## Health Care Financing Note

# Use and cost of hospital outpatient services under Medicare, 1985

by Charles Helbing and Viola B. Latta

Presented in this article are program data on the use and cost of hospital outpatient (HOP) services rendered to aged and disabled Medicare beneficiaries during calendar year 1985. Trend data are also presented for calendar years 1974-85. The data shown in this article focus on charges, reimbursements, and reimbursements per enrollee as a means of measuring the cost of HOP services. The data provide information to help identify trends and patterns of care for monitoring the Medicare HOP benefit and for evaluating the impact of the inpatient hospital prospective payment system (PPS) on the use and cost of HOP services.

#### Introduction

Among the health care services covered by Medicare, reimbursements for HOP services have shown the largest rate of growth since the inception of the program. From 1974, the first full year of coverage for disabled Medicare enrollees, through 1983, HOP reimbursements rose from \$0.3 billion to \$2.7 billion, an average annual rate of increase of 26 percent. Similarly, during the same period, all Medicare expenditures showed an average annual rate of growth of about 20 percent. With the advent of the Medicare PPS in October 1983, HOP expenditures continued to grow at a rapid pace. From 1983 through 1985, HOP expenditures rose to \$4.1 billion, an average annual rate of increase of 23 percent. During the same period, all Medicare expenditures showed an average annual growth rate of about 12 percent.

PPS legislation restructured the payment system by which short-stay hospitals are reimbursed for inpatient services rendered to Medicare beneficiaries. The new system gives short-stay hospitals the incentive to hold costs down because they earn a profit when their costs fall below the prospective payment or absorb a loss when their costs exceed the prospective payment. As a result, health care decisions being made in response to PPS are expected to have a profound impact on other providers of health care, especially hospital outpatient facilities. For example, the Physicians' Practice Costs and Income Survey (Health Care Financing Administration, 1983-85) indicates that physicians treating Medicare patients are being encouraged to shorten lengths of hospital stays, reduce ancillary services, and foster outpatient testing.

Preliminary findings from studies on the impact of the PPS suggest these reasons for HOP services being the fastest growing segment of the health care industry:

- There are direct financial incentives for hospitals to shift care to ambulatory settings when it is clinically appropriate and cost efficient.
- Surgical and diagnostic technological innovations have enabled hospitals to perform more procedures on an ambulatory basis.
- Utilization review policies have influenced the Medicare patient case mix in hospitals. For example, preadmission review for medical necessity, appropriateness, and quality of care encourage treatment in the safest and most cost-effective setting.
- The addition of ambulatory surgical benefits under Medicare and the repeal of the Part B deductible for home health agency services have encouraged the use of outpatient services (Omnibus Budget Reconciliation Act, 1980, Public Law 96-499).
- The shift of patient care to an outpatient setting has reduced the risk of nosocomial infections.

#### Selected data highlights

Trends in the number of supplementary medical insurance enrollees and the amounts of covered charges and reimbursements for the years 1974 through 1985 are shown in Table 1.

- From 1974 to 1983, reimbursements for HOP services to Medicare beneficiaries increased from \$0.3 billion to \$2.7 billion (Figure 1), an average annual rate of growth (AARG) of about 26 percent.
   For all Medicare reimbursements during this period, the AARG was 20 percent.
- From 1983 through 1985, reflecting the first 2 full years of the Medicare prospective payment system, HOP reimbursements rose from \$2.7 billion to \$4.1 billion, an AARG of about 23 percent. For all Medicare expenditures, the AARG slowed to an estimated 12 percent.
- The average HOP reimbursement per enrollee grew from \$14 in 1974 to \$92 in 1983, and then rose to \$136 in 1985. The AARG was about 23 percent for both periods.

The use of hospital outpatient services under Medicare is shown in Table 2 for 1985, displaying covered charges, percent distribution, and average charge per enrollee, by type of service, sex, race, and type of enrollment.

