# Chapter 7: Supplementary Medical Insurance Benefit for Physician and Supplier Services

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## Introduction

In this chapter, we present utilization and charge data by selected provider, and beneficiary characteristics for physician and supplier services to Medicare beneficiaries during calendar year 1990. For selected years from 1970 to 1990, trend data are shown for gross national product (GNP), personal health care expenditures (PHCEs), national physician expenditures, total Medicare expenditures, and Medicare physician expenditures, excluding supplier services, except for independent laboratories (Table 7.1). Also included for selected years from 1967 to 1990 are Medicare Part B disbursements by type of provider (Table 7.2). The total (submitted and allowed) Medicare physician and supplier charges for calendar year 1990 represent about 95 percent of the total Medicare physician and supplier charges reported. This shortfall is because of factors related to the Health Care Financing Administration (HCFA) statistical database used to prepare Tables 7.7–7.17 including sample size, editing procedures, and data specificity and availability. The shortfall should not affect the data presentation or its corresponding description. The national and Medicare physician expenditures and disbursement data in Tables 7.1 and 7.2 represent 100-percent population estimates.

Under the Medicare program, physician services—those provided by doctors of medicine and osteopathy, doctors of dental medicine and surgery, doctors of optometry, doctors of podiatric medicine, and chiropractors licensed under State law—are covered by the Medicare Part B supplementary medical insurance (SMI) program. SMI also pays for services and supplies provided by suppliers (e.g., medical supply and ambulance companies, independent laboratories and portable X-ray suppliers billing independently, voluntary health and charitable organizations, and pharmacies). In addition, SMI helps pay for covered services received from certain practitioners who are not physicians, such as certified registered nurse anesthetists, certified nurse midwives, physician assistants, and clinical psychologists. Physician and supplier services covered by SMI include diagnosis; therapy; surgery; consultation; home, office, and institutional visits; diagnostic X-ray tests; X-ray therapy; outpatient surgical center services; outpatient hospital diagnostic services; outpatient physical therapy and speech pathology; rental or purchase of durable medical equipment; surgical dressings, splints, casts, and other devices used for reduction of fractures and dislocations; ambulance services; institutional and home dialysis; prosthetic devices; and rural health clinic services (Health Care Financing Administration, 1991a). Each year Medicare pays for about 500 million claims submitted by about 600,000 different physicians.

Medicare allows physicians to determine how they will be paid for covered services rendered to beneficiaries. If the physician elects to be paid directly by the SMI carrier (the fiscal agent authorized to determine whether the service furnished is covered by Medicare, and the payment due) the payment is deemed "assigned." By accepting assignment, the physician agrees to accept as payment in full the amount the carrier determines as reasonable, i.e., the allowed charge. Medicare pays 80 percent of the allowed charge (after the beneficiary has met the annual deductible amount), and the beneficiary is responsible for the 20-percent coinsurance amount, as required by law. If the physician does not accept assignment, the beneficiary is responsible for paying the physician the difference (the balance billing amount) between the physician's submitted charge and the Medicare allowed charge, as well as any deductible or coinsurance amounts. Beginning January 1, 1991, the annual deductible increased from $75 to $100, and the amount of the beneficiary's liability for balance billing was limited as specified in the Medicare Physician Payment Reform Program Legislation of 1989 and 1990, the Omnibus Budget Reconciliation Act (OBRA) of 1989 (Public Law 101-239); and OBRA 1990 (Public Law 101-508).

Under the Medicare physician payment system in effect from July 1966 to December 1991, Medicare paid for physician services on a fee-for-service basis known as the customary, prevailing, and reasonable charge payment system (CPR). From 1967 to 1983, the average annual rate of growth of Medicare benefit payments for physicians' services under CPR was 17.1 percent. In an attempt to constrain the rate of growth in physician expenditures, the Deficit Reduction Act (DEFRA) of 1984 (Public Law 98-369) placed a freeze on Medicare physician payment levels for a 15-month period beginning July 1, 1984. DEFRA 1984 also created the Participating Physician and Supplier Program (PAR), which became effective in July 1984. Under PAR, participating physicians and suppliers enter into an agreement with the Medicare program to accept assignment for all covered services, that is, to accept the carrier's determination of the reasonable charge as payment in full. The agreement is made for a defined period of time, usually 1 year. Medicare provides incentives to encourage physicians to participate in PAR. For instance, participating physicians are identified by the program, and beneficiaries are encouraged to use their services. Congress extended the freeze on Medicare physician payment levels through April 1986 for participating physicians, but through

## Table 7.1

**Gross national product (GNP), personal health care expenditures (PHCE), physician expenditures, Medicare expenditures, and Medicare physician expenditures: Selected calendar years 1970-91**

| | | PHCE | | | | | | Medicare expenditures[1] | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Total | | Physician | | | | Total | | | Physician[2] | | | | |
| Calendar year | GNP in billions | Amount in billions | Percent of GNP | Amount in billions | Relative index | Percent of GNP | Percent of PHCE | Amount in billions | Percent of GNP | Percent of PHCE | Amount in billions | Relative index | Percent of GNP | Percent of PHCE | Percent of Medicare expenditures |
| 1970 | $1,015 | $64.9 | 6.4 | $13.6 | 100 | 1.3 | 21.0 | $7.5 | 0.7 | 11.6 | $1.6 | 100 | 0.2 | 2.5 | 21.3 |
| 1975 | 1,598 | 116.6 | 7.3 | 23.3 | 171 | 1.5 | 20.0 | 16.3 | 1.0 | 14.0 | 3.4 | 213 | 0.2 | 2.9 | 20.9 |
| 1980 | 2,732 | 219.4 | 8.0 | 41.9 | 308 | 1.5 | 19.1 | 36.8 | 1.3 | 16.8 | 7.9 | 494 | 0.3 | 3.6 | 21.5 |
| 1985 | 4,015 | 369.7 | 9.2 | 74.0 | 544 | 1.8 | 20.0 | 72.2 | 1.8 | 19.5 | 16.7 | 1044 | 0.4 | 4.5 | 23.1 |
| 1986 | 4,232 | 400.8 | 9.5 | 82.1 | 604 | 1.9 | 20.5 | 77.4 | 1.8 | 19.3 | 19.0 | 1188 | 0.4 | 4.7 | 24.5 |
| 1987 | 4,516 | 439.3 | 9.7 | 93.0 | 684 | 2.1 | 21.2 | 83.4 | 1.8 | 19.0 | 21.7 | 1356 | 0.5 | 4.9 | 26.0 |
| 1988 | 4,874 | 482.8 | 9.9 | 105.1 | 773 | 2.2 | 21.8 | 90.5 | 1.9 | 18.7 | 24.2 | 1513 | 0.5 | 5.0 | 26.7 |
| 1989 | 5,201 | 529.9 | 10.2 | 113.6 | 835 | 2.2 | 21.4 | 102.6 | 2.0 | 19.4 | 27.4 | 1713 | 0.5 | 5.2 | 26.7 |
| 1990 | 5,463 | 585.3 | 10.7 | 125.7 | 924 | 2.3 | 21.5 | 111.2 | 2.0 | 19.0 | 30.0 | 1875 | 0.5 | 5.1 | 27.0 |
| 1991[3] | 5,695 | 660.2 | 11.6 | 142.0 | 1044 | 2.5 | 21.5 | 120.2 | 2.1 | 18.2 | 32.8 | 2050 | 0.6 | 5.0 | 27.3 |
| | | Average annual rate of change | | | | | | | | | | | | | |
| 1970-90 | 8.8 | 11.6 | — | 11.8 | — | — | — | 14.4 | — | — | 15.8 | — | — | — | — |
| 1980-90 | 7.2 | 10.3 | — | 11.6 | — | — | — | 11.7 | — | — | 14.3 | — | — | — | — |

[1]Represents expenditures aggregated on an incurred basis and 100-percent estimates.
[2]Excludes expenditures for supplier services; includes expenditures for group practice prepayment plans and independent laboratories.
[3]Preliminary data.

NOTE: Numbers may not add to totals because of rounding.

SOURCE: Health Care Financing Administration, Office of the Actuary: Data from the Office of National Health Statistics.

## Table 7.2

## Medicare supplementary medical insurance disbursements, by type of provider: Selected calendar years 1967-90

| Type of provider | 1967 | 1970 | 1975 | 1983 | 1984 | 1985 | 1986 | 1987 | 1988 | 1989 | 1990 | Average annual rate of change 1967-83 | 1983-90 | 1967-90 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | Dollars in millions | | | | | | | |
| Total[1] | $1,197 | $1,975 | $4,273 | $18,106 | $19,661 | $22,947 | $26,239 | $30,820 | $33,970 | $38,294 | $42,468 | 18.5 | 13.0 | 16.8 |
| Physicians and suppliers[2] | 1,128 | 1,790 | 3,416 | 14,062 | 15,434 | 17,311 | 19,213 | 22,618 | 24,372 | 27,057 | 29,609 | 17.1 | 11.2 | 15.3 |
| Outpatient facilities[3] | 33 | 114 | 652 | 3,388 | 3,450 | 4,304 | 5,142 | 5,903 | 6,533 | 7,658 | 8,465 | 33.6 | 14.0 | 27.3 |
| Alternative payment systems[4] | 19 | 26 | 80 | 410 | 464 | 720 | 1,113 | 1,361 | 2,019 | 2,308 | 2,827 | 21.2 | 31.8 | 24.3 |
| Home health agencies[5] | 10 | 34 | 86 | 22 | 32 | 54 | 46 | 53 | 63 | 77 | 91 | 5.1 | 22.5 | 10.1 |
| Independent laboratories | 7 | 11 | 39 | 224 | 281 | 558 | 725 | 885 | 983 | 1,194 | 1,476 | 24.2 | 30.9 | 26.2 |
| | | | | | | | Percent distribution | | | | | | | |
| Total[1] | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | — | — | — |
| Physicians and suppliers[2] | 94.2 | 90.6 | 79.9 | 77.7 | 78.5 | 75.4 | 73.2 | 73.4 | 71.7 | 70.7 | 69.7 | — | — | — |
| Outpatient facilities[3] | 2.8 | 5.8 | 15.3 | 18.7 | 17.5 | 18.8 | 19.6 | 19.2 | 19.2 | 20.0 | 19.9 | — | — | — |
| Alternative payment systems[4] | 1.6 | 1.3 | 1.9 | 2.3 | 2.4 | 3.1 | 4.2 | 4.4 | 5.9 | 6.0 | 6.7 | — | — | — |
| Home health agencies[5] | 0.8 | 1.7 | 2.0 | 0.1 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | — | — | — |
| Independent laboratories | 0.6 | 0.6 | 0.9 | 1.2 | 1.4 | 2.4 | 2.8 | 2.9 | 2.9 | 3.1 | 3.5 | — | — | — |

[1]Represents disbursements accrued on a cash-flow basis. Excludes disbursements for program administration and net cost of private health insurance, government public health activities, and research and construction.
[2]Excludes disbursements for health maintenance organizations, competitive medical plans, and other pre-paid health plans.
[3]Includes disbursements for outpatient hospital facilities, end stage renal disease freestanding facilities, rural health clinics, and outpatient rehabilitation facilities.
[4]Includes disbursements for health maintenance organizations, competitive medical plans, and other pre-paid health plans.
[5]As a result of the Omnibus Budget Reconciliation Act of 1980 legislation, most home health agency services were covered under the hospital insurance program beginning in 1981.

NOTE: Numbers may not add to totals because of rounding.

SOURCE: Health Care Financing Administration, Office of the Actuary: Data from the Office of National Health Statistics.

December 1986 for non-participating physicians. PAR resulted in a substantial increase in the Medicare assignment rate, which reached approximately 82 percent in 1990, up from 51 percent in 1983.

The Consolidated Omnibus Budget Reconciliation Act (COBRA) of 1985 (Public Law 99-272) and OBRA 1986 (Public Law 99-509) mandated the U.S. Department of Health and Human Services (DHHS) to develop a national resource-based relative value system (RBRVS) for paying physicians under the Medicare program. The physician payment reform legislation represented a continuing effort by Congress to constrain Medicare physician costs, which were escalating at double-digit rates and increasing the burden on the taxpayers and beneficiaries who share in financing program costs (Health Care Financing Administration, 1991b).

OBRA 1989 instituted the most significant change since the inception of the Medicare program in the way it pays physician and practitioners including the following provisions:

- A national Medicare fee schedule (MFS) for physicians, listing Medicare relative value units (RVUs) for more than 7,000 covered services, and the geographic adjustment factors for justifiable differences in physician cost of practice.
- A volume performance standard (VPS) to restrain the annual rate of increase in Medicare physician payments. Under VPS, total Medicare physician spending in any specific year affects future MFS revisions.
- A limit on the amount that non-participating physicians can charge Medicare beneficiaries on unassigned claims. This limit was phased in over a 3-year period beginning January 1, 1991. By 1993, a physician will not be allowed to charge a Medicare beneficiary more than 115 percent of the amount listed in the MFS for non-participating physicians. In 1991 and 1992, the limits were 125 percent and 120 percent, respectively, of the non-participating physician MFS amount.
- A requirement that for services furnished on or after September 1, 1990, a physician or supplier must complete and submit a standard claim form (specified by the DHHS Secretary) for Medicare beneficiaries. No charge may be assessed for the submission of claims.

The national MFS is intended to place greater value on primary care services, such as family and general practices, and give special consideration to rural areas. Physician expenditures under the new payment system are required to be budget neutral; that is, total physician payments must be the same under the new payment system as they would have been under the old one. Medicare has paid for clinical diagnostic laboratory services and durable medical equipment on a fee schedule basis since July 1984.

On January 1, 1992, the national MFS began to be phased in over a 5-year period. The new fee schedule affects nearly 500,000 physicians and approximately 110,000 other medical professionals such as dentists, optometrists, podiatrists, and chiropractors who bill Medicare for covered services. HCFA estimates that about one-third of all Medicare physician services were paid the MFS amount in 1992. By 1996, all Medicare physician services will be paid the MFS amount. During the transition, physician services in the MFS will be paid on the basis of a transitional fee schedule formula.

Under the national MFS, Medicare continues to pay 80 percent of the allowed charge; this is the physician's actual charge or the MFS amount, whichever is lower. The MFS amount for a covered service is the product of three numbers:

- The RVUs for the service, reflecting the time and work of the physician, practice overhead expenses, and malpractice insurance liability.
- The geographic practice cost indexes (for the locality where the service was rendered) to measure the difference in resource costs compared with the national average for the three components of the RVUs.
- The national monetary conversion factor used to convert RVUs into fee schedule payment amounts.

## National and Medicare physician expenditures: 1970-90

As shown in Table 7.1, total national expenditures for physician services amounted to $125.7 billion in 1990, up from $13.6 billion in 1970. Thus, the average annual rate of change (AARC) in national physician expenditures was 11.8 percent. The Medicare physician expenditures shown in Table 7.1 were aggregated on an incurred basis, exclude supplier expenditures, include group practice prepayment plan expenditures, and represent 100-percent expenditure estimates for the reporting period.

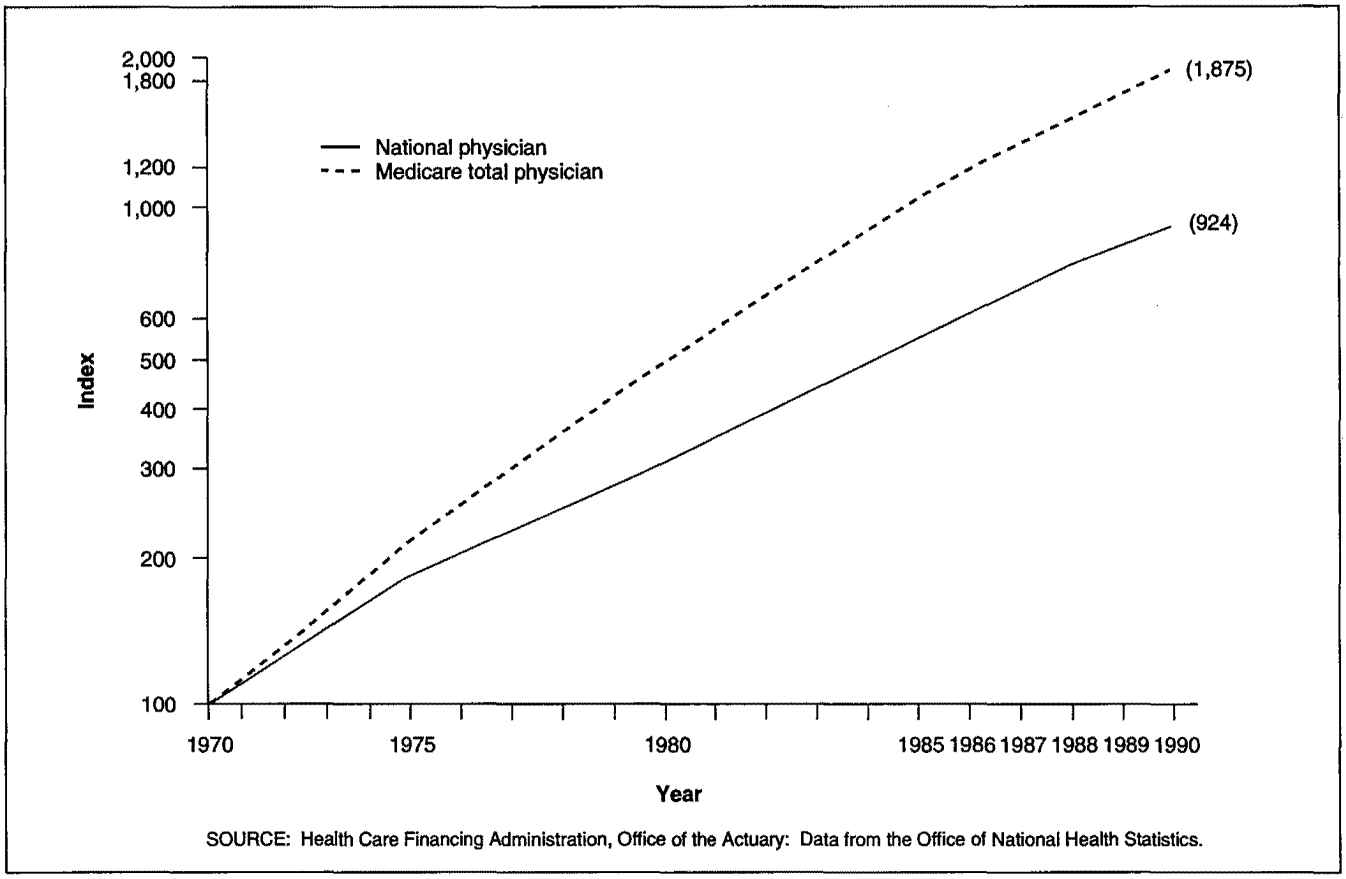
Medicare physician expenditures rose nearly twice as fast as the Nation's gross national product (GNP) between 1970-90. Expenditures for physicians' services represent the second largest component of Medicare expenditures (after inpatient hospital services). In 1990, they amounted to an estimated $30.0 billion, accounting for nearly one-fourth of all physician expenditures in the United States. Medicare expenditures represent the cost to the Medicare program and do not include beneficiary cost-sharing amounts.

