

# **Inefficiency in the U.S. Health Care System: What Can We Do?**

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## Executive Summary

We do not always spend health care dollars in the most productive way. The way we pay for health care encourages both patients and physicians to overuse resources. On the average, every time a patient spends a dollar on health care, 79 cents of it is paid by employers, insurance companies, government and charitable giving. That encourages patients to purchase services that they would not purchase if they paid the full bill.

Moreover, third-party payers do not share in the cost of all health services equally. Patients pay out-of-pocket only 4.5 cents of every dollar they spend on hospital care and only 16.5 cents of every dollar they spend on physician services. By contrast, they pay 68.3 cents out-of-pocket for every dollar they spend on pharmaceuticals. To patients, therefore, hospital therapy often appears cheaper than drug therapy, although for society as a whole the opposite may be true.

We used the National Center for Policy Analysis/Fiscal Associates Health Care Model to analyze the effects of eliminating these third-party payment distortions. To eliminate the effects of unequal reimbursement rates, one simulation assumed that government paid 40.4 percent of total expenses for all medical services and that private health insurance paid 70.1 percent of the private portion of expenses for hospitals, doctors, drugs and other professionals. Another simulation assumed that the portion of health care bills patients paid out-of-pocket was increased from its current level of about one out of every five health care dollars to one out of every four. The gains to society from these two changes would be quite large.

- These relatively modest changes in the way we pay for health care would allow us to reduce overall health care spending by 18 percent without any adverse effect on health.
- In today's prices, that would mean a drop in health care spending of about \$180 billion.

Because of the difficulty of moving labor and capital from the nonhealth sector to the health sector, for every one dollar reduction in health care output, society will have the opportunity to consume more than a dollar of other goods and services. Thus, in response to a reduction in health care spending of \$180 billion, we would experience an even greater increase in the output of other goods and services.

- The move to a uniform rate of third-party reimbursement for all types of health services would allow society to produce about \$155 billion in nonhealth goods and services without any reduction in the quality of health care we receive.
- Increasing out-of-pocket payments from one in five dollars to one in four would allow us to produce another \$155 billion of other goods and services.
- *Enacting the two changes described above would be worth about \$1,200 for every man, woman and child in the country every year, indefinitely into the future.*

One way to move in the direction of greater efficiency is to encourage every family to combine catastrophic insurance with a Medical Savings Account (MSA). This proposal would allow people to self-insure for small medical bills and give them incentives to be prudent consumers. When people spent money from an MSA, they would be spending their own money — and thus would have incentives not to overconsume medical care. And the current distorted incentives that encourage people to choose the wrong therapies would be eliminated.

## Introduction

Health economists generally agree that it does not matter how much a nation spends on health care, so long as the society values the health care it receives more than it values the other goods and services it must sacrifice in order to obtain that health care. Many of us consider rising health care spending in the United States a problem only because we suspect that we are not getting a dollar's worth of value for each extra dollar we spend.

President Clinton has said that the U.S. health care system generates billions of dollars of waste<sup>1</sup> and that the nation's health care delivery system needs comprehensive reform. This report identifies two major sources of inefficiency and presents estimates of the amount of waste caused by each. We conclude that the president is correct in stating that the current system is wasteful, but we find that his plan and similar reform proposals would not significantly reduce waste or increase efficiency. Indeed, passage of such proposals could make things worse.

The way we pay for health care makes the American health care system inefficient in two ways. First, because of our reliance on third parties to pay most medical bills, patients seldom confront the real social cost of the medical care they receive. This encourages both patients and physicians to overuse medical resources. Second, because the proportion of medical bills which third parties pay varies substantially by type of medical service, patients and doctors are not encouraged to choose the combination of services that most efficiently treats the illness. Thus for any given amount of spending, health care dollars are not always allocated in the most productive way.

Using the National Center for Policy Analysis/Fiscal Associates Health Care Model, we find that the size of the waste resulting from these two types of distortions is quite large.

## Incentives to Use the Wrong Therapies

An efficient health care system is one that treats illnesses in the most cost-effective way. Given a choice between therapies, an efficient system will use the less costly of the two, other things being equal. In the U.S. health care system, however, patients and their doctors do not always choose less costly therapies because they face distorted incentives. Table I shows why incentives are distorted in the medical marketplace: most of the time patients are spending someone else's money rather than their own.

*"Both patients and physicians are encouraged to overuse medical resources, and to choose those therapies with the lowest out-of-pocket costs."*

TABLE I

## Who Pays For Health Care?<sup>1</sup>

(1990)

	<u>Out-of-Pocket</u>	<u>Private Insurance</u>	<u>Other Private</u> <sup>2</sup>	<u>Government</u> <sup>3</sup>	<u>Tax Subsidy</u> <sup>4</sup>
Hospital Care	4.5%	27.1%	5.1%	55.0%	8.3%
Physicians' Services	16.5%	35.3%	0.0%	35.0%	13.1%
Nursing Home Care	42.7%	0.9%	1.9%	52.1%	2.4%
Drugs & Medical Nondurables	68.3%	12.2%	0.0%	11.1%	8.3%
Dentists' Services	47.0%	34.1%	0.0%	2.5%	16.5%
Other Professional Services	24.7%	31.1%	10.8%	21.1%	12.3%
Vision Products & Durables	63.0%	8.4%	0.0%	22.3%	6.3%
Home Health Care	11.4%	5.9%	7.0%	73.6%	2.1%
All Personal Health	21.0%	24.8%	3.5%	40.4%	10.3%

<sup>1</sup> Some categories may not total 100% due to rounding.

<sup>2</sup> Other private is mainly philanthropic giving.

<sup>3</sup> Includes such direct spending programs as Medicare and Medicaid.

<sup>4</sup> The value of the income and payroll tax exclusion for employer-provided insurance and the income tax deduction for medical expenses that exceed 7.5 percent of adjusted gross income.

*"Patients pay out-of-pocket less than 5 cents of every dollar they spend on hospital care, but 68 cents of every dollar they spend on drugs."*

- On the average, every time patients spend a dollar on medical care, only 21 cents comes out of their own pocket.
- The other 79 cents is paid by employers, insurance companies, government and charitable giving.

Third-party payers do not share equally in the cost of health services, however. As Figure I shows:

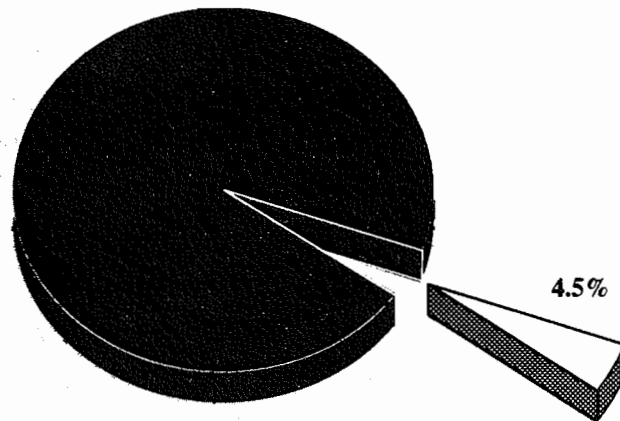
- On the average, patients pay out-of-pocket only 4.5 cents of every dollar they spend on hospital care and only 16.5 cents of every dollar they spend on physicians' services.
- By contrast, they pay 68.3 cents out-of-pocket for every dollar they spend on pharmaceuticals.

To patients, therefore, hospital therapy often appears cheaper than drug therapy, although for society as a whole the opposite may be true. The current system encourages the treatments with the lowest out-of-pocket costs, even though they may be more expensive for society and no more effective than cheaper alternatives.

