

Medical Care:

Rising Cost in a Peculiar Marketplace

When told that he needed to be hospitalized for approximately two weeks and that a semiprivate hospital room would cost \$115 per day, the obviously ill and elderly gentleman replied, "it would be cheaper for me to die because they can bury me for less than \$1,000."

This gentleman is joined by many other Americans who genuinely feel that they "cannot afford to live" if it means paying for the steadily increasing cost of medical care. Routine visits to the family doctor now cost more than \$10 in many metropolitan areas; one day of hospital care costs more than \$100; a thorough physical examination costs up to \$125; and an excess bed in the hospital—one sometimes used but one the hospital could do without—costs a hospital on an average of \$18,250 per year to maintain.

According to preliminary figures, Americans spent \$62.7 billion on medical care in fiscal 1973, which

amounted to 7.8 percent of our total personal consumption expenditures (See Table I). The average amount spent per capita for medical care was \$298—nearly \$24 more than the amount spent in the previous year. The medical care component of the Consumer Price Index increased from the 1973 average of 137.7 to 151.4 by midyear 1974, an increase of 10 percent.

As expected, the rapid rise in the cost of medical care has produced strong pressure for a number of palliatives. Such palliatives have included a variety of health manpower programs, incentive programs to encourage managerial efficiency, hospital utilization review programs, a federally mandated program in which physicians oversee the cost and quality of care provided by other physicians, and, last but not least, a national health insurance program. Proposals for national health insurance plans have been put forth by such groups as organized labor, the Ameri-

Table I
**RATIO OF PERSONAL CONSUMPTION EXPENDITURES FOR MEDICAL CARE
 TO DISPOSABLE PERSONAL INCOME AND TO TOTAL
 PERSONAL CONSUMPTION EXPENDITURES**

UNITED STATES
 (billions of dollars)

Year	Personal consumption expenditures for medical care*	Disposable personal income	Total personal consumption expenditures	Ratio of Col. (1) to Col. (2)	Ratio of Col. (1) to Col. (3)
	(1)	(2)	(3)	(4)	(5)
1966	\$31.1	\$511.9	\$466.3	6.1%	6.7%
1967	34.5	546.3	492.1	6.3	6.7
1968	38.0	591.0	536.2	6.4	7.1
1969	42.5	634.4	579.5	6.7	7.3
1970	47.4	691.7	617.6	6.9	7.7
1971	51.7	746.0	667.2	6.9	7.7
1972	57.2	797.0	726.5	7.2	7.9
1973	62.7	903.7	805.2	6.9	7.8

*Includes expenses for health insurance.

Source: Survey of Current Business, U. S. Department of Commerce.

can Hospital Association, the health insurance industry, the U. S. Chamber of Commerce, the President of the United States, various Congressmen, and even the American Medical Association. Most of these proposals call for relieving the poor of all costs of medical care. The proposals vary, however, on such matters as participation by private insurance companies, method of financing, control and operation by government, extent of coverage, and the part of the bill to be paid by persons seeking medical service.

Most of the sponsors of national health insurance proposals agree that the present system of financing medical care has glaring defects. The poor are inadequately covered despite Medicaid and Medicare; middle-income persons find it difficult to buy health insurance that meets their needs and often end up with coverage that encourages overuse of hospitals and discourages preventive care; and catastrophic medical bills associated with prolonged or acute illnesses are inadequately covered by private health insurance and can bankrupt even those persons in the higher-income brackets.

While the enactment of a national health insurance bill may still be months away, if not years, the extensive discussion of the matter and the variety of proposals reflect a consensus on the need for an improved health care system. It may not be inaccurate to say that Americans are healthier than ever, particularly if we take the steady aging of the population into account. The fact remains, however, that many families are threatened with bankruptcy in trying to pay for prolonged illnesses; many people are forced to pay \$100 or more a day for hospitalization; many persons are compelled to pay higher prices for drugs under the brand name, when the equivalent drug can be purchased at a lower price under the generic name (See Table II); and many persons, mostly in the lower-income brackets, are not covered by private health insurance or one of the medical programs sponsored by the Government. In purchasing most other goods and services, the American consumer can police the market by shopping around, but this applies far less to medical services. The average consumer knows less about medical services than almost any other service he pays for.

The rising cost of medical care is difficult to explain. Recent increases in the price of petroleum, natural gas, coal, and sugar can be explained by the simple analysis of showing that the rate of demand for these items is increasing faster than the rate of supply. In the case of medical care, however, such factors appear less evident. For example, if one views the occupancy rate for hospitals as evidence of

Table II
**WHOLESALE PRICES OF BRAND NAME
 AND GENERIC DRUGS***

<u>Drugs and dosage</u>	<u>Brand name and</u>	<u>Price</u>	<u>Generic price</u>
Penicillin G 400,000U	Pentids	\$ 8.45	\$1.75- 3.90
Penicillin V 250 mg	Pen-Vee-K V-Cillin-K	10.47 8.95	4.25- 7.00
Ampicillin 250 mg	Polycillin	14.85	7.45-15.00
Erythromycin stearate 250 mg	Erythrocin	17.39	9.95-11.95
Tetracycline 250 mg	Achromycin V	5.35	1.50- 2.85
Sulfisoxazole 500 mg	Gantrisin	3.09	1.25- 2.85
Meprobamate 400 mg	Miltown Equanil	6.50 7.06	1.00- 4.95
Diphenylhydantoin 100 mg†	Dilantin	15.85	5.40- 9.50
Diphenhydramine 25 mg†	Benadryl	18.68	6.15- 9.90
Chlorpheniramine 4 mg†	Chlor-Trimeton	21.66	1.95- 4.50
Digoxin 0.25 mg†	Lanoxin	7.90	3.90- 7.40
Reserpine 0.1 mg†	Serpasil	23.50	1.25- 2.75
Thyroid 1 Gr†	Armour	6.29	1.25- 5.50
L-Thyroxin 0.1 mg†	Synthroid	14.30	5.00- 9.00
Conjugated Estrogens 1.25 mg	Premarin	6.91	3.00- 5.70

*Average wholesale prices to pharmacist and range of generic prices listed in *Drug Topics Red Book*, 1973 edition.

†Price per 1,000; other prices per 100.

demand for hospitals, there is no question but that the demand is decreasing. Yet the price or charge for a hospital room is increasing rapidly. Also, while the occupancy rate in hospitals is declining, the number of hospital beds is steadily increasing. In the case of physicians' services, the marketplace is equally difficult to explain. In the first place, physicians are able to determine the demand for their own services. Also, experience shows that the price for physicians' services is steadily increasing despite the increased supply of physicians relative to the population (See Figure 1).

