on health care in the United States than elsewhere: per capita health expenditures are almost twice the OECD average. Moreover, as a share of GDP, these expenditures are increasing

rapidly in the United States, while they have stabilised, or at least slowed, in most other OECD countries during the last decade. These trends reflect the largely unconstrained, high and growing U.S. demand for quality health care. Judging by indicators such as infant mortality and life expectancy, the larger outlays have not resulted in better health. However, it is widely recognised that such indicators are far too crude to be useful in judging the effectiveness of health care, and those Americans who have insurance coverage may be getting more for their outsized expenditures than they would suggest.[1] In fact, most Americans are fairly satisfied with their health care. On the other hand, there are some 35 million Americans who do not have any insurance coverage, and most of them receive relatively inadequate medical care and often at a rather late stage in their sickness. The share of Americans without health coverage has risen slightly in the past decade; most of them are young adults and are uninsured for relatively short periods of time. However, and in contrast, coverage in other OECD countries is essentially complete. The extension of coverage and cost containment without reducing the quality of health-care delivery are now seen as the two key issues facing U.S. health-care policy, although increasing access raises demand for medical services, thereby putting additional pressure on expenditures.

This chapter first documents the nature and sources of the increases in health-care expenses in the United States, both over time and relative to other OECD countries. The issue of access to health care – the gaps in insurance coverage – is then taken up. The third section lays out policy alternatives for containing costs and increasing access. An Annex describes the health-care financing systems of the United States and of the other larger OECD countries, except Italy (which is discussed extensively in the forthcoming OECD Economic Survey of Italy).

I. The rising cost of health care

Trends in health-care expenditures

Total health-care spending in the United States grew at an annualised rate of nearly 6 per cent from 1960 to 1990, after adjustment for changes in the overall price level, as measured by the GDP deflator. The growth rate during the 1960s was rather higher, just over 7¼ per cent, largely because the introduction of Medicare and Medicaid in 1965 greatly expanded the access to, and the demand for, medical care. As there have been no institutional changes of similar nature and importance since, the evolution of the current system of health-care delivery and financing can best be analysed by considering the 1970 to 1990 period, during which health spending grew at an annual rate of 5½ per cent in excess of inflation – twice as fast as real GDP. As a result, the share of GDP devoted to health-care spending rose from 7.4 per cent in 1970 to 12.1 per cent in 1990. The share of GDP absorbed by health-care spending will rise to almost 16½ per cent by the year 2000 (Sonnefeld *et al.*, 1991) if present cost trends continue. With a

Table 1. Growth in total health-care expenditure

1987 constant dollars, billions[1]

Average annual percentage change

	1970-1990	1960-1965	1965-1970	1970-1975	1975-1980	1980-1985	1985-1990
Total	5.5	7.3	7.4	4.9	5.4	5.7	6.1
Private	5.1	7.2	3.6	3.5	5.2	5.9	5.7
Public	6.2	7.4	16.6	7.2	5.7	5.3	6.6
Federal	6.6	8.9	24.2	7.9	6.5	6.0	6.1
State and local	5.4	6.6	7.6	6.1	4.2	3.8	7.7

1. Nominal expenditures divided by the GDP deflator.
Source: OECD.

Table 2. Components of total health-care expenditure

	1960	1965	1970	1975	1980	1985	1990
	As a percentage of total health-care expenditure						
Private	75.5	75.3	62.8	58.5	57.8	58.3	57.6
Public	24.5	24.7	37.2	41.5	42.2	41.7	42.0
Federal	10.7	11.6	23.9	27.4	28.9	29.4	28.7
State and local	13.8	13.2	13.3	14.1	13.3	12.2	13.3
	As a percentage of GDP						
Total	5.3	5.9	7.4	8.4	9.3	10.7	12.4
Private	4.0	4.5	4.6	4.9	5.4	6.3	7.1
Public	1.3	1.5	2.7	3.5	3.9	4.4	5.2
Federal	0.6	0.7	1.8	2.3	2.7	3.1	3.5
State and local	0.7	0.8	1.0	1.2	1.2	1.3	1.6

Source: Congressional Research Service (1991); Levit *et al.* (1991); OECD.

Table 3. Health-care spending by category

Percentage of total health-care expenditures

	1960	1965	1970	1975	1980	1985	1990
Personal	88.1	85.6	87.3	87.7	87.7	87.5	87.9
Hospital care	34.2	33.7	37.6	39.4	40.9	39.8	38.4
Nursing home care	3.6	4.1	6.5	7.5	8.0	8.1	8.0
Physicians	19.5	19.7	18.3	17.5	16.7	17.5	18.9
Dentists	7.2	6.7	6.3	6.2	5.7	5.5	5.1
Drugs[1]	15.7	14.2	11.8	9.8	8.6	8.6	8.2
Medical durables[2]	3.0	3.0	2.7	2.3	1.8	1.7	1.8
Other	4.9	4.2	4.1	5.0	5.8	6.4	7.5
Non-personal[3]	11.9	14.4	12.7	12.3	12.3	12.5	12.1

1. Includes medical non-durables.
2. Includes "vision products".
3. Includes construction, non-commercial research, government public health activities, programme administration and the net cost of private health insurance.

Source: OECD.

rapidly ageing population in the early part of the next century, health spending could reach 25 per cent by 2030 (Warshawsky, 1991*a*).

The increases in outlays have been fairly widespread across expenditure categories, leaving their shares of total health spending roughly unchanged. Since 1970, the share of hospital care in total health spending rose only slightly, with an increase during the 1970s being mostly reversed in the 1980s as cost-containment measures were introduced in the Medicare and Medicaid programmes. The share of outlays for physician services has also been roughly constant since 1970, at 17 to 19 per cent of the total, although it began to rise steeply at the end of the 1980s. Outlay increases in excess of the rise in overall medical expenditures

Table 4. **Growth in price and volume of total health-care expenditures**

Average annual growth rates

	1960-1965	1965-1970	1970-1975	1975-1980	1980-1985	1985-1990[1]	1970-1990[1]
Real expenditure[2]							
Total	7.3	7.4	4.9	5.4	5.7	6.1	5.5
Hospitals and nursing homes	7.3	10.8	6.2	6.3	5.2	5.4	5.8
Physicians	7.5	5.8	4.0	4.5	6.6	7.7	5.7
Relative prices[3]							
Total	0.7	1.0	-0.2	1.1	2.6	2.7	1.5
Hospitals and nursing homes	1.5	1.9	0.6	1.3	2.3	2.0	1.5
Physicians	1.2	1.9	-0.1	1.9	2.9	3.9	2.1
Volume[4]							
Total	6.5	6.4	5.2	4.2	3.1	3.2	3.9
Hospitals and nursing homes	5.7	8.7	5.6	5.0	2.9	3.3	4.2
Physicians	6.2	3.8	4.2	2.5	3.6	3.7	3.5
Volume per capita							
Total	4.4	5.7	4.3	3.3	2.0	2.3	3.0
Hospitals and nursing homes	4.2	7.6	4.7	4.0	1.9	2.3	3.2
Physicians	4.7	2.7	3.3	1.6	2.6	2.6	2.5
Memorandum							
Real GDP	4.8	2.8	2.2	3.2	2.9	3.0	2.8
Real per capita GDP	3.4	1.8	1.3	2.3	1.9	2.0	1.9
GDP deflator	1.5	4.6	7.0	7.7	5.1	3.3	5.8

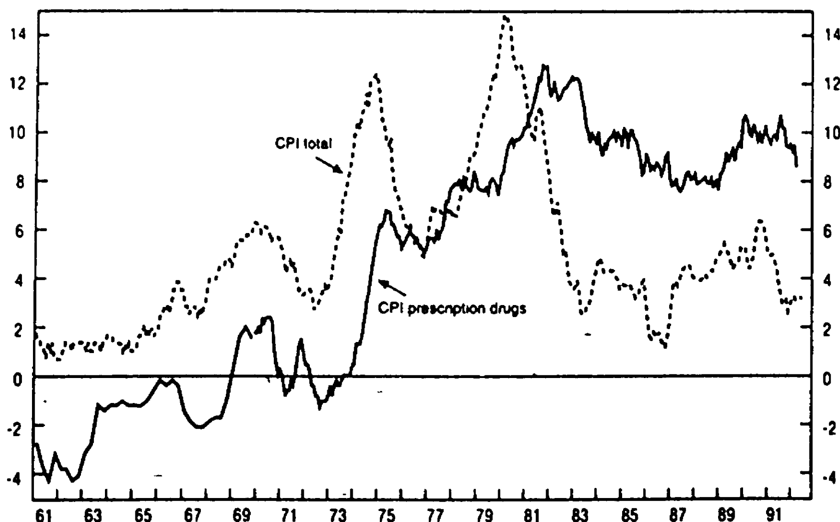
1. Data for 1990 are preliminary.
2. Nominal health-care expenditures divided by the GDP deflator.
3. Medical price deflators for personal health care divided by the GDP deflator.
4. Nominal expenditure divided by medical price deflators for personal health care.

Source: OECD.

occurred during the 1970s in nursing homes, whose share in overall expenditures rose from 6½ to 8 per cent, largely owing to coverage under Medicaid. By contrast, the share of drugs and other non-durables fell substantially, from almost 12 per cent of the total in 1970 to about 8 per cent in 1980. Since then, outlays on drugs have grown at about the same rate as most other medical expenditures.

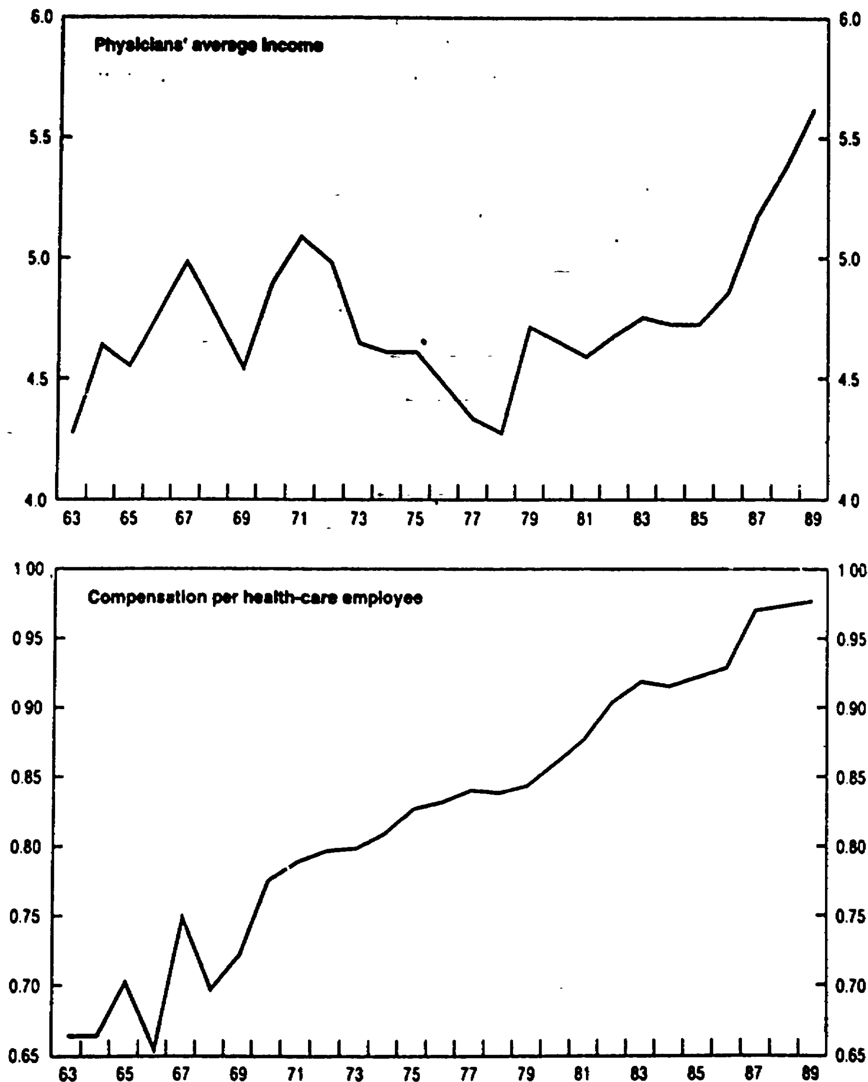
Increases in real health-care expenditures reflect both the relative price of health care – the amount by which the prices of health-care services have risen in excess of the prices of other goods – and the quantity of services delivered. The Health Care Financing Administration (HCFA) has developed deflators for personal health care[2] by constructing input-cost measures for some components (hospitals and nursing homes) and using consumer price index data for others (physician services, for example). The deflators do not take changes in the quality

Diagram 1. **RELATIVE INFLATION RATE OF PRESCRIPTION DRUGS**
12 month percentage change[1]



1. Four-quarter percentage change prior to 1970 for prescription-drug prices.
Source: Bureau of Labor Statistics.

Diagram 2. **COMPENSATION OF HEALTH-CARE PROVIDERS**
As a ratio of average compensation



Source: OECD.

of new medical procedures fully into account, and therefore may overstate price increases.[3]

Of the average annual increase in real expenditure on total health care (deflated by the GDP deflator) of just over 5½ per cent from 1970 to 1990, about 1½ percentage points is attributable to increases in the relative price of medical care – that is, to the increase in health-care costs in excess of general inflation.[4] The rest represents volume increases, of which about 1 percentage point reflects population growth. Thus, the per capita volume of medical services has grown at 3 per cent per year, significantly above real GDP per capita (1.9 per cent), indicating a real-income elasticity of about 1.6. These long-term averages mask an acceleration of real spending and a shift from volume to relative price growth that occurred in the 1980s: the average increase in relative prices moved up from 0.4 per cent per year in the 1970s to 2.6 per cent in the 1980s. Increases in the consumer price index for prescription drugs, for example, have far exceeded overall inflation over the past decade. Growth in deflated expenditures picked up in the 1980s, reaching more than 6 per cent by the end of the decade, despite the fact that volume growth tailed off, especially for hospitals and drugs.

In the case of physicians, price increases account for rather more of the expenditure rise, especially in the late 1980s, when the relative price accounts for more than half the increase in real expenditures on physician services. The evolution of physicians' compensation bears out the impression of recent rapid price increases: compared to average labour income, their earnings had been quite stable but picked up sharply in the second half of the 1980s. Since the supply of physicians (as measured by the number of active physicians per capita) has risen substantially in the last 30 years, the resilience of their incomes may be due to the even stronger increase in demand for their services.[5] The recent acceleration is a worrying development from the perspective of cost control.

Public-sector health-care expenditures

Government expenditures on health care have risen even faster than the total and, as a result, the proportion of personal health outlays provided by the public sector rose from about 35 to 41 per cent between 1970 and 1990.[6] This increase was concentrated entirely in federal expenditures, which rose from 23 per cent of the total in 1970 to 30 per cent in 1990, whereas state and local payments

Table 5. **Payers of personal health-care expenditures** [1]

Per cent

	1960	1970	1990
Total expenditures	100.0	100.0	100.0
Public sector	21.4	34.5	41.3
Federal government	8.8	22.5	30.3
Medicare	-	11.1	18.6
Medicaid	-	4.2	6.9
Other	8.8	7.2	4.7
State and local government	12.6	12.0	11.0
Medicaid	-	3.5	5.2
Other	12.6	8.5	5.8
Private sector	78.6	65.4	58.7
Out-of-pocket payments	55.9	39.4	23.3
Private insurance and other private sources	22.7	26.0	35.4

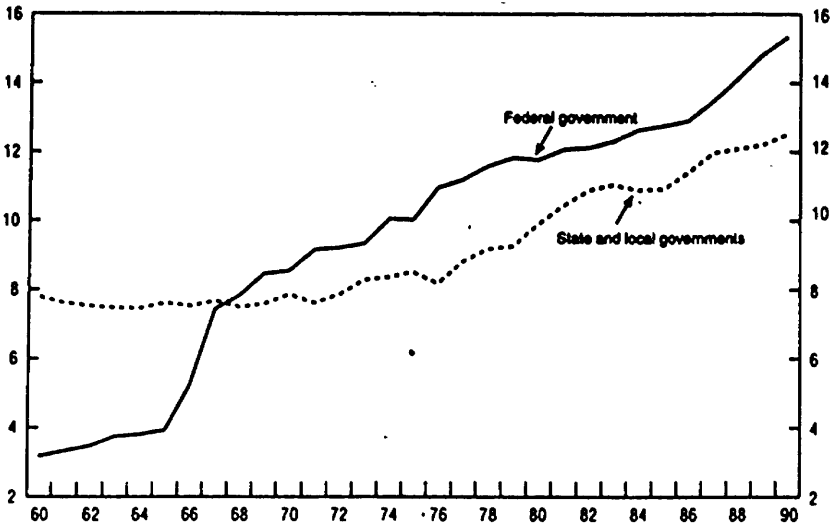
1 Personal health-care expenditures ($583.3 billion in 1990) differ from national health expenditures ($666.2 billion) in that they exclude programme administration and net cost of private health insurance ($38.7 billion in 1990), government public health activities ($19.3 billion) and research and construction ($22.8 billion).

Source: Levit *et al.* (1991)

maintained a share of 10 to 12 per cent, with no clear trend. The federal government bears a much larger share of government health-care outlays, paying for all of Medicare and a matching share of Medicaid. These outlays have grown faster than private costs: Medicare and Medicaid expenditures grew at 8 and 7½ per cent annual rates in real terms between 1970 and 1990. According to the projections of Sonnefeld *et al.* (1991), the state and local share will remain roughly stable for the rest of the decade, but the federal share will rise to 32 per cent.

The share of federal and state budgets devoted to health-care outlays has also risen rapidly: health-care expenditures rose from 8.5 per cent of total federal expenditures in 1970 to 15.3 per cent in 1990, and from 7.4 to 11.4 per cent of state expenditures. The pressure on government budgets has led some states to attempt to reduce Medicaid expenditures, although their ability to do so is restricted by federal regulation. In its FY 1993 Budget, the Administration suggested capping expenditures on mandatory programmes, including Medicare,

Diagram 3. GOVERNMENT HEALTH-CARE EXPENDITURES
As a percentage of total government expenditures



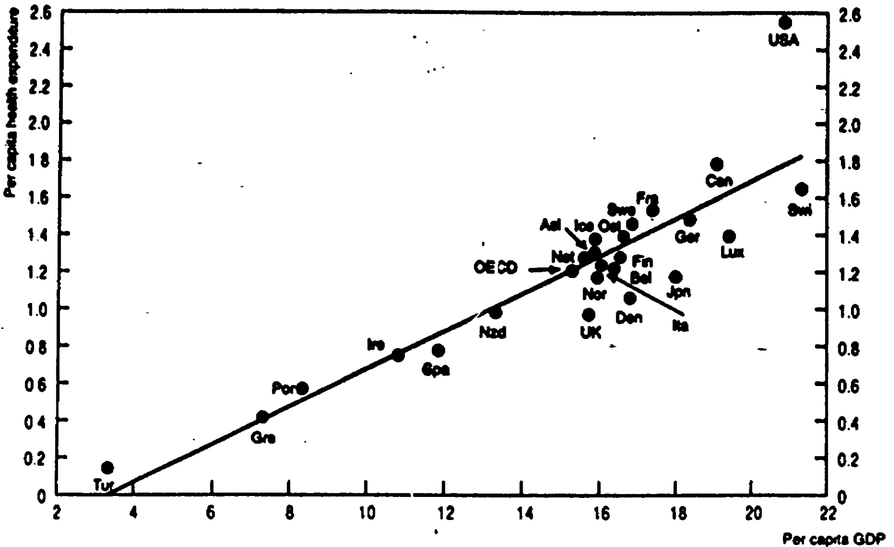
Source Congressional Research Service (1991).

which could imply reductions in service if medical-care prices continue to rise more rapidly than the overall price level.

The full extent of federal health-care expenditures is substantially understated by these figures, because they do not take into account the employer tax deduction of the health-insurance premiums that they pay on behalf of their employees.[7] These payments are not added to the taxable income of employees and therefore escape taxation altogether. The Congressional Research Service (1990*d*) estimates that the revenue lost as a result of this tax concession rose from $2.8 billion in 1970 to $29.6 billion in 1990, implying that the federal share of total health-care expenditures inclusive of this tax concession was nearly 4 percentage points higher in 1970, and 4½ percentage points higher in 1990, compared with the estimates cited above. The Office of Management and Budget (Budget of the United States Government, Fiscal Year 1993) estimates that the

Diagram 4. HEALTH-CARE EXPENDITURES AND GDP: 1990

$ 000s[1] per capita



Note. The line represents a simple regression with the following results:
Per capita health spending = -.342 +.101 * Per capita GDP (1)
(1.99) (9.31)

R^2 = 0.79 SEE = 0.22
Omitting the United States from the sample yields an even better fit:
Per capita health spending = -.199 +.089 * Per capita GDP (2)
(1.94) (13.61)

R^2 = 0.89 SEE = 0.13
Based on (2) i.e. if the U.S. health system were typical of those in other OECD countries, health spending per capita would be reduced by $238 billion (4.4 per cent of GDP).
1. Using 1990 purchasing-power-parity exchange rates for GDP.
Source: OECD.

revenue lost rose to $36.2 billion in 1991. These figures are also underestimates, because the revenue lost from the concession is less than the so-called outlay equivalent, which is conceptually comparable to other government outlays.[8] The estimated outlay equivalent was $45.5 billion in 1991. To put these figures in perspective, in 1991 total federal outlays for Medicare (net of premiums collected) were $104.5 billion and federal Medicaid grants to states were $52.5 billion.

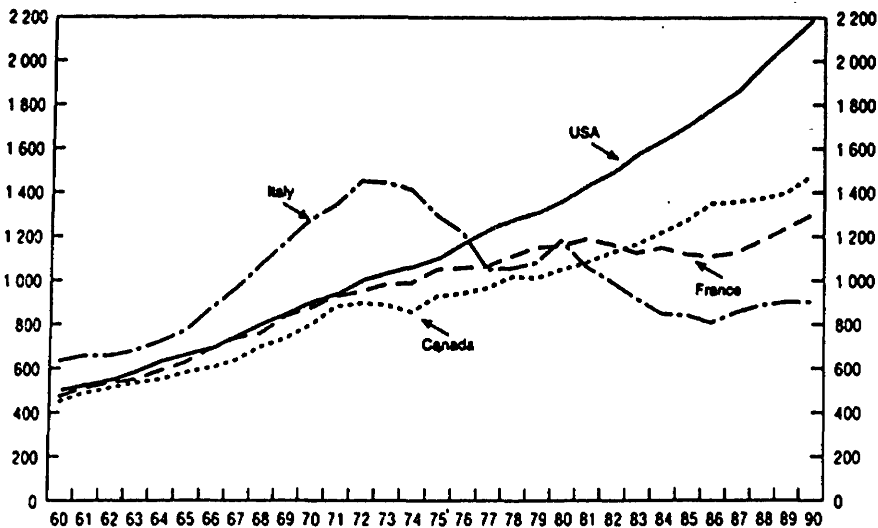
A Comparison with other OECD Countries

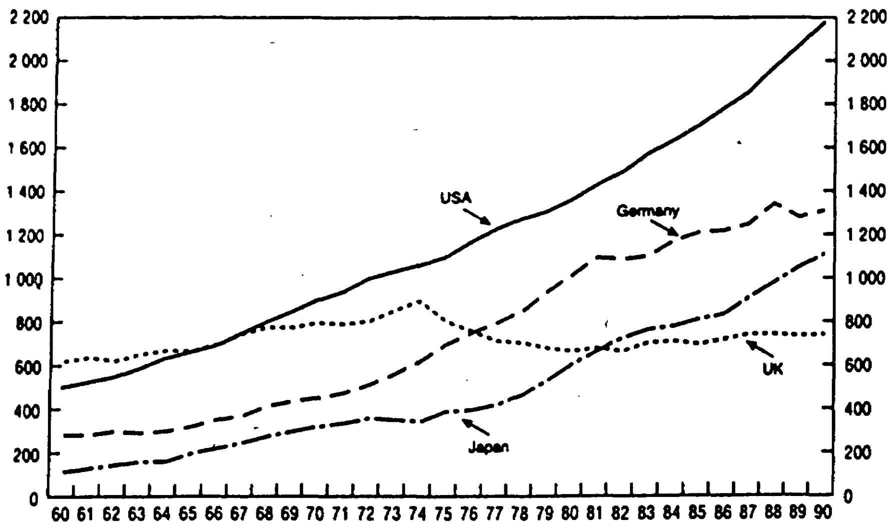
The rise in health-care expenditures in the United States has outstripped that of all other OECD countries by a wide margin, whether measured in per capita terms (adjusted for different rates of inflation in different countries) or, even more clearly, as a percent of GDP. The gap became particularly marked in the 1980s, when expenditures in some other countries decelerated while those in the United States picked up. It should be cautioned, however, that there is no single correct share of GDP spent on health care. National differences in shares may reflect different demands for health care, either in terms of its volume or its quality. The high and increasing demand for health care in the United States may reflect the needs of an increasingly affluent and aged population. When national supplies of health care are less than perfectly elastic, increases in the demand for health care may naturally raise the marginal cost of providing that additional care for some period of time.

Using price deflators similar to the HCFA deflators discussed above, it is possible to decompose the real growth into the relative price and volume of health care. While volume growth has been high in many countries, especially Japan and France, it has usually been in line with GDP growth, at least in the 1980s. Most countries have experienced little relative price growth on average since 1970. Hence, relative price growth of about 2½ per cent per year sets the United States apart from the other six largest OECD countries.[9] However, as noted above, it is very difficult to measure changes in the quality of health care, so that comparisons of the growth of the volume and price of health care across countries may be fraught with considerable statistical inaccuracy.

In 1990, health-care expenditures absorbed about 12.1 per cent of GDP in the United States, compared with about 9.3 per cent in Canada, 8.1 per cent in Germany and 7½ per cent for the OECD on average. Total nominal per capita health-care expenditures exceeded $2 500 in the United States in 1990, well above Canada, the next biggest spender ($1 770, converted into US dollar at GDP purchasing power parities) and more than twice the average in other OECD countries, of $1 200. It is well-known that per capita health expenditures rise with per capita income and, to this extent, it is not surprising that the United States ranks the highest in health spending, as it also has the highest per capita income. Nevertheless, U.S. health expenditures are more than one-third higher

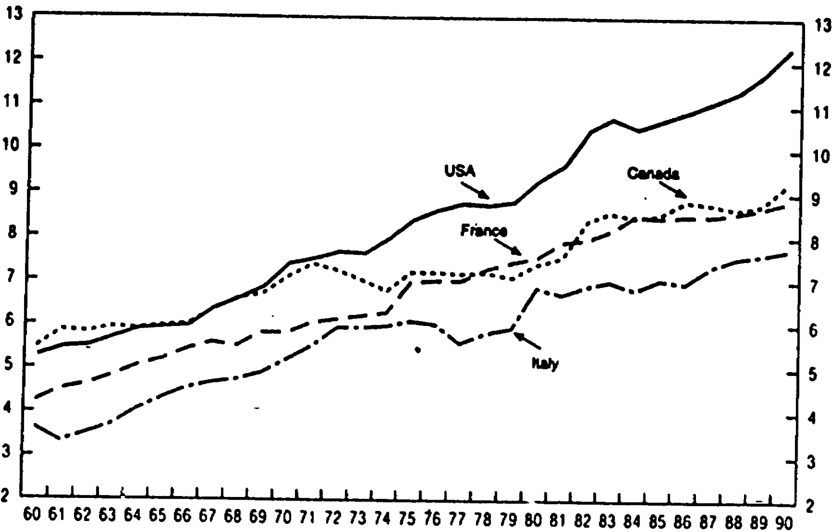
Diagram 5. PER CAPITA HEALTH-CARE EXPENDITURES IN THE SEVEN LARGEST OECD COUNTRIES[1]

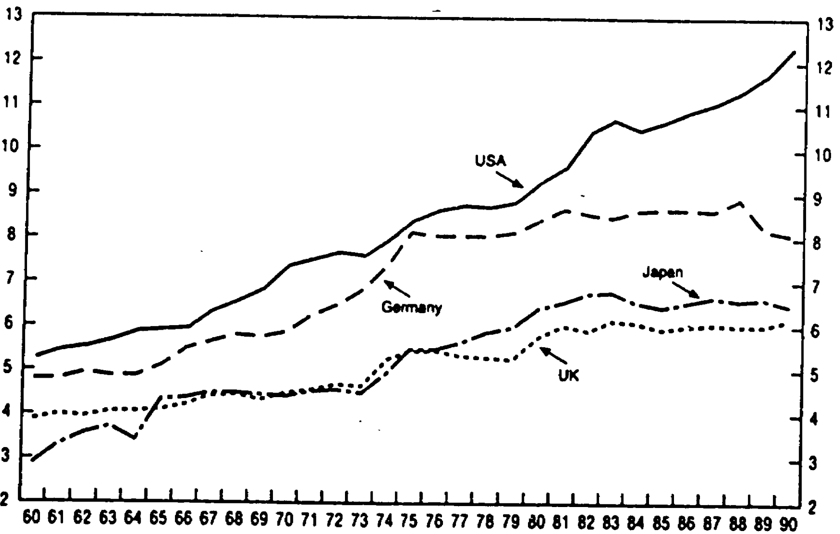




1. Divided by GDP deflators and adjusted by purchasing power parities.
Source: OECD.

Diagram 6. HEALTH-CARE EXPENDITURES OF THE SEVEN LARGEST OECD COUNTRIES
as a percent of GDP





Source: OECD.

Table 6. Health-care expenditures: an international comparison

Average annual growth rates

	1960-1965	1965-1970	1970-1975	1975-1980	1980-1985	1985-1990[1]	1970-1990[1]
Real expenditure[2]							
USA	7.3	7.4	4.9	5.4	5.7	6.1	5.5
Japan	18.4	12.0	9.0	7.8	3.7	4.9	6.3
Germany	6.1	7.0	9.0	4.0	1.7	1.6	4.0
France	10.2	7.7	7.0	4.9	3.8	3.8	4.9
Italy	9.1	10.1	6.1	7.4	1.9	4.9	5.1
United Kingdom	4.4	4.3	6.1	2.9	2.7	3.9	3.9
Canada	7.7	8.2	5.6	4.4	5.9	4.2	5.0
Relative prices[3]							
USA	0.7	1.0	-0.2	1.1	2.6	-2.7	1.5
Japan	0.4	2.2	-1.8	0.7	0.8	0.6	0.1
Germany	-0.2	3.0	0.7	0.4	1.2	-0.5	0.4
France	0.3	0.2	-1.4	-0.9	-1.2	-1.0	-1.1
Italy	2.1	0.0	-0.6	0.7	-0.7	1.0	0.1
United Kingdom	8.7	-9.5	-1.5	0.5	0.7	1.7	0.3
Canada	0.6	2.0	-0.8	0.7	2.6	0.9	0.8
Volume[4]							
USA	6.5	6.4	5.2	4.2	3.1	3.2	3.9
Japan	18.0	9.7	11.0	7.1	2.9	4.2	6.3
Germany	6.4	3.9	8.2	3.6	0.5	2.2	3.6
France	9.9	7.5	8.6	5.8	5.1	4.9	6.1
Italy	6.9	10.1	6.8	6.6	2.5	3.9	4.9
United Kingdom	-4.0	15.3	7.7	2.4	2.0	2.1	3.5
Canada	7.0	6.0	6.5	3.6	3.3	3.3	4.2
Real GDP							
USA	4.8	2.8	2.2	3.2	2.9	3.0	2.8
Japan	9.1	11.5	4.4	4.5	3.6	4.7	4.3
Germany	4.8	4.1	2.2	3.3	1.1	3.0	2.4
France	5.8	5.4	3.3	3.2	1.5	2.9	2.7
Italy	5.2	6.2	2.8	4.8	1.4	3.0	3.0
United Kingdom	3.2	2.5	2.0	1.8	2.0	3.1	2.2
Canada	5.7	4.6	5.2	3.9	2.9	3.0	3.8

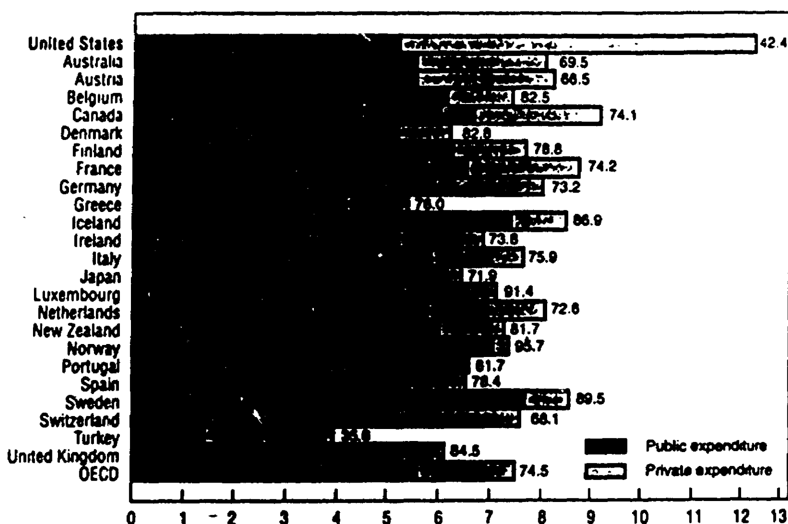
1. Data for 1990 are preliminary.
2. Nominal health-care expenditures divided by the GDP deflator.
3. Medical price deflators for personal health care divided by the GDP deflator.
4. Nominal expenditure divided by medical price deflators for personal health care.

Source: OECD.

than the $1 790 that would be predicted by a simple linear income-expenditure relationship across other OECD countries.[10]

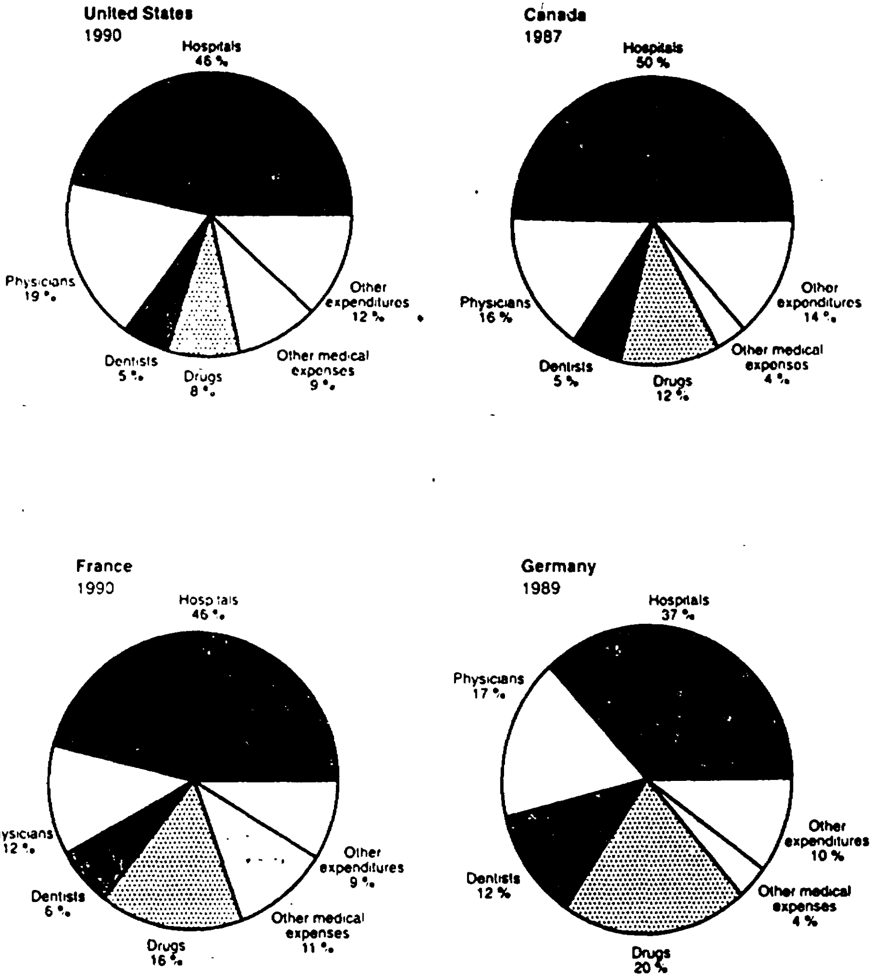
As is the case with the growth of expenditures over time, the relatively high level of expenditures in the United States does not appear to be concentrated in any single part of the heath-care system. The share of total health-care outlays going to hospitals, physicians and so forth in the United States is not markedly different from that in other OECD countries. However, the U.S. share of physician services is at the high end of the four countries examined in Diagram 8 (the United States, Canada, Germany and France), whereas the share of expenditures devoted to pharmaceuticals is substantially smaller in the United States than elsewhere. Since the data are not fully comparable across countries, it is unclear how significant these apparent differences are. But international comparisons

Diagram 7. **OECD HEALTH-CARE EXPENDITURES**
As percentage of GDP[1]



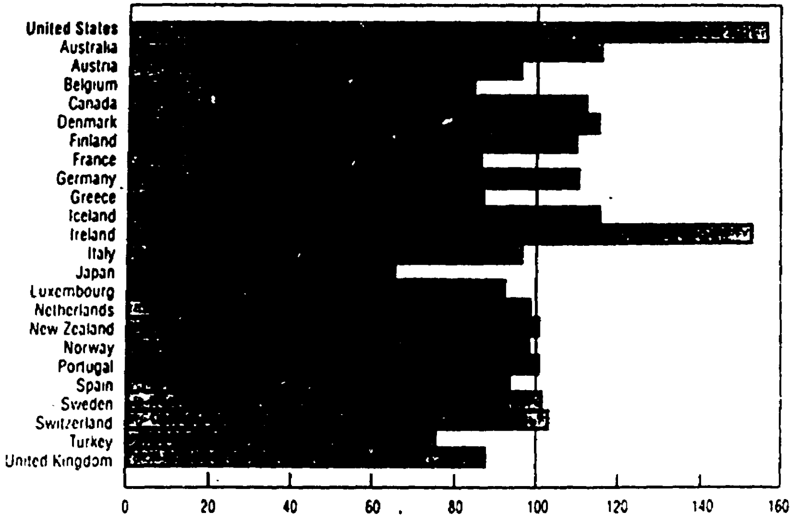
1. Numbers at right are the public sector shares in total health expenditure
Source: OECD, *National Accounts.*

Diagram 8. **WHERE THE MONEY GOES**
Selected OECD countries[1]



1. Hospitals include nursing home care.
Source. OECD.

Diagram 9. **PURCHASING POWER PARITY MEDICAL-CARE PRICES: 1990**
OECD excluding United States = 100

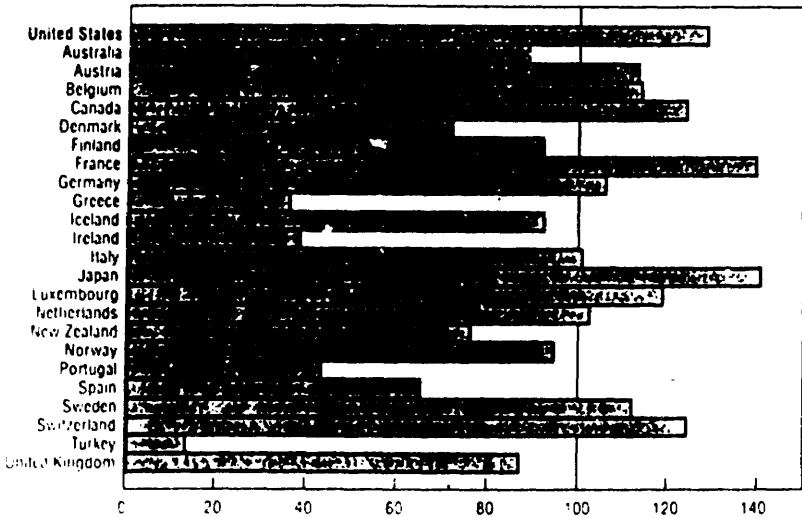


Source OECD

suggest that spending appears to be less well controlled across the board (except for pharmaceuticals before the 1980s) in the United States than in other OECD countries.