From 1970 to 1990, Medicare physician expenditures increased at an AARC of 15.8 percent, from $1.6 billion to $30 billion. The growth index during this period was 1,875 (i.e. greater than an eighteenfold increase). National physician expenditures increased at an AARC of 11.8 percent; the growth index was 924, or more than a ninefold increase (Figure 7.3). Medicare physician expenditures as a proportion of all Medicare expenditures increased from 21.3 percent in 1970, to 21.5 percent in 1980, and 27.0 percent in 1990. Similarly, Medicare physician expenditures as a proportion of all PHCEs increased from 2.5 percent in 1970, to 3.6 percent in 1980, and 5.1 percent in 1990 (Figure 7.4).

An estimated 15 percent of the growth in physician spending during the past decade was because of an increase in the number of beneficiaries who have

**Figure 7.3**

**National physician expenditures and Medicare physician expenditures: Selected calendar years 1970-90 (Semi-logarithmic scale)**




SOURCE: Health Care Financing Administration, Office of the Actuary: Data from the Office of National Health Statistics.

increased at about 2 percent a year. About 40 percent was because of increases in payments per service as a result of general price inflation in the economy. About 45 percent of the growth resulted from a variety of factors including growth in the number of services, availability of new services as a result of advances in medical technology, and a shift to more expensive and high-technology services (Health Care Financing Administration, 1989).

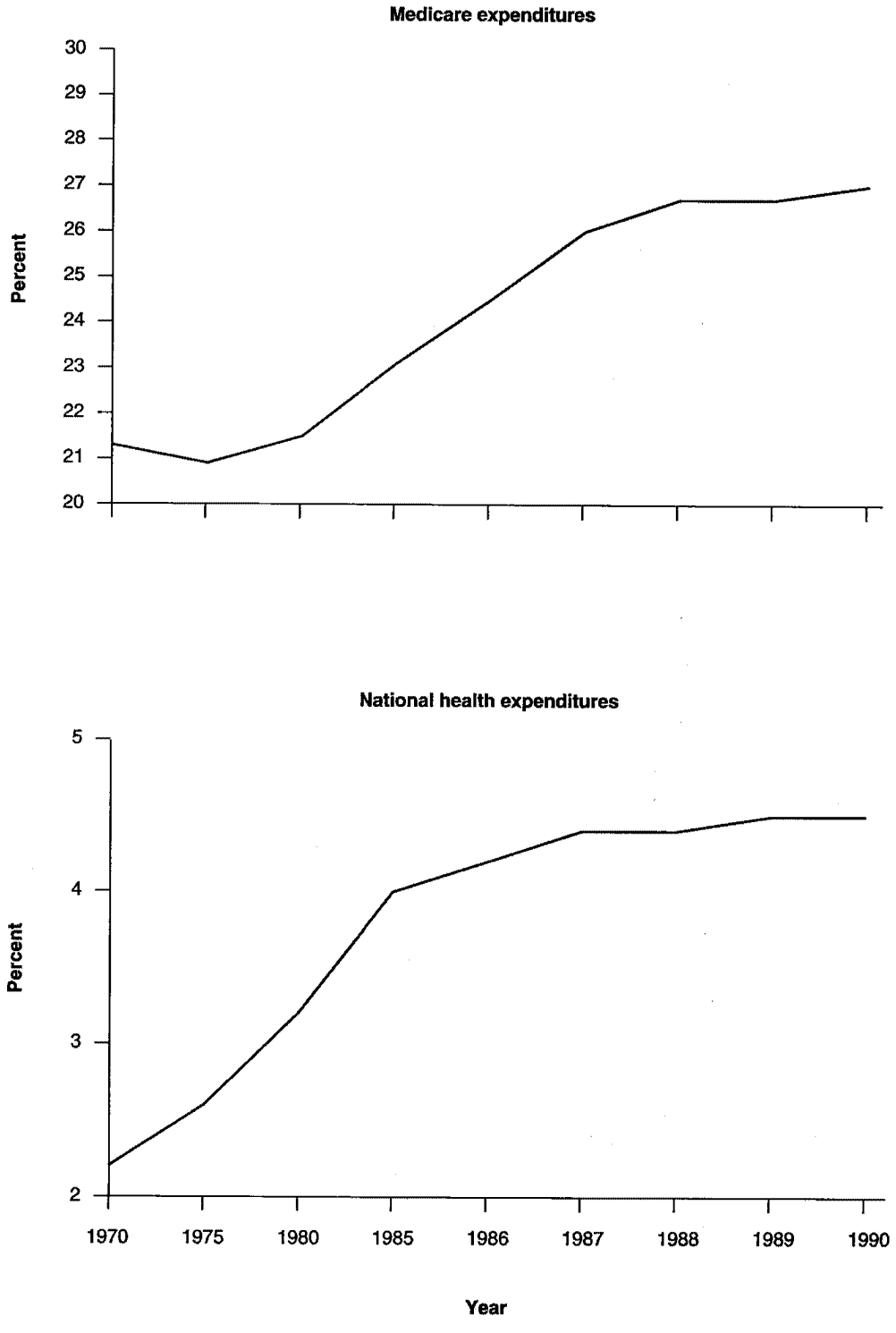
Medicare spending for physician and supplier services during the 1980s parallels changes in Medicare utilization following the implementation of the Medicare inpatient hospital prospective payment system (PPS). The period was characterized by decreased inpatient hospital utilization, and by rapid growth in SMI payments, particularly for physician and supplier services. Efforts to restrain the growth in Medicare spending for physician services during this period focused on the following: incentives to encourage physician participation in the Medicare program; a temporary freeze on physician fees for Medicare services; implementation of national fee schedules for diagnostic laboratory tests; direct billing for independent laboratories; and passage and implementation of the PPR (OBRA 1989; OBRA 1990).

## Disbursements, by type of provider: 1967-90

As shown in Table 7.2, SMI disbursements have grown rapidly since the inception of the Medicare program, from $1.2 billion in 1967 to $42.5 billion in 1990—an AARC of 16.8 percent. In the post-PPS period of 1983-90, SMI disbursements increased at an AARC of 13.0 percent. The Medicare physician disbursements shown in Table 7.2 differ from the comparable expenditure figures in Table 7.1 because the disbursements in Table 7.2 were aggregated on a cash-flow basis rather than an incurred basis, include supplier payments except for independent laboratory services, which are shown separately, and exclude group practice prepayment plan payments.

The proportion of SMI disbursements for each of the four major suppliers of care has changed substantially over the years (Table 7.2). Because of legislative initiatives and payment reform, changes in medical practice and technology, incentives created by Medicare's PPS, and the growth of ambulatory surgical centers (ASCs), the use of SMI services has grown rapidly in outpatient facilities and independent laboratories. The share of SMI disbursements for physicians and suppliers declined from 94.2 percent in 1967 to 69.7 percent in 1990 (Figure 7.2).

## Figure 7.4
## Medicare physician expenditures as a percent of Medicare and national health expenditures: Selected calendar years 1970-90




SOURCE: Health Care Financing Administration, Office of the Actuary: Data from the Office of National Health Statistics.

The decline in the share of disbursements for physician and supplier services was offset by the growth in the share of disbursements for services in outpatient facilities, which increased from 2.8 percent in 1967 to 19.9 percent in 1990. Similarly, the share of disbursements for independent laboratory services increased from 0.6 percent in 1967 to 3.5 percent in 1990. SMI disbursements for alternative health care systems have grown steadily since the early 1980s, although they still account for only a relatively small share (6.7 percent in 1990) of all SMI disbursements.

## Number of Medicare physicians

The number of active physicians in the United States increased from about 457,500 in 1980 to an estimated 601,100 in 1990, a rise of 32 percent (National Center for Health Statistics, 1991). In terms of the number of active physicians per 10,000 resident population, the rate increased from 19.7 in 1980 to an estimated 24.0 in 1990. These numbers represent active doctors of medicine (MDs) and doctors of osteopathy (DOs).

As shown in Table 7.5, the number of active MDs and DOs who billed Medicare as of April 1991 was 471,804, or about 147 Medicare physicians per 10,000 Medicare enrollees. As of April 1991, the number of physicians and limited licensed practitioners (LLPs) who billed Medicare numbered 583,229, or 181 per 10,000 Medicare enrollees. (LLPs include doctors of dental medicine, dental surgery, podiatric medicine, and optometry, as well as chiropractors). The physicians and LLPs who billed Medicare were identified via a Medicare unique physician identification number (UPIN) established and maintained by the Medicare physician identification and eligibility system (MPIES). MPIES was mandated by COBRA 1985.

The UPIN provides a unique identifier for each physician who renders and bills for covered services to Medicare beneficiaries. A unique identifier is assigned to each physician regardless of his or her practice configuration. Salaried physicians of health maintenance organizations that do not bill Medicare, and interns, residents, and some Public Health Service physicians are neither currently enumerated nor assigned a UPIN.

The number of Medicare MDs and DOs varied among geographic divisions of the United States as did the total U.S. physician population. In April 1991, the number of physicians per 10,000 enrollees was highest in the Pacific Division (199) and in the New England Division (185) (Figure 7.6). By State, the highest physician supply per 10,000 enrollees was found in the District of Columbia (389), Alaska (284), Massachusetts (227), and California (214). In contrast, the number of physicians per 10,000 Medicare enrollees was low in the East South Central Division (114) and the West North Central Division (126). The lowest rates per 10,000 by State were in South Dakota (85), Mississippi (88), Kansas (95), Nebraska (96), and Arkansas (99).

## Selected demographic characteristics: 1990

An estimated 27.6 million Medicare beneficiaries, or more than four-fifths of all Medicare enrollees (34.2 million), used SMI-covered physician and supplier services during 1990 (Table 7.7). They incurred Medicare-allowed charges amounting to $37.4 billion, an average of $1,356 per user.

Nearly 52 percent (13.0 million) of all aged Medicare beneficiaries (25.0 million) using covered physician services during 1990 were 65-74 years of age. However, the rate of use increased with age, rising from 774 per 1,000 enrollees for those beneficiaries 65-74 years of age, to 965 per 1,000 for those 85 years of age or over. The average allowed charge for the 65-74 age cohort was $1,224 per user, or about 22 percent lower than the average allowed charge for beneficiaries 75 years of age or over. Similarly, the average number of services (27.2) for the younger beneficiaries was about 26 percent lower than that for those 75 years of age or over. The average balance billing liability for aged beneficiaries in the 65-74 age group was $150 per user with liability. The average liability increased to $159 per user for beneficiaries 75-84 years of age and then dropped to $144 per user for those 85 years of age or over.

As shown in Table 7.7, more than three-fifths (16.8 million) of all beneficiaries using covered physician and supplier services were females. This reflects the fact that females accounted for 58 percent of all SMI enrollees in 1990. The annual user rate per 1,000 enrollees for females, therefore, was about 11 percent higher than that for males (880 versus 794). The average allowed charge per user for females ($1,284) was about 14 percent lower than the comparable average for male beneficiaries ($1,469). The average balance billing liability for female beneficiaries was $142 per person with liability, or 26 percent lower than that for male beneficiaries ($179).

By race, white people used Medicare-covered physician and supplier services at a rate that exceeded that of persons of other races by 9 percent (849 per 1,000 enrollees versus 779 per 1,000 enrollees). There was little difference in the average number of services per user. The average Medicare-allowed charge per user was about 5 percent higher for persons of other races ($1,422) than for white persons ($1,351). The assignment rate was also higher for persons of other races (89 percent) as compared with white persons (80 percent). The average user liability was about 19 percent higher for white persons ($152) than for persons of other races ($128).

There were only small differences in the use and cost of physician and supplier services by type of coverage. The average allowed charge for disabled beneficiaries (65 years of age or under) was $1,383 per user, or about 2 percent higher than the average charge for aged beneficiaries (1,353). The assignment rate for disabled beneficiaries (84 percent) was also slightly higher than that for aged beneficiaries (80 percent). The average balance billing liability per user, however, was about

## Table 7.5

## Number of active physicians and limited licensed practitioners, by U.S. census division, region, and area of provider: 1990 and 1991

| Area of provider | Total U.S. 1990 non-Federal physicians[1] | Medicare 1991 | | | |
|---|---|---|---|---|---|
| | | Physicians[2] | | Physicians and limited licensed practitioners[3] | |
| | | Number | Per 10,000 enrollees | Number | Per 10,000 enrolleees |
| All areas | NA | 471,804 | 147 | 583,229 | 181 |
| United States | 584,921 | 466,175 | 148 | 577,285 | 182 |
| Northeast | 153,725 | 119,419 | 167 | 150,594 | 210 |
| North Central | 124,118 | 104,231 | 129 | 130,742 | 162 |
| South | 179,426 | 148,088 | 133 | 177,926 | 157 |
| West | 127,652 | 94,437 | 184 | 118,022 | 230 |
| New England | 41,578 | 33,828 | 185 | 42,769 | 234 |
| Connecticut | 10,699 | 7,610 | 165 | 9,486 | 206 |
| Maine | 2,522 | 2,518 | 138 | 3,198 | 175 |
| Massachusetts | 21,475 | 18,636 | 227 | 23,102 | 282 |
| New Hampshire | 2,507 | 1,922 | 140 | 2,572 | 187 |
| Rhode Island | 2,744 | 1,800 | 120 | 2,695 | 180 |
| Vermont | 1,631 | 1,342 | 180 | 1,716 | 230 |
| Middle Atlantic | 112,147 | 85,591 | 160 | 107,825 | 202 |
| New Jersey | 20,579 | 14,419 | 135 | 17,573 | 164 |
| New York | 60,744 | 45,292 | 193 | 53,995 | 230 |
| Pennsylvania | 30,824 | 25,880 | 134 | 36,257 | 188 |
| East North Central | 88,069 | 73,484 | 130 | 89,992 | 159 |
| Illinois | 26,603 | 22,448 | 152 | 27,070 | 184 |
| Indiana | 9,558 | 8,929 | 120 | 10,410 | 140 |
| Michigan | 18,620 | 15,124 | 124 | 18,546 | 153 |
| Ohio | 23,239 | 18,694 | 123 | 22,827 | 150 |
| Wisconsin | 10,049 | 8,289 | 118 | 11,139 | 159 |
| West North Central | 36,049 | 30,747 | 126 | 40,750 | 167 |
| Iowa | 4,728 | 5,215 | 119 | 7,176 | 164 |
| Kansas | 4,861 | 3,302 | 95 | 4,576 | 132 |
| Minnesota | 10,458 | 7,915 | 172 | 10,668 | 232 |
| Missouri | 10,759 | 9,989 | 132 | 12,658 | 168 |
| Nebraska | 2,955 | 2,228 | 96 | 2,840 | 122 |
| North Dakota | 1,195 | 1,163 | 119 | 1,487 | 152 |
| South Dakota | 1,093 | 935 | 85 | 1,345 | 122 |
| South Atlantic | 102,277 | 80,548 | 138 | 95,851 | 164 |
| Delaware | 1,449 | 1,128 | 128 | 1,396 | 158 |
| District of Columbia | 3,929 | 2,735 | 389 | 2,975 | 423 |
| Florida | 31,483 | 26,185 | 126 | 33,002 | 159 |
| Georgia | 11,929 | 9,146 | 129 | 10,001 | 141 |
| Maryland | 16,716 | 11,484 | 213 | 13,021 | 242 |
| North Carolina | 13,492 | 10,981 | 123 | 12,710 | 143 |
| South Carolina | 6,096 | 5,394 | 122 | 7,336 | 166 |
| Virginia | 13,795 | 10,281 | 143 | 11,711 | 162 |
| West Virginia | 3,388 | 3,214 | 107 | 3,699 | 123 |
| East South Central | 27,752 | 24,628 | 114 | 29,052 | 134 |
| Alabama | 6,964 | 7,058 | 121 | 8,132 | 140 |
| Kentucky | 6,701 | 5,933 | 112 | 7,011 | 132 |
| Mississippi | 3,753 | 3,206 | 88 | 3,837 | 105 |
| Tennessee | 10,334 | 8,431 | 122 | 10,072 | 146 |
| West South Central | 49,397 | 42,912 | 136 | 53,023 | 167 |
| Arkansas | 3,966 | 3,863 | 99 | 4,908 | 126 |
| Louisiana | 8,689 | 7,553 | 142 | 8,720 | 164 |
| Oklahoma | 5,095 | 4,784 | 106 | 6,144 | 137 |
| Texas | 31,647 | 26,712 | 149 | 33,251 | 185 |
| Mountain | 27,894 | 21,846 | 146 | 27,096 | 182 |
| Arizona | 8,226 | 6,244 | 145 | 7,970 | 185 |
| Colorado | 7,606 | 5,784 | 186 | 6,801 | 218 |
| Idaho | 1,435 | 1,416 | 112 | 1,837 | 146 |
| Montana | 1,452 | 1,346 | 115 | 1,766 | 150 |
| Nevada | 1,921 | 1,610 | 124 | 1,958 | 151 |
| New Mexico | 3,114 | 2,400 | 144 | 3,029 | 182 |
| Utah | 3,406 | 2,504 | 158 | 3,040 | 192 |
| Wyoming | 734 | 542 | 105 | 695 | 134 |

See footnotes at end of table.