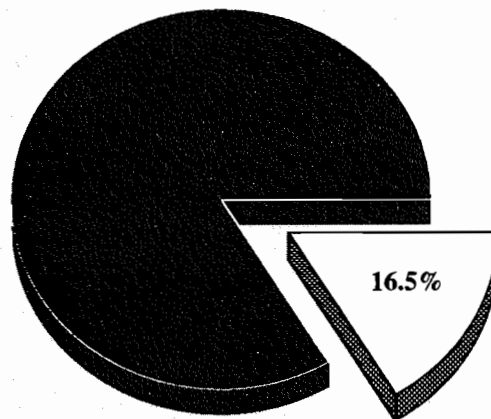
FIGURE I

## Out-of-Pocket Payment of Medical Bills

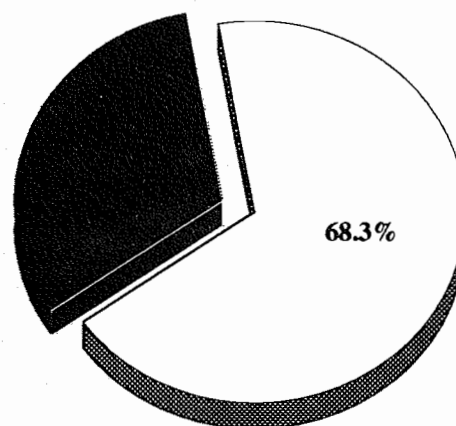
### Hospitals



### Physicians



### Drugs<sup>1</sup>



*"Because patients pay more out-of-pocket for drugs, hospital therapy often appears cheaper than drug therapy."*

<sup>1</sup> Includes devices and other medical nondurables.

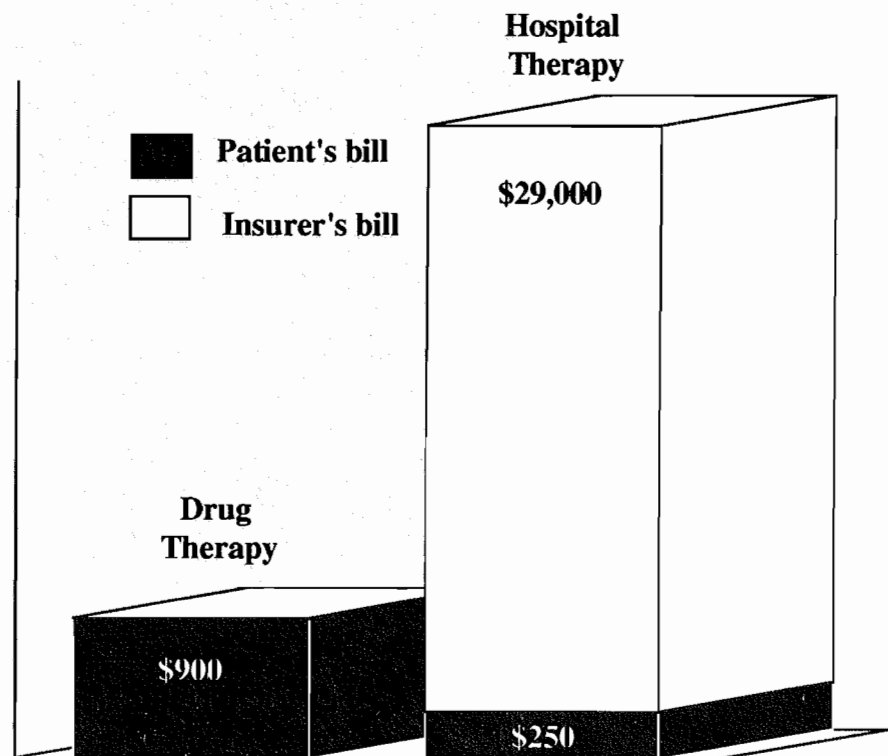
For example, consider the alternatives depicted in Figure II. In this case an ulcer patient has the option of surgery (which costs \$29,000) or drug therapy for one year (which costs \$900).<sup>2</sup> From society's point of view, surgery is clearly the less efficient choice, since it costs 25 times as much. But from the point of view of the individual facing only a \$250 deductible for hospital care versus \$900 in unreimbursed drug costs, surgery is cheaper.

The U.S. system also encourages other substitutions. For example, physicians and other health professionals may do some procedures in an outpatient setting rather than a hospital. After Medicare limited its hospital payments in the mid-1980s, doctors moved many procedures to their offices. The opposite has occurred in Medicaid, where low reimbursement rates for physicians' services have quashed the market and forced many patients to use hospital emergency rooms.

Further substitutions abound. For example, nursing homes and hospitals often substitute for each other — and many patients can be cared for equally well in both settings. Similarly, home care often substitutes for both nursing home care and hospital care.

FIGURE II

### Choosing a Therapy For the Treatment of Ulcers<sup>1</sup>



*"From the point of view of a patient facing only a \$250 deductible for \$29,000 in surgery versus \$900 in unreimbursed drug costs, surgery is cheaper."*

<sup>1</sup> Assumes third-party insurer pays all hospital expenses beyond a \$250 deductible but pays no pharmaceutical expenses.

Services that *substitute* for each other in one context may *complement* each other in a different context.<sup>3</sup> For example, although physicians' services sometimes substitute for hospital services, an increase in hospital care may also increase the demand for (and use of) physicians' services. Whether any two services are substitutes or complements overall is an empirical question that can only be answered by using sophisticated econometric techniques.

**Drug Therapy vs. Other Therapies.** Pharmaceuticals are especially interesting because they are sometimes powerful substitutes for physician care, hospital care and nursing home care. The following are a few examples:

- While ulcer drug therapy costs \$900 a year, it is far less expensive than surgery, which averages \$29,000, saving an estimated \$3 billion a year in the U.S.<sup>4</sup>
- Another drug dissolves gallstones without surgery, saving an estimated \$2 billion annually because 350,000 patients use it.<sup>5</sup>
- A study of the use of just one anti-asthma drug showed that it reduced trips to emergency rooms by 96 percent and hospital admissions by 62 percent, saving up to \$2,250 per case.<sup>6</sup>
- A clinical trial of a new medication for small-cell lung cancer showed a 50 percent reduction in hospitalization for febrile neutropenia (cancer and infection) in the first cycle of chemotherapy.<sup>7</sup>
- Although hospitalization costs for schizophrenics exceed \$73,000 a year per patient, a drug that enables many schizophrenia patients to leave hospitals and live independently costs only \$4,500.<sup>8</sup>

In many other developed countries, health care is free at the point of consumption. Although this distortion creates problems of its own (see the discussion below), when all health care is subsidized to the same degree, no out-of-pocket price distortions encourage people to choose one therapy over another. This may help to explain why other developed countries spend less than the U.S. on health care but use pharmaceuticals more. As Table II shows, OECD countries, on the average, devote 37 percent less of their GNP to health care than does the United States. Yet the countries devote almost twice the share of their health care budget to drugs.

**Trade-offs in Health Care Spending.** Examples of how different types of medical services substitute for each other, sometimes in surprising ways, are presented in Table III. The table is based on the National Center for Policy Analysis/Fiscal Associates Health Care Model and shows how the medical marketplace would change if we increased direct government spending on particular services.

*"When all health care is subsidized to the same degree, no out-of-pocket price distortions encourage people to choose one therapy over another."*

TABLE II

**Health Expenditures of OECD Countries 1988**

	<u>Health as a Percent of GNP</u>	<u>Drugs as a Percent of Health</u>
Australia	4.6%	8.3%
Austria	8.2%	11.6%
Belgium	7.2%	17.4%
Canada	8.7%	11.6%
Denmark	6.3%	9.3%
Finland	7.1%	9.5%
France	8.7%	16.7%
Germany	8.2%	20.7%
Greece	5.1%	26.3%
Iceland	8.6%	12.9%
Ireland	7.3%	11.2%
Italy	7.6%	18.2%
Japan	6.7%	18.4%
Luxembourg	7.4%	15.5%
Netherlands	8.3%	9.6%
New Zealand	7.1%	14.3%
Norway	7.6%	5.3%
Portugal	6.3%	18.2%
Spain	6.3%	18.8%
Sweden	8.8%	6.7%
Switzerland	7.8%	12.3%
United Kingdom	5.8%	11.3%
United States	11.8%	8.3%
<b>Average</b>	<b>7.5%</b>	<b>13.6%</b>

*"OECD countries devote 37 percent less of their GNP to health care than the U.S., but devote twice the share of their budget to drugs."*

Source: George J. Schieber, Jean-Pierre Poullier and Leslie M. Greenwald, "Health Care Systems in Twenty-Four Countries," *Health Affairs*, Fall 1991, Exhibits 1, 7, pp. 22-38.