Table 1

Hospital outpatient charges and reimbursements under Medicare, by type of enrollment and year service was incurred: 1974-85

|                               | 3011100                    | was iliculted.  | 1914-00           |                   |              |  |  |
|-------------------------------|----------------------------|-----------------|-------------------|-------------------|--------------|--|--|
| Type of enrollment and        |                            |                 |                   | Reimbursements    |              |  |  |
| year service                  | Number of SMI <sup>1</sup> | Covered charges | Amount            | Per               | As percent   |  |  |
| incurred                      | enrollees                  | in thousands    | in thousands      | enrollee          | of charges   |  |  |
| All beneficiaries             |                            |                 |                   |                   |              |  |  |
| 1974                          | 23,166,570                 | \$535,296       | \$323,383         | \$13.96           | 60.4         |  |  |
| 1975                          | 23,904,551                 | 747,518         | 469,875           | 19.66             | 63.0         |  |  |
| 1976                          | 24,614,402                 | 974,708         | 630,323           | 25.61             | 64.7         |  |  |
| 1977                          | 25,363,468                 | 1,175,878       | 773,490           | 30.50             | 65.8         |  |  |
| 1978                          | 26,074,085                 | 1,384,067       | 923,658           | 35.42             | 66.7         |  |  |
| 1979                          | 26,757,329                 | 1,660,363       | 1,132,202         | 42.31             | 68.2         |  |  |
| 1980                          | 27,399,658                 | 2,076,396       | 1,441,986         | 51.75             | 69.4         |  |  |
| 1981                          | 27,941,227                 | 2,521,191       | 1,777,255         | 63.61             | 70.4         |  |  |
| 1982                          | 28,412,282                 | 3,164,530       | 2,203,260         | 77.55             | 69.6         |  |  |
| 1983                          | 28,974,535                 | 3,813,118       | 2,661,394         | 91.85             | 69.8         |  |  |
| 1984                          | 29,415,397                 | 5,129,210       | 3,387,146         | 115.15            | 66.0         |  |  |
| 1985                          | 29,988,763                 | 6,480,777       | 4,082,303         | 136.13            | 63.0         |  |  |
|                               |                            |                 | , .               |                   | 05.0         |  |  |
| Average annual rate of growth | 2.4                        | 25.4            | 25.9              | 23.0              | <del></del>  |  |  |
| Aged                          |                            |                 |                   |                   |              |  |  |
| 1974                          | 21,421,545                 | 394,680         | 220,742           | 10.30             | 55.9         |  |  |
| 1975                          | 21,945,301                 | 546,095         | 323,563           | 14.74             | 59.3         |  |  |
| 1976                          | 22,445,911                 | 704,569         | 432,971           | 19.29             | 61.5         |  |  |
| 1977                          | 22,990,826                 | 855,412         | 540,040           | 23.49             | 63.1         |  |  |
| 1978                          | 23,530,893                 | 1,005,467       | 648,249           | 27.55             | 64.5         |  |  |
| 1979                          | 24,098,491                 | 1,203,048       | 797,442           | 33.09             | 66.2         |  |  |
| 1980                          | 24,680,432                 | 1,517,183       | 1,030,896         | 41.77             | 69.9         |  |  |
| 1981                          | 25,181,731                 | 1,874,136       | 1,300,040         | 51.63             | 69.3         |  |  |
| 1982                          | 25,706,792                 | 2,402,462       | 1,645, <b>064</b> | 63.99             | 68.5         |  |  |
| 1983                          | 26,292,124                 | 2,995,784       | 2,066,207         | 78.5 <del>9</del> | 69.0         |  |  |
| 1984                          | 26,764,150                 | 4,122,859       | 2,679,571         | 100.12            | 65.0         |  |  |
| 1985                          | 27,310,894                 | 5,210,762       | 3,211,744         | 117.60            | 61.6         |  |  |
| Average annual rate of growth | 2.2                        | 26.5            | 27.6              | 24.8              | _            |  |  |
| Disabled                      |                            |                 |                   |                   |              |  |  |
| 1974                          | 1,745,019                  | 140,617         | 102,641           | 57.07             | 70.8         |  |  |
| 1975                          | 1,959,248                  | 201,423         | 146,312           | 74.69             | 72.6         |  |  |
| 1976                          | 2,168,467                  | 270,139         | 197,352           | 91.03             | 73.1         |  |  |
| 1977                          | 2,372,594                  | 320,466         | 233,450           | 98.38             | 72.8         |  |  |
| 1978                          | 2,543,162                  | 378,600         | 275,409           | 108.29            | <b>72.</b> 7 |  |  |
| 1979                          | 2,658,838                  | 457,315         | 334,760           | 125.90            | 73.2         |  |  |
| 1980                          | 2,719,226                  | 559,213         | 411,090           | 151.55            | 73.5         |  |  |
| 1981                          | 2,759,496                  | 647,054         | 477,215           | 172.94            | 73.7         |  |  |
| 1982                          | 2,705,490                  | 762,068         | 558,195           | 206.32            | 73.2         |  |  |
| 1983                          | 2,682,411                  | 817,335         | 595,187           | 221.89            | 72.8         |  |  |
| 1984                          | 2,651,247                  | 1,006,351       | 707,575           | 266.88            | 70.3         |  |  |
| 1985                          | 2,677,869                  | 1,270,015       | 870,560           | 325.09            | 68.5         |  |  |
| Average annual rate of growth | 4.0                        | 22.1            | 21.3              | 17.1              | -            |  |  |
| urange annual late of Alow(I) | ****                       | 4£. I           | £1.3              | 17-1              |              |  |  |