## Table 7.5—Continued

## Number of active physicians and limited licensed practitioners, by U.S. census division, region, and area of provider: 1990 and 1991

| Area of provider | Total U.S. 1990 non-Federal physicians[1] | Medicare 1991 | | | |
|---|---|---|---|---|---|
| | | Physicians[2] | | Physicians and limited licensed practitioners[3] | |
| | | Number | Per 10,000 enrollees | Number | Per 10,000 enrolleees |
| Pacific | 99,758 | 72,591 | 199 | 90,926 | 249 |
| Alaska | 777 | 708 | 284 | 880 | 353 |
| California | 78,285 | 55,937 | 214 | 70,211 | 269 |
| Hawaii | 2,809 | 2,229 | 201 | 2,573 | 232 |
| Oregon | 6,562 | 5,443 | 159 | 6,800 | 199 |
| Washington | 11,325 | 8,274 | 148 | 10,462 | 187 |
| Outlying areas[4] | — | 5,629 | 129 | 5,944 | 136 |

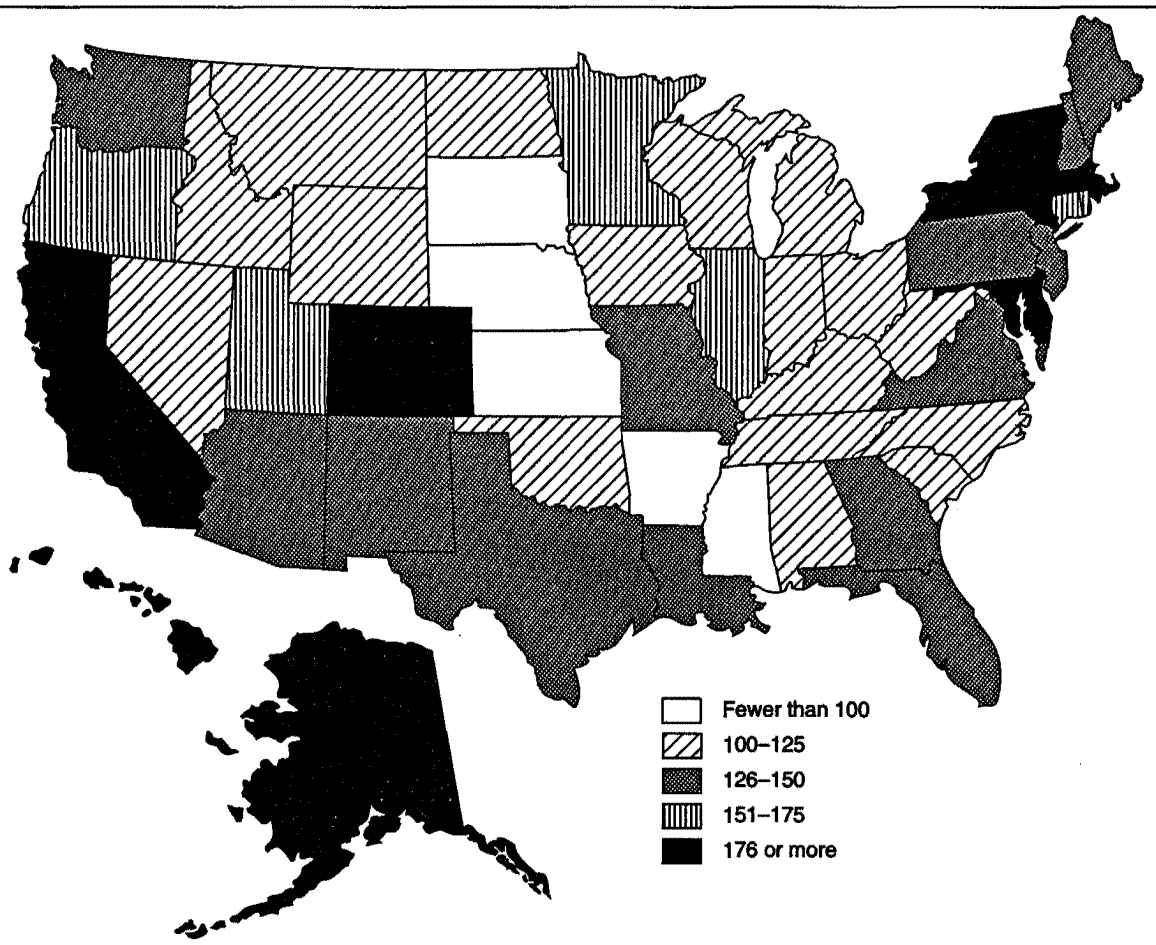
[1]Represents the number of doctors of medicine as reported by the American Medical Association who are non-Federal physicians.
[2]Includes doctors of medicine and doctors of osteopathy who bill the Medicare program.
[3]Includes doctors of medicine, doctors of osteopathy, and limited licensed practitioners who bill Medicare.
[4]Includes Puerto Rico, Virgin Islands, and Guam.

NOTE: Numbers may not add to totals because of rounding.

SOURCE: American Medical Association, *Physician Characteristics and Distribution*, 1992 Edition; Health Care Financing Administration: Data from the Medicare Physician Identification and Eligibility System.

## Figure 7.6

## Number of active physicians[1] per 10,000 Medicare enrollees, United States: 1990




[1]Includes doctors of medicine and doctors of osteopathy who bill the Medicare program.

SOURCES: American Medical Association, *Physician Characteristics and Distribution*, 1992 Edition, and Health Care Financing Administration, Bureau of Data Management and Strategy: Data from the Medicare Physician Identification of Eligibility Record System.

## Table 7.7

## Users, services, submitted and allowed charges, reduction, and balance billing for Medicare physician and supplier services, by demographic characteristics: Calendar year 1990

| Demographic characteristic | Persons served | | Services | | Submitted charges | | | Allowed charges | | Reduction[2] | | Balance billing | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Number of users | Per 1,000 enrollees | Number in thousands | Per user | Total in thousands | Assigned in thousands | Percent of charges assigned[1] | Total in thousands | Per user | Total in thousands | Percent of submitted charges | Total in thousands | Per user with liability |
| **Total** | 27,553,900 | 844 | 845,221 | 30.7 | $56,225,228 | $45,263,633 | 81 | $37,367,589 | $1,356 | $18,857,639 | 34 | $2,322,548 | $156 |
| **Age** | | | | | | | | | | | | | |
| Under 65 years | 2,560,980 | 870 | 78,939 | 30.8 | 5,498,961 | 4,623,559 | 84 | 3,542,409 | 1,383 | 1,956,552 | 36 | 196,631 | 202 |
| 65-74 years | 12,960,340 | 774 | 352,397 | 27.2 | 23,941,386 | 18,902,141 | 79 | 15,867,491 | 1,224 | 8,073,894 | 34 | 1,080,185 | 150 |
| 75-84 years | 9,029,840 | 904 | 299,538 | 33.2 | 20,021,446 | 16,151,532 | 81 | 13,397,200 | 1,484 | 6,624,245 | 33 | 813,430 | 159 |
| 85 or over | 3,002,740 | 965 | 114,347 | 38.1 | 6,763,435 | 5,586,402 | 83 | 4,560,487 | 1,519 | 2,202,947 | 33 | 232,302 | 144 |
| **Sex** | | | | | | | | | | | | | |
| Male | 10,781,580 | 794 | 328,878 | 30.5 | 23,884,835 | 19,119,674 | 80 | 15,836,751 | 1,469 | 8,048,084 | 34 | 1,037,701 | 179 |
| Female | 16,772,320 | 880 | 516,343 | 30.8 | 32,340,393 | 26,143,960 | 81 | 21,530,838 | 1,284 | 10,809,555 | 33 | 1,284,847 | 142 |
| **Race[3]** | | | | | | | | | | | | | |
| White | 23,861,620 | 849 | 730,699 | 30.6 | 48,295,733 | 38,640,863 | 80 | 32,239,245 | 1,351 | 16,056,489 | 33 | 2,037,516 | 152 |
| Other | 2,774,200 | 779 | 87,880 | 31.7 | 6,142,973 | 5,490,614 | 89 | 3,944,495 | 1,422 | 2,198,478 | 36 | 102,725 | 128 |
| **Medicare status** | | | | | | | | | | | | | |
| Aged | 24,992,920 | 842 | 766,282 | 30.7 | 50,726,267 | 40,640,075 | 80 | 33,825,178 | 1353 | 16,901,086 | 33 | 2,125,917 | 153 |
| Disabled | 2,560,980 | 870 | 78,939 | 30.8 | 5,498,961 | 4,623,559 | 84 | 3,542,409 | 1383 | 1,956,552 | 36 | 196,631 | 202 |

[1]Ratio of assigned submitted charges to total submitted charges. Includes charges for supplier services.
[2]The difference between the physician and supplier submitted charges and the allowed charge approved by Medicare.
[3]Excludes unkown race.

NOTE: Numbers may not add to totals because of rounding.

SOURCE: Health Care Financing Administration, Bureau of Data Management and Strategy: Data from the Medicare Decision Support System; data development by the Office of Research and Demonstrations.

one-third higher for disabled beneficiaries ($202) than for aged beneficiaries ($153).

## Type of service

The physician and supplier services most frequently used in 1990 were medical care (primarily physician visits) and diagnostic laboratory services, accounting for almost three-fourths of the services billed to Medicare. Allowed charges were concentrated in medical care and surgery, which accounted for 29 percent ($10.9 billion) and 28 percent ($10.3 billion), respectively, of all allowed charges ($37.4 billion) (Table 7.8). Diagnostic laboratory services accounted for 13 percent ($4.8 billion), and diagnostic radiology services comprised 8 percent ($3.0 billion) of allowed charges (Figure 7.9). Together, these four types of services represented nearly four-fifths ($29.1 billion) of all allowed Medicare charges for physician and supplier services.

In 1990, the average Medicare-allowed charge per user, by type of service, ranged from $9 for pneumcoccal vaccine, to $1,539 for radiation therapy, and $1,512 for renal supplies in the home. Other types of service with a high average allowed charge per user were noted for monthly capitation payment (dialysis) ($1,369), and ASCs (facility usage) ($817). The number of services per user varied substantially among the different types of services, ranging from a low of 1.1 services per user for surgical second-opinion, to highs of 13.1 for diagnostic laboratory, and 12.7 for medical care.

The assignment rates shown in Table 7.8 are based on the ratio of assigned submitted charges to total submitted charges. The Medicare assignment rates, by type of service, showed moderate variability, with more than one-half having an assignment rate ranging from 80 percent to 89 percent with an average rate of 81 percent. For unassigned physician and supplier claims, the highest liability per person by type of service was recorded for radiation therapy ($359), ASCs ($332), assistance at surgery ($222), and anesthesia ($206).

## Place of service

The frequency and the amount of allowed charges for Medicare-covered physician and supplier services were concentrated in two settings. As shown in Table 7.10, an estimated 35 percent ($13.2 billion) of all allowed charges were attributable to services provided on an inpatient hospital basis. Similarly, another 33 percent ($12.2 billion) of the allowed charges reflected services provided in a physician's office (Figure 7.11). Together, the two settings accounted for more than two-thirds of all physician and supplier services and allowed charges during 1990.

The average allowed charges incurred per user, by place of service, ranged from a low of $117 in independent laboratories, to a high of $1,632 in an inpatient hospital. The average allowed charges per user was also high in ASCs ($1,259).

The average number of services per user, by place of service, varied substantially in 1990, ranging from a low of 2.7 services in ASCs to a high of 22.2 services in an inpatient hospital setting. The number of services per user was also high for office visits (15.6). The number of services does not equate to number of visits, because multiple services can be rendered in the course of a visit to a treatment site.

The highest Medicare assignment rates in 1990, by place of service, were recorded by independent laboratories (97 percent), the home (92 percent), and ASCs (91 percent). Assignment rates for physician and supplier services rendered in the office and inpatient hospital setting were 71 percent and 82 percent, respectively; services provided in these settings accounted for 65 percent ($29.4 billion) of all submitted charges that were assigned ($45.3 billion).

For those physician and supplier claims that were unassigned in 1990, the highest average beneficiary balance billing liability was noted for inpatient hospital ($321) and ambulatory surgical center ($290). In contrast, the lowest average beneficiary balance billing liability was recorded for persons receiving physician and supplier services in nursing homes ($34) and skilled nursing facilities ($38).

## Services, by physician specialty

In 1990, the physician specialties treating the largest number of Medicare beneficiaries were radiology (14.0 million), internal medicine (13.5 million), ophthalmology (8.9 million), and family practice (7.9 million) (Table 7.12). If one considers general practitioners, family practice physicians, internal medicine, and pediatrics as primary care physicians, these specialties would comprise the largest group. However, the data presented in Table 7.12 do not provide a non-duplicated count of the beneficiaries receiving these services.

Based on Medicare-allowed charges, the leading physician specialties were internal medicine ($5.2 billion or 14 percent), ophthalmology ($3.5 billion or 9 percent), radiology $2.9 billion or 8 percent), and cardiovascular disease ($2.5 billion or 7 percent). General practice and family practice together generated allowed charges of $2.6 billion, or 7 percent. Together, the above leading specialties accounted for $16.7 billion, or about 45 percent of all physician and supplier allowed charges ($37.4 billion). Suppliers of services (e.g. ambulance companies, independent laboratories, etc.) accounted for $6.2 billion, or 17 percent of all physician and supplier allowed charges (Figure 7.13).

For all types of physician specialties (including suppliers), the average allowed charge per user was $1,356. By physician specialty, the average allowed charge per user was highest for thoracic surgery ($1,279) and nephrology ($838). The average allowed charge per user was lowest for optometrist services ($80).

In 1990, the average number of physician and supplier services per user was 30.7. The highest averages for number of services per user were for allergy (21.7), nephrology (16.4), and internal medicine (12.7). For

## Table 7.8

## Users, services, submitted and allowed charges, reduction, and balance billing for Medicare physician and supplier services, by type of service: Calendar year 1990

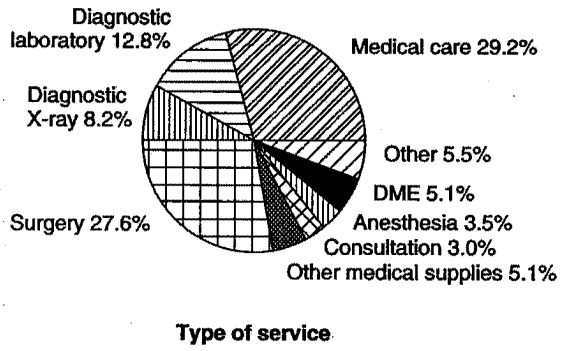
| Type of service | Number of users[3] | Services | | | Submitted charges | | | | Allowed charges | | | Reduction[1] | | Balance billing[2] | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Number in thouands | Percent | Per user | Amount in thousands | Percent | Assigned in thousands | Percent of charges assigned[4] | Amount in thousands | Percent | Per user | Amount in thousands | As percent of submitted charges | Amount in thousands | Percent | Per person with liability |
| Total | 27,553,900 | 845,221 | 100.0 | 30.7 | $56,225,228 | 100.0 | $45,263,633 | 81 | $37,367,589 | 100.0 | $1,356 | $18,857,639 | 34 | $2,322,548 | 100.0 | $156 |
| Medical care | 26,413,620 | 335,583 | 39.7 | 12.7 | 15,367,683 | 27.3 | 11,354,942 | 74 | 10,925,010 | 29.2 | 414 | 4,442,673 | 29 | 662,133 | 28.5 | 52 |
| Diagnostic laboratory | 21,702,820 | 284,595 | 33.7 | 13.1 | 7,715,981 | 13.7 | 6,845,957 | 89 | 4,789,916 | 12.8 | 221 | 2,926,066 | 38 | 189,031 | 8.1 | 42 |
| Diagnostic X-ray | 16,703,040 | 73,625 | 8.7 | 4.4 | 4,669,534 | 8.3 | 3,776,308 | 81 | 3,047,103 | 8.2 | 182 | 1,622,431 | 35 | 145,190 | 6.3 | 31 |
| Surgery | 13,124,640 | 47,978 | 5.7 | 3.7 | 15,844,963 | 28.2 | 12,860,622 | 81 | 10,313,769 | 27.6 | 786 | 5,531,194 | 35 | 720,860 | 31.0 | 199 |
| Other medical services | 6,386,680 | 39,997 | 4.7 | 6.3 | 2,593,700 | 4.6 | 2,078,532 | 80 | 1,890,550 | 5.1 | 296 | 703,150 | 27 | 115,073 | 5.0 | 71 |
| Consultation | 6,108,240 | 13,481 | 1.6 | 2.2 | 1,573,247 | 2.8 | 1,297,748 | 82 | 1,120,243 | 3.0 | 183 | 453,004 | 29 | 52,933 | 2.3 | 36 |
| Anesthesia | 3,969,620 | 6,692 | 0.8 | 1.7 | 2,549,351 | 4.5 | 1,811,583 | 71 | 1,302,114 | 3.5 | 328 | 1,247,237 | 49 | 287,998 | 12.4 | 206 |
| DME[5] | 3,094,920 | 23,365 | 2.8 | 7.5 | 2,527,152 | 4.5 | 2,263,044 | 90 | 1,915,944 | 5.1 | 619 | 611,208 | 24 | 42,862 | 1.8 | 14 |
| Pneumococcal vaccine | 1,523,460 | 1,892 | 0.2 | 1.2 | 21,640 | ([6]) | 13,229 | 61 | 14,162 | ([6]) | 9 | 7,478 | 35 | 2,750 | 0.1 | 6 |
| Assistance at surgery | 874,700 | 1,166 | 0.1 | 1.3 | 654,500 | 1.2 | 544,967 | 83 | 342,321 | 0.9 | 391 | 312,179 | 48 | 40,464 | 1.7 | 222 |
| Ambulatory surgical center (facility usage) | 834,080 | 1,391 | 0.2 | 1.7 | 1,083,838 | 1.9 | 1,001,409 | 92 | 681,267 | 1.8 | 817 | 402,571 | 37 | 14,192 | 0.6 | 332 |
| Radiation therapy | 355,440 | 4,364 | 0.5 | 12.3 | 830,322 | 1.5 | 726,824 | 88 | 547,149 | 1.5 | 1,539 | 283,173 | 34 | 21,031 | 0.9 | 359 |
| Monthly capitation payment (dialysis) | 116,260 | NA | NA | NA | 291,160 | 0.5 | 280,032 | 96 | 159,168 | 0.4 | 1,369 | 131,992 | 45 | 3,106 | 0.1 | NA |
| Surgical second opinion | 29,920 | 33 | ([6]) | 1.1 | 3,735 | ([6]) | 3,008 | 81 | 2,564 | ([6]) | 86 | 1,171 | 31 | 149 | ([6]) | 32 |
| Renal supplies in the home | 69,320 | 531 | 0.1 | 7.7 | 140,929 | 0.3 | 136,108 | 97 | 104,783 | 0.3 | 1,512 | 36,146 | 26 | 422 | ([6]) | 45 |
| Hospice | 3,140 | 15 | ([6]) | 4.8 | 1,075 | ([6]) | 879 | 82 | 762 | ([6]) | 243 | 313 | 29 | 49 | ([6]) | 77 |
| Other[7] | NA | 10,513 | 1.2 | NA | 356,418 | 0.6 | 268,441 | 75 | 210,763 | 0.6 | NA | 145,656 | 41 | 24,306 | 1.0 | NA |

[1]The difference between the physician and supplier submitted charge and the allowed charge approved by Medicare.
[2]Amount of beneficiary cost-sharing liability for the difference between physician and supplier submitted and allowed charges on unassigned claims. The 20-percent coinsurance is not included in amount shown.
[3]Numbers do not add to totals because beneficiaries may use more than one service during the reporting year.
[4]Ratio of assigned submitted charges to total submitted charges. Includes charges for supplier services.
[5]DME is durable medical equipment; includes used DME, purchase of DME (installment basis), rental of DME, and purchase of DME (lump sum payment).
[6]Less than 0.05 percent.
[7]Includes unknown codes, kidney donor services, surgical third opinion, and whole blood and red packed cells.

NOTES: NA is not applicable. Numbers may not add to totals because of rounding.

SOURCE: Health Care Financing Administration, Bureau of Data Management and Strategy: Data from the Medicare Decision Support System; data development by the Office of Research and Demonstrations.

**Figure 7.9**
**Percent distribution of Medicare allowed charges for physician and supplier services, by type of service: Calendar year 1990**




NOTES: "Other" includes ambulatory surgery center services, radiation therapy, assistance at surgery, monthly capitation dialysis services, etc. DME is durable medical equipment.

SOURCE: Health Care Financing Administration, Bureau of Data Management and Strategy: Data from the Medicare Decision Support System; data development by the Office of Research and Demonstrations.

suppliers, the average number of services per user was 11.0.

Based on physician-submitted charges, the highest assignment rates among the leading physician specialties was for nephrology (94 percent). Other physician specialties with high assignment rates were physical medicine and rehabilitation (92 percent) and thoracic surgery (86 percent). In contrast, the lowest assignment rates were recorded for the specialties of chiropractor (50 percent) and oral surgery (dentists only) (57 percent).

For physicians and suppliers who submitted unassigned claims, the average beneficiary balance billing liability per person was $156. By type of specialty, the highest average liability per person was registered for thoracic surgery ($520), neurological surgery ($340), and plastic surgery ($277).