TABLE III

# **Changes in Total Spending on Health Care Services<sup>1</sup>** (\$ millions)

<u>Net Effect On:</u>	<u>If the government spent \$500 million more on:</u>		
	<u>Hospitals</u>	<u>Doctors</u>	<u>Drugs</u>
<b>Hospitals</b>	+ \$388.3	+ \$244.0	- \$ 16.9
<b>Doctors</b>	+ 13.6	+ 182.2	- 343.9
<b>Drugs</b>	- 23.9	- 74.5	+ 292.3
<b>Dentists</b>	- 15.7	- 15.9	+ 50.1
<b>Other Professionals</b>	+ 10.5	- 16.1	- 2.5
<b>Nursing Homes</b>	+ 41.4	- 25.7	- 128.6
<b>Home Care</b>	+ 12.9	+ 39.1	- 153.4
<b>Vision Products</b>	- 6.0	- 6.1	- 0.9
<b>All Health</b>	+ 421	+ 307	- 304

Source: National Center for Policy Analysis/Fiscal Associates Health Care Model.

<sup>1</sup> At 1990 levels.

Take the case of doctors. If government increases its spending on physicians' services by \$500 million, the model predicts that the private sector would reduce its spending (since public money substitutes for private) by about \$300 million — leaving a net increase in spending on physicians of just under \$200 million. This is a remarkable result. Assuming that the goal of the change is to increase physicians' services and not simply leave people with more discretionary income, the policy falls 60 percent short of achieving that goal. As a result of increased physicians' services, other changes would occur:

- Because the services of physicians partly substitute for other medical services, spending on drugs, dentists, nurses and nursing homes would decrease.
- But overall, physicians' services appear to complement hospital services; as a result, the increased government spending on physicians would induce the private sector to use additional hospital services as well.

*"A \$500 million increase in government spending on drugs would cause total health care spending to go down by \$300 million."*

*"The increased spending on drugs would be more than offset by reduced spending on other medical services."*

- In fact, the increase in hospital spending would be larger than the net increase in spending on physicians.
- After all adjustments were made, total health care spending would be about \$300 million higher as a result of a \$500 million increase in government spending on physicians.

We might suppose that nursing home care and home care substitute for hospital care and, to some extent, they do. But Table III shows that on the whole they are complements. If government increased its spending on hospitals, a private sector spending reduction would offset about one-fifth of the effort. The net increase in hospital services would induce the private sector to spend more on doctors, nurses, nursing homes and home care — perhaps because all of these additional services are associated with additional surgery. The table also shows that hospital care partly substitutes for drug care, dental care and vision care.

The most interesting results in Table III are those pertaining to drugs. As in the previous two cases, an increase in government spending would be partly offset by a decrease in private spending — in this case offsetting 40 percent of the initial increase. The greater use of drugs, moreover, would cause surprising changes in other patient behavior. Specifically:

- A net increase in the use of pharmaceuticals would lead to reduced spending on physicians' services — more than offsetting the net increase in spending on drugs.
- Because of the increased use of drug therapy, there would be a substantial reduction in spending on nursing homes and home care — almost enough to offset the net increase in spending on drugs.
- Overall, total health care spending would go down, not up: *after all adjustments are made, a \$500 million increase in government spending on drugs would cause total health care spending to go down \$300 million.*

Of course, in the real world a new federal program to cover more pharmaceutical expenses might not achieve a reduction in total health care costs. Indeed, the program might introduce new inefficiencies. For example, if the federal government were to regulate pharmaceutical prices by reference to the prices of drugs in other countries, drug research would be devastated, and the production of innovative drugs would decline dramatically.<sup>9</sup> One of the most important insights provided by Table III, however, is that drugs are substantially underutilized in the health care system as a whole.

*"Compared to an efficient system, we spend far too much on hospitals and far too little on nurses and drugs."*

### **Estimating the Cost of Private Third-Party-Payment Distortions.**

To simulate the effects of eliminating private sector third-party-payment distortions, we again use the National Center for Policy Analysis/Fiscal Associates Health Care Model. Specifically, we assume that these third parties pay a uniform rate of 70.1 percent of all private payment for hospitals, doctors, drugs and other professionals<sup>10</sup> rather than the current disparate rates shown in Table I. The results of this simulation, shown in Table IV, make clear that a uniform reimbursement rate would induce patients and doctors to change their behavior substantially. Specifically:

- A switch to a uniform rate of private insurance payment would reduce by one-third the amount we currently spend on hospitals.
- By contrast, the switch would increase spending on nurses and other nonphysician personnel by more than one-third and spending on pharmaceuticals by 45 percent.

These results imply that our current health care system is quite inefficient. Compared to an efficient system, we currently spend far too much on hospitals and far too little on nurses and drugs. The results also imply opportunities for considerable waste reduction in the private sector provision of medical care.

**Gains to Society of Eliminating Private Insurance Distortions.** By definition, a movement toward greater efficiency means that we can have the same general level of health care for less money. Our estimate of the potential savings from moving to a uniform reimbursement rate for all private insurance appears in Table V. As the table shows:

- Eliminating the distortions caused by private third-party payers would allow us to reduce total health care spending by 8.5 percent.
- In terms of current prices, that means *we could reduce health care spending by about \$85 billion, without any reduction in the quality of care patients receive.*<sup>11</sup>

*"Eliminating private insurance distortions could reduce health care spending by about \$85 billion without any reduction in the quality of care."*

It might seem that if we can save \$85 billion by eliminating waste in the health care system, society could consume an additional \$85 billion in other goods and services. In fact, the gains to society would be much greater. We have previously shown that for every \$1 increase in health care, society must forgo more than \$1 in other goods and services. This is because moving labor and capital from the nonhealth to the health sector of the U.S. economy is so difficult. Conversely, for every \$1 reduction in health care output, society will have the opportunity to consume more than \$1 of additional goods and services.<sup>12</sup>

This relationship is reflected in Table V, which shows the net gains for the economy as a whole from eliminating \$85 billion worth of waste from the health care sector in the manner described above. As the table shows:

*"Eliminating private insurance distortions would also allow other output to rise by \$135 billion."*

- Eliminating the distortions caused by third-party payment would allow the production of other goods and services to rise 2.7 percent.
- In today's prices, nonhealth care output would increase by about \$135 billion.<sup>13</sup>
- Roughly speaking, the gains to society as a whole would be equal to \$520 per year for every man, woman and child in the country.<sup>14</sup>

TABLE IV

### Change in Health Care Spending Resulting from a Uniform Payment Rate by Third-Party Payers (Percent Change)

<u>Type of Spending</u>	<u>By Private Insurance Only<sup>1</sup></u>	<u>By Public and Private Insurance<sup>2</sup></u>
Hospitals	- 34.7%	- 47.4%
Doctors	+ 1.2%	+ 5.5%
Drugs	+ 45.5%	+ 31.6%
Other professionals	+ 34.7%	+ 59.4%
Dentists	+ 2.5%	+ 23.2%
Vision products	+ 2.7%	+ 21.2%
Nursing home care	+ 2.5%	- 13.9%
Home care	+ 2.6%	- 64.7%

Source: National Center for Policy Analysis/Fiscal Associates Health Care Model.

<sup>1</sup> The numbers in the column show how much spending on particular health care services would have changed in 1990 if private insurance had reimbursed expenses at a uniform rate over the period 1981 to 1990. For example, the simulation assumes that private insurers paid a uniform rate of 70.1 percent of all private spending on doctor and hospital services, drugs and the services of nonphysician personnel in 1990. The reimbursement rate was not made uniform for the remaining services in the simulation because the numbers were too small.

<sup>2</sup> The numbers in the column show how much spending on particular health services would have changed in 1990 if private insurance had paid a uniform rate of 70.1 percent of private spending for doctors, hospitals, drugs and nonphysician personnel in 1990 and government also had paid a uniform rate of 40.4 percent of all health care spending. The simulation equalizes government subsidies in such direct spending programs as Medicare and Medicaid between 1981 and 1990 by assuming that government programs reimbursed each type of health care at the average subsidy rate for that year.