High U.S. expenditures compared with other countries appear to reflect higher prices to a larger extent than higher volumes, though, as noted above, it is difficult to measure health-care quality. Cross-country comparisons of prices and quantities can be made using purchasing-power-parity (PPP) price indices that are specific to health care, in much the same way as the relative price indices allow one to decompose expenditures over time.[11] By such measures, the U.S. price of health care is the highest in the OECD, 58 per cent above the average in other OECD countries (normalised to 100 in Diagram 9). Dividing expenditures by the PPP prices provides a cross-country measure of the volume of health care. The United States has volumes about 30 per cent greater than the OECD average

Diagram 10. **VOLUME OF HEALTH-CARE: 1990**
Per capita, OECD excluding United States = 100



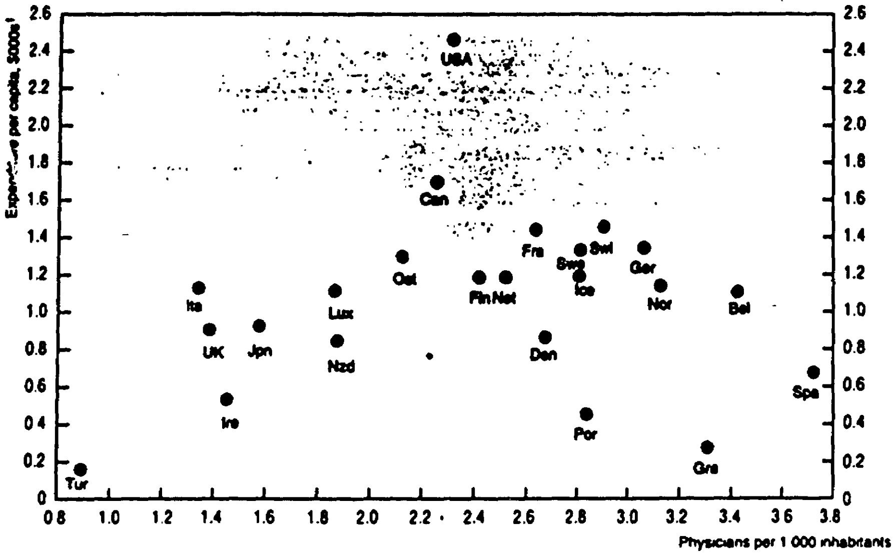
Source: OECD

excluding the United States. This is similar to Switzerland and a bit higher than Canada. By contrast, France and Japan have volumes about 10 per cent higher than the United States.

There is no obvious relationship between the number of physicians and health-care costs per capita across OECD countries, and, in any case, the number of physicians per capita in the United States is near the OECD average. However, there is a clear cross-country relationship between physician income and per capita health-care expenditures across countries, and compensation per physician is much higher in the United States than in virtually all other OECD countries, whether measured in terms of GDP purchasing power parity, or as a fraction of labour income per worker in the economy as a whole. This suggests that differences in the demand for health services, including the hardness of the overall health-care budget constraint may be as important as factors affecting the supply

Diagram 11. HEALTH-CARE EXPENDITURES AND THE NUMBER OF PHYSICIANS PER CAPITA

1990



1. Thousand U.S. dollars at GDP purchasing power parities.
Source. OECD.

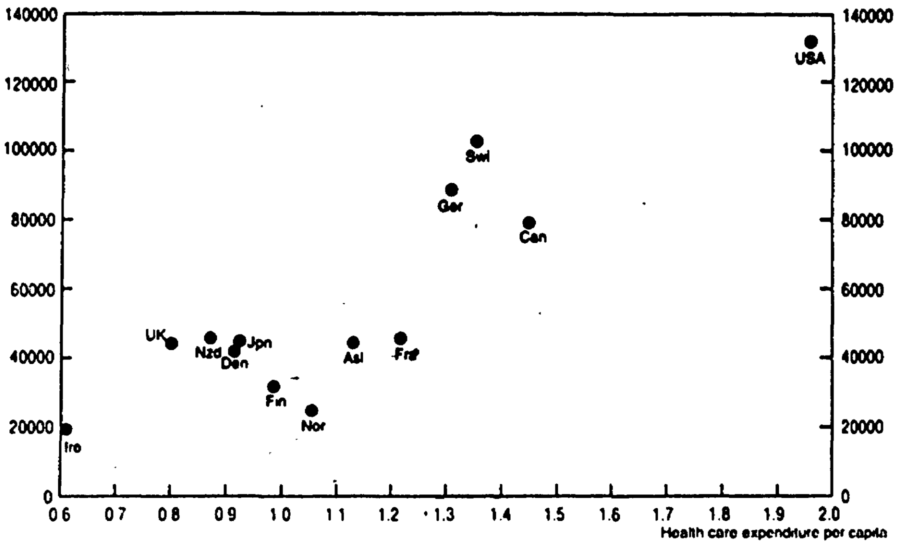
of physicians – the number of places in medical schools, the cost of receiving training and the stringency of licensing requirements – in accounting for differences in physicians' relative incomes across countries.

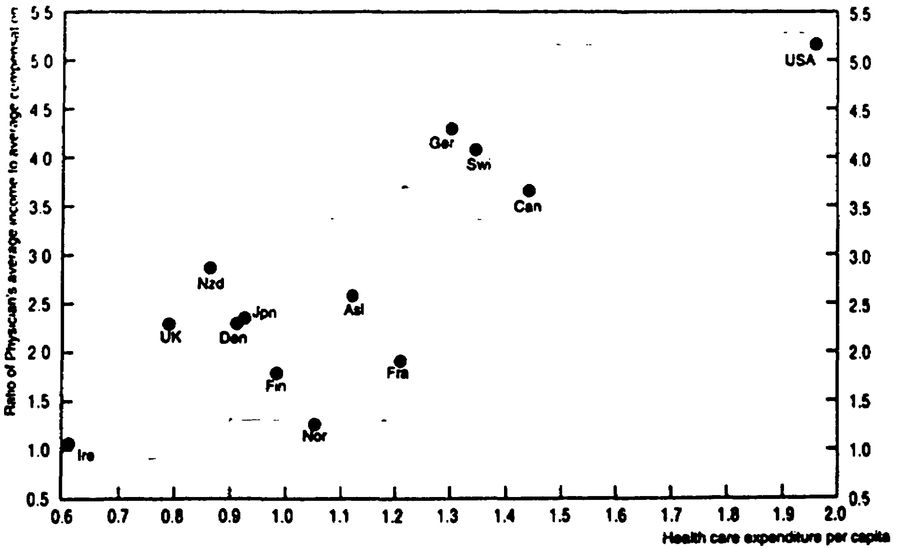
Sources of cost pressures

A number of factors have been suggested as contributing to high health-care costs in the United States. This section reviews a number of them, providing a quantitative indication of their importance where feasible.

Diagram 12. HEALTH-CARE EXPENDITURES AND PHYSICIAN COMPENSATION

1986/1987





Source: OECD.

The pricing of health care

To ensure access, the price consumers pay for medical services is typically far less than the marginal cost in all OECD countries. As a result, demand for services at the margin is generally not limited by the usual market mechanism of requiring purchasers to pay for it. Patients do, of course, bear costs. The average cost, as distinct from the marginal cost, of medical care is covered by taxes and, especially in the United States, by insurance premiums. Patients also pay some of the marginal cost. Services not covered by insurance are paid in full, and many health-care financing systems impose co-payments, deductibles or co-insurance for services that are covered.[12] The U.S. system features high co-payments, relative to those in other OECD countries, which should tend to restrain demand (Manning *et al.*, 1987). However, out-of-pocket expenses have been a rather stable proportion of personal disposable income in the past 20 years, and they have fallen substantially as a proportion of total health-care outlays. Moreover, as discussed below, health-care consumption is highly skewed, and so co-payments, which fall mostly on the first few dollars of expenditure, are an even smaller fraction of the true costs incurred by intensive users of health care. In any case, many people, especially Medicare beneficiaries, purchase extra "Medigap" insurance to cover co-payments.[13]

Given the low prices they face, patients have an incentive to overconsume health care. Providers have little incentive to limit supply either, since physicians are morally obliged to provide the best treatment available, they know their insured patients can afford even expensive procedures, and they seek to avoid being sued for malpractice. Thus, the very existence of insurance has led to an increase in the demand for, and the supply of, medical services.[14] Payers, by contrast, do have an incentive to hold costs down, and in the United States private insurers attempt to do so in several ways. They increasingly stipulate "utilisation controls", such as pre-approval, physician review and second opinions, in order to reduce care deemed unnecessary. Since many procedures are elective, patients have the possibility of insuring themselves (or of purchasing more comprehensive and generous policies) only when they know they will have high expenses, an example of adverse selection (see the accompanying box). To reduce these adverse selection problems, insurers often require waiting periods before insurance takes effect and sometimes disallow coverage for pre-existing conditions.

Moral hazard and adverse selection

Pure insurance would indemnify people against risks over which they have no control and would be priced to reflect the risk insured against. However, insurance can change the behaviour of the insured so as to increase the risks. This is known as moral hazard. There are also asymmetries of information between the sellers and buyers of insurance that may result in the pool of insured having too high a risk for the price charged for a policy. This is known as adverse selection. Moral hazard and adverse selection undermine pure insurance and, in some circumstances, can even render a competitive insurance market unviable.

Moral hazard occurs if those insured change their behaviour – for example, by consuming more health-care services than they genuinely need, or by devoting less effort to preventive practices – and thereby increase the risk to the insurer. The presence of moral hazard implies that insurance distorts incentives and leads to overly risky behaviour. If insurers could easily distinguish "warranted" from "unwarranted" claims – that is, those events that would have occurred even if insurance had not existed – a policy could be written to cover only the former, and there would be no moral hazard. Some commentators in the health-care field have extended this narrow concept of moral hazard to embrace the idea that the near-zero price for medical care at the margin under a typical insurance policy expands the demand for services.

Adverse selection may arise if individual policy-holders differ in their riskiness (even if there is no moral hazard) and if the insurer cannot fully distinguish differences in their riskiness and hence price policies accordingly. An insurer suffers from adverse selection if the policies it offers attract a disproportionate number of bad risks. Since this would reduce profits, insurers in a competitive market have a strong incentive to avoid adverse selection. Put differently, insurers have an incentive to "cream skim", that is, to attract only relatively low-risk customers if they are not allowed to base their pricing on risk. If, on the other hand, insurers charge premiums based on their assessment of individual risk, then problems of adverse selection can be alleviated. But in the context of health care, this would imply charging the highest premiums to those who need the most care, conflicting with the social goal of equal access.

In contrast to moral hazard, adverse selection does not raise the aggregate risk in a given population (say, everyone in the United States) but simply redistributes the risk across insurers.

However, these practices have reduced access and may also be an impediment to labour mobility. They are therefore likely to be increasingly restricted by law.

It is undoubtedly true that the low marginal cost to patients of services means that substantially more is spent on health care than would otherwise be the case. It is difficult, however, to gauge to what extent such expenditure is exces-

sive. After all, health insurance exists partly to enable people to receive services that they would not otherwise be able to afford – that is, to widen access. At the same time, utilisation reviews and other measures are used by both government and private insurers to counter the incentives to over-use services, in order to offset the effects of low prices. Although their effectiveness is hard to measure, there is some evidence that utilisation management has reduced cost increases while maintaining health-care quality.

Technology

The last few decades have seen revolutionary changes in medicine, which have led to substantial improvements in health care. In some cases – out-patient corneal replacements, for example – the result has been lower costs. On balance, however, costs have risen as the introduction of new techniques – CAT scanners, renal dialysis, coronary by-pass surgery and a host of others – have opened new, often expensive, avenues of diagnosis and treatment. Anecdotal evidence suggests that the trend towards ever-more costly medical technology is continuing and even accelerating. Moreover, it is clear that the diffusion of new medical technology (as measured, for example, by the number of CAT scanners per capita) is much greater in the United States than elsewhere, which is consistent with the much higher level of medical expenditures in this country. These innovations have undoubtedly improved health outcomes, although surprisingly little is known about this, either in the United States or in other OECD countries. In any case nobody would now be satisfied with the medical technology that existed, say, three decades ago.

But medicine is not unique, or even unusual, in having undergone rapid technological change: in consumer durables, aircraft, communications, agriculture, publishing and many other sectors, both the production processes and the products themselves have evolved significantly as a result of the introduction of new technologies. In these sectors, however, technological change has more often been associated with lower, rather than higher, costs. While this divergence between medicine and other industries may reflect differences in technical possibilities – that is, for some reason, improvements in medical techniques tend naturally to be cost increasing – it seems likely that the funding of health-care is a factor.[15] Market forces tend to promote cost-reducing innovation because consumers will buy the least expensive product, all else equal. This is far less true in

health care, because practically any non-experimental procedure is covered under almost all insurance plans, and therefore, once an innovation is shown to be even marginally effective, its market is assured almost regardless of cost.

Physicians

There has been considerable scrutiny of the role of physicians in increasing health care costs. In the United States, both health-care expenditures and the number of physicians have risen in tandem, and state health-care expenditures are related to the number of physicians in the state (General Accounting Office, 1992). Moreover, doctors' incomes relative to average incomes are much higher than in other major OECD countries. These observations have led to the hypothesis that physicians are the driving factor behind rising health-care expenses. On the other hand, as noted above, there is little visible relationship across countries between the number of physicians and health-care expenditures. In the United States, expenditures on physician care do not appear to have been particularly responsible for the increase in costs, as they have been fairly stable as a share of total health expenditures. Physician incomes are high, but until recently have been fairly stable as a fraction of average labour income.

Fee-for-service payment, which is widespread in the United States as well as some other OECD countries, provides an incentive to physicians to expand supply. They are able to do so easily because neither patients nor third-party payers are in a position to evaluate their medical decisions. The evidence, though somewhat mixed, suggests that fee-for-service does raise expenditures. Medical-care expenditures tend to be higher in those countries with extensive fee-for-service payment of physicians (the United States, Canada and France, for example). Although Japan has both fee-for-service payment and low expenditures, and thus would appear to be a counter-example, the low expenditures seem to be due to tight price controls and volumes to be rather high (Ikegami, 1991). In the United States, health maintenance organisations (HMOs) that pay doctors on salary have significantly lower costs than fee-for-service insurers. This does not appear to have led to less patient satisfaction with HMOs; it has been traced to less hospitalisation, which is partly attributable to healthier patients, rather than to lower levels of physician services (Manning *et al.*, 1987).

Physicians may also have a substantial indirect influence on health-care expenditures through their role as users and promoters of technology. They have

legal and moral obligations to adopt techniques that may improve their patients' health, even if they are very costly and the expected benefit is small. The tort system reinforces these incentives. They also have a financial incentive, since with fee-for-service payment, doctors' incomes rise with the number and sophistication of procedures undertaken.[16] Moreover, physicians often own advanced equipment. Those who own CAT scanners, for example, tend to prescribe more scans, either because they are specialised in patients needing scans or because they wish to increase their incomes. For all these reasons, physicians will choose to work with the best technology, a preference which leads to pressure on hospitals to invest in the latest equipment, and on insurers to cover the best techniques and drugs. This "competition" for physicians, while leading to widespread availability of technology, may also be an important channel for pressure on health-care costs.

Malpractice law

Malpractice suits have drawn criticism as a factor raising health-care costs, and the February 1992 Administration reform proposal suggested changes to limit awards. However, malpractice payouts and premiums, which have tended to decline in recent years, are less than one per cent of health expenditures, although they are more significant for some specialties, such as obstetrics. Thus, malpractice costs cannot directly account for more than a tiny amount of the huge increase in health-care expenditures, even if they rose from nothing only 20 years ago. They probably have had an indirect effect, however, by encouraging "defensive medicine" – excessive diagnostic testing, for example. Estimates of the costs of defensive medicine are naturally very difficult to make, but an upper bound appears to be about 10 to 20 per cent of physician costs, or the equivalent of 2 to 4 per cent of total health-care expenditures. Based on these estimates, malpractice reform is likely to have a non-negligible effect on the level of overall health-care expenditures. Moreover, malpractice reform would improve access to care for certain groups and for certain services physicians are not providing in the current environment.

Waste and unnecessary medical care

There are large variations in medical practice that cannot be explained by variations in incidence of disease, and do not appear to be related to variations in

outcomes (see, for example, McPherson, 1990 and Chassin *et al.*, 1987). Practice variation is extremely high in the United States, although there is some evidence that it is also substantial in other OECD countries. In response, a large programme of health-outcome studies has recently been launched in an effort to identify the best practices, and insurance companies have increasingly turned to utilisation controls to monitor care. Practice variation is often seen as evidence for excessive provision of health-care services by physicians and thus as a cause of high expenditures. However, too little is known about diagnosis and treatment to determine the extent to which departures from best practice are responsible for the higher health-care outlays in the United States than elsewhere.

Studies to determine the relationship between alternative treatments and health outcomes are underway. One hope is that eventually clinical guidelines (recommended courses of diagnosis and treatment of specific conditions) can be developed, against which payers can judge the actions of physicians. But these studies are time consuming, expensive and often inconclusive. Moreover, given rapid advances in medical techniques, they are often rendered obsolete by new methods of diagnosis and treatment. These considerations suggest that significant cost savings from regulating care at the micro level are not likely to be realised in the near future. To the extent they were realised, any savings would have to be offset against the costs of the ongoing research and the administrative costs of the utilisation controls themselves

Administrative and overhead costs

Overhead costs are far higher in the United States than in other OECD countries, owing to high administrative costs associated with the U.S. private-sector insurance industry. (The administrative costs of Medicare and Medicaid are similar to those of public programmes in other OECD countries.) These costs stem from marketing insurance policies, determining eligibility for insurance, and verifying and processing claims. That is, they are the normal costs of providing insurance in a competitive market.

Quantitative estimates of insurance overhead vary widely. Woolhander and Himmelstein (1991) estimate that they ranged from 10 to 13 per cent of personal health-care expenditures in 1987, which, by extrapolation, would be $59 to $76 billion in 1990. The estimate by the General Accounting Office (1991*b*) was 5.3 per cent in 1990, or $31 billion. Both estimates compare current costs in the

United States with what they might be under a Canadian-style public single-payer system. They underestimate the full-overhead costs, however, by ignoring the expenses of providers, who must deal with paper work, "utilisation controls" and so forth, and of firms who must shop for insurance policies for their employees. In Canada and in many other OECD countries, overhead is low because: competition among insurers is essentially non-existent, eliminating marketing and shopping costs; payers have no leeway in deciding who and what to cover, eliminating costs of determining eligibility; and payment is according to standardised rate schedules, reducing the claim-processing costs of both providers and payers.

On the other hand, many of the administrative costs that are assumed not to be present in a single-payer system are associated with cost and expenditure controls, including patient payments through deductables and utilisation review programmes. The estimates cited above do not account for the increased utilisation that would occur if these controles were discontinued. For example, a recent study by Shiels *et al.*(1992) suggests that the higher administrative expenses in the United States relative to Canada may have been associated with at least as important a reduction in utilisation and medical expenditures.

Population ageing

A final factor which has generated increased cost pressures in the health-care system is the steady rise in the share of the elderly in the population. Those 65 and over represented 12 per cent of the total in 1990, compared to only 8 per cent in 1960. Since the elderly require about four times as much health care as the rest of the population, such demographic factors may have been responsible for an increase in health spending of almost ¾ percentage point per year since 1967 (Warshawsky, 1991*b*).

II. Access to health care

The issue of access can be thought of in two ways. The first is the availability of physical access to the physicians, nursing staff, hospitals, equipment, drugs and so forth needed to deliver care. This is not generally a concern in OECD countries, although in some there have been queues for certain procedures and resources can be scarce in rural areas. The second, more pertinent, dimension of access is the affordability of health care. Health care can be expensive, and those who need it often need a great deal of it. In the United States, half the population consumed 96 per cent of health-care services in 1980, and 5 per cent consumed about half the services (Aaron, 1991). This distribution reflects the skewed pattern of illness in the population. For example, expenditures for the disabled are 5 times more than those on the non-disabled, the old use far more medical services than the young, and medical costs rise very sharply shortly before death (Lubitz and Prihoda, 1984; Congressional Research Service, 1990*c*). It does not appear that this skewed distribution of expenditures is a product of the U.S. health-insurance system, as it was virtually the same in 1929 and is similar in other OECD countries.

In response to the high cost of health care and the disproportionate burden borne by a relatively small fraction of the population, governments of all OECD countries have established programmes to subsidise health care extensively, often to the point where it is free to the individual. In most countries, virtually everyone is covered, typically through mandatory or universal programmes run by public or quasi-public agencies and financed through taxes (although these are often described as "contributions"). While no such programme covers all conceivable medical procedures, all cover what most people would accept as normal and necessary health care. As noted earlier, individuals in some OECD countries purchase complementary insurance to fill in the gaps in their coverage and to make co-payments. Programmes vary widely in terms of the co-payments

required of the patient: the United Kingdom and Canada are at the low end, with virtually no deductibles and co-payments for services covered by their public programmes, and France is at the high end, with co-payments sometimes exceeding 20 per cent (U.S. co-payments are also very high, about 23 per cent of all health-care expenditures).

By contrast, the U.S. health-care financing system is a mixture of private insurance, which covers the bulk of those under 65 years of age, and public programmes having strict eligibility requirements, such as age (in the case of Medicare) or income and family status (in the case of Medicaid). Private insurance is typically purchased by employers on behalf of their employees from private firms which charge premiums largely based on actuarial risk, or provided by employers who self-insure (often using the services of private insurance companies to handle administration). The practice of employer-provided insurance is encouraged by the tax deduction received by employers for the full amount of health-insurance costs (which would not be received by employees if they paid their own premiums). Insurance is also sold to individuals, but the cost is generally much higher than group plans, and individual insurance applicants are carefully screened by insurers to control adverse selection. At any given time, about 15 per cent of those under 65 years of age, or about 13½ per cent of the entire population (some 35 million people), have no insurance coverage at all, either because they are not eligible for public programmes, are not covered by employer group plans, or cannot afford, or choose not to purchase, individual insurance (Congressional Budget Office, 1991*b*).[17]

The principal factor underlying the lack of complete insurance coverage in the United States is the voluntary nature of the health insurance system for those under 65, and its close link to employment. Private insurers have a powerful incentive either to charge bad risks their (high) actuarial cost, or to refuse coverage. In the case of health insurance, the bad risks are those most likely to become ill and incur large medical costs. From the insurers' point of view, proper risk assessment and pricing raises profits and helps control adverse selection problems. From the perspective of the social policy of promoting access to health care, however, the same behaviour is condemned as "cream skimming" and results in gaps in insurance coverage. Those Americans over 65 are covered by Medicare, and virtually everyone in other OECD countries is covered by insurance programmes run by government or quasi-government agencies. Enrolment

in all these cases is automatic, and the "insurer" – the governmental agencies – cannot refuse coverage. Hence, the problem of "cream skimming" does not exist.

To some extent, employer-provided group insurance has been successful in dealing with this problem. At least for larger employers, the number of enrollees is high enough that individual risks can be pooled, and the decision to take a particular job, and thereby become insured, is probably largely unrelated to current or prospective health status (although in some industries, the average job risks are so high that insurance coverage can be very difficult to obtain (Aaron,

Table 7. Characteristics of the uninsured, 1990

	Number (Millions)	As a percentage of category	As a percentage of all uninsured
Total uninsured	33.4	13.6	100.0
Age			
Children	8.5	13.3	25.6
Young adults (18-24)	6.4	25.1	19.0
Elderly (over 64)	0.3	1.0	0.9
Family income			
Below poverty	9.6	30.2	28.8
1-2 times poverty	10.6	23.3	31.8
2-3 times poverty	5.9	13.3	17.7
Over 3 times poverty	7.2	5.9	21.7
Family work status[1]			
Employed	28.6	13.9	80.2
Unemployed	2.0	31.9	6.1
Out of labour force	4.6	9.8	13.7
Hours worked in family[2]			
None	8.8	14.4	26.3
1-24	2.0	26.3	6.1
25-34	2.7	25.8	8.1
over 34	19.9	11.9	59.5
Race			
White	25.9	12.5	77.5
Black	5.8	19.2	17.5
Other	1.7	19.1	5.0

1. A family is "employed" if either the head of household or the spouse is employed; it is "unemployed" if neither is employed and one is unemployed; it is "out of the labour force" if neither is in the labour force.
2. Hours worked in survey week by the head of household or spouse, whichever is greater.
Source: Congressional Budget Office (1991*b*).

1991)). The same is much less true of small employers, or of individual insurance policies, and insurers tend to charge high premiums to small firms and individuals because there are fewer policy-holders over which to pool risk. In principle, an insurer could form a large pool by lumping together many small firms or individuals and charging the actuarially fair premium for the group. But if their competitors bid away those policy holders having lowest risks (younger ones, or those with no history of disease, for example), the insurer would suffer from adverse selection – the average riskiness of the remaining pool would rise. It could try to compensate by raising premiums, but this would only chase away more of the low-risk policy holders.

In view of the importance of employer-based insurance, it is not surprising that those having only weak connections to the labour market have a high probability of being uninsured. The unemployed are more than twice as likely as the average to be uninsured (that is, in Table 7, 31.9 per cent of the unemployed were uninsured, compared with 13.6 per cent of the population as a whole); part-time workers are also substantially more at risk; and young adults, who are no longer covered by their parents' insurance but have not yet established careers, are almost twice as likely to be uninsured as the average, although health risks in this group are likely to be low. Labour market connection is, in turn, statistically related to other characteristics: those with family incomes below twice the poverty level are more likely to be uninsured, as are members of minority groups.

Although the percentage of the employed who are uninsured is about the same as that for the general population, four-fifths of all uninsured are in families where the head of the household or the spouse is employed and in nearly 60 per cent of these households, at least one person is employed full time (more than 34 hours per week). The employed are usually uninsured because their employer does not offer health insurance and they cannot afford, or will not pay for, an individual insurance policy. In some cases, households are not eligible for coverage under an employer plan because of provisions that, for example, exclude coverage for pre-existing conditions. A few households choose not to enrol in employer plans for individual reasons.

Whether an employer provides insurance or not is related to the firm's size and its industry. Small firms are much less likely to provide insurance than large ones, and there appears to be a trend for businesses to eliminate this benefit in order to avoid the burden of rising health-care premiums.[18] Workers in manufac-

turing are the best covered, while those in some, but not all, service industries or in other industries with small firms are relatively poorly covered. Cost is a significant factor behind this pattern of coverage. Since small firms and those in service industries tend to pay lower than average wages, insurance premiums, which are a lump sum rather than proportional to wages, raise their labour costs disproportionately.[19] Administrative costs are much higher for small-firm policies – for firms with fewer than 10 employees, administrative costs are up to 40 per cent of benefits paid, compared with only 5 per cent for very large firms. Lastly, as described above, risk pooling is more difficult for small firms, and therefore premiums can be much higher if the insurer expects future claims to be high because, for instance, one employee has a bad medical history.

The proportion of the under-65 population that is uninsured rose by some 2½ percentage points during the 1980s (Congressional Budget Office, 1991*b*). The reasons for this trend have been difficult to pin down. The unemployment rate rose in the early 1980s, but the proportion of uninsured did not fall with subsequent decline in the unemployment rate. Service-sector jobs increased as a fraction of total employment, but the size of increase and sectoral difference in coverage rates is not sufficient to explain much of the rise in the proportion of uninsured (Congressional Budget Office, 1991*b*). The share of part-time employees, often not beneficiaries of such fringe benefits, has tended to decline during the 1980s. Analysis by the Congressional Research Service (1988*a*) points to demographic changes that increased the proportion of young adults, who tend to have weak labour-market ties and better health and are thus poorly covered. If so, coverage should begin to rise again as the "baby-boom" generation ages. On the other hand, the rising costs of insurance will continue to make it less affordable particularly for small employers and individuals.

Those without insurance do not necessarily go without medical care. Some pay for it out of pocket. Those who cannot afford to do so can receive "uncompensated care" from hospitals and have access to public hospitals, usually through the emergency department.[20] However, emergency-department care is an expensive way to deliver health care, and its quality is widely thought to be below the standard received by the insured. It is expensive because emergency rooms are costly, specialised facilities that are not well designed to provide primary care. It also appears that the uninsured tend to go to hospitals rather late in the course of an illness, and therefore require expensive treatment that could

have been avoided with earlier medical intervention. Several studies suggest that while the uninsured receive care, it is inferior to that received by the insured.[21] The situation of the uninsured is precarious and could deteriorate if budget restrictions reduce the number of public hospitals, which would in turn reduce access and health status for some people (Bindman *et al.*, 1991), or if for-profit hospitals, which provide less uncompensated care than do non-profit hospitals (Lewin *et al.*, 1988), expand at the expense of non-profit hospitals.[22]

Being without health-care insurance imposes substantial potential and actual costs, both financially and in terms of the quality and quantity of care received. For those not eligible for government programmes, a change in employer, a loss of employment or even a change in the health status of a family member could result in a sharp reduction in coverage, a complete loss of coverage, or much higher insurance premiums. As a result, even the large majority who are covered is bound to factor health insurance into a broad range of economic and social choices – changing employment or family status, for example. Although quantitative estimates of the economic cost of, for example, "job lock" are unavailable, there are certainly deadweight costs stemming from the potential and actual gaps in coverage and the associated risk of losing coverage. As cost pressures and awareness of the problem mount, these deadweight costs could rise.

III. Health-policy reform

There is now an almost unanimous sentiment that the U.S. health-care financing system is unsatisfactory, and there are disturbing signals that it may be unsustainable.[23] Costs are high and rising, apparently with no limit in sight. There are fears that employers, insurers and governments will respond to the escalation of costs by paring back coverage, thereby eroding access. A significant number of people who already have no health insurance receive relatively poor health care, and some are exposed to potentially crippling financial costs should they fall ill. The diffuse nature of the cost increases and the complex nature of health care and health-care markets have obscured the fundamental sources of the problem. This, together with the diverging interests of the current stakeholders – providers, insurers, employers and various groups of consumers – has resulted in considerable disagreement on how best to reform the system.

There is, however, no shortage of suggestions. Several academics have put forward proposals, of which Enthoven's (1980 and 1988, for example) "managed competition" has been particularly influential: recent health-care reforms in the Netherlands and the United Kingdom incorporated some of his ideas. At the federal level, the Administration published a proposal in February 1992, which is described in the accompanying box, and 40 comprehensive health-care reform bills (as distinct from bills targeted to specific populations) were put forward in the 102nd Congress (Congressional Research Service, 1992*b*). There have also been initiatives at the state level, including the Garamendi proposal for California, described in another accompanying box, and the more limited, but highly controversial, Oregon proposal to extend Medicaid coverage to more of the poor while eliminating reimbursement altogether for some procedures.[24]

The Administration's "Comprehensive Health Reform Plan"

In February 1992, the Administration published its proposal to build on the current health-financing system by retaining, and enlarging, the role of private-sector insurance. Access would be expanded by offering tax credits and deductions, and by reforming the private-sector insurance market. The Plan would leave the current health-care financing system intact: those not covered by Medicare or Medicaid would still be covered by private insurers, mostly through employer group plans.

Tax credits and deductions

All eligible individuals or families – those not already eligible for existing government health-care programmes, such as Medicare and Medicaid – with incomes below the poverty line would receive the maximum tax credit ($1 250 for individuals, $2 500 for a married couple and $3 750 for a family) with which to purchase health insurance. As income rose, the tax credit would fall to a minimum of 10 per cent of the maximum credit at 1 1/2 times the poverty line. Instead of the credit, those eligible could claim a tax deduction if they wished. This would reduce their taxable income by the same amounts as the tax credits and would be phased out at higher income levels (between $40 000 and $50 000 for individuals, $55 000 and $65 000 for couples and $70 000 and $80 000 for families).

The amounts of the credits and deductions correspond to the Administration's estimate of the cost of a "basic" health-insurance policy, although it would be left to state governments to define such a policy and to ensure that private-sector insurers offer it. States would also have the option to fold Medicaid into the tax-credit programme and, in effect, offer tax credits to all the poor. According to Administration estimates, the credits and deductions would extend health-insurance coverage to about 24 million people, or 70 per cent of the currently uninsured.

Insurance reform

All insurers selling group health insurance in a state would be required to sell a policy to any employer group that applies and would have to cover every employee in an insured group. Insurers choosing to cover recipients of tax credits would be prohibited from denying coverage on the basis of health. Insurers would be required to renew policies, unless premiums are not paid or there is fraud. They would be prohibited from limiting coverage on the basis of pre-existing conditions, a measure designed to increase the portability of insurance from job to job. Employers would not be required to provide group insurance or, if they provided it, to contribute to its cost. There would be no government controls on the premiums insurers could charge, except during a 5-year transition period in the case of policies sold to small firms.

Each state would define one or more "basic benefit packages" to be offered by private insurers. If fewer than two insurers in any state offered the basic packages, the

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state insurance commissioner would be able to force two or more of them to do so. Although insurers would be able to charge the market price for the basic-plan premium, the intention is that the plan be designed so its cost equals the maximum tax credit amount. States would not be allowed to mandate benefits (apart from the basic benefit package), nor to restrict the development of co-ordinated care organisations, such as HMOs.

States would implement "health risk pools". Insurance companies and plans covering a group with more unhealthy individuals than average would receive money from the pools, while those covering a healthier than average group would be required to pay into the pools. The intention is to offset the incentive for "cream skimming" by subsidising and taxing insurers according to the health characteristics of those they cover.

Small employers would be encouraged to pool their purchasing power via "health insurance networks", which would operate as non-profit intermediaries. The main encouragement would be that the networks would be exempted from state-mandated benefits and premium taxes. Pooling would reduce the high administrative costs now associated with small-firm insurance.

Cost control

The proposal aims at controlling costs through greater use of co-ordinated care, malpractice reform, and administrative savings through the use of electronic billing and standardised formats. The Plan does not require insurers to harmonise coverage and rate schedules (*i.e.* does not require a so-called all-payer billing system). The Administration notes that much illness could be reduced through the adoption of healthier life-styles, and that the FY 1993 budget has increased funding for programmes aimed at disease prevention and at care for women and children (nutritional assistance, the head start educational programme and access to primary health care centres). According to the Administration, the measures in the Plan would reduce health-care costs by 6 to 14 per cent in 1997. Using the Sonnefeld *et al.* (1991) projections of health-care costs, this would be $76 to $177 billion.

Containing costs

Any reform that seeks to correct the most glaring problem of the current U.S. system – high and rising expenditures – must effectively restrain demand for services. Care that is almost free, from the point of view of the patient, has set

up a dynamic of increased demand, increased supply, and the invention of evermore sophisticated and costly diagnostic and treatment options. Directly charging consumers (out-of-pocket) the full marginal cost of medical services, the obvious market solution, might provide an effective brake on costs, but is not a serious policy option because it would place health care beyond the financial reach of many people. Thus, mechanisms other than high prices at the point of delivery must be used to balance demand with available resources.

One avenue of reform would be to institute price schedules, quantity constraints and global budgets on all health-care providers. Enforcement of such constraints would be facilitated by a centralisation of health-care finances, as envisaged by proposals for a comprehensive public-sector health-care system put forward by, for example, Congressman Russo and, at the state level, by Mr. Garamendi (see the accompanying box).[25] Reforms such as these would significantly reshape health-care financing in the United States. The role of private insurers would be sharply reduced, and, depending upon the nature of the reform, much of the cost of health-care expenditures might be transferred from the books of the private sector onto government budgets. Private insurers paid over $215 billion for health care in 1990, which would have to be paid by governments and raised through taxes. This would not be a new burden overall, since the taxes would replace insurance premiums. In fact, to the extent that centralised expenditure control permitted reductions in outlays, the burden would fall – one source of saving might be reduced administrative and overhead costs. However, different people would pay. Because insurance premiums are roughly the same regardless of income, viewed as a tax they are highly regressive. A payroll tax, which is used in many other OECD countries to finance health care, would be roughly proportional to income. Thus, a shift to a comprehensive public health-care programme financed by a payroll tax would tend to shift the cost burden from the low-paid to the better-paid.