## Area of residence

Among the four U.S. census regions, the average allowed charge incurred per user was highest in the West ($1,477), followed by the Northeast ($1,455), and the South ($1,403) (Table 7.14). The North Central Region had the lowest average allowed charge per user ($1,141), about 19 percent below the national average ($1,356). By division, there was marked variation in the average allowed charge per user. The highest average charge in the Pacific Division ($1,557) was 69 percent higher than that in the West North Central ($920). By State, the average allowed charge ranged from $510 in Nebraska to $1,917 in Florida.

The average number of services per user, by region, was highest in the South (32.5), followed by the Northeast (31.9), the West (30.1), and the North Central (27.7). By division, the number of services ranged from 24.6 in the West North Central Division to 33.1 in the South Atlantic Division, a difference of 35 percent.

Among the census regions, the assignment rate ranged from 77 percent in the West and 78 percent in the North Central Regions, to 81 percent in the South and 85 percent in the Northeast Regions. Among the divisions, the assignment rate ranged from 71 percent in the West North Central to 88 percent in the New England Division. By State, the assignment rate ranged from 50 percent in South Dakota and Idaho to 96 percent in Massachusetts.

Balance billing liability per user on unassigned physician and supplier claims was highest in the West Region ($184), followed by the Northeast ($169), South ($142), and North Central ($139) Regions. Among the Divisions, the average liability ranged from $123 in the East South Central to $194 in the Pacific Division. By State, the average balance billing liability was lowest in Maine ($63) and highest in Alaska ($246).

## Assignment rates, by State: 1983, 1985, 1990

DEFRA 1984 implemented PAR to reduce potential beneficiary liability on unassigned physician claims. Prior to the enactment of DEFRA, Medicare allowed physicians flexibility in how they billed for services covered by Medicare by permitting them to accept assignment on a claim-by-claim basis. Physicians who did not accept assignment could bill patients for the difference (balance billing) between the physicians' submitted charge and the Medicare-allowed charge.

Under DEFRA, participating physician and suppliers who join PAR agree to accept assignment for all Medicare covered services provided to beneficiaries for the duration of the agreement (usually 1 year) and to accept the Medicare-allowed charge as payment in full. Incentives for physician participation include directories of participating physicians, dissemination of names of participating physicians via toll-free telephone numbers, and provision for electronic receipt of claims by carriers.

Non-participating physicians and suppliers who provide covered services to Medicare beneficiaries make assignment decisions on a claim-by-claim basis and may bill Medicare beneficiaries more than the Medicare allowed charge on unassigned claims. On January 1, 1991, physician payment reform legislation of 1989 (PPR) began phasing-in limits on the amount that non-participating physicians can charge Medicare beneficiaries. By 1993, a non-participating physician will not be allowed to charge a Medicare beneficiary more than 115 percent of the amount listed in the MFS.

As shown in Table 7.15, the Medicare assignment rate (based on the ratio of assigned allowed charges to

## Table 7.10

## Users, services, submitted and allowed charges, reduction, and balance billing for Medicare physician services, by place of service: Calendar year 1990

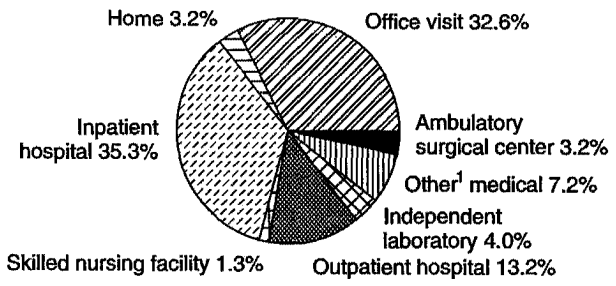
| Place of service | Number of users[2] | Services | | | Submitted charges | | | | Allowed charges | | | Reduction[1] | | Balance billing | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Number in thouands | Percent | Per user | Amount in thousands | Percent | Assigned in thousands | Percent of charges assigned[3] | Amount in thousands | Percent | Per user | Amount in thousands | As percent of submitted charges | Amount in thousands | Percent | Per user with liability |
| Total | 27,553,900 | 845,221 | 100.0 | 30.7 | $56,225,228 | 100.0 | $45,263,633 | 81 | $37,367,589 | 100.0 | $1,356 | $18,857,639 | 34 | $2,322,548 | 100.0 | $156 |
| Office | 25,528,600 | 399,296 | 47.2 | 15.6 | 17,257,845 | 30.7 | 12,299,939 | 71 | 12,180,618 | 32.6 | 477 | 5,077,227 | 29 | 790,690 | 34.0 | 61 |
| Home | 2,110,760 | 17,707 | 2.1 | 8.4 | 1,635,095 | 2.9 | 1,497,832 | 92 | 1,212,276 | 3.2 | 574 | 422,819 | 26 | 21,527 | 0.9 | 69 |
| Inpatient hospital | 8,081,820 | 179,212 | 21.2 | 22.2 | 20,758,717 | 36.9 | 17,094,141 | 82 | 13,191,171 | 35.3 | 1,632 | 7,567,547 | 36 | 1,030,808 | 44.4 | 321 |
| Skilled nursing care facility | 1,677,740 | 14,552 | 1.7 | 8.7 | 697,948 | 1.2 | 600,944 | 86 | 489,680 | 1.3 | 292 | 208,267 | 30 | 11,122 | 0.5 | 38 |
| Outpatient hospital | 13,889,500 | 59,771 | 7.1 | 4.3 | 7,877,533 | 14.0 | 6,627,187 | 84 | 4,946,759 | 13.2 | 356 | 2,930,774 | 37 | 286,664 | 12.3 | 91 |
| Independent laboratory | 12,663,280 | 122,323 | 14.5 | 9.7 | 2,443,644 | 4.3 | 2,364,240 | 97 | 1,478,169 | 4.0 | 117 | 965,475 | 40 | 27,577 | 1.2 | 62 |
| Ambulatory surgical center | 964,680 | 2,568 | 0.3 | 2.7 | 1,910,250 | 3.4 | 1,736,837 | 91 | 1,214,120 | 3.2 | 1,259 | 696,130 | 36 | 31,469 | 1.4 | 290 |
| Hospice | 3,500 | 16 | ([4]) | 4.5 | 1,125 | ([4]) | 924 | 82 | 801 | ([4]) | 229 | 324 | 29 | 52 | ([4]) | 77 |
| Nursing home | 1,412,500 | 10,961 | 1.3 | 7.8 | 387,667 | 0.7 | 332,144 | 86 | 258,373 | 0.7 | 183 | 129,293 | 33 | 5,935 | 0.3 | 34 |
| All other | 5,257,000 | 38,816 | 4.6 | 7.4 | 3,255,403 | 5.8 | 2,709,445 | 83 | 2,395,620 | 6.4 | 456 | 859,784 | 26 | 116,703 | 5.0 | NA |

[1]The difference between the physician and supplier submitted charge and the allowed charge approved by Medicare.
[2]Numbers do not add to totals because one person may have more than one service during the reporting year.
[3]Ratio of assigned submitted charges to total submitted charges. Includes charges for supplier services.
[4]Less than 0.05 percent.

NOTES: NA is not applicable. All other includes independent kidney disease treatment center, other codes, and unknown codes not shown separately. Numbers may not add to totals because of rounding.

SOURCE: Health Care Financing Administration, Bureau of Data Management and Strategy: Data from the Medicare Decision Support System; data development by the Office of Research and Demonstrations.

**Figure 7.11**
**Percent distribution of Medicare allowed charges for physician and related services, by place of service: Calendar year 1990**




[1]"Other" includes independent kidney disease treatment center, nursing home, hospice care, etc.

SOURCE: Health Care Financing Administration, Bureau of Data Management and Strategy: Data from the Medicare Decision Support System; data development by the Office of Research and Demonstrations.

total allowed charges) on physician and supplier claims has risen substantially as a result of PAR. Generally, a higher assignment rate reduces the beneficiary out-of-pocket liability. The annual assignment rate increased from 51 percent in 1983 to 67 percent in 1985, and then to 82 percent in 1990.

There was substantial variability in the assignment rate by State of residence of the Medicare beneficiary (Figure 7.16). For example, the assignment rate during 1990 ranged from 45 percent in South Dakota to 98 percent in Massachusetts. (Massachusetts, Pennsylvania, and Rhode Island have laws requiring physicians and suppliers to accept assignment on all Medicare claims.) Nationally, the assignment rate was 82 percent. The assignment rates in Table 7.15 were calculated based on the ratio of assigned allowed charges to total allowed charges.

The ratio of Medicare physician-submitted charges to allowed charges increased from 1.31 in 1983 to 1.38 in 1985, and then to 1.51 in 1990. This indicates that there has been an increasing differential between the physicians' submitted charge and the Medicare allowed charge since the inception of PAR. By State, in 1990, the ratio of submitted charges to allowed charges ranged from a low of 1.39 in Montana, Nebraska, and Washington to a high of 1.81 in Rhode Island.

## Leading Medicare physician codes: 1990

Since 1985, all Medicare carriers have been required to use the HCFA's Common Procedure Coding System (HCPCS). HCPCS describes physician and non-physician services and supplies. It was developed to satisfy the operational needs, such as claims processing and payment, of the Medicare and Medicaid programs, and to improve communication and efficiency among providers and payers.

HCPCS was designed with three levels of codes and modifiers. The first level—national codes—contains only the American Medical Association's *Current Procedural Terminology, 4th Edition* (CPT-4) codes and modifiers; these are all 5-digit numeric codes. The second level—national assignment—contains the codes and modifiers for physician and non-physician services that are not included in CPT-4. These include ambulance, audiology, physical therapy, speech pathology, and vision care, and such supplies as drugs, durable medical equipment, orthotics, and prosthetics and other medical and surgical supplies. These codes are alpha-numeric: The first digit is a letter ranging from A to V followed by four numbers. The third level—local assignment—contains the codes and modifiers for services needed by the individual carrier or State agency to process Medicare and Medicaid claims, and are used for services that are not contained in either of the first two levels. The local codes are also alpha-numeric, but the first digit must be a letter ranging from W to Z followed by four numbers. These codes are not used for items and services not having the frequency of use or general applicability to justify a national code.

More than 10,000 different HCPCS codes are available to physicians and suppliers for billing services covered under SMI. However, a relatively small number of HCPCS codes account for the majority of total allowed charges for Medicare physician and supplier covered services. In 1990, the leading 100 HCPCS codes, based on the amount of allowed charges, accounted for almost 56 percent ($20.8 billion) of all Medicare physician and supplier allowed charges ($37.4 billion).

The 100 leading HCPCS codes that appear in Table 7.17 were selected based on the amount of allowed Medicare physician and supplier charges in 1990. Table 7.17 arrays these codes by the 5 major CPT-4 sections (Medicine; Anesthesiology; Surgery; Radiology; and Pathology and Laboratory) and a sixth major section showing the alpha-numeric codes that supplement CPT-4. Within these major sections, the procedures and services are classified by 63 selected HCPCS code groupings. The individual procedures and services along with their identifying codes are presented in numeric order with one exception: The entire Medicine section (90000 series of codes) has been placed at the beginning of the list just as it appears in CPT-4. Physicians use codes in the Medicine section in reporting a significant portion of their services.

## Table 7.12

## Users, services, submitted and allowed charges, reduction, and balance billing for Medicare physician and supplier services, by physician specialty: Calendar year 1990

| Physician specialty[2] | Number of users[3] | Services | | | Submitted charges | | | | Allowed charges | | | Reduction[1] | | Balance billing | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Number in thouands | Percent | Per user | Amount in thousands | Percent | Assigned in thousands | Percent of charges assigned[4] | Amount in thousands | Percent | Per user | Amount in thousands | As percent of submitted charges | Amount in thousands | Percent | Per user with liability |
| Total, all specialties | 27,553,900 | 845,221 | 100.0 | 30.7 | $56,225,228 | 100.0 | $45,263,633 | 81 | $37,367,589 | 100.0 | $1,356 | $18,857,639 | 34 | $2,322,548 | 100.0 | $156 |
| General practice | 6,266,260 | 43,998 | 5.2 | 7.0 | 1,623,747 | 2.9 | 1,196,368 | 74 | 1,090,744 | 2.9 | 174 | 533,003 | 33 | 71,600 | 3.1 | 42 |
| General surgery | 3,959,800 | 17,176 | 2.0 | 4.3 | 3,179,877 | 5.7 | 2,628,824 | 83 | 1,986,192 | 5.3 | 502 | 1,193,685 | 38 | 138,577 | 6.0 | 166 |
| Allergy | 209,220 | 4,533 | 0.5 | 21.7 | 70,966 | 0.1 | 46,079 | 65 | 51,309 | 0.1 | 245 | 19,657 | 28 | 5,606 | 0.2 | 68 |
| Otology, laryngology, rhinology | 2,228,100 | 7,047 | 0.8 | 3.5 | 589,037 | 1.0 | 432,183 | 73 | 377,252 | 1.0 | 169 | 211,786 | 36 | 36,463 | 1.6 | 51 |
| Anesthesiology | 3,675,300 | 6,646 | 0.8 | 1.8 | 2,301,638 | 4.1 | 1,544,359 | 67 | 1,207,689 | 3.2 | 329 | 1,093,950 | 48 | 289,722 | 12.5 | 215 |
| Cardiovascular disease | 6,095,540 | 43,699 | 5.2 | 7.2 | 3,709,056 | 6.6 | 3,119,280 | 84 | 2,538,598 | 6.8 | 416 | 1,170,459 | 32 | 115,699 | 5.0 | 108 |
| Dermatology | 3,024,040 | 15,936 | 1.9 | 5.3 | 794,832 | 1.4 | 579,477 | 73 | 585,574 | 1.6 | 194 | 209,258 | 26 | 31,835 | 1.4 | 35 |
| Family practice | 7,901,100 | 71,791 | 8.5 | 9.1 | 2,207,019 | 3.9 | 1,522,873 | 69 | 1,537,320 | 4.1 | 195 | 669,699 | 30 | 115,954 | 5.0 | 38 |
| Gastroenterology | 1,658,620 | 8,580 | 1.0 | 5.2 | 1,132,181 | 2.0 | 960,122 | 85 | 810,820 | 2.2 | 489 | 321,361 | 28 | 30,470 | 1.3 | 97 |
| Internal medicine | 13,545,700 | 171,690 | 20.3 | 12.7 | 7,439,295 | 13.2 | 5,593,860 | 75 | 5,178,603 | 13.9 | 382 | 2,260,692 | 30 | 340,551 | 14.7 | 65 |
| Manipulative therapy (osteopaths only) | 99,020 | 884 | 0.1 | 8.9 | 27,779 | (5) | 18,655 | 67 | 18,753 | 0.1 | 189 | 9,026 | 32 | 1,478 | 0.1 | 48 |
| Neurology | 1,695,400 | 7,978 | 0.9 | 4.7 | 628,295 | 1.1 | 510,753 | 81 | 430,505 | 1.2 | 254 | 197,790 | 31 | 25,238 | 1.1 | 66 |
| Neurological surgery | 389,500 | 1,325 | 0.2 | 3.4 | 459,496 | 0.8 | 367,527 | 80 | 272,024 | 0.7 | 698 | 187,471 | 41 | 30.374 | 1.3 | 340 |
| Obstetrics and gynecology | 1,419,620 | 4,246 | 0.5 | 3.0 | 385,377 | 0.7 | 281,000 | 73 | 226,182 | 0.6 | 159 | 159,196 | 41 | 29,253 | 1.3 | 73 |
| Ophthalmology | 8,868,560 | 27,347 | 3.2 | 3.1 | 5,132,529 | 9.1 | 4,171,322 | 81 | 3,525,662 | 9.4 | 398 | 1,606,868 | 31 | 146,955 | 6.3 | 66 |
| Oral surgery (dentists only) | 75,140 | 157 | (5) | 2.1 | 23,938 | (5) | 13,614 | 57 | 14,866 | (5) | 198 | 9,071 | 38 | 3,588 | 0.2 | 141 |
| Orthopedic surgery | 2,874,780 | 14,288 | 1.7 | 5.0 | 2,370,448 | 4.2 | 1,784,782 | 75 | 1,500,349 | 4.0 | 522 | 870,099 | 37 | 147,447 | 6.3 | 183 |
| Pathology | 4,073,620 | 10,084 | 1.2 | 2.5 | 665,842 | 1.2 | 553,489 | 83 | 412,127 | 1.1 | 101 | 253,715 | 38 | 32,032 | 1.4 | 49 |
| Plastic surgery | 313,880 | 1,183 | 0.1 | 3.8 | 278,244 | 0.5 | 226,957 | 82 | 152,139 | 0.4 | 485 | 126,104 | 45 | 18,096 | 0.8 | 277 |
| Physical medicine and rehabilitation | 446,680 | 4,335 | 0.5 | 9.7 | 248,797 | 0.4 | 229,462 | 92 | 156,737 | 0.4 | 351 | 92,060 | 37 | 4,859 | 0.2 | 124 |
| Psychiatry | 938,540 | 10,085 | 1.2 | 10.7 | 731,045 | 1.3 | 614,096 | 84 | 454,499 | 1.2 | 484 | 276,546 | 38 | 31,966 | 1.4 | 180 |
| Proctology | 162,060 | 520 | 0.1 | 3.2 | 97,045 | 0.2 | 69,169 | 71 | 62,908 | 0.2 | 388 | 34,138 | 35 | 7,005 | 0.3 | 143 |
| Pulmonary disease | 1,228,080 | 11,492 | 1.4 | 9.4 | 737,559 | 1.3 | 628,545 | 85 | 511,382 | 1.4 | 416 | 226,177 | 31 | 22,318 | 1.0 | 90 |
| Radiology | 13,968,440 | 63,807 | 7.5 | 4.6 | 4,523,266 | 8.0 | 3,785,704 | 84 | 2,945,031 | 7.9 | 211 | 1,578,235 | 35 | 118,267 | 5.1 | 39 |
| Thoracic surgery | 744,840 | 2,571 | 0.3 | 3.5 | 1,485,525 | 2.6 | 1,282,665 | 86 | 952,400 | 2.5 | 1,279 | 533,124 | 36 | 52,825 | 2.3 | 520 |
| Urology | 2,688,940 | 17,155 | 2.0 | 6.4 | 1,648,808 | 2.9 | 1,212,647 | 74 | 1,108,788 | 3.0 | 412 | 540,020 | 33 | 97,324 | 4.2 | 109 |
| Chiropractor, licensed | 1,064,360 | 9,499 | 1.1 | 8.9 | 212,037 | 0.4 | 106,192 | 50 | 166,172 | 0.4 | 156 | 45,865 | 22 | 17,359 | 0.7 | 32 |
| Nuclear medicine | 226,780 | 507 | 0.1 | 2.2 | 64,008 | 0.1 | 54,435 | 85 | 40,315 | 0.1 | 178 | 23,693 | 37 | 2,116 | 0.1 | 57 |
| Pediatrics | 139,100 | 876 | 0.1 | 6.3 | 38,586 | 0.1 | 32,289 | 84 | 24,966 | 0.1 | 179 | 13,620 | 35 | 914 | (5) | 45 |
| Geriatrics | 72,100 | 567 | 0.1 | 7.9 | 21,601 | (5) | 16,185 | 75 | 15,206 | (5) | 211 | 6,395 | 30 | 711 | (5) | 42 |
| Nephrology | 462,780 | 7,599 | 0.9 | 16.4 | 640,103 | 1.1 | 599,263 | 94 | 387,749 | 1.0 | 838 | 252,355 | 39 | 8,911 | 0.4 | 127 |
| Hand surgery | 24,520 | 133 | (5) | 5.4 | 16,531 | (5) | 12,454 | 75 | 9,635 | (5) | 393 | 6,896 | 42 | 1,306 | 0.1 | 196 |
| Optometrist | 2,578,720 | 6,388 | 0.8 | 2.5 | 250,220 | 0.4 | 174,065 | 70 | 206,417 | 0.6 | 80 | 43,803 | 18 | 7,762 | 0.3 | 22 |

See footnotes at end of table.

