

GAO

Briefing Report to the Chairman,
Subcommittee on Health,
Committee on Ways and Means,
House of Representatives

July 1986

MEDICARE

Physician Income by Specialty and Place of Service





UNITED STATES GENERAL ACCOUNTING OFFICE
WASHINGTON, D.C. 20548

HUMAN RESOURCES
DIVISION

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The Honorable Fortney H. (Pete) Stark
Chairman, Subcommittee on Health
Committee on Ways and Means
House of Representatives

Dear Mr. Chairman:

This review is based on a request from the Subcommittee's former Chairman for information on the gross and net incomes of office-based physicians by specialty (such as neurosurgeons and radiologists) and the portions of their gross incomes that were earned from the Medicare program and its beneficiaries. He also asked for certain other information relating to the places (hospital or office) where doctors earned their money from Medicare and the extent to which physicians accept the Medicare allowable charge as the full charge for their services (i.e., accept "assignment").

To develop the information in this report, we analyzed six carriers' payment history tapes, containing 1981-82 data, specified by the requester and reviewed literature on physicians' income. We found that Medicare is an important source of income for such physician specialties as neurosurgeons, thoracic surgeons and anesthesiologists, who earn most of their Medicare income from services provided in a hospital.

Specifically, the data we compiled showed that:

--According to Medical Economics, in 1984, for the first time, the median net pretax income for office-based physicians exceeded \$100,000, but ranged significantly by specialty from \$68,600 for general practitioners to \$179,690 for neurosurgeons.

--There was virtually no increase in physicians' gross income from 1982 to 1983, but in 1984, despite the freeze on Medicare fees, the median gross income for all physicians was \$181,290, an increase of about 15 percent from 1983. However, the rates of increase varied widely by specialty, ranging from about 3 percent for general practitioners to 36 percent for orthopedic surgeons.

- Based on 1981-82 carrier data, we estimate that 68 percent of physicians' average gross income generated by services to Medicare patients was paid by Medicare and the other 32 percent was paid or owed by the beneficiaries.
- Based on 1981-82 carrier data, physicians earned about 63 percent of their Medicare-related income from services provided in hospitals. However, this also varied by specialty. Some specialties at the high range of gross and net incomes (orthopedic surgeons, neurosurgeons, thoracic surgeons, and anesthesiologists) earned from 77 to 98 percent of their Medicare income from services provided in hospitals. Specialties at the lower range of total gross and net incomes (such as physicians in general and family practice) earned most of their Medicare-related income in their offices.
- From fiscal year 1984 to 1985 there was an increase of about 9 percentage points (from 58 percent to 67 percent) in the portion of total Medicare charges where physicians agreed to accept Medicare's "reasonable" charges as the full charge.
- 1981-82 carrier data showed that physicians in all specialties were more likely to accept Medicare's reasonable charges for services provided in hospitals than for services provided in their offices. Also, nonsurgical specialties were more likely to accept Medicare's charges than surgical specialties.

We obtained formal comments from the American Medical Association and Medical Economics Company, Inc., concerning our use of their data. We have incorporated their comments in this document.

We are sending copies of this briefing report to interested congressional committees; the Director, Office of Management and Budget; the Secretary of Health and Human Services; and the Administrator of the Health Care Financing Administration.

Should you need additional information on the contents of this briefing report, please call me at 275-6195.

Sincerely yours,



Michael Zimmerman
Senior Associate Director

C o n t e n t s

	<u>Page</u>
LETTER	1
MEDICARE: PHYSICIAN INCOME BY SPECIALTY AND PLACE OF SERVICE	7
Introduction	7
Background: Physicians and Medicare	7
Determination of charges under Medicare	8
Evolution of reasonable charges for physicians' services under Medicare	9
Objectives, scope, and methodology	12
How Much do Physicians Earn and How Much Comes From Medicare?	17
Net pretax income of physicians	18
Gross income of physicians	20
Gross income from Medicare	22
Distribution of physicians' gross income from Medicare	27
Summary	29
Where Do Physicians Earn Their Medicare Income--in Their Offices or in Hospitals?	29
Physicians' gross Medicare income by place of service	30
Integration of payments for physicians' services with Medicare's prospective payment system for inpatient hospital services	34
Summary	35
Changes and Variations in Medicare Claims for Physicians' Services Taken on Assignment	35
Recent improvement in assignment rates	36
Assignment by place of service	39
Assignment varies widely by specialty	40
Summary	43

Tables

1	Medicare Summary of Submitted and Allowed Charges for Physicians' Services by Six Medicare Carriers	14
2	Response Rates to AMA and <u>Medical Economics</u> Surveys	15
3	Net Pretax Income of Physicians for Calendar Years 1982, 1983, and 1984	19

		<u>Page</u>
<u>Tables</u>		
4	Physicians' Gross Income 1981 Through 1984 and Net Income 1984	21
5	Physicians' Gross Income From Medicare by Specialty--1981	23
6	Physicians' Allowed Gross Income From Medicare--Comparisons Between <u>Medical Economics</u> and Payment History Tapes for Six Medicare Carriers	25
7	1981-82 Proportions of Gross Medicare Income Paid by the Program (Directly or Indirectly) or by Beneficiaries	27
8	Income Ranges of Medicare-Allowed Charges by Specialty (1981-82)	28
9	1981-82 Portion of Physicians' Gross Medicare Income Earned by Place of Service	31
10	Distribution of Visits for Medicare Patients by Practice Settings (Fourth Quarter 1983)	32
11	Significant Variations in the Places Special- ties Earned Their Gross Medicare Income by Location	33
12	Comparative Medicare Assignment Rates (1981-85)	37
13	Comparison of 1985 Assignment Rates and Percentage of Participating Physicians	38
14	Relationship Between Physicians Electing to Participate in Medicare and Previous Assignment History	39
15	Variations in Assignment Rates by Location and Place of Service (1981-82)	40
16	Variations and Ranges of Assignment Rates by Specialty and by Location (1981-82)	42

ABBREVIATIONS

AMA	American Medical Association
DRG	diagnosis related group
GAO	General Accounting Office
HCFA	Health Care Financing Administration
HHS	Department of Health and Human Services
OBG	obstetrics and gynecology
PPS	prospective payment system

GLOSSARY

Submitted charges	Amounts the physicians charged for a medical service (except for claims with no dollars allowed).
Covered charges	Represents charges for covered services to eligible beneficiaries; excludes amounts denied for such reasons as claimants not eligible, duplicate claims, or medically unnecessary services.
Allowed charges	Amounts of covered charges the Medicare carrier determined to be "reasonable charges."
Part B deductible	Amounts of allowed charges or costs a Medicare beneficiary needs to incur each year before Medicare begins to reimburse for part B services. The annual deductible was increased from \$60 to \$75 effective January 1, 1982.
Part B coinsurance	Twenty percent of the allowed charges or costs that are a beneficiary's responsibility after meeting the annual deductible.
Surgical specialties	Using the specialty codes in the carriers' systems, the following specialties were classified as surgical: general surgery, otology, neurological surgery, obstetrics and gynecology, ophthalmology, orthopedic surgery, plastic surgery, proctology, thoracic surgery, and urology.
Nonsurgical specialties	Using the specialty codes in the carriers' systems, the following specialties were classified as nonsurgical: general practice, allergy, dermatology, family practice, internal medicine, neurology, pathology, psychiatry, pediatrics, geriatrics, radiology, and anesthesiology.

MEDICARE:
PHYSICIAN INCOME BY SPECIALTY
AND PLACE OF SERVICE

INTRODUCTION

This briefing report provides information on the net income of office-based physicians by specialty (such as neurosurgery or radiology) and the percentage of their gross earnings derived from the Medicare program. It was requested by the former Chairman, Subcommittee on Health, House Committee on Ways and Means, who also asked us to provide information by specialty on:

- The extent to which such Medicare income was generated by services provided in physicians' offices or in a hospital setting.
- The extent to which such income involved assigned and unassigned claims.
- The amounts of physicians' gross Medicare income in various increments from less than \$10,000 to \$100,000 and above.

This briefing report is based principally on (1) a review of various published material showing physicians' net and gross incomes and the portions coming from Medicare and (2) our analysis of the claims payment history tapes from six Medicare carriers (paying agents). The data from the tapes include the amounts of Medicare income generated by various places of service, amounts submitted and allowed on assigned and unassigned claims, and relative ranges of physicians' gross Medicare income.

Background: Physicians and Medicare

The Medicare program, authorized with the enactment of title XVIII of the Social Security Act (42 U.S.C. 1395) on July 30, 1965, became effective July 1, 1966. The program pays much of the health care costs of eligible persons 65 or over and certain disabled persons. It is administered by the Health Care Financing Administration (HCFA), within the Department of Health and Human Services (HHS).