<sup>1</sup>Supplementary medical insurance.

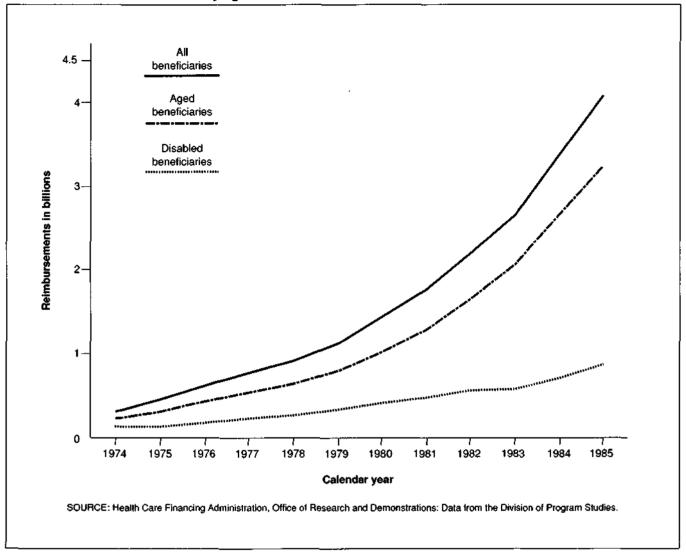
SOURCE: Health Care Financing Administration, Bureau of Data Management and Strategy: Data from the Medicare Statistical System.

- Nearly one-half of all Medicare HOP charges (\$6.5 billion) were for three services—radiology (\$1.4 billion or 22.2 percent), end stage renal disease (ESRD) (\$0.9 billion or 13.2 percent), and laboratory (\$0.8 billion or 12.9 percent) (Figure 2).
- HOP charges for operating room services (\$0.4 billion) accounted for about 7 percent of all HOP charges for Medicare beneficiaries, reflecting the increasing number and variety of surgical procedures performed in an outpatient setting.
- There were substantial differences by race and type of entitlement in the charge per enrollee for HOP

services. The total charge per enrollee for persons of races other than white (\$338) was 66 percent higher than that for persons of the white race (\$203). The total charge per disabled enrollee (\$474) was 149 percent higher than that for the aged (\$191). This difference was reflected, for the most part, in the use of ESRD services that accounted for 44 percent of all HOP charges among the disabled, but only 6 percent among the aged. Charges for ESRD services represented 34 percent of all charges for persons of races other than white compared with 9 percent for white persons.

Figure 1

Medicare reimbusements for hospital outpatient services used by aged and disabled beneficiaries: 1974-85



Hospital outpatient clinic and emergency room visits and charges for 1985 under Medicare (Table 3), are shown by sex, race, and type of enrollment.

- Users of HOP services in 1985 made 5.7 million visits to clinics and almost 7.0 million visits to emergency rooms.
- Although data are not shown in the tables, the rate
  of use of clinic services by Medicare beneficiaries
  declined about 7 percent from 1983 (204 visits per
  1,000 enrollees) to 1985 (190 visits per 1,000
  enrollees). This finding is contrary to the expected
  shift in hospital services from the inpatient to the
  outpatient setting.
- The rate of emergency room services, however, showed a moderate increase of about 13 percent from 1983 (206 visits per 1,000 enrollees) to 1985 (232 visits per 1,000 enrollees).
- The average charge per visit in 1985 was slightly higher for emergency room services (\$43) than for clinic services (\$41).