## Table 7.12—Continued

## Users, services, submitted and allowed charges, reduction, and balance billing for Medicare physician and supplier services, by physician specialty: Calendar year 1990

| Physician specialty[2] | Services | | | Submitted charges | | | | Allowed charges | | | Reduction[1] | | Balance billing | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Number of users[3] | Number in thouands | Percent | Per user | Amount in thousands | Percent | Assigned in thousands | Percent of charges assigned[4] | Amount in thousands | Percent | Per user | Amount in thousands | As percent of submitted charges | Amount in thousands | Percent | Per user with liability |
| Infectious disease | 185,940 | 1,824 | 0.2 | 9.8 | $100,438 | 0.2 | $84,856 | 84 | $68,452 | 0.2 | 368 | $31,986 | 32 | $3,171 | 0.1 | $103 |
| Podiatry—surgical chiropody | 3,760,860 | 19,621 | 2.3 | 5.2 | 868,617 | 1.5 | 704,214 | 81 | 627,880 | 1.7 | 167 | 240,737 | 28 | 20,091 | 0.9 | 28 |
| Multispecialty clinic or group practice[6] | 5,278,500 | 35,309 | 4.2 | 6.7 | 2,281,119 | 4.1 | 1,828,136 | 80 | 1,441,731 | 3.9 | 273 | 839,388 | 37 | 95,467 | 4.1 | 103 |
| Suppliers services[7] | 17,350,140 | 191,450 | 22.7 | 11.0 | 9,126,240 | 16.2 | 8,183,008 | 90 | 6,201,656 | 16.6 | 357 | 2,924,584 | 32 | 215,448 | 9.3 | 21 |
| Other[8] | 471,080 | 2,895 | 0.3 | 6.1 | 114,087 | 0.2 | 94,723 | 83 | 68,957 | 0.2 | 146 | 45,127 | 40 | 3,430 | 0.1 | 65 |

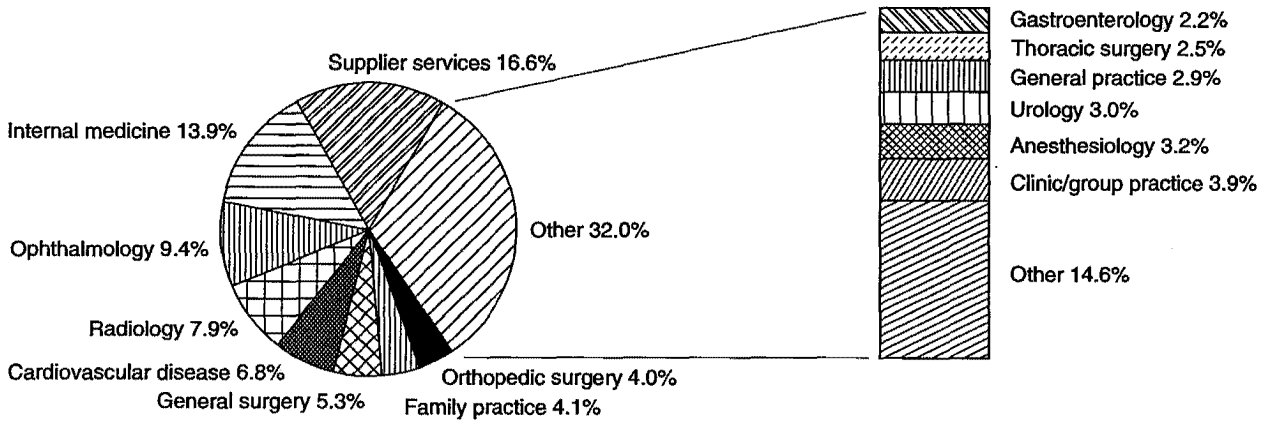
[1]The difference between the physician and supplier submitted charge and the allowed charge approved by Medicare.
[2]Refers to physician specialty code as defined in the Health Care Financing Administration's Part B Medicare annual data users' manual prepared by the Office of Statistics and Data Management.
[3]Numbers do not add to totals because one person may have more than one service during the reporting year.
[4]Ratio of assigned submitted charges to total submitted charges. Includes charges for supplier services.
[5]Less than 0.05 percent.
[6]Denotes group practice prepayment plans.
[7]Represents supplier services provided by medical supply companies, ambulance service suppliers, independent laboratories (billing independently), portable X-ray suppliers (billing independently), voluntary health, or charitable agencies, etc.
[8]Includes endocrinology, cardiac surgery, and maxillofacial surgery, unknown and invalid codes.

NOTE: Numbers may not add to totals because of rounding.

SOURCE: Health Care Financing Administration, Bureau of Data Management and Strategy: Data from the Medicare Decision Support System; data development by the Office of Research and Demonstrations.

**Figure 7.13**

**Percent distribution of Medicare allowed charges for physician and supplier services, by type of physician specialty: Calendar year 1990**




NOTE: Total allowed charges are equal to $37.4 billion.

SOURCE: Health Care Financing Administration, Bureau of Data Management and Strategy: Data are from the Medicare Decision Support System; data development by the Office of Research and Demonstrations.

Procedures in the Medicine section accounted for about 38 percent ($14.3 billion) of all Medicare-allowed charges for physician and supplier services ($37.4 billion) in 1990. The majority of these were visits to physicians in their offices and physician follow-up visits to hospital inpatients. The most common medicine procedure was an intermediate office visit (HCPCS code 90060), which accounted for $1.4 billion or 10 percent of all allowed charges for medicine procedures. The five leading medicine HCPCS codes (Figure 7.18) accounted for almost $5 billion in Medicare-allowed charges, which represents 35 percent of all allowed charges for medicine procedures, and about 13 percent of total Medicare-allowed charges for physician and supplier procedures.

Procedures in the Surgery section accounted for about 29 percent ($10.8 billion) of all Medicare-allowed charges for physician and supplier services. The top two surgical procedures were cataract procedures: "extracapsular cataract removal with insertion of lens" (code 66984) and "laser surgery, secondary cataract" (code 66821) (Figure 7.19). These two procedures accounted for $2.2 billion in Medicare allowed charges (20 percent of all Medicare allowed charges for surgery). Other leading surgical procedures were transurethral resection of the prostate (code 52601), total knee replacement (code 27447), and diagnostic colonoscopy (code 45378).

Procedures in the Anesthesiology section accounted for only about 3.5 percent ($1.3 billion) of all Medicare-allowed charges for physician and supplier services. The leading anesthesiology procedure was anesthesia for lens surgery (code 00142).

Procedures in the Radiology section accounted for 10.2 percent ($3.8 billion) of total Medicare-allowed charges for physician and supplier services. Chest X-rays (radiologic examination, chest, two views, frontal and lateral, code 71020) and (radiologic examination, chest, single view, frontal, code 71010) accounted for 15 percent ($0.57 billion) of all radiology allowed charges. Mammography represented an additional $0.15 billion (4 percent) in allowed radiology charges.

Procedures in the Pathology and Laboratory section accounted for 6.9 percent ($2.6 billion) of total Medicare-allowed physician and supplier charges. The leading procedures in this section were automated multichannel chemical test (code 80019) and surgical pathology, level 3 (code 88304) and level 4 (code 88305). Together these three procedures accounted for $0.5 billion or 18 percent of all pathology and laboratory allowed charges.

## Table 7.14

## Users, services, submitted and allowed charges, reduction, and balance billing for Medicare physician and supplier services, by area of residence: Calendar year 1990

| Area of residence | Services | | | Submitted charges | | | Allowed charges | | | Reduction[1] | | Balanced billing | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Number of users[2] | Number in thousands | Percent | Per user | Amount in thousands | Percent | Assigned amount in thousands | Percent of charges assigned[3] | Amount in thousands | Percent | Per user | Amount in thousands | As percent of submitted charges | Amount in thousands | Percent | Per person with liability |
| All areas | 27,553,900 | 845,221 | 100.0 | 30.7 | $56,225,228 | 100.0 | $45,263,633 | 81 | $37,367,589 | 100.0 | $1,356 | $18,857,639 | 34 | $2,322,548 | 100.0 | $156 |
| United States[4] | 26,943,900 | 828,144 | 98.0 | 30.7 | 55,087,114 | 98.0 | 44,462,278 | 81 | 36,643,068 | 98.1 | 1,360 | 18,444,045 | 33 | 2,235,633 | 96.3 | 153 |
| Northeast | 6,038,900 | 192,346 | 22.8 | 31.9 | 13,818,251 | 24.6 | 11,800,734 | 85 | 8,783,643 | 23.5 | 1,455 | 5,034,607 | 36 | 460,642 | 19.8 | 169 |
| North Central | 6,871,640 | 190,646 | 22.6 | 27.7 | 11,533,759 | 20.5 | 8,959,883 | 78 | 7,843,053 | 21.0 | 1,141 | 3,690,706 | 32 | 554,337 | 23.9 | 139 |
| South | 9,582,100 | 311,145 | 36.8 | 32.5 | 20,142,550 | 35.8 | 16,317,868 | 81 | 13,440,070 | 36.0 | 1,403 | 6,702,479 | 33 | 759,629 | 32.7 | 142 |
| West | 4,451,220 | 134,003 | 15.9 | 30.1 | 9,592,412 | 17.1 | 7,383,650 | 77 | 6,576,215 | 17.6 | 1,477 | 3,016,197 | 31 | 461,025 | 19.8 | 184 |
| New England | 1,562,580 | 46,239 | 5.5 | 29.6 | 3,127,466 | 5.6 | 2,744,469 | 88 | 1,933,329 | 5.2 | 1,237 | 1,194,137 | 38 | 70,375 | 3.0 | 133 |
| Connecticut | 390,760 | 12,156 | 1.4 | 31.1 | 840,725 | 1.5 | 627,096 | 75 | 554,179 | 1.5 | 1,418 | 286,546 | 34 | 43,519 | 1.9 | 173 |
| Maine | 160,440 | 3,827 | 0.5 | 23.9 | 229,435 | 0.4 | 205,431 | 90 | 149,899 | 0.4 | 934 | 79,536 | 35 | 3,954 | 0.2 | 63 |
| Massachusetts | 697,320 | 21,554 | 2.6 | 30.9 | 1,515,191 | 2.7 | 1,457,381 | 96 | 906,832 | 2.4 | 1,300 | 608,360 | 40 | 5,955 | 0.3 | 82 |
| New Hampshire | 115,920 | 2,994 | 0.4 | 25.8 | 167,347 | 0.3 | 126,929 | 76 | 108,011 | 0.3 | 932 | 59,336 | 35 | 9,473 | 0.4 | 118 |
| Rhode Island | 133,920 | 4,357 | 0.5 | 32.5 | 291,033 | 0.5 | 254,404 | 87 | 161,723 | 0.4 | 1,208 | 129,310 | 44 | 5,464 | 0.2 | 154 |
| Vermont | 64,220 | 1,352 | 0.2 | 21.0 | 83,734 | 0.1 | 73,229 | 87 | 52,685 | 0.1 | 820 | 31,049 | 37 | 2,010 | 0.1 | 77 |
| Middle Atlantic | 4,476,320 | 146,107 | 17.3 | 32.6 | 10,690,785 | 19.0 | 9,056,265 | 85 | 6,850,315 | 18.3 | 1,530 | 3,840,471 | 36 | 390,267 | 16.8 | 177 |
| New Jersey | 916,440 | 29,225 | 3.5 | 31.9 | 2,043,660 | 3.6 | 1,560,113 | 76 | 1,354,556 | 3.6 | 1,478 | 689,105 | 34 | 124,905 | 5.4 | 191 |
| New York | 1,961,400 | 65,195 | 7.7 | 33.2 | 4,726,275 | 8.4 | 3,796,835 | 80 | 3,082,902 | 8.3 | 1,572 | 1,643,373 | 35 | 224,577 | 9.7 | 212 |
| Pennsylvania | 1,598,480 | 51,687 | 6.1 | 32.3 | 3,920,850 | 7.0 | 3,699,318 | 94 | 2,412,857 | 6.5 | 1,509 | 1,507,993 | 38 | 40,784 | 1.8 | 84 |
| East North Central | 4,770,400 | 138,902 | 16.4 | 29.1 | 8,702,350 | 15.5 | 6,954,480 | 80 | 5,909,779 | 15.8 | 1,239 | 2,792,571 | 32 | 365,232 | 15.7 | 137 |
| Illinois | 1,210,740 | 32,581 | 3.9 | 26.9 | 2,150,641 | 3.8 | 1,598,527 | 74 | 1,508,034 | 4.0 | 1,246 | 642,607 | 30 | 131,173 | 5.6 | 168 |
| Indiana | 638,440 | 16,733 | 2.0 | 26.2 | 1,044,206 | 1.9 | 776,890 | 74 | 700,988 | 1.9 | 1,098 | 343,218 | 33 | 54,031 | 2.3 | 131 |
| Michigan | 1,075,920 | 37,481 | 4.4 | 34.8 | 2,386,622 | 4.2 | 2,110,275 | 88 | 1,535,396 | 4.1 | 1,427 | 851,226 | 36 | 37,762 | 1.6 | 102 |
| Ohio | 1,226,240 | 35,916 | 4.2 | 29.3 | 2,219,337 | 3.9 | 1,830,418 | 82 | 1,541,026 | 4.1 | 1,257 | 678,311 | 31 | 83,983 | 3.6 | 120 |
| Wisconsin | 619,060 | 16,191 | 1.9 | 26.2 | 901,544 | 1.6 | 638,371 | 71 | 624,335 | 1.7 | 1,009 | 277,208 | 31 | 58,284 | 2.5 | 144 |
| West North Central | 2,101,240 | 51,744 | 6.1 | 24.6 | 2,831,409 | 5.0 | 2,005,403 | 71 | 1,933,274 | 5.2 | 920 | 898,136 | 32 | 189,105 | 8.1 | 145 |
| Iowa | 401,100 | 10,071 | 1.2 | 25.1 | 498,558 | 0.9 | 360,600 | 72 | 340,973 | 0.9 | 850 | 157,585 | 32 | 31,387 | 1.4 | 125 |
| Kansas | 282,700 | 5,187 | 0.6 | 18.3 | 310,755 | 0.6 | 262,255 | 84 | 209,148 | 0.6 | 740 | 101,607 | 33 | 9,012 | 0.4 | 93 |
| Minnesota | 403,440 | 10,110 | 1.2 | 25.1 | 542,861 | 1.0 | 323,941 | 60 | 359,421 | 1.0 | 891 | 183,440 | 34 | 60,900 | 2.6 | 192 |
| Missouri | 654,320 | 18,586 | 2.2 | 28.4 | 1,090,456 | 1.9 | 813,066 | 75 | 755,646 | 2.0 | 1,155 | 334,810 | 31 | 54,362 | 2.3 | 127 |
| Nebraska | 179,180 | 2,965 | 0.4 | 16.6 | 126,546 | 0.2 | 91,987 | 73 | 91,297 | 0.2 | 510 | 35,249 | 28 | 6,679 | 0.3 | 81 |
| North Dakota | 87,060 | 2,419 | 0.3 | 27.8 | 136,367 | 0.2 | 90,755 | 67 | 88,512 | 0.2 | 1,017 | 47,855 | 35 | 10,968 | 0.5 | 197 |
| South Dakota | 93,440 | 2,407 | 0.3 | 25.8 | 135,866 | 0.2 | 62,798 | 50 | 88,277 | 0.2 | 945 | 37,588 | 30 | 15,797 | 0.7 | 203 |
| South Atlantic | 5,091,440 | 168,309 | 19.9 | 33.1 | 11,298,693 | 20.1 | 9,195,237 | 81 | 7,511,281 | 20.1 | 1,475 | 3,787,412 | 34 | 393,049 | 16.9 | 136 |
| Delaware | 75,200 | 2,025 | 0.3 | 26.9 | 155,632 | 0.3 | 140,985 | 91 | 95,385 | 0.3 | 1,268 | 60,246 | 39 | 2,861 | 0.1 | 71 |
| District of Columbia | 59,340 | 2,303 | 0.3 | 38.8 | 181,414 | 0.3 | 166,299 | 92 | 108,576 | 0.3 | 1,830 | 72,838 | 40 | 3,332 | 0.1 | 182 |
| Florida | 1,917,640 | 76,180 | 9.0 | 39.7 | 5,348,024 | 9.5 | 4,331,506 | 81 | 3,676,571 | 9.8 | 1,917 | 1,671,454 | 31 | 177,050 | 7.6 | 161 |
| Georgia | 626,040 | 19,346 | 2.3 | 30.9 | 1,253,953 | 2.2 | 1,015,620 | 81 | 839,012 | 2.2 | 1,340 | 414,941 | 33 | 46,065 | 2.0 | 137 |
| Maryland | 452,520 | 14,860 | 1.8 | 32.8 | 1,140,658 | 2.0 | 998,165 | 88 | 714,271 | 1.9 | 1,578 | 426,386 | 37 | 26,897 | 1.2 | 127 |
| North Carolina | 765,720 | 20,161 | 2.4 | 26.3 | 1,203,633 | 2.1 | 933,163 | 78 | 775,406 | 2.1 | 1,013 | 428,226 | 36 | 52,650 | 2.3 | 106 |
| South Carolina | 379,420 | 10,484 | 1.2 | 27.6 | 574,511 | 1.0 | 470,959 | 82 | 375,022 | 1.0 | 988 | 199,489 | 35 | 17,237 | 0.7 | 77 |
| Virginia | 594,900 | 16,986 | 2.0 | 28.6 | 1,038,094 | 1.8 | 776,105 | 75 | 669,640 | 1.8 | 1,126 | 368,454 | 35 | 58,132 | 2.5 | 156 |
| West Virginia | 220,660 | 5,965 | 0.7 | 27.0 | 402,774 | 0.7 | 362,436 | 90 | 257,396 | 0.7 | 1,166 | 145,377 | 36 | 8,824 | 0.4 | 111 |

See footnotes at end of table.