Centralised control of health-care budgets is already common in other OECD countries, where health care is financed directly by governments or by quasi-governmental agencies. Many have nation-wide (or, as in Canada, province-wide) fee schedules, to which physicians must adhere when they bill. This approach appears to have been successful in Japan, but in many countries there has been a tendency for providers to increase effort, or to change the way treatment is described in order to collect a higher fee (a practice referred to as

upcoding). Similar tendencies have been observed in U.S. government health programmes, and the Health Care Financing Administration built such a response into its recently introduced Medicare Volume Performance Standards. These developments have led some countries to impose both price and quantity targets, or global budgets. The combination of price and quantity controls appears to be more effective in restraining costs than price controls alone (General Accounting Office, 1991*d*).

While centralised budgetary control has provided a mechanism to restrain costs in many countries, it has not eliminated the underlying pressures on expenditures. Thus, in some countries – France and Canada, for example – the share of health-care outlays in GDP is still rising, although the rate of increase has slowed sharply and is well below that in the United States. Generally, centralised expenditure control has not been accompanied by centralisation of delivery of medical care, which has largely remained in the hands of physicians and hospital administrators. Indeed, medical decisions in most OECD countries are typically made by physicians with less supervision and control than has become common in the United States. Likewise, in these countries there are typically fewer restrictions on choice of physician or hospital than is now the case with HMOs or preferred-provider organisations in the United States. On the other hand, centralised budgeting could also lead to a health-care system that is unresponsive to patients' needs. The system in the United Kingdom has been accused of being overly rigid, and its recent reforms were, in part, an attempt to change this (Day and Klein, 1991). Queues for certain surgical procedures, notably coronary surgery, have developed at times in Canada, as financial constraints resulted in a shortage of cardiac facilities. Subsequently this was to some extent corrected (Naylor, 1991).

Some cost-saving reforms have been introduced into U.S. government health-care financing programmes, such as the prospective payment system for hospital Medicare fees introduced in the 1980s and the transition to "diagnosis-related group" (DRG) payments rather than cost-based reimbursement. In 1992, a programme to limit Medicare physician spending was introduced, including a Relative Resource Value Scale, which sets prices for physician services. In an effort to limit physicians' behavioural responses, "volume performance standards" were also introduced. These reforms have stopped short of imposing global budgets, although in its 1992 Budget the Administration raised the issue of

Health-care Reform: The Garamendi Proposal

In February 1992, the State Insurance Commissioner of California, John Garamendi, published a proposal to replace the private and public-sector insurance system currently in place in California with universal health-care coverage financed by payroll taxes and delivered by HMO-like managed-care organisations. This would involve a substantial change from the current system, in that employers would no longer be providing, and insurers would no longer be offering, group health insurance plans of the sort that now cover most people under 65 years of age.

Financing

Insurance premiums would be replaced by a payroll tax (referred to as "premiums" in the proposal) of 7.65 per cent on employers and 1.4 per cent on employees, with the self-employed paying the sum of these. To reduce the burden on small firms and low-income workers, in the calculation of their liabilities under the plan, employers would receive a deduction of $10 000 per person, small business would face a lower payroll tax rate and workers would receive a deduction of $5 000. There would be a ceiling of $150 000 per person for income subject to the payroll tax for both employers and employees. According to the Commissioner, the average tax rates would be 6.75 per cent of payroll for firms and 1 per cent for workers.

Regional, autonomous "health insurance purchasing corporations" (HIPCs) would "sponsor insurance", essentially by using the tax revenues to buy medical coverage for all residents (employed or not) from private-sector providers. The effect would be to eliminate the link between employment and health insurance, in that being insured would not depend on being employed, and employees would not be in danger of losing coverage (or, perhaps, even have to change physicians) when they changed jobs.

Access

Each health-care provider organisation would offer plans certified by the HIPC in its area and would be responsible for the actual delivery of medical services. The Proposal envisages basic plans, similar to those now offered by HMOs in California, that would cover in-patient and primary care, prescription drugs, home health care and so forth. Plans would be prohibited from turning down applicants, regardless of past, actual or prospective health status. The HIPC would pay the provider organisation an amount per enrollee, but with adjustments for risk (for example, plans with a disproportionate number of old enrollees would be paid more per head), in order, it is hoped, to prevent "cream skimming" by providers.

Only modest co-payments, and no deductibles, would be permitted. Plans would be allowed to offer more than the basic package certified by the HIPC and would charge their enrollees for the extra services. However, there would be limits on how much more could be offered, for fear that the basic plan might eventually be perceived as sub-standard.

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The Proposal envisages folding the medical parts of workers' compensation and automobile insurance into the same system, in order to improve access and eliminate duplication of costs.

Cost containment

The major cost-containment mechanism would be the global health-care budget determined by the revenue from the payroll taxes, which will rise no faster than payrolls (unless the payroll tax rates were increased).

According to the Commissioner, the measures in the proposal will hold health costs down by encouraging managed care and by eliminating much of the administrative overhead now incurred by firms and insurance companies. It is also envisaged that the proposed system will be more effective at eliminating unnecessary medical procedures.

capping the growth of Medicare and Medicaid outlays. The impact of such reforms on overall medical outlays would be blunted, however. Providers could compensate for reductions in income received from Medicaid and Medicare by shifting costs to the private sector, as they have in the past when fees under these programmes were reduced, although the extent of this response is subject to considerable debate. In addition, Medicare and Medicaid must compete with the private sector for physician and hospital resources, which limits the amount of restraint that can be imposed without reducing access.

A possible alternative to global budgeting is stricter control over medical costs at the micro level, and, in the absence of a centralised system for collecting premiums and paying providers, the U.S. health-care financing system has moved in this direction. Insurers are increasingly turning to provider-review mechanisms in an attempt to reduce costs. Moreover, the traditional third-party insurer that pays a physician chosen by the patient has been losing ground to managed-care organisations. The standard HMO, for example, provides comprehensive health-care services, usually including hospitalisation, in return for a premium. It is distinguished from other insurers by the close relationship between the insurer and provider: in an HMO they are both of the same company. This type of HMO has significantly lower costs than fee-for-service providers, although the growth

of costs has been the same. Other, much looser forms of managed-care organisations, such as preferred-provider organisations, have expanded rapidly in recent years, but appear, at best, to generate only small savings.

Further reform along these lines, as was proposed by the Administration in February, would have the advantage of requiring only incremental changes to the current health-care financing system. Private insurers could retain an important role, although they might more closely resemble HMOs. The efforts of private-sector insurers and the growth of managed care have not yet slowed health-care expenditures, although these efforts have become prominent only in the last decade. As costs continue to rise, insurers will have strong incentives to develop insurance products and care systems that will minimise cost increases.

Improving Access

Although most Americans are covered either by private insurance or by government programmes, about one person in seven is not insured at all, and many others are worried that their coverage may be reduced or eliminated if they lose or change their jobs. The costs of expanding insurance coverage depend on the degree of extension, the generosity of coverage and the health-care demands of those who are now uncovered. An increase in personal health-care outlays of one-seventh would have added about $84 billion to total outlays in 1990, or 1½ per cent of GDP. This figure is, however, a substantial overestimate of the cost of full coverage in that it assumes that those uncovered now use no medical services and that, if covered, they would use the same services as the average person now covered. The uninsured do currently receive care, often at great expense in emergency departments, and when insured would probably use less care than average, because many are young and relatively healthy.

More refined estimates suggest much lower costs. For example, Shiels *et al.* (1992) estimates the cost of providing health care to the currently uninsured to be a substantially lower $11 billion. An extension of employer-based insurance to all firms with 10 or more employees would cut the number of uninsured in half and might raise health-care costs by about $13 to $28 billion, depending on the coverage offered (Congressional Budget Office, 1991*b*). Extending Medicare to provide universal coverage would raise outlays by as much as $26 billion, not allowing for potential savings in administrative costs (Congressional Budget

Office, 1991*c*). Expanding Medicaid to cover all those below the federal poverty level would raise outlays by $6 billion, but would not extend insurance coverage much (Congressional Research Service, 1988*b*). To put these figures into perspective, it should be recalled that estimates of the excess administrative cost of private health insurance and the outlay equivalent of the employer tax deduction for health insurance are each on the order of $40 billion. These estimates of the cost of extending health care coverage may be too low, in that they do not consider the possible dynamic pressures that would result from universal, guaranteed coverage. These are, of course, very difficult to assess, but to the extent they emerge, the need to control costs would become even more pressing.

Since gaps in coverage are largely the result of the operation of a voluntary, competitive insurance market, proposals to increase access have centred on reforming, or even replacing, private insurance. Four generic types of reform are now actively being considered in the United States, although, of course, each has many variations.

Small-group insurance reform

Many of the uninsured are employed in small firms that do not offer group insurance, mainly because high risk and administrative costs have made it too expensive. Insurance could be made more affordable for small business by requiring insurers to offer coverage to all firms and to all employees in a firm that has purchased group insurance, and by limiting premiums in some way to prevent insurers from pricing small employers out of the market. This is a conservative reform, in that it implies only a small change to the existing health-insurance system. On the other hand, since this proposal does not require firms to provide insurance to their employees, it is not clear how effective it will be in extending coverage. Moreover, if insurers are forced to provide small-group insurance at below cost, they may choose to withdraw from the market altogether.

Tax credits (or vouchers)

Health insurance could also be expanded by providing individuals with refundable tax credits or "vouchers", which could be used to purchase private health insurance policies, either through employer group plans or directly from insurance companies. The credits could decline with income in order to direct the

subsidy more precisely to the poor, and they could be higher for those with serious chronic illnesses, since they are likely to be charged higher premiums.

Although this reform would also leave the current health-financing system largely intact, the degree to which coverage would be expanded would depend on the size of the tax credit and, since there would be no controls on premiums and on coverage by insurers, how the insurance market reacted. Those who do not have insurance would obviously be tempted to buy coverage. It should not change significantly the coverage for those who are now covered by group insurance if the tax credit were a substitute for the tax deduction by employers. Some firms might decide to drop their group insurance, but those employees losing it would buy their own coverage using the tax credit. However, in the absence of insurance reform, vouchers alone would not guarantee that high-risk individuals and groups would not be denied insurance.

Neither small-business insurance reform nor tax credits would entirely resolve the problem of "cream skimming" – insurers would still have a strong incentive to cover those perceived as low risks. These incentives could be offset if the government transferred money from insurers having a low-risk clientele, to those having a disproportionate number of high-risk cases. The Administration proposal, for example, includes such a mechanism. Such compensation would be feasible though not complete. Observable characteristics, such as age, sex and past health status, appear to explain only a small percentage of the variation in health expenses across individuals, though this is all the information that insurers utilise now in setting risk-based premiums. Nonetheless, it may be expensive for a government to duplicate the rating done by insurance companies. An alternative would be to prohibit differences in premiums based on risk, although such an attempt to frustrate a powerful market incentive may prove difficult to enforce. More importantly, it would magnify the incentive for insurers to avoid bad risks by refusing coverage altogether, or by attempting to tailor policies to discourage those who might generate large claims. These practices, too, could be forbidden. But if they could no longer choose whom to insure, the terms of insurance, or what price to charge, the role of insurers would be narrowed to administrative and cost-control functions. The issue then would be focused upon their efficiency in this role: comparisons with public programmes in the United States and elsewhere suggest that private-sector overhead costs are relatively high, while

there is little evidence concerning the relative efficacy of the two sectors in controlling health-care costs.

"Play or pay"

Under this option, proposed by some members of Congress, employers could choose to offer a group plan, or to pay a payroll tax to finance a public plan that would cover its employees, perhaps an extension of Medicare or Medicaid. This would extend coverage to the entire employed population. Under some variants, anybody not covered by private insurance would be automatically eligible for the public plan. In this case, access would be universal although some prices might be attached. It is likely that low-wage firms (which would pay little payroll tax) and high-risk people (who would be charged large premiums in the private market) would be most attracted to the public plan.

Initially, it might be expected that private insurers and employers would retain their dominant role as payers. However, health-care costs are rising much faster than payrolls, and if the contribution rate were fixed, more firms would choose to join the public plan over time. This would entail rising transfers from general revenues. Even if contributions were raised in line with costs, a public programme would take an increasing share of the market if it were able to deliver greater consumer satisfaction for less. In either of these cases, "play or pay" could prove to be a transition to a health-care financing system dominated by public-sector payers.

Comprehensive public health insurance

Universal coverage could also be achieved directly by replacing the current mixed public-private insurance system with an entirely public one, which would cover everyone automatically and probably reduce administrative costs. Cost-increasing technological innovation could also slow as well. Of the options discussed, this one would require the greatest changes to the current system, and would also move the U.S. health-care financing system furthest toward those in place in other OECD countries. It would represent a departure from U.S. approaches to such issues in two respects – first in embracing a radical rather than evolutionary approach, and second in forcing the private sector out of an activity where it is established. The experience of other countries suggests that there are many ways to design a comprehensive public system, and the institutions actually in place in those countries have grown up in response to complex cultural, political, economic and social pressures. U.S. solutions will likewise undoubtedly evolve in response to similar pressures.

IV. Conclusions

The U.S. health-care system is at a cross-roads. Health-care expenditures in the United States are far higher than those in other OECD countries and are rising much more rapidly, whether measured in terms of GDP or per capita. While it is difficult to say what levels of spending or growth are optimal, there is a mounting concern about the rising burden of health-care costs. At the same time, one in seven Americans is not covered by health insurance at all, many others are faced with the risk of losing insurance coverage if they become unemployed and yet others hesitate to change jobs for the same reason. This situation, characterised by some as a worsening paradox of excess and deprivation, clearly calls for correction, and there is a broad consensus in the United States that something must be done to improve access and contain excessive spending growth. Views differ widely, however, as to specifically what should be done and how, and numerous reform proposals have been put forward in recent years, including one by the Administration.

It is encouraging that the linkage between health-insurance provision and employment would be weakened under most of the recent reform proposals, even those that would keep the present institutional set-up intact. This linkage is archaic and makes no more sense than linking automobile insurance to people's employment. It restricts the individual's choice of insurance, as employees are effectively obliged to accept any group insurance plan that the employer chooses, thereby limiting the presumed advantage of a decentralised financing system. It also acts as an impediment to labour mobility and is costing the Federal government $40 billion per year in tax subsidies.

The fundamental nature of the problem of health care is common to all countries, and the real choice facing the United States is rather narrower than it appears. While reforms carried out in several OECD countries have brought about a varying degree of spending restraint, underlying pressures for higher

health-care outlays nevertheless remain high everywhere in the OECD area and are likely to grow even stronger in the long term with the ageing of the population. The root cause of such pressures lies in the very nature of the system of health-care provision and financing. Once insured, the incremental cost for a patient of receiving medical treatment is typically very low, whereas physicians have incentives, both moral and financial, to offer as much and as good a treatment as they can. In order to deal with the open-ended nature of health-care outlays, OECD countries have responded by raising the incremental costs borne by the patient as well as by placing some limits on what physicians can charge and deliver. This is also what has been done in U.S. public programmes, and private insurers in the United States have similarly intensified their efforts to keep spending growth under control. There seems to be little choice in reforming the system of health-care delivery but to redirect physicians' incentives towards cost saving by imposing some form of budget constraint under whatever financing system the country may choose to adopt.

A salient feature of the U.S. health-care system is the prevalence of private insurance coverage, even for basic health-care services. Efficient operation of insurance markets inevitably leads to pricing based on risk. But basing insurance premiums on health risk is not compatible with the social goal of providing universal access to comprehensive basic care. Thus, improving access to health care while preserving the existing institutional arrangements will require greater regulation of private insurance, compensation for the difference in risks covered by insurers and, given the very high cost of medical insurance in the United States, income-related subsidies to ease the burden of subscribers. Such a way of extending coverage carries heavy administrative overhead costs. However, it has the advantage that the insurance package can be more easily adapted to individual preferences and needs. The alternative is centralised health-care financing which is found in many OECD countries. This would guarantee universal access, carry lower administrative costs and by its very nature avoid the problem of cream-skimming (a tendency for insurance companies to try to cover only the healthy). Cost control through budgetary constraints could be easier under this system. On the other hand, the individual's choice of basic insurance coverage would be limited, although freedom to choose physicians and hospitals need not be. Centralised financing of basic health-care provision does not preclude supplementary private insurance in order for the individual to extend coverage beyond basic needs. But whatever mix of public and private provision is ultimately chosen, it is doubtful that mere marginal reforms can adequately deal with the problems facing the U.S. health-care system.

Notes

1. For example, high infant mortality is closely related to low birthweight, and there are a relatively large number of low-birthweight infants in the United States. This depends more on social factors than on the design of the health-care system.

2. Personal health-care expenditures equal the total less research and development costs, construction, public health expenditures, programme administration and the net cost of private health insurance. The latter spending items amounted to 12 per cent of the total in 1990.

3. There has been continuous invention of new medical techniques and products, as well as improvements in older ones. To the extent that these are not taken into account in the estimates of price, they will show up as lower quantities. For many of the important components of health costs – hospitals and physicians services, for example – this problem is probably no more severe than for other goods and services. On the other hand, it may be important for the application of new technologies. For example, a scanner may provide a better diagnosis than a physical examination or an X-ray, but it also costs more. Trajtenberg (1989) found that computerised axial tomography (CAT) scanners underwent considerable quality improvements shortly after their introduction in the early 1970s.

4. Total, rather than personal, health-care expenditures are used to enable comparisons with other countries in Table 4 below. Data on personal health-care expenditures are not nearly as widely available for other countries. In the case of the United States, using total expenditures instead does not make any material difference.

5. It should be noted, however, that the rate of increase in physician incomes was roughly similar to that of other post-college-educated workers in the late 1980s.

6. Correspondingly, the share of the private sector in the total personal expenditure on health care has declined. This has been entirely due to a fall in the relative importance of out-of-pocket payments: private insurance has covered an increasing part of health-care spending (see Table 3).

7. Rising health-care expenditures have led to a growing wedge between the wage bill and total compensation. Business health-care costs have surged from 3 per cent of total compensation in 1970 to over 7 per cent in 1990. In 1991 these costs amounted to 92 cents per hour worked. Furthermore, this excludes unfunded future liabilities for retiree health-care benefits which have been estimated to amount to as much as $400 billion in present value terms; beginning in 1993, U.S. accounting rules will force employers to recognise such liabilities.

8. The outlay equivalent is the amount the government would have to transfer to provide the taxpayer with the same after-tax income as is received from the tax concession. It is higher than the revenue lost because the transfer would normally be taxable income, and so some of it would be taxed back.

9. The economics of health-care systems in various OECD countries are discussed in more detail in OECD (1992).

10. Unconstrained demands for health care may be considerably more income-elastic than indicated on Diagram 4. The linear relationship may reflect the role of centralised health-care budgeting in restraining the demand for health care. In the absence of these restraints, the health-expenditure shares of other OECD countries might rise non-linearly, and the U.S. share might not be significantly out of line with that of countries with similar levels of per-capita income.

11. These figures should be used with caution as they are often based on a rather sparse selection of service prices.

12. A *co-payment* is a fixed sum per procedure. A *deductible* is an amount that must be paid (per year, for example) before insurance applies. *Co-insurance* is a percentage of the cost of a service. In what follows, all these will be loosely referred to as co-payments.

13. The purchase of supplemental insurance is not unique to the United States – in France and Canada, 60-70 per cent of the population purchases supplemental insurance.

14. Potentially, insurance may also expand demand by changing behaviour, a problem known as moral hazard (see the accompanying box). An example might be people smoking more, knowing they would be covered by insurance should they become ill. It is not clear that moral hazard, in this sense, is important in the context of health care. Some authors, however, use the term moral hazard in a wider sense to include the increase in demand in response to low prices.

15. Weisbrod (1991) presents an extensive argument along these lines. He provides an interesting comparison between the health-care system and the public education system in the United States. In the former, insurance is open-ended and resource use is determined largely by health-care providers. In the latter, the government provides a fixed amount per student, or families pay the entire cost out of pocket, and resource use is not determined by teachers. This example cuts both ways since most people report satisfaction with their health care, whereas dissatisfaction with the public school system appears to be widespread.

16. Hospital-based physicians in other OECD countries are salaried, unlike in the United States, and may have less financial incentive to require the most recent technology.

17. There are other ways of defining who is uninsured, although the "point-in-time" measure is both meaningful and easily derived from survey data. Two alternative definitions are the percentage of the population having no insurance cover for an extended period of time (say, a year), and the percentage that is uncovered for at least one short spell during an extended period. For example, in the 30-month period from February 1985 to August 1987, 4.3 per cent had no health insurance cover at any time, while 28.1 per cent had at least one one-month spell during which they were uncovered (Aaron, 1991).

18. Between 1979 and 1986 the proportion of those in the labour force who receive health-insurance coverage through their jobs declined by 1.1 percentage points (Congressional Research Service, 1988*a*).

19. Also, small businesses often face more intense competition and may have smaller profit margins.

20. The result is that hospitals must recover the cost of such uncompensated care through increased charges for other patients – leading to a potential problem of cost shifting – or through state-wide uncompensated care pools.

21. See, for example, Bindman *et al.* (1991), Eisenberg (forthcoming), Lurie *et al.* (1984) and Wenneker *et al.* (1990).

22. This latter possibility may not pose too great a concern. While for-profit hospitals do provide less care to the uninsured, they do so primarily because they are located in areas where there are relatively few uninsured. If this is the case, they are unlikely to expand at the expense of those non-profit hospitals that provide a lot of care to the uninsured.

23. While many Americans feel that big changes are needed in the health-care system (57 per cent), most are at least somewhat satisfied with their own health care (71 per cent) (Harris Poll, June 17, 1992).

24. The Oregon proposal is to reimburse the costs of only the first 587 of 709 different medical treatments, ranked according to medical effectiveness and value to the individual and society. This proposal was denied a Medicare waiver by the Administration in August 1992 on the grounds that it might violate the Americans with Disabilities Act. Other states, such as Florida, Minnesota and Vermont are also in the process of attempting to reform Medicaid with a view to broadening public health insurance.

25. The Garamendi proposal is discussed here for illustrative purposes only.

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Annex

An overview of health-care financing in selected OECD countries

This annex briefly describes the health-care financing systems in the United States, Japan, Germany, France, the United Kingdom and Canada. The Italian system is described in detail in the forthcoming OECD Economic Survey of Italy. These systems vary widely, but, except for the United States, have the following features in common:

i) enrolment in a health-care plan is mostly automatic; often, but not always, enrolment is through the workplace;
ii) insurers of basic health care costs are public or quasi-public; typically they cannot refuse cover;
iii) there are provisions for those not currently attached to the labour force;
iv) financing is predominantly through the tax system (often payroll taxes) rather than premiums per enrollee;
v) patients face virtually no restriction on the choice of physician, and typically little restriction on the choice of hospital;
vi) the government controls either global expenditure or large components of it (such as physicians' incomes or hospital expenditures).

Although the system in the United States shares some of these features as well, it relies much more heavily on voluntary insurance, usually purchased by employers on behalf of their employees from private, for-profit insurance companies. This system of private insurance is supplemented by large government programmes aimed at the elderly and at some of the poor.

It is traditional to use the language of insurance in describing health care payment systems, in part because they perform an insurance function by pooling the risk getting ill and incurring medical expenditures. However, except in the United States, there is typically little discretion in either the "purchase" or the "sale" of basic health "insurance" and health-care financing systems therefore resemble government tax-transfer programmes rather than insurance markets.

Material for countries other than the United States is drawn from the far more detailed discussions found in OECD (forthcoming), Congressional Budget Office (1991*a*), Day and Klein (1991), General Accounting Office (1991*b* and 1991*d*), Graig (1991), Ikegami (1991) and OECD (1987).

The United States

Health care is delivered through private insurance, which covers about 3/4 of the population; public programmes, which cover more than 1/4 of the population; and ad hoc arrangements for the 1/7 of the population that has no health insurance coverage. (Because some people are covered under more than one scheme, these figures sum to more than one.) About 80 per cent of those covered through private insurance are enrolled in employer-based group insurance plans, with the rest being covered by individual insurance policies. Employers typically purchase a group policy from one of a large number of private insurance companies, although more recently some, mostly large, employers have chosen instead to pay medical claims as they arise, a practice known as "self-insurance". This allows firms to reduce costs and, because employer-run benefit plans (such as pension plans, but also medical benefit plans) are federally regulated under the 1974 Employee Retired Income and Security Act, to avoid state insurance regulations. Many employers, especially smaller ones, do not ensure their employees at all; indeed, a majority of those with no insurance cover are employed or have a family member who is employed.

The two major government health-care payment programmes are Medicare, which essentially covers the old, and Medicaid, which covers some of the poor and offers some financing of long-term care. Governments also support health care through programmes serving military and veterans, public health programmes and public hospitals, whose emergency rooms often provide acute care for some of the uninsured.

Medicare, which was introduced in 1965, is by far the largest government insurance programme. It covers almost everyone over 65 years of age, about 13 per cent of the population, as well as people with certain disabilities (notably, kidney failure), another 1.3 per cent of the population. Hospital expenses under Medicare are funded by a payroll tax. Three-quarters of other expenses (Part B) are funded by general federal government revenues, with premiums, paid by beneficiaries, covering the other quarter. In addition, Medicare patients pay deductibles and co-payments (a payment per service or percentage of the cost of the service, the latter also being referred to as co-insurance). Since Medicare pays for less than half the medical expenses of its beneficiaries, some 70 per cent purchase private supplementary insurance.

The other major government health programme is Medicaid, also established in 1965, which covers mothers with dependent children (68 per cent of Medicaid recipients), the poor elderly (13 per cent), the blind and disabled (15 per cent), and a small number of others. About half of those below the federal poverty line are not covered by Medicaid: single adults below 65 years of age and who are not disabled, are not covered regardless of their income; and people with assets above certain state-defined levels are not eligible. Unlike Medicare, Medicaid covers long-term nursing home care – 40 per cent of the Medicaid expenditures go to nursing home care – for the old and disabled. Medicaid is administered by the states under federal government supervision and guidelines, which govern such things as the type of services provided and the payment schedules for hospitals and physicians. The federal government shares the cost of the programme through grants to the states which depend on state Medicaid expenditures and state personal income levels.

There are more than 575 000 active physicians in the United States, or 2.3 per 1 000 population. A third of them are primary-care physicians and the rest are specialists. By way of comparison, Canada has roughly the same number of physicians per capita, but only half of them are specialists. Physicians are paid predominantly on a fee-for-service basis. Many, however, are paid a salary by a co-ordinated-care, or managed-care, organisation. The oldest form of co-ordinated care is the health maintenance organisation (HMO), in which about 1/7 of the population is now enrolled. The traditional HMO, exemplified by the large Kaiser Permanente organisation in California, pays health-care providers on a salary and runs its own hospitals and other facilities. Enrollees (or members) receive all their health care from the providers hired by the HMO – that is, the choice of provider is limited. The administrators of the HMO attempt to optimise the health care provided by reviewing medical practice and utilisation, in order to save costs by eliminating unnecessary procedures. More recently, much looser managed-care structures have developed, consisting of affiliations of physicians, who may be paid fee-for-service, rather than a salary. The preferred provider organisation (PPO), a recent development which is similar to a loosely organised HMO, consists of a network of physicians under contract (to an insurance company, for example) to provide care, usually on a fee-for-service basis, but at a discount. Like an HMO, the choice of health-care provider is typically limited to those under contract to the PPO, and these providers are subject to utilisation reviews. A point-of-service (POS) network extends HMOs by allowing patients to choose a non-HMO physician, but only if they pay an extra fee. The POS is an attempt to attract patients who are concerned about the restrictions on physician choice imposed by traditional HMOs.

Japan

Health insurance is universal in Japan, with nearly 2/3 of the population being covered by mandatory employer plans, and the rest (the retired and the unemployed) by the government-run National Health Insurance (NHI). Firms are required to provide insurance to employees and their dependents, and employees are required to enrol. While there are a large number of insurers, they are highly regulated and neither firms nor employees have a choice of which one to join. Employees of large firms (about 1/4 of the population) are covered by one of about 1 800 health insurance societies, employees of smaller firms (slightly more than 1/4) are usually enrolled in a scheme run by the national government, and civil servants and teachers (about 1/10) are covered by one of 82 mutual-aid societies. Taking NHI and small-employer insurance together, the government directly manages the coverage of over 60 per cent of the population. All insurers must provide a legislated basket of services.

Insurance is financed mostly through mandatory payroll taxes, with tax rates that average about 8 per cent, but vary from 3½ to over 13 per cent, depending on the insurer. Employers pay at least half the tax. However, governments pay most administrative costs and subsidise (up to 52 per cent) some insurers from general revenues. Although there are no deductibles, co-payments and co-insurance range from 10 to 30 per cent of the cost of the service, with a monthly cap of about $450.

Hospitals range from prestigious and publicly-owned teaching hospitals to numerous small private clinics (which are typically owned and run by private-practice physicians). About 80 per cent of hospitals and about 94 per cent of clinics are privately owned and operated. Most are owned by physicians and, by law, the chief executive of a hospital must be a physician. Aside from a recent regional ceilings on the number of beds, the government imposes few restrictions on overall hospital expenditures.

About a third of physicians are in private practice and have no access to hospitals, 40 per cent are in non-teaching hospitals and the rest are in teaching hospitals. Primary-care physicians are paid on a fee-for-service basis according to a national rate schedule set by the central government, in consultation with providers and payers. The schedule assigns relative value points for services, which are then translated into monetary terms. Physicians bill the insurers directly and cannot charge their patients extra (balance bill). The government sets targets for total health spending and enforces price control through the fee schedule, but has no formal mechanism to enforce quantity targets on physician services.

Germany

Before unification, West and East Germany had markedly different health systems; this overview discusses only the former. Insurance coverage is essentially complete, except for a small number of people, all of them financially well-off, who choose not to be insured. About $^4/_5$ of the population is covered by the "statutory" scheme, which is administered by some 1 100 sickness funds, which are autonomous from, but highly regulated by, the government. The largest group of sickness funds is organised on a geographical basis, while others are organised on an occupational or enterprise basis. Membership in the statutory scheme is compulsory for several groups, such as workers with incomes below a certain threshold and state pensioners. Retirees are generally covered by the sickness fund to which they belonged when they last worked. About 85 per cent of sickness-fund members are compulsory members, with the rest being voluntary members. Only about half of sickness-fund members, mostly white-collar workers, can choose which fund to belong to. Most of those who are not members of sickness funds are covered by private insurance, although a few members also purchase supplementary private insurance. Several companies, most of them non-profit, offer private insurance, subject to government regulation. A small number of people (members of the armed forces and some people on social welfare) receive free medical care.

The sickness funds are financed by payroll taxes (called "contributions"), shared equally by employer and employee. While the tax rate averages about 13 per cent of wages nation-wide, it varies between 8 and 16 per cent, depending on the fund. Medical services for those who are not covered by sickness funds or private insurance coverage are paid for by the social security fund or from general government revenue. Both sickness funds and private insurers are required by law to provide a certain basket of benefits, although both can offer additional benefits as well.

Primary-care physicians are paid mostly on a fee-for-service basis by the sickness funds. Each fund, in effect, negotiates a lump-sum payment with regional physicians' associations (which are not trade unions), which then divide the money among physicians

according to a fee schedule. As a result, within any year the total income of physicians is capped in advance. The associations are responsible for assuring physician quality and quantity control. The fee schedule is negotiated nationally, with each of some 2 500 procedures assigned a relative point value, which is then translated into money by a formula that varies by region, by sickness fund and, to respect the annual cap, by the number of procedures billed. Private insurers must use the same relative point values, but generally have fee scales that are about twice those of the sickness funds.

The hospital system is dominated by public hospitals (half the beds) and private non-profit hospitals (1/3 of the beds). The rest are private for-profit hospitals, often owned by physicians. Physicians in public and non-profit hospitals, including most specialists, are paid on salary. Hospital doctors rarely see patients on an out-patient basis, and ambulatory-care doctors rarely have hospital admitting rights. The operating costs of hospitals are paid mostly from the sickness funds and private insurers, while capital expenditures are paid mainly by *Länder* governments, even in for-profit hospitals. As is the case with ambulatory physicians, the sickness funds negotiate an annual lump-sum payment with the hospitals, except that hospitals carry losses or surpluses from one year to the next.

France

Virtually everyone is covered by a statutory health-insurance scheme, which is part of the public social security system. One sickness fund covers most employees and their dependents, or about 4/5 of the population. Several smaller funds cover the self-employed, farmers and some special groups of workers (miners, for example); these funds also cover retirees. There is also a programme to cover those with no labour force attachment, or about 5 per cent of the population. The sickness funds are quasi-autonomous non-governmental bodies which are managed by employer associations and trade unions, but are subject to close central government regulation, particularly with regard to payroll tax rates and fee schedules. Since the sickness funds require co-payments averaging about 20 per cent and some physicians are allowed to charge patients in excess of the fee schedule, there is a market for supplementary insurance which is provided by several thousand "mutuelles". Although about 4/5 of the population is covered by supplementary insurance, the market is relatively small: the sickness funds account for over 70 per cent of medical care expenditures and the mutuelles only 6 per cent.

The sickness funds are funded by payroll taxes on employment income (called "contributions"). The tax rates for the large employee sickness fund were 12.6 per cent for the employer and 6.8 per cent for the employee in 1991. The self-employed pay the entire tax on their declared income and pensioners pay a 1 per cent tax on their pension income. Sickness funds cover medical and pharmaceutical expenditures according to national schedules. There are substantial co-payments for physicians and drugs – 25 and between 30 and 60 per cent of the schedules – but low co-payments for hospital care. The mutuelles sell insurance based on actuarial risk and benefits.

About 2/3 of physicians are paid on a fee-for-service basis by their patients, who are then (partially) reimbursed by their sickness funds and mutuelles. Almost all of these physicians are members of the statutory scheme, but there are two types of membership: a doctor can charge no more than the fee schedule and receives a pension and national

health insurance for free; or, a doctor can charge more than the schedule but must pay for the pension and insurance. About ¼ of physicians have opted for the second type of membership, mainly specialists and those practising in large cities. The fee schedule, which is set by the national government, comprises a relative value scale of some 4 000 procedures. Apart from this schedule, however, neither the government nor the sickness funds have much control over fee-for-service physicians' incomes. The other ⅓ of physicians are salaried employees of the government, who work mainly in public hospitals.

Public hospitals account for about ⅔ of beds and are staffed largely by full-time and part-time salaried physicians. Private, for-profit hospitals and clinics account for the remainder of the beds, and these are staffed by fee-for-service physicians. Public hospitals tend to be large, general facilities, while private hospitals tend to be small and to specialise in services such as obstetrics, certain types of elective surgery and long-term care. As is the case with physicians, the hospital is paid by the patient, who is then reimbursed, although it is customary for the sickness funds to meet in-patient expenses directly (except perhaps for small co-payments).

United Kingdom

The health-care system has recently undergone a transformation as the result of reforms introduced from 1989 to 1991. These reforms are generally designed to increase the responsiveness of the system by introducing a form of managed competition, especially in the hospital sector.

Everyone is eligible to receive mostly free medical care through the National Health Service (NHS), which accounts for about 88 per cent of total health expenditures. Patients register with a general practitioner (GP), who provides primary care and referrals to specialists. Until recently, the choice was officially unrestricted but, in practice, it was often difficult to change one's GP. One result of the recent reforms is that the district health authorities are to provide service through contracts with doctors and hospitals, which may lead to restrictions on choice. In addition to the NHS, there is a small, but growing, private-care sector, which generally features less queuing for elective procedures. About 1/10 of the population is covered by private insurance, which typically restricts coverage to acute, non-emergency hospital care and specialist physician services.

General tax revenues provide about 80 per cent of NHS funding, a payroll tax ("national insurance contribution") another 15 per cent, and various charges the remaining 5 per cent. Private expenditure, accounting for the 12 per cent of total health expenditure not covered by the NHS, pays mostly for direct purchases (of drugs, for example), with about ⅓ of it going to private health insurance. Private insurance is sold mainly by competing non-profit insurers, typically requires deductibles or co-payments and has premiums based on assessed risk. Private insurers can refuse coverage or refuse to cover pre-existing medical conditions.

Just over ⅓ of physicians are GPs, who work as independent contractors to the NHS. Just under half their income is in the form of a lump sum, or capitation, for each patient registered in a practice (the capitation varies with the age of the patient). Fees for some services (for instance, immunisation) and an allowance for actual practice expenses (such

as office rent) and other allowances account for the rest of GPs' incomes. It is common for GPs to form group practices, in order to share secretarial services, for example. Average payments to all GPs are set by the government based on the recommendation of an independent body. If physicians provide services in excess of what is forecast, fees and allowances are reduced to compensate. However, if their costs rise, fees and allowances are raised to cover actual costs. Physicians on hospital staffs are salaried (but many also work in private practice) and those in the private sector bill on a fee-for-service basis.

Before April 1991, hospitals were run by district health authorities and received global lump-sum budgets, set ultimately by the central government. The reforms separated the function of payer of hospital services from that of provider. The district health authorities remain as the major payer, although large group practices of GPs also have a role. They will receive a capitation payment from the government and will then contract with hospitals for the provision of services. Well-managed NHS hospitals are to have the option of becoming self-governing "trusts" and to compete with other institutions (private hospitals, for example) for contracts from district health authorities and GPs. It is hoped that the competition engendered by this arrangement will increase both the efficiency and responsiveness of hospital-care delivery, while the principle of capitation payments from the government contains overall costs.

Canada

Universal health insurance coverage is provided through provincial health care plans in which "enrolment" is automatic and free. The plans place no restrictions on which physicians or hospitals a person may use, although procedures done outside the province may not be fully reimbursed, if the costs exceed the fee schedules of the patient's home province. In return for partial federal funding, provinces must agree to certain terms in the provision of health care funding, such as universal coverage, free access and a basket of minimum services. As the plans do not cover all procedures – dental services, prescription drugs and private hospital rooms, for example, are generally not covered – many people purchase supplementary insurance, often through their employer.

The public system is funded partly from provincial general revenues or payroll taxes and partly from federal general revenues. There are no deductibles, co-payments or co-insurance for physician or hospital services covered by the provincial plans, although private insurance policies may have these features. Physicians who have joined the provincial plans bill them directly, and cannot bill any additional amount to patients.