The program consists of two parts:

Part A--Hospital Insurance Benefits for the Aged and Disabled--covers inpatient hospital care, home health care, and inpatient care in a skilled nursing facility after a hospital

stay. Part A is principally financed by taxes on earnings paid by employers, employees, and self-employed persons. During fiscal year 1984, about 30 million people were eligible for part A benefits, and benefit payments amounted to \$42 billion.

Part B--Supplementary Medical Insurance Benefits for the Aged and Disabled--covers physicians' services, outpatient hospital care, and other medical and health services and supplies. This insurance generally covers 80 percent of the reasonable charges or costs of these services and/or supplies subject to an annual \$75 deductible. Enrollment is voluntary. Part B is financed by beneficiaries' monthly premium payments and appropriations from general revenues. During fiscal year 1984, an average of 29 million people were enrolled in part B, and benefit payments amounted to about \$19 billion. Of this \$14 billion, or 74 percent, was for physicians, other practitioners, and part B suppliers of services.

HCFA contracts with 39 carriers (29 Blue Shield plans and 10 commercial insurance companies) to pay for part B benefits furnished by noninstitutional providers, such as office-based physicians, laboratories, and suppliers. Carrier payments of claims are usually on the basis of "reasonable charges." This and related payment terms are explained in the following section.

Determination of Charges Under Medicare

Under Medicare, reasonable charges represent the lower of the physician's actual (or submitted) charge, his or her "customary" charge, or the "prevailing" charge in the locality. Additionally, physicians can elect to be reimbursed (1) directly from Medicare by accepting "assignment" or (2) by the beneficiary if they do not accept assignment.

Customary charge is defined as an amount that best represents the actual charges made for a given service or procedure by a particular physician to the general public. To determine the customary charge for a specific physician for a given service, the Medicare carriers obtain charge information not only from the Medicare program, but also from other available sources, such as the carriers' private health insurance programs. Customary charges are computed annually as of July 1, based on physicians' charge data for the previous calendar year. Thus, customary charges for the "fee screen year" beginning July 1, 1983, were based on the actual charges during calendar year 1982. In 1985, the fee screen year was changed to the period from October 1 through September 30, and the base period to the 12-month period ending on March 31.

In calculating the customary charge for a particular physician for a given service, the carrier arrays each charge in ascending order, and the lowest charge that is high enough to include the median or midpoint of the arrayed charges is the customary charge.

The prevailing charge for a given service or procedure is set at the 75th percentile of the customary charges. Except in unusual circumstances, the prevailing charge represents an overall limitation on what the carrier will accept as reasonable. Prevailing charges are determined annually for the same periods as the customary charges and calculated based on the customary charges of each physician weighted by the frequency each physician provided the service during the base year. The prevailing charge cannot be higher than 75 percent of the customary charge subject to an economic index limitation and the 15-month physician fee freeze that began July 1, 1984 (see p. 12).

Claims' Assignment Under Medicare

Under Medicare, a claim for a physician's services can be assigned or unassigned. If the claim is assigned, the physician submits it to the carrier, and if the service is covered by Medicare, the carrier pays the doctor directly for 80 percent of the reasonable charge. In turn, the physician agrees to accept Medicare's reasonable charge as the full charge and thus can bill the beneficiary for only the remaining 20-percent coinsurance and any unpaid deductible based on the reasonable charge.

If the claim is unassigned, the beneficiary submits the bill to the carrier and is reimbursed 80 percent of Medicare's reasonable charge. The 20-percent coinsurance and any unpaid deductible, in addition to the difference between the physician's actual charge and the reasonable charge, becomes the beneficiary's responsibility.

Evolution of Reasonable Charges for Physicians' Services Under Medicare

Under the original 1965 Medicare law (Public Law 89-97), allowable fees for physicians' services were to be comparable to but not higher than those paid by the general public covered by health insurance. The Medicare carriers were required to assure that, where payment was made on a charge basis, the charge was reasonable and not higher than the charge applicable for a comparable service and under comparable circumstances to the policy holders and subscribers of the carrier. Also, the statute provided that the determination of reasonable charge would consider the customary charges for similar services generally made by the physicians as well as the prevailing charges in the locality for similar services.

As a practical matter, however, for the first few years of the Medicare program, reasonable charges represented whatever charges the physicians or suppliers submitted. For example, during the 6-month period of July 1-December 31, 1966, only 3.9 percent of part B claims had any charges reduced, and during the 6-month period of January 1-June 30, 1968, only 6.4 percent of the claims had any charges reduced because they exceeded Medicare's reasonable charge.

In December 1968, to avoid increasing the beneficiaries' monthly premium from \$4.00 to about \$4.50, HHS attempted to impose restrictions on increases in allowable physicians' fees. Also, effective January 1, 1971, HHS established by administrative policy the maximum prevailing charge level at the 75th percentile of customary charges. Previously, some carriers had been paying up to the 90th percentile. HHS further limited increases in customary charges by establishing the fee screen year effective July 1, 1971, based on calendar year 1970 charge data, which had the effect of imposing an average 18-month time lapse in recognizing increases in physicians' customary charges.

With the Social Security Amendments of 1972 (Public Law 92-603), the Congress incorporated the HHS policies and computations of customary and prevailing charges into the law and subjected any increases in prevailing charges to an economic index which HHS bases on changes in physicians' earning levels and operating expenses.

From August 1971 to April 30, 1974, the health industry, including physicians, was subject to mandatory economic controls under the Economic Stabilization Program.¹ During this period, physicians' fees increased an average of 4 percent annually, according to a September 1975 HHS study. This was a marked reduction from the 7.4-percent increase recorded during a period just before the program (July 1, 1968-June 30, 1971) and still

¹This program consisted of four phases. Phase I (Aug. 15-Nov. 14, 1971) was a 90-day freeze on all prices and wages. Under phase II (Nov. 15, 1971-Jan. 10, 1973), physicians were permitted a 2.5-percent annual increase in fees. Under phase III (Jan. 11-July 18, 1973), most of the economy was placed under relaxed wage and price controls, but the health industry operated under the phase II controls. Phase IV (July 19, 1973-Apr. 30, 1974), featured gradual decontrols, but the health industry operated under prior rules until the publication of phase IV regulations in Jan. 1974 that permitted a 4-percent weighted increase in physicians' fees. All controls expired on Apr. 30, 1974.

Our information came largely from three sources. The American Medical Association (AMA); a private publication entitled Medical Economics published by Medical Economics Company, Inc.; and the claims payment history tapes of six Medicare carriers for part B claims paid with dates of services between July 1, 1981, and June 30, 1982, which we compared with the most recent gross Medicare income data obtained from the published sources for 1981. The carrier tapes enabled us to identify, by specialty, the physicians' assignment rates and places of service (e.g. hospital or office). The tapes served also as another source for comparison with data from AMA and Medical Economics on physician income.

The requester specified these carriers because we had advised his office that we already had possession of the tapes in connection with other assignments. The six carriers, their service areas, and the submitted and allowed charges for both assigned and unassigned claims used in our analysis are shown in table 1.

Table 1: Medicare Summary of Submitted and Allowed Charges for Physicians' Services by Six Medicare Carriers

<u>Carrier</u>	<u>Service area</u>	<u>Submitted charges^a</u>	<u>Allowed charges^a</u>
		(millions)	
Transamerica Occidental Life Insurance Company (Occidental)	Southern California	\$409.7	\$308.3
Blue Cross and Blue Shield Of Colorado	Colorado	89.8	65.2
New Hampshire-Vermont Health Services (Blue Shield)	New Hampshire/Vermont	47.2	36.6
Blue Cross and Blue Shield of Maryland, Inc.	Maryland (except Montgomery and Prince Georges Counties)	101.7	76.3
Blue Cross and Blue Shield of Kansas City, Missouri	Portions of Missouri and Kansas	36.8	28.5
The Equitable Life Assurance Society of the United States (Equitable)	Wyoming	<u>5.1</u>	<u>3.7</u>
Total		<u>\$690.3</u>	<u>\$518.6</u>

^aDefined in the glossary.

The allowed charges for the six carriers included in our review represent about 4 percent of Medicare total allowed charges for part B services for the same time period.

The carriers' charge data used in our analysis include all office-based physicians and all surgical and nonsurgical specialties except for providers we were able to identify as groups of doctors. For these groups we eliminated the charge data because they would overstate the average physicians' Medicare income. To facilitate comparisons, we selected from the tapes for inclusion in the tables only specialties on which we also had information from AMA and Medical Economics. Thus, we included such specialties as dermatology, pathology, urology, and neurology in the total amounts for all physicians and the total amounts for surgical or nonsurgical specialties, but we did not analyze or present them separately.

less than the 13.4-percent rate during the period just after the program (April 1974-June 1975).²

Although the increases in physicians' fees were moderated during the period of the Economic Stabilization Program, other data show that total expenditures for physicians' services increased at about twice the 4-percent rate in fees. This indicates that the reduction in fee increases may have been offset by increased utilization of physician services.