## Table 7.14—Continued

## Users, services, submitted and allowed charges, reduction, and balance billing for Medicare physician and supplier services, by area of residence: Calendar year 1990

| Area of residence | Number of users[2] | Services | | | Submitted charges | | | | Allowed charges | | | Reduction[1] | | Balanced billing | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Number in thouands | Percent | Per user | Amount in thousands | Percent | Assigned amount in thousands | Percent of charges assigned[3] | Amount in thousands | Percent | Per user | Amount in thousands | As percent of submitted charges | Amount in thousands | Percent | Per person with liability |
| East South Central | 1,828,460 | 56,334 | 6.7 | 30.8 | $3,319,245 | 5.9 | $2,715,915 | 82 | $2,187,676 | 5.9 | $1,196 | $1,131,569 | 34 | $113,466 | 4.9 | $123 |
| Alabama | 495,360 | 15,313 | 1.8 | 30.9 | 968,559 | 1.7 | 844,956 | 87 | 627,436 | 1.7 | 1,267 | 341,123 | 35 | 18,360 | 0.8 | 109 |
| Kentucky | 440,520 | 14,036 | 1.7 | 31.9 | 793,623 | 1.4 | 657,853 | 83 | 533,988 | 1.4 | 1,212 | 259,635 | 33 | 24,401 | 1.1 | 105 |
| Mississippi | 302,040 | 8,969 | 1.1 | 29.7 | 525,363 | 0.9 | 372,339 | 71 | 338,137 | 0.9 | 1,120 | 187,226 | 36 | 34,677 | 1.5 | 183 |
| Tennessee | 590,540 | 18,016 | 2.1 | 30.5 | 1,031,699 | 1.8 | 840,766 | 81 | 688,115 | 1.8 | 1,165 | 343,585 | 33 | 36,028 | 1.6 | 109 |
| West South Central | 2,662,200 | 86,501 | 10.2 | 32.5 | 5,524,612 | 9.8 | 4,406,716 | 80 | 3,741,113 | 10.0 | 1,405 | 1,783,499 | 32 | 253,114 | 10.9 | 162 |
| Arkansas | 339,360 | 10.411 | 1.2 | 30.7 | 609,265 | 1.1 | 503,391 | 83 | 408,402 | 1.1 | 1,203 | 200,863 | 33 | 13,942 | 0.6 | 96 |
| Louisiana | 436,260 | 15,425 | 1.8 | 35.4 | 992,736 | 1.8 | 818,859 | 82 | 657,754 | 1.8 | 1,508 | 334,982 | 34 | 29,574 | 1.3 | 138 |
| Oklahoma | 385,120 | 11,465 | 1.4 | 29.8 | 684,308 | 1.2 | 479,977 | 70 | 460,104 | 1.2 | 1,195 | 224,204 | 33 | 47,855 | 2.1 | 182 |
| Texas | 1,501,460 | 49,201 | 5.8 | 32.8 | 3,238,303 | 5.8 | 2,604,488 | 80 | 2,214,853 | 5.9 | 1,475 | 1,023,450 | 32 | 161,743 | 7.0 | 173 |
| Mountain | 1,264,440 | 37,442 | 4.4 | 29.6 | 2,323,744 | 4.1 | 1,699,145 | 73 | 1,612,854 | 4.3 | 1,276 | 710,890 | 31 | 132,410 | 5.7 | 163 |
| Arizona | 379,600 | 12,332 | 1.5 | 32.5 | 846,400 | 1.5 | 640,021 | 76 | 600,054 | 1.6 | 1,581 | 246,346 | 29 | 41,839 | 1.8 | 177 |
| Colorado | 263,240 | 9,389 | 1.1 | 35.7 | 430,016 | 0.8 | 298,690 | 70 | 287,145 | 0.8 | 1,091 | 142,871 | 33 | 28,747 | 1.2 | 167 |
| Idaho | 113,720 | 2,619 | 0.3 | 23.0 | 148,782 | 0.3 | 73,735 | 50 | 106,807 | 0.3 | 939 | 41,975 | 28 | 18,592 | 0.8 | 190 |
| Montana | 97,840 | 2,096 | 0.2 | 21.4 | 127,583 | 0.2 | 72,358 | 57 | 92,407 | 0.2 | 944 | 35,175 | 28 | 12,129 | 0.5 | 156 |
| Nevada | 104,020 | 3,331 | 0.4 | 32.0 | 293,612 | 0.5 | 262,497 | 89 | 197,254 | 0.5 | 1,896 | 96,358 | 33 | 4,899 | 0.2 | 139 |
| New Mexico | 134,400 | 3,617 | 0.4 | 26.9 | 236,647 | 0.4 | 181,195 | 77 | 162,537 | 0.4 | 1,209 | 74,110 | 31 | 11,607 | 0.5 | 147 |
| Utah | 131,880 | 3,127 | 0.4 | 23.7 | 189,129 | 0.3 | 142,250 | 75 | 130,074 | 0.3 | 986 | 59,055 | 31 | 8,814 | 0.4 | 110 |
| Wyoming | 39,740 | 932 | 0.1 | 23.5 | 51,575 | 0.1 | 28,198 | 55 | 36,576 | 0.1 | 920 | 14,999 | 29 | 5,783 | 0.2 | 180 |
| Pacific | 3,186,780 | 96,561 | 11.4 | 30.3 | 7,268,668 | 12.9 | 5,684,506 | 78 | 4,963,361 | 13.3 | 1,557 | 2,305,307 | 32 | 328,615 | 14.1 | 194 |
| Alaska | 18,240 | 453 | 0.1 | 24.8 | 39,203 | 0.1 | 29,131 | 74 | 27,325 | 0.1 | 1,498 | 11,878 | 30 | 2,273 | 0.1 | 246 |
| California | 2,317,220 | 72,356 | 8.6 | 31.2 | 5,770,150 | 10.3 | 4,694,200 | 81 | 3,899,873 | 10.4 | 1,683 | 1,870,276 | 32 | 212,531 | 9.2 | 198 |
| Hawaii | 77,520 | 2,073 | 0.2 | 26.7 | 163,070 | 0.3 | 129,823 | 80 | 101,273 | 0.3 | 1,306 | 61,797 | 38 | 6,879 | 0.3 | 213 |
| Oregon | 295,380 | 7,471 | 0.9 | 25.3 | 438,061 | 0.8 | 271,975 | 62 | 314,160 | 0.8 | 1,064 | 123,901 | 28 | 35,880 | 1.5 | 162 |
| Washington | 478,420 | 14,207 | 1.7 | 29.7 | 858,184 | 1.5 | 559,377 | 65 | 620,730 | 1.7 | 1,297 | 237,454 | 28 | 71,051 | 3.1 | 198 |
| All other areas[5] | 610,000 | 17,077 | 2.0 | 28.0 | 1,138,114 | 2.0 | 801,355 | 70 | 724,520 | 1.9 | 1,188 | 413,594 | 36 | 86,915 | 3.7 | 273 |

[1]The difference between the physician and supplier submitted charge and the allowed charge approved by Medicare.
[2]Numbers do not add to totals because beneficiaries may use more than one service during the reporting year.
[3]Ratio of assigned submitted charges to total submitted charges. Includes charges for supplier services.
[4]Consists of 50 States and District of Columbia.
[5]Includes Puerto Rico, Virgin Islands, and other outlying areas.

NOTE: Numbers may not add to totals because of rounding.

SOURCE: Health Care Financing Administration, Bureau of Data Management and Strategy: Data from the Medicare Decision Support System; data development by the Office of Research and Demonstrations.

## Table 7.15

## Medicare assignment rates and ratio of submitted to allowed charges for physician and supplier services, by area of residence: Selected calendar years 1983, 1985, and 1990

| Area of residence | Assignment rate[1] | | | Ratio of submitted to allowed charges | | | Area of residence | Assignment rate[1] | | | Ratio of submitted to allowed charges | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 1983 | 1985 | 1990 | 1983 | 1985 | 1990 | | 1993 | 1985 | 1990 | 1983 | 1985 | 1990 |
| United States | 0.51 | 0.67 | 0.82 | 1.31 | 1.38 | 1.51 | | | | | | | |
| | | | | | | | Missouri | 0.44 | 0.64 | 0.75 | 1.28 | 1.32 | 1.46 |
| Alabama | 0.56 | 0.76 | 0.92 | 1.35 | 1.43 | 1.55 | Montana | 0.19 | 0.42 | 0.56 | 1.27 | 1.31 | 1.39 |
| Alaska | 0.46 | 0.57 | 0.77 | 1.33 | 1.35 | 1.46 | Nebraska | 0.19 | 0.34 | 0.71 | 1.28 | 1.37 | 1.39 |
| Arizona | 0.34 | 0.55 | 0.78 | 1.30 | 1.35 | 1.41 | Nevada | 0.61 | 0.79 | 0.94 | 1.30 | 1.38 | 1.50 |
| Arkansas | 0.58 | 0.84 | 0.90 | 1.32 | 1.37 | 1.51 | New Hampshire | 0.51 | 0.66 | 0.73 | 1.32 | 1.42 | 1.56 |
| California | 0.53 | 0.70 | 0.84 | 1.28 | 1.36 | 1.49 | New Jersey | 0.58 | 0.65 | 0.73 | 1.34 | 1.43 | 1.51 |
| Colorado | 0.42 | 0.57 | 0.69 | 1.37 | 1.45 | 1.52 | New Mexico | 0.41 | 0.61 | 0.78 | 1.34 | 1.38 | 1.47 |
| Connecticut | 0.44 | 0.64 | 0.82 | 1.31 | 1.48 | 1.53 | New York | 0.62 | 0.73 | 0.81 | 1.37 | 1.47 | 1.55 |
| Delaware | 0.75 | 0.83 | 0.90 | 1.28 | 1.37 | 1.65 | North Carolina | 0.49 | 0.65 | 0.80 | 1.31 | 1.39 | 1.56 |
| District of Columbia | 0.76 | 0.85 | 0.91 | 1.33 | 1.41 | 1.69 | North Dakota | 0.29 | 0.33 | 0.64 | 1.27 | 1.33 | 1.54 |
| Florida | 0.34 | 0.66 | 0.83 | 1.29 | 1.34 | 1.45 | Ohio | 0.34 | 0.52 | 0.82 | 1.32 | 1.38 | 1.44 |
| Georgia | 0.55 | 0.66 | 0.82 | 1.30 | 1.38 | 1.51 | Oklahoma | 0.30 | 0.45 | 0.69 | 1.37 | 1.40 | 1.50 |
| Hawaii | 0.42 | 0.64 | 0.82 | 1.34 | 1.40 | 1.62 | Oregon | 0.25 | 0.43 | 0.62 | 1.28 | 1.30 | 1.40 |
| Idaho | 0.22 | 0.34 | 0.47 | 1.32 | 1.37 | 1.40 | Pennsylvania | 0.76 | 0.89 | 0.95 | 1.28 | 1.36 | 1.66 |
| Illinois | 0.36 | 0.55 | 0.73 | 1.29 | 1.36 | 1.43 | Rhode Island | 0.90 | 0.92 | 0.95 | 1.39 | 1.43 | 1.81 |
| Indiana | 0.28 | 0.50 | 0.76 | 1.33 | 1.36 | 1.50 | South Carolina | 0.57 | 0.80 | 0.86 | 1.32 | 1.43 | 1.56 |
| Iowa | 0.33 | 0.50 | 0.73 | 1.34 | 1.38 | 1.47 | South Dakota | 0.18 | 0.25 | 0.45 | 1.29 | 1.33 | 1.44 |
| Kansas | 0.48 | 0.74 | 0.87 | 1.30 | 1.34 | 1.50 | Tennessee | 0.46 | 0.58 | 0.84 | 1.34 | 1.38 | 1.51 |
| Kentucky | 0.39 | 0.55 | 0.85 | 1.29 | 1.32 | 1.49 | Texas | 0.53 | 0.63 | 0.80 | 1.37 | 1.43 | 1.48 |
| Louisiana | 0.37 | 0.65 | 0.88 | 1.37 | 1.40 | 1.52 | Utah | 0.45 | 0.64 | 0.81 | 1.27 | 1.31 | 1.49 |
| Maine | 0.73 | 0.82 | 0.90 | 1.28 | 1.34 | 1.55 | Vermont | 0.58 | 0.64 | 0.89 | 1.31 | 1.40 | 1.61 |
| Maryland | 0.72 | 0.84 | 0.89 | 1.30 | 1.38 | 1.61 | Virginia | 0.56 | 0.69 | 0.81 | 1.31 | 1.36 | 1.57 |
| Massachusetts | 0.85 | 0.95 | 0.98 | 1.28 | 1.38 | 1.71 | Washington | 0.30 | 0.44 | 0.61 | 1.27 | 1.33 | 1.39 |
| Michigan[2] | 0.79 | 0.78 | 0.93 | 1.32 | 1.53 | 1.58 | West Virginia | 0.51 | 0.69 | 0.91 | 1.39 | 1.48 | 1.58 |
| Minnesota | 0.27 | 0.49 | 0.62 | 1.30 | 1.34 | 1.51 | Wisconsin | 0.32 | 0.55 | 0.68 | 1.25 | 1.30 | 1.45 |
| Mississippi | 0.58 | 0.67 | 0.80 | 1.37 | 1.41 | 1.57 | Wyoming | 0.26 | 0.42 | 0.49 | 1.32 | 1.40 | 1.43 |

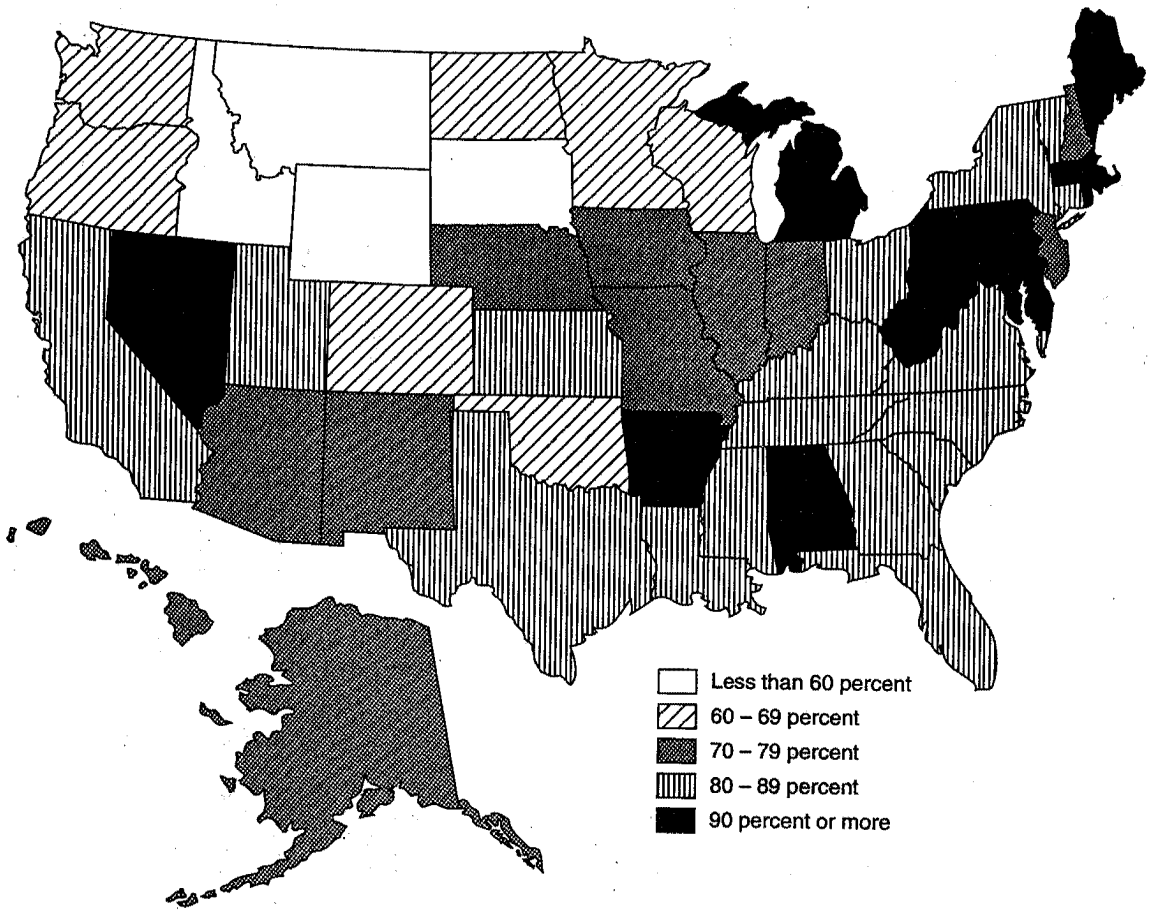
[1]Assignment rates are calculated based on the ratio of assigned allowed charges to total allowed charges (which reflects both assigned and unassigned allowed charges) for all physician services. Suppliers' services are excluded from this table.

[2]The assignment status of claims from Michigan beneficiaries may have been improperly coded in the BMAD data. Because there was no way to pinpoint the precise coding problems and correct them, 1985 statistics for Michigan may be inaccurate and should be used with caution.

SOURCE: Health Care Financing Administration, Bureau of Data Management and Strategy: Data from the Office of Statistics and Data Management; data developed from the 1983 Bill Summary Record and 1985 and 1990 BMAD Beneficiary Files.

## Figure 7.16

**Medicare physician and supplier assignment rate, by State: Calendar year 1990**




SOURCE: Health Care Financing Administration, Bureau of Data Management and Strategy: Data from the Medicare Decision Support System; data development by the Office of Research and Demonstrations.

## Table 7.17

## Number of persons, submitted charges, and allowed charges for Medicare physician and supplier services, by the leading 100 HCPCS codes within selected major HCPCS classifications: Calendar year 1990

| Leading codes within selected major HCPCS classification | Description | Rank | Number of persons | Submitted charges | | | Allowed charges | |
|---|---|---|---|---|---|---|---|---|
| | | | | Amount in thousands | Per user | Percent assigned | Amount in thousands | Per user |
| Total HCPCS | — | — | 27,553,900 | $56,225,228 | $2,041 | 81 | $37,367,589 | $1,356 |
| Total leading 100 HCPCS | — | — | — | 30,058,613 | 2,928 | 88 | 20,817,255 | 1,971 |
| **Medicine** | | | 26,557,000 | 20,426,506 | 769 | 77 | 14,291,090 | 538 |
| Office and other outpatient medical services (90000-90080) | — | — | 23,431,580 | 5,271,868 | 225 | 61 | 3,973,298 | 170 |
| 90015 | Office and other outpatient medical service, new patient; intermediate service. | 56 | 2,607,320 | 152,012 | 58 | 59 | 115,096 | 44 |
| 90020 | Office and other outpatient medical service, new patient; comprehensive service. | 19 | 2,972,340 | 317,208 | 107 | 67 | 229,271 | 77 |
| 90040 | Office and other outpatient medical service, established patient; brief service. | 18 | 5,325,520 | 325,727 | 61 | 58 | 240,811 | 45 |
| 90050 | Office and other outpatient medical service, established patient; limited service. | 3 | 14,422,420 | 1,593,115 | 110 | 57 | 1,189,422 | 82 |
| 90060 | Office and other outpatient medical service, established patient; intermediate service. | 2 | 13,518,060 | 1,824,153 | 135 | 64 | 1,404,520 | 104 |
| 90070 | Office and other outpatient medical service, established patient; extended service. | 8 | 4,805,960 | 491,523 | 102 | 66 | 372,254 | 77 |
| 90080 | Office and other outpatient medical service, established patient; comprehensive service. | 15 | 3,932,320 | 342,966 | 87 | 51 | 255,823 | 65 |
| Residual | — | — | — | 225,164 | — | — | 166,102 | — |
| Home medical services (90100-90170) | — | — | 489,000 | 75,752 | 155 | 72 | 57,369 | 117 |
| Hospital inpatient medical services (90200-90292) | — | — | 5,980,460 | 4,547,377 | 760 | 83 | 3,090,122 | 517 |
| 90215 | Initial hospital care; intermediate history and examination, initiation of diagnostic and treatment programs, and preparation of hospital records. | 51 | 1,410,340 | 187,543 | 133 | 75 | 126,995 | 90 |
| 90220 | Initial hospital care; comprehensive history and examination, initiation of diagnostic and treatment programs, and preparation of hospital records. | 7 | 3,877,460 | 674,108 | 174 | 81 | 468,629 | 121 |
| 90240 | Subsequent hospital care, each day; brief services. | 38 | 1,035,160 | 249,300 | 241 | 81 | 155,677 | 150 |
| 90250 | Subsequent hospital care, each day; limited services. | 5 | 3,055,060 | 1,155,091 | 378 | 81 | 776,701 | 254 |
| 90260 | Subsequent hospital care, each day; intermediate services. | 4 | 3,347,520 | 1,412,292 | 422 | 87 | 974,472 | 291 |
| 90270 | Subsequent hopsital care, each day; extended services. | 14 | 1,508,560 | 437,036 | 290 | 88 | 304,951 | 202 |
| 90280 | Subsequent hospital care, each day; comprehensive services. | 62 | 524,580 | 158,361 | 302 | 88 | 106,242 | 203 |
| 90292 | Hospital discharge day management. | 39 | 2,725,960 | 234,557 | 86 | 82 | 151,119 | 55 |
| Residual | — | — | — | 39,089 | — | — | 25,336 | — |
| SNF, ICF, or LTC facility medical services (90300-90370) | — | — | 1,293,680 | 318,199 | 246 | 82 | 226,614 | 175 |

See footnotes at end of table.