Physicians are paid on a fee-for-service basis, and for procedures covered by the government plan, exclusively by the provincial government. Although physicians are not required to join the government plan, anyone who "opts out" cannot bill any procedures through the plan; therefore, very few have opted out. Thus, for the bulk of medical procedures, there is only one payer. The fee schedule is set by the provincial government, in practice with the participation of physician groups. Some provincial governments set a total annual budget as well, implying that increases in the number of procedures, for instance, must be offset by a reductions in the average payment per procedure.

Hospitals are almost entirely either public (including those attached to universities, which are themselves public) or non-profit community facilities. They receive about 4/5 of their budgets from provincial governments, largely in the form of lump-sum grants. Other sources of funds are charitable donations, fees charged for private rooms and miscellaneous fees (such as parking fees); deductibles and co-payments are not permitted. The provincial governments attempt to shape the hospital system by controlling the number of beds funded and capital expenditure (for example, the construction of a cardiac unit). However, hospital administrators are generally responsible for allocating the provincial lump sum grants within the hospital.

Statistical Annex.—The following set of tables is a selection drawn from a forthcoming OECD publication which deals with health-care systems in OECD countries (OECD health systems: facts and trends, January 1993).

Table 1 FEMALE LIFE EXPECTANCY AT AGE 60

(in years)

	1960	1965	1970	1975	1980	1985	1986	1987	1988	1989	1990
Australia	19.5	..	19.5	20.8	21.9	22.4	22.6	22.8	22.8	22.8	23.1
Austria	18.6	18.7	18.8	19.6	20.3	21.0	21.3	21.6	21.9	22.0	22.3
Belgium	18.7	..	19.2	..	20.9	..	22.0	22.0	22.5	22.5	22.5
Canada	..	..	..	..	..	..	23.2	..	..	..	..
Denmark	19.1	..	20.7	21.1	21.7	21.6	21.6	21.7	21.7	21.8	21.7
Finland	17.5	..	..	19.7	20.7	21.3	21.6	21.7	21.7	21.9	21.9
France	19.5	20.1	20.8	21.3	22.4	23.0	23.2	23.7	23.9	24.0	..
Germany	18.5	19.0	19.1	19.7	20.7	21.6	21.7	21.9	..	22.2	..
Greece	18.6	..	19.3	..	20.6	21.2	..	..	..	..	..
Iceland	20.4	..	..	..	23.0	22.9	23.2	23.3	22.8	22.9	..
Ireland	18.3	..	18.5	..	18.8	..	20.1	..	..	20.0	..
Italy	..	..	..	20.3	21.2	21.9	22.0	22.4	22.7	22.9	..
Japan	17.8	18.4	19.3	20.7	21.9	23.2	23.6	24.0	23.9	24.3	24.4
Luxembourg	18.3	..	19.0	..	19.8	..	21.3	..	..	..	..
Netherlands	19.9	..	20.7	..	22.5	..	23.3	23.6	23.4	23.4	..
New Zealand	19.5	19.4	19.8	20.3	20.8	21.5	21.3	21.6	21.7	21.9	..
Norway	20.1	..	21.1	..	22.1	22.7	22.9	22.7	22.7	22.9	..
Portugal	18.6	..	18.8	..	..	21.1	..	21.2	21.7	22.0	..
Spain	19.0	..	19.9	20.5	22.1	22.7	..	..	..	..	..
Sweden	19.3	20.1	20.9	21.4	22.1	22.7	22.9	23.1	22.9	23.4	23.3
Switzerland	19.2	..	20.4	21.5	22.3	23.2	23.3	23.5	23.7	23.9	23.9
Turkey	15.9	16.3	16.6	17.0	17.3	17.6	..	..	..	..	18.1
United Kingdom	19.3	..	19.9	..	20.5	21.0	21.2	21.2	21.6	21.7	..
United States	19.5	20.0	20.7	21.9	22.2	22.4	22.5	22.5	22.5	22.7	..

Table 2 MALE LIFE EXPECTANCY AT AGE 60

(in years)

	1960	1965	1970	1975	1980	1985	1986	1987	1988	1989	1990
Australia	15.6	..	15.0	16.3	17.1	17.9	18.2	18.3	18.4	18.3	18.8
Austria	15.0	14.9	14.8	15.6	16.3	17.0	17.4	17.6	17.9	17.9	18.1
Belgium	15.4	..	15.2	..	16.3	..	17.3	17.3	17.6	17.6	17.6
Canada	..	..	..	..	..	..	18.4	..	..	..	..
Denmark	17.2	..	17.3	17.1	17.2	17.2	17.3	17.4	17.5	17.6	17.5
Finland	14.4	..	..	15.0	15.6	16.1	16.7	16.7	16.9	17.1	17.1
France	15.6	15.8	16.2	16.5	17.3	17.9	18.0	18.4	18.7	18.8	..
Germany	15.5	15.5	15.3	15.6	16.4	17.1	17.3	17.5	..	17.8	..
Greece	16.9	..	17.5	..	18.2	18.2	..	..	..	..	..
Iceland	18.6	..	..	..	19.4	19.5	19.7	19.9	19.4	19.5	..
Ireland	16.3	..	15.4	..	15.5	..	16.0	..	..	16.0	..
Italy	..	..	..	16.3	16.8	17.4	17.5	17.9	18.1	18.3	..
Japan	14.8	15.2	15.9	17.4	18.3	19.3	19.7	19.9	19.8	20.0	20.0
Luxembourg	15.9	..	14.7	..	15.1	..	16.4	..	..	..	..
Netherlands	17.8	..	16.9	..	17.4	..	18.0	18.3	18.1	18.3	..
New Zealand	16.3	15.6	15.6	16.1	16.5	17.1	17.2	17.4	17.5	17.8	..
Norway	18.0	..	17.3	..	17.7	17.9	18.0	17.9	18.2	18.3	..
Portugal	15.9	..	15.7	..	..	17.3	..	17.4	17.8	18.0	..
Spain	16.5	..	16.7	17.1	18.4	18.7	..	..	..	..	..
Sweden	17.3	17.5	17.8	17.6	17.9	18.3	18.5	18.7	18.6	19.2	19.1
Switzerland	16.2	..	16.7	17.4	17.9	18.5	18.6	18.8	19.0	19.1	19.1
Turkey	14.7	14.8	15.0	15.2	15.4	15.5	..	..	..	..	15.8
United Kingdom	15.3	..	15.2	..	15.9	16.6	16.8	16.8	17.3	17.4	..
United States	15.8	15.8	16.1	16.8	17.4	17.9	18.0	18.2	18.2	18.6	..

Table 3 INFANT MORTALITY

(in % of live births)

	1960	1965	1970	1975	1980	1985	1986	1987	1988	1989	1990
Australia	2.01	1.85	1.79	1.43	1.07	1.00	0.88	0.87	0.87	0.80	0.82
Austria	3.75	2.83	2.59	2.05	1.43	1.12	1.03	0.98	0.81	0.83	0.78
Belgium	3.12	2.37	2.11	1.61	1.21	0.94	0.97	0.97	0.94	0.86	0.79
Canada	2.73	2.36	1.88	1.43	1.04	0.80	0.79	0.73	0.72	0.71	0.68
Denmark	2.15	1.87	1.42	1.04	0.84	0.78	0.82	0.83	0.75	0.76	0.75
Finland	2.10	1.76	1.32	1.00	0.76	0.63	0.58	0.61	0.61	0.61	0.56
France	2.74	2.19	1.82	1.36	1.01	0.81	0.80	0.76	0.77	0.75	0.72
Germany	3.38	2.38	2.34	1.97	1.27	0.89	0.87	0.83	0.76	0.75	..
Greece	4.01	3.43	2.96	2.40	1.79	1.41	1.22	1.17	1.10	0.91	..
Iceland	1.30	1.50	1.32	1.25	0.77	0.57	0.54	0.72	0.62	0.53	0.59
Ireland	2.93	2.53	1.95	1.75	1.11	0.89	0.87	0.74	0.86	0.76	..
Italy	4.39	3.60	2.96	2.12	1.46	1.05	1.02	0.98	0.93	0.86	0.82
Japan	3.07	1.85	1.31	1.00	0.75	0.55	0.52	0.50	0.48	0.46	0.46
Luxembourg	3.15	2.40	2.49	1.48	1.15	0.90	0.80	0.93	0.90	0.99	0.74
Netherlands	1.79	1.44	1.27	1.06	0.86	0.80	0.78	0.76	0.68	0.68	0.71
New Zealand	2.26	1.96	1.68	1.59	1.29	1.08	1.12	1.00	1.08	1.02	0.83
Norway	1.89	1.68	1.27	1.11	0.81	0.85	0.79	0.84	0.83	0.79	0.70
Portugal	7.75	6.49	5.51	3.89	2.43	1.78	1.58	1.42	1.30	1.22	1.10
Spain	4.37	3.59	2.63	1.88	1.23	0.89	0.92	0.89	0.81	0.78	..
Sweden	1.66	1.33	1.10	0.86	0.69	0.68	0.59	0.61	0.58	0.57	0.60
Switzerland	2.11	1.78	1.51	1.07	0.91	0.69	0.68	0.68	0.68	0.73	..
Turkey	19.74	17.43	15.10	12.86	9.53	7.53	7.18	6.84	6.52	6.22	5.93
United Kingdom	2.25	1.96	1.85	1.60	1.21	0.84	0.93	0.91	0.90	0.84	0.79
United States	2.60	2.47	2.00	1.61	1.26	1.06	1.04	1.01	1.00	0.98	0.91

Table 4 LOW WEIGHT BIRTHS
(% of neonates weighting less than 2 500 grammes)

	1960	1965	1970	1975	1980	1985	1986	1987	1988	1989	1990
Australia	..	..	..	..	..	5.60	5.50	5.60	5.70	5.50	..
Austria	6.10	5.90	6.20	5.90	5.68	5.80	5.60	5.70	5.50	5.70	5.60
Belgium	..	..	..	..	..	..	..	..	..	6.03	6.06
Canada	..	7.60	7.80	6.60	6.00	5.70	5.60	5.50	5.60	5.50	5.40
Denmark	..	..	..	..	5.40	5.90	4.80	5.40	5.60	5.50	..
Finland	5.30	5.50	5.10	4.50	3.90	4.10	4.00	3.80	3.80	4.00	4.00
France	..	..	..	..	..	..	..	..	..	..	..
Germany	..	..	..	6.31	5.77	5.93	6.02	6.07	5.92	..	..
Greece	..	..	..	..	..	..	..	..	..	..	..
Iceland	..	..	..	2.89	3.20	3.79	2.99	3.50	2.97	2.96	2.99
Ireland	..	..	..	..	..	4.45	4.48	4.50	4.71	..	..
Italy	..	..	..	..	5.56	5.60	5.66	5.67	5.61	..	..
Japan	7.07	..	5.67	5.10	5.18	5.46	5.57	5.65	5.77	6.06	6.33
Luxembourg	..	..	..	..	..	..	..	..	..	..	..
Netherlands	..	..	..	..	..	..	..	..	..	..	..
New Zealand	..	..	..	..	5.27	..	..	..	..	..	..
Norway	..	..	..	..	4.00	..	..	4.54	4.49	4.60	4.62
Portugal	..	..	..	..	4.60	5.30	5.40	5.30	5.20	5.40	..
Spain	..	..	..	..	..	4.37	5.21	5.12	4.90	..	..
Sweden	5.10	4.80	4.30	4.70	4.20	4.80	4.70	4.70	4.80	4.30	4.50
Switzerland	..	..	..	..	5.40	..	5.40	5.10	5.60	5.50	..
Turkey	..	..	..	..	..	..	..	..	..	..	..
United Kingdom	..	..	..	..	..	6.65	7.01	6.64	6.51	6.41	6.40
United States	..	..	7.94	7.39	6.84	6.75	6.81	6.90	6.93	7.05	..

Table 5 PRICES AND VOLUME IN HEALTH EXPENDITURE GROWTH, 1980-1990

(Average Annual Rates of Increase, 1980-1990)

	Share of total expenditure on health in TDE 1980	Nominal health expenditure growth	Health price deflator	Total Domestic Expenditure price deflator	Medical specific price increases	Health care volume growth	Population growth	Per capita health benefits growth	Share of total expenditure on health in TDE 1990
Australia	7.1	11.7	8.0	7.6	0.3	3.5	1.5	1.9	8.2
Austria	7.7	6.7	5.1	3.7	1.4	1.5	0.2	1.3	8.5
Belgium	6.5	7.6	4.9	4.4	0.5	2.7	0.1	2.5	7.7
Canada	7.5	10.5	6.9	5.1	1.7	3.4	1.0	2.3	9.3
Denmark	6.7	7.2	6.1	6.0	0.1	1.1	0.0	1.0	6.6
Finland	6.4	12.6	8.8	7.0	1.7	3.5	0.4	3.1	7.8
France	7.5	10.4	5.2	6.0	-0.8	5.0	0.5	4.5	8.8
Germany	8.4	4.6	3.3	2.6	0.6	1.3	0.2	1.1	8.6
Greece	4.0	22.7	16.9	18.4	-1.2	4.9	0.5	4.4	4.8
Iceland	6.5	40.1	32.9	32.3	0.4	5.4	1.2	4.2	8.7
Ireland	8.1	7.7	9.1	7.0	2.0	-1.3	0.3	-1.6	7.7
Italy	6.6	14.2	10.7	10.0	0.6	3.2	0.2	3.0	7.7
Japan	6.5	6.0	2.4	1.5	0.9	3.6	0.6	3.0	6.7
Luxembourg	6.8	8.7	5.4	4.8	0.7	3.2	0.5	2.6	7.2
Netherlands	8.0	4.4	2.5	2.1	0.4	1.8	0.5	1.3	8.6
New Zealand	7.2	12.3	11.5	9.7	1.7	0.6	0.7	-0.1	7.3
Norway	7.1	10.0	7.1	7.2	-0.2	2.8	0.4	2.4	8.0
Portugal	5.1	22.6	17.5	15.4	1.8	4.3	0.5	3.7	6.1
Spain	5.4	14.4	9.3	8.9	0.4	4.6	0.4	4.2	6.4
Sweden	9.2	8.8	7.1	7.6	-0.5	1.7	0.3	1.4	8.6
Switzerland	7.0	7.0	4.4	3.2	1.2	2.5	0.6	1.9	7.8
Turkey	3.7	51.7	47.9	43.2	3.2	2.6	2.5	0.1	3.8
United Kingdom	5.9	9.8	7.6	6.1	1.4	2.1	0.2	1.9	6.1
United States	9.3	10.3	6.9	4.3	2.5	3.1	1.0	2.1	12.2
EUROPE	6.8	12.2	9.1	8.5	0.6	2.8	0.4	2.4	7.5
OECD TOTAL	7.0	11.8	8.7	7.9	0.8	2.8	0.5	2.3	7.8

Notes:

Medical specific inflation is defined as the excess of health care price increases over those on all goods and services.

A few 1990 ratios and 1980-90 rates are projections of a likely outcome.

The underlying statistical series are consistent for the full decade but unobserved discontinuities cannot be precluded.

The European and OECD averages are arithmetic. Both exclude Turkey.

Table 6 TRENDS IN MEDICAL INFLATION AND MEDICAL BENEFITS, 1960-1990
(Annual rates of increase in %)

	Medical Specific Inflation			Real Health Benefits per capita		
	1960-70	1970-80	1980-90	1960-70	1970-80	1980-90
Australia	3.2	0.0	0.3	2.6	4.4	1.9
Austria	3.1	2.4	1.4	2.6	4.5	1.3
Belgium	1.5	0.0	0.5	4.6	7.9	2.5
Canada	1.4	0.3	1.7	4.7	3.8	2.3
Denmark	0.8	-1.3	0.1	8.5	3.8	1.0
Finland	-1.8	-0.9	1.7	10.9	5.0	3.1
France	0.1	-1.5	-0.8	7.6	6.6	4.5
Germany	0.9	1.0	0.6	4.4	5.7	1.1
Greece	-0.6	0.1	-1.2	10.5	4.0	4.4
Iceland	1.4	2.0	0.4	6.9	5.5	4.2
Ireland	-0.6	-0.8	2.0	8.3	9.0	-1.6
Italy	1.0	-0.5	0.6	7.8	6.1	3.0
Japan	1.1	-1.1	0.9	12.5	7.7	3.0
Luxembourg	..	-0.7	0.5	..	6.8	2.8
Netherlands	1.3	3.2	0.4	7.0	1.4	1.3
New Zealand	-0.1	2.7	1.7	3.7	1.3	-0.1
Norway	3.2	0.7	-0.2	5.0	6.3	2.4
Portugal	..	0.9	1.8	..	8.6	4.3
Spain	1.1	-0.1	0.4	14.9	6.7	4.2
Sweden	-0.6	-0.8	-0.5	8.9	4.4	1.4
Switzerland	1.6	2.5	1.2	6.5	2.1	1.8
Turkey	..	..	3.2	..	..	0.1
United Kingdom	-0.8	-0.6	1.4	4.6	4.9	1.9
United States	0.8	0.1	2.5	5.2	3.8	2.1
EUROPE	0.7	0.4	0.6	7.5	5.5	2.4
OECD TOTAL	0.9	0.4	0.8	7.0	5.2	2.3

Notes:
Medical specific inflation is defined as the excess of health care price increases over those on all goods and services.
A few 1980-90 rates are projections of a likely outcome.
A few 1960-70 and 1970-80 rates may oversate trends because of discontinuities in the underlying time series.
The European and OECD averages are arithmetic. Both exclude Turkey and, in 1960-70, Luxembourg and Portugal.

Table 7 THE STRUCTURE OF EXPENDITURE ON HEALTH

(Share of the major functions in total expenditure, in %)

	1960			1970			1980			1990		
	HOSP	AMBUL	PHARM	HOSP	AMBUL	PHARM	HOSP	AMBUL	PHARM	HOSP	AMBUL	PHARM
Australia	..	..	..	29.1	..	..	52.9	22.3	7.9	48.1	25.5	8.8
Austria	23.8	24.8	17.2	28.8	23.9	16.2	28.3	20.2	12.0	29.2	21.2	11.3
Belgium	38.4	41.3	24.3	25.7	42.5	28.1	32.9	38.9	17.3	33.2	40.6	17.1
Canada	43.6	23.9	12.9	52.2	22.4	11.2	52.6	22.1	8.9	48.9	22.3	13.3
Denmark	50.3	..	..	55.8	38.4	9.1	65.1	30.1	9.1	62.8	31.8	9.1
Finland	41.2	21.7	16.2	50.4	21.5	12.6	49.2	27.2	10.7	44.8	34.0	9.4
France	34.7	27.6	22.1	38.0	26.6	23.2	48.1	24.8	15.9	44.2	28.4	16.8
Germany	..	..	..	35.7	29.0	19.5	36.1	26.6	18.7	37.8	28.9	22.0
Greece	63.0	..	35.2	46.4	..	43.3	48.9	..	34.8	58.3	..	23.9
Iceland	33.3	..	..	47.8	..	17.4	62.1	17.0	15.9	56.7	22.5	15.3
Ireland	..	..	..	..	..	22.2	46.1	..	14.7	51.1	..	18.3
Italy	43.2	35.8	19.8	47.6	36.2	15.5	54.0	29.5	13.9	49.1	28.8	19.3
Japan	34.1	..	..	26.4	48.4	..	30.7	44.3	22.1	31.1	40.5	17.3
Luxembourg	..	..	..	..	22.4	19.7	31.3	49.5	14.5	27.7	52.1	15.6
Netherlands	..	30.9	9.5	55.1	..	7.5	57.3	27.7	7.9	51.8	26.9	9.9
New Zealand	52.4	..	..	55.7	..	..	55.3	..	..	56.3	16.5	9.8
Norway	38.1	..	..	68.2	..	7.8	73.8	21.3	10.0	72.3	23.8	10.4
Portugal	..	..	..	27.5	..	..	29.9	16.3	22.4	25.5	..	17.6
Spain	..	..	..	..	..	..	54.1	12.6	21.0	47.2	..	18.0
Sweden	..	..	..	59.7	..	..	68.5	..	6.5	51.3	..	8.2
Switzerland	44.6	..	..	41.7	..	19.1	42.6	45.5	15.2	43.2	..	12.4
Turkey	..	..	..	..	..	..	11.5	..	..	19.1	..	..
United Kingdom	44.5	..	..	49.0	..	..	56.1	..	11.2	44.0	..	10.7
United States	37.8	29.1	15.7	44.1	26.8	11.8	48.9	26.5	8.6	46.4	29.7	8.2

Notes:

Nearest year available when a ratio for the year indicated is not available.

The ratios are only orders of magnitude in the absence of internationally agreed-on definitions.

HOSP refers to in-patient care, AMBUL to all out-patient medical and paramedical services, PHARM to the purchase of medicines including OTC (over-the-counter or self-prescribed medicines).

Table 8 TOTAL EXPENDITURE ON HEALTH

(in $ millions using purchasing power parity exchange rates for GDP)

	1960	1970	1975	1980	1985	1986	1987	1988	1989	1990
Australia	1 048	2 795	6 439	10 246	16 054	17 387	18 346	19 501	20 617	22 316
Austria	488	1 284	2 946	5 403	7 600	8 035	8 515	9 156	9 916	10 685
Belgium	503	1 303	3 139	5 974	8 852	9 151	9 736	10 546	11 233	12 262
Canada	1 948	5 627	10 399	18 662	31 859	34 837	37 094	39 679	42 708	47 248
Denmark	320	1 114	1 837	3 167	4 266	4 309	4 685	5 032	5 209	5 417
Finland	267	790	1 509	2 577	4 256	4 528	4 874	5 186	5 667	6 406
France	3 429	10 922	21 571	39 653	61 290	64 309	67 796	73 505	80 186	86 895
Germany	5 431	13 855	29 985	52 695	73 589	76 879	79 909	88 038	86 937	93 795
Greece	136	535	970	1 850	2 842	3 251	3 231	3 352	3 781	4 077
Iceland	9	30	67	139	213	259	294	324	339	348
Ireland	106	304	785	1 620	2 095	2 107	2 156	2 226	2 305	2 628
Italy	2 574	8 684	16 433	33 873	47 611	49 463	55 636	61 446	66 255	71 278
Japan	2 500	13 844	29 964	63 038	97 100	102 984	113 076	122 414	133 833	144 683
Luxembourg	..	54	122	239	344	363	421	454	476	531
Netherlands	850	2 888	6 017	10 504	14 048	14 922	15 802	16 539	17 608	19 239
New Zealand	224	513	1 142	1 782	2 419	2 584	2 880	2 947	3 108	3 298
Norway	177	546	1 288	2 341	3 430	4 004	4 406	4 697	4 731	5 020
Portugal	..	408	1 447	2 458	3 906	3 933	4 369	4 928	5 436	5 474
Spain	438	2 950	7 035	12 792	17 839	18 612	20 561	23 495	26 674	30 275
Sweden	706	2 298	4 060	7 454	9 807	9 903	10 563	11 088	11 831	12 425
Switzerland	513	1 737	3 434	5 606	8 099	8 456	8 952	9 672	10 393	11 101
Turkey	..	..	1 560	3 016	3 396	4 703	5 340	5 966	6 505	7 534
United Kingdom	4 130	8 512	16 072	26 849	39 312	42 228	45 559	49 023	52 026	55 929
United States	27 135	74 377	132 944	250 126	422 619	454 814	494 098	546 014	602 792	666 187

Table 9 PUBLIC EXPENDITURE ON HEALTH
(in $ millions using purchasing power parity exchange rates for GDP)

	1960	1970	1975	1980	1985	1986	1987	1988	1989	1990
Australia	499	1 584	4 691	6 440	11 481	12 268	12 821	13 499	14 193	15 274
Austria	339	809	2 052	3 718	5 073	5 443	5 715	6 092	6 617	7 170
Belgium	310	1 133	2 499	4 949	7 239	7 424	8 048	8 703	9 269	10 117
Canada	832	3 950	7 944	13 947	23 796	25 918	27 523	29 300	31 214	34 277
Denmark	284	961	1 688	2 699	3 602	3 684	3 948	4 208	4 332	4 488
Finland	136	583	1 186	2 037	3 346	3 590	3 876	4 116	4 531	5 185
France	1 981	8 160	16 654	31 237	47 155	49 097	51 776	54 875	60 212	64 673
Germany	3 589	9 638	23 147	39 544	54 148	56 044	58 865	64 617	63 741	68 687
Greece	87	286	584	1 521	2 302	2 623	2 571	2 768	2 877	3 100
Iceland	7	24	58	123	193	224	257	283	293	302
Ireland	81	248	621	1 331	1 621	1 610	1 609	1 617	1 683	1 965
Italy	2 139	7 499	14 146	27 485	36 719	37 530	43 176	47 822	50 865	54 125
Japan	1 511	9 665	21 586	44 618	70 536	75 334	82 118	88 598	95 311	104 095
Luxembourg	..	..	112	222	307	325	385	416	434	485
Netherlands	283	2 433	4 414	7 852	10 579	10 802	11 636	12 001	12 711	13 717
New Zealand	180	412	958	1 489	2 061	2 231	2 440	2 497	2 540	2 695
Norway	138	500	1 239	2 303	3 309	3 858	4 297	4 501	4 524	4 782
Portugal	48	241	853	1 780	2 200	2 273	2 525	2 849	3 142	3 375
Spain	257	1 928	5 443	10 223	14 432	14 698	16 105	19 284	21 569	24 368
Sweden	513	1 976	3 662	6 898	8 845	8 908	9 476	9 905	10 553	11 121
Switzerland	315	1 110	2 367	3 785	5 552	5 811	6 007	6 595	7 090	7 561
Turkey	..	286	764	823	1 705	1 965	2 114	2 278	2 385	2 681
United Kingdom	3 521	7 401	14 639	24 050	33 907	35 866	38 384	44 307	43 476	46 718
United States	6 658	27 674	55 145	105 159	174 768	190 228	208 364	227 140	252 555	282 620

Table 10 TOTAL EXPENDITURE ON IN-PATIENT CARE

(in $ millions using purchasing power parity exchange rates for GDP)

	1960	1970	1975	1980	1985	1986	1987	1988	1989	1990
Australia	..	812	3 147	5 424	7 964	8 714	9 094	9 576	9 908	..
Austria	116	370	743	1 531	2 231	2 327	2 507	2 713	2 931	3 116
Belgium	193	335	921	1 963	3 009	3 100	3 232	3 495	3 726	4 077
Canada	849	2 936	5 626	9 808	16 153	17 360	18 382	19 457	21 001	23 112
Denmark	161	622	1 149	2 063	2 755	2 784	2 986	3 129	3 222	3 402
Finland	110	398	732	1 267	1 958	2 066	2 168	2 308	2 544	2 872
France	1 189	4 152	9 046	19 056	28 904	29 680	31 059	32 774	35 603	38 389
Germany	..	4 947	11 356	19 004	26 984	28 114	29 358	31 184	32 106	35 426
Greece	86	249	433	905	1 498	1 603	1 695	1 838	2 205	..
Iceland	3	14	31	86	127	146	188	187	194	197
Ireland	..	..	..	..	..	..	..	..	..	..
Italy	1 113	4 133	8 437	18 295	24 583	25 235	27 594	30 149	32 665	34 994
Japan	853	3 648	9 094	19 336	32 690	34 670	37 262	39 183	41 575	..
Luxembourg	..	..	34	75	94	101	116	..	..	..
Netherlands	..	1 592	3 332	6 022	7 905	8 271	8 665	8 997	9 508	9 958
New Zealand	..	..	..	..	1 470	1 607	..	1 659	1 758	1 857
Norway	68	372	900	1 728	2 501	2 870	3 139	3 281	3 421	..
Portugal	..	..	..	..	..	..	..	..	..	..
Spain	..	..	2 422	6 915	9 931	10 020	11 043	11 587	12 595	..
Sweden	..	..	..	..	..	..	..	..	..	..
Switzerland	229	725	1 342	2 386	3 573	3 743	3 944	4 293	4 591	4 792
Turkey	..	..	..	..	..	..	1 913	..	..	..
United Kingdom	..	..	..	..	..	..	..	23 258	..	..
United States	10 255	32 799	62 335	122 388	202 391	216 520	233 904	254 807	280 256	309 156

Table 11 TOTAL EXPENDITURE ON AMBULATORY MEDICAL SERVICES

(in $ millions using purchasing power parity exchange rates for GDP)

	1960	1970	1975	1980	1985	1986	1987	1988	1989	1990
Australia	..	..	1 380	2 283	3 925	4 229	4 533	4 832	5 263	..
Austria	121	307	590	1 093	1 618	1 690	1 819	1 959	2 112	2 262
Belgium	208	554	1 188	2 327	3 572	3 738	4 028	4 306	4 593	4 983
Canada	467	1 262	2 253	4 131	7 157	7 849	8 460	8 968	9 562	10 516
Denmark	..	428	626	954	1 285	1 278	1 424	1 595	1 654	..
Finland	58	170	364	700	1 364	1 483	1 653	1 751	1 923	2 177
France	945	2 910	5 528	9 827	16 094	17 571	18 557	20 558	22 708	24 683
Germany	..	4 013	8 117	14 013	19 642	20 354	21 437	22 869	24 065	27 078
Greece	..	207	408	840	..	..	..	..	..	..
Iceland	..	..	22	24	43	51	60	67	74	78
Ireland	..	..	..	..	..	..	..	..	..	..
Italy	920	3 143	5 553	10 006	13 236	13 779	16 100	18 563	19 699	20 505
Japan	..	6 701	14 074	27 925	39 796	42 791	47 089	50 806	54 568	58 571
Luxembourg	..	12	30	118	177	191	219	..	..	..
Netherlands	263	..	1 677	2 905	3 789	4 004	4 293	4 495	4 785	5 181
New Zealand	..	..	..	..	..	434	..	..	514	..
Norway	..	..	..	498	814	966	1 034	1 030	1 044	1 196
Portugal	..	..	..	400	662	715	..	875	..	..
Spain	..	..	..	1 615	2 085	2 232	2 320	2 661	..	..
Sweden	..	..	..	..	..	..	..	..	..	..
Switzerland	..	..	1 537	2 551	3 642	3 833	3 966	4 231	..	..
Turkey	..	..	..	..	..	..	..	..	..	..
United Kingdom	..	..	..	..	..	..	..	..	..	..
United States	7 887	19 905	35 431	66 269	117 680	129 390	145 383	162 846	177 884	198 166

Table 12 TOTAL EXPENDITURE ON PHYSICIAN SERVICES
(in $ millions using purchasing power parity exchange rates for GDP)

	1960	1970	1975	1980	1985	1986	1987	1988	1989	1990
Australia	..	..	1 035	1 610	2 671	2 861	3 064	3 257	3 507	..
Austria	..	..	..	..	..	..	..	..	..	..
Belgium	..	..	..	..	..	..	..	..	..	..
Canada	323	937	1 633	2 834	4 993	5 492	5 942	6 247	6 598	7 201
Denmark	..	..	..	..	..	..	..	..	..	..
Finland	..	..	..	..	..	..	..	..	..	..
France	525	1 473	2 644	4 439	7 255	7 778	8 298	9 204	10 096	11 087
Germany	..	2 556	5 250	8 595	11 939	12 226	12 899	13 671	14 632	15 922
Greece	..	..	..	..	..	..	..	..	..	..
Iceland	..	..	..	..	..	..	..	..	..	..
Ireland	..	..	..	..	..	..	..	..	..	..
Italy	..	..	..	5 347	8 195	8 636	10 103	12 052	12 826	13 252
Japan	..	5 686	12 044	22 802	32 053	34 454	38 191	41 344	44 750	48 165
Luxembourg	..	..	..	..	..	..	..	..	..	..
Netherlands	..	..	771	1 183	1 512	1 600	1 723	1 812	1 925	2 076
New Zealand	..	..	..	..	..	..	409	452	454	..
Norway	..	71	124	236	360	418	440	450	..	..
Portugal	..	..	..	..	..	..	..	..	..	..
Spain	..	..	..	..	..	..	..	..	..	..
Sweden	..	..	..	..	..	..	..	..	..	..
Switzerland	..	..	676	1 099	1 604	1 657	1 746	1 849	..	..
Turkey	..	..	..	..	..	..	..	..	..	..
United Kingdom	..	..	..	..	..	..	..	..	..	..
United States	5 283	13 580	23 270	41 867	73 955	82 050	92 986	105 130	113 552	125 655

Table 13 TOTAL EXPENDITURE ON DENTAL SERVICES

(in $ millions using purchasing power parity exchange rates for GDP)

	1960	1970	1975	1980	1985	1986	1987	1988	1989	1990
Australia	..	..	241	431	760	821	873	938	981	..
Austria	..	..	..	..	..	..	..	..	..	..
Belgium	..	..	..	..	..	..	..	351	..	..
Canada	100	238	506	1 075	1 752	1 901	2 076	2 174	2 342	2 640
Denmark	..	..	..	..	..	..	..	286	..	..
Finland	15	43	94	155	255	272	291	312	338	374
France	248	719	1 325	2 579	3 742	4 095	4 327	4 647	5 039	5 425
Germany	..	1 383	3 961	7 411	9 090	8 956	8 897	10 977	10 197	10 641
Greece	..	..	..	..	..	..	..	..	..	..
Iceland	..	2	4	7	14	18	20	24	24	29
Ireland	..	..	..	..	..	..	..	113	..	..
Italy	..	..	..	..	..	..	..	..	..	..
Japan	..	1 015	2 030	5 123	7 743	8 337	8 898	9 461	9 817	10 406
Luxembourg	..	..	..	..	..	..	..	..	..	..
Netherlands	..	..	332	558	707	749	774	783	829	882
New Zealand	..	..	..	..	..	..	108	106	121	..
Norway	..	38	70	100	126	146	152	158	..	..
Portugal	..	..	..	..	..	..	..	..	..	..
Spain	..	..	..	..	..	..	..	..	..	..
Sweden	..	..	..	..	..	..	..	..	..	..
Switzerland	..	..	331	544	769	797	850	900	960	..
Turkey	..	..	..	..	..	..	..	..	..	..
United Kingdom	..	..	..	..	..	..	..	2 173	..	..
United States	1 963	4 669	8 249	14 360	23 253	24 741	27 124	29 424	31 585	33 985

Table 14 TOTAL EXPENDITURE ON PHARMACEUTICAL GOODS PURCHASED IN AMBULATORY CARE

(in $ millions using purchasing power parity exchange rates for GDP)
(including over-the-counter medicines)

	1960	1970	1975	1980	1985	1986	1987	1988	1989	1990
Australia	..	..	631	812	1 289	1 396	1 469	1 622	1 805	..
Austria	84	208	380	647	887	903	955	1 058	1 121	1 207
Belgium	122	366	687	1 031	1 388	1 469	1 588	1 787	1 877	2 100
Canada	251	628	925	1 666	3 335	3 862	4 297	4 819	5 454	6 304
Denmark	..	102	165	288	407	437	429	476	476	492
Finland	43	100	180	275	413	437	470	495	529	601
France	756	2 537	4 282	6 295	9 902	10 496	11 009	12 280	13 479	14 580
Germany	..	2 709	5 565	9 878	14 517	15 174	16 344	18 235	18 035	20 655
Greece	48	232	402	644	821	935	892	882	903	..
Iceland	..	5	11	22	37	41	43	46	50	53
Ireland	..	67	139	249	316	332	338	378	428	480
Italy	509	1 342	2 323	4 712	8 519	9 038	10 432	11 099	12 050	13 777
Japan	..	..	..	13 922	16 408	18 148	20 960	22 475	23 131	..
Luxembourg	..	11	20	35	51	55	64	70	76	83
Netherlands	81	217	560	825	1 262	1 391	1 538	1 620	1 711	1 911
New Zealand	..	..	..	..	349	386	419	417	393	324
Norway	..	43	82	235	349	399	427	476	493	522
Portugal	..	..	..	551	710	716	..	867	..	..
Spain	..	..	..	2 685	3 624	3 536	3 836	4 235	..	..
Sweden	..	..	322	485	700	731	807	788	986	1 024
Switzerland	..	332	464	850	1 126	1 227	1 128	1 193	1 266	1 376
Turkey	..	..	..	..	447	555	673	..	..	..
United Kingdom	..	..	1 795	2 998	4 284	4 575	4 970	5 337	5 563	..
United States	4 247	8 811	13 022	21 621	36 153	39 748	43 154	46 273	50 577	54 566

Table 15 PRICE INDICES FOR TOTAL MEDICAL CARE EXPENDITURE

1985=100

	1960	1965	1970	1975	1980	1985	1986	1987	1988	1989	1990
Australia	11.3	14.0	22.0	38.0	64.0	100.0	107.0	117.0	124.0	132.3	137.7
Austria	15.3	22.1	30.6	52.1	74.2	100.0	104.4	109.5	113.6	119.4	122.2
Belgium	22.0	29.2	35.7	54.3	73.3	100.0	105.0	107.7	109.4	112.4	117.8
Canada	19.1	21.8	29.7	42.6	66.0	100.0	104.9	109.2	117.0	122.5	128.7
Denmark	14.9	19.7	29.3	49.8	68.5	100.0	102.4	109.0	115.7	119.6	123.5
Finland	15.2	18.0	21.3	37.9	60.0	100.0	104.4	109.2	116.3	126.5	139.9
France	19.0	23.7	29.9	43.8	68.6	100.0	103.0	105.4	108.6	112.1	113.7
Germany	27.5	32.6	45.6	64.6	80.1	100.0	100.8	102.2	103.8	106.8	110.4
Greece	8.8	10.6	11.1	19.5	42.2	100.0	118.3	130.6	145.9	166.5	201.4
Iceland	0.2	0.4	0.7	2.5	15.3	100.0	125.7	155.6	192.9	222.4	262.2
Ireland	10.3	12.7	16.0	26.7	54.9	100.0	104.1	112.4	121.0	125.5	131.7
Italy	7.7	11.1	13.2	23.1	53.0	100.0	105.3	116.0	128.0	136.3	146.2
Japan	22.7	30.3	43.5	64.8	86.6	100.0	102.0	105.3	105.7	107.5	109.3
Luxembourg	..	17.5	37.9	57.0	74.0	100.0	105.8	110.4	112.7	122.7	124.9
Netherlands	15.4	19.8	29.0	59.7	86.6	100.0	101.6	102.1	104.0	105.4	110.9
New Zealand	..	..	13.2	..	57.8	100.0	123.8	147.4	159.7	165.2	172.4
Norway	13.5	20.2	28.1	44.6	68.3	100.0	108.0	119.0	123.1	128.5	135.1
Portugal	..	..	6.5	..	34.2	100.0	111.9	122.1	134.0	151.5	172.2
Spain	6.3	8.4	13.0	24.2	54.1	100.0	107.3	112.6	118.4	122.8	131.9
Sweden	16.8	19.4	24.3	39.9	69.8	100.0	103.8	110.4	117.5	127.2	138.0
Switzerland	21.0	27.5	37.0	64.5	77.3	100.0	104.3	108.5	112.7	115.0	119.0
Turkey	..	..	..	..	..	100.0	140.2	206.2	356.4	684.8	1 091.0
United Kingdom	14.3	25.7	19.7	33.8	69.2	100.0	105.3	114.0	124.7	132.5	144.0
United States	22.1	24.7	32.4	45.0	68.8	100.0	105.0	110.9	118.3	126.3	134.4

Table 16 COMPENSATION PER EMPLOYEE IN HEALTH SERVICES

(in $ millions using purchasing power parity exchange rates for GDP)

	1960	1970	1975	1980	1985	1986	1987	1988	1989	1990
Australia	..	..	..	..	..	..	..	..	..	..
Austria	..	..	..	..	..	..	..	..	..	..
Belgium	..	..	4 957	6 521	..	..	..	..	..	..
Canada	..	..	..	..	..	..	..	..	..	..
Denmark	..	..	..	14 982	18 654	..	..	..	..	..
Finland	2 452	4 595	6 864	9 695	13 847	14 451	14 875	15 390	16 308	17 988
France	..	..	..	..	..	..	..	..	..	..
Germany	..	3 507	6 068	9 546	13 665	14 147	14 295	14 591	15 056	15 558
Greece	..	3 582	5 418	10 912	15 120	15 086	15 395	15 834	17 051	..
Iceland	..	..	..	9 556	11 612	12 444	15 163	15 912	15 252	15 542
Ireland	..	..	..	..	..	..	..	..	..	..
Italy	2 887	8 060	10 933	16 430	22 105	22 636	25 271	27 466	28 655	31 503
Japan	..	..	..	..	..	..	..	..	..	..
Luxembourg	..	..	..	..	..	..	..	..	..	..
Netherlands	..	..	..	13 300	19 029	19 746	20 609	..	..	..
New Zealand	..	..	..	..	..	..	..	..	..	..
Norway	1 823	4 179	7 180	10 461	14 189	16 203	17 047	17 448	..	..
Portugal	..	..	..	..	11 127	11 189	12 109	13 634	14 973	..
Spain	..	..	..	12 667	24 602	24 254	24 955	..	..	..
Sweden	..	5 443	8 437	12 142	13 237	13 732	14 604	15 115	15 731	..
Switzerland	..	..	..	..	..	..	..	..	..	..
Turkey	..	..	..	..	..	..	..	..	..	..
United Kingdom	2 924	4 822	6 994	12 692	16 781	17 767	19 589	21 196	..	..
United States	3 277	6 520	9 919	15 438	21 886	22 849	24 822	26 299	27 721	29 610

Table 17 PHYSICIANS' AVERAGE INCOME

(in $ millions using purchasing power parity exchange rates for GDP)

(estimates based variously on tax returns, surveys or pay scales)

	1960	1970	1975	1980	1985	1986	1987	1988	1989	1990
Australia	12 562	23 371	38 070	38 101	44 324	43 551	..	..	..	..
Austria	..	..	..	..	..	..	..	..	..	..
Belgium	..	..	..	33 032	..	..	..	..	..	..
Canada	14 309	30 917	38 451	50 224	71 668	76 698	78 778	81 642	..	84 819
Denmark	..	..	..	34 543	36 535	39 224	42 049	46 961	..	..
Finland	8 036	14 822	14 982	21 705	29 337	31 001	31 777	32 723	33 178	37 947
France	..	16 215	24 471	32 052	42 471	43 372	45 169	47 695	50 231	53 405
Germany	..	..	..	76 926	..	88 394	..	..	..	..
Greece	..	..	..	..	..	..	..	..	..	..
Iceland	..	..	..	..	..	..	..	..	..	..
Ireland	..	..	..	14 752	18 472	18 229	19 029	19 543	..	..
Italy	2 916	8 162	10 960	16 396	..	..	..	..	..	..
Japan	2 556	8 363	15 041	27 142	..	44 060	..	..	45 138	45 021
Luxembourg	..	..	..	..	..	..	..	..	..	..
Netherlands	..	..	..	..	..	..	..	..	..	..
New Zealand	12 385	21 601	38 188	37 071	46 972	44 216	45 742	44 832	45 567	..
Norway	..	..	..	17 504	24 754	25 802	25 256	28 000	..	..
Portugal	..	..	..	..	..	..	..	..	..	..
Spain	..	..	..	..	..	..	..	..	..	..
Sweden	..	20 271	20 521	25 813	25 628	26 705	28 042	34 323	38 652	39 991
Switzerland	..	34 112	58 247	78 967	95 037	97 580	102 888	109 250	118 296	..
Turkey	..	..	..	658	649	700	778	1 016	1 319	1 273
United Kingdom	..	..	21 222	30 193	39 297	41 768	44 277	46 166	48 553	51 118
United States	..	41 100	55 300	..	112 200	119 500	132 300	144 700	155 800	..