Public Law 92-603 provided that the economic index for Medicare prevailing fees would go into effect July 1, 1973, when physicians fees were still subject to the Economic Stabilization Program price controls. But, because of delays in issuing implementing regulations, the indexing provision did not become effective until July 1, 1975. This was over a year after the expiration of price controls and had the effect of reducing many physicians' Medicare reasonable charges to amounts below the fiscal year 1975 level. To deal with this "rollback" problem, in December 1975 and July 1976, the Congress enacted provisions in two laws (Public Laws 94-182 and 94-368) which assured that implementing the economic index limitations would not result in a rollback of prevailing charges below fiscal year 1975 levels.

The Omnibus Reconciliation Act of 1980 (Public Law 96-499) included a provision that reasonable charge determinations be based on the date of service rather than the date a claim was processed as was the practice previously. This change assured that services were paid for on the basis of prevailing charges in effect at the time of service rather than at the higher prevailing rate in effect when the bill was actually submitted.

One effect of these statutory and administrative modifications to Medicare's methodology for determining reasonable charges can be measured by the number of claims for which the carriers reduced submitted charges for covered services. As noted, during the 6-month period ended June 30, 1968, only about 6 percent of the Medicare claims had any charges reduced. In contrast, in fiscal year 1982, about 80 percent of the claims were reduced because the submitted covered charges were higher than Medicare's reasonable charge. The comparable amounts of covered charges reduced were 3 percent in 1968 and 24 percent in 1982. To the extent that these claims were unassigned (which occurred in about half the cases), these reductions could be passed on to the Medicare beneficiaries.

²Medical Care Expenditures, Prices, and Costs: Background Book, Social Security Administration, Office of Research and Statistics Publication No. (SSA) 75-11909, Sept. 1975.

More recently the Congress addressed physicians' Medicare fees in the Deficit Reduction Act of 1984 (Public Law 98-369). This law provided for a temporary freeze on Medicare's reasonable charges for physicians' services for 15 months (July 1, 1984-September 30, 1985), based on the customary and prevailing charge levels in effect from July 1983 to June 1984. This freeze was extended several times, the latest to April 30, 1986, by Public Law 99-272.

As part of deliberations on the 1984 legislation, the House of Representatives considered a proposal that would limit the freeze to physicians' claims for inpatient hospital services while requiring physicians to accept assignment on their claims for such services. However, this proposal was not adopted.³ As an alternative to mandatory assignment, the freeze provision authorized physicians to voluntarily enter into agreements with Medicare to accept its reasonable charges as the full charge for services provided during a fiscal year and included certain incentives (as discussed on p. 36) to encourage physicians to participate.

Although, the Balanced Budget and Emergency Deficit Control Act of 1985 (Public Law 99-177), enacted December 12, 1985, reduced all physician payments by 1 percent for fiscal year 1986, additional incentives for participation in the voluntary program were included in the Consolidated Omnibus Budget Reconciliation Act of 1985 (Public Law 99-272), enacted April 7, 1986. That law permits participating physicians to receive their increase plus 1 percent, while nonparticipating physicians' fees remain frozen.

Objectives, Scope, and Methodology

Our objectives were to develop information on the amounts of net and gross income of office-based physicians by medical specialty and the percentages of their gross income derived from Medicare. In addition, we developed information on Medicare income by place of service, the portions applicable to assigned and unassigned claims, and ranges of Medicare income by specialty.

³In November 1985, the Governor of Massachusetts signed a state law that requires Massachusetts physicians, as a condition of licensure, to agree not to charge or collect from Medicare beneficiaries any amount in excess of Medicare's reasonable charge. The state medical society sued to have the law declared unconstitutional and plans to appeal the lower court decision that upheld the law.

In defining an office-based physician, we included both M.D.'s and doctors of osteopathy as does Medicare. Medical Economics excludes doctors of osteopathy from its definition of a physician. In addition, Medical Economics also includes anesthesiology as a surgical specialty, whereas we included it as a nonsurgical specialty. The Socioeconomic Monitoring System survey published by AMA provides information on the population of nonfederal patient care physicians. This includes both office- and hospital-based physicians but excludes residents. Accordingly, when we site the various data sources in the report, they are being discussed in the context as set forth above.

Also, as shown by table 1, the level of charges from Occidental's claims history tapes was much higher than those of the other five carriers combined. Because we calculated weighted averages, the data from this carrier would heavily influence any averages for all locations. For this reason, where the data from one carrier materially differed from the weighted average of all six, we disclosed the difference (see table 11).

We developed computer programs to identify, for each individual provider by his or her specialty, the amounts of submitted and allowed charges that were on assigned and unassigned claims. These data were further broken down by place of service. When a specific provider was shown under more than one specialty, we assigned the various amounts to the specialty having the highest submitted charges for that physician.

Limitations on Data

Both the AMA and Medical Economics data had certain limitations; they were based on periodic interviews or questionnaires sent to a random sample of medical doctors obtained from AMA's master list of such physicians. As the responses were confidential, we did not attempt to verify them. Also, the response rates to both surveys were relatively low, as indicated by table 2.

Table 2: Response Rates to AMA and Medical Economics Surveys^a

<u>Year</u>	<u>Percentage response</u>	
	<u>AMA</u>	<u>Medical Economics</u>
1982	60	34
1983	62	37
1984	62	33

^aAlthough these rates may be low, we used their data because they were the most current we are aware of.

Both the AMA and Medical Economics told us that the results of their questionnaire are representative of the physician population. We were not able to validate this, however, because data needed to do so were not included in the published material.

Similarly, for the purposes of our analysis, the claims data obtained from the carriers have limitations because of the methods of assigning provider numbers to physicians. For example, one physician can have more than one provider number if he or she has more than one office, which would understate the amounts charged if each number were counted as a single physician. A physician can be part of a group of physicians within a given specialty, and a provider number can be assigned to the group, which would overstate the amounts charged if the amounts were attributed to a single physician. Finally, a physician can have his or her own provider number and bill under this number as well as under the group number.

To help correct for these carrier data limitations, we attempted, as part of our analysis, to identify from the tapes (1) physicians with more than one provider number and combine their charge data and (2) provider numbers that were really groups of physicians and eliminate their charges from our data. To the extent possible, we eliminated the amounts attributable to groups because it was impracticable to go back and find out how many doctors were in a group during the particular time period. Also, according to a New Hampshire Blue Shield official, this carrier identifies a multiple physician practice as one that has five or more physicians involved in a group. Physician groups of fewer than five physicians do exist, but cannot be readily identified in the carrier tapes provided to us. Accordingly, to the extent such small groups exist, our data on sole physician practitioners in New Hampshire are overstated.

We obtained formal comments from AMA and Medical Economics Company, Inc., concerning our use of their data. We have incorporated their comments in this document.

Except for the above limitations in the data that we used, we performed our review in accordance with generally accepted government auditing standards.

**HOW MUCH DO PHYSICIANS EARN AND
HOW MUCH COMES FROM MEDICARE?**

In this section, we provide specific information on (1) physicians' pretax net income by specialty for 1982, 1983, and 1984 as published by AMA and Medical Economics⁴ which show similar amounts, (2) physicians' gross incomes by specialty (including professional practice expenses) for 1981, 1982, 1983, and 1984 from Medical Economics, and (3) comparisons of physicians' gross Medicare income for 1981 from the above sources with the amounts we derived from the payment history tapes for six Medicare carriers for approximately the same period.

According to Medical Economics, in 1984, for the first time, the median net pretax income for office-based physicians exceeded \$100,000; it ranged from \$68,600 for general practitioners to \$179,690 for neurosurgeons. After little or no increase in gross income in 1983, the median gross income for physicians in 1984 was \$181,290, up about 15 percent from 1983, ranging from \$115,150 for psychiatrists to \$327,000 for orthopedic surgeons. But the rate of increase in gross income in 1984 varied widely by specialty, from about 3 percent for physicians in general practice to about 36 percent for orthopedic surgeons.

In 1981, about 17 percent of physicians' average gross income came from the Medicare program (according to Medical Economics latest published data on the subject). In the aggregate, for the six carriers for which we had data, Medicare paid about 68 percent of physicians' gross Medicare income, and the beneficiaries paid or owed the remaining 32 percent. The beneficiaries' shares varied by location (from 29 percent in Maryland to 41 percent in Wyoming) and by specialty (from 27 percent for radiologists to 43 percent for anesthesiologists).

