

## **APPENDIX E. MEDICARE REIMBURSEMENT TO PHYSICIANS**

### **CONTENTS**

- Physician Payment Reform**
- Medicare Fee Schedule**
- Medicare Volume Performance Standards; Sustainable  
Growth Rate and Conversion Factor Updates**
- Medicare Volume Performance Standards**
- Sustainable Growth Rate**
- Conversion Factor Updates**
- Limits on Beneficiary Liability**
- Medical Care Outcomes and Effectiveness Research**
- Impact of Medicare Fee Schedule**
- Historical Data**
- Assignment Rate Experience**
- Participating Physician Program Data**
- Distribution of Physician Services**
- References**

### **PHYSICIAN PAYMENT REFORM**

The Omnibus Budget Reconciliation Act of 1989 (OBRA 1989) provided for the implementation, beginning January 1, 1992, of a new payment system for physicians' services paid for by Medicare. This fee schedule payment system replaced the previous reasonable charge payment system. The new system was enacted in response to two principal concerns. The first was the rapid escalation in program payments. The second was that the use of the reasonable charge payment had led, in many cases, to payments which were not directly related to the resources used. The Balanced Budget Act of 1997 (BBA 1997) made several modifications to the fee schedule payment system.

Medicare payments for physicians' services are made under a fee schedule which is based on a resource-based relative value scale (RBRVS). Annual updates to the payment amounts are based, in part, on a comparison of actual physician spending in a base period compared to an expenditure goal. The expenditure goal in place prior to fiscal year 1998 was known as the Medicare volume performance standard (MVPS). Beginning in fiscal year 1998 the MVPS is replaced by the sustainable growth rate (SGR). Use of an expenditure goal was intended to moderate the rate of growth in physician expenditures. The law also places limits on amounts that physicians can bill in excess of Medicare's approved payment amount.

**MEDICARE FEE SCHEDULE**

The Secretary of the Department of Health and Human Services (DHHS) is required to establish a fee schedule before January 1 of each year that sets payment amounts for all physicians' services furnished in all fee schedule areas for the year. The fee schedule amount for a service is equal to the product of:

- The relative value for the service;
- The geographic adjustment factor (GAF) for the service for the fee schedule area; and
- The national dollar conversion factor for the year.

*Relative value unit*

The relative value unit (RVU) for each service, the first factor used to calculate the fee schedule, has three components:

- The physician work component reflects physician time and intensity, including activities before and after patient contact;
- The practice expense or overhead component includes all categories of practice expenses (exclusive of malpractice liability insurance costs). Included are office rents, employee wages, physician compensation, and physician fringe benefits; and
- The malpractice expense component reflects costs of obtaining malpractice insurance.

The proportion that each component represents of the total RVU varies by service.

The work relative value units incorporated in the initial fee schedule were based on resource costs. They were developed after extensive input from the physician community. Refinements in existing values and establishment of values for new services have been included in the annual fee schedule update. In addition, HCFA is required to conduct a review of all values at least every 5 years. The results of the first review were incorporated in the values used in 1997.

The practice expense and malpractice expense relative value units included in the initial fee schedule were based on historical charges. An analysis by the Physician Payment Review Commission (PPRC) suggested that practice expense relative value units for a service were most likely to be overvalued when they exceeded the work relative value units by a substantial amount. OBRA 1993 provided for reductions in 1994, 1995, and 1996 in cases where the number of practice expense relative value units was substantially more than the number of work relative value units for the service. The Social Security Act Amendments of 1994 required the Secretary to develop a methodology for a resource-based system to be implemented in 1998.

BBA 1997 provides for a phase-in of the resource-based methodology for practice expenses. In 1998, there will be a reallocation of no more than \$390 million in practice expense relative value units from services whose number of practice expense relative value units exceed 110 percent of the number of work relative value units. Not included are services provided 75 percent of the time in an office setting or services which would receive an increase under HCFA's proposed regulations issued June 18, 1997. The amount reduced would be added to the practice expense rel-

ative value units of physician office procedure codes. A new practice expense methodology will be phased in over the 1999–2002 period. In 1999, 25 percent of the practice payment will be based on the new methodology. This percentage will increase to 50 percent in 2000, 75 percent in 2001, and 100 percent in 2002. The Secretary is also required to develop new resource-based methodology for practice expenses. In developing the units, the Secretary is required, to the maximum extent practicable, to utilize generally accepted accounting principles. The Secretary is also required to use actual data on equipment and other key factors. Proposed rule-making is to be published by May 1, 1998.

BBA 1997 directs HCFA to develop and implement a resource-based methodology for malpractice expenses to be implemented by January 2000.

#### *Geographic adjustment factor*

The second factor used in calculation of the fee schedule is the geographic adjustment factor (GAF) for the fee schedule area. There are currently 89 fee schedule areas nationwide. A comprehensive revision of fee schedule payment areas occurred in 1997, reducing the number of locations from 210 to 89.

The GAF is designed to account for geographic variations in the costs of practicing medicine and obtaining malpractice insurance as well as a portion of the difference in physicians' incomes that is not attributable to these factors.

The GAF is the sum of three indices. Separate geographic practice cost indices (GPCIs) have been developed for each of the three components of the RVU, namely a work GPCI, a practice expense or overhead GPCI, and a malpractice GPCI. In effect, a separate geographic adjustment is made for each component. However, as required by law, only one-quarter of the geographic variation in physician work resource costs is taken into account in the formula. (Table E–21 at the end of this chapter shows the GAF values for each of the 89 fee schedule areas nationwide.)

The three GPCI-adjusted RVU values are summed to produce an indexed RVU for each locality.

#### *Conversion factor*

The conversion factor, which is the third fee schedule factor, is a dollar multiplier which converts the geographically adjusted relative value for a service to an actual payment amount for the service. The law initially required the establishment of a single conversion factor. Beginning in 1993, two conversion factors applied—one for surgical services and one for nonsurgical services. Beginning in 1994, there were three conversion factors—one for surgical, one for primary care, and one for nonsurgical services. The 1997 conversion factors are \$40.96 for surgical services, \$35.77 for primary care services, and \$33.85 for other nonsurgical services. Thus, the payment for a surgical service with an adjusted relative value of two is \$81.92; the payment for a primary care service with an adjusted relative value of two is \$71.54; the payment for a nonsurgical service with an adjusted relative value of two is \$67.70. Anesthesiologists are paid under a separate fee schedule which uses

base and time units. A separate conversion factor (\$16.68 in 1997) applies.

BBA 1997 establishes a single conversion factor beginning in 1998. In 1998, the amount will be the 1997 primary care conversion factor, updated to 1998 by the average of the three separate updates that would have occurred in the absence of the legislation.

*Payment formula*

The payment for each service is calculated as follows:

$$\begin{aligned} \text{Payment} = & \text{CF} \times [(\text{RVU}_{\text{work}} \times \text{GPCI}_{\text{work}}) \\ & + (\text{RVU}_{\text{practice expense}} \times \text{GPCI}_{\text{practice expense}}) \\ & + (\text{RVU}_{\text{malpractice}} \times \text{GPCI}_{\text{malpractice}})] \end{aligned}$$

Where:

CF = conversion factor;

RVU<sub>work</sub> = physician work relative value units for the service;

GPCI<sub>work</sub> = geographic practice cost index value for physician work in the locality (the value reflects only one-quarter of the variation in physician work as required by law);

RVU<sub>practice expense</sub> = practice expense or overhead relative value units for the service;

GPCI<sub>practice expense</sub> = geographic practice cost index value for practice expense or overhead applicable in the locality;

RVU<sub>malpractice</sub> = malpractice relative value units for the service;

and  
GPCI<sub>malpractice</sub> = geographic practice cost index value for malpractice applicable in the locality.

**MEDICARE VOLUME PERFORMANCE STANDARDS; SUSTAINABLE GROWTH RATE AND CONVERSION FACTOR UPDATES**

A key element of the fee schedule is the conversion factor. One consideration in establishing the annual update in the conversion factor is whether efforts to stem the annual rate of growth in physician payments have succeeded. This growth has been measured by the Medicare volume performance standards (MVPSs). Beginning in fiscal year 1998, the MVPS is replaced by the sustainable growth rate (SGR).

**MEDICARE VOLUME PERFORMANCE STANDARDS**

The law has required the calculation of annual MVPSs, which are standards for the rate of expenditure growth. The purpose of these standards has been to provide an incentive for physicians to get involved in efforts to stem expenditure increases. The relationship of actual expenditures to the MVPS has been one factor used in determining the annual update in the conversion factor.

Implementation of the MVPS provision began in fiscal year 1990. As modified by subsequent legislation, there have been three separate MVPS rates of increase—one for surgical care, one for primary care, and one for nonsurgical services.

The law contains a formula for calculating the annual update in the MVPS. However, Congress may modify the update that would otherwise apply. The Secretary of DHHS has been required to

make a recommendation to the Congress by April 15 each year. In making the recommendation, the Secretary is to consider inflation, changes in the number of part B enrollees, changes in technology, appropriateness of care, and access to care. The Physician Payment Review Commission (PPRC), a Congressional advisory body, has been required to review the Secretary's recommendation and submit its own recommendation by May 15.

The Congress may establish the standard rates of increase. If the Congress does not specify the MVPS, however, the rates of increase are determined based on the default formula. The default standard is the product of four factors reduced by a performance standard factor of four percentage points. The four factors are:

- The Secretary's estimate of the weighted average percentage increase in physicians' fees for services for the portions of the calendar years included in the fiscal year involved;
- The Secretary's estimate of the percentage change from the previous year in the number of part B enrollees (other than HMO enrollees);
- The Secretary's estimate of the average annual percentage growth in volume and intensity of physicians' services for the preceding 5 fiscal years; and
- The Secretary's estimate of the percentage change in physician expenditures in the fiscal year (not taken into account above) which will result from changes in law or regulations.

The MVPS for fiscal year 1997 is a decrease of 3.7 percent for surgical services and 0.5 percent for other nonsurgical services. There is an increase of 4.5 percent for primary care services (see table E-1).

TABLE E-1.—MEDICARE VOLUME PERFORMANCE STANDARDS, 1990-97

Fiscal year	Surgical	Nonsurgical	Primary care	All
1990 .....	(1)	(1)	(2)	9.1
1991 .....	3.3	8.6	(2)	7.3
1992 .....	6.5	11.2	(2)	10.0
1993 .....	8.4	10.8	(2)	10.0
1994 .....	9.1	9.2	10.5	9.4
1995 .....	9.2	4.4	13.8	7.5
1996 .....	-0.5	0.6	9.3	1.8
1997 .....	-3.7	-0.5	4.5	-0.3

<sup>1</sup>Separate performance standards for surgical and nonsurgical services not required for fiscal year 1990.

<sup>2</sup>Separate performance standards for primary care services not required for fiscal years 1990-93.

Source: Federal Register 1996a.

#### SUSTAINABLE GROWTH RATE

Beginning in fiscal year 1998, the MVPS is replaced by a cumulative sustainable growth rate. The calculation of the sustainable growth rate uses the same factors used in the calculation of the MVPS, except that actual annual growth in gross domestic product replaces the volume and intensity factor. Further, there is no performance factor reduction. The sustainable growth rate will begin

affecting conversion factor updates in 1999. The sustainable growth rate must be published by August 1 of each year, except that the rate for fiscal year 1998 must be published by November 1, 1997.