Ideally, the consumer preferences and supply capabilities interact in the free market to determine the price and amount of the commodity consumed; and this reaction leads to the most efficient use of resources. In the case of medical care, however, distortions in the market occur because, on the demand side, consumers are not always able to judge the adequacy of the service, and on the supply side,

Table III
**CONSUMER PRICE INDEX CHANGES FOR MEDICAL CARE,
 MEDICAL CARE SERVICES AND PHYSICIANS' FEES**

1966-Midyear 1974

Item	12 months ending June—								
	1966	1967	1968	1969	1970	1971	1972	1973	Midyear 1974
Medical care, total	3.9	7.3	5.9	7.5	6.2	6.7	3.4	4.6	14.1
Medical care services, total	4.7	9.2	7.1	8.7	6.8	7.7	4.0	5.5	16.3
Physicians' fees	5.7	7.3	5.5	7.3	7.6	6.8	3.7	4.2	14.1

competition is often limited by restrictions on entry into medical practices and hospital services.¹ Granted, these restrictions may be intended to protect consumers, but they have the unfortunate side effect of impeding the efficient utilization of resources. In addition, the dominant position of nonprofit organizations in the market for providing hospital services raises other questions about whether incentives to minimize costs are as great in medicine as in other areas of the economy.

¹ *Economic Report of the President*, January 1972, p. 136.

DEMAND FOR MEDICAL CARE

Rising levels of education, widespread public information about progress in medical science, and the desire to reflect a higher standard of living contribute significantly to increasing general public awareness of health and medical needs in America today. This awareness stimulates a growing desire for health and medical care, and brings about growing realization of the benefits achieved for individuals and the community by maintaining a high, rising level of health through effective medical care and preventive health measures.

Table IV
KEY FACTORS IN HOSPITAL OPERATION, 1967-1973

Fiscal year	Admissions (in thousands)	Inpatient days (in thousands)	Average length of stay (in days)		Occupancy rate (percent)	Outpatient visits (in thousands)	Total expenses (in millions)	Expense per adjusted patient day ¹
			Number or amount in year					
1966	26,831	203,647	7.6	76.4	94,083	\$ 9,721	\$ 43.58	
1967	27,048	214,454	7.9	78.0	100,301	11,510	49.22	
1968	27,465	221,891	8.1	78.2	108,150	13,697	56.24	
1969	28,027	227,633	8.1	78.5	113,921	15,965	63.66	
1970	29,238	231,643	7.9	77.4	126,639	18,669	73.14	
1971	30,312	234,413	7.7	77.1	142,582	21,418	82.70	
1972	30,706	232,892	7.6	75.1	152,610	23,925	92.48	
1973	31,483	235,983	7.5	75.0	163,482	26,589	101.05	
Percentage change from preceding year								
1967	.8	5.3	3.9	2.1	6.6	18.4	12.9	
1968	1.5	3.5	2.5	.3	7.8	19.0	14.3	
1969	2.0	2.6	—	.4	5.3	16.6	13.2	
1970	4.3	1.8	-2.4	-1.4	11.2	16.9	14.9	
1971	3.6	1.2	-2.5	-.4	12.6	14.7	13.1	
1972	1.3	-.6	-1.3	-2.6	7.0	11.7	11.8	
1973	2.5	1.3	-1.3	-1.3	7.1	11.1	9.3	

¹ Adjusted to account for the volume of outpatient visits.

Source: "Hospital Indicators," *Hospitals*, midmonth issues and unpublished data from the American Hospital Association.

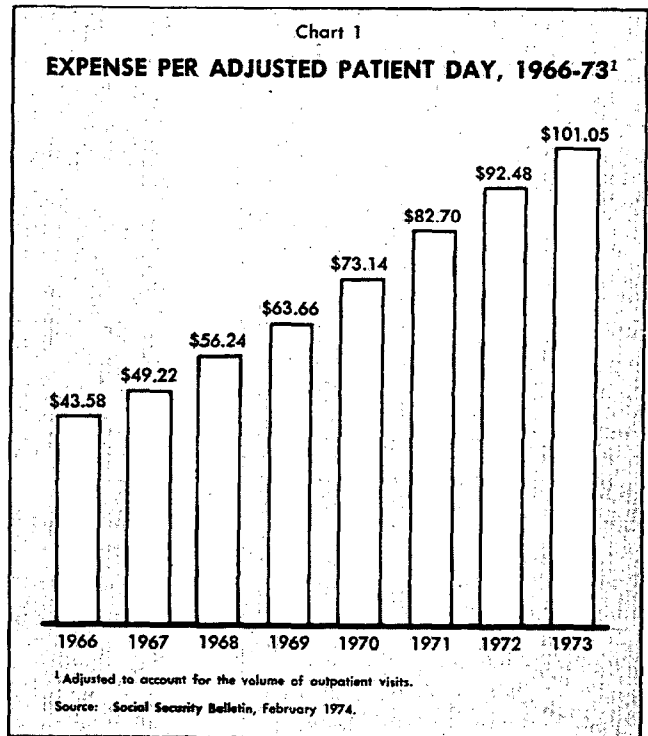
While medical care is only one factor contributing to health, it is often a critical factor—sometimes a matter of life and death. Chronic illness and disability are increasingly regarded as avoidable and death as postponable. Thus society has come increasingly to the view that adequate medical care is a basic right, neither to be denied nor treated as a charity to those who are financially disadvantaged. This attitude often raises the problem of distinguishing between the need for medical care and the demand for such care. The need in this case may be subject to individual assessment, but demand is a measure of financial ability and willingness to meet the needs.²

In a free enterprise system prices are often assumed to reflect the conditions of demand and supply. Accordingly, one might assume that the rapid rise in the price of medical care during the past several years indicates a more rapid increase in demand for medical services than in supply. Unfortunately for purposes of analysis, the demand for medical care cannot be measured directly. Consequently, most analysts use data related to utilization of medical resources or medical expenditures to measure demand indirectly. Utilization data include factors associated with hospital care and services of physicians. Medical care expenditure is a function of the price of goods and services used in medical care, range of services, supply of facilities and personnel, and the state of medical technology. Neither the utilization of medical resources nor medical expenditures are measures of demand in this case. Instead, they are the result of the interplay of demand and supply.

In most instances, the demand for medical care originates with the individual. The decision to seek care—which usually begins with a visit to a physician—will depend in part on: (1) the person's underlying state of health; (2) his perception of the need for medical care; (3) the cost of obtaining the care; and (4) his resources to pay for such care. Recently, this demand has been reflected by rapid growth in hospital and nursing home expenditures, with outlays for physicians' services and other components of medical care rising more slowly as shown in Table III.