At the six carriers, the average gross physicians' income from the Medicare program was about \$31,000; however, about 47 percent of the doctors earned less than \$10,000 and 5 percent earned \$100,000 or more. These distributions also varied by specialty--more than 85 percent of the obstetrics and gynecology (OBG) specialists, psychiatrists, and pediatricians earned less than \$10,000, and 32 percent of the thoracic surgeons and 22 percent of ophthalmologists earned \$100,000 or more from their Medicare patients.

⁴The sources are AMA's Socioeconomic Characteristics of Medical Practice 1984, and issues of the periodical Medical Economics for Sept. 13, 1982; Sept. 19, 1983; Sept. 17, 1984; Sept. 9, 1985; and Nov. 11, 1985.

Net Pretax Income of Physicians

As indicated, we identified two private sources that periodically publish information on physicians' incomes. One source is AMA, and the other is Medical Economics Company, Inc., which publishes income information in September of each year for the previous calendar year. These sources use either periodic interviews or questionnaires sent to a random sample of medical doctors obtained from AMA's master list of such physicians to obtain information.

AMA's data express net income in terms of both the mean (average) and the median, while Medical Economics' data usually show net income in terms of the median. Information from both these sources by selected medical specialties for calendar years 1982, 1983, and 1984 is shown in table 3.

Table 3: Net Pretax Income of Physicians for Calendar Years 1982, 1983, and 1984

Specialty	1982			1983			1984		
	AMA		Medical Economics ^a	AMA		Medical Economics ^a	AMA		Medical Economics ^a
	Mean	Median	Median	Mean	Median	Median	Mean	Median	Median
Neurosurgery	b	b	\$142,500	b	b	\$147,860	b	b	\$179,690
Orthopedic surgery	b	b	139,500	b	b	142,320	b	b	173,030
Radiology	\$136,800	\$127,500	127,310 ^c	\$148,000	\$130,000	b	\$139,800	\$122,000	159,820
Thoracic surgery	b	b	131,940	b	b	136,580	b	b	149,250
Plastic surgery	b	b	127,920	b	b	127,080	b	b	144,250
Anesthesiology	131,400	120,000	108,950 ^c	144,700	140,000	b	145,400	150,000	b
OBG specialists ^d	115,800	110,000	108,330	119,900	107,000	109,170	116,200	106,000	112,110
Ophthalmology	b	b	96,740 ^c	b	b	112,500	b	b	150,000
General surgery	b	b	98,850	b	b	105,500	b	b	117,940
Internal medicine	86,800	75,000	85,910	93,300	80,000	83,450	103,200	90,000	89,660
Psychiatry	76,500	69,000	70,350 ^c	80,000	72,000	b	85,500	80,000	79,850
Family practice and general practice	71,900 ^e	63,000 ^e	74,580	68,500 ^e	63,000 ^e	76,200	71,100 ^e	63,000 ^e	76,810
Pediatrics	70,300	63,000	72,110	70,700	61,500	68,130	74,500	68,000	68,600
Surgical specialties	130,500	112,000	114,950	145,500	125,000	74,060	151,800	130,000	129,500
Nonsurgical specialties	b	b	85,910	b	b	88,550 ^f	b	b	94,670 ^f
All physicians	99,500	85,000	93,270	106,300	90,000	94,580	108,400	92,000	101,970

Note: General inflation rate was 6.0 percent from 1981 to 1982, 3.8 percent from 1982 to 1983, and 4.0 percent from 1983 to 1984, as measured by the Gross National Product price deflator.

^aFor unincorporated physicians, net is individual income from practice minus tax-deductible professional expenses, before income taxes. For incorporated physicians, it is total compensation from practice (salary, bonuses, if any, and corporate retirement set-asides) before income taxes. Data in this and other tables in this report that use Medical Economics data apply to office-based M.D.'s.

^bNot available.

^cNot available for 1982. Amount represents 1981 pretax income.

^dObstetrics and gynecology.

^eIncludes both family and general practice.

^fExcludes family and general practice.

When using the same measure (the median), the information from both sources for most specialties was relatively similar, as the table shows. However, the mean or average amounts for various specialties as reported by AMA usually were higher than the comparable median amounts reported by AMA and Medical Economics, because relatively few physicians with very high incomes could increase the averages. In 1983 and 1984, for example, Medical Economics shows that about 10 percent of surgical specialties net \$250,000 a year or more. This could account for the averages (\$145,500 and \$151,800) being about \$20,000 more than the medians (\$125,000 and \$130,000).

According to Medical Economics, from 1982 to 1983, there was less than a 2-percent increase in median net income for all physicians, except for ophthalmologists and general surgeons, which increased about 16 and 7 percent, respectively. From 1983 to 1984, however, the median net incomes for all specialists except for family or general practice, OBG, and pediatricians increased from 7 to 33 percent, and for the first time the median net income for all doctors exceeded \$100,000 a year.

Gross Income of Physicians

Medical Economics also publishes information on the gross income from medical practice for physicians by various specialties. (Gross income is the income before such professional expenses as office rent, staff salaries, and malpractice insurance are deducted.) Physicians' gross income for 1981, 1982, 1983, and 1984 is shown in table 4, which also shows their median gross and net incomes for 1984. As stated, we included 1981 mean amounts so as to compare these with data derived from the claims payment histories the six Medicare carriers provided.

Table 4: Physicians' Gross Income 1981 Through 1984 and Net Income 1984

<u>Specialty</u>	<u>Gross income</u>				<u>Net income 1984 median</u>	<u>Median percent of gross for professional expenses</u>
	<u>1981 mean^a</u>	<u>1982 median^b</u>	<u>1983 median^b</u>	<u>1984 median^b</u>		
Neurosurgery	\$207,000	\$227,810	\$241,120	\$303,130	\$179,690	29
Orthopedic surgery	254,000	247,810	241,160	327,000	173,030	41
Radiology	178,000	^c	^c	200,780	159,820	16
Thoracic surgery	207,000	215,130	217,790	247,220	149,250	30
Plastic surgery	157,000	236,560	243,750	298,750	144,250	41
Anesthesiology	149,000	^c	^c	^c	^c	^c
OBG specialists	171,000	197,000	192,270	227,500	112,110	43
Ophthalmology	204,000	^c	225,600	295,830	150,000	45
General surgery	175,000	164,580	184,170	205,080	117,940	34
Internal medicine	137,000	148,460	147,220	159,000	89,660	41
Psychiatry	106,000	^c	^c	115,150	79,850	25
Family practice	141,000	144,790	144,710	152,860	76,810	48
General practice	118,000	125,160	123,060	126,110	68,600	43
Pediatrics	117,000	124,060	126,750	148,890	76,470	46
Surgical specialties	195,000	195,880	208,380	236,910	129,500	38
Nonsurgical specialties	145,000	134,670	140,470 ^d	160,290 ^d	94,670 ^d	36
All physicians	162,000	155,750	157,500	181,290	101,970	38

^aMedical Economics, Apr. 4, 1983, p. 262. We derived gross income from its data. Mean gross income equals amount from Medicare divided by the percent from Medicare. Numbers are rounded.

^bGross income represents physicians' individual share of receipts from practice before professional expenses and income taxes.

^cNot available.

^dMedical Economics excluded family and general practice from its reported data.

Source: 1985: Medical Economics, Nov. 11, 1985, pp. 228 and 229.
 1984: " " , Sept. 9, 1985, pp. 196 and 203.
 1983: " " , Sept. 17, 1984, p. 185.
 1982: " " , Sept. 19, 1983, p. 207.
 1981: " " , Apr. 4, 1983, p. 262.

As the table shows, there was little (less than 5 percent) or no increase in physicians' median earnings from their medical practices from 1982 to 1983, except for neurosurgeons, where the increase was about 6 percent, and for general surgeons, where the increase was about 12 percent. From 1983 to 1984, however, the median gross income for all physicians increased from \$157,500 to \$181,290, or about 15 percent, and for such specialties as thoracic surgery, neurosurgery, ophthalmology, plastic surgery, and orthopedic surgery, the increases ranged from 14 to 36 percent. In contrast, the increases in median gross income of physicians in family and general practice were only about 6 and 3 percent, respectively. The overall increase in physicians' gross earnings appears surprising, considering that the Congress enacted a freeze on Medicare fees effective July 1984, and AMA, in March 1984, urged physicians to voluntarily freeze fees for all patients.

Also, the table shows professional expenses in 1984 consumed from 30 to 48 percent of the gross income for all specialties, except radiologists, psychiatrists, and neurosurgeons, where such expenses as a percentage of gross income were lower, 16, 25, and 29 percent, respectively.