#### CONVERSION FACTOR UPDATES

Annual updates in payments under the fee schedule are made by updating the dollar conversion factor. The law contains a formula for calculating the annual updates. However, the Congress may modify the updates that would otherwise apply.

In April of each year (1991–97), the Secretary of DHHS has been required to recommend to the Congress the updates in the conversion factors for the following year. In making the update recommendations, the Secretary has been required to consider a number of factors including the percentage change in actual expenditures in the preceding fiscal year compared to the MVPS for that year, changes in volume and intensity of services, beneficiary access to care, and the increase in the Medicare economic index (MEI). The MEI is a percentage figure which is revised annually; it has been used in the program to limit annual increases in recognized fees. The MEI is generally intended to reflect annual increases in the costs of operating a medical practice; however, for several years the MEI percentage was set by the Congress. The PPRC has been required to review the Secretary's update recommendation and submit its own recommendation to Congress by May 15 of each year.

The Congress has either specified the updates to the conversion factor or a default formula, specified in law, has applied. The default fee update is equal to the Secretary's estimate of the MEI increased or decreased by the percentage difference between the increase in actual expenditures and the MVPS for the second preceding fiscal year. (Thus, the 1997 updates reflect actual fiscal year 1995 experience.) However, the law specifies a lower limit on the default update. The maximum downward adjustment in the update has been 5.0 percentage points. There has been no restriction on upward adjustments to the MEI.

Table E-2 shows the 1992–97 fee schedule updates. This table shows what the MEI was for each year, the impact of the MVPS calculation (i.e., the "performance adjustment"), legislative modification (if any), and the resulting update percentage. The table also shows the conversion factors for each year.

BBA 1997 provides for a single conversion factor beginning in 1998 and specifies rules for the calculation of the update in 1998 and subsequent years. In 1998, the amount will be the 1997 primary care conversion factor, updated to 1998 by the average of the three separate updates that would have occurred in the absence of the legislation.

Beginning in 1999, the update will effectively be limited by the increase in the gross domestic product. Specifically, the update will equal the product of the MEI and the update adjustment factor. The update adjustment factor will match spending on physicians services to the cumulative sustainable growth rate (which is linked to the growth in the gross domestic product.) By November 1 of each year (beginning in 1998), the Secretary will calculate an update adjustment factor for the succeeding year. The calculation will

be made on the basis of a comparison of cumulative target spending (based on cumulative sustainable growth rate calculations) and cumulative actual spending from the base year (April 1997–March 1998). Regardless of the result of this calculation, the update can be no greater than 3 percentage points above nor no less than 7 percentage points below the MEI.

TABLE E-2.—CONVERSION FACTORS: CALCULATION OF UPDATES AND ANNUAL FACTORS, CALENDAR YEARS 1992–97

Calendar year	Calculation of update (in percent)				Conversion factor
	Medicare economic index	Performance adjustment	Legislative adjustment	Update	
1992:					
All services .....	3.2	− 0.9	− 0.4	1.9	\$31.00
1993:					
Surgical .....	2.7	0.4	.....	3.1	31.96
Nonsurgical .....	2.7	− 1.9	.....	0.8	31.25
1994:					
Surgical .....	2.3	11.3	− 3.6	10.0	35.16
Primary care .....	2.3	5.6	0.0	7.9	33.72
Other nonsurgical .....	2.3	5.6	− 2.6	5.3	32.90
1995:					
Surgical .....	2.1	12.8	− 2.7	12.2	39.45
Primary care .....	2.1	5.8	0.0	7.9	36.38
Other nonsurgical .....	2.1	5.8	− 2.7	5.2	34.62
1996:					
Surgical .....	2.0	1.8	.....	3.8	40.80
Primary care .....	2.0	− 4.3	.....	− 2.3	35.42
Other nonsurgical .....	2.0	− 1.6	.....	0.4	34.63
1997:					
Surgical .....	2.0	− 0.1	.....	1.9	40.96
Primary care .....	2.0	0.5	.....	2.5	35.77
Other nonsurgical .....	2.0	− 2.8	.....	− 0.8	33.85

Source: Federal Register 1996a.

### LIMITS ON BENEFICIARY LIABILITY

Medicare pays 80 percent of the fee schedule amount after the beneficiary has met the \$100 deductible for the year. The beneficiary is responsible for the remaining 20 percent, known as coinsurance. If a physician does not accept assignment on a claim, the beneficiary may be liable for additional charges known as balance billing charges. However, the law places certain limits on these balance billing charges.

#### *Assignment / participation*

A physician is able to choose whether to accept assignment on a claim paid under the fee schedule. In the case of an assigned claim, the physician bills the program directly and is paid an amount equal to 80 percent of the fee schedule amount (less any unmet deductible). The physician may not charge the beneficiary more than

the applicable deductible and coinsurance amounts. In the case of nonassigned claims, the physician still bills the program directly; however, Medicare payment is made to the beneficiary. In addition to the deductible and coinsurance amounts, the beneficiary is liable for the difference between the fee schedule amount and the physician's actual charge, subject to certain limits. This is known as the balance billed amount.

A physician may become a "participating physician" by voluntarily entering into an agreement with the Secretary of DHHS to accept assignment on all claims for the forthcoming year. Medicare patients of these physicians never face balance billing charges.

The law includes a number of incentives for physicians to become participating physicians, chief of which is higher recognized fee schedule amounts. The fee schedule amount for a nonparticipating physician is only 95 percent of the recognized amount for a participating physician.

The law specifies that physicians are required to accept assignment on all claims for persons who are dually eligible for Medicare and Medicaid. This includes "qualified Medicare beneficiaries" (QMBs); these are persons with incomes below poverty for whom Medicaid is required to pay Medicare premiums and cost-sharing charges.

#### *Balance billing limits*

Nonparticipating physicians may charge beneficiaries more than the fee schedule amount on nonassigned claims; these balance billing charges are subject to certain limits. The limit is 115 percent of the fee schedule amount for nonparticipating physicians. The nonparticipating physicians fee schedule payment level is 95 percent of the participating physicians level. Thus, the balance billing limit is only 9.25 percent higher than the level recognized for participating physicians (95 percent  $\times$  115 percent).

### **MEDICAL CARE OUTCOMES AND EFFECTIVENESS RESEARCH**

OBRA 1989 created a new agency, the Agency for Health Care Policy and Research, which replaced the then-existing National Center for Health Services Research in the Public Health Service. The mission of the new agency was to enhance the quality, appropriateness and effectiveness of health care services and access to such services. These goals were to be accomplished by establishing a broad base of scientific research and promoting improvements in the clinical practice of medicine and the organization, financing, and delivery of health care services.

Specifically, the agency was directed to conduct and support research, demonstration projects, evaluations, training, guideline development, and the dissemination of information on health care services and delivery systems, including activities on: (1) the effectiveness, efficiency, and quality of health care services; (2) the outcomes of health care services and procedures; (3) clinical practice, including primary care and practice-oriented research; (4) health care technologies, facilities, and equipment; (5) health care costs, productivity, and market forces; (6) health promotion and disease



prevention; (7) health statistics and epidemiology; and (8) medical liability.

### **IMPACT OF MEDICARE FEE SCHEDULE**

The Medicare fee schedule was designed to remove many of the inequities of the previous payment system by shifting payment away from tests and procedures toward evaluation and management services. Because the fee schedule was intended to be implemented in a budget-neutral fashion, total outlays under the new system were expected to match the outlays that would have occurred under the previous payment system. In general, under the new payment system, primary care physicians were expected to receive higher payments per service, and specialty physicians were expected to receive lower payments per service. Payment levels in rural areas were also expected to increase relative to metropolitan areas.

The overall payment level under the Medicare fee schedule is established through the conversion factor. In effect, the conversion factor translates the relative value units for individual services into actual dollar payments. Increases or decreases in the overall level of payments are accomplished by adjusting the level of the conversion factor.

Using data from 1991, 1992, and 1993, PPRC examined the initial impact of the Medicare fee schedule on physicians. From 1991 to 1993, physicians' payments per service declined by 4 percent. Surgical specialties had about an 8-percent reduction in payment per service compared with the 2-percent increase for medical specialties. Specialties that predominantly provide evaluation and management services fared better. Payments to general and family practitioners increased by 17 percent over the 2-year period, while those to internists rose by 2 percent. Pathologists and thoracic surgeons had the largest reduction of 16 percent, followed by gastroenterologists, radiologists, and cardiologists with reductions ranging from 10 to 12 percent.

The total Medicare payment a physician receives depends not only on the payment per service but also on changes in the number and intensity of services billed. Although physicians had about a 4-percent reduction in payment overall from 1991 to 1993, a 6-percent increase in the number and intensity of services per physician led to about a 4-percent increase in total Medicare payment per physician over the 2-year period.

PPRC analyzed Medicare claims data from the first 6 months of 1995 and 1996 to measure changes in physician payment policy. In 1996, Medicare's physician payment rates decreased, on average, about 2 percent from 1995 levels (table E-3). Payment rates were influenced the most by the low conversion factor updates for 1996 and the completion of the transition to Medicare fee schedule payments. Changes in relative value units (RVUs) had a lesser effect, and changes in the geographic adjustment factors had a negligible effect.

TABLE E-3.—EFFECT OF POLICY CHANGES ON FEE SCHEDULE PAYMENTS, 1995–96

Type of service, location, and specialty	Total change in Medicare payment per service	Percentage change due to			
		Conversion factor updates	Relative value unit changes	Geographic adjustment factor changes	Transition to fee schedule
Type of service:					
Evaluation and management					
Primary care .....	0.6	-2.3	1.8	0.0	1.1
Other .....	2.0	0.4	0.1	0.0	1.5
Surgical					
Other nonsurgical .....	-4.9	3.8	-1.6	0.0	-7.1
Location:					
Metropolitan areas					
Greater than 1 million .....	-2.0	0.6	0.5	0.2	-3.3
Less than 1 million .....	-2.2	0.7	0.2	0.0	-3.1
Rural counties					
Greater than 25,000 .....	-1.9	0.6	0.1	-0.3	-2.3
Less than 25,000 ..	-0.5	0.0	0.2	-0.6	-0.1
Specialty:					
Primary care					
Family/general practice .....	0.2	-1.2	0.3	-0.1	1.2
Internal medicine ..	-0.4	-0.8	0.5	0.1	-0.2
Other medical					
Cardiology .....	-6.5	0.1	-1.0	0.0	-5.6
Gastroenterology ....	-4.1	0.2	0.0	0.1	-4.4
Other medical .....	2.7	-0.1	3.9	0.1	-1.2
Surgical					
Dermatology .....	-0.2	2.3	0.0	0.1	-2.6
General surgery .....	-1.5	2.5	-0.1	0.0	-3.9
Ophthalmology .....	-9.6	2.3	-3.4	0.0	-8.5
Orthopedic surgery ..	-2.6	2.5	-0.5	0.0	-4.6
Thoracic surgery ..	-2.6	3.3	-0.2	0.0	-5.7
Urology .....	0.7	2.0	0.4	0.0	-1.7
Other surgical .....	-2.4	1.9	-0.6	0.0	-3.7
Other					
Pathology .....	-6.2	0.4	-0.1	0.1	-6.6
Radiology .....	-3.8	0.4	0.0	0.0	-4.2
Other .....	-0.2	0.6	2.9	0.0	-3.7
All services ...	-2.1	0.6	0.3	0.1	-3.1

Note.—Changes due to the transition to fee schedule based payments are calculated as the difference between total payment changes and the sum of changes attributable to relative value changes, geographic adjustment factor changes, and conversion factor updates.