• Substantial differences exist in the rate of use (visits per 1,000 enrollees) of clinic and emergency room services by race and type of entitlement. Persons of races other than white used clinic and emergency room services 4.6 times and 1.5 times more, respectively, than did white persons. Disabled beneficiaries used clinic and emergency room services 2.6 times and 2.2 times more, respectively, than did aged beneficiaries,

For aged Medicare beneficiaries (Table 4), hospital outpatient covered charges and reimbursements are shown for 1985, by area of residence.

- The average HOP reimbursement per aged enrollee in the United States was \$118.
- By region, the average HOP reimbursement per enrollee was highest in the Northeast (\$131) and lowest in the South (\$102), a difference of 28 percent.

Table 2 Covered charges, percent distribution, and average charge per enrollee for hospital outpatient services under Medicare, by type of service, sex, race, and type of enrollment: 1985

| Sex, race,<br>and type of<br>enrollment | Total                                 | Clinic            | Emergency<br>room          | Labora-<br>tory              | Radi-<br>ology                 | Pharmacy          | Physical<br>therapy        | Ambulance                | Operating room              | End<br>stage<br>renal<br>disease <sup>1</sup> | Other <sup>2</sup>             |
|---|---------------------------------------|-------------------|----------------------------|------------------------------|--------------------------------|-------------------|----------------------------|--------------------------|-----------------------------|---|--------------------------------|
|   | · · · · · · · · · · · · · · · · · · · |                   |                            | _                            | Covered o                      | hanges in         | thousands                  |                          |                             |   |                                |
| Total                                   | \$6,480,777                           | \$231,427         | \$300,599                  | \$837,768                    | \$1,439,819                    | \$302,280         | \$194,612                  | \$63,217                 | \$443,281                   | \$853,624                                     | \$1,856,015                    |
| Sex                                     |                                       |                   |                            |                              |                                |                   |                            |                          |                             |   |                                |
| Male<br>Female                          | 2,853,571<br>3,627,205                | 90,075<br>141,352 | 133,776<br>166,823         | 352,557<br>485,211           | 625,039<br>814,779             |                   | 70,956<br>123,655          | 28,960<br>34,256         | 178,046<br>265,235          | 449,905<br>403,719                            | 810,234<br>1,045,780           |
| Race                                    |                                       |                   |                            |                              |                                |                   |                            |                          |                             |   |                                |
| White<br>All other<br>Unknown           | 5,315,580<br>984,968<br>180,228       | 83,731            | 246,970<br>46,191<br>7,438 | 705,424<br>109,685<br>22,658 | 1,267,277<br>131,939<br>40,602 |                   | 170,811<br>18,203<br>5,597 | 55,115<br>6,285<br>1,817 | 400,730<br>30,479<br>12,072 | 495,502<br>330,691<br>27,430                  | 1,598,539<br>207,642<br>49,833 |
| Type of enrollment                      |                                       |                   |                            |                              |                                |                   |                            |                          |                             |   |                                |
| Aged<br>Disabled                        | 5,210,761<br>1,270,015                | 181,576<br>49,851 | 247,373<br>53,226          | 705,850<br>131,918           | 1,308,441<br>131,378           | 264,629<br>37,651 | 170,223<br>24,388          | 56,629<br>6,588          | 417,872<br>25,408           | 300,367<br>553,257                            | 1,588,107<br>267,907           |
|   |                                       |                   |                            |                              | Perc                           | ent distribu      | <i>i</i> tion              |                          |                             |   |                                |
| Total                                   | 100.0                                 | 3.6               | 4.6                        | 12.9                         | 22.2                           | 4,7               | 3.0                        | 1.0                      | 6.8                         | 13.2  | 28.6                           |
| Sex                                     |                                       |                   |                            |                              |                                |                   |                            |                          |                             |   |                                |
| Male<br>Female                          | 100.0<br>100.0                        |                   | 4.7<br>4.6                 | 12.4<br>13.4                 | 21.9<br>22.5                   |                   | 2.5<br>3.4                 | 1.0<br>0.9               | 6.2<br>7.3                  | 15.8<br>11.1                                  | 28.4<br>28.8                   |
| Race                                    |                                       |                   |                            |                              |                                |                   |                            |                          |                             |   |                                |
| White                                   | 100.0                                 | 2.7               | 4.6                        | 13.3                         | 23.8                           | 4.9               | 3.2                        | 1.0                      | 7.5                         | 9.3   | 30.1                           |
| All other                               | 100.0                                 | 8.5               | 4.7                        | 11.1                         | 13.4                           | 3.2               | 1.8                        | 0.6                      | 3.1                         | 33.6  | 21.1                           |
| Unknown                                 | 100.0                                 | 3.2               | 4.1                        | 12.6                         | 22.5                           | 4.4               | 3.1                        | 1.0                      | 6.7                         | 15.2  | 27.7                           |
| Type of enrollment                      |                                       |                   | •                          |                              |                                |                   |                            |                          |                             |   |                                |
| Aged<br>Disabled                        | 100.0<br>100.0                        |                   | 4.7<br>4.2                 | 13.5<br>10.4                 | 25.1<br>10.3                   | 5.1<br>3.0        | 3.3<br>1.9                 | 1.1<br><b>0.5</b>        | 8.0<br>2.0                  | 5.8<br>43.6                                   | 30.5<br>21.1                   |
|   |                                       |                   |                            |                              | Char                           | ges per en        | rollee                     |                          |                             |   |                                |
| Total                                   | \$216.11                              | \$7.72            | \$10.02                    | \$27.94                      | \$48.01                        | \$10.08           | \$6.49                     | \$2.11                   | \$14.78                     | \$28.47                                       | \$61.89                        |
| Sex                                     |                                       |                   |                            |                              |                                |                   |                            |                          |                             |   |                                |
| Male<br>Female                          | 227.65<br>207.82                      |                   | 10.67<br>9.56              | 28.13<br>27.80               | 49.86<br>46.68                 |                   | 5.66<br>7.08               | 2.31<br>1.96             | 14.20<br>15.20              | 35.89<br>23.13                                | 64.64<br>59.92                 |
| Race                                    |                                       |                   |                            |                              |                                |                   |                            |                          |                             |   |                                |
| White                                   | 202.82                                |                   |                            | 26.92                        |                                |                   | 6.52                       | 2.10                     | 15.29                       | 18.91   | 60.99                          |
| All other<br>Unknown                    | 337.66<br>208.60                      |                   |                            | 37.60<br>26.23               |                                |                   | 6.24<br>6.48               |                          | 10.45<br>13.97              | 113.37<br>31.75                               |                                |
| Type of enrollment                      |                                       |                   |                            |                              |                                |                   |                            |                          |                             |   |                                |
| Aged                                    | 190.79                                |                   |                            | 25.84                        |                                |                   | 6.23                       |                          | 15.30                       | 11.00   |                                |
| Disabled  Services to e                 | 474.24                                |                   |                            | 49.26                        |                                |                   | 9.11                       | 2.46                     | 9.49                        | 206.59  | 100.04                         |