Gross Income From Medicare

On April 4, 1983, Medical Economics published information showing the source of physicians' gross income for 1981, which is the latest year for which such information was collected and/or published. For all physicians responding to the survey, the sources of such income expressed as mean averages are as follows:

<u>Source of income</u>	<u>Percent</u>
Fees paid by patients	29
Commercial health insurance plans	21
Blue Shield plans	20
Medicare	17
Medicaid	8
Prepayment plans	3
Other	<u>2</u>
Total	<u>100</u>

The information also showed the source of income by specialty. The percentages of gross income earned from Medicare are summarized in table 5.

Table 5: Physicians' Gross Income From Medicare by Specialty--
1981

<u>Specialty</u>	<u>1981 income</u>		<u>Percent from Medicare (mean)</u>
	<u>Gross income (mean)</u>	<u>Amount from Medicare (mean)</u>	
Neurosurgery	\$207,000	\$37,310	18
Orthopedic surgery	254,000	43,220	17
Radiology	178,000	49,730	28
Thoracic surgery	207,000	72,420	35
Plastic surgery	157,000	18,780	12
Anesthesiology	149,000	32,790	22
OBG specialists	171,000	8,530	5
Ophthalmology	204,000	49,010	24
General surgery	175,000	43,750	25
Internal medicine	137,000	39,630	29
Psychiatry	106,000	6,370	6
Family practice	141,000	21,220	15
General practice	118,000	21,170	18
Pediatrics	117,000	1,170	1
Surgical specialties	195,000	38,910	20
Nonsurgical specialties	145,000	24,660	17
All physicians	162,000	27,490	17

Source: Medical Economics, Apr. 4, 1983, p. 262. We derived gross income from these data. Mean gross income equals amount from Medicare divided by the percent from Medicare. Numbers are rounded.

As indicated by the table, in terms of a percentage of their earnings, data from Medical Economics indicate that the Medicare program is an important source of income for thoracic surgeons, radiologists, internists, general surgeons, and ophthalmologists and a relatively unimportant source of income for psychiatrists, OBG specialists, and pediatricians.

The payment history tapes from the six carriers also showed that Medicare and its beneficiaries represented a large source of income for certain specialists--particularly thoracic surgeons and ophthalmologists--and a relatively minor source for psychiatrists, OBG specialists, and pediatricians. The average gross Medicare income by specialty and location for 19,354 office-based physicians is shown in table 6. We computed this by adding the amounts allowed on assigned claims and the amounts billed on unassigned claims and dividing the sum by the number of providers associated with these allowed and billed amounts within each specialty group. The methodology we used is similar to that HCFA used to publish nationwide statistics on physicians' gross incomes by specialties for 1976 and 1977.

Table 6: Physicians' Allowed Gross Income from Medicare—Comparisons Between Medical Economics and Payment History Tapes for Six Medicare Carriers

Specialty	Medical Economics (mean)—1981	All locations weighted mean— 1981-82	Medicare carrier data						Total number of providers
			Mean by location						
			S. Cal.	Colorado	N. Hampshire/ Vermont ^a	Maryland	Kansas City	Wyoming	
Neurosurgery	\$37,310	\$ 37,299	\$ 40,120	\$37,043	\$ 50,947	\$ 24,803	\$ 47,184	\$ 15,820	204
Orthopedic surgery	43,220	38,660	44,736	27,268	43,142	33,275	45,524	21,770	846
Radiology	49,730	35,657	28,282	14,963	106,041	17,167	70,991	1,522	249
Thoracic surgery	72,420	98,746	106,728	86,767	77,430	77,314	150,700	33,378	174
Plastic surgery	18,780	20,862	19,873	16,729	9,061	28,439	29,050	18,808	282
Anesthesiology	32,790	37,599	37,779	37,483	60,682	35,443	40,280	13,879	901
OBG specialists	8,530	4,958	6,160	3,430	3,826	3,726	4,590	3,133	1,412
Ophthalmology	49,010	76,018	98,665	55,025	68,559	53,942	56,997	19,323	881
General surgery	43,750	39,618	50,054	36,791	35,742	29,248	35,240	22,143	1,615
Internal medicine	39,630	41,454	47,105	39,781	48,802	30,232	42,731	27,945	3,374
Psychiatry	6,370	6,226	7,513	4,049	7,442	3,056	6,007	1,606	1,885
Family practice	21,220	21,365	26,696	14,500	25,972	14,779	17,807	4,769	1,411
General practice	21,170	20,775	24,667	17,652	17,803	12,140	18,991	11,609	3,017
Pediatrics	1,170	2,542	2,645	2,423	326	2,951	1,395	0	317
Surgical specialties	38,910	37,756	44,940	31,538	38,140	27,563	38,142	19,404	6,308
Nonsurgical specialties	24,660	27,289	30,966	22,726	33,003	20,503	24,244	14,346	13,046
All physicians	27,490	30,701	35,234	25,762	34,717	23,054	28,740	16,173	19,354

^aAs discussed on page 16, we could not exclude physician groups from the carrier tapes for New Hampshire/Vermont.

Medicare gross income varied significantly by specialty and by location for the same specialties, as table 6 shows. We cannot explain why the amounts shown for Wyoming are consistently lower than the other five locations. In Wyoming, however, in 1980, individuals aged 65 and over represented only about 7.9 percent of the total population, while the percentages were higher in Colorado (8.5), Maryland (9.4), California (10.2), New Hampshire (11.2), Vermont (11.4), and Missouri (13.2).

Who Pays the Physicians--
Medicare or the Beneficiary?

Physicians' income from Medicare can be monies (1) paid directly by Medicare to the physician for Medicare's share of allowed charges on assigned claims, (2) paid indirectly by Medicare to the beneficiary for reimbursement for his/her payment of Medicare's share of allowed charges on assigned claims, and (3) paid by the beneficiaries for their share of allowed charges for assigned and unassigned claims and the difference between the amounts billed and the amounts allowed on unassigned claims.

Medicare reimbursed about 78 percent of allowed charges, according to HCFA statistics for 1981 and 1982, while 22 percent were the responsibility of the beneficiaries. The beneficiaries share consisted of their 20-percent coinsurance amounts plus the annual deductible (\$60 in 1981 and \$75 in 1982). The most favorable conditions from the beneficiaries' viewpoint would be for all physicians to accept assignment or for Medicare to allow what all doctors charged, then the beneficiaries would have paid or owed 22 percent of the physicians' total gross Medicare-related income. Table 7 shows by specialty the portions of the gross income that were actually paid directly or indirectly by the program and the portions paid or owed by beneficiaries at the six carrier locations. These data show that, overall, beneficiaries paid about 32 percent as compared with the most favorable "optimum" 22 percent.

Table 7: 1981-82 Proportions of Gross Medicare Income Paid by the Program (Directly or Indirectly) or by Beneficiaries

<u>Specialty</u>	Weighted average gross income from Medicare	<u>Percents paid</u>		
		<u>Direct^a</u>	<u>Indirect^b</u>	<u>Beneficiary^c</u>
Neurosurgery	\$ 37,299	30	33	37
Orthopedic surgery	38,660	33	33	34
Radiology	35,657	52	21	27
Thoracic surgery	98,746	44	26	30
Plastic surgery	20,862	41	26	33
Anesthesiology	37,599	24	33	43
OBG specialists	4,958	30	36	34
Ophthalmology	76,018	28	41	31
General surgery	39,618	39	30	31
Internal medicine	41,454	38	31	31
Psychiatry	6,226	54	15	31
Family practice	21,365	36	32	32
General practice	20,775	33	35	32
Pediatricians	2,542	31	35	34
Surgical specialties	37,756	34	34	32
Nonsurgical specialties	27,289	38	30	32
All physicians	30,701	36	32	32

^aPortion Medicare paid directly to physicians.

^bPortion Medicare pays to beneficiaries to pay physicians.

^cPortion beneficiaries owe physicians (out-of-pocket).

As shown above, the variations by specialty in the percentage of physicians' gross medical income paid by beneficiaries in most cases ranged from 30 to 34 percent. However, for anesthesiologists and neurosurgeons, the beneficiaries' share represented 43 and 37 percent, respectively, and for radiologists, 27 percent.

Distribution of Physicians'
Gross Income From Medicare

Because much of the data on physicians' net and gross income has been expressed in terms of averages and medians, the requester asked that we provide data on the relative ranges of physicians' Medicare income--that is, how many receive \$10,000

a year and so forth. From the payment history tapes of the six carriers, we developed information on the total number of physicians in our data base, the average gross Medicare income applicable to these physicians, and the percentage of physicians in the data base within each designated income range (see table 8).