78-788 O - 94 - 6

Table 18 TOTAL EMPLOYMENT IN HEALTH SERVICES

(persons or man-years - mid-year estimates unless noted in sources)

	1960	1970	1980	1985	1986	1987	1988	1989	1990
Australia	128 000	..	411 000	467 000	487 000	512 000	514 000	525 000	527 000
Austria	..	..	..	..	..	..	..	..	..
Belgium	..	91 200	158 800	..	..	..	..	..	..
Canada	..	..	456 000	573 000	557 000	600 000	606 000	658 000	666 000
Denmark	58 100	85 660	117 600	..	..	..	120 430	..	..
Finland	46 000	80 000	126 000	154 000	162 000	159 000	160 000	164 000	163 000
France	..	..	..	..	1 445 931	1 451 630	..	..	..
Germany	..	774 000	1 210 000	1 412 000	1 419 000	1 473 000	1 471 000	1 537 000	..
Greece	..	44 000	67 000	97 000	103 000	109 000	114 000	120 000	..
Iceland	..	3 284	6 094	7 395	7 920	8 189	8 173	8 362	8 595
Ireland	..	..	55 600	..	62 000	58 000	56 300	55 977	..
Italy	173 025	313 109	850 600	943 800	951 000	955 300	972 500	989 700	1 005 400
Japan	..	765 000	..	..	..	1 450 000	..	..	1 587 000
Luxembourg	..	..	..	..	..	..	..	..	..
Netherlands	..	20 500	306 000	327 000	335 000	319 000	321 000	324 000	330 000
New Zealand	..	..	73 000	..	81 000	..	..	..	..
Norway	43 700	69 000	155 500	176 300	181 500	190 500	189 100	188 400	..
Portugal	27 200	58 000	86 000	102 000	103 000	101 000	103 000	107 000	108 956
Spain	..	..	304 000	350 000	..	..	380 400	..	442 000
Sweden	..	242 200	420 000	473 000	441 375	442 874	455 783	455 378	452 689
Switzerland	..	87 730	140 030	..	..	..	..	..	..
Turkey	20 083	50 170	100 320	115 700	121 981	126 752	151 107	162 089	173 891
United Kingdom	..	764 708	1 200 907	1 252 662	1 245 188	1 242 731	1 258 750	1 258 740	1 226 000
United States	1 763 000	2 878 000	5 119 000	6 142 000	6 350 000	6 645 000	6 774 000	7 122 000	..

Table 19 PRACTISING PHYSICIANS

(per 1000 inhabitants- mid-year estimates unless noted in sources)

	1960	1965	1970	1975	1980	1985	1986	1987	1988	1989	1990
Australia	1.03	1.12	..	..	..	..	2.05	..	..	..	..
Austria	1.36	1.39	1.36	1.43	1.59	1.84	1.88	1.92	1.99	2.07	2.13
Belgium	1.28	1.46	..	1.89	2.49	3.04	3.14	3.21	3.30	3.37	3.43
Canada	..	1.29	1.46	1.72	1.84	2.06	2.10	2.16	2.21	2.24	2.23
Denmark	1.23	1.36	1.46	1.86	2.17	2.54	2.57	2.56	2.67	..	2.78
Finland	0.57	0.69	0.94	1.30	1.74	2.08	2.15	2.21	2.27	2.38	2.42
France	0.98	1.13	1.28	1.54	2.01	2.32	2.38	2.49	2.56	2.62	2.68
Germany	1.43	1.46	1.64	1.92	2.26	2.64	2.70	2.81	2.88	3.03	..
Greece	1.25	1.41	1.62	2.04	2.43	2.93	3.06	3.33	3.21	3.30	..
Iceland	1.17	1.24	1.43	1.83	2.14	2.59	2.60	2.70	2.70	2.83	..
Ireland	..	..	..	1.18	1.31	1.63	1.60	1.46	1.48	..	..
Italy	0.53	0.65	0.78	1.02	1.20	1.21	1.23	1.26	1.32	1.33	..
Japan	1.03	1.04	1.09	1.13	1.27	..	1.51	..	1.58	..	1.65
Luxembourg	1.01	1.02	1.13	1.26	1.70	1.81	1.85	1.79	1.89	1.97	2.01
Netherlands	1.12	1.17	1.25	1.60	1.91	2.22	2.29	2.36	2.43	2.43	2.51
New Zealand	1.08	..	..	..	1.55	1.70	1.75	1.84	1.86	1.88	..
Norway	1.19	1.26	1.38	1.72	1.97	2.21	2.27	2.50	..	..	3.12
Portugal	0.84	0.92	0.97	1.27	1.97	2.55	2.59	2.67	2.72	2.79	2.84
Spain	1.17	1.24	1.34	1.54	2.31	3.31	3.40	3.50	3.58	3.70	3.82
Sweden	0.95	1.10	1.31	1.72	2.20	2.59	2.77	2.85	2.84	2.85	2.87
Switzerland	1.36	1.33	1.44	1.81	2.36	2.72	2.79	2.82	2.89	2.89	2.95
Turkey	0.30	0.35	0.39	0.54	0.61	0.72	0.72	0.74	0.79	0.85	0.89
United Kingdom	..	..	..	..	1.22	1.32	1.33	1.34	1.37	1.40	1.41
United States	1.36	1.50	1.52	1.71	1.94	2.16	2.18	2.22	2.25	2.25	2.32

Table 20 GENERAL PRACTITIONERS

(general and family practice, office based - per 1000 inhabitants)

	1960	1965	1970	1975	1980	1985	1986	1987	1988	1989	1990
Australia	..	..	..	..	..	..	1.49	..	..	..	..
Austria	..	..	..	..	..	..	..	..	..	..	..
Belgium	..	..	..	..	..	..	..	..	..	..	..
Canada	..	..	..	..	0.78	0.91	0.93	0.97	1.01	1.03	1.03
Denmark	..	..	..	..	0.56	..	0.65	..	0.65	..	0.68
Finland	..	..	..	..	..	1.05	1.06	1.08	1.09	1.13	1.11
France	..	..	..	..	..	..	0.98	1.00	1.01	1.03	1.04
Germany	0.85	..	0.95	1.05	1.22	1.16	1.20	1.26	1.30	1.27	..
Greece	..	..	..	..	..	..	..	..	..	..	..
Iceland	..	..	..	..	..	..	..	..	..	..	..
Ireland	..	..	..	..	..	..	..	..	..	..	..
Italy	..	..	..	..	..	..	..	..	..	..	..
Japan	..	..	..	..	..	..	..	..	..	..	..
Luxembourg	..	..	..	..	..	..	..	..	..	..	..
Netherlands	0.38	0.36	0.34	0.35	0.40	0.49	0.51	0.52	0.53	0.53	0.53
New Zealand	..	..	..	..	..	..	..	..	..	..	..
Norway	..	..	..	..	..	..	0.66	..	..	..	..
Portugal	..	..	..	..	..	..	..	0.61	0.64	0.63	0.64
Spain	..	..	..	..	..	..	..	..	..	..	..
Sweden	..	..	..	..	..	..	..	0.29	..	..	..
Switzerland	..	..	..	..	..	..	..	..	..	..	..
Turkey	..	0.14	0.16	0.22	0.24	0.31	0.32	0.33	0.37	..	..
United Kingdom	..	..	..	0.48	0.52	0.57	0.58	..	0.58	0.58	..
United States	..	..	0.24	0.21	0.20	0.22	0.21	0.22	..	0.22	..

In some countries, paediatricians are considered to be the general practicioner of the child and gynaecologists the G.P. of women.

Table 21 AVERAGE LENGTH OF STAY IN IN-PATIENT CARE INSTITUTIONS

(average patient days per admission)

	1960	1965	1970	1975	1980	1985	1986	1987	1988	1989	1990
Australia	..	..	..	..	..	15.0	..	13.9	..	12.9	..
Austria	24.8	24.0	22.2	20.4	17.9	14.1	13.7	13.4	12.9	12.4	11.9
Belgium	..	..	..	..	19.5	16.9	16.3	15.7	14.9	14.4	..
Canada	11.1	11.6	11.5	11.2	13.4	13.8	13.9	13.9	13.9	13.9	..
Denmark	..	20.1	18.1	14.6	12.7	10.7	10.2	9.1	8.6	8.2	8.0
Finland	27.3	27.0	24.4	23.2	21.6	19.9	19.4	18.8	19.9	19.2	18.2
France	..	21.1	18.3	15.0	16.8	14.6	14.0	13.5	13.1	12.8	12.3
Germany	28.7	27.4	24.9	22.2	19.7	18.0	17.5	17.1	16.6	16.2	..
Greece	..	17.0	15.0	14.5	13.3	11.6	11.6	11.3	10.7	10.8	..
Iceland	..	30.0	28.3	25.9	23.0	21.4	21.4	20.0	18.4	19.0	..
Ireland	..	..	13.3	11.4	9.7	8.6	8.0	8.3	8.1	8.0	..
Italy	27.0	22.0	19.1	16.3	13.5	12.2	12.1	11.8	11.7	11.7	..
Japan	57.3	56.7	55.3	54.8	55.9	54.2	54.0	52.9	52.1	51.4	50.5
Luxembourg	29.0	28.0	27.0	25.0	23.2	20.4	19.8	19.0	18.4	17.4	17.6
Netherlands	..	..	38.2	36.8	34.7	34.3	34.4	34.8	34.8	34.3	34.1
New Zealand	18.9	17.0	..	13.2	13.8	12.7	12.9	9.5	9.8	9.8	..
Norway	..	25.7	21.0	16.9	14.3	11.6	11.3	11.1	10.1	9.1	..
Portugal	..	29.6	23.8	17.6	14.4	13.9	13.5	12.4	12.2	11.2	10.8
Spain	..	..	..	16.8	14.8	13.4	13.1	13.1	12.7	12.2	..
Sweden	31.8	29.2	27.2	25.8	24.4	21.3	20.8	19.7	19.3	18.6	18.0
Switzerland	31.7	27.5	26.0	25.8	24.7	24.4	23.7	25.2	..	..	..
Turkey	..	11.0	9.0	9.0	9.0	7.4	7.2	7.1	6.9	6.8	6.9
United Kingdom	35.9	30.1	25.7	22.9	19.1	15.8	15.2	15.0	..	..	14.5
United States	20.5	17.8	14.9	11.4	10.0	9.2	9.3	9.3	9.3	9.2	9.1

Table 22 OCCUPANCY RATES IN IN-PATIENT CARE INSTITUTIONS

(average bed use in % of beddays supplied)

	1960	1965	1970	1975	1980	1985	1986	1987	1988	1989	1990
Australia	..	..	..	..	..	81.2	..	80.0	..	82.4	..
Austria	..	..	86.4	83.9	84.4	82.1	82.4	82.4	82.8	82.2	81.7
Belgium	..	..	..	..	85.7	85.2	85.0	84.7	86.4	86.7	..
Canada	..	..	..	..	82.8	85.4	85.4	85.3	84.9	..	..
Denmark	..	..	..	..	78.7	82.8	81.9	81.1	81.3	80.7	82.2
Finland	92.2	93.2	91.0	88.9	86.0	85.3	83.6	83.8	83.7	83.6	..
France	..	..	..	72.1	74.5	81.8	81.5	80.5	81.2	80.9	80.4
Germany	93.0	91.3	88.5	83.3	84.9	85.8	86.6	86.6	86.5	86.0	..
Greece	..	..	76.0	73.0	69.0	70.0	72.0	72.0	71.0	66.0	..
Iceland	..	93.4	98.3	94.1	94.3	90.7	91.7	88.9	88.6	85.8	..
Ireland	..	..	..	..	80.1	..	..	..	..	..	..
Italy	78.6	80.8	77.9	76.6	68.9	67.8	69.1	70.1	70.2	68.4	..
Japan	80.7	82.6	81.6	80.5	83.3	85.8	85.7	85.1	84.1	83.8	83.6
Luxembourg	..	..	..	..	..	..	..	..	..	..	..
Netherlands	..	..	..	..	90.9	90.2	89.5	88.8	88.9	88.9	88.5
New Zealand	..	..	..	..	..	..	..	..	..	..	..
Norway	..	..	..	..	86.3	87.7	89.6	88.7	89.1	84.5	..
Portugal	..	79.2	74.1	72.0	62.6	69.2	71.3	68.4	70.2	69.3	69.4
Spain	..	..	..	69.0	70.0	75.2	74.1	76.4	77.1	79.4	..
Sweden	..	..	..	83.8	82.6	85.2	84.7	84.8	85.1	83.4	84.2
Switzerland	..	..	..	..	..	85.2	84.3	84.7	83.9	85.9	..
Turkey	..	63.0	52.0	54.0	42.0	55.2	54.4	57.0	55.5	56.1	56.9
United Kingdom	85.4	84.6	82.1	79.7	81.4	80.8	80.6	..	..	..	..
United States	84.6	82.3	80.3	76.7	77.7	69.0	68.4	68.9	69.2	69.6	69.5

Table 23 DOCTORS' CONSULTATIONS

(average number of physician contacts per person)

	1960	1965	1970	1975	1980	1985	1986	1987	1988	1989	1990
Australia	..	..	4.6	5.6	6.5	7.8	8.2	8.4	8.9	8.9	8.8
Austria	4.3	4.9	5.2	5.3	5.4	5.5	5.5	5.6	5.8	5.8	..
Belgium	..	..	..	6.4	7.1	7.3	7.3	7.4	7.5	7.6	..
Canada	..	..	..	4.9	5.6	6.2	6.4	6.6	6.6	6.8	6.9
Denmark	..	..	..	..	5.0	5.2	5.5	5.2	..	5.6	..
Finland	..	1.7	2.4	3.0	3.2	3.6	3.6	3.6	3.7	3.5	3.3
France	..	..	3.2	4.8	5.4	6.7	6.9	6.9	7.1	7.2	..
Germany	..	..	..	10.9	11.5	..	11.5	11.5	..	..	..
Greece	..	4.8	5.2	5.4	5.0	..	..	..	..	..	..
Iceland	..	..	..	..	..	..	..	..	..	4.2	..
Ireland	..	..	..	5.5	5.8	6.4	6.4	6.5	6.6	..	..
Italy	3.9	4.9	6.3	7.0	8.0	10.1	10.9	10.9	11.0	..	..
Japan	..	..	..	14.9	14.4	12.7	12.8	12.9	12.9	..	..
Luxembourg	..	..	..	..	..	..	..	..	..	..	..
Netherlands	..	..	..	..	4.9	5.2	5.1	5.5	5.2	5.5	5.5
New Zealand	..	..	..	..	3.7	..	..	..	..	..	..
Norway	..	..	..	4.5	..	5.7	..	..	..	..	..
Portugal	1.0	1.4	1.5	3.1	3.7	2.8	2.4	2.4	2.7	2.8	..
Spain	..	1.5	2.6	3.7	4.7	4.0	4.0	..	..	6.2	..
Sweden	..	..	..	2.6	2.6	2.7	2.7	2.7	2.8	2.8	2.8
Switzerland	..	5.4	6.3	5.1	5.6	6.0	6.1	6.0	..	..	..
Turkey	..	..	..	1.2	1.2	2.0	..	..	..	..	..
United Kingdom	..	..	..	4.5	5.1	5.0	5.4	6.0	5.3	5.7	..
United States	..	..	4.6	5.1	4.8	5.2	5.3	5.3	5.3	5.3	5.5

Table 24 PHARMACEUTICAL CONSUMPTION

(average number of medicines per person unless noted in sources)

	1960	1965	1970	1975	1980	1985	1986	1987	1988	1989	1990
Australia	3.3	4.7	5.7	7.8	7.7	9.2	8.4	8.8	9.5	9.5	9.0
Austria	..	..	..	..	..	..	..	..	..	17.0	..
Belgium	..	..	..	9.0	10.3	8.2	8.3	8.4	8.9	9.3	..
Canada	..	..	..	..	..	..	..	..	..	..	..
Denmark	4.8	5.2	5.9	6.2	6.5	5.9	6.1	..	..	..	5.9
Finland	2.2	3.1	4.0	4.8	4.9	5.5	5.5	5.8	5.9	5.9	6.1
France	..	..	17.4	24.0	27.6	33.0	29.0	34.0	36.0	38.0	38.0
Germany	..	..	..	..	14.3	12.1	12.5	12.2	..	..	..
Greece	..	4.4	5.8	8.2	6.9	..	..	..	..	21.0	..
Iceland	..	..	..	6.4	4.8	2.9	2.9	3.3	3.3	..	..
Ireland	..	..	..	10.1	11.4	9.1	9.4	9.9	..	..	..
Italy	6.3	11.4	15.7	20.2	19.9	19.6	19.2	19.3	20.3	20.1	21.1
Japan	..	..	..	0.1	0.5	0.8	0.9	0.9	1.0	1.0	..
Luxembourg	8.9	11.7	11.3	..	..	..	..	..	..	..	..
Netherlands	..	7.5	9.1	..	..	..	..	..	..	8.0	..
New Zealand	6.2	6.4	6.8	7.3	7.7	8.8	9.1	9.0	8.8	8.8	..
Norway	..	..	..	5.3	..	6.3	6.3	6.6	..	..	7.0
Portugal	5.9	10.0	..	14.5	15.4	14.2	14.2	17.2	17.1	16.5	..
Spain	..	5.6	9.2	12.2	14.4	..	..	..	..	..	..
Sweden	..	..	4.8	4.9	4.4	4.8	4.7	4.8	5.0	5.1	5.3
Switzerland	..	..	..	..	..	..	..	..	..	19.0	..
Turkey	..	..	..	..	..	..	..	..	..	..	..
United Kingdom	4.7	5.1	5.5	6.2	6.6	7.0	7.0	7.3	7.5	7.5	7.8
United States	..	..	..	6.9	6.1	..	..	..	..	..	..

Table 25 CAESAREAN SECTIONS

(in % of deliveries in hospitals and maternity clinics)

	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990
Australia	12.8	13.5	..	14.7	14.9	15.1	16.4	..	..	17.5	..
Austria	..	6.5	7.0	7.5	..	..	..	..	..	..	..
Belgium	..	7.4	8.0	8.1	..	..	..	..	..	..	..
Canada	16.0	16.5	17.2	18.0	18.9	19.1	19.2	19.6	19.5	..	..
Denmark	10.4	11.1	12.2	12.8	13.1	13.3	13.5	..	12.9	12.6	..
Finland	..	..	12.7	..	13.1	14.8	15.2	14.9	14.3	14.8	13.8
France	..	10.9	..	..	..	11.8	12.2	12.6	12.7	13.4	13.8
Germany	..	..	..	..	..	..	..	..	..	..	..
Greece	..	..	..	..	..	..	..	..	..	..	..
Iceland	7.4	10.3	10.1	11.4	11.2	11.6	12.1	13.5	12.3	11.9	12.1
Ireland	..	6.2	..	..	7.4	7.8	8.5	8.9	9.7	..	..
Italy	11.2	12.7	13.2	14.5	15.7	15.8	15.7	17.5	19.1	..	..
Japan	..	..	..	..	..	..	..	8.5	..	..	..
Luxembourg	..	..	..	..	..	..	..	..	..	..	..
Netherlands	8.9	9.4	10.5	11.4	12.1	13.0	13.2	14.1	15.0	..	..
New Zealand	..	9.7	9.9	10.0	10.1	10.4	10.9	11.1	11.3	11.8	12.1
Norway	8.3	8.7	9.0	9.4	10.8	10.7	12.0	12.9	..	..	..
Portugal	9.5	9.4	9.8	12.9	..	11.1	13.6	14.0	16.0	16.3	17.9
Spain	..	..	..	8.8	9.6	10.5	11.2	12.1	12.8	13.6	..
Sweden	12.1	12.4	..	..	11.8	12.1	11.6	11.3	11.2	11.1	..
Switzerland	..	..	..	..	..	..	..	..	..	..	..
Turkey	..	..	..	...	..	..	..	..	..	..	..
United Kingdom	9.0	9.3	10.1	10.1	10.1	10.5	..	..	10.0	..	..
United States	16.5	17.9	18.5	20.3	21.1	22.7	24.1	24.4	24.7	23.9	..

Table 26 HIP REPLACEMENT

(protheses placed per million population)

	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990
Australia	..	..	..	..	..	..	..	..	..	..	..
Austria	..	..	..	..	..	..	..	..	..	..	..
Belgium	..	..	..	..	..	..	..	..	..	..	..
Canada	..	..	..	..	..	..	..	..	..	..	..
Denmark	..	..	..	..	..	..	..	..	..	..	..
Finland	256.9	334.5	393.3	364.9	406.8	444.7	584.9	636.9	669.9	650.5	733.8
France	..	..	..	..	..	..	..	..	..	..	..
Germany	..	..	..	..	..	..	..	..	..	..	..
Greece	..	..	..	..	..	..	..	..	..	..	..
Iceland	..	..	..	..	..	..	..	..	..	..	..
Ireland	..	..	..	..	..	529.0	555.0	500.0	..	..	..
Italy	..	..	..	..	..	..	..	..	..	..	..
Japan	..	..	..	..	..	..	..	..	..	..	..
Luxembourg	..	..	..	..	..	..	..	..	..	..	..
Netherlands	..	..	..	..	..	..	..	..	..	..	..
New Zealand	641.4	667.4	724.3	797.8	813.6	814.4	964.0	1046.0	1076.2	1043.5	998.1
Norway	..	..	..	..	..	..	..	..	..	..	..
Portugal	..	..	..	..	..	..	..	..	..	..	..
Spain	..	..	..	..	..	..	..	..	..	..	..
Sweden	..	..	..	..	..	..	..	..	..	..	..
Switzerland	..	..	..	..	..	..	..	..	..	..	..
Turkey	..	..	..	..	..	..	..	..	..	..	..
United Kingdom	696.0	714.0	721.0	797.0	809.0	799.0	866.0	943.0	..	..	..
United States	..	..	..	..	..	..	..	..	..	..	..

Table 27 HEART & HEART-LUNG TRANSPLANTS

(rate per million population)

	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990
Australia	..	..	..	..	0.9	1.5	2.2	1.8	2.9	5.3	..
Austria	..	..	..	..	..	2.3	..	..	6.1	..	..
Belgium	..	..	..	..	..	..	..	..	9.7	..	10.7
Canada	..	..	..	..	..	1.9	5.0	5.4	7.4	7.1	6.5
Denmark	..	..	..	..	..	..	..	..	..	..	1.6
Finland	..	..	..	..	..	0.4	0.6	0.6	2.0	4.8	4.6
France	0.2	0.3	0.3	0.7	1.4	2.7	5.5	8.9	11.1	11.5	12.7
Germany	..	..	..	..	..	1.2	..	..	4.1	..	7.5
Greece	..	..	..	..	..	..	..	..	..	..	..
Iceland	..	..	..	..	..	..	..	..	..	..	..
Ireland	..	..	..	..	..	1.5	0.9	0.9	2.3	..	..
Italy	..	..	..	..	..	..	..	..	3.4	..	3.2
Japan	..	..	..	..	..	..	..	..	..	..	..
Luxembourg	..	..	..	..	..	..	..	..	..	..	..
Netherlands	..	..	..	..	..	0.7	2.0	..	3.1	..	2.6
New Zealand	..	..	..	..	..	..	..	..	..	..	..
Norway	..	..	..	..	..	2.7	..	..	5.4	..	..
Portugal	..	..	..	..	..	0.6	0.9	2.0	2.0	..	..
Spain	..	..	..	..	0.2	0.6	1.1	1.3	1.9	2.3	4.3
Sweden	..	..	..	..	..	0.5	..	..	3.7	..	..
Switzerland	..	..	..	..	..	0.3	1.7	4.7	5.8	7.6	..
Turkey	..	..	..	..	..	..	..	..	..	..	..
United Kingdom	0.4	0.4	0.6	1.0	2.2	3.1	4.0	5.6	6.6	6.8	7.4
United States	0.2	0.3	0.4	0.8	1.6	3.1	5.5	6.4	7.0	..	8.0

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10-1992

PREPARED STATEMENT OF THEODORE R. MARMOR

I. Lessons of Comparative Policy: Learning About vs. Learning From

What we learn from abroad depends in part on what we're looking for: a model health insurance program, generalizations about successful cost containment, or predictions of developments from nations roughly similar to us.

There are many uses of evidence from the experience of other nations. Cross-national observations can, of course, be enlightening. But they are also commonly used weapons in policy struggles. Comparative commentaries reach the public with what, to the well-informed, are highly misleading and distorted portraits. This is surely no surprise. In our recent attention to foreign medical experience, particularly Canada and West Germany, there has been no shortage of information for Americans to learn from. But in medical care generally and for Canadian reporting in particular, there have been very few reliable reports to counter self-interested and ill-informed portrayals, for instance the Health Insurance Association of America (HIAA) or the AMA.

When Americans look abroad, the purposes and uses go far beyond the policy warfare we have been describing. On the one hand, it is obviously helpful to see one's national circumstances comparatively--a clarification that travelers and anthropologists have long noted. In this sort of comparison, the more different the other country, the sharper the image we have of our own.

On the other hand it is sometimes possible to find quite usable policy models, particularly when the lessons are drawn from very similar nations. Rarely, we have examples of generalizations that apply to a wide variety of countries and we are wise to pay special attention to them.

There are particularly revealing difficulties for Americans in looking abroad for lessons--whether governmental or commercial. We are a bit skittish about our uniqueness, educated to think of a special mission (and character) of this 'city on a hill' chock full of differences geographically, ethnically, and economically. Cross-national comparisons can easily arouse xenophobia, with defenders of our status quo ever ready to invoke the claim that "America is unique." Indeed, exaggerated notions of our own uniqueness constitute a significant barrier to the reasoned debate we need as we face the problems of American medical care.

II. Learning From Abroad: Different Roads to Universal Access and Cost Containment

Although few would argue that Americans should or could adopt a foreign system of health insurance wholesale, we have much to learn from how others have provided universal insurance and acceptable levels of care, while simultaneously achieving fiscal stability.[72] "By examining other people's experience," Evans has noted, "you can extend your range of perceptions of what is possible....."[73] There are two dominant models of health insurance in other advanced industrialized countries from which we believe Americans can draw valuable lessons.[74]

A. *Learning from Canada*

The first model, exemplified by Canada (as well as Australia and other nations), combines government-financed insurance with private provision of care. Canada provides comprehensive, universal coverage to its citizens. Each Canadian citizen has a computerized health insurance card which she simply presents to a doctor to receive services. Canadian patients do not have to file claims, much less deal with incomprehensible forms. Canada minimizes administrative costs and reduces frustration through such simplified operations. It wastes none of its medical-care dollars on eligibility determinations, insurance marketing, or risk evaluations to set different premium rates.[75] Canadian patients are free to choose their physician and hospital, and their physicians need not obtain approval from administrators for the treatment they recommend. Physicians bill provincial authorities on a fee-for-service basis, and receive payment—to the amazement of many American observers—within three weeks.[76]

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72. *See* Pfaff, *supra* note 51, at 1; Laurene A. Graig, Health of Nations: An International Perspective on U.S. Health Care Reform (1991); George Schieber & Jean-Pierre Poullier, *International Health Spending: Issues & Trends*, Health Aff., Spring 1991, at 106. *See generally Symposium: Pursuit of Health Systems Reform*, Health Aff., Fall 1991.

73. Robert Evans, *The Spurious Dilemma: Reconciling Medical Progress and Cost Control*, 4 Health Matrix 25, 26 (1986).

74. *See* Paul [illegible] & Theodore Marmor, *The United States: A Social Forecast*, *in* The End of an Illusion 234, 250-51 (Jean de Kervasdoue et al. eds., 1984).

75. *See* Canadian Health Insurance, *supra* note 3, at 30.

76. Statement by Michael Decter, Deputy Minister of Health, Ontario Provincial Government, Toronto, Canada (Feb. 6, 1992) (personal communication from Dr. Hugh Scully, member, Ontario Medical Association, Committee on Fee Negotiations, Feb. 7, 1992). Canadian hospitals and other medical-care providers save a significant amount of time and money because they do not need large billing departments or personnel to keep track of numerous, complicated forms, eligibility determinations, or billing. Canadian Health Insurance, *supra* note 3, at 33; Woolhandler & Himmelstein, *supra* note 26, at 1253. In Canada, doctors spend 36% of their gross income on overhead, while American doctors spend 48%. Canadian Health Insurance, *supra*, at 39.

Canada presents a clear example of a single-payer system in operation.[77] Doctors and hospitals in Canada are reimbursed from one insurance source, a provincial ministry. Doctors who choose to remain eligible for reimbursement by the provincial plan may not "extra bill" patients by charging an amount in excess of the health plan reimbursement rate.[78] Private insurance plans may cover only those services not insured by the provincial plan. Provincial governments use their monopsony power to negotiate fee schedules (uniform rates at which insurers reimburse providers) with physicians, and global budgets (including operating and capital budgets) with hospitals. Budget negotiations between medical-care providers and provincial health-care administrators are periodic, noisy, and contentious affairs—but unlike the negotiations of private insurance companies and providers of "managed care" in the United States, they are open to the public and therefore subject to influence through the political process. The Canadian health insurance plan is financed through income, payroll, and sales taxes.[79]

Canada's universal health insurance permits a good deal of local variation. The program is largely financed and wholly administered by provincial governments and is adapted to reflect local preferences.[80] The federal government does not prescribe the details of provincial administration. In order to receive federal funding, however, the provincial programs must fulfill the five basic principles of the Canada Health Act: They must be *universal* (covering all citizens), *comprehensive* (covering all "medically necessary" care), *accessible* to all (imposing no significant deductibles or co-payment obligations on patients), *portable* (recognizing the other provinces' coverage), and *publicly administered* (under the control of a public, non-profit organization).[81]

Although Canadians express overall satisfaction with the quality of their medical care, waiting lists have developed for some services, particularly for open-heart surgery and magnetic resonance imaging.[82] In response to such problems, public outcry leads to relatively quick reforms.[83] While

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77. Single-payer is somewhat of a misnomer, since the ten Canadian provinces, two territories, and the federal government are each payers. Monopsony is also somewhat of a misnomer because providers in Canada have organized into a collective bargaining unit, thus creating a bilateral monopoly between providers and provinces.

78. Canada Health Act, ch. 6, § 12(2), 1984 S.C.; CANADIAN HEALTH INSURANCE, *supra* note 3, at 20.

79. M.L. BARER & R.G. EVANS, REFLECTION ON THE FINANCING OF HOSPITAL CAPITAL: A CANADIAN PERSPECTIVE 14-18 (University of British Columbia Health Policy Research Unit Discussion Series 1990).

80. Local financing averages 60%, but there is considerable variation from province to province. *See* Robert G. Evans' article, *The Canadian Health-Care Financing and Delivery System: Its Experience and Lessons for Other Nations*, in this issue of YALE L. & POL'Y REV.; ROBERT G. EVANS & MAUREEN M. LAW, THE CANADIAN HEALTH CARE SYSTEM: WHERE ARE WE; HOW DID WE GET HERE? 17 (University of British Columbia Health Policy Research Unit Discussion Paper Series 1991).

81. These basic principles allow for regional variation, but the Canadian Health Act ensures that major departures from these principles result in a dollar-for-dollar reduction in federal aid. Canada Health Act, ch. 6, § 15(1), 1984 S.C.

82. CANADIAN HEALTH INSURANCE, *supra* note 3, at 17, 52; MICHAEL RACHLIS & CAROL KUSHNER, SECOND OPINION: WHAT'S WRONG WITH CANADA'S HEALTH- CARE SYSTEM AND HOW TO FIX IT 1-2 (1989).

83. *See* C.D. Naylor, *A Different View of Queues in Ontario*, HEALTH AFF., Fall 1991, at 110, 111; Allan Detsky et al., *Containing Ontario's Hospital Costs Under Universal Insurance in the 1980s: What Was the Record?*, 142 CAN. MED. ASS'N J. 565 (1990).

the rationing choices of an American HMO are private corporate affairs,[84] Canada's decisions about spending on hospitals and other health services are publicly debated. Queues, then, result in part from public choices about the relative medical need for particular services, and in part from questionable managerial choices. Mistakes are made, but the provincial agencies are highly visible entities, held to public account for their decisions.[85] The overall quality of care in Canada appears quite high; health status indicators are comparable or superior to those of the United States; and primary care is readily available.[86] In fact, Canada's overall rate of hospital and physician use per capita exceeds that of the U.S., as does Canada's ratio of general physicians and family practitioners to the population as a whole.[87] "Patient flight" to the United States, widely cited in the American press, actually occurs quite infrequently.[88]

Before fully implementing universal health insurance in 1971, Canada financed its medical care in roughly the same way that the United States did. At the time, Canada spent approximately the same proportion of its gross national product on medical care as the United States did, and its costs were increasing at about the same rate as U.S. costs. Since 1971, Canada's health expenditures in relation to its national income and population have essentially stabilized in real terms while ours have steadily increased. Canada now spends 30% less of its GNP on medical care than we do, and the difference is growing.[89]

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84. In the United States, rationing occurs within the private sector through price, administrative pre-clearance procedures, and utilization review. This rationing is more hidden and dispersed than in publicly-financed programs like Medicaid, Medicare, and national health insurance plans in other nations.