SOURCES: Health Care Financing Administration, Bureau of Data Management and Strategy: Data from the Medicare Statistical System; Office of Research and Demonstrations: Data from the Division of Program Studies.

<sup>&</sup>lt;sup>1</sup>Services to end stage renal disease patients consist primarity of renal dialysis.
<sup>2</sup>Includes charges for computerized axial tomography, durable medical equipment, blood, etc.

Figure 2
Percent distribution of hospital outpatient charges under Medicare, by type of service: 1985

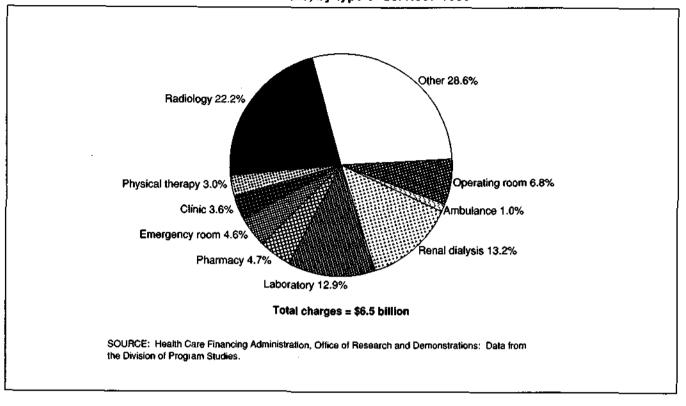


Table 3

Hospital outpatient clinic and emergency room visits and charges under Medicare, by sex, race, and type of enrollment: 1985