Source: Physician Payment Review Commission analysis of 1995–96 Medicare claims, 5 percent sample of beneficiaries.

In accordance with the volume performance standard system, conversion factor updates varied by type of service. For 1996, the updates were -2.3 percent for primary care services, 3.8 percent for surgical services, and 0.4 percent for other services. The average conversion factor update for all services, weighted by total payments in each service category, was 0.6 percent.

The variation in conversion factor updates led to differences in average updates among specialties and geographic areas, reflecting differences in the mix of services provided. The average update ranged from -1.2 percent for family/general practice to 3.3 percent for thoracic surgery. For metropolitan areas and rural counties with populations of more than 25,000, the average updates were near the national average, 0.6-0.7 percent. For rural counties with populations less than 25,000, the average conversion factor was essentially unchanged from 1995 to 1996 because of the greater share of primary care services provided in those counties.

Relative value unit changes implemented in 1996 included reductions in practice expense RVUs for some procedures, as required by the Omnibus Budget Reconciliation Act of 1993, and refinement of work RVUs for some procedures. The changes ranged, on average, from -1.6 percent for surgical services to 1.8 percent for primary care.

Geographic adjustment factor (GAF) changes reflected the use of more current price data and technical improvements in calculating the payment adjustments. The GAF changes, which were intended to be budget neutral, averaged less than 0.1 percent.

Effects of the final transition to the fee schedule varied by type of service. Payment for primary care evaluation and management (EM) services increased 1.1 percent, while payment for other EM services rose 1.5 percent. The transition caused payment reductions for all other types of services, including -7.1 percent for surgical services and -4.9 percent for nonsurgical services.

## HISTORICAL DATA

### ASSIGNMENT RATE EXPERIENCE

The total number of assigned claims as a percentage of total claims received by Medicare carriers for physicians and other medical services is known as the total assignment rate. Initially, the net assignment rate was computed in the same manner except that it omitted hospital-based physicians and group-practice prepayment plans which were considered assigned by definition (this distinction is no longer made). The net assignment rate declined until the mid-1970s when the rate leveled off at about 50 percent. Since 1985, the rate has increased significantly, rising to 95.6 percent in 1996. This increase reflects both the impact of the participating physician program as well as the requirement that laboratory services must be paid on an assigned basis. Table E-4 shows the net assignment rates for fiscal years 1969-96.

The statistics included in table E-4 are programwide data. Assignment rates vary geographically. For example, the assignment rate (taken as a percent of dollars) for physician services in fiscal year 1996 ranged from a low of 73.5 percent in South Dakota to a high of 99.9 percent in Rhode Island. The national average as-

signment rate for physicians services during this period was 97.8 percent (see table E-5).

TABLE E-4.—NET ASSIGNMENT RATES,<sup>1</sup> 1969–96

[In percent]

Fiscal year	Claims	Covered charges
1969	61.0	NA
1970	61.2	NA
1971	60.1	NA
1972	56.4	NA
1973	53.4	49.0
1974	52.2	47.8
1975	51.9	47.7
1976	51.0	47.8
1977	50.5	47.9
1978	50.6	49.3
1979	51.1	50.4
1980	51.4	51.3
1981	52.2	52.9
1982	52.8	53.8
1983	53.5	55.3
1984	56.4	57.7
1985	67.7	67.4
1986	68.0	69.5
1987	71.7	73.7
1988	76.3	79.4
1989	79.3	82.6
1990	80.9	84.8
1991	82.5	87.6
1992	85.5	90.8
1993	89.2	94.0
1994	92.1	96.0
1995	94.2	97.1
1996	95.6	97.9

<sup>1</sup> Both measures of assignment exclude claims from hospital-based physicians and group-practice prepayment plans that are considered assigned by definition.

NA—Not available.

Source: Health Care Financing Administration, Bureau of Program Operations.

TABLE E-5.—PHYSICIAN ASSIGNMENT RATES AS PERCENT OF ALLOWED CHARGES BY STATE, SELECTED YEARS 1985–96<sup>1</sup>

[In percent]

Census division/State	Fiscal year							
	1985	1990	1991	1992	1993	1994	1995	1996
National .....	65.5	83.0	86.1	89.4	93.2	95.6	96.8	97.8
New England:								
Maine .....	81.5	92.4	94.4	96.7	98.0	98.6	99.1	99.4
New Hampshire .....	56.5	69.9	80.8	89.4	93.9	95.6	96.9	97.9
Vermont .....	64.3	94.7	95.9	97.8	98.6	99.0	99.1	99.3
Massachusetts <sup>2</sup> .....	93.7	99.5	99.5	99.6	99.7	99.7	99.8	99.8
Rhode Island .....	94.0	98.7	99.7	99.7	99.8	99.8	99.9	99.9
Connecticut .....	57.6	84.7	87.7	91.7	94.7	96.6	97.6	98.1
Middle Atlantic:								
New York .....	70.3	81.9	84.4	87.7	90.7	93.2	95.6	97.0
New Jersey .....	62.3	73.0	76.3	80.5	85.4	89.7	92.6	94.9
Pennsylvania .....	88.1	95.7	98.5	99.1	99.4	99.6	99.6	99.7
East North Central:								
Ohio .....	50.8	82.6	87.3	92.5	97.7	99.5	99.7	99.8
Indiana .....	49.6	77.2	81.5	85.7	92.9	95.4	96.5	97.6
Illinois .....	51.7	75.9	78.8	83.2	89.2	93.6	98.6	96.9
Michigan .....	88.2	94.5	94.4	95.9	97.8	98.6	99.0	99.2
Wisconsin .....	51.7	68.2	71.7	78.2	86.8	91.2	94.2	96.3
West North Central:								
Minnesota .....	30.6	47.6	52.3	57.1	67.1	77.4	86.2	91.7
Iowa .....	46.9	69.8	73.4	78.8	85.6	89.9	99.2	96.3
Missouri <sup>3</sup> .....	50.1	74.9	78.5	83.7	91.6	95.1	96.7	97.7
North Dakota .....	30.5	55.0	67.1	72.1	74.9	87.6	92.9	96.7
South Dakota .....	18.7	39.2	40.2	43.3	50.2	57.3	67.0	73.5
Nebraska .....	47.3	64.9	70.3	76.8	83.8	87.7	89.6	91.6
Kansas <sup>4</sup> .....	72.7	88.8	91.9	94.5	96.2	96.8	97.1	98.5
South Atlantic:								
Delaware .....	81.8	90.5	92.9	95.2	96.8	97.5	97.8	98.6
Maryland <sup>5</sup> .....	81.6	91.4	92.8	94.3	96.7	97.5	98.1	98.6
District of Columbia <sup>6</sup> .....	78.1	87.5	89.4	92.1	94.1	95.7	96.6	97.3
Virginia <sup>7</sup> .....	66.4	87.3	89.6	92.5	95.7	97.4	98.4	98.9
West Virginia .....	66.7	93.2	95.5	97.2	98.4	98.8	99.1	99.4
North Carolina .....	60.3	80.8	83.9	88.8	93.7	95.5	96.7	97.6
South Carolina .....	64.9	87.1	88.9	91.6	94.4	95.9	97.0	98.0
Georgia .....	63.9	83.5	96.6	90.3	94.0	96.3	97.4	98.3
Florida .....	62.2	84.1	87.6	91.0	95.0	97.3	98.4	98.8
East South Central:								
Kentucky .....	50.3	84.8	88.8	91.9	95.5	97.1	97.9	98.6
Tennessee .....	55.6	84.0	89.5	93.1	96.3	97.5	98.3	98.8
Alabama .....	74.6	92.3	94.9	96.6	98.0	98.6	98.9	99.2
Mississippi .....	63.5	88.1	90.6	93.1	95.6	97.1	97.8	98.5
West South Central:								
Arkansas .....	72.6	92.0	93.7	95.4	96.6	97.9	98.7	99.0
Louisiana .....	51.0	88.0	91.0	93.8	95.2	96.9	98.1	98.8
Oklahoma .....	39.0	68.2	72.8	77.8	85.0	90.6	94.2	96.7

TABLE E-5.—PHYSICIAN ASSIGNMENT RATES AS PERCENT OF ALLOWED CHARGES BY STATE, SELECTED YEARS 1985-96<sup>1</sup>—Continued

[In percent]

Census division/State	Fiscal year							
	1985	1990	1991	1992	1993	1994	1995	1996
Texas .....	63.0	79.9	83.0	87.4	91.6	94.7	96.6	97.7
Mountain:								
Montana .....	42.6	53.0	54.8	61.3	72.7	80.6	86.3	95.2
Idaho .....	25.2	36.1	40.2	40.1	54.1	64.5	71.7	77.9
Wyoming .....	33.8	43.9	48.9	57.5	69.0	78.2	81.8	86.0
Colorado .....	56.0	70.4	74.1	79.7	86.8	91.4	93.5	95.5
New Mexico .....	58.3	76.1	80.1	84.9	91.5	94.0	95.2	96.0
Arizona .....	52.8	76.2	80.3	84.4	89.6	91.7	92.8	93.4
Utah .....	63.1	80.4	83.1	88.4	92.8	95.2	96.6	98.0
Nevada .....	81.6	96.0	97.4	98.4	99.0	99.2	99.4	99.5
Pacific:								
Washington .....	45.5	54.8	60.8	69.2	74.3	87.5	93.4	95.7
Oregon .....	38.7	59.9	63.2	69.3	82.1	88.0	92.3	94.7
California .....	71.3	84.4	87.4	90.2	93.8	96.0	97.3	98.0
Alaska .....	54.4	79.6	83.2	89.1	93.9	95.4	96.2	97.0
Hawaii .....	61.2	82.9	85.8	93.1	96.1	92.8	98.7	99.0

<sup>1</sup> Rates reflect covered charges for physician claims processed during the period.

<sup>2</sup> Massachusetts enacted a Medicare mandatory assignment provision, effective April 1986. The fact that the assignment rates shown here are not 100 percent may be explained by the inclusion in the data base of billings by practitioners other than allopathic and osteopathic physicians, which are included in the Medicare statutory definition of "physician."

<sup>3</sup> Starting with fiscal year 1993, includes data for all counties in Missouri plus two counties on the State border located in Kansas.

<sup>4</sup> Starting with fiscal year 1993, includes data for all counties in Kansas excluding two counties on the State border.

<sup>5</sup> Starting with fiscal year 1993, includes data for all counties in Maryland excluding two counties on the State border.