85. Theodore R. Marmor, *Canada's Health-Care System: A Model for the United States?*, 90 CURRENT HIST. 422, 425 (1991); BARER & EVANS, *supra* note 79, at 7-12.

86. CANADIAN HEALTH INSURANCE, *supra* note 3, at 16, 52.

87. Canada has nearly four times the number of general and family practitioners per person than does the United States. *Id.* at 37. Canada's hospitals have more admissions and longer stays. *Id.* at 46.

88. *Id.* at 60; U.S. BIPARTISAN COMM'N ON COMPREHENSIVE HEALTH CARE, A CALL FOR ACTION: SUPPLEMENT TO THE FINAL REPORT OF THE PEPPER COMM'N 225-26 (1990).

89. On the debate over these numbers, see John K. Iglehart, *Canada's Health Care System*, 315 NEW ENG. J. MED. 202, 778, 1623 (1986); J. Feder et al., *Canada's Health System*, 317 NEW ENG. J. MED. 320 (1987); Evans et al., *Canadian Reality*, *supra* note 27, at 571; Morris L. Barer et al., *Canadian/U.S. Health Care: Reflections on the HIAA's Analysis*, HEALTH AFF., Fall 1991, at 229 (reviewing EDWARD NEUSCHLER, CANADIAN HEALTH CARE: THE IMPLICATIONS OF PUBLIC HEALTH INSURANCE (1990)); Edward Neuschler, *Debating the Canadian System: A Response from the Author*, HEALTH AFF., Fall 1991, at 237; Clyde H. Farnsworth, *Canadians Defend Care System Against Criticism*, N.Y. TIMES, Feb. 17, 1992, at A14.

The U.S. General Accounting Office has estimated that a single-payer universal health plan like Canada's, if implemented in the United States, could provide universal coverage without co-payments or deductibles for less than the United States currently spends for medical care, and could result in significant long-term savings.[90] While spending less, Canadians were the more content with their medical-care arrangements. A 1989 study, for example, showed that 56% of Canadians reported overall satisfaction compared to 10% in the American sample.[91]

B. *Learning from Germany*

A second model, exemplified by Germany, utilizes "all-payer" rules to restrain costs while providing what amounts in practice to universal medical insurance coverage.[92] Germany assures this near-universal coverage through a complex array of 1,128 non-profit insurance organizations known as "sickness funds."[93] The sickness funds act as intermediate institutions between the ultimate payers (consumers) and the providers. The funds are financed through premiums that are related to salary, wages, and payroll, and that vary by fund. The federal government administers health insurance plans for the uninsured. Retirees usually are covered by the sickness fund of their former employer. All those who earn under $36,000 per year—approximately 75% of the population—must participate in one of the sickness funds. Those who earn more than that amount may either join the sickness funds or purchase private insurance.[94]

The participants in the U.S. debate regularly mischaracterize the German model as analogous to America's fragmented world of medical financing, despite the sharp differences between private insurance firms in the United States and the non-profit German sickness funds.[95] In fact, the actors in German medical politics are stable players in a well-structured, culturally distinctive game.[96] The German federal government steers the negotiations between collective bargaining units of medi-

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90. Canadian Health Insurance, *supra* note 3, at 67-68.

91. Robert J. Blendon et al., *Satisfaction with Health Systems in Ten Nations*, Health Aff., Summer 1990, at 185, 188.

92. A system is an "all-payer" system when every person paying for a health-care service pays a price set by the same rules.

93. John K. Iglehart, *Health Policy Report: Germany's Health Care System* (pt. 2), 324 New Eng. J. Med. 1750, 1751 (1991). *See generally* U.S. Gen. Accounting Office, Health Care Spending Control: The Experience of France, Germany, & Japan (1991) [hereinafter The Experience of France, Germany & Japan].

94. A small minority (8%) consisting of relatively wealthy eligible Germans have opted out of the sickness fund system; once they opt out they must remain out for the duration of their lives. These individuals are not covered by the all-payer rules. About one-third of those eligible to opt out choose to do so. The Experience of France, Germany, & Japan, *supra* note 93, at 29 n.13.

95. *See, e.g.*, Dick Knox, *Lessons from a Medical System that Works*, Boston Globe, May 12, 1991, at 1 (views of the American Medical Ass'n); Dick Knox, *Cost of Care Leaves Many in U.S. Seeking Better Way*, Boston Globe, May 14, 1991, at 1 (discussing superficial similarities). *Cf.* John K. Iglehart, *Health Policy Report: Germany's Health Care System* (pt. 1), 324 New Eng. J. Med. 503 (1991) (contrasting Germany with United States).

96. Bradford L. Kirkman-Liff, *Health Insurance Values and Implementation in the Netherlands and the Federal Republic of Germany: An Alternative Path to Universal Coverage*, 265 JAMA 2496 (1991).

cal providers and labor-management representatives from the sickness funds. These negotiations set fee-for-service schedules, which are subject to regional budget limits. State governments and the sickness funds negotiate with hospitals to set per diem reimbursement rates.

Although the German medical insurance system may appear non-governmental, German public officials play a key coordinating role in this complex negotiation of labor, management, and intermediary institutions that some German experts term the "middle way."[97] This arrangement allows for marginal variation among funds, but most Germans have what amounts to the same benefits and comparable financial burdens of premium payments and payroll taxes. Because revenue comes almost exclusively from social insurance contributions, expenditures and accountability are reasonably transparent. Most sickness funds today are pooled locally, regionally, nationally, and/or by profession, rather than on the basis of individual employment. Moreover, most German citizens remain in their sickness fund, even if an employment-related fund, for all of their life. This hardly resembles the changing public and private mix of insurance carriers, contracts, and coverage that marks American health insurance.

Germany developed its system over one hundred years ago, when Bismark coopted the arcane labor guild system.[98] One liability of the German approach is the considerable administrative expense imposed by its multiple sickness funds. In addition, employment-based health insurance entails a nominal distribution of the substantial costs of employee medical care to firms.[99] In that respect, the dispute over financing health insurance through employers sets one class of interests—insurance firms and related companies—against another—employers trying to shed this expensive nominal component of their labor costs. Finally, employment-based health insurance relies heavily on job continuity in Germany; that model of universal coverage would face additional implementation barriers in the American context where workers often switch jobs.

C. *Financial and Administrative Lessons from Abroad: Adaptations for the United States*

No one sensibly argues that a model from abroad should or could simply be imported into the United States. But Americans can learn from countries like Canada and Germany which, with very different institutional arrangements, have managed to constrain costs, universalize coverage, and maintain satisfactory levels of quality in medical care.

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97. Klaus Henke, Address at Comparative Medical-Care Systems Conference, Ditchley Park, England (March 20, 1992) (transcript on file with author).

98. Iglehart (pt. 1), *supra* note 95, at 503-05. *See generally* J. Matthias Graf Von Der Schulenburg, The West German Health Care Financing and Delivery System: Its Experiences and Lessons for Other Nations (Dec. 18, 1989) (unpublished manuscript, on file with author); J. Matthias Graf Von Der Schulenburg, *Health Care in the 1990s: A Report from Germany*, *in* HEALTH CARE IN THE 1990s: A GLOBAL VIEW OF DELIVERY AND FINANCING 95 (Blue Cross of Cal. ed., 1990).

99. That nominal burden in actuality falls among workers in the form of lower wages, consumers in the form of higher prices, and employers. *See* Katherine Swartz, *Why Requiring Employers to Provide Health Insurance Is a Bad Idea*, 15 J. HEALTH POL. POL'Y & L. 779 (1990). In any event, any system that constrains health-care costs, including an employer-based system such as a play or pay plan with strict all-payer rules, would be far better for competitiveness than maintenance of current medical-care arrangements or reforms that failed to constrain costs.

1. *Principles*

Five principles have gained wide acceptance abroad and provide useful guidance for medical-care reform in the United States:

- Universal insurance coverage for all Americans;
- Comprehensive, broad coverage of ordinary medical care, comprehensibly formulated and described;
- Concentration of financial responsibility and political accountability to control costs;
- Freedom to choose providers and provider-patient autonomy in medical treatment decision-making; and,
- Portable rights to insurance not contingent on a specific job or geographic location.

Each of these principles can only be sketched briefly here.

a. *Universality*. Insurance coverage for all Americans is essential for several reasons. Universality avoids the problem of "free riders"—uninsured patients who receive care others have to finance. If accompanied by some form of fee limits, broad coverage helps prevent cost-shifting from patients who will not or cannot pay higher medical prices to patients who will and can pay higher prices, a practice that thwarts cost-control strategies. Universal protection (in the same or similar plans) means as well that American voters would concentrate their political attention on the cost, quality, comprehensiveness and efficiency of the national health insurance program instead of dispersing it on the countless, fragmented insurance organizations they now separately face.

b. *Comprehensive Benefits*. Benefits must be both comprehensive and comprehensible for health insurance to be regarded as a reliable source of economic security. Even those Americans who have insurance worry that the fine print of their plans will rob them of insurance protection precisely when they need it most. Comprehensive, understandable benefits promote other aims as well: reducing wasteful bureaucratic hassle, eliminating cost-shifting,[100] and promoting autonomy in the choice of providers and in the medical decisions that doctors make with patients.

c. *Political Accountability*. Politically accountable administrative and financial decisionmakers appear to be the *sine qua non* of effective cost control. Our fragmented system for financing medical care leads cost-conscious players to address their own program's costs, not the costs of American medicine. Cost-shifting makes it quite difficult to achieve any overall cost restraint. Like squeezing a balloon, efforts to control one's own costs by cost-shifting to others spreads costs around rather than containing them.[101]

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100. Plans with incomplete benefits coverage can increase cost-shifting because, to the extent uncovered-but-necessary services are nevertheless provided, someone other than the insurer will in fact pay for that service—whether the consumer, the provider, or another patient who is charged more by the provider to "compensate" for lost revenue to that provider from the uncovered service.

101. Federal efforts to restrain increases in the cost of Medicare and Medicaid, for example, do not appear to have significantly restrained medical inflation overall. Such restraints may have sometimes resulted in the denial of care to the poor because many providers refuse to treat patients at those rates; other providers shift costs to other payers through higher service fees in an attempt to recoup perceived "losses" incurred in

Without political accountability, medical providers over the past two decades increased their prices and fees while consumers and payers had no means to limit total outlays. The result, predictably, has been persistent medical inflation.[102] Countervailing buyer power, comparative research shows, has been the necessary (though insufficient) condition for balancing inflationary forces in modern medicine.[103] When combined with political accountability, this buying power can offset the medical-care industry's obvious cultural authority and informational advantages.

Political accountability involves, in part, making medical-care expenditures visible to the public. Public financing through earmarked provincial premiums and federal and provincial taxes make Canadian health outlays highly visible. Politically visible financing in the American context may mean that individual Americans, instead of paying a mix of out-of-pocket expenses, premiums for health insurance, and direct and indirect taxes, would pay explicit premiums to a universal health insurance program. In the aggregate, Americans could well pay less for a sensible national health insurance program than they pay under present arrangements.[104] Federal premiums could be earmarked, or set aside in a trust fund, to assure Americans that their medical-care dollars are going only to that program.[105] What is more important than the precise method of the levy is that the financing be publicly debated and publicly negotiated.

d. *Free Choice of Providers*. Most Americans want the freedom to choose their doctors and other medical-care professionals without interference, whether from health maintenance organizations (HMOs), insurance companies, or the government. Moreover, American doctors understandably want freedom to provide care without distracting second-guessing or pre-clearance procedures.[106]

e. *Portability*. There are good reasons for not tying medical insurance to employment. The lack of portable coverage locks workers into jobs some would rather leave. It makes others fearful that if they lose their job, they will also lose their health insurance. It also concentrates risks and costs in relatively small groups. Particularly in a context of low union membership and fewer long-term relationships between workers and employers,[107] linking insurance to employment makes far less

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treating poorer patients. President Bush's initial proposal to reduce payments in the Medicaid and Medicare systems to pay for tax credits for health insurance would shift costs and reduce access for the poor and elderly rather than constrain costs overall. *See infra* part III.C.1.

102. See Theodore R. Marmor, *American Health Politics, 1970 to the Present: Some Comments*, Q. REV. ECON. & BUS., Winter 1990, at 32, 37 [hereinafter Marmor, *American Health Politics*].

103. *Id.* at 35 (citing examples of Britain, Canada, and France). *See also* Pfaff, *supra* note 51, at 21-22. How such countervailing power works to restrain costs, we leave to part III.D.

104. CANADIAN HEALTH INSURANCE, *supra* note 3, at 67-68.

105. *See, e.g.*, H.R. 1300 (Russo); H.R. 650 (Stark); H.R. 2535 (Waxman); S. 1177 (Rockefeller) (all bills from 102d Cong., 1st Sess. (1991)).

106. *See* Herzlinger, *supra* note 30, at 69; Humphrey Taylor et al., *Physicians' Responses to Their Changing Environment*, *in* SYSTEM IN CRISIS, *supra* note 5, at 149.

107. Thierry Noyelle, *Toward a New Labor Market Segmentation*, *in* SKILLS, WAGES, AND PRODUCTIVITY IN THE SERVICE SECTOR 212 (Thierry Noyelle ed., 1990). Linking insurance to employment made much more sense from the 1920s to the early 1970s (an era of firm-specific internal labor markets), when it was useful to employers as a worker-bonding device and in a social sense as a means of identifying large,

sense than in earlier decades.

2. American Values

As we have shown, the political debate over medical-care reform is cluttered with numerous myths about the American philosophy of medical care financing and administration. Contrary to the rhetoric of many medical interest groups, it is the values of universal health insurance that resonate with American traditions, not those expressed by our contemporary arrangements. As Uwe Reinhardt and Humphrey Taylor have shown: "The American health-care system does not match American values"; it does not reflect "the ideology or social ethic of most Americans."[108] Despite much protestation to the contrary,[109] American medical values do not differ significantly from those of citizens in other industrial democracies. Large majorities of Americans, for example, believe that no one should be allowed to be bankrupted by high medical costs; that the poor and the unemployed should have access to the same care, when equally sick, as the rest of the population; that people with heart conditions or cancer should not pay more for health insurance than those who are healthy; and that government should ensure that everyone gets the medical care he or she needs.[110] It is absurd to assume that the system we now have is the one we want simply because we have it.[111] The system we have reflects bargains, anticipated and unanticipated outcomes, and shifting victories for particular parties and interest groups—none of it neat, simple, or satisfying.[112]

Any national plan for universal insurance would require adaptation to American circumstances. For most industrial democracies, universalization of coverage has meant socialized sickness insurance, not socialized medicine.[113] National health insurance relies not only on the pooling of community risks but also on individual responsibility.[114] Sensibly designed, national health insurance is compatible with considerably greater autonomy for physicians and patients than Americans now experience. It permits the expression of voice—democratic accountability and robust public debate—to guide medical-care decisions now made by fragmented corporate actors and providers.[115] Finally, national health insurance avoids stratifying the delivery of medical care according to ability to pay.

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heterogeneous, relatively stable, risk pools. *See* SANFORD JACOBY, EMPLOYING BUREAUCRACY 197, 266, 276-78 (1985).

108. Taylor & Reinhardt, *supra* note 57, at 2, 5.

109. *See, e.g.*, John Holahan et al., *An American Approach to Health System Reform*, 265 JAMA 2537 (1991) (asserting that Canadian health-care system is probably too egalitarian for the United States).

110. Taylor & Reinhardt, *supra* note 57, at 4.

111. Eli Ginzberg has argued that after World War II, Americans obtained the health-care system that "they wanted and were willing to pay for," and that "[t]here is no evidence that the American people want to change this system." Eli Ginzberg, *U.S. Health Care Policy in 1990: Looking Back, Looking Ahead*, 30 Q. REV. ECON. & BUS., Winter 1990, at 15, 21.

112. Marmor, *American Health Politics*, *supra* note 102, at 40.

113. *Id.*

114. *See, e.g.*, 1 ROYAL COMMISSION ON HEALTH SERVICES 3-4 (1964).

115. On the concept of influencing public institutions through the options of public criticism and participation (voice), opting out (exit), and changing from within (loyalty), see ALBERT HIRSCHMAN, EXIT, VOICE & LOYALTY (1970).

III. Misleading Notions

By Theodore R. Marmor, Ph.D.

Social, political and economic myths prevent us from learning from other countries' experiences in financing health care.

Perhaps the only advantage of being the last industrial democracy without universal health insurance is that we can learn from the experience of others. We will learn little, however, if we credit the many myths about foreign experience regularly repeated by critics of national health insurance.

If ever there was an obvious American opportunity for cross-national learning, it is Canada's path to and experience with universal health insurance. We share with Canadians a common language and political roots, a comparably diverse population with a similar distribution of living standards. Like the United States, Canada is a large country with a highly urbanized and diversified market economy. They have, like us, a federal system of government, with important powers (greater even than in the United States) reserved to the provinces (analogs to our states). While Canada's national health insurance evolved over the quarter century since 1945, our patterns and styles of medical care were nearly identical. (Indeed, this similarity of care had been the case for so long that Canadian regulators used the United States' Joint Commission on Hospital Accreditation to judge their hospitals' and medical schools' acceptability until well after World War II.)

If public financing of medical care has worked in Canada, it should do so in the United States as well. That, at least, is the plausible premise of most of the favorable American commentary about Canada's national health-insurance program. Claiming that we can learn from Canada's experience is not to say, however, we could, if the public were supportive, simply import Canada's institutional form of national health insurance. Even the most enlightening comparisons seldom convince the skeptical that a "foreign" program, whatever its virtues, can simply be transplanted—with identical results—to American soil.

No system of health-care financing, including Canada's, is free of problems or easily administered. A gap between medical wishes and medical facts is unavoidable. The relevant inquiry is whether the problems associated with one system are more serious than those linked to another. Canada stands up very well to such an inquiry, as do the financing systems of a number of other countries.

There is much confusion in both Canada and the United States about the significance of managing medical care under public auspices (and through public budgets). A few Canadians believe that all would be well if only

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there were private arrangements to augment the squeezed public system. But the productivity and growth of the Canadian economy does not obviously depend upon how much medical finance flows through the public sector. Medical services represent current consumption and, some argue, drain resources from investment, research and the promotion of productivity no matter whose budget it goes through.

For controlling costs, however, it does matter which budget medical care goes through. Government *can* control costs, as Canadian and other experience show. Business probably cannot—or, at least, it never *has*. The relevance of the U.S. experience is precisely that it offers an object lesson in the failure of privately based controls on health care. It is worth remembering that in 1970 the United States and Canada spent the same proportion of GNP on health care (about 7 percent). Two decades later, the United States spends considerably more of its GNP than Canada and, at the same time, we face our patients with the highest out-of-pocket charges in the world.

Crisis-mongering in Canada has led to suggestions of privatization along American lines at the very time the United States looks to Canada for models of how to restrain a system which really is out of control. If Canadians accepted the "underfunding and privatization" option, they would move Canada toward the United States, not Europe, which spends less than Canada overall. The result of that would be even greater Canadian difficulty in freeing up resources to improve international competitiveness.

Remember that the United States and Canada share economic troubles, none of which would be improved by Canada's moving more toward our style of health financing (and outlays). Both nations are rightly concerned about lagging productivity and, from a worldwide standpoint, modest levels of economic growth. Future economic competitiveness will depend upon investment in human as well as physical capital. The current U.S. savings rate is anemic by any standard. The Canadian rate is not impressive, except by comparison to the U.S. rate. Thus, with health care more or less a tenth of North American GNP, coping with medical costs is crucial for the future economic health of both countries.

More specifically, it is remarkable how long it has taken U.S. corporate leaders to recognize the importance of health-care costs, and it is unclear just how widespread that understanding is today. But continuing medical inflation drains corporate resources away from other priorities, the more farsighted realize.

Canadian business leaders, curiously enough, sometimes fail to appreciate their relative success. It is not simply that Canada's system moves health costs from business to taxpayers, but that Canada has restrained overall costs—relatively speaking—without anything like the gaps, ills and despair of U.S. medicine. It is the United States that is the outlier here, not the unfairly advantaged Canadians, Swedes, West Germans, French, Dutch or Japanese.

The unanswered question is, what price is being paid for the undeniable fact that Canadian health-care financing is both a bargain and a competitive advantage? Is Canada failing to meet fundamental medical needs? Are Canadians needlessly dying or suffering for want of appropriate medical care? Never mind what the United States is doing, should Canada be spending more in some areas of medicine (and less in others)? If the answer to that question is yes, the disappointing American experience suggests it should be done through the public sector. And much research suggests that the largest payoffs lie not in traditional medical care (and surgery) but in social investments that improve people's capacity to cope and stay well. To answer those questions, care must be taken to interpret

the many selective glances across our border.

Ideologically or economically biased analyses of the Canadian system have led to the dissemination—and sometimes wide acceptance—of a number of myths. Those myths—which focus either on the performance of the Canadian system or on whether or not anything Canadian, no matter how good, can find a home in the United States—need to be examined.

Myth 1: National health insurance leads to bureaucratic red tape and high administrative costs. Not true in Canada—or elsewhere. Doctors and hospitals in Canada receive all their payments from one source, a provincial ministry. They do not have to keep track of the eligibility requirements or definitions of insured services in hundreds of insurance plans. Canadian patients never have to file claims, much less deal with incomprehensible forms. Americans, by contrast, have to file multiple, complicated claims, as do most physicians.

A primary-care physician with a private practice in San Francisco made the following comparisons after a visit to a similar practice in Vancouver, B.C.:[1]

"*In the Waiting Room:* Patients in British Columbia present their red-blue-yellow B.C. card on the first visit and register. Thereafter, they simply come in and are called to see the doctor. (B.C. does have a premium, based on income, paid quarterly. Most provinces charge no premium at all.)

"In the U.S., the receptionist asks: Has your insurance changed, have you paid your deductible, please give me your co-pay, where's your Medi-Cal sticker? If you don't have insurance (or if you have an unpaid deductible), the visit plus lab work will be $145—payable now. Then, and only then, does the patient see the doctor.

"*Administrative Costs:* In the British Columbia office, total staff time for one primary physician spent on billing for 150 patient visits per week was two hours. The physician is paid twice a month, with turnaround time between two and four weeks. For this physician, the total of unpaid bills over 90 days comes to about $42. A practice of the same size as the American observer's (400 patient visits per week) would require about six hours in personnel time per week plus $500 per month in computer charges for a total billing cost of under $800 per month. In the American doctor's own practice, 400 patient visits per week consume two and one-half staff persons, plus another full-time equivalent in receptionist, office manager and physician time, dealing with 450 insurance companies and costing a total of $10,000 per month."

Dr. Joel Cooper, a doctor returning to the United States after 16 years of practice in Canada, testifies to administrative meddling in American medicine. He wrote to his Harvard classmates: "...I have been disheartened by the dramatic changes which have occurred in health-care financing since I left the U.S. The regulations, the paperwork, the restrictions and the harassment, especially of patients by health insurers protective of their bottom line, has been quite discouraging. In Canada, I had the luxury of practicing medicine without economic distinction between patients or restriction of needed services. Since all individuals are equally covered under the government health-care scheme, financial restrictions apply only to the overall hospital budget on an annual basis, not to the particular care given any individual patient. In the U.S., the poor often receive inferior care, and even those with third-party insurers have care which is limited by a number of restrictions and limitations which are often inconsistent and irrational. If Medicare is an example of government-run medicine, then it bears no resemblance whatsoever to the Canadian system. A patient of mine, from Texas, had a successful lung transplant several years ago when I was in Toronto. He

depends upon the expensive antirejection drug cyclosporin to maintain his current state of good health. Medicare, which does pay for some medications, and for transplant medications for some types of transplant, refuses to pay for his medication since lung transplant is not on the "approved list." I find this rather perverse. I received a letter from a Medicare administrator who indicated that in the case of the combined heart and lung transplants, those aspects related to the heart are covered, since heart transplants are approved, but those aspects related to the lung part of the transplant are not covered, and it was up to the local administrator to decide which aspects of the patient's care related to the heart part of the transplant and which related to the lung part of the combined transplant."[2]

One reason both patients and doctors in America fear any further government role in health insurance is their frustrating experience with Medicare and Medicaid, whose administrative complexity arises in large part due to the way those programs interact with the multipayer system we have now. There is no reason for universal, single-payer coverage in the United States to be any less simple administratively than the Canadian system.

Myth 2: National health insurance interferes with the doctor-patient relationship. One ad by the American Medical Association attacking the Canadian system asks, "Elective surgery—should it be up to you?" The ad implies that Canada reduces the ordinary citizen's freedom of choice. It is a thinly veiled message to those Americans with either broad insurance coverage or ample funds to buy whatever care they desire.

That same message, of course, will hold little appeal to the millions of Americans without the money or coverage to obtain elective surgery. Nor is it likely to appeal to most Americans, whose choice of doctor is now limited by their health-maintenance organizations (HMO) or by lower reimbursement for visits to out-of-plan doctors (under "preferred-provider organizations," or PPOs). According to one researcher, more than half of such plans, under the rubric of "managed care," limit elective surgery, require second opinions or require approval by an insurance-company administrator.

In one example, the efficiency of "managed care" is described by a New Haven cardiologist, who recounts a series of time-wasting conversations with ill-informed insurance representatives who questioned why a patient recovering from a cardiac transplant following serious heart and kidney failure had spent a month in the hospital prior to the surgery and why she was still in the hospital three days after the life-saving surgery.[3]

In Canada, by contrast, citizens have no restrictions on their choice of physicians, and their physicians do not have to obtain approval from administrators for treatment they recommend. If freedom of choice is the deciding criterion for many people, it actually works in favor of the Canadian model, not the forms of health care that are now growing most rapidly under the aegis of market-oriented reform in the United States.

Myth 3: National health insurance leads to long queues for most treatment. Every country, including the United States, has waiting lists for elective procedures and sometimes even essential ones. The important question is the impact on the patients' well-being. Americans being treated in hospital emergency rooms, particularly in big cities, often wait hours for critical care. Private hospitals routinely turn away uninsured patients, dumping them on the public sector. These "economic transfers," estimated at 250,000 annually in the United States, often result in serious delays in treatment, cause long-term harm and have cost some patients their lives, though federal law now requires hospitals to assure

that patients are in stable condition before transfer.

When most Canadians are sick or injured, they are cared for in a timely manner. Indeed, the overall rate of hospital-use per capita is considerably higher in Canada than in the United States, as is the ratio of general physicians and family practitioners to the population as a whole.

Nonetheless, there have developed long waiting lists for some services, particularly for open-heart surgery and magnetic resonance imaging (MRI). These delays reflect managerial problems and labor bottlenecks from time to time. If they involve patients in urgent, life-threatening condition, there is political outrage. Open-heart surgery was, in 1990, the most controversial example. Government officials in British Columbia watched their waiting list for cardiac surgery grow to more than 500 and, in response, purchased surgery from Seattle hospitals with excess beds and heart surgeons. There were, it turns out, many different reasons for these waiting lists:

- referral patterns and patient preferences;
- shortage of operating room time, or inefficient scheduling of OR time;
- nursing strikes;
- doubt over the medical necessity of the surgery.[4]

True, some Canadians, in some places, wait months for non-urgent surgery. There *are* considerably fewer MRIs and other high-technology items in Canada. No knowledgeable person, however, would use U.S. rates of surgery and sophisticated diagnostic techniques as the scale against which to judge others. Diagnostic tools like MRIs will continue to become more available in Canada as medical need, political pressure and usage patterns dictate. Indeed, such comparisons reveal as much about American slack as Canadian restrictiveness—and they bring us to the next myth.

Myth 4: National health insurance lowers the quality of medical care. The United States certainly offers medical care of higher quality than does Canada if quality is defined as easier access to complex technologies regardless of their effectiveness, or if quality is defined by the technologies and facilities available to the most privileged members of a population. But if we define quality by some measure that reflects both the effectiveness of treatment and the respect and consideration shown to patients—all patients, not just the affluent and insured—America ranks lower than other countries in the West, including Canada, that have national health insurance.

There is certainly no evidence of any Canadian disadvantage if our standard is the actual health of the public, though medical care is only one of the many factors affecting health and by no means the most important. And if consumer satisfaction is our basis for judgment, both polls and political behavior give a big edge to Canada.

Of course, no nation can provide every service that would conceivably give someone benefit. The question is whether the Canadians are making a reasonable choice and providing medical care of high quality. Judging by Canadian public opinion, the answer seems to be affirmative.

Myth 5: National health insurance leads to rationing. Critics warn that Canada "rations" medical care. If by rationing they simply mean limiting services, every country in the world rations health care. The question is how and how much. The United States limits services by ability to pay and, accordingly, shows significant differences in access to health care by race, class and employment circumstances. By contrast, Canada and most other developed countries attempt to provide more uniform access to the entire population. Medical care then depends more on a professional assessment of medical need than on insurance status.

Rationing, in this context, is another

name for allocation. Whether it is objectionable depends also on the extent of free choice and the distribution of control. Americans in systems of "managed care" face systems of corporate rationing; the rules for rationing are matters of business strategy. To be sure, some employees in the United States are offered a choice among such plans, but they are hardly in a position to know much about how the managed-care plans control spending. They have no way of knowing, for example, whether an HMO might deny them referral to a specialist in the event of a rare disease or difficult procedure. Because Canadians have free choice of physician, they do not have to worry about that kind of rationing. And while the rationing choices of an American HMO are private, Canada's choices about spending on hospitals and other health services are publicly debated and democratically decided. If Canadians come to feel that they should spend more on high-technology services, their system allows them to do so more efficiently and equitably than does ours.

Myth 6: National health insurance causes an exodus of physicians. Some Canadian physicians were coming to the United States long before Canada introduced national health insurance. Emigration did not increase significantly afterwards. Indeed, the ratio of physicians to population has steadily increased and actually grown closer to the U.S. level. In 1987, the United States had 234 doctors per 100,000 people, while Canada had 216.

Stories about deep discontent among Canadian physicians are much exaggerated. Physicians were the highest-paid professionals in Canada prior to the introduction of universal medical insurance; they still are. Provincial medical associations and ministries of health negotiate budgets annually. Since much of the bargaining for resources and control gets carried out in the public arena, these negotiations are contentious, with provincial ministers of finance typically forecasting imminent bankruptcy and medical associations threatening dire service cutbacks if they don't get more money. The media, always hungry for conflict, seize on the extremes of these positions. These controversies sell newspapers; they do not mean the Canadian system is about to collapse.

Myth 7: The United States and Canada are too different to borrow from each other. Canadians have altogether different political attitudes, according to the health skeptics. The newly published work of Seymour Martin Lipset, *Continental Divide* (Routledge: 1990) has been interpreted to support this claim.[5] According to those critics, Canadians respect government far more than do Americans, symbolized by the difference between the Canadian founding document and our own Declaration of Independence. Supposedly, Canadians are committed to "peace, order and good government," while our creed is the individualistic "pursuit of happiness."

But Lipset's book does not in fact substantiate such assertions about the character, depth and significance of Canadian and American distinctiveness. What Lipset claims is that Canada and the United States "resemble each other more than either resembles any other nation" and, at the same time, still differ in some important aspects.

Indeed, a public-opinion poll conducted earlier this year for *HMQ* by Louis Harris and Associates revealed strong similarities among the social ethics of U.S., Canadian and European citizens.[6]

The misuse of Lipset's comparisons of the two countries highlights the importance of not reading out-of-context and of understanding a basic rule of comparative scholarship. Lipset's study was an "effort at detailed comparison of closely linked neighbors, not of cross-cultural variations on a broad international scale." This sort of "narrow" comparison is destined to

bring out dissimilarities, while "broad comparison brings out similarities." Given the narrow comparison Lipset has undertaken, any similarities he finds must be quite strong. Lipset makes no claim for the broader significance of the differences he identifies. Nor, for the purpose of learning about health care in Canada, should we.

Myth 8: Government in the United States is too corrupt, too subject to interest-group pressure, and too incompetent for centrally administered, Canadian-style health insurance to work. This claim reflects ignorance of Canadian history and current events. Public confidence in the Canadian government has been severely shaken over the past decade by defense-procurement and influence-pedaling scandals that match our own S&L and other miseries. None of this has touched Canadian health care, just as our scandals have left the Social Security Administration unscathed. Corruption is not an exclusively American product, nor is competent public administration an exclusively foreign invention.

In both countries, the politics of group and institutional fragmentation frequently produce either incoherence or paralysis in policy formation. The primary difference is that in Canada this fragmentation tends most often to be expressed in regional and intergovernmental conflict, while in the United States it is expressed in the separation of powers and tension between the Executive and a highly decentralized congressional system. Citizens of both countries now express considerable dissatisfaction with accountability, responsiveness and effectiveness of government.

In our determined pursuit of reform in the way medical care is financed, we need to keep our attention on the hard questions that have to be answered:

- How do we pay for medical care?
- How do we distribute this financial burden fairly?
- How do we place defensible borders on what we spend?
- How do we assure that what we get is reasonably reliable and acceptably administered?

Code words like "market," "managed care" and even "national health insurance" by themselves provide no answers.

Every industrialized nation in the world except the United States has adopted some form of national health insurance. Almost all are happier with their systems than we are with ours. If we are going to improve American medical care, it makes sense to look for models in those countries most like our own. An American system will have to be unique in many respects, but it would be foolish not to learn all we can from our neighbors. HMQ

Notes

1. T. Bodenheimer and S. Syer, "Some Observations on Health Care in British Columbia," *PNHP Newsletter* (November 1990): 4-5.

2. J. Cooper, Harvard Class of 1960, 30th Reunion Book.

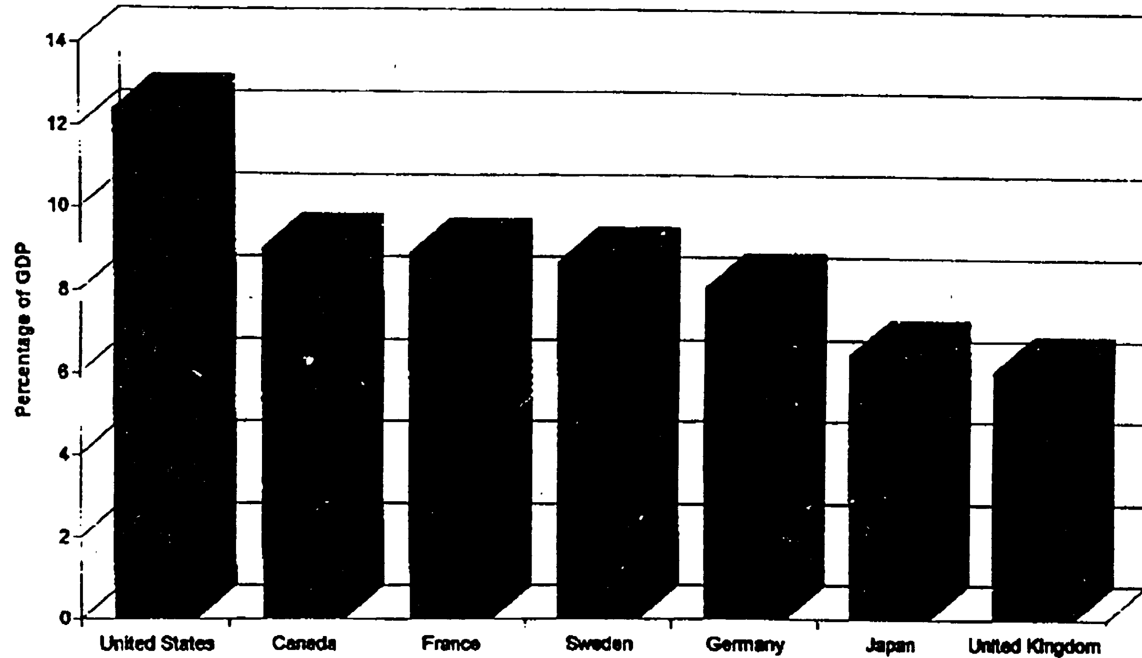
3. E. Wolfson, "'Managed Care' Puts Our Well-Being in the Hands of Bureaucrats," *New Haven Register* 5 May 1991: 10.

4. Bodenheimer, "Observations on Health Care," 4-5.

5. Exchange of letters between A. Enthoven, T. Marmor and J. Mashaw, *The American Prospect* 1(Spring 1991): 20-24.

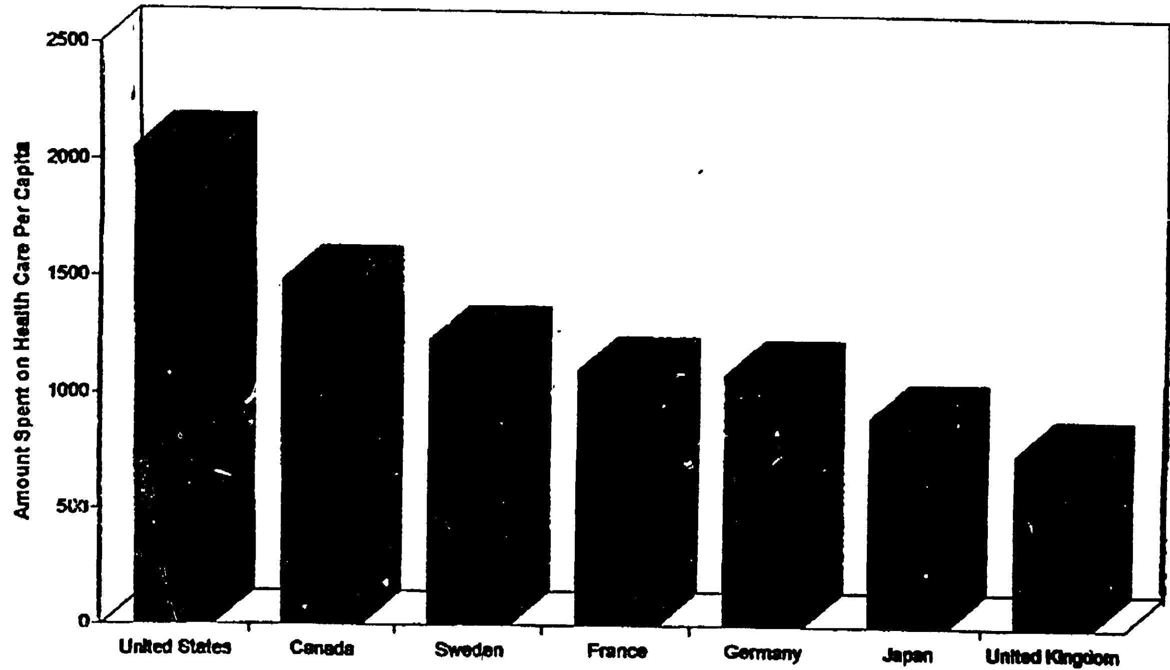
6. H. Taylor and U. Reinhardt, "Does the System Fit?" *Health Management Quarterly* 13(1991): 2-10.