Table 8: Income Ranges of Medicare-Allowed Charges by Specialty (1981-82)

Specialty	Total number of providers	Weighted average gross Medicare income ^a	Medicare allowed charges			
			Less than \$10,000	\$10,000 but less than \$50,000	\$50,000 but less than \$100,000	\$100,000 and above
----- (percent of providers) -----						
Neurosurgery	204	\$37,299	36	42	19	3
Orthopedic surgery	846	38,660	32	45	18	5
Radiology	249	35,657	59	27	4	10
Thoracic surgery	174	98,746	18	28	22	32
Plastic surgery	282	20,862	40	54	5	1
Anesthesiology	901	37,599	28	57	14	1
OBG specialists	1,412	4,958	90	10	b	b
Ophthalmology	881	76,018	26	32	20	22
General surgery	1,615	39,618	31	45	17	7
Internal medicine	3,374	41,454	30	42	22	6
Psychiatrists	1,885	6,226	86	13	1	b
Family practice	1,411	21,365	46	46	7	1
General practice	3,017	20,775	48	44	7	1
Pediatrics	317	2,542	95	5	b	0
Surgical specialties	6,308	37,756	45	34	13	8
Nonsurgical specialties	13,046	27,289	48	37	12	3
All physicians	19,354	30,701	47	36	12	5

^aAverage allowed charges were about 15 percent less than the combination of allowed and billed charges used to compute average Medicare gross income. We used allowed charges to compile our data on income levels.

^bLess than 1 percent.

About 47 percent of the physicians in our data base earned less than \$10,000 a year from their Medicare patients. This represents from 3 to 9 percent of their income from all sources. A relatively large number of physicians in two specialties (thoracic surgery and ophthalmology) earned \$100,000 and over.

Summary

For the period 1982 through 1984, both AMA and Medical Economics data on physicians' net incomes showed wide variations by specialty. At the top of the income range were such specialties as neurosurgeons, orthopedic surgeons, anesthesiologists, radiologists, thoracic surgeons, plastic surgeons, and ophthalmologists. At the bottom of the range, with net incomes about one-half to one-third of their colleagues in the above specialties, were physicians practicing in psychiatry, family and general practice, and pediatrics.

While in 1983 physicians experienced little or no increase in their gross incomes, in 1984 overall gross incomes increased 15 percent. Specialties at the top of the gross income range showed increases in 1984 of from 14 to 36 percent, but two of the four specialties at the bottom of the range showed increases of only 6 and 3 percent.

Medicare appears to be a relatively insignificant source of income for specialties involving plastic surgery, OBG, psychiatry, and pediatrics. In contrast, our data from the payment history tapes for the six carriers indicate that gross income from Medicare patients represents a very important source of income for thoracic surgeons and ophthalmologists.

For the remaining specialties and physicians, generally the data indicate that, on the average, Medicare patients account for 15 to 29 percent of their gross income. The use of averages however, may be somewhat unrepresentative because our data for 1981-82 also show that for about 47 percent of the physicians in our data base, earnings from Medicare patients was \$10,000 or less, which represented from 3 to 9 percent of the average income from all sources. Thus, unless this condition has changed over the past 3 or 4 years, the high incidence of physicians receiving relatively modest amounts from Medicare could support the hypothesis that if the level of dissatisfaction with its payment policies became sufficiently high, many of these physicians may withdraw from the program.

WHERE DO PHYSICIANS EARN THEIR MEDICARE INCOME-- IN THEIR OFFICES OR IN HOSPITALS?

This section presents additional information on the portions of physicians' weighted gross Medicare income generated by services provided in their offices, in the hospital (inpatient and outpatient), and other places (e.g., nursing homes or the patients' homes), as developed from our analysis of the "place of service" codes in the 1981-82 payment history tapes for the six Medicare carriers. We found, overall, that about 33 percent

of physicians' gross Medicare income was generated by services provided in their offices, and about 63 percent for services provided in hospitals. The other 4 percent was earned by services provided in other places.

As would be expected, the surgical specialties earned more of their Medicare income (77 percent) in hospitals than did the nonsurgical specialties (54 percent). There was a general relationship between the amounts and proportion of Medicare income earned in the hospital and the physicians' total net and gross incomes by specialty shown in tables 3 and 4 in the previous section. That is, specialists in the high range of gross and net incomes (e.g., neurosurgeons, orthopedic surgeons, thoracic surgeons, and anesthesiologists) earned a majority of their incomes from Medicare in hospitals. Physicians at the lower range (e.g., pediatricians and those in general and family practice) earned most of their Medicare income in their offices. The exceptions to this relationship were psychiatrists, who earned 57 percent or more of their Medicare income in hospital settings at four of the six locations.

Additional information on the places of service where physicians earn their income from Medicare is presented in the following sections.

Physicians' Gross Medicare Income by Place of Service

In its instructions for submitting and processing Medicare claims for physicians' services, HCFA requires the place of service to be identified from a list of eight.⁵ For purposes of our analysis, we grouped these places into three categories--physician's office, hospital (inpatient and outpatient), and other (the five remaining places of service). Although physicians do render services on an outpatient hospital basis, Medicare data for fiscal year 1984 show that about 56 percent of all hospital-related services are rendered on an inpatient basis. Accordingly, we did not separate services provided in a hospital setting into inpatient and outpatient components.

Table 9 shows a breakdown of physicians' gross Medicare income by specialty and place of service. Average Medicare income and the percentage by place of service are weighted figures; that is, the importance of a geographic area's contribution to the figures is in proportion to the physicians' gross Medicare revenues in that area. Because southern California represented about 60 percent of the total gross income for the

⁵Office, home, inpatient hospital, skilled nursing facility, outpatient hospital, independent laboratory, nursing home, and other.

six carrier areas covered by our review, its data heavily influence average income and the percentages by place of service. Therefore, we have indicated in the table those specialties where patterns of earnings by place of service varied substantially among the areas covered by our review. Thus, where the distribution of income by place of service from any particular carrier materially differed from the weighted average of all six carriers, we included this and disclosed these material differences in table 11.

Table 9: 1981-82 Portion of Physicians' Gross Medicare Income Earned by Place of Service

<u>Specialty</u>	<u>Weighted average gross from Medicare</u>	<u>Percent of income earned by place of service</u>		
		<u>Office</u>	<u>Hospital</u>	<u>Other</u>
Neurosurgery	\$37,299	8	92	a
Orthopedic surgery	38,660	23	77	a
Radiology ^b	35,657	44	56	a
Thoracic surgery	98,746	4	96	a
Plastic surgery	20,862	23	77	a
Anesthesiology	37,599	2	98	a
OBG specialists	4,958	33	66	1
Ophthalmology	76,018	31	68	1
General surgery	39,618	14	85	1
Internal medicine	41,454	41	53	6
Psychiatry ^b	6,226	33	59	8
Family practice ^b	21,365	55	37	8
General practice ^b	20,775	55	36	9
Pediatrics ^b	2,542	68	28	4
Surgical specialties	37,756	22	77	1
Nonsurgical specialties	27,289	41	54	5
All physicians	30,701	33	63	4

^aLess than 1 percent.

^bSignificant variations by location. See table 11.

Although 33 percent of the weighted average Medicare gross income for all physicians was for services provided in their offices and 63 percent was for both inpatient and outpatient services in hospitals, there were significant variations by specialty, as table 9 shows. Surgical specialties showed the hospital (77 percent) as the predominate place of service for generating their Medicare-related income. This does not mean, however, that the hospital was the place where the surgical specialists most frequently saw their patients. While the

actual surgery is usually performed in the hospital, surgeons also perform certain pre- and post-hospital care, and such care can be included in a "global fee" as part of the operation. Consequently, when surgeons use global fees for an operation, the only place of service indicated would be the hospital although services outside the hospital may also have been provided.

This is illustrated by a May 1984 AMA report based on data drawn from AMA's fourth quarter 1983 Socioeconomic Monitoring System survey, which showed that in terms of the number of visits, surgical specialties more frequently saw their Medicare patients in the office (65 percent) than they did in the hospital (30 percent). This distribution of visits for Medicare patients is shown in table 10.

Table 10: Distribution of Visits for Medicare Patients by Practice Settings (Fourth Quarter 1983)

<u>Specialty</u>	<u>Place of service</u> <u>(percent of total visits)</u>		
	<u>Office</u>	<u>Hospital</u>	<u>Other^a</u>
General and family practice	64.5	19.3	10.1
Medical specialties	44.1	42.3	3.7
Surgical specialties	64.7	30.1	1.4
All physicians ^b	56.8	28.4	4.1

^aOther settings include nursing homes, convalescent homes, and extended care facilities. The percentage of visits do not equal 100 percent because emergency room visits are omitted.

^bExcludes psychiatry, radiology, anesthesiology, and pathology.