<sup>6</sup> Starting with fiscal year 1993, includes data for the District of Columbia plus two counties in Maryland located on the State border plus a few counties and cities located in Virginia, near the State border.

<sup>7</sup> Starting with fiscal year 1993, includes data for all counties in Virginia excluding a few counties and cities near the State border.

Source: Health Care Financing Administration, Bureau of Program Operations.

## PARTICIPATING PHYSICIAN PROGRAM DATA

Physician participation rates have increased significantly since the inception of the program (see tables E-6 and E-7). For the calendar year 1996 participation period, the physician participation rate (including limited licensed practitioners) had risen to 77.5 percent accounting for 94.3 percent of allowed charges for physician services during the period. The participation rate rose to 80.2 percent in 1997. Table E-7 shows the participation rates by specialty. Table E-8 shows the percentage of participating physicians and limited licensed practitioners as a percentage of total physicians and limited licensed practitioners for each State.

TABLE E-6.—MEDICARE PHYSICIAN PARTICIPATION RATES: PERCENT OF PHYSICIANS AND LIMITED LICENSED PRACTITIONERS WITH AGREEMENTS AND THEIR SHARE OF ALLOWED CHARGES, 1984-97

Participation period	Percent of physicians signing agreements	Participating physicians' covered charges as a percent of total <sup>1</sup>
October 1984-September 1985 .....	30.4	36.0
October 1985-April 1986 .....	28.4	36.3
April 1986-December 1986 <sup>2</sup> .....	28.3	38.7
January 1987-March 1988 .....	30.6	48.1
April 1988-December 1988 .....	37.3	57.9
January 1989-March 1990 .....	40.2	62.0
April 1990-December 1990 .....	45.5	67.2
January 1991-December 1991 .....	47.6	72.3
January 1992-December 1992 .....	52.2	78.8
January 1993-December 1993 .....	59.8	85.5
January 1994-December 1994 .....	64.8	89.4
January 1995-December 1995 .....	72.3	92.6
January 1996-December 1996 .....	77.5	94.3
January 1997-December 1997 .....	80.2	NA

<sup>1</sup> Rates reflect covered charges for physician services processed during period.

<sup>2</sup> The actual participation period was May through December of 1986, and participation agreements were in effect for that time. However, charge data are generally collected by quarter; thus, the data for the last three quarters of 1986 are used as a proxy for the participation period.

NA—Not available.

Source: Health Care Financing Administration, Bureau of Program Operations.

Table E-9 shows the allowed charges of participating physicians as a percent of total allowed charges, by State, for several participation periods. This percentage increased substantially, rising from 36 percent in the October 1984-September 1985 period to 94.3 percent in the calendar 1996 participation period.

TABLE E-7.—PARTICIPATION RATES AS PERCENTAGE OF PHYSICIANS BY SPECIALTY, FOR SELECTED PARTICIPATION PERIODS, 1985-97

Specialty	Oct. 1985- Apr. 1986		Jan. 1991- Dec. 1991		Jan. 1992- Dec. 1992		Jan. 1993- Dec. 1993		Jan. 1994- Dec. 1994		Jan. 1995- Dec. 1995		Jan. 1996- Dec. 1996		Jan. 1997- Dec. 1997	
<b>Physicians (M.D.s and D.O.s):</b>																
General practice .....	27.3	44.0	48.0	55.1	59.1	59.9	66.3	69.2								
General surgery .....	33.9	60.5	66.3	73.8	77.6	80.2	85.8	87.8								
Otology, laryngology, rhinology .....	24.6	49.6	57.0	66.2	72.2	77.1	82.6	85.8								
Anesthesiology .....	21.1	36.5	49.3	64.6	71.5	73.9	81.0	83.5								
Cardiovascular disease .....	35.6	65.4	72.0	78.7	82.5	81.9	88.3	90.2								
Dermatology .....	34.0	57.0	61.6	69.8	75.8	79.3	83.6	85.4								
Family practice .....	25.5	50.8	57.7	66.1	71.3	74.5	81.4	84.0								
Internal medicine .....	32.5	52.6	57.8	66.2	71.0	73.8	79.8	82.2								
Neurology .....	34.8	56.1	63.8	71.8	76.4	78.9	84.1	85.8								
Obstetrics-gynecology .....	29.1	52.6	58.0	65.7	69.9	72.5	77.3	79.5								
Ophthalmology .....	27.3	60.0	66.1	73.2	78.3	81.2	86.2	87.9								
Orthopedic surgery .....	29.0	58.4	65.5	74.9	79.2	82.6	86.8	88.7								
Pathology .....	39.6	59.2	65.8	73.3	76.8	78.9	83.1	85.0								
Psychiatry .....	30.0	44.1	48.8	53.5	57.8	58.7	64.6	67.6								
Radiology .....	41.3	62.0	68.2	74.7	78.6	82.8	84.9	87.0								
Urology .....	27.8	53.6	61.7	71.8	78.6	83.0	87.3	89.3								
Nephrology .....	50.8	71.7	76.3	82.4	84.3	87.0	90.0	90.6								
Clinic or other group practice—not GPPP .....	33.8	73.9	77.0	75.5	80.5	79.4	84.5	87.8								
<b>Limited license practitioners (LLP):</b>																
Chiropractor .....	25.4	28.6	31.4	35.6	39.8	42.6	47.3	51.0								
Podiatry-surgical chiropody .....	38.2	59.6	64.2	70.9	75.3	79.2	83.3	86.0								
Optometrist .....	44.0	56.9	59.0	62.7	65.6	66.9	70.3	72.2								

Source: Health Care Financing Administration.





TABLE E-8.—PHYSICIAN AND LIMITED LICENSED PRACTITIONER PARTICIPATION RATES AS PERCENTAGE OF PHYSICIANS AND LIMITED LICENSED PRACTITIONERS, BY STATE, FOR SELECTED PARTICIPATION PERIODS, 1985-97—Continued

State	Oct. 1985- Apr. 1986	Jan. 1991- Dec. 1991	Jan. 1992- Dec. 1992	Jan. 1993- Dec. 1993	Jan. 1994- Oct. 1994	Jan. 1995- Dec. 1995	Jan. 1996- Dec. 1996	Jan. 1997- Dec. 1997
Mississippi .....	19.1	42.7	47.9	53.6	53.8	59.4	77.3	79.3
Missouri .....	35.2	49.0	51.8	67.5	81.8	87.6	86.8	88.1
Montana .....	24.3	24.8	23.7	54.7	58.7	70.1	77.4	78.7
Nebraska .....	20.0	56.5	61.1	70.6	75.9	82.5	86.3	87.2
Nevada .....	21.7	72.9	75.4	84.9	87.9	91.2	90.8	92.2
New Hampshire .....	26.9	32.7	38.5	43.0	48.0	60.4	77.0	79.7
New Jersey .....	18.0	29.6	36.5	42.6	45.9	54.9	60.6	62.8
New Mexico .....	17.7	49.7	53.6	66.8	74.2	78.1	80.7	81.7
New York .....	20.8	34.6	36.9	40.7	46.2	59.2	64.2	70.0
North Carolina .....	39.1	58.1	68.2	72.8	76.5	77.6	81.0	84.6
North Dakota .....	10.9	43.9	45.8	55.0	77.4	81.8	92.2	93.2
Ohio .....	21.7	52.5	57.3	76.6	83.3	90.5	91.8	92.7
Oklahoma .....	13.8	39.0	44.4	53.9	64.9	72.3	76.1	84.0
Oregon .....	18.5	46.7	51.7	59.2	66.5	79.7	82.1	87.6
Pennsylvania .....	50.8	45.9	53.0	59.7	61.1	67.3	69.3	72.0
Rhode Island .....	46.7	67.8	70.3	80.9	82.2	80.9	66.8	68.4
South Carolina .....	17.9	57.9	63.0	67.3	70.2	76.1	82.7	85.5
South Dakota .....	8.0	20.6	23.7	31.6	41.2	51.7	71.4	79.3
Tennessee .....	21.1	63.7	67.6	70.5	76.9	80.6	83.1	87.5
Texas .....	19.7	38.9	52.9	61.3	68.6	76.9	80.3	82.1
Utah .....	29.3	65.6	69.5	80.3	82.0	85.9	86.8	90.2
Vermont .....	41.5	45.4	54.2	56.5	58.8	68.8	76.1	78.6
Virginia .....	29.6	48.1	49.7	52.2	52.9	55.6	84.3	85.7
Washington .....	23.6	46.1	53.1	64.7	73.9	76.2	86.4	89.9

West Virginia .....	22.9	66.3	68.4	75.9	81.9	87.2	89.3	90.8
Wisconsin .....	31.0	46.8	55.5	66.8	73.7	81.2	83.9	85.2
Wyoming .....	18.3	39.1	50.2	53.3	63.0	66.4	81.2	83.3
National .....	28.4	47.6	52.2	59.8	64.8	72.3	77.5	80.2

Source: Health Care Financing Administration, Bureau of Program Operations.

TABLE E-9.—ALLOWED CHARGES OF PARTICIPATING PHYSICIANS AS A PERCENT OF TOTAL ALLOWED CHARGES BY STATE, FOR SELECTED PARTICIPATION PERIODS, 1984-96<sup>1</sup>

[In percent]

Census division/State	Oct. 1984- Sept. 1985	Jan. 1989-Mar. 1990	Apr. 1990-Dec. 1990	Jan. 1991-Dec. 1991	Jan. 1992- Dec. 1992	Jan. 1993-Dec. 1993	Jan. 1994-Dec. 1994	Jan. 1995-Dec. 1995	Jan. 1996-Dec. 1996
National .....	36.0	62.0	67.2	72.3	78.8	85.5	89.4	92.6	94.3
New England:									
Maine .....	50.9	79.4	80.5	84.2	89.9	92.4	93.6	96.2	97.4
New Hampshire .....	40.1	42.8	46.2	68.3	80.7	88.1	90.8	93.2	94.8
Vermont .....	37.3	81.4	85.9	90.2	93.4	94.8	95.6	96.9	97.9
Massachusetts .....	70.7	95.4	95.0	96.7	96.3	95.9	96.4	97.4	97.9
Rhode Island .....	68.7	88.8	95.2	97.6	98.5	98.9	99.1	99.4	99.5
Connecticut .....	30.7	65.9	67.9	76.2	82.4	87.9	92.2	94.1	95.1
Middle Atlantic:									
New York .....	31.5	51.7	58.0	63.7	72.2	77.7	82.5	87.5	89.9
New Jersey .....	21.5	42.3	49.6	55.2	61.8	72.6	80.1	84.6	89.8
Pennsylvania .....	71.4	81.6	87.9	92.3	95.4	98.0	98.6	98.7	99.0
East North Central:									
Ohio .....	41.5	61.9	70.9	79.1	86.3	94.6	97.0	97.8	97.8
Indiana .....	18.9	60.6	65.2	70.2	80.9	89.1	92.4	94.0	95.5
Illinois .....	29.4	58.1	61.8	66.1	72.2	82.2	87.9	90.7	93.0
Michigan .....	55.4	85.6	86.0	86.5	92.0	95.1	96.5	97.6	97.9
Wisconsin .....	31.3	42.7	48.9	45.6	61.5	76.9	84.0	91.1	93.4
West North Central:									
Minnesota .....	9.9	20.2	25.4	28.6	35.5	49.5	68.3	80.5	81.9
Iowa .....	28.5	54.2	57.8	61.9	71.0	80.8	85.2	90.4	95.0
Missouri <sup>2</sup> .....	26.7	41.8	40.1	40.4	45.3	67.7	86.9	93.4	94.5
North Dakota .....	6.9	32.3	45.5	53.2	61.2	65.8	68.1	89.3	96.3
South Dakota .....	3.2	19.5	21.2	21.1	24.6	36.0	42.6	59.2	66.4