|                                   |                     | CI                     | inic                | Emergency room |                     |                        |                     |              |
|-----------------------------------|---------------------|------------------------|---------------------|----------------|---------------------|------------------------|---------------------|--------------|
|                                   | Vis                 | sits                   | Char                | ges            | Vie                 | sits                   | Char                | ges          |
| Sex, race, and type of enrollment | Number in thousands | Per 1,000<br>enrollees | Amount in thousands | Per<br>visit   | Number in thousands | Per 1,000<br>enrollees | Amount in thousands | Per<br>visit |
| Total                             | 5,705               | 190                    | \$231,427           | \$40.57        | 6,959               | 232                    | \$300,599           | \$43.20      |
| Sex                               |                     |                        |                     |                |                     |                        |                     |              |
| Male                              | 2,254               | 180                    | 90.075              | 39.96          | 3,065               | 245                    | 133,776             | 43.65        |
| Female                            | 3,451               | 198                    | 141,352             | 40.96          | 3,895               | 223                    | 166,823             | 42.83        |
| Race                              |                     |                        |                     |                |                     |                        |                     |              |
| White                             | 3,667               | 140                    | 141,936             | 38.71          | 5,829               | 222                    | 246,970             | 42.37        |
| All other                         | 1,882               | 645                    | 83,731              | 44.49          | 959                 | 329                    | 46,191              | 48.17        |
| Unknown                           | 156                 | 181                    | 5,760               | 36.93          | 171                 | 198                    | 7,438               | 43.50        |
| Type of enrollment                |                     |                        |                     |                |                     |                        |                     |              |
| Aged                              | 4,546               | 166                    | 181.576             | 39.94          | 5,715               | 209                    | 247,373             | 43.28        |
| Disabled                          | 1,159               | 433                    | 49,851              | 43.01          | 1,244               | 465                    | 53,226              | 42.79        |

SOURCES: Health Care Financing Administration, Bureau of Data Management and Stratetgy: Data from the Medicare Statistical System; Office of Research and Demonstrations: Data from the Division of Program Studies.

• By State, Massachusetts had the highest average reimbursement per enrollee (\$217) and South Dakota the lowest (\$66), a difference of 229 percent (Figure 3).

Presented in Table 5 are hospital outpatient covered charges and reimbursements for disabled Medicare beneficiaries, excluding those for end stage renal disease.

- The average Medicare HOP reimbursement per disabled enrollee in the United States, excluding enrollees with ESRD, was \$132. This figure was 12 percent higher than the average for aged enrollees (\$118).
- By region, the average reimbursement per disabled enrollee was highest in the Northeast (\$165) and lowest in the South (\$105), a difference of 57 percent.
- By State, the average reimbursement per enrollee ranged from \$288 in the District of Columbia to \$73 in Alabama, a difference of 295 percent (Figure 4).

For Medicare beneficiaries receiving hospital outpatient services in 1985, the 10 leading (most frequently reported) principal diagnoses are displayed in Table 6. Data include the number of bills, covered charges, reimbursements, and average charges and reimbursements per bill.

- Among all Medicare beneficiaries using HOP services, the 10 leading principal diagnoses accounted for 8.9 million bills or 27 percent of all HOP bills (33.6 million).
- Similarly, the 10 leading principal diagnoses accounted for 26 percent (\$1.1 billion) of all Medicare HOP reimbursements (\$4.1 billion).
- Diabetes was the most frequently reported diagnosis, comprising 18 percent (1.6 million) of all bills for HOP services (Figure 5).
- Cataract was the most costly leading principal diagnosis, accounting for 14 percent (\$0.6 billion) of all HOP reimbursements. The average reimbursement per bill for cataract was \$728, or six times higher than the average HOP bill (\$121).

For 1985, Table 7 presents the leading (most frequently reported) surgical procedures performed on Medicare beneficiaries in hospital outpatient departments. Utilization is measured by the number of bills, covered charges, and average charges and reimbursements per bill.

- Among all aged and disabled beneficiaries, the 10 leading HOP surgical procedures accounted for 43 percent (I.3 million) of all HOP surgical procedures (2.9 million).
- The 10 leading HOP surgical procedures accounted for about two-thirds (\$0.6 billion) of all Medicare reimbursements for HOP surgery (\$0.9 billion).
- The average reimbursement per bill for the 10 leading surgical procedures (\$489) was 53 percent higher than the average reimbursement for all bills for surgical procedures (\$317).

- The most frequent surgical procedure was operation on lens (0.45 million), which accounted for 15 percent of all HOP surgical procedures (2.9 million).
- The highest average charge per bill (\$1,521) was for operations on lens (Figure 6).
- The average HOP reimbursement per bill was highest for operations on lens (\$966), more than three times higher than the average for all surgical procedures (\$317). The next highest average reimbursement per procedure was for operations on the breast (\$437).