I. Hospital Care Hospitals are the focal points of medical science and medical services. Many of the advances in medical science are initiated and confirmed at hospitals. Hospitals form the core of the

² Markley Roberts, "Trends in the Supply and Demand of Medical Care," Study Paper #5, Materials for Consideration by the Joint Economic Committee, 86th Congress, 1st Session, November 10, 1959, p. 49.



growing centralization of medical practice because physicians prefer the backup of the hospital's resources for sophisticated diagnosis and treatment. Also, American people increasingly demand hospital services for diagnosis and treatment of disease, as well as for preventive medicine and community health education. However, along with this growing utilization of hospital facilities, the demand for certain hospital services appears to be associated with a number of peculiar developments in the marketplace for such services.

Utilization and Price Although hospitals have become the focal point of medical care services, certain measures of the demand for hospital services have shown a steady decline during the past several years. The occupancy rate, for example, has declined steadily since 1969; the average length of stay has decreased each year since 1970; and the rate of increase in the number of inpatient days has fallen ever since the end of the initial impact of the Medicare program in 1966 (See Table IV).

Despite this apparent decline in demand for certain hospital services, the price charged for these services has increased persistently. Since the end of World War II, the rate for semiprivate hospital rooms has increased faster than any other item of medical care and has been the only item that doubled in price between the base year, 1967, and midyear 1974 (See Table V).

Hospital care is often described as a necessity and, as such, is considered to be very insensitive to price. According to Feldstein, however, the substantial variation among areas in the rate of hospitalization and in mean durations of stay for different diagnoses and procedures shows that most treatment cannot be regarded as a technically determined necessity. He concludes that although admission to a hospital for some diagnoses may be completely price inelastic, admission for other conditions and the mean durations of stay for most case types are likely to be more price elastic.³

Third-Party Payments A commonly held position in studies of hospital care is that the increase in third-party payments may be an important reason for the rapid rise in the price charged for the use of hospital facilities during the past several years. Major insurers, including Blue Cross and the Federal Government under the Medicare and Medicaid programs, generally reimburse the hospital for the actual costs incurred in providing service to their subscribers (patients). Consequently, it is sometimes argued that this reimbursement method gives hospitals no incentive to hold down either their payroll or capital costs, since they are essentially guaranteed payment no matter what the total costs may be. Moreover, insurance is bought to avoid the risk of unexpected expenditure, but because it provides a reduction in price at the time that the hospital care is purchased, it has the concomitant effect of artificially increasing the demand for such care and its price.⁴ In fiscal year 1950, patients paid about a third of their hospital bill directly. By 1973, this proportion was reduced to one-tenth, with government paying the largest share at 53 percent, private health insurance paying 36 percent, and philanthropy making up the remaining 11 percent.⁵

Many medical experts contend that the "cost-plus" reimbursement methods used by private insurers and Federal programs contribute to the rising cost in hospital care by encouraging overutilization and misutilization of hospital facilities. As evidence, they point to the recent Charleston, West Virginia, experience, in which a panel of physicians, set up by Blue Cross-Blue Shield, estimated that patients covered by that organization were hospitalized 549 days more than necessary during August-September

1974. Using the average daily cost of Charleston area hospitals, those 549 days cost \$50,019.39. Blue Cross-Blue Shield established the hospital utilization review because it wanted to hold down costs and lessen the prospects for another round of rate increases.⁶ Some analysts of health care have estimated that 30 percent of all patients admitted to U. S. hospitals could be treated outside the hospital.⁷

II. Physicians' Services Most studies on the cost of medical care are limited by the paucity of available data on services provided by physicians. For example, little if any data are available on the services rendered by physicians as salaried members of hospital staffs or on services offered in private offices. Data on fees for physicians' services are particularly scarce. Among the bits and pieces of available information is the fact that outlays for the services of physicians are the second largest expense category in medical care.

Notwithstanding the lack of data on physicians' services, there appears to be sufficient information available to show that the market for such services does not behave as traditional theory suggests. Recognition of this factor is very important in any analysis of the cost of medical care because the physician is the key to the entire health sector, particularly in the role of effective decision-maker in determining the use of hospital and ambulatory care resources, and in the role of prescriber of drugs.

Growth in Physicians' Fees Between 1966 and 1973, the physicians' fees component of the Consumer Price Index increased faster than any other item of medical care except hospital rates for semi-private rooms and operating charges as shown in Table V. At midyear 1974, the index for physicians' fees stood at 152.3 compared to 138.2 one year earlier. Physicians' fees, like hospital charges, rose substantially in fiscal year 1967, the first year of Medicare. The rate of rise slowed somewhat in 1968 but the accelerating trend resumed the following year, slowing down only during the Economic Stabilization Program introduced in 1971.

Numerous factors have influenced the escalation in physicians' fees aside from increases in the cost of maintaining their offices. One factor has been the rise in the level of family income in the United States. Another has been the increase in the number of persons covered by health insurance. The Medicare and Medicaid programs, for example, have been

³ Martin S. Feldstein, "Hospital Cost Inflation: A Study of Non-profit Price Dynamics," *American Economic Review*, December 1971, Vol. LXI, No. 5, p. 854.

⁴ *Ibid.*, p. 870.

⁵ Barbara S. Cooper, Nancy L. Worthington, and Paula A. Piro, "National Health Expenditures, 1929-1973," *Social Security Bulletin*, February 1974, Vol. 37, pp. 13-14.

⁶ *Charleston Gazette*, October 26, 1974, p. 6.

⁷ *Washington Post*, September 18, 1974.

Table V
MEDICAL CARE COMPONENT OF THE CONSUMER PRICE INDEX, 1940- JULY 1974

(1967=100; yearly data are annual averages)