Nebraska .....	30.5	51.7	54.8	60.3	69.7	79.8	83.8	86.2	88.8
Kansas <sup>3</sup> .....	48.0	82.5	82.3	86.8	91.3	94.6	94.8	95.3	98.0
South Atlantic:									
Delaware .....	57.0	70.8	76.6	81.7	87.2	93.5	94.6	95.3	96.7
Maryland <sup>4</sup> .....	57.8	80.4	83.3	85.6	86.4	87.1	87.4	92.9	94.3
District of Columbia <sup>5</sup> .....	60.3	73.9	76.8	80.8	85.4	90.1	92.4	93.8	94.9
Virginia <sup>6</sup> .....	31.0	69.5	71.2	78.4	84.1	90.9	94.1	96.3	97.4
West Virginia .....	34.5	77.5	80.6	85.2	90.0	93.4	95.3	96.3	96.0
North Carolina .....	34.4	55.2	63.9	68.3	82.4	87.1	90.7	92.7	94.7
South Carolina .....	29.9	68.5	67.6	71.6	79.3	86.6	90.4	62.7	95.5
Georgia .....	29.3	50.7	65.9	74.9	82.8	81.6	90.9	94.8	95.8
Florida .....	30.0	61.6	68.8	74.9	81.8	89.0	90.1	94.7	95.8
East South Central:									
Kentucky .....	22.3	64.3	72.6	76.9	84.3	90.7	93.4	94.6	95.5
Tennessee .....	25.1	57.4	68.5	76.8	86.8	91.8	94.3	95.6	96.6
Alabama .....	42.5	81.3	84.9	88.5	91.7	94.9	96.2	97.0	97.7
Mississippi .....	14.3	65.3	68.3	73.9	82.1	88.6	91.2	92.8	94.3
West South Central:									
Arkansas .....	47.9	81.0	84.5	86.5	90.0	93.4	95.2	96.4	97.4
Louisiana .....	16.2	71.0	76.7	81.2	86.6	89.4	91.3	92.2	93.6
Oklahoma .....	16.6	39.1	50.0	57.7	62.8	74.0	83.8	91.4	93.8
Texas .....	26.2	52.5	56.9	63.6	72.6	81.5	85.9	90.6	92.5
Mountain:									
Montana .....	25.6	29.9	29.7	34.1	42.7	58.9	67.4	83.1	91.8
Idaho .....	8.6	13.2	17.5	21.1	23.5	41.2	54.0	61.6	69.7
Wyoming .....	15.7	19.7	25.8	31.9	44.1	61.0	72.1	75.6	81.0
Colorado .....	23.5	47.7	50.5	55.9	63.5	76.4	82.6	86.1	90.3
New Mexico .....	34.1	39.5	51.1	57.8	64.9	78.2	85.0	89.6	90.8
Arizona .....	32.7	49.8	60.2	67.8	75.2	83.7	88.9	90.6	91.5
Utah .....	43.8	68.9	65.1	75.1	81.8	83.1	91.3	94.7	96.2
Nevada .....	41.5	69.9	82.1	87.5	92.3	96.0	97.9	98.4	98.8

TABLE E-9.—ALLOWED CHARGES OF PARTICIPATING PHYSICIANS AS A PERCENT OF TOTAL ALLOWED CHARGES BY STATE, FOR SELECTED PARTICIPATION PERIODS, 1984-96<sup>1</sup>—Continued

[In percent]

Census division/State	Oct. 1984- Sept. 1985	Jan. 1989-Mar. 1990	Apr. 1990-Dec. 1990	Jan. 1991-Dec. 1991	Jan. 1992- Dec. 1992	Jan. 1993-Dec. 1993	Jan. 1994-Dec. 1994	Jan. 1995-Dec. 1995	Jan. 1996-Dec. 1996
<b>Pacific:</b>									
Washington .....	17.5	26.9	31.8	37.9	45.2	50.7	82.3	90.5	92.9
Oregon .....	17.3	34.8	43.3	50.7	59.8	73.6	80.9	87.5	91.7
California .....	42.2	67.2	71.2	75.6	80.0	86.6	89.6	91.7	93.3
Alaska .....	17.2	50.0	49.3	58.0	70.9	81.3	84.4	85.4	89.8
Hawaii .....	39.7	58.6	70.1	74.3	84.7	90.6	94.7	97.2	97.3

<sup>1</sup> Rates reflect covered charges for physician claims processed during the period.  
<sup>2</sup> Starting with fiscal year 1993, includes data for all counties in Missouri plus two counties on the State border located in Kansas.  
<sup>3</sup> Starting with fiscal year 1993, includes data for all counties in Kansas excluding two counties on the State border.  
<sup>4</sup> Starting with fiscal year 1993, includes data for all counties in Maryland excluding two counties on the State border.  
<sup>5</sup> Starting with fiscal year 1993, includes data for the District of Columbia plus two counties in Maryland located on the State border plus several counties and cities located in Virginia near the State border.  
<sup>6</sup> Starting with fiscal year 1993, includes data for all counties in Virginia excluding several counties and cities near the State border.

NA—Not available.  
 Source: Health Care Financing Administration, Bureau of Program Operations.

As the participation rate has increased, total allowed charges billed by nonparticipating physicians have declined. In addition, the number of unassigned claims submitted by nonparticipating physicians has declined (see table E-10). Total covered charges represented by unassigned claims declined from 34.5 to 2.0 percent over the 1984-96 period. The proportion of charges billed by participation and assignment status varies by State; these data are shown in table E-11.

TABLE E-10.—DISTRIBUTION OF ALLOWED CHARGES FOR SERVICES BILLED BY PARTICIPATION STATUS OF PHYSICIAN AND ASSIGNMENT STATUS OF CLAIM, 1984-96 <sup>1</sup>

[In percent]

Time period	Participants	Nonparticipants	
		Assigned	Unassigned
Oct. 1984-Sept. 1985 .....	36.0	29.5	34.5
Oct. 1985-Mar. 1986 .....	36.3	29.4	34.3
Apr. 1986-Dec. 1986 <sup>2</sup> .....	38.7	28.0	32.9
Jan. 1987-Mar. 1988 <sup>3</sup> .....	48.1	25.2	26.7
Apr. 1988-Dec. 1988 .....	57.9	21.0	21.1
Jan. 1989-Mar. 1990 .....	62.0	19.0	18.5
Apr. 1990-Dec. 1990 .....	67.2	16.7	16.1
Jan. 1991-Dec. 1991 .....	72.3	14.6	13.1
Jan. 1992-Dec. 1992 .....	78.8	11.6	9.7
Jan. 1993-Dec. 1993 .....	85.5	8.5	6.0
Jan. 1994-Dec. 1994 .....	89.4	6.6	4.0
Jan. 1995-Dec. 1995 .....	92.6	4.6	2.8
Jan. 1996-Dec. 1996 .....	94.3	3.7	2.0

<sup>1</sup> Rates reflect covered charges for physician claims processed during the period.

<sup>2</sup> The actual participation period was May through December 1986, and the participation agreements were in effect for that time.

<sup>3</sup> The actual participation period is January 1987 through March 1988, and the participation agreements are in effect for that time.

Source: Health Care Financing Administration, Bureau of Program Operations.

TABLE E-11.—DISTRIBUTION OF ALLOWED CHARGES FOR SERVICES BILLED BY STATE, PARTICIPATION STATUS OF PHYSICIAN, AND ASSIGNMENT STATUS OF CLAIM, JANUARY–DECEMBER 1996 <sup>1</sup>

[In percent]

Census division/State	Participating physician	Nonparticipating physician	
		Assigned	Unassigned
National .....	94.3	3.7	2.0
New England:			
Maine .....	97.4	2.1	0.5
New Hampshire .....	94.8	3.4	1.9
Vermont .....	97.9	1.4	0.7
Massachusetts .....	97.9	1.9	0.1
Rhode Island .....	99.5	0.4	0.1
Connecticut .....	95.1	3.1	1.8
Middle Atlantic:			
New York .....	89.9	7.3	2.8
New Jersey .....	89.8	5.5	4.7
Pennsylvania .....	99.0	0.7	0.3
East North Central:			
Ohio .....	97.8	1.9	0.2
Indiana .....	95.5	2.4	2.1
Illinois .....	93.0	4.2	2.8
Michigan .....	97.9	1.3	0.7
Wisconsin .....	93.4	3.2	3.3
West North Central:			
Minnesota .....	81.9	10.9	7.2
Iowa .....	95.0	2.0	3.1
Missouri <sup>2</sup> .....	94.5	3.4	2.2
North Dakota .....	96.3	1.7	2.0
South Dakota .....	66.4	8.4	25.1
Nebraska .....	88.8	3.4	7.9
Kansas <sup>3</sup> .....	98.0	1.0	1.0
South Atlantic:			
Delaware .....	96.7	1.8	1.5
Maryland <sup>4</sup> .....	94.3	4.4	1.3
District of Columbia <sup>5</sup> .....	94.9	2.6	2.5
Virginia <sup>6</sup> .....	97.4	1.6	1.0
West Virginia .....	96.0	3.4	0.6
North Carolina .....	94.7	3.1	2.2
South Carolina .....	95.5	2.7	1.8
Georgia .....	95.8	2.6	1.6
Florida .....	95.8	3.1	1.1
East South Central:			
Kentucky .....	95.5	3.2	1.3
Tennessee .....	96.6	2.3	1.1
Alabama .....	97.7	1.6	0.8
Mississippi .....	94.3	4.4	1.3
West South Central:			
Arkansas .....	97.4	1.7	0.9
Louisiana .....	93.6	5.3	1.1
Oklahoma .....	93.8	3.3	2.9



TABLE E-11.—DISTRIBUTION OF ALLOWED CHARGES FOR SERVICES BILLED BY STATE, PARTICIPATION STATUS OF PHYSICIAN, AND ASSIGNMENT STATUS OF CLAIM, JANUARY–DECEMBER 1996<sup>1</sup>—Continued

[In percent]

Census division/State	Participating physician	Nonparticipating physician	
		Assigned	Unassigned
Texas .....	92.5	5.4	2.1
Mountain:			
Montana .....	91.8	3.8	4.5
Wyoming .....	81.0	5.7	13.3
Idaho .....	69.7	9.4	20.9
Colorado .....	90.3	5.6	4.0
New Mexico .....	90.8	5.4	3.7
Arizona .....	91.5	2.1	6.4
Utah .....	96.2	2.1	1.7
Nevada .....	98.8	0.7	0.5
Pacific:			
Washington .....	92.9	3.1	3.9
Oregon .....	91.7	3.8	4.5
California .....	93.3	4.9	1.8
Alaska .....	89.8	7.4	2.8
Hawaii .....	97.3	1.7	0.9

<sup>1</sup> Rates reflect charges for physician claims processed during the period.<sup>2</sup> Includes data for all counties in Missouri plus two counties on the State border located in Kansas.<sup>3</sup> Includes data for all counties in Kansas excluding two counties on the State border.<sup>4</sup> Includes data for all counties in Maryland excluding two counties on the State border.<sup>5</sup> Includes data for the District of Columbia plus two counties in Maryland located on the State border plus several counties and cities located in Virginia, near the State border.<sup>6</sup> Includes data for all counties in Virginia excluding several counties and cities near the State border.