TABLE V  
**Economic Effects of Moving to a Uniform  
 Payment Rate by Third-Party Payers**  
 (Percent Change)

	By Private Insurance Only <sup>1</sup>	By Public and Private Insurance <sup>2</sup>
Private GDP	+ 1.4%	+ 1.1%
Nonhealth output	+ 2.7%	+ 3.1%
Health output	- 8.5%	- 13.9%
Capital stock	+ 2.0%	+ 1.2%
Capital income	+ 0.3%	- 0.5%
Service price of capital	- 1.7%	- 7.7%
Labor <sup>3</sup>	+ 0.7%	+ 0.8%
Labor income	+ 1.6%	+ 1.7%
Wage rate	+ 1.2%	+ 1.3%

Source: National Center for Policy Analysis/Fiscal Associates Health Care Model.

<sup>1</sup> The numbers in the column show how much spending on particular health care services would have changed in 1990 if private insurance had reimbursed expenses at a uniform rate over the period 1981 to 1990. For example, the simulation assumes that private insurers paid a uniform rate of 70.1 percent of all private spending on doctor and hospital services, drugs and the services of nonphysician personnel in 1990. The reimbursement rate was not made uniform for the remaining services in the simulation because the numbers were too small.

<sup>2</sup> The numbers in the column show how much spending on particular health services would have changed in 1990 if private insurance had paid a uniform rate of 70.1 percent of private spending for doctors, hospitals, drugs and nonphysician personnel in 1990 and government also had paid a uniform rate of 40.4 percent of all health care spending. The simulation equalizes government subsidies in such direct spending programs as Medicare and Medicaid between 1981 and 1990 by assuming that government programs reimbursed each type of health care at the average subsidy rate for that year.

<sup>3</sup> Full-time employment.

**Distortions Caused by Government Subsidies.** Through direct spending programs, government currently pays about 40 cents out of every \$1.00 spent on personal health care in the United States. The degree of government subsidy varies across medical services, however. As Table I shows, some services are heavily subsidized while others are not. For example:

*"Eliminating all third-party distortions would allow us to reduce health care spending by about \$139 billion."*

- Government pays for 55 cents out of every dollar spent on hospitals and 52 cents of every dollar spent on nursing home care.
- But it pays only 11 cents of every dollar spent on drugs and less than 3 cents of every dollar spent on dentists.

**Estimating the Cost of All Third-Party Payer Distortions.** In a manner similar to that used for private insurance, we simulated the effects of removing the third-party payment distortions caused by government health care programs. Specifically, we assume that government pays 40.4 percent of all expenses for all medical services rather than the subsidy rates shown in Table I and that private health insurance pays 70.1 percent of all private spending on hospital, doctors, drugs and other professionals. The results of this simulation are depicted in Table IV. Specifically:

- A uniform reimbursement rate for both public and private insurance would reduce total spending on hospitals by almost one-half.
- Such uniformity would increase spending on drugs by almost one-third and spending on nonphysician personnel by almost 60 percent.
- Additionally, nursing home expenditures would go down by almost 14 percent and spending on dentists and vision products would go up by more than one-fifth.

These results illuminate a number of inefficiencies in the current system. Interestingly, the results suggest that in the movement to a more efficient health care system, spending on physicians would change very little.

**Gains to Society from Eliminating the Distortions Caused by All Third-Party-Payer Subsidies.** As in the case of distortions created by private insurance, a move toward a uniform rate of subsidy by government would make the health care system more efficient. As a result, we could reduce our overall spending on health and increase our consumption of other goods and services without any reduction in the quality of health care we are receiving. As Table V shows:

- Eliminating the relative price distortions caused by public and private third-party payers would allow us to reduce total health care spending by 13.9 percent.
- In terms of current spending, that means that *we could reduce health care spending by about \$139 billion without any reduction in the quality of care patients receive.*

*"In return, society could produce an additional \$155 billion of nonhealth care goods and services."*

Again, this reduction in health care spending would lead to an even greater increase in the output of other goods and services.

- The U.S. could increase its other outputs by 3.1 percent.
- In today's prices, we would enjoy an increase of about \$155 billion in nonhealth care goods and services.
- The overall gain to our society would be approximately \$600 per year for every man, woman and child in the country.

## Source of Inefficiency: Too Much Health Insurance

The other major source of inefficiency in our health care system is too much third-party payment of medical bills. Both formal studies and common sense confirm that we are less likely to be prudent, careful shoppers if someone else is paying the bill. Consider that:<sup>15</sup>

- Over the past thirty years, the share of our income spent out-of-pocket on health care has actually declined — falling from 4 percent of total consumption expenditures in 1960 to 3.6 percent in 1990.
- Over the same period, the amount spent from all sources has more than tripled — rising from 4.2 percent of consumption in 1960 to 13.3 percent in 1990.

These numbers suggest that when we are spending our own money we are careful shoppers in the medical marketplace. The converse is true when we are spending someone else's money. The rise in health care spending over the past three decades parallels the rapid expansion of third-party payment of medical bills. Overall, the patient's share of the bill has declined from 48 percent in 1960 to 21 percent today.<sup>16</sup> [See Figure III.]

**The Wastefulness of Third-Party Insurance.** A great deal of the waste in our health care system is caused by people who have too much insurance. For example, Rand Corporation studies imply that families with a \$2,500 deductible consume 30 percent less health care than families with no deductible — with no adverse effects on health.<sup>17</sup> Market prices for health insurance also provide powerful evidence of how wasteful low deductibles can be:<sup>18</sup>

- If a family of four in a city with average health care costs increases its deductible from \$250 to \$1,000, its premium savings will be \$2,334 — more than three times the amount of the increase in the deductible.<sup>19</sup>
- If the family increases its deductible from \$250 to \$2,500, it will save \$2,943 on premiums — about \$1,100 more than the amount of coverage the family will forgo, considering the effects of the deductibles and copayment.<sup>20</sup>

*"The patient's share of the bill has declined from 48 percent in 1960 to 21 percent today."*

Low-deductible health insurance is usually wasteful for three reasons. First, the lower immediate cost of additional care encourages some people with low deductibles or first-dollar coverage to purchase services that are not as valuable as the cost of producing them. Second, low-deductible insurance discourages people from seeking out low prices for the services they receive. Third, using insurance to pay small medical bills leads to wasteful administrative expenses. For example, a \$25 physician's fee can easily become \$50 in total costs after an insurer monitors and processes the claim — thus doubling the cost of medical care.<sup>21</sup>

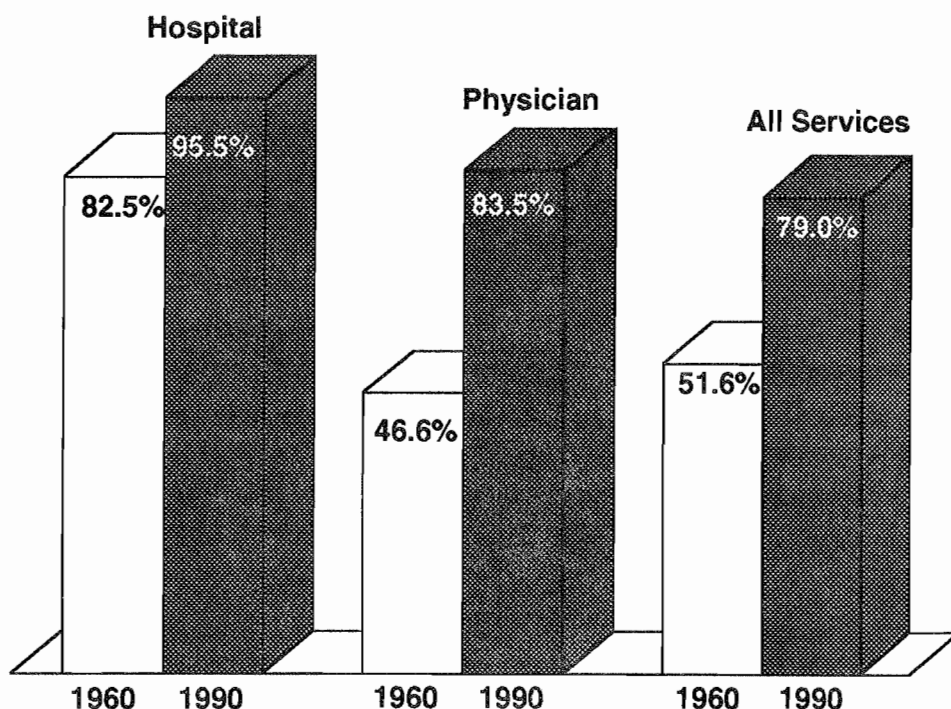
Why do most Americans have too much health insurance? The answer is that government policies encourage overinsurance.