Source: Physicians' Involvement With Medicare. (Socioeconomic Monitoring System Report, Vol. 4, No. 3), AMA, May 1984.

Significant Variations by Location of Physicians' Gross Income by Place of Service

For the surgical specialties, there was not much variation in the proportion of Medicare income earned by location. For the nonsurgical specialties, including physicians in family and general practice, however, our analysis showed significant variations by location in percentages of income earned in the office and in hospitals. We have defined a significant variation to mean situations where the predominate income-generating place of service is different from that shown in table 11.

Table 11: Significant Variations in the Places Specialties Earned Their Gross Medicare Income by Location

<u>Specialties and location</u>	<u>Place of service (percent of gross income)</u>			<u>Total</u>
	<u>Office</u>	<u>Hospital</u>	<u>Other</u>	
Radiology:				
Weighted mean all locations	44	56	a	100
California (Occidental)	91	8	1	100
Kansas City	49	49	2	100
Maryland	72	28	a	100
Psychiatry:				
Weighted mean all locations	33	59	8	100
New Hampshire/Vermont	64	34	2	100
Wyoming	64	28	8	100
Family practice:				
Weighted mean all locations	55	37	8	100
Kansas City	37	54	9	100
Wyoming	40	52	8	100
General practice:				
Weighted mean all locations	55	36	9	100
Kansas City	41	45	14	100
Wyoming	44	50	6	100
Pediatrics:				
Weighted mean all locations	68	28	4	100
New Hampshire/Vermont	40	60	0	100

^aLess than 1 percent.

We asked the carriers for an explanation of the significant variances and were told that overall they could not explain the reason except in the cases of Maryland and Wyoming. In Wyoming, a carrier official told us that individuals living in remote areas often wait until they need to be hospitalized for diagnosis and treatment. Wyoming's two largest cities, Cheyenne and Casper, have the majority of physicians in the family practice specialty. When patients with no family physician appear at a hospital for treatment, family and general practice specialists are usually available at the hospital and treat the patients.

In addition, as Wyoming has no psychiatric hospital, most of these services are rendered in the office of the psychiatrist. As for Maryland, radiologists have the X-rays sent to their offices from hospitals for interpretation, a carrier official said. This explains the shift of the predominate place of service from the hospital to office.

Relationship Between Total Gross
and Net Income and Medicare
Income by Place of Service

There appears to be a general relationship between specialists' net and gross incomes (as shown in tables 3 and 4) and the proportion of Medicare income earned in the hospital. For 1984, there were seven specialties at the top of the range in terms of either net and/or gross income: neurosurgeons, orthopedic surgeons, radiologists, thoracic surgeons, plastic surgeons, anesthesiologists, and ophthalmologists. Except for the radiologists, these specialties earned from 68 to 98 percent of their Medicare gross income for services provided to patients in a hospital setting, as table 9 shows. Assuming their overall practice to be similar to their Medicare practice, hospitals would represent a very important source of their incomes. In contrast, three of the specialties at the bottom of the net and gross incomes range--family practice, general practice, and pediatrics--earned from 28 to 37 percent of their Medicare gross incomes from services provided to patients in a hospital setting.

Integration of Payments for
Physicians' Services With Medicare's
Prospective Payment System
for Inpatient Hospital Services

When the Congress established a Medicare prospective payment system (PPS) for inpatient hospital care through enactment of the Social Security Amendments of 1983 (Public Law 98-21), it also expressed an interest in integrating payments for physicians' services in hospitals into the system. Essentially, PPS, which is being phased in over a 3-year period (fiscal years 1984-86), establishes, in advance, for each Medicare patient discharged from the hospital a payment rate based on diagnosis.⁶ Medicare payment rates are set for 469 diagnosis related groups (DRGs); the amount of payment is determined by the principal DRG assigned to a patient. Section 603(a)(2)(B) of Public Law 98-21 provided that:

⁶The transition period was later extended to 4 years for all states except Oregon by the Consolidated Omnibus Budget Reconciliation Act of 1985 (Public Law 99-272).

"During fiscal year 1984, the Secretary shall begin the collection of data necessary to compute the amount of physician charges attributable, by diagnosis-related groups, to physicians' services furnished to inpatients of hospitals whose discharges are classified within those groups. The Secretary shall include, in a report to Congress in 1985, recommendations on the advisability and feasibility of providing for determining the amount of the payments for physicians' services furnished to hospital inpatients based on the DRG type classification of the discharges of those inpatients, and legislative recommendations thereon."

Although HHS had not submitted the required report to the Congress as of June 23, 1986, the information in this section has a policy implication regarding integration of physicians' services into PPS. At least for the surgical specialties, much or most of their income from Medicare has been generated by services in a hospital setting, irrespective of how often or how long they spend with their patients in their offices. Therefore, it appears that integrating surgeons' payments into the PPS hospital payment would be consistent with the place of service where they now earn most of their Medicare income.

Summary

For surgical specialties, the proportion of Medicare gross income earned in the hospital ranged from 66 to 96 percent, with a weighted average of 77 percent. Overall, the nonsurgical specialists earned a majority of their Medicare income in hospital settings (54 percent), but certain nonsurgical specialties (such as family and general practice and pediatrics) earned from 55 to 68 percent of their Medicare income in their offices. For specialists with comparatively high net and gross incomes as compared with other specialties at the bottom of the income range, hospitals are a particularly important setting for earnings from Medicare patients. Finally, at least for the surgical specialties, which represented about 33 percent of the physicians included in our data base, it seems feasible to integrate payments for physicians' services into Medicare's system for paying hospitals. This is because surgeons earn most of their income in a hospital setting, irrespective of how often they see their patients in their offices.

CHANGES AND VARIATIONS IN MEDICARE CLAIMS FOR PHYSICIANS' SERVICES TAKEN ON ASSIGNMENT

In this section we discuss in some detail recent increases in the proportion of physicians' charges that were "assigned," that is, where physicians agreed to accept Medicare's allowance

as the full charge, and variations in the assignment rates by location, place of service, and specialty.

Nationally, for fiscal year 1985, about 67 percent of covered Medicare charges was assigned, an increase of about 9 percentage points from fiscal year 1984. This increase was consistent with certain congressional actions effective October 1984 aimed at encouraging physicians to accept assignment on their Medicare claims. Although there were wide variations in assignment rates by carrier and geographic location, our analysis of 1981-82 payment history tapes from the six Medicare carriers showed that, for all specialties, assignment rates were consistently higher for services provided in hospitals than for services in physicians' offices.

Our analysis of the six carriers' 1981-82 charge data showed that, depending on the location, there were wide variations by specialty in assignment rates for all services. Within these locations, however, psychiatrists, thoracic surgeons, and plastic surgeons were the specialists most likely to accept assignment and ophthalmologists the least likely.

Recent Improvement in Assignment Rates

The Deficit Reduction Act of 1984 (Public Law 98-369) provided for a temporary freeze on Medicare's allowed charges for physicians' services. The 15-month freeze, beginning July 1, 1984, and ending September 30, 1985, was based on the "customary" and "prevailing" charge levels in effect from July 1983 to June 1984. Subsequently, the freeze was extended through April 30, 1986. Essentially, this meant that Medicare would not pay any more for physicians' services during the 22-month freeze than it did during the 12-month period preceding the freeze.

Public Law 98-369 authorized physicians and suppliers to voluntarily enter into agreements with Medicare to accept assignment on all Medicare services. This meant that they agreed to accept Medicare allowances as payment in full for all items and services provided during a given fiscal year. Physicians who signed these agreements are referred to as "participating" physicians. Use of these agreements protects the beneficiaries from increased charges during the freeze period.

If physicians did not elect to participate, they still had the option to accept assignment on a case-by-case basis as they had in the past. The first fiscal year covered by this new arrangement for participating physicians was 1985 (October 1, 1984-September 30, 1985). As incentives for physicians to participate, carriers were required to maintain toll-free telephone

lines to give beneficiaries the names and addresses of participating physicians, and HHS was required to publish directories also identifying them.

Although the Balanced Budget and Emergency Deficit Control Act of 1985 (popularly known as Gramm-Rudman-Hollings) reduced physician payments by a maximum 1 percent during fiscal year 1986, additional incentives to get physicians to participate were included in the Consolidated Omnibus Budget Reconciliation Act of 1985. The latter permitted participating physicians to receive their increase plus 1 percent, thereby eliminating the impact of Gramm-Rudman-Hollings.

Over the years, Medicare's national assignment rate has progressively declined from almost 54 percent in 1971 to about 48 percent in 1976, and then it began to slightly increase. In table 12 the national assignment rates for all providers paid by carriers for fiscal years 1981-84 are compared with those for fiscal year 1985 after the voluntary participation program became effective. Also, 1981 and 1982 assignment rates obtained from HCFA's statistics for various types of providers are compared with rates for 1981-82 derived from the six carriers' payment history tapes for sole-practice physicians' services only.