Source: Health Care Financing Administration, Bureau of Program Operations.

## DISTRIBUTION OF PHYSICIAN SERVICES

Tables E-12 to E-20 show the distribution of physicians' services for calendar year 1995. These tables provide data from the fourth year of the implementation of the Medicare fee schedule. As noted earlier, the fee schedule appears to be having its intended effect. The projected pattern of redistribution from the procedurally oriented specialties to the primary care specialties has begun taking place.

The 1995 data are tabulations from the 1994 National Claims History Procedure Summary, which is a summary of all claims filed with the Medicare carriers. The totals shown will differ from total SMI outlay figures for 1995 shown in the budget for several reasons. First, the amounts shown in these tables are allowed amounts, rather than reimbursements—that is, they include both Medicare's and the enrollee's share of approved charges. Second, the amounts shown are for services rendered during calendar year 1995; budget figures are for payments made during the fiscal year regardless of when the services were rendered. Third, the amounts shown are only for services reimbursed by carriers under the fee schedule; hence, they do not include part B payments to hospital

outpatient departments or to risk-based prepaid medical plans. Finally, the amounts shown underestimate what they are supposed to represent by a small amount because some claims for services rendered in 1995 had not been processed by carriers at the time the 1995 files were submitted to HCFA, and because some claims recorded had to be eliminated due to recording errors.

Table E-12 illustrates that in 1995, 76.7 percent of allowed amounts under the fee schedule were for physicians' services, and another 3.2 percent were for the services of limited license practitioners—psychologists, podiatrists, optometrists, audiologists, chiropractors, dentists, and physical therapists. About 3.9 percent went to independent laboratories in 1995, while 16.2 percent went to suppliers of medical equipment, prosthetics, and ambulance services.

TABLE E-12.—ALLOWED AMOUNTS FOR CLAIMS BY TYPE OF PROVIDER, 1995

Type of provider	Allowed amounts (millions)	Percent of total	Percent inpatient
Physicians .....	\$42,369.0	76.7	35.3
Limited license practitioners <sup>1</sup> .....	\$1,784.0	3.2	1.4
Laboratories .....	\$2,132.0	3.9	0.2
Medical suppliers <sup>2</sup> .....	\$8,932.0	16.2	0.8
All providers <sup>3</sup> .....	\$55,217.0	100.0	27.3

<sup>1</sup> Includes psychology, podiatry, optometry, audiology, chiropractic, dentistry, and physical therapy.

<sup>2</sup> Includes suppliers of medical equipment, prosthetics, and ambulance services.

<sup>3</sup> Total does not include charges for hospital outpatient department facility fees or for risk-based prepaid medical plans since these are not reimbursed under the CPR system.

Source: Health Care Financing Administration, Bureau of Data Management and Strategy.

About 27.3 percent of all allowed amounts were for hospital inpatient services, and about 35.3 percent of allowed amounts for physicians' services were inpatient. The share of physicians' services that are inpatient has dropped in recent years, from nearly 64 percent in 1981.

Table E-13 shows the distribution of spending for physicians' services by specialty. (It excludes limited license practitioners, labs, and suppliers.) In 1995, generalists accounted for 25.8 percent of spending, nonsurgical specialists for 27.1 percent, and surgical specialists for 30.7 percent. Radiologists, anesthesiologists, and pathologists together accounted for 11.3 percent of allowed amounts. Radiation oncologists, osteopathic manipulative therapists, intensivists, emergency medicine physicians, and other physician specialties accounted for 5 percent of total allowed amounts for physicians' services.

The major physician specialties treating the Medicare population, in descending order of importance as measured by total allowed amounts, were general internists (13.5 percent of allowed amounts), ophthalmologists (9.6 percent), cardiologists (8.7 percent), radiologists (7.0 percent), and family practitioners (6.2 percent).

TABLE E-13.—ALLOWED AMOUNTS FOR PHYSICIANS' SERVICES BY SPECIALTY, 1995

Specialty	Allowed charges (millions)	Percent of total	Percent inpatient
<b>Generalists:</b>			
Internal medicine .....	\$5,704.0	13.5	36.0
Family practice .....	2,633.0	6.2	23.5
Clinics .....	1,417.0	3.3	35.8
General practice .....	1,149.0	2.7	17.6
Pediatrics .....	42.0	0.1	22.8
All generalists .....	10,945.0	25.8	31.0
<b>Nonsurgical specialists:</b>			
Cardiology .....	3,693.0	8.7	51.2
Gastroenterology .....	1,170.0	2.8	42.5
Psychiatry .....	968.0	2.3	31.6
Dermatology .....	966.0	2.3	0.8
Hematology/oncology .....	941.0	2.2	17.1
Pulmonary disease .....	897.0	2.1	64.8
Nephrology .....	709.0	1.7	49.1
Neurology .....	663.0	1.6	43.2
Physical medicine and rehabilitation ...	326.0	0.8	53.0
Medical oncology .....	284.0	0.7	16.3
Rheumatology .....	240.0	0.6	12.4
Infectious disease .....	189.0	0.4	75.5
Endocrinology .....	177.0	0.4	32.9
Allergy/immunology .....	101.0	0.2	3.5
Geriatric medicine .....	77.0	0.2	29.2
Nuclear medicine .....	65.0	0.2	18.9
Peripheral vascular disease .....	24.0	0.1	58.5
All nonsurgical specialists .....	11,487.0	27.1	39.9
<b>Surgical specialists:</b>			
Ophthalmology .....	4,082.0	9.6	1.9
General surgery .....	2,137.0	5.0	61.8
Orthopedic surgery .....	2,101.0	5.0	57.9
Urology .....	1,784.0	4.2	23.9
Thoracic surgery .....	728.0	1.7	89.5
Otolaryngology .....	514.0	1.2	13.5
Neurosurgery .....	363.0	0.9	83.1
Gynecology/obstetrics .....	338.0	0.8	37.7
Cardiac surgery .....	314.0	0.7	96.4
Vascular surgery .....	283.0	0.7	71.5
Plastic and reconstructive surgery .....	215.0	0.5	28.9
Colorectal surgery .....	83.0	0.2	35.4
Hand surgery .....	29.0	0.1	17.9
Surgical oncology .....	27.0	0.1	56.4
All surgical specialists .....	12,999.0	30.7	37.0
<b>Other:</b>			
Radiology .....	2,949.0	7.0	28.6
Anesthesiology .....	1,291.0	3.0	65.7
Emergency medicine .....	734.0	1.7	3.6

TABLE E-13.—ALLOWED AMOUNTS FOR PHYSICIANS' SERVICES BY SPECIALTY, 1995—  
Continued

Specialty	Allowed charges (millions)	Percent of total	Percent inpatient
Pathology .....	554.0	1.3	40.2
Radiation oncology .....	502.0	1.2	4.6
Critical care (intensivists) .....	62.0	0.1	78.3
Manipulative therapy .....	20.0	( <sup>1</sup> )	16.0
Other physician specialties .....	827.0	2.0	21.0
<b>Total—all physicians .....</b>	<b>42,369.0</b>	<b>100.0</b>	<b>35.3</b>

<sup>1</sup> Less than 0.1 percent.

Source: Health Care Financing Administration, Bureau of Data Management and Strategy.

The share of services provided on an inpatient basis varied by specialty, generally increasing with specialization. About 31 percent of the services of generalists were inpatient in 1995. The inpatient share for nonsurgical specialists was 39.9 percent and 37 percent for surgical specialists.

Table E-14 shows the distribution of spending for physicians' services by type of service. About 39 percent of spending was for medical care (nonsurgical) in 1995. About 32.3 percent of spending was for surgical procedures in total, adding together the amounts for surgeons, assistant surgeons, and anesthesiologists. About 9.8 percent was for diagnostic laboratory tests, which would include not only blood chemistry analysis and urinalysis, but also tests such as EKGs. About 9.6 percent of spending was for radiology, and 5.2 percent was for consultations.

TABLE E-14.—ALLOWED AMOUNTS FOR PHYSICIANS' SERVICES BY TYPE OF SERVICE,  
1995

Type of service	Allowed charges (millions)	Percent of total	Percent inpatient
Medical care .....	\$16,564.0	39.1	31.8
Surgery .....	12,099.0	28.6	48.0
Assistance at surgery .....	245.0	0.6	92.8
Anesthesia .....	1,315.0	3.1	64.6
Diagnostic laboratory tests .....	4,151.0	9.8	18.3
Diagnostic radiology .....	3,349.0	7.9	22.0
Consultations <sup>1</sup> .....	2,221.0	5.2	57.4
Therapeutic radiology .....	726.0	1.7	4.8
Mammography .....	64.0	0.2	0.4
Pneumococcal vaccine .....	93.0	0.2	.....
Other <sup>2</sup> .....	1,540.0	3.6	0.3
<b>All services .....</b>	<b>42,369.0</b>	<b>100.0</b>	<b>35.3</b>

<sup>1</sup> Includes first and second opinions for surgery.

<sup>2</sup> Includes treatment for renal patients, pneumococcal vaccine, and medical supplies, among other services.

Source: Health Care Financing Administration, Bureau of Data Management and Strategy.

Table E-15 lists the top 20 individual services, ranked by total allowed amounts on claims submitted by selected physicians for 1995. The most important exclusion is amounts for the services of anesthesiologists, since there would typically be a charge for anesthesiology for the surgical procedures. The amounts for surgical procedures include claims by both the primary surgeon and any assistant surgeons, but not the amounts for anesthesiologists.

TABLE E-15.—TOP 20 SERVICES BILLED BY PHYSICIANS UNDER MEDICARE, 1995

Rank order	Service code	Description	Allowed charges (millions)	Percent of total
1.	99213	Office/outpatient visit, EST .....	\$2,856	6.7
2.	66984	Remove cataract, insert lens .....	2,096	4.9
3.	99214	Office/outpatient visit, EST .....	1,678	4.0
4.	99232	Subsequent hospital care .....	1,656	3.9
5.	99231	Subsequent hospital care .....	876	2.1
6.	99233	Subsequent hospital care—comprehensive	822	1.9
7.	99212	Office/outpatient visit, EST .....	735	1.7
8.	99223	Initial hospital care .....	596	1.4
9.	99215	Office/outpatient visit, EST .....	577	1.4
10.	88305	Tissue exam by pathologist .....	497	1.2
11.	90844	Psychotherapy 45–50 minutes .....	486	1.1
12.	99254	Initial inpatient consult .....	470	1.1
13.	99217	Leuprolide acetate suspension .....	456	1.1
14.	93307	Echo exam of heart .....	445	1.1
15.	99285	Emergency room visit .....	413	1.0
16.	92014	Eye, exam and treatment .....	366	0.9
17.	99238	Hospital discharge pay .....	360	0.9
18.	99255	Initial inpatient consult .....	360	0.8
19.	E1400	Oxygen concentrator less than 2 lite .....	357	0.8
20.	99284	Emergency department visit .....	346	0.8
Total .....			16,450	38.8

<sup>1</sup> Amounts for surgical procedures include fees for primary and assistant surgeons, but not for anesthesiologists.