Total Health Expenditures as a Percentage of Gross Domestic Product (1990)



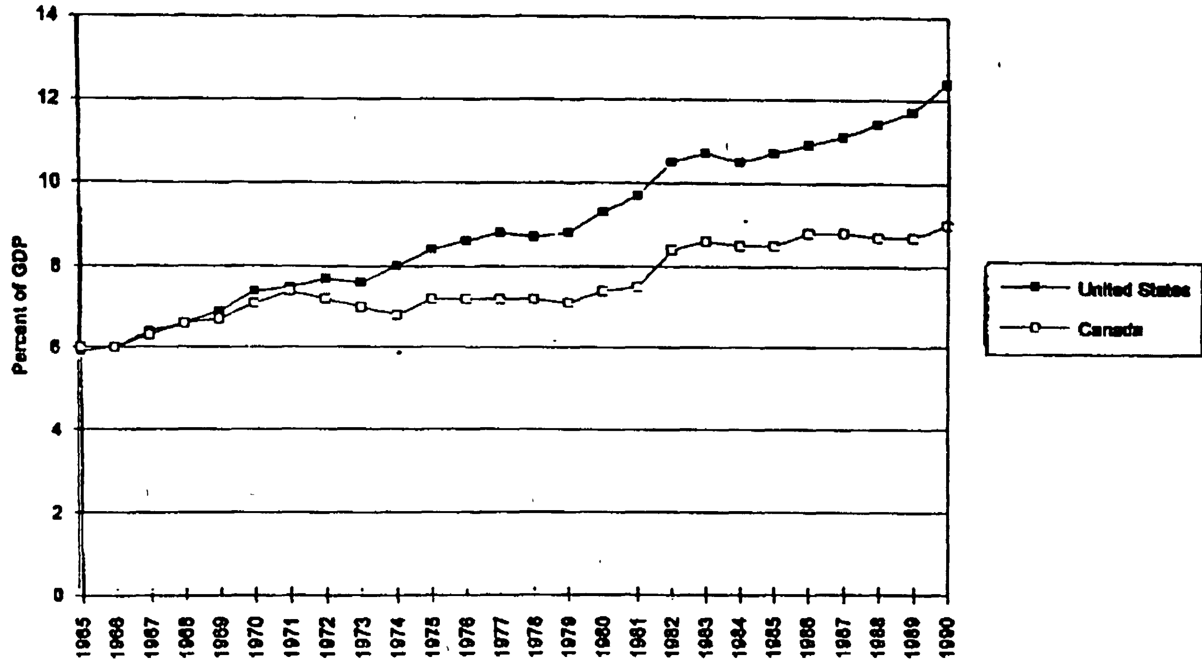
Source: OECD, 1991

A International Comparison of Health Expenditures Per Capita (in US Dollars) 1990



Source: Harvard-Harris-ITE, 1990

National Health Expenditures: United States Versus Canada (1965-1990)



Source: OECD, 1991

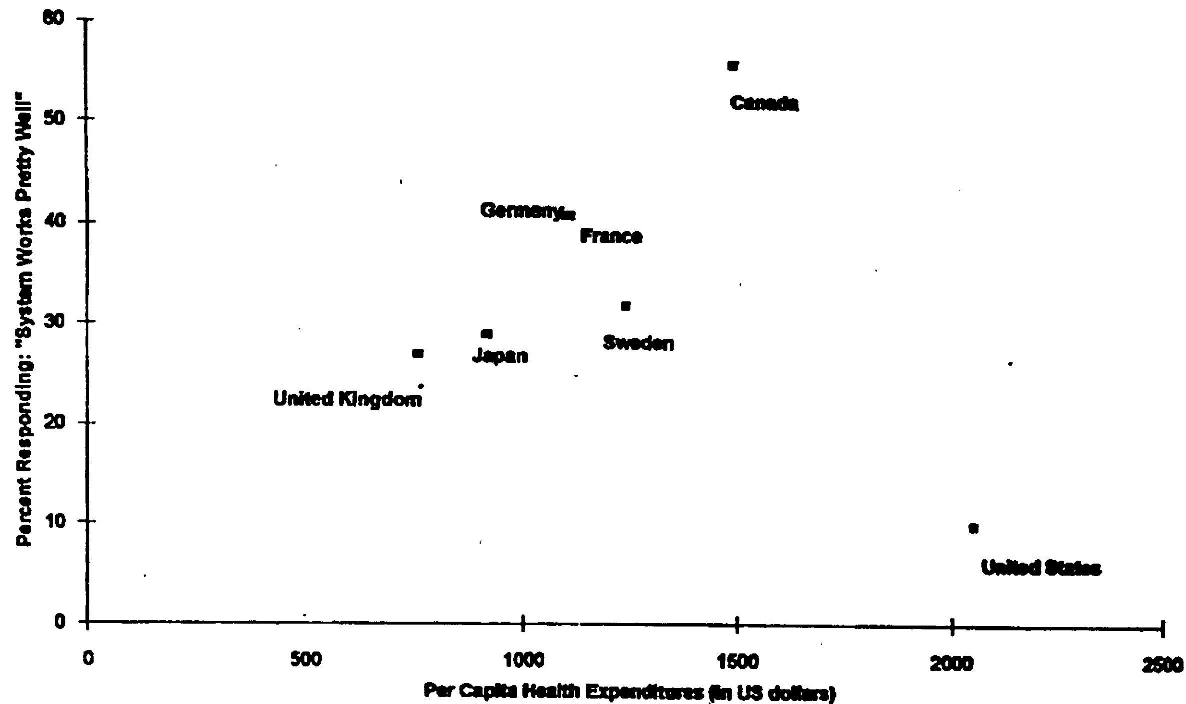
Annual Compound Growth in Health Sector Components (in percent), 1980-1990

Component	Canada	France	Germany	Japan	United Kingdom	United States
Nominal health spending	10.5	10.4	4.6	6.0	9.8	10.3
Nominal per capita health spending	9.4	9.9	4.4	5.4	9.8	9.2
Real (health deflator) per capita health spending	2.3	4.5	1.1	3.0	1.9	2.1
Real (GDP deflator) per capita health spending	4.3	3.3	1.5	3.7	3.1	4.4
Health deflator	6.8	5.2	3.3	2.4	7.6	6.9
GDP deflator	4.9	6.4	2.9	1.7	6.3	4.6
Excess health care inflation	1.9	-1.1	0.4	0.7	1.2	2.2
Nominal gross domestic product	8.0	8.7	5.0	5.9	9.0	7.4
Nominal per capita gross domestic product	6.9	8.2	4.8	5.3	8.8	6.3
Real per capita gross domestic product	1.9	1.7	1.8	3.6	2.4	1.6
Population	1.0	0.5	0.2	0.6	0.2	1.0

Notes: Measurements are in national currency units. GDP is Gross Domestic Product.

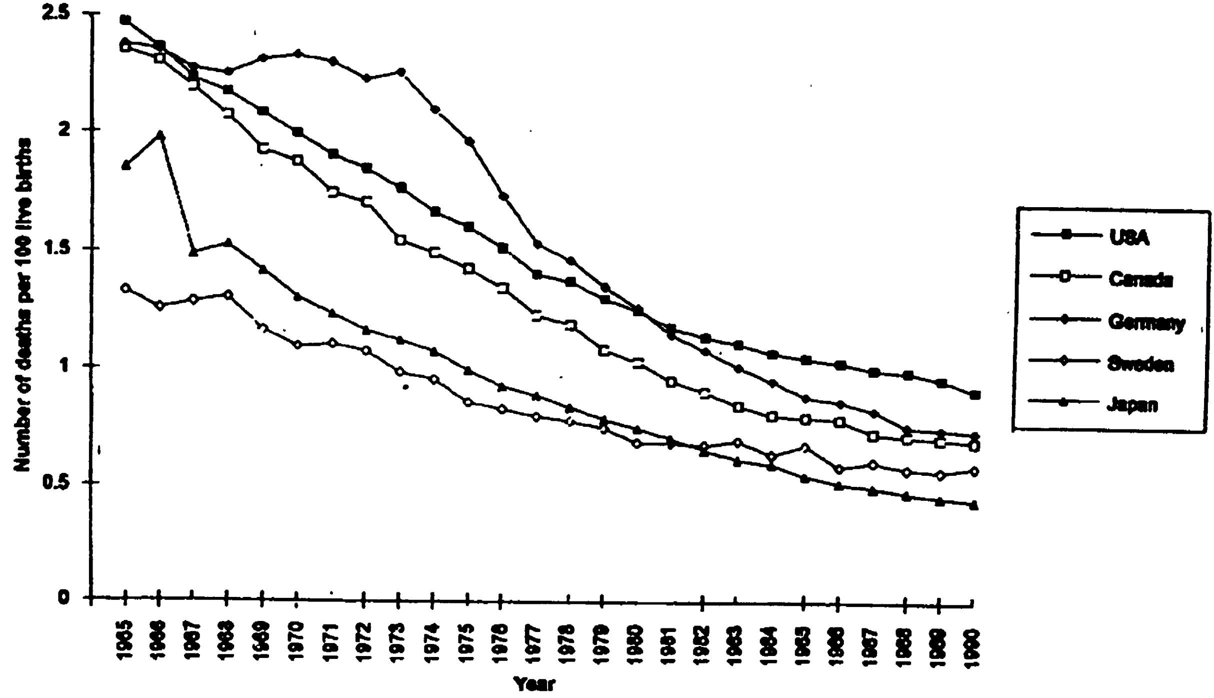
Source: Schieber et al, 1992.

Health Care Satisfaction in Seven Countries



Source: Harvard-Harris-ITE, 1990

Infant Mortality: An International Comparison



Source: OECD, 1991

Total Health Spending as a Percent of Gross Domestic Product

Country	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	Compound Growth Rate[2]
Canada	7.4	7.5	8.4	8.6	8.5	8.5	8.8	8.8	8.7	8.8	9.3	2.3
France	7.6	7.9	8.0	8.2	8.5	8.5	8.5	8.5	8.6	8.7	8.8	1.6
Germany	8.4	8.7	8.6	8.5	8.7	8.7	8.7	8.7	8.9	8.2	8.1	-0.4
Japan	6.4	6.6	6.8	6.8	6.6	6.5	6.6	6.7	6.6	8.2	8.1	0.1
United Kingdom	5.8	6.0	5.9	6.1	6.1	6.0	6.0	6.1	6.1	6.1	6.2	0.7
United States	9.2	9.6	10.4	10.5	10.3	10.5	10.7	10.9	11.1	11.5	12.1	2.7
OECD Average	7.0	7.2	7.2	7.3	7.2	7.2	7.3	7.4	7.5	7.5	7.6	0.8

[2]. Compound growth rate expressed as a percentage point.

Source: Schieber et al, 1992.

Prepared Statement of Janet L. Shikles

Mr. Chairman and Members of the Committee: I am pleased to be here to testify on the approaches used by the German health care system to control the growth in health care costs while still assuring universal coverage. Recently, your Committee held a hearing on factors driving the costs of health care in the United States. Expensive new technologies, an aging population, administrative waste, structural inefficiencies, and the need to reduce unnecessary procedures are factors underlying health care cost increases in most industrialized nations.

My testimony is taken in large part from our report issued this July, which focuses on the recent measures taken by Germany to address these cost pressures.[1] Germany's experience is instructive for the United States because its health care system provides coverage for nearly all residents, guarantees a generous benefit package, and, like the U.S. system, relies primarily on employment-based financing. Germany also has been able to keep its share of gross domestic product (GDP) spent on health care relatively constant over the past decade, in sharp contrast to the United States where health spending has increased from 9.3 percent of GDP in 1980 to about 14 percent today.[2]

Even so, German health care costs have been rising faster than inflation. In addition, its health care system's most important and visible source of funding—mandated employer and employee payments for health insurance coverage—rose sharply in the past 2 years, from 12.2 percent of the wage base in 1991 to 13.4 percent at the beginning of 1993.

To prevent any further increase in this mandated contribution rate, Germany responded in December of 1992 with tough new legislation that:

—imposes mandatory global budgets for the next 3 years for the physician, hospital, prescription drug, and dental services sectors;
—constrains the supply of physicians and adds incentives to change specialty mix;
—constrains the supply of new technologies;
—substitutes outpatient hospital care for more expensive inpatient care;
—increases emphasis on preventive care; and
—expands consumer choice of sickness funds and reduces differences in premium rates among these health insurance funds

The mandatory global budgets are already in effect and are expected to generate about Deutsche Mark (DM) 10 billion[3] (about 6 percent of 1992 expenditures) in savings. The structural reforms affecting hospitals, providers, and insurers are being developed and phased into the German health care system over the next several years to achieve continuing cost savings with less reliance on fixed global budgets in the future. These changes clearly echo many of the proposed remedies suggested for reforming the U.S. health care system.

The following sections of this testimony provide an overview of the German health care system, discuss problems leading up to the 1993 reforms, and present some early results of these changes.[4]

Overview: Sickness Funds Provide Coverage for Most Germans

Germany's health care system provides nearly universal insurance coverage for a comprehensive range of health services and has a better record than the United States in constraining the growth of health care costs. Since 1980, Germany has been able to stabilize health spending at less than 8.9 percent of GDP while U.S. spending escalated from 9.3 to 13.5 percent of GDP.

Most Germans obtain their health insurance through membership in one of about 1,200 so-called sickness funds. This year, virtually all Germans with salary or wage income below the equivalent of about $41,000 have been compelled to join one of these sickness funds. Workers above the income threshold can voluntarily join a sickness fund and many do so.[5] The sickness funds also provide coverage for most retirees, the unemployed, and the disabled.

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[1] See *1993 German Health Reforms: New Cost Control Initiatives* (GAO/HRD-93-103, July 7, 1993). The report provides a more thorough discussion of Germany's recent health reforms.

[2] *See Health Care Spending: The Experience of France, Germany, and Japan* (GAO/HRD-92-9, Nov. 15, 1991). The report provides a more thorough discussion of the cost-containment efforts pursued by Germany during the 1970s and 1980s.

[3] Using an exchange rate of 1.58 DM per U.S. dollar, this amounts to about $6.3 billion.

[4] While the former West German health care system now covers the entire country, this testimony focuses on conditions that existed and changes occurring in former West Germany, which provide a better basis for comparison with the United States.

[5] Only about 10 percent of Germans are not members of one of these sickness funds; about half of this group have incomes above the statutory ceiling and choose to purchase private insur-

German law requires the sickness funds to provide a comprehensive benefits package that covers most health care costs with little or no copayment by members. Presently, the sickness funds do not cover long-term nursing home care, but some allowances are made for home care.

Government-mandated contributions, shared equally by workers and sickness funds, primarily finance the nonprofit sickness funds. The premium contribution operates much like a payroll tax where a fixed percentage of the employee's gross compensation is deducted from each paycheck and transferred directly to a nonprofit sickness fund. The 1993 contribution rate has averaged 13.4 percent of wages up to a statutory income ceiling, shared equally between employer and employee, with substantial variations from fund to fund. Under this system, premiums reflect the income of the worker and all workers in the same fund pay at the same contribution rate regardless of health status, age, or family size.

German citizens are free to choose their own physician for ambulatory care. Nonemergency hospital care requires referral by an office-based physician. These physicians are generally not allowed to provide treatments to their patients in the hospital setting. Inpatient care is provided by hospital-employed physicians who conversely may not typically treat patients outside the hospital.

The sickness funds reimburse office-based physicians on a fee-for-service basis and hospitals on a per diem basis. Nationwide associations of office-based physicians and sickness funds negotiate relative point values for all services. Office-based physician reimbursement is determined from a fee schedule negotiated between the associations of sickness funds and physicians. Before the 1993 reforms, daily rates for each hospital, determined from previous service utilization, were negotiated annually between each hospital and those sickness funds insuring at least 5 percent of the hospital's patients.

EARLIER COST-CONTAINMENT EFFORTS ESTABLISHED FRAMEWORK FOR 1993 REFORMS

The German health care system has evolved since its inception to meet changing demographic and economic circumstances as well as shifts in political power. Since the mid-1970s, health care reform concentrated on stabilizing contribution rates by linking increases in expenditures in some health care sectors to the revenue growth of the sickness funds; that is, basing increases on changes in the gross wages and salaries of the members.

In 1977, federal law established Concerted Action, a biannual assembly of major players in the health care system, to develop broad guidelines for the nation's health care system. Concerted Action first set budget targets for regional associations of physicians though these targets were benchmarks or guidelines and not legally binding. In addition, reforms included a national relative-value fee schedule as a prerequisite of meeting the budget targets. These early reforms lacked any regulations affecting cost containment in the hospital sector, although some cost-sharing occurred in the dental and pharmaceutical sectors. The targets set by Concerted Action in the 1980s have been credited with setting boundaries within which negotiations between the sickness funds and the physician associations and hospitals occurred.

Capped Budgets Control Physician But Not Hospital Spending

The limited success of these expenditure targets spurred new reforms in the 1980s to place expenditure caps on the budgets of the regional associations of physicians and budgets for each hospital. Budgets also were negotiated between each hospital and the sickness funds using, in part, prior utilization rates with a small reduction in the reimbursement level of excess hospital days. In addition to these expenditure caps, these reforms shifted some costs to patients by introducing copayments and also instituted quality assurance measures. Our earlier work on German reforms indicated that the tougher budget controls on physician spending were successful in reducing real spending by as much as 17 percent between 1977 and 1987. Hospital budget controls, however, failed to contain spending because capital costs were excluded and a formal mechanism to insure compliance was lacking.

Impetus for 1993 Reforms

Public pressure to stabilize contribution rates as well as an awareness that structural change was needed to reduce excess utilization and rigidities in the system forced the adoption of the 1993 reforms. Health care observers in Germany identify

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ance. Most of the rest are civil servants and public employees who participate in a special plan that covers 60 to 80 percent of their health care costs and is often augmented to 100-percent coverage by supplemental plans purchased from private insurers.

several conditions that, in addition to a slowdown of the economy and the high cost of reunification, laid the groundwork for these changes.

—Growing public frustration with increases in the mandated contribution, which escalated from 12.2 to 13.4 percent of wages and salaries between 1991 and January 1993.
—Serious inequities caused by growing differences in contribution rates among sickness funds with differing member characteristics.
—Concerns that escalating sickness fund contribution rates were jeopardizing the financial standing of the pension system and the competitiveness of German industry through effects on already high labor costs and prices of products.
—Expenditures for both prescription drugs and dental services were rising too rapidly because these services had no effective controls on either volume or price.
—Expenditures in the hospital sector were excessive due to a lack of incentives to control costs. Past reforms to improve hospital management were not very effective because of states' reluctance to close hospitals and physicians' reluctance to alter referral patterns.

Thus, by 1992, German health officials had concluded that the political risk of federal intervention to introduce strong measures to stabilize contribution rates was less than the risk of doing nothing.

TEMPORARY MANDATORY GLOBAL BUDGETS DESIGNED TO CONTROL SPENDING

The German Health Care Structure Reform Act of 1993 is considered the most significant system reform in the past 50 years. The act temporarily linked growth in existing global budgets for office-based physicians and hospitals to the revenue growth of the sickness funds. The act also extended global budgets to the pharmaceutical and dental care sectors and temporarily linked them to the revenue growth of the sickness funds. Finally, it enacted a series of structural reforms to be implemented while the temporary budget controls were in place. Overall, these reforms significantly increased federal intervention in managing the German health care system:

The government expects these nonnegotiable budgets on major health care sectors to stabilize contribution rates over the next 3 years. To stay within these budgets, charges for most physician and dentists services, prescription drugs, and hospital fees will decrease; contribution rates to the sickness funds will not increase. The new reforms aim to produce a net savings to the Statutory Health Care system of DM 10 billion (about $6.3 billion) the first year. This saving represents about a 6-percent reduction in the total 1992 sickness fund expenditures. While controlling most areas of health spending more tightly, the 1993 reforms do permit increases in spending for preventive care and surgery in an ambulatory setting. These increases are expected to reduce demands for more expensive treatments.

The act also provides for the development of several structural health system reforms to be phased in over the next few years. The reforms would reduce pressures for cost growth and eliminate the need for federally imposed caps. The self-governing associations of health care providers and payers will implement these reforms and will have considerable freedom in deciding how to accomplish them.

REFORMS IN THE PHYSICIAN SECTOR

Under the 1993 reforms, total spending by sickness funds for office-based physician services will not be permitted to grow faster than sickness fund revenues. While the emergency budget cap is in place, the Ministry of Health will implement a number of controversial structural reforms to reduce incentives for excess utilization of physician services and to constrain the supply of some physician specialties.

The 1993 reforms aim to reduce excess service volume and overuse of technical services by physicians who are authorized to treat sickness fund members. To enforce the act, representatives from the regional associations of physicians and sickness funds plan to continue to oversee billing activity, but will impose stricter financial sanctions against those physicians who exceed average service volumes and prescribing levels. Physicians who exceed their expected prescribing levels by more than 15 percent will be reviewed and those exceeding the average by 25 percent will be financially penalized unless they can justify the increases. The reforms also encourage the suspension of remuneration for services provided with high-cost medical equipment that is installed without prior authorization.

Reforms Affecting Physician Supply

Germany is also implementing reforms that will contain the number of physicians eligible to practice in the sickness funds as well as change the specialty and geographic distribution of the physicians already practicing in the system. The Federal Ministry of Health contends that Germany has an oversupply of physicians and that it has too many specialists relative to the number of primary care physicians. This, the Ministry asserts, has contributed to an increase in services rendered and, thus, costs.

To contain the number of physicians and change their geographic distribution, the new act requires the establishment of physician-to-population ratios. The Federal Association of Sickness Fund Physicians and the sickness funds have until 1999 to develop and implement a system for allocating physicians on the basis of the needs of the population and the availability of medical care. To change the specialty distribution of physicians, German health officials are relying on economic incentives to make practicing as a primary care physician more attractive.

REFORMS AFFECTING THE HOSPITAL SECTOR

The 1993 reforms attempt to mitigate shortcomings in the budgeting and planning of the hospital sector by reducing incentives for excess utilization and previous disincentives to efficiency. The new act requires that the hospital sector move away from paying a fixed amount for each day a patient is in the hospital, which encourages longer hospital stays and higher costs, to a prospective budgeting system, which establishes specific rates for individual procedures and conditions. While the new system is being developed, each hospital will be required to stay within global budgets negotiated with the sickness funds, with any budget increase directly linked to revenue growth in the sickness funds and new wage settlements.

To reduce duplicative and unnecessary patient care between the office-based physician sector and the hospital, hospital physicians will be allowed to perform some outpatient treatments and surgeries. Before the 1993 reforms, the sharp division between hospital- and office-based physician treatment produced higher health care costs for the sickness funds because the funds often paid for duplicative tests and excessively long hospital stays.

PRESCRIPTION DRUG REFORMS

Germany now sets a mandatory global budget on total pharmaceutical spending. In the absence of budget controls in the past, costs have escalated in this sector. In fact, in 1988 Germany spent more per person for prescription drugs than the United States, where total health care costs per person have been nearly twice those of Germany.

The new act imposes a 1993 global budget for pharmaceuticals fixed at the expenditure level for drugs prescribed by sickness fund physicians in 1991. To compensate for the cost of drugs introduced since 1991, the law mandates a 5-percent reduction for prescription drug prices not previously lowered by reimbursement policies and a 2-percent price reduction in over-the-counter drugs. These mandated price reductions will be in effect for the next 2 years.

The global budget will be enforced by holding the Federal Association of Physicians and the pharmaceutical industry responsible for spending above this global budget. Physician fees for 1994 will be lowered to offset the first DM 280 million in potential overruns. The pharmaceutical industry will have to cover additional overruns up to a further DM 280 through lowered drug prices. The sickness funds will be responsible for overruns greater than DM 560 million. Physicians who exceed these standards by specified percentages may be penalized. Beginning in 1994, the physician associations and sickness funds will negotiate regional prescription drug budgets on the basis of prescription cost standards. These measures are expected to produce acceptable pharmaceutical expenditures in place of a federally mandated prescription drug budget in 1994. In addition, patient copayments for drugs will increase in 1994 and be directly linked to the quantity of drugs prescribed.

DENTAL SERVICES REFORMS

The lack of global budgeting in the dental care sector and high dental fees, among the highest in the European Community, prompted the setting of mandatory budgets on this sector that are again linked to revenue growth in the sickness funds. In addition, the 1993 reforms impose a 10-percent reduction for dentures and orthodontic treatments, and a 5-percent reduction in reimbursements to dental technicians. Further, the act will reduce reimbursements for all dental services in excess

of the average volume for a practice and for dental prostheses considered medically unnecessary.

REFORMS AIM TO REDUCE DISPARITIES AMONG SICKNESS FUNDS AND ALLOW GREATER CHOICE

The 1993 reforms also aim to reduce disparities among sickness funds. Variations in required contribution rates range from 8.5 to 16.5 percent, even though the members receive the same benefits. In addition, the Federal Ministry of Health plans to provide members with greater choice among sickness funds. The government expects these changes to narrow the range of contribution rates while still allowing some differences, to account for more efficient management.[7] This rate-equalization process will transfer resources among sickness funds based on four adjustment factors: the individual sickness fund's payroll tax base, number of insured dependents, and age and sex composition.

Closing the gap in contribution rates among sickness funds will particularly help statutory local sickness funds, which presently have contribution rates above the national average. Mandated memberships contribute to differences in contribution rates because some sickness funds have members with higher actuarial risks. For example, many local sickness funds, because they must enroll all those who are not otherwise insured, tend to have higher health risk members, including the elderly, blue-collar workers, and the sick. Because care for these individuals costs more and they tend to earn less, the contribution rates must be fairly high to cover all health care costs.

The 1993 reforms also give German workers greater flexibility in their choice of sickness fund. By January 1, 1997, most Germans will be allowed to choose their sickness fund each year. This freedom of choice is expected to motivate sickness funds to provide a broader range of services, such as health promotion, and be more administratively efficient. Some of the sickness funds maintain that they will be able to attract new members through improved services. However, opinions vary on how much competition will exist among the funds given the comprehensive nature of the mandated benefits, limits on administrative allowances for individual funds, and reduced variation in contribution rates.

EARLY EFFECTS OF 1993 REFORMS

The effects of the 1993 health care reforms cannot be fully assessed at this stage, but some early indicators suggest progress in curbing expenditure increases despite sometimes intense protests from the health care community. Germany's Federal Health Ministry announced that the average cost per sickness fund member fell by 2.7 percent in the first 6 months of 1993 compared with a 9.2 percent increase in 1992 (see table 1). Pronounced declines were registered for prescription drugs and dental prostheses—two sectors where global budgets were introduced for the first time. Physician and hospital spending continued to increase but at rates substantially below 1992 rates and slower than the increase in sickness fund revenues per member. If this performance can be sustained, Germany will reach its objective of keeping sickness fund expenditures below the rate of increase in the wage base even if the substantial reductions in spending on drugs and dental prostheses taper off.

Table 1.—COSTS PER SICKNESS FUND MEMBER (INCLUDING RETIREES)

Service	Percent change 1992	Percent change, first 6 months of 1993
Physician services	6.7	2.1
Dentist services	1.0	−2.0
Dental prostheses	20.2	−2.5
Prescription drugs	1.0	−20.6
Hospitals	8.0	3.8
Total reimbursement for services [1]	9.2	−2.7
Sickness fund wage base (revenue base)	5.1	4.7

[1] Includes additional categories, such as durable medical equipment, ambulance services, and other health related services.
Source: German Federal Ministry for Health (Sept. 1993).

[7] As of January 1, 1996, substitute funds must open membership to everyone. Sickness funds will be allowed to consolidate and local funds that are no longer efficient can be closed. In addition, minimum membership size for forming a sickness fund will be increased to 1,000 (up from 450).

The percentage decrease in expenditures for prescription drugs has already tapered off from the 25-percent decline recorded in the first 2 months of the year.

Responding to advice from the regional associations of physicians, physicians have sharply reduced prescribing brand-named drugs and less useful medications to avoid any penalty for exceeding the mandated pharmaceutical budget. In doing so, however, some physicians have suggested that adequate medical care is no longer guaranteed for sickness fund members. The sickness funds consider this reduction justifiable because it represents a reduction in prescriptions for less efficacious drugs and a movement toward greater use of less expensive generic drugs. The Ministry of Health also contends that about 20 percent of the reimbursed drugs were wasted by patients because of previous problems with the way drugs were dispensed.

Most health care providers initially denounced the proposed legislation as an end of the traditional German health care system and the beginning of "socialized medicine. " Physicians have also announced their intentions to ask for a ruling by the federal constitutional court on limiting the number of physicians and dentists authorized to treat sickness fund members. Representatives of the dentist associations threatened to terminate cooperation with the sickness funds and indicated that growing numbers of accredited providers might withdraw from the system. However, according to a Ministry of Health official, since passage of the act, the health care industry has accepted most of the new requirements.

Despite the protests of some groups, the Ministry of Health is already considering another round of structural reforms. The Ministry instructed the expert council to the Concerted Action committee to submit preliminary suggestions by December 1993 on further restructuring the health care system, with a final proposal due by the end of 1994. The Ministry contends that while the 1993 cost-cutting measures appear successful, additional reforms will be necessary to address demographic changes, trends in major diseases, and the introduction of new medical technologies.

POTENTIAL IMPLICATIONS FOR U.S. HEALTH REFORM

The recent German reforms illustrate the continuing cost pressures facing the health care systems of other industrialized nations; indeed, health care costs continue to grow faster than general inflation rates in all countries (see app. I). Despite an enviable record of cost containment and universal coverage, the German government found that it had to embark on a series of significant reforms to its health care system to further contain costs.

These reforms build on two decades of changes to the German health care system that have helped Germany control-health care costs better than most other industrialized nations. Its universal coverage and well-organized administrative mechanism, which make it easier to monitor provider fees and service utilization, enhance Germany's ability to respond to changing health market conditions.

The United States should carefully monitor Germany's past experience and current reforms using global budgets, physician fee schedules, and constraints on resource growth as they unfold over the next 3 years. We may gain insights into their feasibility and applicability to our nation's reform process. Germany's experience in refining, changing, and adapting some of the same tools being considered in U.S. reform proposals also underscores the dynamic nature of the health care market. Perhaps one of the most important lessons from the German experience is that health care reform is a continuous process and that as the United States moves toward comprehensive health care reform it should incorporate enough flexibility in its system to ensure responsiveness to a constantly changing health market.

APPENDIX I.—AVERAGE ANNUAL PER CAPITA GROWTH RATE IN TOTAL HEALTH EXPENDITURES, ADJUSTED FOR INFLATION

Country	Percent growth (1980–91)
Sweden	0.46
Ireland	1.17
New Zealand	1.28
Denmark	1.59
Netherlands	1.77
Switzerland	1.98
Germany	1.99
Australia	2.33
Austria	2.51
Greece	2.63
Turkey	2.72

APPENDIX I.—AVERAGE ANNUAL PER CAPITA GROWTH RATE IN TOTAL HEALTH EXPENDITURES, ADJUSTED FOR INFLATION—Continued

Country	Percent growth (1980–91)
United Kingdom	3.27
France	3.29
Luxembourg	3.42
Norway	3.43
Iceland	3.54
Belgium	3.55
Japan	3.70
Italy	3.75
Portugal	4.04
Spain	4.12
Canada	4.19
United States	4.61
Finland	4.83

Source: OECD health data

RESPONSES OF DR. SHIKLES TO QUESTIONS SUBMITTED BY SENATOR RIEGLE

Question No. 1. How do administrative costs in the German health care system compare with such costs in the U.S. health care system.

Answer. The cost of administering health insurance in the United States varies significantly by sector. In 1989, the cost of administering health insurance in the private sector was 13.4 percent, and 3.1 percent in the public sector. Overall administrative costs in that year were about 7.7 percent of all insured health care expenditures (or 5.8 percent of total expenditures).

In the German health care system, administrative costs of health insurance in the German statutory system, which covers almost 70 percent of direct health care expenditures, for 1990 were approximately 5.1 percent. Uwe Reinhardt has estimated that the administrative costs for private health insurers in Germany at about 16 percent. Overall administrative costs for health insurance in the German health care system are estimated to be about 5.2 percent of total insured expenditures. However, these estimates exclude most capital costs.

While there are no reliable estimates of the administrative costs in hospitals, physicians offices, and other health care sectors for either country, we believe that administrative costs for these sectors are significantly lower in Germany. Identical billing arrangements are used by all payers, and, in the case of hospitals, the simple per-diem reimbursement methodology means that German hospitals do not need the large billing and accounting departments found in U.S. hospitals. In the case of physicians, the anticipated introduction of "smart cards" may result in further reductions in administrative costs.

Question No. 2. Would you please explain how retiree health is financed in Germany? Also, what was the rationale for the financing mechanism? Finally was the impact on businesses, including lessening the burden on businesses, one of the reasons for the financing mechanism.

Answer. Health care for retirees in the statutory health insurance system is financed in a manner similar to that for active workers. As with employers for active workers, the statutory pension system pays one-half of the pensioner's contribution rate while the pensioner pays the other half. The contribution rate for pensioners is set at the national average contribution rate for active workers. Retirees also must pay one-half of this contribution rate on any pension income from other sources.[1] In addition, there is a special subsidy from each sickness fund, raised-by a special payroll contribution (2.93 percent in 1990). On average, these payments only cover only about 48 percent of the cost of health care for pensioners. Costs of retirees in excess of their contributions are borne by the active workers in the sickness fund through higher contribution rates.

To ease the burden on sickness funds with a higher than average number of retirees, there is a mechanism for partially equalizing the burden of retirees among sickness funds. Under this system, sickness funds with a below average number of retirees subsidize those with an above average number of retirees. In 1995, this system

[1] Persons retiring after December 31, 1992 must pay the full contribution rate on other pension income, and rental and interest income as well.

will be replaced by a more general system of risk structure equalization among sickness funds.

Retirees were included in the German statutory health insurance system more than 50 years ago, during the Nazi period. We do not know the rationale used at that time.

PREPARED STATEMENT OF JOSEPH WHITE

Mr. Chairman and distinguished members of this committee: I am honored to appear today with this panel of eminent scholars, and discuss with you how other nations have addressed the difficult task of health care cost control. Instead of simply, "how can we control costs?," I believe this committee is facing two questions.

First, how much cost control, in terms of a trend in the share of this nation's economy consumed by health care, is practical? If your target is too loose, you may seem to accomplish too little—and have no money to pay for expanding coverage without tax increases that you wish to avoid. If your target is too tight, you risk howls of protest—which is even harder to take if justified.

And second, how can that goal be achieved? Mandating a target without institutions to reach it not only might fail to achieve the desired result, but may lead to unintended and unfortunate consequences.

The experience of other countries is relevant both for the "how much" and the "how" of health care cost control. You have heard one analysis of that experience already today, from the GAO. GAO has done and is doing a wide range of excellent analyses, which I commend to the attention of all of this committee's Senators and staff assistants. In my own research for a Brookings book to be called *Going to the Doctor*, I have benefited both from their work and from reviewing literature and consulting with experts on other systems. My remarks reflect my judgments about systems in six countries: Australia, Canada, France, Germany, Great Britain, and Japan.

Among all nations, these are the most similar to the United States in culture, political system, and economic status. They represent seemingly different basic structures of health care finance. Britain is a true National Health Service, not a national insurance system. Canada is a single-payer insurance system at the provincial (state) level. France, Germany, and Japan represent different versions of multiple nonprofit insurers, not directly controlled by governments but coordinated so as to create "all-payer" cost control mechanisms. And Australia combines elements of the British, Canadian, and American systems: a national medical insurance program, public hospitals funded by state budgets, and substantial private insurance. Yet their similarities are more fundamental than their differences:

- Each spends substantially less on health care than does the United States, yet has essentially universal coverage.
- Each has institutions that increase the bargaining power of payers, relative to providers, over the observed experience in American markets.
- Except where there are no fees for service, each has some version of a fee schedule—though some include exceptions, described below.
- Each budgets a substantial part of medical provision—at the level of specific institutions, not just "the system."
- Each has managed the capacity of its system, both to limit costs and increase equity of access, through controls on capital investments.

These similarities stem not from similar cultures, but from the fact that medical costs increase in all systems for essentially the same reasons, and medical care involves essentially the same activities, requiring similar responses.

Mr. Chairman, as you have written, there are reasons to expect medical costs to rise faster than the societal average, because medical care is not as amenable as some other production to routinization and economies of scale. Yet other factors may well be even more important. Medical costs increase, as a portion of national product, because medical care is successful.

As we invent new treatments for painful conditions we increase consumption of medical care without necessarily increasing productivity. Life-saving treatment of the elderly allows us to spend more money on their care later, without increasing their product, since they have retired. This financial difficulty is in fact a great achievement, accomplished not just by medical advances but public health, general wealth, and income maintenance programs such as social security.

Medical care is unpredictable, expensive, and greatly desired when needed. Its high cost and unpredictable incidence mean that few individuals can save or borrow for the expense. Instead, since the 19th century and even before, people have saved

together so that their shared funds are available for each person's unpredictable needs. That saving could pay for organized provision of care, as in early twentieth-century workingmen's clinics, the British National Health Service, or American group-or-staff model HMOs. Or it can fund insurance that pays for purchase of care from any medical provider, as in national health insurance systems. But in any system of shared savings, the point is to reduce or eliminate out-of-pocket costs when people need treatment.