#### **First-Dollar Coverage in Government Health Care Programs.**

One-fourth of all Americans are insured directly through government programs such as Medicare and Medicaid.<sup>22</sup> In these programs, deductibles and copayments are either very low or nonexistent. For example, Medicare pays all inpatient hospital bills after the patient pays a deductible of \$676, and it pays 80 percent of all doctor bills, outpatient hospital services, diagnostic tests and other related services after a \$100 deductible.<sup>23</sup> The federal Medicaid law also restricts the ability of states to charge patients even for low-cost items.<sup>24</sup>

FIGURE III

### **Percent of Personal Health Expenses Paid by Third Parties, 1960 and 1990**



*"Third parties pay 79 cents of every dollar spent on health care."*

Source: National Center for Policy Analysis/Fiscal Associates Health Care Model. Data adjusted for tax subsidies.



Since these programs are mainly funded by taxes collected from the general public, participants pay little, if any, premium.<sup>25</sup> Yet most Medicare patients could afford to pay their smaller medical bills as well as substantially higher premiums — since the elderly have more aftertax income than the nonelderly and own 40 percent of the nation's capital stock.<sup>26</sup> The program not only encourages the overconsumption of health care, but also is a wasteful way to subsidize the medical care of the low-income elderly.<sup>27</sup>

**Tax Subsidies for Third-Party Insurance.** Under current law, every dollar of health insurance premiums paid by an employer escapes, say, a 28 percent income tax, a 15.3 percent Social Security (FICA) tax and 4, 5 or 6 percent in state and local income taxes, depending on where the employee lives. The government is effectively paying half the premiums — a generous subsidy that encourages employers to offer and employees to accept overinsurance. As noted above, most individuals and families would be much better off if they had the opportunity to choose high deductibles and place the premium savings in a bank account — to use for small medical bills. Yet while the federal government generously subsidizes third-party insurance by excluding it from taxable income, it discourages self-insurance by taking income that individuals try to save for future medical expenses.<sup>28</sup>

**Estimating the Costs of Too Much Health Insurance.** In the previous section we used the National Center for Policy Analysis/Fiscal Associates Health Care Model to simulate the effects of moving to uniform third-party payment rates for all health care services. In this section, we build on those results and consider changes in the uniform rate. As Table VI shows:

- If the percent of health care bills paid out-of-pocket by patients were increased from one out of every five health care dollars to one out of every four, overall health care spending would decline by an additional 4.1 percent.
- In today's prices, that would mean a drop in health care spending of approximately \$41 billion.

**Gains to Society from Reducing the Amount of Third-Party Payment.** If we eliminated the relative price distortions caused by third-party payment of medical bills by moving to a uniform reimbursement rate and also reduced the rate itself, the gains to society would be quite large. As Table VI shows:

- These relatively modest changes in the way we pay for health care would reduce overall health care spending by 18 percent.
- In today's prices, that would mean a drop in health care spending of about \$180 billion.

*“Eliminating third-party price distortions and increasing out-of-pocket payments from one-fifth to one-fourth of all spending would lead to a drop in health care spending of \$180 billion.”*

TABLE VI

## Effect of Moving to Uniform Payment Rates by Third-Party Payers and Reducing Third-Party Payment of Medical Bills<sup>1</sup>

<u>Percent of Expenses Paid Out-of-Pocket</u>	<u>Percent Decrease in Total Health Care Spending</u>	<u>Percent Increase in Other Output</u>
21.0% <sup>2</sup>	- 13.9%	+ 3.1%
22.5%	- 15.3%	+ 4.2%
24.0%	- 16.7%	+ 5.3%
25.5%	- 18.0%	+ 6.3%

Source: National Center for Policy Analysis/Fiscal Associates Health Care Model.

<sup>1</sup> Calculations achieved by making private insurance payments uniform for hospitals, doctors, drugs and other professionals in 1990 and by making direct government spending uniform for all medical services. Out-of-pocket payments are increased by reducing government's share of medical expenses by 10 percent, 20 percent and 30 percent over the period 1981 to 1990.

<sup>2</sup> Current level.

*"The output of nonhealth goods and services could be increased by \$310 billion."*

- As noted above, the move to a uniform rate of third-party reimbursement would allow society to produce about \$155 billion in nonhealth goods and services without any reduction in the quality of health care we receive.
- Increasing out-of-pocket payments from one in five dollars to one in four would produce another \$155 billion gain.
- *Enacting the two changes described above would be worth about \$1,200 for every man, woman and child in the country every year, indefinitely into the future.*

## Strategies For Eliminating Inefficiencies

The preceding analysis provides important insights into the opportunities created by health care reform. Yet these insights have largely been ignored in the current debate. The Clinton administration and some other reformers appear to believe that waste and inefficiency is caused by greedy doctors and profit-seeking insurance and pharmaceutical companies.

To make our health care delivery system more efficient, reforms must induce patients and doctors to change their consumption patterns, by choosing less expensive therapies and induce patients to consume less health care overall. How can this be done?

As noted above, we could make significant gains by moving toward a uniform reimbursement rate under which private insurance paid, say, 70 percent of *all* private purchases of medical care. But it is unlikely that such an insurance policy would attract many subscribers because it would leave the individual quite exposed. For most people, the prospect of paying 30 percent of hospital bills is far more daunting than the certainty of paying 30 percent of pharmaceutical bills. Clearly, that is one reason why third-party insurance pays more hospital bills than drug bills.

Yet there are other ways in which we could move toward greater efficiency while still protecting people against catastrophic financial losses. Four very different ways of doing so are discussed below.

**No. 1: Uniform Catastrophic Insurance.** This solution has been recommended by Nobel Prize winner Milton Friedman and Martin Feldstein, former chairman of the Council of Economic Advisors, among others.<sup>29</sup> Implicitly, it has been endorsed by health economists in an American Enterprise Institute report.<sup>30</sup> It works like this. Suppose that every family had a catastrophic insurance policy that paid for all medical expenses above, say 20 percent of family income. Expenses not paid by insurance would be paid directly by the family without any subsidy from government. Once the family's out-of-pocket expenses reached 20 percent of income, private or public insurance would pay for everything else.

This arrangement eliminates both overinsurance and distorted incentives. When paying small medical bills, individuals would have to sacrifice a dollar's worth of other goods and services every time they spent a dollar on medical care. Thus they would have incentives not to spend a dollar in the medical marketplace unless they received full value for their dollar. Moreover, in choosing among therapies, patients would have to pay the market price for each. Since the private cost to the patient would be equal to the social cost of producing the service, every patient would have ideal incentives to choose the lowest-cost therapies.

Of course, once third-party insurance started paying the bills, patients would have an incentive to overconsume. But this would happen rarely — only in cases of catastrophic illness. And even after third-parties started paying, artificial distortions would not encourage inefficient choices of therapies.

**No. 2: Medical Savings Accounts.**<sup>31</sup> Under this proposal, individuals and their employers would be able to make tax-free deposits to Medical Savings Accounts (MSAs). These accounts would be the private property of the employee and would be personal and portable. Funds not spent would continue to grow tax free and could be rolled over into an IRA or private

*"Uniform catastrophic insurance would eliminate both overinsurance and distorted incentives."*

*"Medical Savings Accounts are a natural accompaniment to catastrophic insurance."*

pension plan at the time of retirement. Because funds in the accounts could be used to pay medical bills not paid by third-party insurance, MSAs are a natural accompaniment to catastrophic insurance. They provide self-insurance for small medical bills and protection from disaster, yet preserve incentives to prudent consumption.