#### **Definition of terms**

Disabled Medicare enrollees—Disabled enrollees are separated into two groups. In the first group are persons entitled to cash disability benefits for at least 24 months; some of these enrollees have end stage renal disease (ESRD). The second group of disabled persons has not been entitled to cash disability benefits for 24 months. These enrollees are entitled to Medicare because they have ESRD and meet certain social security insured status requirements. Eligibility for Medicare coverage begins with the third month after the beginning of a course of renal dialysis.

Hospital outpatient services—Major hospital outpatient services covered by supplementary medical insurance include services in an emergency room or outpatient clinic, laboratory tests billed by the hospital, X-rays and other radiology services billed by the hospital, medical supplies such as splints and casts, drugs and biologicals that cannot be self-administered, and blood transfusions. Surgical and anesthesiology services are also covered. Physical therapy services must be furnished under a plan set up and reviewed periodically by a physician. For outpatient speech pathology services, a speech pathologist can establish the plan of treatment.

#### Source and limitations of data

The hospital outpatient data are derived from a 5-percent sample of bills for services performed in hospital outpatient departments during 1985. The bills were tabulated by the Health Care Financing Administration's central records as of December 1986. It is estimated that these bills represent about 98 percent of the eventual reimbursements for hospital outpatient services in 1985. Data for the years 1974-85 are based on bills recorded 12 months following the year of service. Sample counts are multiplied by a factor of 20 to estimate population totals. Therefore, the data are subject to sampling variability.

Payments for hospital outpatient services are based on interim rates that may be adjusted after the end of the hospital's accounting year, calculated on reasonable costs of operation. The hospital outpatient figures in this report reflect bills for covered services whether or not a reimbursement was made by the Medicare program.

Table 4

Covered charges and reimbursements for hospital outpatient services used by aged Medicare beneficiaries, by area of residence: 1985