## Table 7.17—Continued

**Number of persons, submitted charges, and allowed charges for Medicare physician and supplier services, by the leading 100 HCPCS codes within selected major HCPCS classifications: Calendar year 1990**

| Leading codes within selected major HCPCS classification | Description | Rank | Number of persons | Submitted charges | | | Allowed charges | |
|---|---|---|---|---|---|---|---|---|
| | | | | Amount in thousands | Per user | Percent assigned | Amount in thousands | Per user |
| 90360 | Subsequent care, skilled nursing facility, intermediate care facility, or long-term care facility medical services; intermediate service. | 89 | 530,540 | $107,556 | $203 | 83 | $77,370 | $146 |
| Residual | — | — | — | 210,643 | — | — | 149,244 | — |
| Rest home, domiciliary or custodial care facility medical services (90400-90470) | — | — | 1,142,900 | 207,978 | 182 | 76 | 136,672 | 120 |
| Emergency department services (90500-90590) | — | — | 5,951,480 | 819,563 | 138 | 90 | 470,533 | 79 |
| 90515 | Emergency department service, new patient; intermediate service. | 61 | 2,043,120 | 187,464 | 92 | 91 | 106,419 | 52 |
| 90517 | Emergency department service, new patient; extended service. | 42 | 1,774,760 | 249,689 | 141 | 92 | 147,637 | 83 |
| 90520 | Emergency department service, new patient; comprehensive service. | 64 | 898,380 | 168,096 | 187 | 93 | 102,215 | 114 |
| Residual | — | — | — | 214,315 | — | — | 114,262 | — |
| Consultations and other visits (90600-90699) | — | — | 6,025,400 | 1,529,093 | 254 | 82 | 1,092,048 | 181 |
| 90605 | Initial consultation; intermediate. | 97 | 967,400 | 101,466 | 105 | 78 | 70,495 | 73 |
| 90610 | Initial consultation extended. | 66 | 1,139,720 | 140,603 | 123 | 78 | 99,330 | 87 |
| 90620 | Initial consultation; comprehensive. | 6 | 3,794,000 | 855,441 | 225 | 84 | 615,946 | 162 |
| 90630 | Initial consultation; complex. | 31 | 1,071,400 | 246,216 | 230 | 85 | 184,259 | 172 |
| Residual | — | — | — | 185,368 | — | — | 122,018 | — |
| Immunization injections (90701-90749) | — | — | 1,753,820 | 26,735 | 15 | 60 | 17,294 | 10 |
| Preventive medicine (90750-90778) | — | — | 1,820 | 73 | 40 | 46 | 48 | 26 |
| Infusion therapy (90780-90781) | — | — | 34,460 | 5,966 | 173 | 81 | 3,683 | 107 |
| Therapeutic or diagnostic injections (90782-90799) | — | — | 459,580 | 17,011 | 37 | 62 | 8,550 | 19 |
| Psychiatry (90801-90899) | — | — | 818,660 | 532,856 | 651 | 82 | 323,094 | 395 |
| 90844 | Individual medical psychotherapy by a physician, with continuing medical diagnostic evaluation, and drug management when indicated, including insight oriented, behavior modifying, or supportive psychotherapy; approximately 45-50 minutes. | 49 | 311,440 | 214,883 | 690 | 82 | 133,067 | 427 |
| Residual | — | — | — | 317,973 | — | — | 190,027 | — |
| Biofeedback (90900-90915) | — | — | 1,000 | 303 | 303 | 50 | 211 | 211 |
| Dialysis (90935-90999) | — | — | 153,960 | 506,380 | 3,289 | 96 | 292,208 | 1,898 |
| 90935 | Hemodialysis procedure with single physician evaluation. | 94 | 81,380 | 122,493 | 1,505 | 96 | 70,867 | 871 |
| 90995 | End stage renal disease (ESRD) related services, per full month. | 57 | 92,700 | 214,712 | 2,316 | 97 | 114,369 | 1,234 |
| Residual | — | — | — | 169,175 | — | — | 106,972 | — |
| Gastroenterology (91000-91299) | — | — | 22,360 | 4,165 | 186 | 84 | 2,498 | 112 |
| Ophthalmology (92002-92499) | — | — | 9,341,880 | 1,061,792 | 114 | 68 | 829,446 | 89 |

See footnotes at end of table.

## Table 7.17—Continued

## Number of persons, submitted charges, and allowed charges for Medicare physician and supplier services, by the leading 100 HCPCS codes within selected major HCPCS classifications: Calendar year 1990

| Leading codes within selected major HCPCS classification | Description | Rank | Number of persons | Submitted charges | | | Allowed charges | |
|---|---|---|---|---|---|---|---|---|
| | | | | Amount in thousands | Per user | Percent assigned | Amount in thousands | Per user |
| 92004 | Ophthalmological services; medical examination and evaluation with initiation of diagnostic and treatment program; comprehensive, new patient, one or more visits (for surgical procedures, see surgery, eye and ocular adnexa, 65091 et seq.). | 79 | 1,776,520 | $104,955 | $59 | 59 | $85,870 | $48 |
| 92012 | Ophthalmogolical services: Medical examination and evaluation, with initition or continuation of diagnostic and treatment program; intermediate, established patient. | 26 | 3,271,440 | 246,587 | 75 | 68 | 197,917 | 60 |
| 92014 | Ophthalmological services: Medical examination and evaluation, with initiation or continuation of diagnostic and treatment program; comprehensive, established patient, 1 or more visits (for surgical procedures, see surgery, eye and ocular adnex, 65091 et seq.). | 16 | 4,743,540 | 298,608 | 63 | 59 | 248,359 | 52 |
| Residual | — | — | — | 411,643 | — | — | 297,301 | — |
| Special otorhinolaryngologic services (92502-92599) | — | — | 906,720 | 89,118 | 98 | 73 | 64,487 | 71 |
| Cardiovascular (92950-93799) | — | — | 12,381,660 | 3,295,110 | 266 | 82 | 2,261,644 | 183 |
| 92982 | Percutaneous transluminal coronary angioplasty; single vessel. | 41 | 83,120 | 214,526 | 2,581 | 83 | 150,734 | 1,813 |
| 93000 | Electrocardiogram, routine ECG with at least 12 leads; with interpretation and report. | 10 | 7,053,440 | 482,972 | 68 | 64 | 352,190 | 50 |
| 93010 | Electrocardiogram, routine ECG with at least 12 leads; interpretation and report only. | 17 | 6,500,560 | 384,800 | 59 | 90 | 242,813 | 37 |
| 93015 | Cardiovascular stress test using maximal or submaximal treadmill or bicycle exercise; continuous electrocardiographic monitoring, with interpretation and report. | 68 | 591,240 | 140,970 | 238 | 73 | 94,156 | 159 |
| 93224 | Electrocardiographic monitoring for 24 hours by continuous original ECG wave form recording and storage, with visual superimposition scanning; includes recording, scanning analysis with report, physician review and interpretation. | 71 | 379,120 | 112,340 | 296 | 82 | 90,441 | 239 |
| 93307 | Echocardiography, real-time with image documentation (2D) with or without M-Mode recording; complete. | 12 | 1,906,760 | 505,008 | 265 | 88 | 346,577 | 182 |
| 93320 | Doppler echocardiography, pulsed wave or continuous wave with spectral display; complete. | 55 | 1,180,740 | 191,426 | 162 | 89 | 116,196 | 98 |
| 93503 | Insertion and placement of flow directed catheter (e.g., Swan-Ganz) for monitoring purposes. | 95 | 222,080 | 103,148 | 464 | 78 | 70,831 | 319 |
| 93547 | Combined left heart catheterization, selective coronary angiography, 1 or more coronary arteries, and selective left ventricular angiography. (This code number is to be used when procedure 93510 is combined with procedures 93543 and 93545.) | 22 | 267,700 | 283,517 | 1,059 | 82 | 209,174 | 781 |

See footnotes at end of table.

## Table 7.17—Continued

**Number of persons, submitted charges, and allowed charges for Medicare physician and supplier services, by the leading 100 HCPCS codes within selected major HCPCS classifications: Calendar year 1990**

| Leading codes within selected major HCPCS classification | Description | Rank | Number of persons | Submitted charges | | | Allowed charges | |
|---|---|---|---|---|---|---|---|---|
| | | | | Amount in thousands | Per user | Percent assigned | Amount in thousands | Per user |
| 93549 | Combined right and left heart catheterization, selective coronary angiography, 1 or more coronary arteries, and selective left ventricular angiography. (This code number is to be used when procedure 93547 is combined with right heart catheterization.) | 44 | 141,020 | $195,288 | $1,385 | 85 | $140,192 | $994 |
| Residual | — | — | — | 681,116 | — | — | 448,340 | — |
| Non-invasive vascular diagnostic studies (93850-93960) | — | — | 1,505,580 | 416,408 | 277 | 88 | 279,320 | 186 |
| 93870 | Non-invasive studies of carotid arteries, imaging (e.g., flow imaging by ultrasonic arteriography, high resolution B-scan with or without pulsed doppler flow evalation, doppler flow or duplex scan with spectrum analysis). | 52 | 816,840 | 179,242 | 219 | 86 | 125,955 | 154 |
| 93910 | Non-invasive studies of lower extremity arteries (e.g., segmental blood pressure measurements, continuous wave doppler analog wave form analysis, evocative pressure response to exercise or reactive hyperemia, photoplethysmography or pulse volume digit wave form analysis, flow velocity signals). | 92 | 503,180 | 109,154 | 217 | 89 | 73,989 | 147 |
| Residual | — | — | — | 128,013 | — | — | 79,375 | — |
| Pulmonary (94010-94799) | — | — | 1,531,000 | 241,817 | 158 | 85 | 158,550 | 104 |
| Allergy and clinical immunology (95000-95199 | — | — | 236,460 | 53,376 | 226 | 60 | 38,690 | 164 |
| Neurology and neuromuscular procedures (95819-95999) | — | — | 898,020 | 230,192 | 256 | 87 | 153,983 | 171 |
| Chemotherapy administration (96400-96549) | — | — | 185,220 | 128,232 | 692 | 75 | 87,026 | 470 |
| Special dermatological procedures (96900-96999) | — | — | 27,160 | 8,083 | 298 | 81 | 5,926 | 218 |
| Physical medicine (97010-97799) | — | — | 772,520 | 202,008 | 261 | 80 | 140,930 | 182 |
| Case management services (98900-98922) | — | — | 48,800 | 3,494 | 73 | 82 | 2,261 | 47 |
| Special services and reports (99000-99199) | — | — | 2,924,140 | 833,204 | 285 | 85 | 574,276 | 196 |
| 99160 | Critical care, initial, including the diagnostic and therapeutic services and direction of care of the critically ill or multiple injured or comatose patient, requiring the prolonged presence of the physician each hour. | 58 | 691,340 | 167,950 | 243 | 87 | 111,914 | 162 |
| 99172 | Critical care subsequent follow-up visit; limited examination, evaluation or treatment, same or new illness. | 88 | 363,800 | 106,151 | 292 | 83 | 77,507 | 213 |
| 99173 | Critical care, subsequent follow-up visit; intermediate examination, evaluation, or treatment, same or new illness. | 35 | 613,700 | 235,716 | 384 | 87 | 169,676 | 276 |

See footnotes at end of table.

## Table 7.17—Continued

**Number of persons, submitted charges, and allowed charges for Medicare physician and supplier services, by the leading 100 HCPCS codes within selected major HCPCS classifications: Calendar year 1990**

| Leading codes within selected major HCPCS classification | Description | Rank | Number of persons | Submitted charges | | | Allowed charges | |
|---|---|---|---|---|---|---|---|---|
| | | | | Amount in thousands | Per user | Percent assigned | Amount in thousands | Per user |
| 99174 | Critical care, subsequent folow-up visit; extended re-examination, re-evaluation or treatment, same or new illness. | 69 | 323,460 | $137,428 | $425 | 90 | $94,114 | $291 |
| Residual | — | — | — | 185,959 | — | — | 121,064 | — |
| **Anesthesiology** | | — | 3,956,080 | 2,537,318 | 641 | 71 | 1,295,383 | 327 |
| Anesthesia (00100-01999) | — | — | 3,956,080 | 2,537,318 | 641 | 71 | 1,295,383 | 327 |
| 00142 | Anesthesia for procedure on eye; lens surgery. | 34 | 883,540 | 324,453 | 367 | 80 | 171,565 | 194 |
| 00562 | Anesthesia for procedures on heart, pericardium, and great vessels of chest; with pump oxygenator. | 53 | 148,540 | 243,236 | 1,638 | 64 | 122,956 | 828 |
| 00790 | Anesthesia for intraperitoneal procedures in upper abdomen, including bowel shunts; not otherwise specified. | 86 | 255,320 | 157,713 | 618 | 71 | 80,750 | 316 |
| Residual | — | — | — | 1,812,186 | — | — | 920,222 | — |
| **Surgery** | | — | 18,731,140 | 16,839,349 | 899 | 82 | 10,797,091 | 576 |
| Integumentary system (10000-19499) | — | — | 6,037,560 | 1,776,210 | 294 | 78 | 1,174,638 | 195 |
| 17000 | Destruction by any method, including laser, with or without surgical curettement, all benign facial lesions or premalignant lesions in any location, or benign lesions other than cultaneous vascular proliferative lesions, including local anesthesia; 1 lesion. | 100 | 1,220,940 | 89,123 | 73 | 65 | 69,048 | 57 |
| Residual | — | — | — | 1,687,087 | — | — | 1,105,590 | — |
| Musculoskeletal system (20000-29909) | — | — | 2,668,740 | 2,290,047 | 858 | 78 | 1,401,928 | 525 |
| 27130 | Arthroplasty, acetabular and proximal femoral prosthetic replacement (total hip replacement), with or without autograft or allograft. | 43 | 55,980 | 223,420 | 3,991 | 72 | 144,176 | 2,575 |
| 27236 | Open treatment of closed or open femoral fracture, proximal end, neck, internal fixation, or prosthetic replacement. | 78 | 65,340 | 143,989 | 2,204 | 78 | 87,011 | 1,332 |
| 27244 | Open treatment of closed or open intertrochanteric, pertrochanteric, or subtrochanteric femoral fracture, with internal fixation. | 54 | 88,800 | 194,567 | 2,191 | 78 | 119,122 | 1,341 |
| 27447 | Arthroplasty, knee, condyle, and plateau; medial and lateral compartments with or without patella resurfacing (total knee replacement). | 21 | 81,720 | 339,120 | 4,150 | 73 | 227,631 | 2,785 |
| Residual | — | — | — | 1,388,951 | — | — | 823,987 | — |
| Respiratory system (30000-32999) | — | — | 759,940 | 497,273 | 654 | 83 | 299,532 | 394 |
| Cardiovascular system (33010-37799) | — | — | 13,136,340 | 2,582,596 | 197 | 86 | 1,628,365 | 124 |
| 33511 | Coronary artery bypass, autogenous graft, (e.g. saphenous vein or internal mammary artery); 2 coronary grafts. | 77 | 23,120 | 134,005 | 5,796 | 84 | 87,454 | 3,783 |

See footnotes at end of table.

## Table 7.17—Continued

**Number of persons, submitted charges, and allowed charges for Medicare physician and supplier services, by the leading 100 HCPCS codes within selected major HCPCS classifications: Calendar year 1990**

| Leading codes within selected major HCPCS classification | Description | Rank | Number of persons | Submitted charges | | | Allowed charges | |
|---|---|---|---|---|---|---|---|---|
| | | | | Amount in thousands | Per user | Percent assigned | Amount in thousands | Per user |
| 33512 | Coronary artery bypass, autogenous graft, (e.g. saphenous vein or internal mammary artery); 3 coronary grafts. | 27 | 46,160 | $292,902 | $6,345 | 85 | $194,053 | $4,204 |
| 33513 | Coronoary artery bypass, autogenous graft, (e.g., saphenous vein or internal mammary artery); 4 coronary grafts. | 36 | 37,680 | 251,026 | 6,662 | 83 | 168,786 | 4,479 |
| 35301 | Thromboendarterectomy with or without patch graft; carotid, vertebral, subclavian, by neck incision. | 91 | 40,580 | 118,496 | 2,920 | 81 | 74,229 | 1,829 |
| 36415 | Routine venipuncture for collection of specimen(s). | 60 | 12,520,920 | 202,750 | 16 | 92 | 109,495 | 9 |
| Residual | — | — | — | 1,583,417 | — | — | 994,348 | — |
| Hemic and lymphatic systems (38100-38999) | — | — | 54,420 | 56,912 | 1,046 | 76 | 33,769 | 621 |
| Mediastinum and diaphragm (39000-39599) | — | — | 16,140 | 19,397 | 1,202 | 83 | 11,997 | 743 |
| Digestive system (40490-49999) | — | — | 31,490,820 | 2,888,004 | 917 | 82 | 1,898,289 | 603 |
| 43235 | Upper gastrointestinal endoscopy including esophagus, stomach, and either the duodenum or jejunum as appropriate; complex diagnostic. | 33 | 500,900 | 237,040 | 473 | 85 | 173,329 | 346 |
| 43239 | Upper gastrointestinal endoscopy including esophagus, stomach, and either the duodenum or jejunum as appropriate; for biopsy or collection of specimen by brushing or washing. | 48 | 345,900 | 185,836 | 537 | 86 | 136,331 | 394 |
| 44140 | Colectomy, partial; with anastomosis. | 73 | 67,280 | 142,985 | 2,125 | 80 | 89,060 | 1,324 |
| 45330 | Sigmoidoscopy, flexible fiberoptic; diagnostic. | 83 | 781,060 | 125,431 | 161 | 66 | 84,826 | 109 |
| 45378 | Colonoscopy, fiberoptic, beyond splenic flexure; diagnostic, with or without colon decompression. | 24 | 486,180 | 293,467 | 604 | 82 | 206,192 | 424 |
| 45380 | Colonoscopy, fiberoptic, beyond splenic flexture; with biopsy or collection of specimen by brushing or washing. | 81 | 178,800 | 120,269 | 673 | 83 | 85,392 | 478 |
| 45385 | Colonoscopy, fiberoptic, beyond splenic flexure; with removal of polypoid lesion(s). | 32 | 266,820 | 243,667 | 913 | 80 | 183,606 | 688 |
| Residual | — | — | — | 1,539,309 | — | — | 939,554 | — |
| Urinary system (50010-53899) | — | — | 1,364,460 | 1,037,553 | 760 | 75 | 669,314 | 491 |
| 52000 | Cystourethroscopy (separate procedure). | 75 | 582,340 | 134,370 | 231 | 71 | 88,943 | 153 |
| 52601 | Transurethral resection of prostate, including control of postoperative bleeding, complete (Vasectomy, meatotomy, cystourethroscopy, urethral calibration or dilation, and internal urethrotomy are included). | 20 | 210,040 | 336,898 | 1,604 | 73 | 229,035 | 1,090 |
| Residual | — | — | — | 566,285 | — | — | 351,335 | — |
| Male genital system (54000-55899) | — | — | 241,300 | 185,190 | 767 | 71 | 119,857 | 497 |
| Female genital system (56000-58960) | — | — | 266,460 | 228,085 | 856 | 76 | 121,299 | 455 |
| Endoscopy-laparoscopy-hysteroscopy (58980-58999) | — | — | 25,620 | 24,373 | 951 | 75 | 12,147 | 474 |
| Maternity care and delivery (59000-59899) | — | — | 4,620 | 5,277 | 1,142 | 88 | 2,776 | 601 |
| Endocrine system (60000-60699) | — | — | 24,560 | 34,643 | 1,411 | 80 | 20,972 | 854 |

See footnotes at end of table.