Medical care services											
Period	Total	Hospital service charges				Professional services				Drugs and prescriptions	
		Total	Semiprivate room ¹	Operating room charges	X-ray diagnostic series, upper G.I.	Physicians' fees	Dentists' fees	Examination, prescription, and dispensing of eyeglasses	Routine laboratory tests	Prescriptions	Over-the-counter items
1940	36.8	32.5	13.7	—	—	39.6	42.0	58.1	—	66.2	—
1945	42.1	37.9	17.6	—	—	46.0	49.6	63.9	—	71.5	—
1950	53.7	49.2	30.3	—	—	55.2	63.9	73.5	—	93.6	—
1955	64.8	60.4	42.3	—	—	65.4	73.0	77.0	—	101.6	—
1960	79.1	74.9	57.3	—	—	77.0	82.1	85.1	—	115.3	—
1961	81.4	77.7	61.1	—	—	79.0	82.5	87.8	—	111.5	—
1962	83.5	80.2	65.3	—	—	81.3	84.7	89.2	—	107.1	—
1963	85.6	82.6	68.6	77.9	89.0	83.1	87.1	89.7	91.6	104.5	96.7
1964	87.3	84.6	71.9	79.4	89.7	85.2	89.4	90.9	93.0	103.1	97.3
1965	89.5	87.3	75.9	82.9	90.9	88.3	92.2	92.8	94.8	102.0	98.0
1966	93.4	92.0	83.5	88.6	94.1	93.4	95.2	95.3	96.8	101.8	99.0
1967	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1968	106.1	107.3	113.6	111.5	104.3	105.6	105.5	103.2	103.5	98.3	102.5
1969	113.4	116.0	128.8	128.7	109.3	112.9	112.9	107.6	107.5	99.6	103.2
1970	120.6	124.2	145.4	142.4	116.3	121.4	119.4	113.5	111.4	101.2	106.2
1971	128.4	133.3	163.1	156.1	124.9	129.8	127.0	120.3	116.1	101.3	110.3
1972	132.5	138.2	173.9	168.6	129.1	133.8	132.3	124.9	120.4	100.9	111.3
1973	157.7	144.3	182.1	179.1	131.8	138.2	136.4	129.5	122.8	105.9	112.4
July 1974	151.4	160.2	202.6	199.5	140.1	152.3	147.4	139.7	136.2	109.5	117.5

¹ Includes charges to adult inpatients paying full rates for room and board, routine nursing care, and minor medical and surgical supplies.

Source: *Monthly Labor Review*, September 1974, U. S. Department of Labor, Bureau of Labor Statistics.

credited with contributing significantly to the rise in physicians' fees, since both programs have increased the demand for physicians' services in the absence of a meaningful increase in the supply of general practitioners and a better distribution of physicians' services.⁸

A key factor in the influence of Medicare on the rise in physicians' fees is the program's provisions for the payment of "customary and prevailing" charges as the basis for reimbursement of physicians' services. The term "customary charges" refers to the amount the individual physician usually charges his patients for a specific service in similar medical circumstances. Physicians have the option of accepting "assignment"—what the Medicare guidelines deem reasonable—or collecting from the patient and having

the patient in turn collect Medicare's "reasonable" payment. The proportion of physicians accepting assignment has been declining steadily in the past few years—from 61 percent in fiscal year 1969 to 53 percent in fiscal year 1973.⁹

Determinants and Utilization of Services A widely held view about physicians' services is that the utilization and expenditures for such services are determined by the patient and that information about income, insurance coverage, and price is sufficient to explain and predict changes in demand. In their study of this subject, however, Fuchs and Kramer conclude that physicians—through their availability—can and do determine the demand for their own services to a considerable extent.¹⁰ In other words,

⁹ Cooper, Worthington, and Piro, p. 10.

¹⁰ Victor R. Fuchs and Marcia J. Kramer, *Determinants of Expenditures For Physicians' Services in the United States, 1948-68*, Department of Health, Education, and Welfare, DHEW Publication No. (HSM) 73-30 13, p. 24.

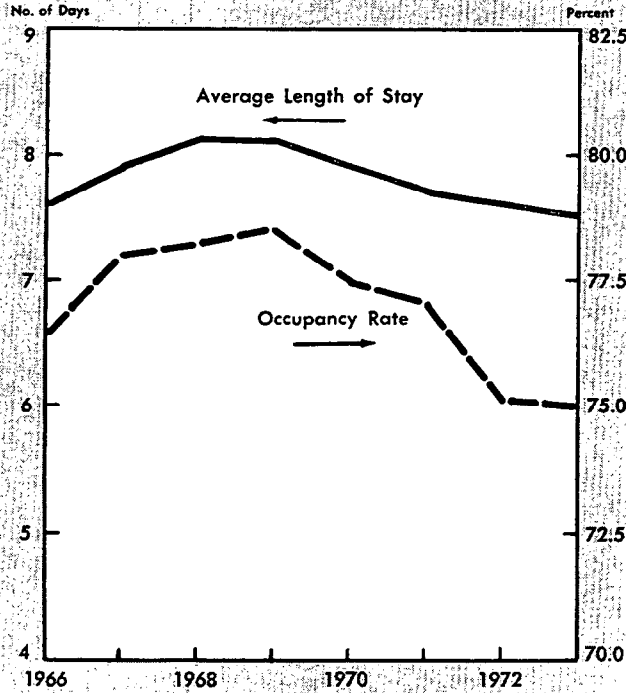
⁸ Loucele A. Horowitz, "Medical Care Price Changes in Medicare's First Five Years," *Social Security Bulletin*, March 1972, Vol. 35, No. 3, p. 20.

Figure 1

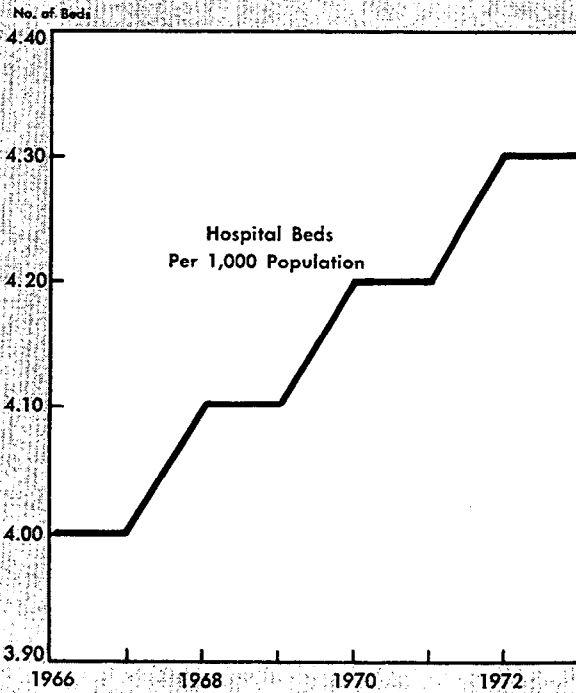
THE PECULIAR MARKETPLACE FOR MEDICAL CARE

While demand for inpatient care has declined . . .

. . . the number of hospital beds per 1,000 population has increased.