**No. 3: Health Maintenance Organizations (HMOs).** HMOs are prepaid medical plans based on the tenet that the insurance premium should be the patient's only out-of-pocket expense. At the time patients consume medical services in an HMO, they usually pay nothing.<sup>32</sup>

If all medical services have a price of zero, as in an HMO, then one important problem is immediately solved. Patients no longer have distorted incentives with respect to their choice of therapies. And because HMO physicians are often rewarded for keeping costs down, they have a positive incentive to choose the least costly therapies, other things being equal. Relative to normal, indemnity insurance, we would expect HMOs to cut costs by substituting less expensive for more expensive therapies, and the evidence shows that this occurs. For example, HMOs appear to have substantially reduced the number of hospitalization relative to fee-for-service medicine:

- A Rand Corporation study found that HMOs reduce hospitalization by 40 percent.<sup>33</sup>
- Other studies concluded that HMOs reduce hospitalization for Medicare patients<sup>34</sup> and for the population as a whole.<sup>35</sup>

What about incentives with respect to the overall use of health care services? It is here that HMOs distort incentives, and they distort them in opposite directions for patients and physicians. Patients have incentives to overconsume until the value of the services they receive is zero — a distortion far worse than those for non-HMO patients.<sup>36</sup> HMO physicians, on the other hand, usually have financial incentives to underprovide.<sup>37</sup>

Given two opposing forces, which is likely to give way? On balance, it appears that while HMO patients use fewer hospital services, they use more of other services. Thus general overconsumption tends to offset some of the gains of substituting less costly for more costly therapies.<sup>38</sup>

The Rand Corporation study cited above concluded that HMOs reduce total spending by 25 percent relative to fee-for-service, indemnity insurance. However, a recent review of this and other studies by the Congressional Budget Office questioned the conclusion that HMOs produce significant cost savings.<sup>39</sup> And even if HMOs eliminate some inefficiency, there is no evidence that their general adoption would greatly improve the system's efficiency. Indeed, even Rand concluded that individuals spending their own money controlled costs better than HMOs.

*"There is no evidence that HMOs would greatly improve the system's efficiency."*

*"Global budgets force rationing of health care."*

**No. 4: Global Budgets.** Global budgets are a natural extension of Health Maintenance Organizations. An HMO, after all, cannot allow its members to consume medical services until they have zero value. Because that practice would lead to bankruptcy, HMOs do not allow enrollees to make unconstrained choice. But once there are constraints, the question of who imposes them arises. Should the choices be made by physicians? HMO administrators? Or should society as a whole (read: government) decide how much health care is going to be consumed through global budgets?

As implemented in Britain, Canada and other developed countries, global budgets impose limits on the resources available to physicians, hospitals or area health authorities and force them to ration health care. Most rationing decisions are left up to the providers and local administrators. But the central government limits the total amount to be spent and frequently sets a separate budget for new technology as well.<sup>40</sup>

If global budgets were a way of forcing the health care system to apply cost-benefit analyses to the delivery of health care, they might have some merit. In practice, however, political considerations tend to override both medicine and economics. All too often the politics of medicine dictate that health care for the small numbers of people (very few voters) who are really sick and require expensive treatment be sacrificed to health care for the many (a large number of voters), even if the care provided has little to do with healing. For example, in Britain elderly patients use ambulances as free taxis while thousands of kidney, heart and cancer patients die every year because the British government skimps on new and expensive medical technology.<sup>41</sup>

And contrary to the claims of single-payer advocates, there is no evidence that global budgets improve the efficiency of health care delivery. If anything, the opposite is true.<sup>42</sup>

## **Conclusion: Lessons for the Clinton Administration**

The health policy debate has so far been dominated by two groups: those who claim that inefficiency in our health care system can be substantially reduced by HMOs practicing managed care and those who claim it can be reduced by global budgets. The evidence does not support either claim.

Our analysis indicates that about \$140 billion of waste in the U.S. health care system — about 14 percent of total health care spending — occurs because patients and doctors fail to choose the most efficient therapies. This is the amount of waste that the theoretically could be removed by a managed care program that wherever possible substituted less costly for more costly

*“The most promising approach is to remove as much third-party payment as possible and allow patients to purchase their own care.”*

therapies. Interestingly, the 14 percent figure is very close to the percent reduction in cost that many predict would occur if people moved from current fee-for-service plans to HMOs.

If managed care were practiced in a prepaid plan in which the out-of-pocket cost to patients was zero at the time care was received, a new and countervailing distortion would be introduced. Specifically, if patients faced an out-of-pocket price of zero, they would have an incentive to overconsume care until its value at the margin was zero. Some health policy analysts believe that this inefficiency is not as pronounced in the current system because heavy users of medical resources tend to be in fee-for-service plans rather than in HMOs.<sup>43</sup>

If all patients were pushed into HMOs — the goal and likely result of most managed competition proposals — our analysis suggests that health care costs would be reduced substantially through the substitution of less costly for more costly therapies. However, this gain likely would be more than wiped out over time, if not immediately, by patients’ overconsumption of medical care or health care managers’ attempts to prevent overconsumption.

A far more promising approach is to remove as much third-party payment as possible and allow patients to purchase their own care. This could be accomplished through catastrophic insurance only or high-deductible policies combined with Medical Savings Accounts. In contrast to HMOs, this approach gives the buyers of care incentives to eliminate waste and consume efficiently.

Some object that patients lack the knowledge to make wise purchasing decisions or at least they have less knowledge than sophisticated health care managers. But if this is a problem, there is a simple solution.

Instead of making health care managers agents of bureaucracies, we could make them agents of patients. This is essentially the Mayo Clinic model. The clinic is well known for its use of managed care techniques and mainly caters to fee-for-service patients.<sup>44</sup>

If managed care works, there is no reason why patients should not access that market directly, which would preserve the doctor-patient relationship and enhance the advantages of managed care.

Yet even this idea should not be codified. The worst mistake Congress could make is to legislate how medical care should be delivered. Wise policy would level the playing field so that many ideas could be tried and their fates determined by the marketplace.

NOTE: Nothing written here should be construed as necessarily reflecting the views of the National Center for Policy Analysis or as an attempt to aid or hinder the passage of any bill before Congress.

## Technical Appendix

The National Center for Policy Analysis/Fiscal Associates Health Care Model is a quantitative model of the U.S. health care system. It is designed to correctly measure prices facing consumers, providers and third-party payers. Once prices are accurately measured, traditional supply and demand relationships can be estimated as in any other sector of the economy. We will use the model to analyze a wide range of health care issues.

The basic model consists of separate relations describing the use and total cost for eight major components of health care (e.g., hospitals, doctors, drugs.) The demand sector includes (1) household demand for all nonhealth consumer goods and (2) household health care spending on insurance and out-of-pocket expenses.<sup>45</sup> The primary determinants of the demand for medical services are the prices facing consumers, prices of other goods, income and demographic factors. Prices of medical care facing consumers depend upon such government programs as Medicare and Medicaid and on tax subsidies for employer-provided health insurance. Demographic factors such as age are proxies for the general health of the population.

A simplified production system links labor and capital inputs to the joint production of health and nonhealth goods and services.<sup>46</sup> The primary determinants of long-run medical prices are the costs of the individual factors of production used in providing medical services. Factor costs are determined by the willingness of people to supply the necessary labor and capital. Estimating the supply of a medical service requires a technological function relating output to inputs and a relationship that links input supply to its compensation and other relevant variables. This supply system allows us to measure how demand influences the cost of producing more health care.

The National Center for Policy Analysis/Fiscal Associates model integrates the medical market with the rest of the economy. For example, increases in health care demand mean less demand for other goods and services. Increases in the supply of medical services mean less capital and labor available to produce other goods and services. Thus the medical model measures trade-offs between health care and other types of economic activities.

In using the model, our initial objective is to provide a consistent framework for analyzing medical costs and their components. The model also will enable us to analyze how the medical marketplace adjusts to institutional changes over time. For example, as consumer behavior has changed, other important institutions, such as the insurance contract, have changed to accommodate consumer requirements. Finally, the model will support systematic predictions of the effects of public policy on the medical marketplace and the U.S. economy.