No modern nation controls medical costs through price constraints at the point of service. Their voters forbid it, either collectively through politics that creates national shared savings, or individually by purchasing private insurance. Therefore, no advanced nation's medical care system reaches a cost equilibrium through market forces, which presume adjustment of supply and demand through the price mechanism. Like the growth in our population of elderly, this is not a failure but a success. To some it may seem a problem with insurance, but it is actually the purpose of insurance.

These forces should, over time, cause costs to rise in all advanced industrial nations. And they do. Yet one could not predict nations' levels of health care costs from their percentages of elderly citizens or of out-of-pocket payments. Among the countries that I am studying, the U.S., with the highest out-of-pocket payments, also has the highest costs. The United States is in the middle of the list on proportion of persons over the age of 65, but has the highest cost; Britain has the most elderly and the lowest costs; Japan has about the same proportion of elderly as we do and much lower costs.

The causes of cost growth do not predict levels of total cost because some systems do better than others at resisting the increases. This panel is assembled to discuss why they do.

I consider cost control from the perspective of a student of budgeting. I have come to think somewhat like an agency budget officer, OMB examiner, or Appropriations clerk. Or a skeptical senator who is being asked for more money. In the following pages, I will ask and try to answer a budget person's questions about health care costs.

Budget people begin with simple questions when somebody asks them for money. One is, "how much do other people pay for this?" Another is, "why do you need so much more money than last year? Implicit is a third query: "why do you need a larger increase than they do?

Society's health care cost burden is best expressed by comparing health care expenses to the rest of the economy—as a percent of GDP. The difference between the U.S. and other countries widened greatly in the 1980s. Table 1 displays data on health care cost levels and increases for seven nations. It does not show that other systems naturally lead to lower costs. It does show that **other systems allow their countries to choose whether and how much to increase health care expenditure.** During most of the 1960s and 1970s, the other countries in this table chose to expand their health care spending about as much as we did. In the 1980s they chose not to. We talked about cost control but, because we did not reform our system, could not achieve it.

When comparing the U.S. to Japan or Germany, however, one may object that their economies grew more quickly, so comparing to GDP overstates their success at health care cost control. Actually, that argument cuts both ways: if our economy is growing more slowly, we have greater reason to control our health care costs! But the second half of the table reports rates of cost growth per capita for health care alone. The differences between us and Japan or Germany seem smaller, but the basic story is unchanged. A two percent difference in growth rate becomes a large difference in total expense over the course of a decade.

Table 1.—TOTAL HEALTH EXPENDITURE

	USA	Aust	Canada	France	Germany	Japan	U.K.
Spending as Shares of GDP:							
1971	7.5	5.9	7.4	6.0	6.3	4.7	4.6
1981	9.6	7.5	7.5	7.9	8.7	6.6	6.1
1986	10.8	8.0	8.8	8.5	8.6	6.6	6.1
1991	13.4%	8.6%	10.0%	9.1%	8.5%	6.6%	6.6%
Annual cost increase per capita, percent:							
1971–81	12.41	12.42	11.44	13.28	14.08	15.24	12.82

Table 1.—TOTAL HEALTH EXPENDITURE—Continued

	U.S.A.	Aust.	Canada	France	Germany	Japan	U.K.
1981–86	8.33	7.11	9.80	7.12	5.60	7.41	7.12
1986–91	9.49	5.60	7.03	7.77	6.42	8.59	6.90

Source: OECD/CREDES
Note: Costs per capita are adjusted for purchasing power parities, to eliminate exchange rate issues.

This data is through 1991; since then, American health care costs have continued to explode. Now CBO forecasts an increase to 18.9 percent of GDP by the year 2000, while the administration aims to limit that to 17.3 percent of GDP. This 3.9% target for the growth of health care costs as a share of GDP over nine years, 1991–2000, **is larger than the growth in any of the six other countries over the two decades from 1971–91!** What is fantastic is not the president's goal but our current path.

So why do our health care providers and insurers spend so much more money, and need so much larger increases? Most statistics on the components of health care spending are not exactly comparable across nations. But on balance, the following points seem clear:

(1) We spend much more on bureaucracy. Any good budgeter is skeptical of "administrative savings." It is hard to find better ways to do the same amount of work. But reform could actually change the work required for insuring and paying for health care.

Our fragmented system of risk-rating health insurers creates many costs. Insurers must sell and market their plans. They put immense resources into assessing the risk and thus premiums (underwriting) for customers. They devise multiple plans to meet multiple budgets. Meanwhile companies hire employee benefits staff to work through the maze of insurance sales and administration. Then doctors and hospitals must negotiate with many plans, then administer vastly more complicated billing systems (because plans' rules and prices differ) than in any other country. **Simpler, universal insurance and payment rules would eliminate most of this activity.**

(2) We pay higher prices for much of what we buy. We pay more for drugs. We pay higher fees per service. Our doctors earn higher incomes, relative to average earnings in our economy. Orderlies and other low-skilled workers in hospitals probably earn less, but that's the only evident exception.

(3) We use more resources per service. That is, we tend to use more people and equipment to perform the same tasks. As usual, there are exceptions. Japan has more MRIs and CT scanners per capita than we do. But, in general, our hospitals and doctors, competing for patients, duplicate capacity in terms of both equipment and personnel. I have seen careful comparisons between Japanese and American, Canadian and American, and French and American hospitals; all find that the U.S. hospitals use more personnel per task.

(4) We seem to provide extra amenities—for some people. The evidence is anecdotal, but travelers generally report that, competing for the patronage of well-insured patients, our medical providers are more likely to offer luxurious amenities. That is more likely to show up in capital than operating costs because we kick people out of the hospital faster.

(5) And we buy more of certain kinds of service. Americans make fewer office visits to physicians than in any of the other six countries. We have fewer hospital beds per person, and lower occupancy rates. But we have very high rates of a number of expensive treatments, such as cardiac surgeries.

Those are differences in inputs. What about outputs? Rather than focus on infant mortality and life expectancy at birth, figures which everybody knows do not favor our health care system, I've looked for other measures. One is life expectancy at other stages of life, such as age 60. At that point most life-style dangers, such as being murdered, should have removed their victims from the population. Pregnancy-related problems are rare. And, among the seven countries here, the life expectancy of Americans does improve—all the way to fifth, surpassing Britain and Germany. At age 80, those American who are left are likely to live longer than anyone except Canadians.

Of course, these figures could result from our health care system ensuring that those Americans still around at age 80 are a particularly hardy lot. But my guess is we do provide somewhat more extensive care for the very old, because of our more

intensive practice norms. Yet we still do not do better than Canada. In many other ways, such as prenatal care, our system is clearly inferior to other nations.

Much is made of "waiting lists" in other countries. At least through 1991, the basis for my cost comparisons, the data on waiting lists in Canada refutes the scare tactics used by opponents of health care reform. Britain does have serious waiting list problems—but it spends less than half as much money as we do. There are few complaints about waits in the sickness-fund systems. Americans' waits, both for inpatient and ambulatory care, in fact depend on their form and level of insurance. In some cases other systems are clearly more convenient: British and French GPs will still visit a sick child.

This has, of course, been a brief review. I can suggest further sources if asked. The bottom line is, I strongly doubt that the differences in cost between the U.S. and Canada in 1991 were explained by superior care in the United States. Since Canada is the most expensive other country, it is the most generous comparison. We should at least be able to match the Canadian standard.

That does not mean we could quickly move to Canadian cost levels. Some of the causes of the difference will take years to change. And we might make political compromises that reduce our savings. But if I had to pick a ballpark figure as to how much savings should be possible, relative to where we're going, without any effect on care, I would say that, given the 3.4% of GDP difference between the U.S. and Canada in 1991, we must be able to save two percent of GDP by the year 2000. I think that gives our system every benefit of the doubt; we might well choose to save more.

If this were an appropriations hearing, I could stop now. The Senate would cut the agency's request, with instructions to reduce spending on the inputs that I have mentioned. Or the Senate would decide not to upset the relevant constituents! But in health care, there is no agency. Any vote would be like a line item on a budget resolution: a moral suasion, at best.

The menu of cost control approaches includes the following basic types:

• *Reducing Insurance*

If people have less insurance, they may consume less because they do not want to pay out of pocket. Or, they may consume the same amount, but at least the insurance system will save the amount transferred to personal expense.

Professor Evans is one of the world's greatest experts on cost-sharing, so will speak to that. I want only to emphasize that cost-sharing is a form of reducing insurance, so limited by the forces that created insurance. France, for example, has high copayments—so eighty percent of the public insures for the difference. Every system also finds some way to protect the poor from paying for cost-sharing—a measure not specifically mentioned in the administration's September 7 draft. So cost-sharing has not caused recent superior cost control.

• *Limiting Fees*

If fees are charged for service, every system except America's has some way to create standard fee schedules. They may vary by geography, but there is normally one fee schedule per provider. Many systems have allowed some sort of exceptions. In Australia, the fee schedule for physicians is not binding; in France, forty percent of specialists are allowed to charge more. These measures risk creating a two-tier system, but also create a safety-valve. The risk may be limited in two ways. First, if the most advanced equipment is only available through the public system, in those hospitals, specialists will be available to all citizens through those hospitals' outpatient clinics. Second, as in Australia, insurance for fees above the schedule rate can be forbidden.

There are two great myths about fee schedules. The first confuses them with "price controls." **None of the standard objections in economic theory to price controls apply to medical fee schedules.** Fee schedules reduce, rather than increase, bureaucracy. They are much easier to administer than normal price controls, because they can be enforced through the insurance payment mechanism itself. There is no danger of a burst of inflation once the controls are removed, because they are not removed. Fee schedules do not distort the adjustment of supply and demand through prices in the medical market, because insurance itself has already eliminated price constraints at the point of service.

The other myth says that controlling fees makes no difference, because providers will simply increase volume to make up for the lost income. That dynamic is a concern, but the argument is taken too far. First, it poses a silly either/or choice. If doctors can adjust volume in response to fee limits, they certainly can increase fees in response to volume limits. Especially in an insured system, the clatter is easier: if an insurer pays more there is no burden to a patient, while extra procedures are

painful. Further, in any other market, given a choice between more service at lower prices, or less service at higher prices, we'd choose the former. Second, volume is not quite so easily increased. There's a difference between higher volume, and **enough** higher volume to eliminate savings. Sometimes the lower fees are paid to a different provider than those who generate volume. Pathologists and anesthetists do not create tests and surgery; hospitals do not invent admissions. And, third, there are ways to adjust fees to volume, or restrict the "P x V" effects. We may choose not to adopt the most successful approaches, but they certainly exist, as in Germany and Japan.

- *Concentrating Payer Power*

Whether negotiating fees or other forms of payment, payers do better if they work with each other, rather than against each other. If there is only a single payer, the government, that is simple to achieve. But the government may regulate/negotiate prices itself as part of rule-making for a multiple-insurer system, as in Japan. Or it can stay out of negotiations in such a system, as in France or Germany.

Germany is the paradigmatic case of the latter approach. The law allows insurers to unite to negotiate terms with individual hospitals and regional physicians' associations. If they cannot agree, there is an arbitration system. The national and state (land) governments do provide guidance, and it does matter. If the national government says premium increases should not exceed a given amount, the sickness funds can tell providers that they do not wish to risk the government's wrath; besides, the arbitrator is likely to adopt the government's standard anyway. This process thus allows the government to influence total costs, without requiring central control of the details, such as allocation of incomes between inpatient and ambulatory care providers. As the committee may note, this process of national target-setting and regional negotiation bears a resemblance to the President's reputed proposal.

- *Budgeting for Organizations*

Another approach is to give an organization a budget for providing care, and limit service-based reimbursements. That is, of course, the logic of capitated HMOs. None of the other countries that I am studying have HMOs of that sort, though the British GP Fundholders are meant to evolve into something similar. But there is a general trend towards budgeting in the hospital sector.

The issues should sound familiar: What is the right prospective budget? What if the hospital claims to need a supplemental? But the advantages are clear. First, budgeting is the endpoint of an evolution from more detailed to less detailed fees. The greater the detail, the easier it is for a provider to increase either real or reported volume. It is one thing to do an extra test on a heart attack victim; quite another to invent an extra heart attack victim; and even harder to invent another surgical ward. Second, it is much easier to track costs for organizations than by individual service. Figures for costs in individual units, such as an aspirin, are no more reliable for hospitals than in other large, complex organizations with lots of overhead, such as the DoD. Third, when you budget a hospital, you can focus on inputs and historical comparisons, which puts the burden of proof on the organization to explain why it needs more resources.

- *Limiting Capital Investment*

As Henry Aaron puts it, "If you don't build it, they can't come." If you do build it, someone will try to amortize the investment as quickly as possible. We build more because we have very loose licensing ("certificate of need" rarely had teeth), and because our providers are reimbursed in their rates for the cost of debt capital. Therefore they can raise money and decide to build with minimal interference. Meanwhile, our medical education system emphasizes specialization because medical schools earn much of their money through specialty research and practice, and students who borrow huge amounts feel a need to maximize their incomes.

The solutions are straightforward. Fund medical education directly, rather than indirectly as government funding for research or patient care—and pay for tuition. That's what other countries do. If providers have the funds to invest on their own, licensing can be much stricter than in the U.S. In France, there are criminal sanctions for opening a new hospital or adding beds without authorization by the Minister of Health. But the main measure to limit capacity is to limit the availability of capital. If hospitals are owned by the government or, as in Canada, negotiate a budget, that budget includes approval of capital projects. If hospitals' operations are paid separately from sickness funds, as in Germany, the payments are set low enough that the hospitals cannot generate the cash to make (or pay off) major investments. Then they need regulatory approval for grants or low interest loans.

• *Competition*

The last possible approach is competition. But it is not a meaningful source of cost control in any nation that I've studied—including, to date, the United States.

The theoretical—not to say obvious—difficulties with competition to control costs in medical care should be considered in another hearing. After all, American, not foreign, experience is the best evidence of that. Foreign perspective adds a few points.

Under rare conditions, such as a clear oversupply of providers, medical competition, as in any market, can reduce prices. That has happened in Australia, where few GPs in the big cities exercise their right to extra-bill. But there is little reason to believe that this competition reduces *total* costs.

Britain has embarked on a massive effort to make its system more "competitive." But that has little—so far nothing—to do with cost control. The NHS is the classic case of a budgeted system, tightly controlled through public finance. The point of competition is to make the system more responsive to patient concerns. In practice that means not so much measurable quality as two other things. Providers are paying more attention to the patient experience, such as scheduling appointments for specific times rather than have patients wait all morning. And the government rewards actions that it has defined, a priori, as higher quality, such as immunizations.

Competition is a part of every system, because patients seek doctors and other providers whom they like, and that may increase quality—but does nothing to control costs.

• *Implications*

Costs are only one consideration in health care reform. And international examples can inform us only about some elements of cost control. I have not mentioned malpractice torts and insurance because it is very hard to measure their effects on costs within the United States. We can see that premiums are about one percent of total expense, and have not risen much lately. But we have no way to untangle what "excess utilization" is "defensive medicine" caused by fear of litigation, and which is a more aggressive practice style or patient demand or incompetence or greed.

Fortunately, you will be able to ask many other well-informed people about such matters, in your careful consideration of a momentous piece of legislation. I will end with comments on the relationship between lessons from abroad and current proposals in the United States.

Single-payer proposals apply most of the lessons, save one: that the single-payer approach is not the only way to do it.

Among other serious proposals, all accept that risk-rated insurance, as opposed to international social insurance models, has to go—though they vary as to whether they would *effectively* require community rating. But, aside from President Clinton's and the single-payer plans, the other alternatives, such as the Senate Republican Health Care Task Force, Senator Gramm's, and Cooper-Grandy, not only ignore but aggressively reject the lessons of international, and I believe our own, experience. They reject fee schedules and budgeting, say nothing about the supply-side, and instead rely on either reducing insurance or on competition to reduce costs—without explaining why reducing peoples' insurance would answer their insecurity about health care, or how the new competition will differ from our current, ineffectual form.

Assessing the president's plan is much more difficult. It has been accused of not containing serious cost controls. Nothing could be further from the truth. President Clinton's early September draft includes, or at least refers to, every cost control idea known to man. If you like competition, they have it. If you want a hard cap on premiums, they have that, too. You want a single-payer? Your state can have that. You want all-payer bargaining? ERISA, anti-trust, and other impediments can be waived. You want more measurements? There are lots of new measurements. There are even passing references to capital investment.

I wish the administration were saying more about the latter. But the big question is, which of the various measures that they have proposed are the heart of the plan? The answer depends on two things: how you think the dynamic that they propose to create would work in practice, and how the plan is amended by Congress.

Their proposal could evolve over time to an amalgam of Germany and Hawaii, in which group- or staff-model HMOs would compete with an all-payer regulated fee-for-service system. I think that result would combine good aspects of other countries approaches with the best aspects of American reform suggestions. But the administration's proposal could also, especially in the short term, produce a multi-tier system in which most patients and physicians would be subject to more vehement regulation of medical care by private insurers than is the case today. That would have

all the worst features of our current versions of managed care, and none of the benefits of either the best forms of managed care or of other countries' systems.

The amendments that Congress makes will determine which result occurs. I believe you could build on the president's proposal in a way that reduces its level of bureaucracy and administrative determinations, meets its own standards for cost control, and produces a better system of health care system for all Americans.

RESPONSES OF DR. JOSEPH WHITE AND DR. THEODORE R. MARMOR TO QUESTIONS SUBMITTED BY SENATOR CHARLES E. GRASSLEY

Professor Marmor wants to be associated with the answers to the questions directly addressed to himself and Dr. White.

Question No. 1. Risk Adjustment Methodology.—Can you tell us what the state of the art is in the development of risk adjustment methodologies? When will we have a usable risk adjustment methodology that can be used with confidence in a reformed health care system?

Answer. Whether a methodology can be "used' with confidence" depends on what risks you want to adjust for, which depends in turn on the system reform creates.

One form is the current practice by insurance companies of adjusting premiums to individual health risk. If we believed that people were responsible for their own illness, and that we could gather accurate data on the extent of their responsibility, we might accept such adjustments. Since few of us do believe that, eliminating individual risk adjustments is one of the few aspects of health care reform on which clear majorities agree.[1]

The second form of risk adjustment is to protect individual insurers from having a particularly expensive pool of insureds. This is not a problem in a single-payer system, because everybody is in the same pool. It becomes a problem when the pool is divided up.

Foreign systems with occupationally-based insurance create unequal pools of risk. Some differences derive from using occupational categories (blue collar tend to be sicker than white collar workers; miners, everywhere, face special hazards). More subtly, giving companies the option to create separate funds encourages those with healthier employees to self-insure, leaving a more expensive group in the regional sickness funds.[2] Company funds also may dump the elderly on the regional funds. Both issues are faced by American reform proposals.

Systems like those in Germany and Japan therefore create cross-subsidies from richer to poorer funds. But in spite of some talk of scientific adjustment, their problem is simpler than that faced by American proposals. If funds each buy care from the same basic delivery system, then any difference in costs is due to their customer base, not to anything the funds could have done about their care. Then a regulator can design a formula that fits the amount of money that needs to be moved. But if competing funds are supposed to manage care, then we cannot calculate any cross-subsidies unless we can estimate how much of a given fund's losses are due to its relative ineffectiveness at managing care, and how much to its more risky set of patients.

Americans therefore are searching for algorithms to predict risk in advance. The best predictor of future expense is past expense. But if a formula were designed that way, plans that spent more resources on a given patient would get risk adjustment subsidies the next year, while plans that spent less (which might be more efficient) would have to subsidize the others.

So any risk-adjustment formula cannot include prior expense data. That reduces the problem to predicting relative risk, per pool of insured citizens, from demographics. The most impressive work with which I am familiar was produced by James C. Robinson and colleagues. I will summarize that study, but you should contact Professor Robinson for a more informed discussion.[3]

The authors used a simultaneous equation model to predict costs based on age, sex, dependents, marital status, length of employment, education, occupational level,

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[1] Thus community rating is part of most proposals. The clearest case of blame is cigarette smoking, but getting people to tell their insurer how much they smoke would be difficult. Taxing purchase of cigarettes is much easier and more precise.

[2] This dynamic of lower costs in company funds is also related to the financing mechanism. Since premiums are a percentage of income, higher-paying companies have an incentive to separate their workers from lower-paid workers, so the former do not subsidize the latter. Both wage-level and health status effects would work the same way in the United States.

[3] James C. Robinson, Harold S. Luft, Laura B. Gardner, and Ellen M. Morrison, "A Method for Risk-Adjusting Employer Contributions to Competing Health Insurance Plans," *Inquiry* V28 107-16 (Summer, 1991). Professor Robinson is at the School of Public Health, University of California at Berkeley.

salary, and eligibility status, among employees of the Bank of America. They excluded all cases with expenses greater than $25,000 (these were 1981 data), arguing that, "it is inherently implausible that any statistical model will successfully predict the expenditures for the small number of very high-cost users." The portion of cases excluded must have been substantial.[4] The authors suggest reinsurance to protect pools against such costs. That implies, however, that plans should not be expected to successfully "manage" the costs of those cases in which, given the amount of services, there should be the most room for savings.

With that exclusion, Robinson et al find that their equations can predict spending for groups of 5,000 employees to within 3.5 percent of the correct figure, up or down, in eighty percent of the cases. For smaller groups predictions were less accurate. For instance, for groups of a thousand employees, ten percent would be 8.5% more expensive than the prediction, and ten percent 8.0 percent lower.

Given that the set of possible demographic variables is limited, and the actual level of random risk is not likely to change, I see little reason to expect significant improvement on the Robinson et al results. Whether these results promise confidence in application of the methodology depends on what you expect.

These results do not adjust for one of the most serious and random risks, the extremely expensive cases. It is likely, therefore, that the actual variation would be significantly larger than the estimates.[5] The losses being estimated may seem relatively small compared to cash flow, but are likely to be quite large compared to the capitalization of any for-profit enterprise (since their capital is much smaller than their operating expenses). For all these reasons, risk adjustments may not be sufficient to avoid financial crises in some plans whether they are efficient or not, and agreement on those formulae may prove extremely difficult.

The best form of risk adjustment, as the Robinson study suggests, is to have very large risk pools, dampening the possible random variation. That is especially important given the very low incidence of extremely expensive cases.

Whatever its failings, some form of risk adjustment must be made in order to reduce the returns from plans contriving to discourage the patients they view as less profitable. We just should not expect great precision.

Question No. 2. Contribution of Social Problems to High Health Care Costs.—Is it possible to say what portion of total health care costs are caused by the cumulative effect of these kinds of behaviors in the U.S. as compared to the European countries? If we can't make that kind of "base-line" comparison, aren't we really comparing apples and oranges as far as trying to understand why the *level* of health care costs varies across different countries? Won't we here in the United States still experience extraordinarily high health care costs compared to other societies, even in a reformed system, because of these things?

Answer. As your question suggests, social problems are more likely to affect the *level* (your emphasis) than the *rate of increase* (mine) of costs. The reason is, the differences among countries in underlying social factors—such as diet, smoking, violence and aged population—should not change as quickly as differences in more manipulable factors, such as fees paid to hospitals.

But any level is a product of previous levels plus previous increases. The difference between American and other countries' costs, as I testified, is now much greater than it was in 1981. Unless underlying factors explain the change since 1981, they cannot explain much of the current difference in levels of spending. I am sure that measures to control health care costs changed much more than underlying social factors during the 1980s. Therefore, I do not believe that cost comparisons confuse apples with oranges.

Data on animal fat consumption, tobacco use, and alcohol use in the OECD data file has lots of problems. For example, it must understate the first factor for the U.S., and data is not available for all the countries that I am studying for all years. But our alcohol consumption is clearly not above average. Tobacco is more complicated: we have fewer male smokers and not enough extra female smokers to compensate for the difference between us and most of those six countries (Australia, Britain, Canada, France, Germany, Japan). But we consume more tobacco per capita. So our smokers must consume more; with what effect, I cannot tell. It does sug-

[4] In 1987 the top one percent of cases accounted for thirty percent of spending. See Marc L. Berk and Alan C. Monheit, "The Concentration of Health Expenditures: An Update" in *Health Affairs*, Winter 1992. The excluded cases in the Robinson study are 0.618 percent of the file. Since they are the most expensive, they would represent at least 18.5% of total costs, if the two data bases are comparable

[5] We cannot assume that all plans would be willing to participate in a reinsurance scheme. Further, in the case of HMOs that [illegible] hospitals, we will have trouble determining their actual costs for the more expensive case [illegible] would mean that they would exploit the reinsurance system.

gest that higher taxes on tobacco can reduce consumption levels even for established smokers.

Although we shoot each other more often, that is still a very small percentage of medical costs.

So, although no data allows us to say what portion of total health care costs are caused by such social pathologies, it is very unlikely that an increase in such problems explains the much faster inflation of American than other countries' health care costs during the 1980s. They may suggest that we should have slightly higher costs than other countries even after reform, but hardly enough so to make reform less pressing.

Health care cost control is hard. But we know a lot more about that than about how to prevent violence and teen pregnancy.

Question No. 3. Quality of Care Across Countries.—Are these indicators a measure of the quality of *health care,* or do they indicate that our society is plagued by a heavier burden of social problems that have consequences for health than is the case in, say, Canada and the European countries? What do we *really* know in a systematic way about the quality of *health care* in these other countries? In the United States, there is a growing effort to accurately measure outcomes and the quality of care. Is there anything like this in Europe or Canada? If not, how can we compare the quality of care in these different countries, particularly if we factor out the social problem dimension? Is it not the case that we may be getting more for the extra money we spend for health care than some of the European countries? This would be a very heretical view, obviously. Be we save low birth weight babies. As I understand it, we seem to do better for conditions amenable to surgical intervention such as cancer, heart attacks and enlarged prostates, especially in those over 50 years of age.

Answer. This question raises many issues. To begin, I do not believe American health care is worse than other countries' (though it is not very good for those Americans who cannot get it!). But the system must justify its much higher cost, and I do not believe that is possible. If quality is merely equal, we're being ripped off.

Do indicators hide our higher quality because of the effects of our greater social problems? The data I checked to answer question 2 suggests that American levels of some of the social problems to which you refer here are not higher than average. In my written testimony I controlled for other factors, such as sexually transmitted diseases, violence and teen pregnancy, by reporting data on life expectancy at age sixty. The United States still had lower life expectancy than four of the six countries to which it was compared. So, at least in terms of mortality, social problems are not masking superior performance.

You ask what we know about outcomes measures as indicators of quality of care in other countries. Unfortunately, those measures do not allow the kind of systematic comparison of quality you seek.

New efforts to measure quality are ubiquitous—part of the common dynamic of medical care and policy around the world. If anything, they should be easier in countries where national health services allow easier collection of data. Both Australia and Canada are doing a lot of that kind of work. But it is impossible to compare countries across a wide range of morbidities: how many migraines are worth how many ulcers? And any data on treatment success depends on having a correct diagnosis in the first place, for which there is no way to control.

GAO is performing a few large and very sophisticated studies, and should begin reporting results fairly soon. Those studies focus on illnesses for which the clinical indications are quite clear, so differences in patients' original conditions can be assessed. Until they are available, we will have to rely on the limited comparisons of small groups of countries for specific treatments.

Some are anecdotal, such as Larry Malkin's "A Tale of Two Eyes in the *New Republic,* 9/4/89. Some are more systematic, such as Leslie Roos et al, "Health and Surgical Outcomes in Canada and the United States," in *Health Affairs,* Summer 1992, and Jean L. Rouleau et al, "A Comparison of Management Patterns after Acute Myocardial Infarction in Canada and the United States," *New England Journal of Medicine* 3/18/93. These studies of advanced procedures do not address the obviously lower quality of American ambulatory care for the working poor, particularly pre-natal and immunizations. But they raise severe doubts about claims that American quality is superior.

We certainly provide more surgical interventions than the average in a number of categories. "More," however, is not necessarily better, as the extensive research on cardiac surgery suggests. And our spending on low birthweight babies should not be misinterpreted. First, all countries, even the British, have rising costs for neonatal ICUs. Second, we have more of those babies because (in part) of our infe-

rior access to prenatal care. This is one case where universal coverage should improve quality and reduce costs.

Are we "getting more for the extra money we spend for health care than some of the European countries?" That depends in part on who is "we." Insurance companies sure are getting more. So are surgeons and drug companies and administrators. As I testified, I have to suspect that some patients somewhere, particularly the very elderly, are getting more of some useful services than in European countries (though not than in Canada) as of the data that I could analyze, which is through 1991. I have tried to be conservative and define possible savings in terms of costs that we could clearly do without. There are lots of those.

Question No. 4. Overall Control of Revenue in the System and Distortions in Supply.—One of the things that troubles some of us about global budgets or their equivalen is whether they will cause problems of their own. How, for instance, do we determine what the right amount of health care spending for the nation as a whole is? As I understand it, the per capita spending of the countries we are talking about varies considerably. How do we allocate in an equitable fashion from the national global budget to the various regions of the country and to the various specialities? How is this done in the countries that use global budgets? Another criticism of global budgets is that they do nothing to address the underlying causes of health care cost increases. Thus, they would add distortions if imposed. Can you address this criticism please?

Answer. Even more than those above, this question is many questions at once.

Total Spending

There is no right answer for total spending. If members of Congress want to live with spending that reduces exporters' competitiveness, deprives an ever-increasing percentage of Americans of insurance, and threatens to drive the federal deficit further out of control, that is their political judgment.

My personal preference is that we should spend more than the most expensive other system in the world—but not much more. My testimony suggested an even more modest target for cost savings, two percent of GDP below the current CBO projection. I cannot say either figure is "right," but it is hard to credit that my more modest suggestion spends too little.

Equity issues

Allocation of spending by region poses a series of challenges. Most countries do not in fact have a "global budget" in the same sense as the Department of the Interior has a budget, which is then subdivided into exact sums of money among regions and functions. Britain is exceptional. Instead, countries have different structures for different forms of care or units of subgovernment.

Within any country, regions vary in terms of average incomes and thus ability to raise money in that area. In general, poorer regions will build fewer medical facilities, yet will have at least as much need. Even if funding and control of the program is basically at the state level, as in Canada, nations therefore may have some program of equalization grants. Those have all the same political problems as subsidies from richer states to poorer in the United States—which means they happen, but there is a lot of conflict and formula-jiggling.

Operations funding poses different problems. The simple answer is to raise funds as a percentage of income. This can be done with similar proportional general revenue taxation, or by charging premiums as similar shares of payroll. Then the same percentage is raised everywhere. In poorer regions, physicians and hospitals must be paid less. But their expenses are also lower, because wages and rents are lower, because the region is poorer. A national government may provide some subsidies in a federal system, but if local funding is roughly the same proportion of income around the country, much of the adjustments follow from the funding mechanism.

Alternatively, a government may decide that providers should be paid more in poorer regions. The areas with less money tend also to be those where doctors least want to practice for other reasons, such as dangerous neighborhoods or being too far from urban amenities. Thus in Australia,[6] Japan, and each Canadian province there is one fee schedule for ambulatory care. The governments hope thereby to attract providers, especially physicians, to those less popular areas (e.g. to the outback from Sydney).

These examples should suggest that the definition of an equitable distribution among geographic areas is itself a choice you have to make. But if funds are raised

[6] Australia has a national physician insurance program, called Medicare, and state-run hospital programs. The hospitals, though, receive federal financing and the formula does adjust for state income levels.

in relation to income, allocations are much simpler. Much of the bureaucratic complexity in attempts to create a global budget for the United States results from the decision to set exact dollar amounts for premiums.

An equitable distribution among specialties is equally impossible to define. Each specialty feels it deserves everything it can get. In practice, national systems, when adopted, tend to accept the existing distribution of income, and modify it only slowly. The best approach, if a government can manage this, is to get the physicians to work out their own relative values. That way they have to blame each other for the result. In the United States, however, since the Medicare RBRVS already exists, it would likely set a standard from which any negotiations would proceed. That is already occurring in the private insurance market.

Root causes of cost increases

The criticism that global budgets do nothing to address the underlying causes of cost increase is deceptive. The major cause of cost increase is the lack of any cap on the amount of money available, and a global budget surely addresses that root. Nor does such a budget "distort" care. Distort compared to what standard? The market is not a standard because the point of insurance is to ensure care by eliminating price constraints at the point of service. If the standard is whatever providers want us to pay for, *any* cost control is a distortion.

But a "global budget" is meaningless without a way to enforce it. That means translation into controls on particular categories of expense, such as capital investment or hospitals or pharmaceuticals, or handing a fixed sum of money to some organization that is requi to provide care and given authority to make decisions, such as an HMO. Thos iechanisms, not the global budget itself, address other causes of cost increase, s h as purchase of too much capital equipment, or incentives for excessive service.

Nor does a global budget automatically eliminate such inefficiencies as the ways our insurers compete. Unless risk-rating is abolished, the returns to doing it (and penalties for not doing it) will cause insurers to continue no matter what other constraints they face.

Finally, having some budget does not mean it cannot grow, and does not tell us what level it should be.

Question for Dr. White. Dr. White, toward the end of your written statement you made the following comment:

> ". . . the administration's proposal could also, especially in the short term, produce a multi-tier system in which most patients and physicians would be subject to more vehement regulation of medical care by private insurers than is the case today. That would have all the worst features of our current versions of managed care, and none of the benefits of either the best forms of managed care or of other countries' systems."

I am inclined to agree with that, at least if I understand you correctly. But I want to be sure that I do. Can you elaborate for the Committee please? Just what are your talking about here? And why would there be a difference between the sort-term effects and the longer term effects?

Answer. My concern in my testimony reflects my fear of what could happen if the global budget in fact constrained premiums, but did not increase plans' ability to control costs.

I agree with the administration's decision to limit premiums. Without that constraint, I do not think we can expect competition to sufficiently limit costs. Advocates of managed competition claim that insurers could do better but have not tried, because they could compete on risk rating instead, and their customers have not cared because of non-taxation of benefits.

Neither argument is convincing. Just because they risk-rate does not mean that if insurers could lower their prices by managing care, they would not do so. In fact, care is extensively managed now. And the taxation-of-benefits argument confuses who is actually purchasing insurance. Employers are the purchasers, and they have been desperately seeking ways to reduce costs. Employers are extremely price-sensitive.

So I do not believe managed competition creates a new form of competition. If enacted without premium limits, then, what will happen? Not much. Plans will compete just like other economic competitors. They will look at their costs and guess what prices they need. Then they will look at their competitors and guess whether the competitors can do any better. They will judge each others' capacities by recent experience, which is unlikely to show that any can reduce costs much (because they have not), save for the occasional traditional HMO. But the latter will go for higher

profit margins until other prices come down, and because that form cannot expand so quickly, anyway.

But "managed competition" involves both competition and management. If the reform allowed new and more effective forms of management, it might work without premium controls. But it does not.

Instead, the new system will have to rely on current methods of managing care. These may divided into three approaches. The first is the group- or staff-model HMO, such as Kaiser or Group Health of Puget Sound. Such HMOs save some money. Alas, most patients and providers don't seem to want to join. Further, they control physician practice mainly by selecting those physicians who are most willing to practice their way—which means that they might not do as well if they were larger. And this model requires massive capital investment in offices and clinics, so cannot expand quickly.

The second approach is third-party managed care, in which some insurer has a staff that either prospectively or retrospectively reviews physicians' utilization decisions. These systems have provided little evidence of actual savings, as opposed to reduced utilization, since they create extra administrative overhead. They also increase administrative hassles for everybody. But they have been growing quickly, because they generally offer wider choice of doctor than in the traditional HMOs, though less than in a traditional indemnity plan.

The third approach requires that patients use a primary care physician as a gatekeeper to other aspects of care. If the gatekeeper is subject to no further restrictions, specialist and hospital care is controlled by the same kind of utilization review as in the second system—with the same results. But there seems to be an increase in models that give the gatekeeper more incentives to reduce referrals, either through a capitation fee or a withhold percentage or some other approach. In essence, these systems put the gatekeepers at risk for total costs.

Both the second and third models, in allowing greater choice of physician, also lead to physicians being members of multiple plans, with multiple rules and hassles. (Each plan has more physicians because they are shared among plans, instead of the exclusive contracts in traditional HMOs).

If premiums were controlled, in a world with only these means of controlling costs of services, what would happen? If we were very lucky, either traditional HMOs would suddenly grow very quickly, or other forms of managed care would suddenly become much better at controlling costs without reducing quality.

My testimony refers to the other possibility. Pressed to control costs in order to keep them within the premiums, insurers will do what is easiest. They will not create new group- or staff-model systems because the patients don't want that, the physicians don't, it takes too much time and costs too much money to start. Instead, systems without gatekeepers will turn down more services, yet have no more expertise about care than they have now, so care will suffer. Gatekeeper systems will squeeze their physicians. There will be more administrative hassles and expense and lower quality, with both patients and physicians at greater risk. That is what I meant by the worst of both worlds.

I call this especially a short-term fear because the administration's September outline includes measures that could be used to fix the problem. As the insurers squeezed, physicians would become even more upset at multiple arbitrary regulators than they are today. Meanwhile, the administration's plan gives states and Health Alliances the powers they need to create all-payer bargaining, in which insurers and providers get together and work out a single regulatory and payment structure, as in Germany or France or Japan. After enough insurers went bankrupt and enough physicians were driven half-crazy, the insurers and doctors would insist that the Health Alliances step in. Then the second and third forms of managed care would be reduced (consolidated as one standard structure), and we would be left with traditional HMOs competing with the fee-for-service sector—a version of Hawaii. And we could get effective cost control and high quality, with competition between HMOs and fee-for-service that does not exist in other countries.

So it is more likely that the administration's plan will control costs in the long run than that a plan without premium controls will do the job. But it depends on use of the all-payer methods. If that is understood, the plan could be amended in ways that would encourage Health Alliances to focus on fee-for-service costs, for example by targeting not the weighted-average premium but the fee-for-service premium, since all others must be lower in order to compete.

Thank you for the opportunity to respond.