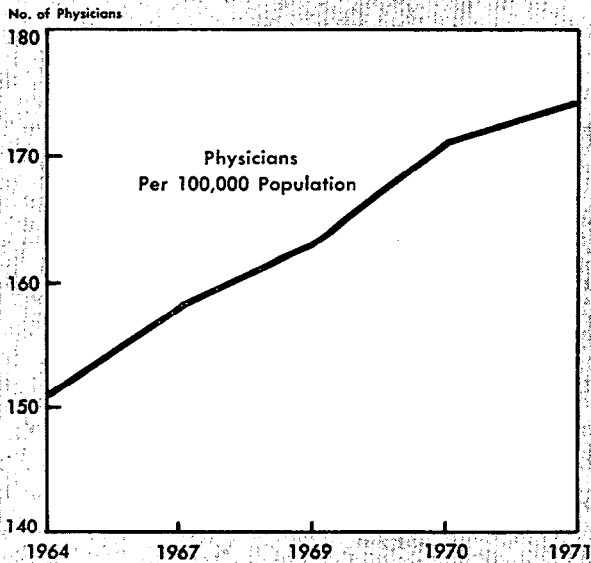
Source: "Hospital Indicators," Hospitals.



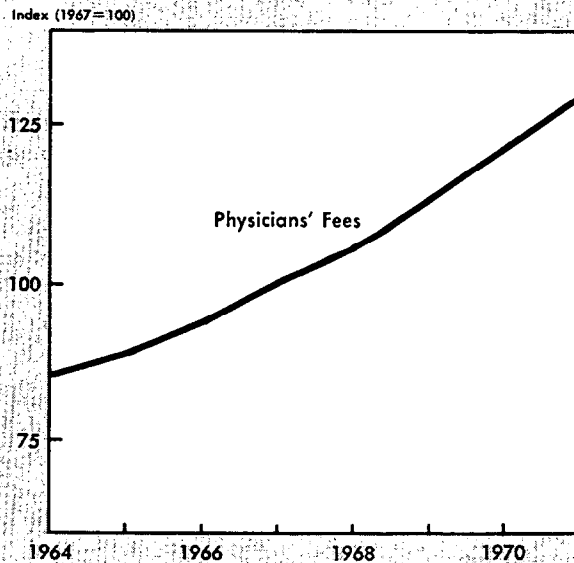
Source: U. S. Bureau of the Census, Statistical Abstract of the U. S., 1974.

Although the supply of physicians has increased . . .

. . . physicians' fees have continued to mount.



Source: U. S. Bureau of the Census, Statistical Abstract of the U. S., 1974.



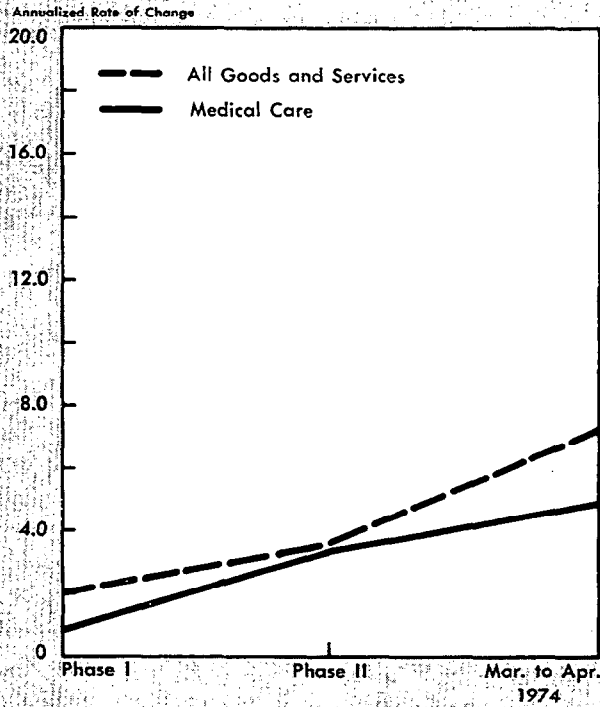
Source: U. S. Department of Labor, Bureau of Labor Statistics, The Monthly Labor Review.

Figure 2

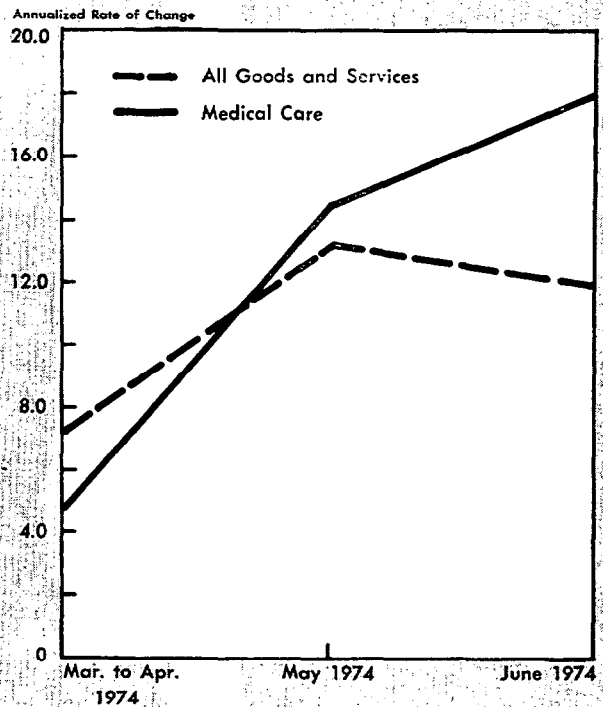
MEDICAL CARE UNDER—AND OUT FROM UNDER—THE ECONOMIC STABILIZATION PROGRAM

Under Phase I and II of the E. S. P., the price of medical care was kept slightly below the price of goods and services in general . . .

. . . but two months after the end of the E. S. P., look what happened.



Source: U. S. Department of Labor, Bureau of Labor Statistics, The Monthly Labor Review.



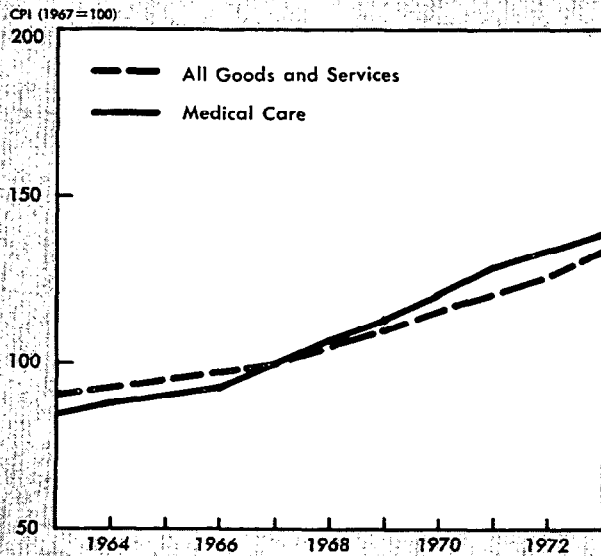
Source: U. S. Department of Labor, Bureau of Labor Statistics, The Monthly Labor Review.