## Notes

- <sup>1</sup> According to the president, 10 cents of every health care dollar goes to fraud and abuse, in addition to unnecessary procedures and burdensome administrative costs. See "Health Care Update: The Need for Health Care Reform," White House White Paper, August 1993, p. 2.
- <sup>2</sup> Robert M. Goldberg, "Pharmaceutical Price Controls: Saving Money Today or Lives Tomorrow?" Institute for Policy Innovation, IPI Policy Report No. 123, September 1993, p. 8.
- <sup>3</sup> Two items are substitutes if either can satisfy the same need; they are complements if they are consumed jointly to satisfy a need. More rigorously, item A is a substitute for item B if the demand for A decreases as the consumption of B increases.
- <sup>4</sup> In 1976, the year before the introduction of the first modern anti-ulcer drug, there were 155,000 ulcer operations. By 1987, the number had dropped to under 19,000. See Pharmaceutical Manufacturers Association, *The Case for the Pharmaceutical Industry*, 1993-94, Washington, DC, 1993, p. 28.1.
- <sup>5</sup> Goldberg, "Pharmaceutical Price Controls: Saving Money Today or Lives Tomorrow?"
- <sup>6</sup> R. N. Ross et al., *Clinical Therapeutics*, Vol. 10, No. 2, 1988, pp. 188-203.
- <sup>7</sup> J. Glaspy et al., "The Economic Impact of Recombinant Granulocyte Colony-Stimulating Factor," in M.K. Cbytil et al., eds., *Health Systems — The Challenge of Change*, proceedings of the 5th International Conference on Systems Science in Health Care (Prague: Omnipress Publishers).
- <sup>8</sup> G. Honigfeld and J. Patin, *Hospital and Community Psychiatry*, vol. 41, no. 8, pp. 882-85, 1990.
- <sup>9</sup> See Patricia M. Danzon, "Drug Price Controls, Wrong Prescription," *Wall Street Journal*, February 4, 1994. See also Goldberg, "Pharmaceutical Price Controls: Saving Money Today or Lives Tomorrow?"; The Boston Consulting Group, Inc., "The Contribution of Pharmaceutical Companies: What's at Stake for America," September 1993. For a global perspective on the impact of price controls on pharmaceuticals, see Heinz Redwood, *Price Regulation and Pharmaceutical Research: The Limits of Co-Existence* (Suffolk, England: Oldwicks Press, Ltd., 1993).
- <sup>10</sup> The four comprise 79.2 percent of personal health care spending. The simulation assumes government expenditures and tax subsidies remain at 50.7 percent of total expenditures.
- <sup>11</sup> Health spending in 1994 will be about \$1 trillion. The simulations described in this section covered the period 1981 through 1990. Current dollar estimates, therefore, are only indicative because the mix between health and nonhealth output and the mix among various medical services changes overtime.
- <sup>12</sup> See the discussion in Gary Robbins, Aldona Robbins and John Goodman, "How Our Health Care System Works," National Center for Policy Analysis, NCPA Policy Report No. 177, February 1993.
- <sup>13</sup> Private GDP in 1994 will amount to about \$6 trillion. Subtracting \$1 trillion for health care leaves the value of nonhealth goods and services at \$5 trillion. The simulations described in this section cover the period 1960 through 1990. Current dollar estimates, therefore, are very tenuous because the mix between health and nonhealth output and the mix among various medical services changes over time.
- <sup>14</sup> The U.S. Census Bureau projects a resident U.S. population of 260.2 million in 1994.
- <sup>15</sup> Robbins, Robbins and Goodman, "How Our Health Care System Works."
- <sup>16</sup> Ibid.
- <sup>17</sup> The Rand Corporation, in a study conducted from 1974 to 1982, found that people who had access to free care spent about 50 percent more than those who had to pay 95 percent of the bills out-of-pocket up to a maximum of \$1,000 deductible. A \$1,000 deductible over that period would be equivalent to a deductible between \$1,380 and \$2,482 today. See Robert Brook et al., *The Effect of Coinsurance on the Health of Adults* (Santa Monica, CA: Rand, 1984) and Willard Manning et al., "Health Insurance and the Demand for Health Care: Evidence from a Randomized Experiment," *American Economic Review*, June 1987. The Rand study found no significant differences in the health status of people who had high and low deductibles. The one exception was vision care. See Joseph Newhouse et al., "Some Interim Results from a Controlled Trial of Cost-Sharing in Health Insurance," *New Journal of Medicine*, vol. 305, no. 25, December 17, 1981, pp. 1501-07; and Robert Brook et al., "Does Free Care Improve Adults' Health?" *New England Journal of Medicine*, vol. 309, no. 23, December 8, 1983, pp. 1426-34.
- <sup>18</sup> This problem is often described as the problem of rising costs. However, it is not clear that costs in the sense of average



costs of treatment are rising. More importantly, the term costs encourages people to focus solely on the supply side of the market, when the initial source of the problem is on the demand side.

<sup>19</sup> See John C. Goodman and Gerald L. Musgrave, *Patient Power: Solving America's Health Care Crisis* (Washington, DC: Cato Institute, 1992), p. 76.

<sup>20</sup> The forgone coverage is 80 percent x (\$2,500 - \$250) = \$1,800.

<sup>21</sup> See the discussion in John C. Goodman and Gerald L. Musgrave, "Controlling Health Care Costs with Medical Savings Accounts," National Center for Policy Analysis, NCPA Policy Report No. 168, January 1992.

<sup>22</sup> Employee Benefits Research Institute, "Source of Health Insurance and Characteristics of the Uninsured," *Special Report and Issue Brief No. 133*, January 1993, Table I.

<sup>23</sup> The Part A inpatient hospital deductible is \$676. The Part B deductible for doctors and other services has increased only three times in Medicare's history — from \$50 in 1966 to \$100 today.

<sup>24</sup> See the discussion in Lucy Johns and Gerald S. Adler, "Evaluation of Recent Changes in Medicaid," *Health Affairs*, Spring 1989, p. 179.

<sup>25</sup> For example, people eligible for Medicaid and Medicare Part A pay nothing for coverage. Those participating in Medicare Part B pay a premium equal to about 25 percent of costs. A 2.9 percent payroll tax on wages up to \$135,000 (in 1993) finances Medicare Part A. General revenues pay for Medicaid and 75 percent of Medicare Part B expenses.

<sup>26</sup> Aldona Robbins and Gary Robbins, "Taxing the Savings of Elderly Americans," National Center for Policy Analysis, NCPA Policy Report No. 141, September 1989.

<sup>27</sup> Although Medicare's original stated intent was to reduce health care spending by the elderly, the elderly now spend a larger share of their income on health care than they did before Medicare existed. See Timothy M. Smeedling and Lavonne Straub, "Health Care Financing among the Elderly: Who Really Pays the Bills?" *Journal of Health Politics, Policy and Law*, vol. 12, no. 1, Spring 1987, p. 37.

<sup>28</sup> One exception to this general rule is that federal tax law permits employees to make pretax deposits to Flexible Spending Accounts (FSAs) from which to pay for medical expenses not covered by employer-provided health insurance. These accounts are governed by a use-it-or-lose-it rule, however. Within a certain time period, usually a year, employees must spend all funds in the account or forfeit them. Thus FSAs are designed to encourage spending, not restraint. See Alain C. Enthoven, "Health Tax Policy Mismatch," *Health Affairs*, Winter 1985, pp. 5-13.

<sup>29</sup> Friedman would require every U.S. family to own a high-deductible major medical policy. Although he prefers private insurance, he argues that government's catastrophic insurance would be an improvement over the existing system. See Milton Friedman, "Gammon's Law Points to Health-Care Solution," *Wall Street Journal*, November 12, 1991. See also Martin Feldstein, "The Health Plan's Financing Gap," *Wall Street Journal*, September 29, 1993.

<sup>30</sup> Mark V. Pauly, Patricia M. Danzon, Paul J. Feldstein and John Hoff, *Responsible National Health Insurance* (Washington, DC: AEI Press, 1992).