Table 12: Comparative Medicare Assignment Rates (1981-85)

Figures in percentages

<u>Location</u>	Data from six carriers' payment history tapes--- 1981-82 ^a	HCFA statistics on covered charges on assigned claims (assignment rates)				
		<u>Fiscal year</u>				
		<u>1981</u>	<u>1982</u>	<u>1983</u>	<u>1984</u>	<u>1985</u>
National	b	53	54	55	58	67
Maryland	67	72	73	76	78	84
Southern California	56	55	56	57	61	75
New Hampshire/ Vermont	50	53	52	53	55	62
Kansas City, Missouri	43	44	46	50	52	66
Colorado	38	50	50	49	47	60
Wyoming	18	19	21	23	26	41

^aTo the extent possible, based on allowed charges for sole-practicing physicians' services only.

^bNot applicable.

Assignment rates varied widely by location, and they increased markedly after the voluntary participating physician program became effective, particularly in locations where the

rates were previously comparatively low. Also, although HCFA's statistics generally show slightly higher assignment rates for fiscal years 1981 and 1982 than did those we derived from the six carriers' claim payment history tapes, we do not consider the difference significant. Our data were limited to sole-practicing physicians, while HCFA statistics included groups of physicians and other providers, such as suppliers and independent laboratories.

Although Medicare's national assignment rate in fiscal year 1985 was the highest since HHS began compiling statistics in 1968, caution should be used before concluding that the participating physician program has necessarily changed physicians' behavior. At least in Maryland and southern California, the physicians with the larger Medicare practices have elected to participate, and in the past they had elected to take assignment in most or all cases, as table 13 shows. Also, comparing assignment rates and the percentage of participating physicians by location (as reported by HCFA) shows that there is not necessarily a direct relationship between high assignment rates and a relatively high percentage of participating physicians.

Table 13: Comparison of 1985 Assignment Rates and Percentage of Participating Physicians

<u>Location</u>	<u>Assignment rate percent fiscal year 1985</u>	<u>Percent of participating physicians</u>
National	67	30 ^a
Maryland	84	30
Southern California	75	30 ^b
New Hampshire/Vermont	62	35
Kansas City, Missouri	66	34
Colorado	60	38
Wyoming	41	23

^aThe comparable AMA figure is 37 percent.

^bIncludes all of California.

Also, data from AMA's Socioeconomic Monitoring System showed a strong relationship between participation rates and previous assignment history. Physicians who regularly accepted assignment in the past were the ones most likely to elect to participate, as table 14 indicates. That is, the lowest rate of participation was among physicians who never accepted assignment, and the highest rate was among physicians who always accepted assignment.

Table 14: Relationship Between Physicians Electing to Participate in Medicare and Previous Assignment History

<u>Percent of patients accepted on assignment</u>	<u>Percent of sampled physicians (1984, last quarter)</u>	<u>Percent of physicians electing to participate</u>
None assigned	16	20
1 to 50	37	27
51 to 99	13	48
100 percent assigned	20	77

Source: Medicare Assignment: Recent Trends and Participation Rates (Socioeconomic Monitoring System Report, Vol. 4, No. 1), AMA, Feb. 1985.

Assignment by Place of Service

Virtually without exception, all specialties were more likely to accept assignment for services provided in a hospital setting than for services provided in their offices, our analysis of data from the six Medicare carriers claims history tapes showed. Also, except for Kansas City Blue Shield, nonsurgical specialties generally had overall higher assignment rates than the surgical specialties. These variations in assignment rates by place of service are summarized in table 15.

Table 15: Variations in Assignment Rates by Location and Place of Service (1981-82)

<u>Location</u>	<u>Percentages of allowed charges assigned by place of service</u>			<u>Total</u>
	<u>Office</u>	<u>Hospital</u>	<u>Other</u>	
Maryland:				
Surgical specialties	46	70	75	67
Nonsurgical specialties	35	83	66	68
All physicians	38	76	68	67
Southern California:				
Surgical specialties	49	52	72	51
Nonsurgical specialties	50	64	81	59
All physicians	50	59	80	56
New Hampshire/Vermont:				
Surgical specialties	32	49	65	45
Nonsurgical specialties	38	61	62	53
All physicians	36	56	62	50
Kansas City, Missouri:				
Surgical specialties	33	46	48	44
Nonsurgical specialties	23	53	54	42
All physicians	26	49	53	43
Colorado:				
Surgical specialties	28	38	62	37
Nonsurgical specialties	27	43	63	38
All physicians	27	41	63	38
Wyoming:				
Surgical specialties	8	16	38	15
Nonsurgical specialties	12	24	36	20
All physicians	11	20	36	18

Assignment Varies Widely by Specialty

Assignment rates showed wide variations and very little relationship by specialty when we analyzed data from the six carriers' claim history tapes. A location such as Wyoming showed low assignment rates for most specialties as compared with the same specialty in Maryland or southern California areas with much higher overall assignment rates. Therefore, within each location, we ranked the 14 specialties shown by their relative assignment rates from high to low, then listed the top and

the bottom four for each location.⁷ If two specialties had the same assignment rate, we added a fifth. This analysis is shown in table 16.

⁷We used the top and bottom four because usually the remaining six were too close to the average assignment rates for all physicians to make variations meaningful.

Table 16: Variations and Ranges of Assignment Rates by Specialty and by Location (1981-82)

Specialty	Percentages of physicians accepting assignment											
	Maryland	Southern California	New Hampshire/Vermont	Colorado	Kansas City, Missouri	Wyoming						
Surgical specialties	67	51	45	37	44	15						
Nonsurgical specialties	68	59	53	38	42	20						
All physicians	67	56	50	38	43	18						
Rankings:												
Top four	Plastic surgery	89	Psychiatry	80	Thoracic surgery	93	Radiology	64	Plastic surgery	77	Radiology	65
	Thoracic surgery	84	Pediatrics	79	Radiology	88	Thoracic surgery	57	Orthopedic surgery	64	Plastic surgery	49
	General surgery	77	Thoracic surgery	63	Psychiatry	86	Plastic surgery	55	Psychiatry	57	Psychiatry	37
	Internal medicine	70	Radiology	60	Neurosurgery	79	Psychiatry	54	General surgery	50	Neurosurgery	36
	Anesthesiology	70	Family practice	60								
Bottom four	Pediatrics	8	Anesthesiology	41	Ophthalmology	29	Pediatrics	28	Pediatrics	9	Ophthalmology	8
	Ophthalmology	46	OBG specialists	45	Internal medicine	40	Ophthalmology	29	Thoracic surgery	24	Thoracic surgery	10
	General practice	50	Ophthalmology	45	General practice	43	Anesthesiology	31	Anesthesiology	27	Orthopedic surgery	15
	Family practice	51	Orthopedic surgery	49	Family practice	48	Neurosurgery	32	Ophthalmology	28	General surgery	16
			Neurosurgery	50							General practice	16

There were many inconsistencies in the data--neurosurgeons, pediatricians, thoracic surgeons, and physicians in family practice ranked high in one or more locations and low in others as the table shows. We did, however, observe some relationship in the number of times a particular specialty would show up in the top four or bottom four of the rankings within a location. For example, psychiatrists were in the top four at five of the six locations, and thoracic and plastic surgeons and radiologists were in the top four at four of the six locations. In contrast, ophthalmologists were in the bottom four at six locations, and anesthesiologists, general practice, and pediatrics were ranked at the bottom four at three of the six locations.

Summary

Although the more recent assignment data suggest that the congressional efforts in 1984 to improve assignment rates have met with some success, other data indicated that most physicians had not changed their behavior on the question of assignment but tended to elect to participate based on their previous assignment history. In other words, physicians who had accepted assignment in all or most cases in the past apparently elected to participate and continued to do so. Relatively few physicians who did not accept assignment in the past elected to participate.

Also, assignment rates were consistently higher for services provided in the hospital than for services provided in physicians' offices. This does not necessarily mean, however, that physicians take assignment on claims with high charges to make sure that they get paid something. Overall, nonsurgical specialties generally had higher assignment rates both in and out of the hospitals than did the surgical specialties. For these physicians, the most frequent hospital charges would be for a hospital visit rather than a surgical procedure.

Our data on assignment rates by specialty were relatively inconclusive, except that psychiatrists and plastic surgeons, with relatively low Medicare incomes, and thoracic surgeons, with relatively high Medicare incomes, were more likely to accept assignment than their colleagues in other specialties in the same locations. Also, ophthalmologists, who have relatively high Medicare incomes, were less likely to accept assignment.

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