Figure 3

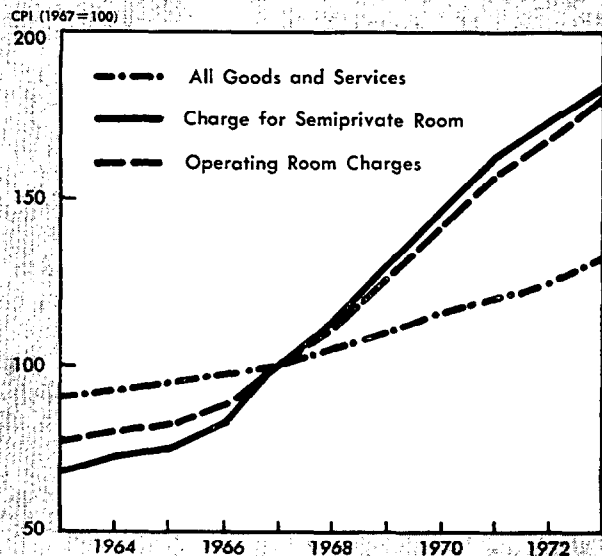
SELECTED MEDICAL COSTS COMPARED TO PRICE OF GOODS AND SERVICES: 1963-1973

During the period 1963-73, the price of medical care did not stray too far from the price of goods and services in general . . .

. . . but the price of a semiprivate room in the hospital and using the hospital's facilities for an operation leaped ahead of everything.



Source: U. S. Department of Labor, Bureau of Labor Statistics, The Monthly Labor Review.



Source: U. S. Department of Labor, Bureau of Labor Statistics, The Monthly Labor Review.

supply factors (technology and number of physicians) appear to be of decisive importance in determining the utilization of and expenditures for physicians' services.

Certain services provided by physicians in private practice can only be consumed in hospitals. Examples of such services are: (1) intensive diagnostic work-ups and (2) most surgical procedures. Thus, to a limited extent, the services offered by hospitals and by private practice physicians constitute a joint consumption product, namely hospitalized medical care. With this development in mind, Fuchs and Kramer contend that if for any reason the supply of hospital beds influences the quantity of hospital care people purchase, an increase in the number of beds may effect the demand for physicians' services as well.¹¹

The market for physicians' services is characterized by a lack of the patient's orientation concerning the need for medical services and the central roll of the physician as an authoritative advisor regarding the use of such services. A patient may choose a physician because of the nature of his illness at one time or a specialist of the wrong type because of a mistake in early diagnosis; he may stay with this physician in order to avoid inconvenience and uncertainty of starting over again with another physician. Often the patient's resources are too limited to permit him to search for another physician even if he wanted to do so; or he may regard it as unseemly and indicative of a lack of confidence in the physician on whose goodwill he depends.¹² Given these circumstances, Fuchs and Kramer hypothesize that physicians are able to generate a demand for their services without lowering price.¹³

Irrespective of the real source of demand for physicians' services, the number of visits per person to the doctor has increased during the past several years (See Table VI). According to estimates in the National Health Survey, Americans made 999 million visits to physicians during 1971.¹⁴

SUPPLY OF MEDICAL CARE

Despite the growth of third-party payments in hospital care, there has been considerable lessening

¹¹ *Ib.id.*

¹² Alfred C. Neal, "Health Care Costs," Hearings before the Subcommittee on Consumer Economics of the Joint Economic Committee, Congress of the United States, 93rd Congress, 1st Session, May 15 and 16, 1973, p. 52.

¹³ Fuchs and Kramer, p. 24.

¹⁴ The National Health Survey's definition of a physician "visit" includes any consultation with a physician, either in person or on the telephone, but excludes visits of physicians to their patients in the hospital.

Table VI

PHYSICIANS AND VISITS BY PATIENTS FOR SELECTED YEARS

Item	1964	1967	1969	1970	1971
Rate of physicians per 100,000 population	151	158	163	171	174
Visits per patient	4.5	4.3	4.3	4.6	4.9

Source: Statistical Abstract of the United States.

of pressure on the supply of hospital beds since the middle 1960's. Much of this lessening of pressure has come about as a direct result of the increase in the construction of hospital facilities, a development encouraged by the availability of generous Federal Government subsidies. The rest has been attributed to such factors as the following: (1) the steady decline in the length of patient stay—which in turn has resulted from the concentration of expensive and effective diagnosis and treatment in the first few days of a hospital stay; (2) the trend to early ambulation of maternity and surgical patients; (3) the development of "progressive patient care" that moves patients from intensive care units to intermediate (less intensive) care units; and (4) early transfer to home care. In spite of such developments, however, beds and the number of beds per 1,000 population have continued to increase (See Table VII). A study commissioned by the Senate Health Subcommittee showed the nation with a total of 60,000 excess beds in 1972, at an average annual cost of \$18,250 per bed based on an occupancy rate of 81 percent.¹⁵ During this same period (July 1965-July 1974) the charge for semiprivate rooms more than doubled, as stated earlier.

Cost of Operation of Hospitals The number of hospital beds has increased despite the rising cost of operation in hospitals. Most of the rapidly rising cost has been in nonpayroll cost items. In fiscal year 1973, nonpayroll expenses per adjusted patient day rose 12.2 percent compared with a 7.1 percent increase in payroll expenses. The rising costs involved outlays for new equipment and supplies, in addition to expenditures for amenities such as television, air conditioning, and a wider selection of food. But other expenses also increased substantially. These included rent, depreciation, and interest.

¹⁵ Much of this excess reflects the uneven geographical distribution of hospital beds. For details on this study, see Frederic L. Sattler and Max D. Bennett, *A Statistical Profile of Short-term Hospitals in the U.S. in 1972*, Inter-Study, 1974, Minneapolis, Minnesota.

While not as prominent as nonpayroll cost, additional personnel and higher wages have played a significant role in the ever-mounting cost of hospital care. Growing organization among hospital employees has resulted in obtaining "catch-up" wages and placing these employees on income levels comparable to those found elsewhere. Also, in response to expanding medical technology, more people with new, specialized skills, such as medical technologists, radiologic technologists, and occupational therapists, have been added to the hospital staff.