Note.—EST = established patient.

Source: Health Care Financing Administration, Bureau of Data Management and Strategy.

The top 20 services (out of more than 7,000) accounted for 38.8 percent of all spending for all physicians' services in 1995. Cataract extraction with implantation of an intraocular lens was the highest ranked surgical procedure, accounting by itself for 4.9 percent of total allowed amounts for physicians' services. Most of the services in the top 20 were evaluation and management services (that is, visits and consultations).

Table E-16 presents total allowed amounts for selected groups of generic services, and shows the percent of total allowed amounts for all physicians' services accounted for by each group. As in table E-15, certain physicians' services—most notably for anesthesiologists—are not included in the allowed amounts for each service group. No attempt was made to define and rank all possible service

groups, so that there may be other important service groups that do not appear in the table. For example, diagnostic radiology accounts for 7.9 percent of allowed amounts for physicians' services (from table E-14), but radiological services do not appear in table E-16.

TABLE E-16.—ALLOWED AMOUNTS FOR SELECTED GROUPS OF PHYSICIANS' SERVICES, 1995

Service group	Allowed charges (millions) <sup>1</sup>	Percent of total
Office visits (99201-99215) .....	\$6,718	15.9
Hospital visits (99221-99238) .....	4,662	11.0
Cataract surgery (66830-66985) .....	2,123	5.0
Emergency room visits (99281-99285) .....	1,065	2.5
SNF visits (99301-99313) .....	803	1.9
EKGs (93000-93018, 93015-26) .....	719	1.7
Colonoscopy (45378-45385, 44388-44393, 45355) .....	576	1.4
Cardiac catheterization (93501-93553) .....	527	1.2
Knee arthroplasty (27446, 27447, 29881) .....	372	0.9
Coronary artery bypass (33510-33516) .....	206	0.5
Hemodialysis/CAPD (90935-90947) .....	171	0.4
Hip arthroplasty (27130-27132) .....	168	0.4
Thromboendarterectomy (35301-35381) .....	166	0.4
Transurethral surgery (52602) .....	127	0.3
Pacemaker implant/removal (33200-33214, 33233-33237) ...	104	0.2
Home visits (99341-99353) .....	94	0.2
Pacemaker tests (93731-93736) .....	86	0.2
Vein bypass (35501-35587) .....	79	0.2
Prostatectomy (55801-55845) .....	58	0.1
Nursing home visits (99321-99333) .....	42	0.1
EEGs (95816-95827, 95950, 95955) .....	41	0.1
<b>Total</b> .....	<b>18,908</b>	<b>44.6</b>

<sup>1</sup> Amounts for surgical procedures include fees for primary and assistant surgeons, but not for anesthesiologists.

Source: Health Care Financing Administration, Bureau of Data Management and Strategy.

The 21 service groups shown in table E-16 accounted for 44.6 percent of all allowed amounts for all physicians' services in 1995. The single most costly group was office visits (accounting for 15.9 percent of total allowed amounts for physicians' services), followed by hospital visits (11.0 percent). Cataract surgery of all types accounted for 5.0 percent of total allowed amounts for physicians' services. It should also be noted that the amount for hemodialysis includes only physician services and does not include the much larger amounts for the facility charges for hemodialysis that were not billed under the fee-for-service reimbursement system.

In recent years, there have been many changes in the delivery of health care services. Some of the more significant changes affecting Medicare services have been in the delivery of surgical services. First, there has been significant growth in the amount of surgical care provided by some specialties. Second, there has been a dra-

matic shift in the place of surgical care; that is, surgical care is now frequently provided in outpatient settings, whereas previously most surgical care was provided in inpatient settings.

As shown in table E-17, the most significant shift in site of surgical care between 1980 and 1995 was out of inpatient settings and into other settings. Outpatient hospital settings benefited most from this shift, growing from only 3.3 percent of all surgical charges in 1980 to 25.5 percent in 1995. The proportions of surgery taking place in a physician's office and in other nonhospital settings also grew. In 1995 the proportion of all surgical care provided in inpatient settings had dropped to 45.3 percent.

Table E-18 shows the percent of total surgical charges by specialty in 1980 and 1995. In 1980, three specialties (ophthalmology, general surgery, and orthopedic surgery) accounted for nearly half of all Medicare surgical care. These same three specialties accounted for close to 44 percent of total surgical care in 1995. The shares among these specialties changed. While ophthalmologists accounted for only 13.6 percent in 1980, by 1995 their share had increased to 20.4 percent due primarily to the substantial growth in cataract surgery during the 1980s. For gastroenterologists, surgical care represented much larger proportions of their total Medicare practice in 1995 than in 1980. On the other hand, surgical charges for urologists represented much smaller proportions of their total Medicare practice in 1995 than in 1980.

As shown in table E-19, many different medical specialties participated in the shift to outpatient surgery. In 1980, only two specialties (dermatology and podiatry) performed the majority of their surgical services in outpatient settings; in these cases, the care was generally provided in the physician's office. In 1995, eight specialties provided a majority of their surgical care in outpatient settings: ophthalmology, podiatry, gastroenterology, dermatology, ENT (otology, laryngology, and rhinology), internal medicine, plastic surgery, and urology. Podiatrists and dermatologists continued primarily to work in their offices; internists split their noninpatient work between office and outpatient settings, while most of the other specialties provided their surgical services in outpatient hospital and ambulatory surgical facilities. Most surgical specialties, such as general, orthopedic, cardiovascular, neurological, and thoracic surgeons, remained closely tied to inpatient hospital settings.

In 1995, ophthalmologists provided most (39.9 percent) of the surgery done in outpatient hospital settings (see table E-20). The predominance of ophthalmologists in this setting is due to cataract surgery. Dermatologists accounted for the largest proportion of office surgical charges, 24.7 percent. However, ophthalmologists and podiatrists also represented significant percentages of office surgical charges, 20.3 and 17.6 percent respectively. In inpatient settings, the traditional surgical specialties—general surgery, orthopedic surgery, cardiovascular surgery, thoracic surgery, and urology accounted for 64.9 percent of all surgical charges.

Table E-21 summarizes the geographic practice cost indices for 1997.

TABLE E-17.—CHARGES SUBMITTED TO MEDICARE FOR ALL PHYSICIAN SURGICAL SERVICES BY PLACE OF SERVICE, SELECTED YEARS 1980-95

Year and place of service	Surgical charges <sup>1</sup>		
	Amount in millions	Percent of surgical charges	As percent of total settings charges
1980:			
Office .....	\$445	11.6	12.2
Outpatient hospital <sup>1</sup> .....	129	3.3	29.5
Inpatient hospital .....	3,231	84.4	44.1
Other <sup>2</sup> .....	23	0.6	3.7
Total .....	3,828	100.0	31.8
1990:			
Office .....	2,004	18.1	16.2
Outpatient hospital <sup>1</sup> .....	2,867	26.0	54.3
Inpatient hospital .....	5,563	50.4	40.6
Ambulatory surgical center .....	488	4.4	51.2
Other <sup>2</sup> .....	127	1.1	14.5
Total .....	11,048	100.0	33.3
1993:			
Office .....	2,128	19.7	14.1
Outpatient hospital <sup>1</sup> .....	2,731	25.3	48.4
Inpatient hospital .....	5,085	47.2	38.4
Ambulatory surgical center .....	697	6.5	90.5
Other <sup>2</sup> .....	136	1.3	11.1
Total .....	10,777	100.0	30.0
1994:			
Office .....	2,379	20.0	14.0
Outpatient hospital <sup>1</sup> .....	3,046	25.6	47.9
Inpatient hospital .....	5,518	46.4	38.5
Ambulatory surgical center .....	798	6.7	91.0
Other <sup>2</sup> .....	162	1.4	8.7
Total .....	11,904	100.0	29.5
1995:			
Office .....	2,656	20.7	14.3
Outpatient hospital <sup>1</sup> .....	3,273	25.5	47.3
Inpatient hospital .....	5,817	45.3	38.8
Ambulatory surgical center .....	887	6.9	91.0
Other <sup>2</sup> .....	195	1.5	8.9
Total .....	12,828	100.0	29.3

<sup>1</sup> May include some services rendered in an ambulatory surgical center. Medicare began covering services in ambulatory surgical centers in 1982.

<sup>2</sup> Includes homes, nursing homes, and other places of service.

Source: Health Care Financing Administration, Bureau of Data Management and Strategy.



TABLE E-18.—SUBMITTED SURGICAL CHARGES AS A SHARE OF TOTAL SURGICAL CHARGES AND AS A PERCENT OF TOTAL PRACTICE CHARGES BY MEDICAL SPECIALTY, 1980 AND 1995

Specialty	Percent distribution of surgical charges		Surgical charges as a percent of total practice charges	
	1980	1995	1980	1995
Ophthalmology .....	13.6	20.4	62.1	64.0
General surgery .....	22.1	11.8	71.6	71.0
Orthopedic surgery .....	13.0	11.6	73.6	70.9
Cardiovascular disease .....	2.7	6.4	22.4	22.2
Urology .....	10.7	5.8	75.6	41.9
Gastroenterology .....	1.7	5.5	45.9	60.1
Dermatology .....	2.4	5.3	60.9	70.0
Podiatry .....	3.0	5.3	53.5	69.1
Thoracic surgery .....	8.0	4.7	82.2	82.4
Internal medicine .....	4.2	2.4	6.9	5.5
Clinic and other group practice .....	4.7	2.3	25.8	20.9
Neurological surgery .....	2.9	2.2	70.2	78.0
Otology, laryngology, rhinology .....	1.9	1.7	49.7	43.7
Plastic surgery .....	1.3	1.4	88.1	84.0
Other .....	8.4	13.2	.....	9.5
All physicians .....	100.0	100.0	31.8	29.5

Source: Health Care Financing Administration, Bureau of Data Management and Strategy.