## Table 7.17—Continued

## Number of persons, submitted charges, and allowed charges for Medicare physician and supplier services, by the leading 100 HCPCS codes within selected major HCPCS classifications: Calendar year 1990

| Leading codes within selected major HCPCS classification | Description | Rank | Number of persons | Submitted charges | | | Allowed charges | |
|---|---|---|---|---|---|---|---|---|
| | | | | Amount in thousands | Per user | Percent assigned | Amount in thousands | Per user |
| Nervous system (61000-64999) | — | — | 521,560 | $652,520 | $1,251 | 79 | $375,443 | $720 |
| Eye and ocular adnexa (65091-68899) | — | — | 1,914,740 | 4,500,486 | 2,350 | 87 | 2,990,003 | 1,562 |
| 65855 | Trabeculoplasty by laser surgery, 1 or more sessions (defined treatment series). | 67 | 80,780 | 139,404 | 1,726 | 85 | 98,841 | 1,224 |
| 66821 | Discission of secondary membraneous cataract (opacified posterior lens capsule or anterior hyaloid; laser surgery (e.g., YAG laser) 1 or more stages). | 13 | 477,300 | 495,468 | 1,038 | 84 | 334,462 | 701 |
| 66984 | Extracapsular cataract removal with insertion of intraocular lens prosthesis (1-stage procedure), manual or mechanical technique (e.g., irrigation and aspiration or phacoemulsification). | 1 | 945,740 | 2,769,548 | 2,928 | 88 | 1,863,868 | 1,971 |
| 67228 | Destruction of extensive or progressive retinopathy (e.g., diabetic retinopathy), 1 or more sessions; photocoagulation (laser or xenon arc). | 63 | 76,320 | 152,951 | 2,004 | 87 | 105,170 | 1,378 |
| Residual | — | — | — | 943,115 | — | — | 587,662 | — |
| Auditory system (69000-69979) | — | — | 623,460 | 60,781 | 97 | 71 | 36,760 | 59 |
| **Radiology** | — | — | 17,129,920 | 5,903,754 | 345 | 82 | 3,821,289 | 223 |
| Radiology (70010-77799) | — | — | 17,008,000 | 5,437,594 | 320 | 81 | 3,533,030 | 208 |
| 70450 | Computerized axial tomography, head or brain; without contrast material. | 70 | 1,004,860 | 172,720 | 172 | 87 | 92,398 | 92 |
| 70470 | Computerized axial tomography, head or brain; without contrast material, followed by contrast material(s) and further sections. | 87 | 623,420 | 126,606 | 203 | 84 | 80,094 | 128 |
| 70551 | Magnetic resonance (e.g., proton) imaging, brain (including brain stem); without contrast material. | 76 | 292,540 | 135,620 | 464 | 84 | 88,862 | 304 |
| 71010 | Radiologic examination, chest; single view, frontal. | 25 | 4,553,320 | 302,142 | 66 | 84 | 200,743 | 44 |
| 71020 | Radiologic examination, chest, 2 views, frontal, and lateral. | 9 | 9,086,740 | 536,018 | 59 | 72 | 368,427 | 41 |
| 74160 | Computerized axial tomography, abdomen; with contrast material(s). | 72 | 619,080 | 139,430 | 225 | 84 | 89,566 | 145 |
| 76091 | Mammography; bilateral. | 40 | 2,767,780 | 206,799 | 75 | 69 | 150,807 | 54 |
| 76700 | Echography, abdominal, B-scan or real time with image documentation; complete. | 85 | 971,740 | 130,320 | 134 | 84 | 83,148 | 86 |
| 77425 | Weekly radiation therapy management; intermediate | 98 | 84,600 | 104,271 | 1,233 | 88 | 70,034 | 828 |
| 77430 | Weekly radiation therapy management; complex | 23 | 135,000 | 298,808 | 2,213 | 87 | 206,822 | 1,532 |
| Residual | — | — | — | 3,284,859 | — | — | 2,102,130 | — |
| Nuclear medicine (78000-79999) | — | — | 2,188,900 | 466,160 | 213 | 85 | 288,260 | 132 |
| **Pathology and laboratory** | | — | 19,435,640 | 4,292,152 | 221 | 93 | 2,566,633 | 132 |
| Pathology and laboratory (80002-89399) | — | — | 19,435,640 | 4,292,152 | 221 | 93 | 2,566,633 | 132 |
| 80019 | Automated multichannel test; 19 or more clinical chemistry tests (indicate instrument used and number of tests performed). | 30 | 7,379,560 | 285,198 | 39 | 98 | 184,325 | 25 |
| 81000 | Urinalysis, by reagent strips, any number of components; with microscopy. | 84 | 8,560,120 | 169,643 | 20 | 92 | 83,236 | 10 |

See footnotes at end of table.

## Table 7.17—Continued

**Number of persons, submitted charges, and allowed charges for Medicare physician and supplier services, by the leading 100 HCPCS codes within selected major HCPCS classifications: Calendar year 1990**

| Leading codes within selected major HCPCS classification | Description | Rank | Number of persons | Submitted charges | | | Allowed charges | |
|---|---|---|---|---|---|---|---|---|
| | | | | Amount in thousands | Per user | Percent assigned | Amount in thousands | Per user |
| 83720 | Lipoprotein cholesterol fractionation calculation by formula. | 80 | 3,430,100 | $103,514 | $30 | 98 | $85,469 | $25 |
| 84443 | Thyroid stimulating hormone (TSH), RIA or EIA. | 93 | 2,209,960 | 124,755 | 56 | 96 | 73,330 | 33 |
| 85025 | Blood count; hemogram and platelet count, automated, and automated complete differential WBC count (CBC). | 74 | 4,700,520 | 131,038 | 28 | 98 | 88,953 | 19 |
| 88304 | Level III—surgical pathology, gross and microscopic examination. | 46 | 2,490,180 | 199,220 | 80 | 81 | 137,427 | 55 |
| 88305 | Level IV—surgical pathology, gross and microscopic examination. | 45 | 1,686,080 | 212,963 | 126 | 83 | 137,454 | 82 |
| Residual | — | — | — | 3,065,820 | — | — | 1,776,439 | — |
| **Alpha numeric HCPC codes** | — | — | 10,567,520 | 5,337,090 | 505 | 84 | 3,938,750 | 373 |
| Transportation services (A0010-A0999) | — | — | 2,555,020 | 1,219,310 | 477 | 83 | 887,199 | 347 |
| A0010 | Ambulance service, basic life support (BLS) base rate, emergency transport, one way. | 11 | 1,608,320 | 487,726 | 303 | 83 | 350,864 | 218 |
| A0020 | Ambulance service (BLS) per mile, transport, one way. | 59 | 1,589,020 | 156,363 | 98 | 85 | 111,023 | 70 |
| A0220 | Ambulance service, advanced life support (ALS) base rate, all inclusive services, emergency transport, one way. | 29 | 663,320 | 240,886 | 363 | 79 | 185,441 | 280 |
| Residual | — | — | — | 334,335 | — | — | 239,871 | — |
| Chiropractic (A2000-A2999) | — | — | 1,055,760 | 209,026 | 198 | 50 | 163,802 | 155 |
| A2000 | Manipulation of spine by chiropractor. | 37 | 1,055,760 | 209,026 | 198 | 50 | 163,802 | 155 |
| Residual | — | — | — | 0 | — | — | 0 | — |
| Medical and surgical supplies (A4000-A9290) | — | — | 1,825,480 | 672,213 | 368 | 88 | 506,612 | 278 |
| A4610 | Medication supplies to be used in durable medical equipment, prescribed by a physician. | 90 | 90,780 | 108,436 | 1,194 | 95 | 76,324 | 841 |
| Residual | — | — | — | 563,777 | — | — | 430,288 | — |
| Enteral and parenteral therapy (B4000-B9999) | | | 48,920 | 238,925 | 4,884 | 90 | 167,963 | 3,433 |
| Dental procedures (D0100-D0999) | — | — | 4,200 | 186 | 44 | 42 | 130 | 31 |
| Durable medical equipment (E0100-E1699) | — | — | 1,908,600 | 1,741,928 | 913 | 90 | 1,333,112 | 698 |
| E0260 | Hospital bed, semi-electric (head and foot adjustment), with any type side rails, with mattress. | 82 | 135,780 | 104,108 | 767 | 92 | 84,959 | 626 |
| E0265 | Hospital bed, total electric (head, foot, and height adjustments). With any type side rails, with mattress. | 96 | 101,600 | 87,932 | 865 | 91 | 70,645 | 695 |
| E1400 | Oxygen concentrator, manufacturer-specified maximum flow rate does not exceed 2 liters per minute, at 85 percent or greater concentration. | 28 | 116,700 | 241,319 | 2,068 | 89 | 186,707 | 1,600 |
| E1401 | Oxygen concentrator, manufacturer-specified maximum flow rate greater than 2 liters per minute, does not exceed 3 liters per minute, at 85 percent or greater concentration. | 50 | 78,860 | 173,131 | 2,195 | 92 | 129,587 | 1,643 |

See footnotes at end of table.

## Table 7.17—Continued

**Number of persons, submitted charges, and allowed charges for Medicare physician and supplier services, by the leading 100 HCPCS codes within selected major HCPCS classifications: Calendar year 1990**

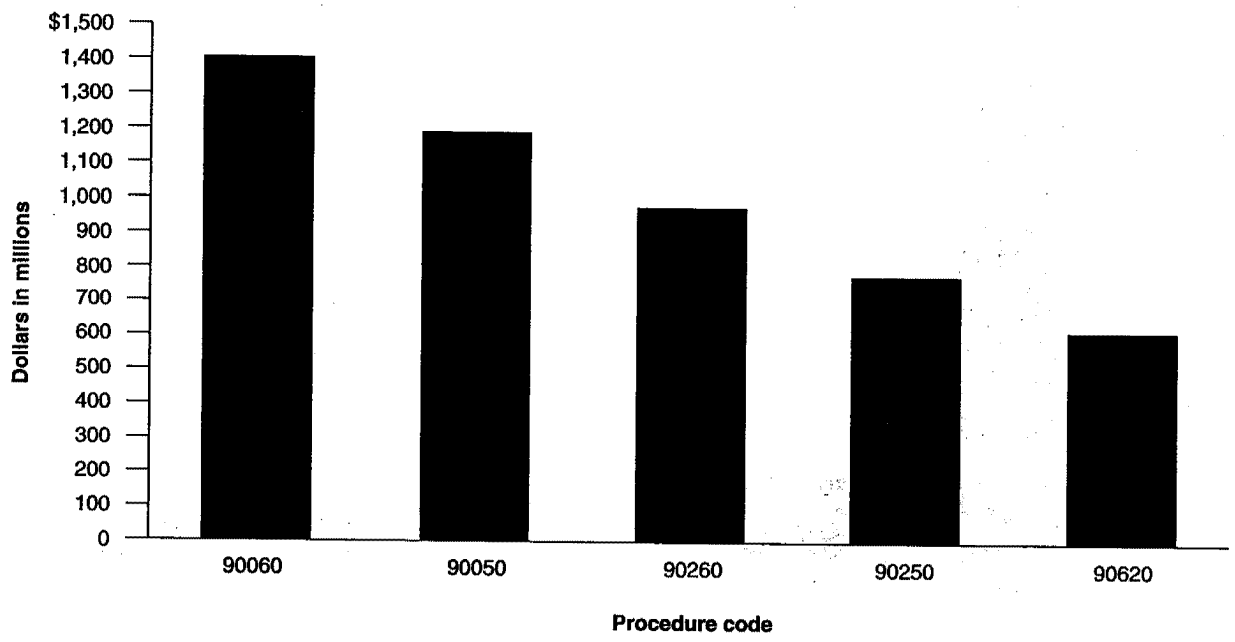
| Leading codes within selected major HCPCS classification | Description | Rank | Number of persons | Submitted charges | | | Allowed charges | |
|---|---|---|---|---|---|---|---|---|
| | | | | Amount in thousands | Per user | Percent assigned | Amount in thousands | Per user |
| E1402 | Oxygen concentrator, manufacturer-specified maximum flow rate greater than 2 liters per minute, does not exceed 4 liters per minute at 85 percent or greater concentration. | 99 | 43,480 | $91,830 | $2,112 | 92 | $69,411 | $1,596 |
| E1403 | Oxygen concentrator, manufacturer-specified maximum flow rate greater than 4 liters per minute, does not exceed 5 liters per minute, at 85 percent or greater concentration. | 65 | 63,880 | 135,723 | 2,125 | 92 | 102,113 | 1,599 |
| Residual | — | — | — | 907,884 | — | — | 689,690 | — |
| Rehabilitative services (H5000-H6000) | — | — | 32,420 | 18,109 | 559 | 92 | 11,233 | 346 |
| Drugs (J0000-J8999) | — | — | 2,707,620 | 192,885 | 71 | 71 | 108,881 | 40 |
| Orthotic procedures (L0100-L4999) | — | — | 376,800 | 99,421 | 264 | 80 | 79,934 | 212 |
| Other medical services (M0000-M9999) | — | — | 1,190,100 | 257,126 | 216 | 82 | 178,292 | 150 |
| Other pathology and laboratory (P0000-P9999) | — | — | 1,474,720 | 54,485 | 37 | 98 | 24,547 | 17 |
| Temporary national codes (Q0000-Q9999) | — | — | 351,060 | 311,699 | 888 | 89 | 228,650 | 651 |
| Q0043 | Stationary liquid oxygen system rental, includes contents (per unit), use of reservoir, contents indicator, flowmeter, humidifier, nebulizer, cannula or mask and tubing; 1 unit of contents = 10 lbs. | 47 | 70,940 | 187,539 | 2,644 | 90 | 137,398 | 1,937 |
| Residual | — | — | — | 124,160 | — | — | 91,252 | — |
| Diagnostic radiology services (R0000-R5999) | — | — | 467,680 | 77,116 | 165 | 93 | 50,004 | 107 |
| Vision services (V0000-V9999) | — | — | 1,490,220 | 245,286 | 165 | 64 | 198,806 | 133 |
| **Invalid codes** | — | — | 2,860,560 | 888,789 | 311 | 77 | 657,242 | 230 |

NOTES: HCFA is Health Care Financing Administration. HCPCS is HCFA Common Procedure Coding System. Numbers may not add to totals because of rounding.

SOURCE: Health Care Financing Administration, Bureau of Data Management and Strategy: Data from the Medicare Decision Support System; data development by the Office of Research and Demonstrations.

## Figure 7.18

**Medicare five leading medicine procedure codes based on allowed charges: Calendar year 1990**

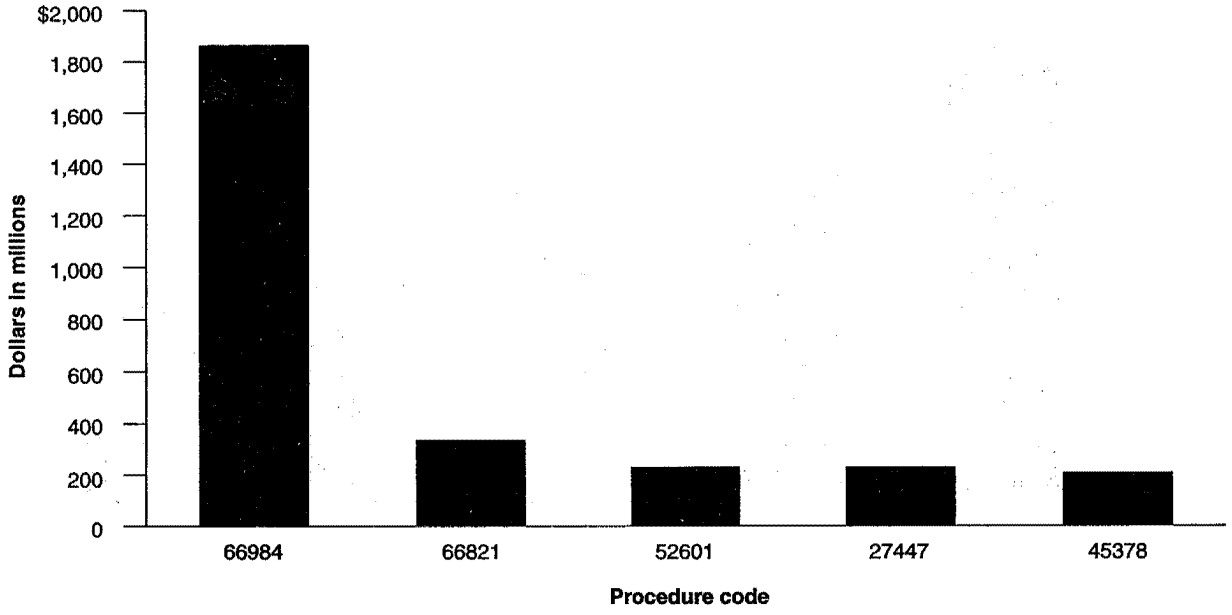



NOTES: Office visits, intermediate, 90060; office visit, limited, 90050; subsequent hospital care, each day, intermediate services, 90260; subsequent hospital care, each day, limited services, 90250; and initial consultation, comprehensive, 90620.

SOURCE: Health Care Financing Administration, Bureau of Data Management and Strategy: Data from the Medicare Decision Support System; data development by the Office of Research and Demonstrations.

**Figure 7.19**

**Medicare five leading surgery procedure codes based on allowed charges: Calendar year 1990**




NOTE: Remove cataract, insert lens, 66984; lasering, secondary cataract, 66821; transurethral resection of prostate, 52601; total knee replacement, 27447; and diagnostic colonoscopy, 45378.

SOURCE: Health Care Financing Administration, Bureau of Data Management and Strategy: Data from the Medicare Decision Support System; data development by the Office of Research and Demonstrations.

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