Internal Pressures In most hospitals the administration is under constant pressure to make "improvements" that will inevitably raise cost-per-patient-day. The medical staffs of the hospitals demand more equipment, laboratory services, and professional staff with which to provide more sophisticated care to the hospital's patients. The nursing staff requests more aides to increase patient comfort and satisfaction. Other groups in the hospital bureaucracy—from the social worker department to the dietician—continually seek additional resources to increase the scope and quality of services in their particular areas of responsibility. All of these demands are in addition to the constant demand for higher wage rates for current personnel.¹⁶

Shortage of Physicians? Whereas the easing of pressure on the supply of hospital facilities has been very obvious during the past several years, the same has not been so obvious with respect to the available supply of physicians. Indeed, the number of physicians per 100,000 population increased from 151 in 1964 to 174 in 1971 (See Figure 3). At the same time, however, the average number of visits per patient also increased from 4.3 in 1969 to 4.9 in 1971, after declining between 1964 and 1967 (See Table VI). Also, despite the growth in the total number of physicians, there has been a decline in the proportion of physicians who provide primary care (general practitioners, pediatricians, and internists).¹⁷

The available statistics on the number of physicians, visits per patient, and price of physicians' services do not facilitate the measurement of the adequacy of physicians, nor do they allow analysis of how an increase in the number of physicians would affect fees or the number of physicians locating in ghettos and rural areas. Secretary of Health, Education, and Welfare, Casper W. Weinberger, believes

the nation has enough physicians to absorb even the added demands created by national health insurance.¹⁸ Economist Michael Lynch, however, states that "it now appears that there is currently a shortage of physicians, and that it has become worse since the middle 1950's, or to put it another way, if we had enough physicians in the middle 1950's, then we have too few now."¹⁹

Irrespective of the debate over the sufficiency or insufficiency of physicians in the United States, there are factors pointing to current and future problems in this area of medical services. For example, there is agreement that the uneven geographic distribution of physicians presents problems for sparsely populated rural areas and inner city areas. Also, the likelihood of having some type of national health insurance portends a tremendous increase in the demand for physicians' services. A Rand study estimates that a "full payment" type national health insurance program would increase the demand for treatment in doctors' offices by 75 percent; and that such an increase would lead to delays in getting appointments,

¹⁸ Testimony before the Subcommittee on Consumer Economics, 93rd Congress, 1st Session, May 15 and 16, 1973.

¹⁹ Michael Lynch, "The Physician Shortage: The Economists' Mirror," *The Annals of the American Academy of Political Science*, January 1972, p. 83.

Table VII
TRENDS IN HOSPITAL BEDS AND AVERAGE DAILY CENSUS FOR COMMUNITY HOSPITALS IN THE U. S.; 1963-1972

Year	Hospital beds		Average daily census	
	Number	Per 1,000 population	Number	Per 1,000 population
1963	698,000	3.7	530,000	2.8
1964	721,000	3.8	550,000	2.9
1965	741,000	3.8	563,000	2.9
1966	768,000	4.0	588,000	3.0
1967	788,000	4.0	612,000	3.1
1968	806,000	4.1	630,000	3.2
1969	826,000	4.1	651,000	3.3
1970	848,000	4.2	662,000	3.3
1971	867,000	4.2	665,000	3.3
1972	884,000	4.3	664,000	3.2
1973	897,830	4.3	679,718	3.2

Note: The hospital data exclude new-born infants, nursery accommodations, psychiatric and tuberculosis hospitals. The population data refer to the civilian resident population.

Source: *Source Book of Health Insurance Data, 1973-1974*, Health Insurance Institute, (New York, New York), p. 57, and the American Hospital Association.

¹⁶ For a review of how these increased costs affect the hospital's demand function and occupancy rate, see Martin S. Feldstein, "Hospital Cost Inflation: A Study of Nonprofit Price Dynamics," *American Economic Review*, December 1971, Vol. LXI, No. 5, p. 853.

¹⁷ *Economic Report of the President*, February 1971, p. 135.

Table VIII

**PRICES OF MEDICAL CARE UNDER THE
ECONOMIC STABILIZATION PROGRAM**

Item	Annualized rate of change during	
	August- November 1971	November 1971- January 1973
	Phase I	Phase II
CPI, all items	1.6	3.6
Medical care, total	— .8 ¹	3.4
Semiprivate room	2.8	5.4
Operating room charges	6.1	7.8
Physicians' fees	2.4	2.4
Dentists' fees	6.1	3.0
Drugs and prescriptions	.4	0

¹ The decrease is due to the annual adjustment in the medical care index for the price of health insurance, which is not shown as a component of the index but is a factor used in calculating the monthly index.

Source: Consumer Price Index, Bureau of Labor Statistics.

longer waits at the doctors' offices, reductions in the time a doctor spends with patients, and visits from patients who are not really sick.²⁰

It is interesting to note that the ratio of physicians to 100,000 population in the United States (171) was lower than that for Israel (250) and the Soviet Union (237) in 1972.²¹

INFLATION AND PRICE CONTROLS

Immediately after World War II, medical care prices began to increase more rapidly than prices for other goods and services. During the 1950's, the price of medical care rose at an annual rate of 3.9 percent—nearly twice the 2.1 percent annual rate reported for consumer prices in general. For the first half of the next decade, there was a perceptible decline in the rate of increase for all consumer prices. The composite Consumer Price Index (CPI) increased at an average annual rate of only 1.3 percent during this five-year period, and the price of medical care slowed down to an increase of 2.5 percent. The upward trend resumed, however, during the second half of the 1960's when prices for goods and services rose at an annual rate of 4.2 percent, and medical care prices increased at the rate of 6.1 percent.

²⁰ This study was entitled, *Policy Options and the Input of National Health Insurance*, and was written by Joseph P. Newhouse, Charles E. Phelps, and William B. Schwartz.

²¹ Testimony by John A. Cooper, president of the Association of American Medical Colleges, before the Subcommittee on Consumer Economics of the Joint Economic Committee, Congress of the United States, 93rd Congress, 1st Session, May 15 and 16, 1973, U. S. Government Printing Office.

Price Controls When Phase I of the Economic Stabilization Program was announced in mid-August 1971, prices for consumer goods and services as a whole had increased at an average annual rate of 4.8 percent during the previous five years. During the same period, the medical care component had increased at an average annual rate of 6.5 percent; physicians' fees at 7.1 percent; and charges for semiprivate hospital rooms at 12.8 percent. To assure that the Federal Government's approach to helping solve the crisis in the cost of medical care would be concerted and integrated, the Secretary of Health, Education, and Welfare was made a member of the Cost of Living Council.

Under Phase II, the resulting moderation in medical care inflation turned out to be the most successful aspect of the price control program. In fact, for the first time in memory, the annual increase in the price of medical care was lower than the increase in the overall Consumer Price Index. The price of goods and services in general increased at an annual rate of 3.6 percent during the 14 months of Phase II, while the index for medical care increased at an annual rate of only 3.4 percent. The charge for semiprivate rooms under Phase II was held to a 5.4 percent annual rate of increase, and the increase for physicians' fees was slowed to 2.4 percent, as shown in Table VIII.