TABLE E-19.—SUBMITTED SURGICAL CHARGES UNDER MEDICARE BY MEDICAL SPECIALTY AND PLACE OF SERVICE, 1980 AND 1995  
[In percent]

Medical specialty	1980					1995				
	Office	Inpatient hospital	Outpatient hospital	Other <sup>1</sup>	Office	Inpatient hospital	Outpatient hospital <sup>2</sup>	ASC <sup>3</sup>	Other <sup>1</sup>	
General surgery .....	4.4	92.6	2.9	0.1	5.3	69.6	23.4	1.4	0.2	
Cardiovascular disease .....	1.7	97.9	0.4	( <sup>4</sup> )	1.9	82.2	14.8	0.1	1.0	
Dermatology .....	94.6	4.0	0.9	0.6	97.1	0.2	2.0	0.5	0.2	
Gastroenterology .....	12.0	75.6	12.3	0.1	6.9	35.2	48.7	9.0	0.1	
Internal medicine .....	17.5	76.6	5.7	0.2	25.3	41.6	30.2	2.5	0.4	
Neurological surgery .....	1.1	98.5	0.5	( <sup>4</sup> )	1.0	94.8	4.0	0.1	0.0	
Obstetrics/gynecology .....	.....	.....	.....	.....	15.7	70.7	12.4	1.0	0.1	
Otology, laryngology, rhinology .....	12.6	83.7	3.7	( <sup>4</sup> )	34.1	23.6	37.4	4.4	0.4	
Ophthalmology .....	7.9	87.1	5.0	0.1	20.6	2.6	50.0	26.5	0.3	
Orthopedic surgery .....	6.3	90.2	3.4	0.1	8.0	75.3	14.9	1.6	0.1	
Plastic surgery .....	13.0	67.2	19.7	0.1	22.2	30.2	39.7	7.5	0.4	
Thoracic surgery .....	0.8	98.7	0.5	( <sup>4</sup> )	0.6	96.4	2.9	0.1	0.0	
Urology .....	8.0	90.6	1.4	0.1	27.5	46.8	23.6	1.9	0.2	
Podiatry .....	71.3	13.5	0.9	14.3	68.8	1.3	4.9	1.6	23.4	
Clinic and other group practice .....	10.1	85.3	4.5	0.1	12.3	59.9	25.7	1.9	0.3	
Other .....	.....	.....	.....	.....	16.9	59.9	21.5	1.3	0.5	
All physicians .....	11.6	84.4	3.3	0.5	20.7	45.3	25.5	6.9	1.5	

<sup>1</sup> Includes homes, nursing homes, and other places of service. Medicare began covering services in ambulatory surgical centers in 1982.

<sup>2</sup> May include some services rendered in an ASC.

<sup>3</sup> Ambulatory surgical center.

<sup>4</sup> Less than 0.05.

Source: Health Care Financing Administration, Bureau of Data Management and Strategy.

TABLE E-20.—PERCENT DISTRIBUTION OF ALLOWED SURGICAL CHARGES BY SELECTED SPECIALTIES AND SELECTED PLACE OF SERVICE, 1995

Place of service	Percent
<b>Inpatient hospital:</b>	
Orthopedic surgery .....	19.3
General surgery .....	18.1
Cardiovascular disease .....	11.6
Thoracic surgery .....	9.9
Urology .....	6.0
Neurological surgery .....	4.6
Gastroenterology .....	4.3
Clinic and other group practice .....	3.0
Internal medicine .....	2.2
Ophthalmology .....	1.2
Other medical and surgical specialties .....	19.8
Total .....	100.0
<b>Office:</b>	
Dermatology .....	24.7
Ophthalmology .....	20.3
Podiatry .....	17.6
Urology .....	7.7
Orthopedic surgery .....	4.5
Family Practice .....	3.4
General surgery .....	3.0
Internal medicine .....	3.0
Gastroenterology .....	1.8
Clinic and other group practice .....	1.3
Other medical and surgical specialties .....	12.6
Total .....	100.0
<b>Outpatient hospital:</b>	
Ophthalmology .....	39.9
General surgery .....	10.8
Gastroenterology .....	10.5
Orthopedic surgery .....	6.8
Urology .....	5.4
Internal medicine .....	2.9
Otology, laryngology, rhinology .....	2.6
Clinic and other group practice .....	2.3
Plastic surgery .....	2.2
Other medical and surgical specialties .....	16.7
Total .....	100.0

Source: Health Care Financing Administration, Bureau of Data Management and Strategy.

TABLE E-21.—1997 GEOGRAPHIC PRACTICE COST INDICES BY MEDICARE CARRIER AND LOCALITY

Carrier number	Locality number	Locality name	Cost indices		
			Work	Practice expense	Mal-practice
00510	00	Alabama .....	0.980	0.871	0.927
01020	01	Alaska .....	1.064	1.155	1.617
01030	00	Arizona .....	0.996	0.955	1.321
00520	13	Arkansas .....	0.954	0.853	0.427
00542	03	Marin/Napa/Solano, CA .....	1.015	1.180	0.596
00542	05	San Francisco, CA .....	1.068	1.330	0.596
00542	06	San Mateo, CA .....	1.049	1.300	0.596
00542	07	Oakland/Berkeley, CA .....	1.042	1.215	0.596
00542	09	Santa Clara, CA .....	1.064	1.289	0.596
02050	17	Ventura .....	1.028	1.192	0.686
02050	18	Los Angeles, CA .....	1.056	1.207	0.752
02050	26	Anaheim/Santa Ana, CA .....	1.037	1.205	0.752
02050	99	Rest of California .....	1.009	1.048	0.627
00542	99	Rest of California .....	1.009	1.048	0.627
00824	01	Colorado .....	0.989	0.951	0.827
10230	00	Connecticut .....	1.050	1.194	1.001
00570	01	Delaware .....	1.021	1.032	0.792
00580	01	DC & MD/VA Suburbs .....	1.051	1.192	0.980
00590	04	Miami, FL .....	1.016	1.087	2.456
00590	03	Ft. Lauderdale, FL .....	0.998	1.036	1.867
00590	99	Rest of Florida .....	0.977	0.944	1.417
01040	01	Atlanta, GA .....	1.007	1.030	0.902
01040	99	Rest of Georgia .....	0.971	0.891	0.902
01120	01	Hawaii .....	0.999	1.220	0.921
05130	00	Idaho .....	0.962	0.882	0.588
00621	16	Chicago, IL .....	1.028	1.080	1.382
00621	15	Suburban Chicago, IL .....	1.007	1.093	1.159
00621	12	East St. Louis, IL .....	0.988	0.929	1.202
00621	99	Rest of Illinois .....	0.965	0.884	0.824
00630	00	Indiana .....	0.982	0.917	0.356
00640	00	Iowa .....	0.960	0.877	0.679
00650	00	Kansas .....	0.964	0.891	1.191
00660	00	Kentucky .....	0.971	0.869	0.819
00528	01	New Orleans, LA .....	0.999	0.946	0.997
00528	99	Rest of Louisiana .....	0.969	0.870	0.912
21200	03	Southern Maine .....	0.980	1.034	0.759
21200	99	Rest of Maine .....	0.962	0.925	0.759
00901	01	Baltimore/Surr Ctys, MD .....	1.021	1.036	1.115
00901	99	Rest of Maryland .....	0.984	0.953	0.862
00700	01	Boston, MA .....	1.040	1.213	0.978
00700	99	Rest of Massachusetts .....	1.012	1.086	0.978
00623	01	Detroit, MI .....	1.043	1.038	3.051
00623	99	Rest of Michigan .....	0.998	0.935	1.844
10240	00	Minnesota .....	0.990	0.965	0.594
10250	00	Mississippi .....	0.958	0.845	0.726
11260	01	St. Louis, MO .....	0.994	0.944	1.207
00740	02	Metro Kansas City, MO .....	0.989	0.949	1.207

TABLE E-21.—1997 GEOGRAPHIC PRACTICE COST INDICES BY MEDICARE CARRIER AND LOCALITY—Continued

Carrier number	Locality number	Locality name	Cost indices		
			Work	Practice expense	Mal-practice
00740	99	Rest of Missouri .....	0.947	0.835	1.159
11260	99	Rest of Missouri .....	0.947	0.835	1.159
00751	01	Montana .....	0.952	0.864	0.756
00655	00	Nebraska .....	0.951	0.872	0.444
01290	00	Nevada .....	1.007	1.029	0.887
00780	40	New Hampshire .....	0.988	1.034	0.916
00860	01	Northern New Jersey .....	1.059	1.215	0.762
00860	99	Rest of New Jersey .....	1.029	1.115	0.762
01360	05	New Mexico .....	0.975	0.903	0.792
00803	01	Manhattan, NY .....	1.095	1.359	1.546
00803	02	NYC Suburbs/LI, NY .....	1.068	1.235	1.759
00803	03	Poughkeepsie/N NYC, NY .....	1.011	1.081	1.218
14330	04	Queens, NY .....	1.058	1.240	1.686
00801	99	Rest of New York .....	1.002	0.955	0.821
05535	00	North Carolina .....	0.971	0.918	0.435
00820	01	North Dakota .....	0.951	0.860	0.617
16360	00	Ohio .....	0.991	0.940	1.049
01370	00	Oklahoma .....	0.970	0.882	0.481
01380	01	Portland, OR .....	0.996	0.998	0.637
01380	99	Rest of Oregon .....	0.963	0.930	0.637
00865	01	Philadelphia, PA .....	1.025	1.091	1.314
00865	99	Rest of Pennsylvania .....	0.990	0.924	0.735
00973	20	Puerto Rico .....	0.883	0.739	0.268
00870	01	Rhode Island .....	1.019	1.074	1.569
00880	01	South Carolina .....	0.976	0.899	0.361
00820	02	South Dakota .....	0.936	0.856	0.443
05440	35	Tennessee .....	0.976	0.899	0.524
00900	09	Brazoria, TX .....	0.993	0.966	1.428
00900	11	Dallas, TX .....	1.012	1.012	0.893
00900	15	Galveston, TX .....	0.989	0.966	1.428
00900	18	Houston, TX .....	1.021	1.005	1.428
00900	20	Beaumont, TX .....	0.993	0.893	1.428
00900	28	Fort Worth, TX .....	0.989	0.972	0.893
00900	31	Austin, TX .....	0.987	0.986	0.827
00900	99	Rest of Texas .....	0.967	0.879	0.839
00910	09	Utah .....	0.978	0.891	0.644
00780	50	Vermont .....	0.974	0.988	0.452
10490	00	Virginia .....	0.987	0.941	0.518
00973	50	Virgin Islands .....	0.966	0.978	1.023
01390	02	Seattle (King Co), WA .....	1.006	1.077	0.748
01390	99	Rest of Washington .....	0.983	0.961	0.748
16510	00	West Virginia .....	0.964	0.850	1.004
00951	00	Wisconsin .....	0.982	0.926	1.160
00825	21	Wyoming .....	0.968	0.881	0.811

Note.—Work geographic practice cost index (GPCI) is the 1/4 work GPCI required by section 1848(e)(1)(A)(iii) of the Social Security Act.

Source: Federal Register (1996b).

**REFERENCES**

- Federal Register*. (1996a, November 22). Medicare Program; Physician fee schedule update for calendar year 1997 and Physician volume performance standard Rates of Increase for Federal fiscal year 1997; Final notice. *61*(227). pp. 59717–24.
- Federal Register*. (1996b, November 22). Medicare Program; Revisions to Payment Policies and Five-Year Review of and Adjustments to the Relative Value Units Under the Physician fee schedule update for calendar year 1997; Final rule. *61*(227). pp. 59490–714.
- Physician Payment Review Commission. (1997). *Annual report to Congress*. Washington, DC: Author.