<sup>31</sup> See Goodman and Musgrave, "Controlling Health Care Costs with Medical Savings Accounts." See also John C. Goodman and Gerald L. Musgrave, "Personal Medical Savings Accounts (Medical IRAs): An Idea Whose Time Has Come," National Center for Policy Analysis, NCPA Policy Backgrounder No. 128, July 22, 1993. For an in-depth discussion of the issues surrounding Medical Savings Accounts, see Goodman and Musgrave, *Patient Power*.

<sup>32</sup> Many HMOs now require a small charge of \$5 or \$10 per visit to discourage patient overutilization.

<sup>33</sup> William Manning et al., "A Controlled Trial of the Effect of a Prepaid Group Practice on Use of Services," *New England Journal of Medicine*, Vol. 310, No. 3 (June 7, 1984), pp. 1501-10.

<sup>34</sup> Randall Brown, *Biased Selection in the Medicare Competition Demonstrations* (Washington, DC: Mathematica Policy Research, April 1987).

<sup>35</sup> Sheldon Greenfield et al., "Variations in Resource Utilization Among Medical Specialties and Systems of Care," *Journal of the American Medical Association*, Vol. 267, No. 12 (March 25, 1992), pp. 1624-30.

<sup>36</sup> Alain Enthoven has argued that several artificial market imperfections in health care "have created conditions that reduce the demand for real cost containment and that make the demand curves for HMOs and PPI price-inelastic, thus depriving them of an adequate incentive to cut cost and price." See Alain C. Enthoven, "Why Managed Care Has Failed to Contain Health Costs," *Health Affairs*, Fall 1993, p. 29.

<sup>37</sup> The General Accounting Office has concluded that the financial incentives employed in HMOs may result in a diminished quality of care for patients. See U.S. General Accounting Office, "Physician Incentive Payments by Prepaid Health Plans Could Lower the Quality of Care," Washington, DC, 1988.

<sup>38</sup> See Congressional Budget Office, "The Effects of Managed Care on Use and Costs of Health Services," CBO Staff Memorandum, June 1992. Based on the available evidence, the CBO concluded that "Staff model HMOs and group model HMOs reduce hospital use significantly. The impact on total health spending for the group that is associated with such a reduction in hospital use is less, however, because use of other services increases. (p. 17)

<sup>39</sup> Ibid.

<sup>40</sup> See John C. Goodman and Gerald L. Musgrave, "Twenty Myths about National Health Insurance," National Center for Policy Analysis, NCPA Policy Report No. 166, December 1991.

<sup>41</sup> English "patients" take more than 19.5 million ambulance rides each year, about 91 percent of which are for nonemergency purposes (such as taking an elderly person to a local pharmacy). See Department of Health and Social Security, *Health and Personal Social Services for England*, 1985 and 1991 eds. (London: Her Majesty's Stationery Office, 1985 and 1991). By contrast, about 9,000 British patients each year fail to receive renal dialysis and die as a result, while another 15,000 cancer patients and 17,000 heart patients fail to receive the best treatment. See Henry J. Aaron and William B. Schwartz, *The Painful Prescription: Rationing Health Care* (Washington, DC: Brookings Institution, 1984).

<sup>42</sup> See Goodman and Musgrave, "Twenty Myths about National Health Insurance."

<sup>43</sup> See CBO, "The Effects of Managed Care on Use and Costs of Health Services," p. 17.

<sup>44</sup> See Robert Waller's commentary on managed competition in *Health Policy Reform: Competition and Controls*, Robert Helms, ed. (Washington, DC: AEI Press, 1993), pp. 235-37.

<sup>45</sup> We have estimated an expanded system of demand equations for individual types of medical services consistent with the total demand for health care broken down by out-of-pocket and insurance coverage.

<sup>46</sup> We have estimated an expanded set of supply equations for individual types of services and the price of insurance coverage for each.

## About the Authors

**Aldona Robbins**, an NCPA Senior Fellow and Vice President of Fiscal Associates, has extensive experience with public and private retirement programs. Dr. Robbins served as senior economist in the Office of Economic Policy, U.S. Department of the Treasury from 1979 to 1985 and has developed a model to project Social Security benefits and tax revenues. Recent publications include NCPA Reports entitled “What A Canadian-Style Health Care System Would Cost U.S. Employers and Employees” and “Taxing the Savings of Elderly Americans,” an NCPA and Institute for Policy Innovation Report entitled “Paying People Not To Work: The Economic Cost of the Social Security Retirement Earnings Limit,” a book entitled *The ABCs of Social Security* published by the Institute for Research on the Economics of Taxation Economic Report, and an article entitled “Encouraging Private Provision for Long-Term Care” in *Compensation and Benefits Management*. Articles on Individual Retirement Accounts and Medicare have appeared in *The Wall Street Journal*.

**Gary Robbins** is an NCPA Senior Fellow and President of Fiscal Associates. Mr. Robbins has developed a general equilibrium model of the U.S. economy that specifically incorporates the effects of taxes and government spending. Before joining the private sector, he was Chief of the Applied Econometrics Staff at the U.S. Treasury Department from 1982 to 1985, Assistant to the Under Secretary for Tax and Economic Affairs from 1981 to 1982, and Assistant to the Director of the Office of Tax Analysis from 1976 to 1981. Recent publications include NCPA Reports entitled “Taxes, Deficits, and the Current Recession,” “A Pro-Growth Budget Strategy: Vision for the 1990s,” and “Elderly Taxpayers and the Capital Gains Tax Debate,” an IPI Report entitled “Will Raising Taxes Reduce the Deficit?”, “and a report for the U.S. Chamber of Commerce entitled “Adding to the S&L Solution: A Case for Lower Capital Gains Taxes.” Articles on various tax policy issues have appeared in *The Wall Street Journal*.

**John C. Goodman** is President of the National Center for Policy Analysis. Dr. Goodman earned his Ph.D. in economics at Columbia University and has engaged in teaching and research at six colleges and universities, including Columbia University, Stanford University, Dartmouth College, Sarah Lawrence College and Southern Methodist University. Dr. Goodman has written widely on health care, Social Security, privatization, the welfare state and other public policy issues. He is the author of seven books and numerous scholarly articles. Dr. Goodman’s published works include *National Health Care in Great Britain*, *Regulation of Medical Care: Is the Price Too High?*, *Economics of Public Policy*, *Social Security in the United Kingdom* and *Patient Power: Solving America’s Health Care Crisis*.

## The National Center for Policy Analysis

The National Center for Policy Analysis is a nonprofit, nonpartisan research institute, funded exclusively by private contributions. The NCPA originated the concept of the Medical IRA (which has bipartisan support in Congress) and merit pay for school districts (adopted in South Carolina and Texas). Many credit NCPA studies of the Medicare surtax as the main factor leading to the 1989 repeal of the Medicare Catastrophic Coverage Act.

NCPA forecasts show that repeal of the Social Security earnings test would cause no loss of federal revenue, that a capital gains tax cut would increase federal revenue and that the federal government gets virtually all the money back from the current child care tax credit. These forecasts are an alternative to the forecasts of the Congressional Budget Office and the Joint Committee on Taxation and are frequently used by Republicans and Democrats in Congress. The NCPA also has produced a first-of-its-kind, pro-free-enterprise health care task force report, written by 40 representatives of think tanks and research institutes, and a first-of-its-kind, pro-free enterprise environmental task force report, written by 76 representatives of think tanks and research institutes.

The NCPA is the source of numerous discoveries that have been reported in the national news. According to NCPA reports:

- Blacks and other minorities are severely disadvantaged under Social Security, Medicare and other age-based entitlement programs;
- Special taxes on the elderly have destroyed the value of tax-deferred savings (IRAs, employee pensions, etc.) for a large portion of young workers; and
- Man-made food additives, pesticides and airborne pollutants are much less of a health risk than carcinogens that exist naturally in our environment.

### What Others Say About the NCPA

*"...influencing the national debate with studies, reports and seminars."*

— **TIME**

*"...steadily thrusting such ideas as 'privatization' of social services into the intellectual marketplace."*

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