Although charges for semiprivate hospital rooms and physicians' fees were held down during the Economic Stabilization Program, hospital expenses per adjusted patient day continued to rise. The average annual rate of increase for the period 1971-1973 was close to 11.4 percent. In fiscal year 1973, the expense per adjusted day in community hospitals rose by 9.3 percent, the smallest rate of increase in the past several years. This figure, however, was still almost double the CPI rate for semiprivate room charges.

For enlightenment on the persistent rise in hospital expenses during Phase II of the Economic Stabilization Program it may be profitable to review an exchange between Congressman Clarence J. Brown and Deputy Assistant Secretary of the Department of Health, Education, and Welfare, Stuart H. Altman, during hearings before the Subcommittee on Consumer Economics on medical policies and cost. Earlier during the hearings, Mr. Altman had stated that expenses per patient day had climbed at an annual rate of 11.6 percent during the 1971-1972 period.²²

²² "Medical Policies and Costs," Hearings before the Subcommittee on Consumer Economics of the Joint Economic Committee, Congress of the United States, 93rd Congress, 1st Session, May 15 and 16, 1973, pp. 116-117.

Representative Brown: That is, if you would break out the details in the hospital costs increasing at the rate of 12.8 percent. Do you have a detailed breakdown there? I would like to know why hospital costs are so much higher. Now, there are a number of possibilities that occur to me. One is that hospital care is a labor intensive business, more so than others. Are labor costs a significant percentage of the 12.8 percent, or are we receiving more sophisticated medical care in terms of the machinery that is attached to the patient and therefore has to be financed by the hospital?

Mr. Altman: Yes. In the 1971-72 period, the expenses per patient day—

Representative Brown: That is 11.6 percent in the figures you have given here.

Mr. Altman: That is right. Of that, 5.7 percent were due to buying the same amount of labor and the same amount of material, but just the increased general price levels.

Representative Brown: You are talking now about the custodian that comes in and washes the floor in the patient's room, the same kind of qualifications, the same kind of service that was provided?

Mr. Altman: That is right.

Representative Brown: That has gone up how much?

Mr. Altman: 5.7 percent of the 11.6, or less than 50 percent of the 11.6, was due to wage increases and price increases for the same service—A little over 50 percent was due to improvements in or changes in service—more labor and more capital. The major increase was due to more capital; 10.1 percent increase—this includes new plant and equipment. New machinery, different types of machinery. So over 50 percent of that 11.6 was not due to wage or price increases.

Representative Brown: So you are saying that in fact there was a better delivery of health service for which the patient is paying an additional fee?

Mr. Altman: In some sense, it is. The problem we have and the problem everyone has is to differentiate in that 50 percent how much of it was due to the fact that this industry has been a cost-plus industry, where someone sits behind them with essentially a blank check, providing funds for new equipment. Now, it is a very difficult thing to decide how much of that increase was marginal at best in terms of improved medical care. We have a feeling, and so do most experts that have looked at this problem, that there is a significant amount of so-called fat. That is one of the areas that has been pared down. I think it is a terribly telling figure that if one looks back one step to the period just before the economic freeze, when expenses per patient day were going up by almost 15 percent—14.8—6.6 of that was due to these changes in new equipment and more hiring. One often hears the fact that this industry's rising costs are simply due to the fact that we have introduced minimum wage laws or had to raise the level. That is just not true.

Representative Brown: It actually is the increase of services that the patient is getting that contributes a great deal.

Mr. Altman: Well, it is increased manpower and increased equipment. Whether it all comes in the form of increased services is another question.

Post-Price Controls When the time came to review the price control program, in view of its April 30, 1974, expiration date, the Administration attempted to retain authority to control prices of

medical care. Congress, however, permitted the Economic Stabilization Act to lapse. Lobbyists for practitioners, hospitals, and nursing homes assured Congress they would exercise restraint.

In May, the first month after controls expired, the price of medical care rose at an annual rate of 14.4 percent; and moved up at an 18 percent rate in June. For the same two months the rates of increase for physicians' fees rose 15.6 percent and 21.6 percent; and the rate for charges for semiprivate rooms increased from 18 percent to 24 percent. All of these exceeded the annual rates of increase for the composite CPI, which increased to 13.2 percent in May, and then declined to 12.0 in June (See Figure 2).

OUTLOOK

As stated earlier, although medical care is only one factor contributing to health, it can be literally a matter of life and death. Self denial because of high prices is not the same in this situation as in rationing one's income when purchasing cars, clothes, or television sets. Medical costs can claim an excessive share of a family's income, even that of middle-income families who usually have insurance. In view of this, it is unfortunate that few, if any, forecasts project stable prices for medical care.

Some observers contend that relief from the high cost of medical care will not come until national priorities are directed to increasing the supply of medical services. They contend that priorities so far have focused on factors that increase the demand for medical services and have ignored the factors that would increase the supply of services such as the number of physicians in general practice and increase use of paraprofessionals. Other analysts, however, do not agree that an increase in the number of physicians would reduce the cost of medical care. In their study, *Determinants of Expenditures for Physicians' Services in the United States, 1948-68*, Fuchs and Kramer suggest that an increase in the supply of physicians would at best have limited impact on price, although the increased supply would result in substantial increase in the availability of physicians' services.²³ Another researcher in the field of medical care, Martin S. Feldstein, maintains that "the market for physicians' services does not behave as traditional theory suggests; that there appears to be a persistent excess demand for physicians' services and price does not seem to vary systematically with changes in excess demand."²⁴

²³ Fuchs and Kramer, p. 3.

²⁴ Martin S. Feldstein, p. 861.

Prospects for relief in the cost of hospital care appear just as dim as those for the price of physicians' services. A national health insurance program of some type appears certain to be a reality sometime in the near future, which is likely to intensify the impact of third-party payments on the demand for hospital facilities. Further, there is little hope for abatement of the internal pressures that result in increased expenses for hospitals; and until some means are devised for curbing the current inflation, the rise in such hospital expenses as rent, interest, equipment, supplies, and wages is likely to continue its present course.

With the continuation of these rising prices for medical care, consumers may likewise expect a continuation of the peculiar marketplace for medical care services. This means, for instance, that the supply of hospital beds is likely to expand even further, despite the declining relative utilization of such facilities, and that the price of physicians' services is likely to accelerate further, despite efforts to increase the supply of these key decision-makers in the chain of medical care services.

James F. Tucker