|                            | Deneticiaries, by are | eneticiaries, by area of residence: 1985 |                       |              |  |  |  |
|----------------------------|-----------------------|--|-----------------------|--------------|--|--|--|
|                            | Covered charges       |  | Total reimbursements  | <u></u>      |  |  |  |
| Area of                    | in                    | Amount                                   | Per                   | As percent   |  |  |  |
| esidence                   | thousands             | in thousands                             | enrollee <sup>1</sup> | of charges   |  |  |  |
| ill areas                  | \$5,210,762           | \$3,211,744                              | \$117.60              | 61.6         |  |  |  |
| Jnited States <sup>2</sup> | 5,192,232             | 3,199,736                                | 118.32                | 61.6         |  |  |  |
| lortheast                  | 1,364,572             | 826,081                                  | 130.98                | 60.5         |  |  |  |
| Iorth Central              | 1,364,572             | 864,455                                  | 122.95                | 64.4         |  |  |  |
| South                      | 1,502,151             | 918,221                                  | 102.41                | 61.1         |  |  |  |
| Vest                       | 982,920               | 590,979                                  | 124.70                | 60.1         |  |  |  |
| lew England                | 397,114               | 280,456                                  | 175.74                | 70.6         |  |  |  |
| Connecticut                | 75,810                | 53,893                                   | 135.37                | 71.1         |  |  |  |
| Maine                      | 41,357                | 24,392                                   | 161.60                | 59.0         |  |  |  |
| Massachusetts              | 223,094               | 160,682                                  | 217.10                | 72.0         |  |  |  |
| New Hampshire              | 21,788                | 16,646                                   | 148.16                | 76.4         |  |  |  |
| Rhode Island               | 24,641                | 16.893                                   | 127.41                | 68.6         |  |  |  |
| Vermont                    | 10,423                | 7,950                                    | 128.66                | 76.3         |  |  |  |
| liddle Atlantic            | 967,459               | 545,625                                  | 115.82                | 56.4         |  |  |  |
| New Jersey                 | 136,361               | 98,175                                   | 106.25                | 72.0         |  |  |  |
| New York                   | 370,560               | 203,389                                  | 94.39                 | 54.9         |  |  |  |
| Pennsylvania               | 460,538               | 244,061                                  | 148.41                | 53.0         |  |  |  |
| ast North Central          | 954,680               | 623,931                                  | 130.95                | 65.4         |  |  |  |
| Illinois                   | 252,996               | 173,749                                  | 133.67                | 68.7         |  |  |  |
| Indiana                    | 110,524               | 79,128                                   | 127.71                | 71.6         |  |  |  |
| Michigan                   | 281,372               | 174,630                                  | 175.43                | 62.1         |  |  |  |
| Ohio                       | 196,106               | 119,788                                  | 96.10                 | 61.1         |  |  |  |
| Wisconsin                  | 113,682               | 76,636                                   | 127.03                | 67.4         |  |  |  |
| Vest North Central         | 387,908               | 240,523                                  | 106.13                | 62.0         |  |  |  |
| lowa                       | 72,397                | 240,523<br>45,812                        | 114.39                | 63.3         |  |  |  |
| Kansas                     | 62,132                | 43,186                                   | 137.21                | 69.5         |  |  |  |
| Minnesota                  | 85,278                | 52,721                                   | 104.32                | 61.8         |  |  |  |
| Missouri                   | 113,355               | 64,739                                   | 98.71                 | 57.1         |  |  |  |
| Nebraska                   | 29,138                | 19,707                                   | 93.99                 | 67. <b>6</b> |  |  |  |
| North Dakota               | 14,440                | 8,067                                    | 94.49                 | 55.9         |  |  |  |
| South Dakota               | 11,169                | 6,290                                    | 66.36                 | 56.3         |  |  |  |
| South Atlantic             | 856,773               | 535,991                                  | 113.44                | <b>6</b> 2.6 |  |  |  |
| Delaware                   | 15,188                | 8,281                                    | 122.42                | 54.5         |  |  |  |
| District of Columbia       | 17,416                | 12,387                                   | 186.18                | 71.1         |  |  |  |
| Florida                    | 324,362               | 217,334                                  | 118.80                | 67.0         |  |  |  |
| Georgia                    | 108,859               | 61,225                                   | 110.36                | 56.2         |  |  |  |
| Maryland                   | 83,002                | 54,991                                   | 129.69                | 66.3         |  |  |  |
| North Carolina             | 114,975               | 61,816                                   | 92.25                 | 53.8         |  |  |  |
| South Carolina             | 48,357                | 27,720                                   | 86.53                 | 57.3         |  |  |  |
| Virginia                   | 98,092                | 68,230                                   | 124.58                | 69.6         |  |  |  |
| West Virginia              | 46,521                | 24,007                                   | 98.21                 | 51.6         |  |  |  |
| ast South Central          | 248,027               | 141,709                                  | 82.79                 | 57.1         |  |  |  |
| Alabama                    | 73,415                | 40,128                                   | 87.80                 | 54.7         |  |  |  |
| Kentucky                   | 52,926                | 32,732                                   | 77.74                 | 61.8         |  |  |  |
| Mississippi                | 43,552                | 25,786                                   | 88.95                 | 59.2         |  |  |  |
| Tennessee                  | 78,133                | 43,063                                   | 79.19                 | 55.1         |  |  |  |
| Vest South Central         | 397.352               | 240,521                                  | 95.10                 | 60.5         |  |  |  |
| Arkansas                   | 47,173                | 33,713                                   | 106.03                | 71.5         |  |  |  |
| Louisiana                  | 68,150                | 41,396                                   | 104.20                | 60.7         |  |  |  |
| Oklahoma                   | 54,755                | 34,497                                   | 91.80                 | 63.0         |  |  |  |
| Texas                      | 227,274               | 130,916                                  | 91.03                 | 57.6         |  |  |  |
| Mountain                   | 223,505               | 149,107                                  | 122.71                | 66.7         |  |  |  |
| Arizona                    | 57,423                | 40,681                                   | 112.44                | 70.8         |  |  |  |
| Colorado                   | 61,840                | 36,833                                   | 135.99                | 59.6         |  |  |  |
| Idaho                      | 20,648                | 15,246                                   | 143.90                | 73.8         |  |  |  |
| Montana                    | 13,807                | 10,489                                   | 110.88                | 76.0         |  |  |  |
| Nevada                     | 17,658                | 10,102                                   | 115.10                | 57.2         |  |  |  |
|                            |                       | 16,441                                   | 125.76                | 62.6         |  |  |  |
| New Mexico                 | 26,269                | 10,477                                   |                       |              |  |  |  |
| New Mexico<br>Utah         | 26,269<br>19,496      | 14,755                                   | 120.45                | 75.7         |  |  |  |

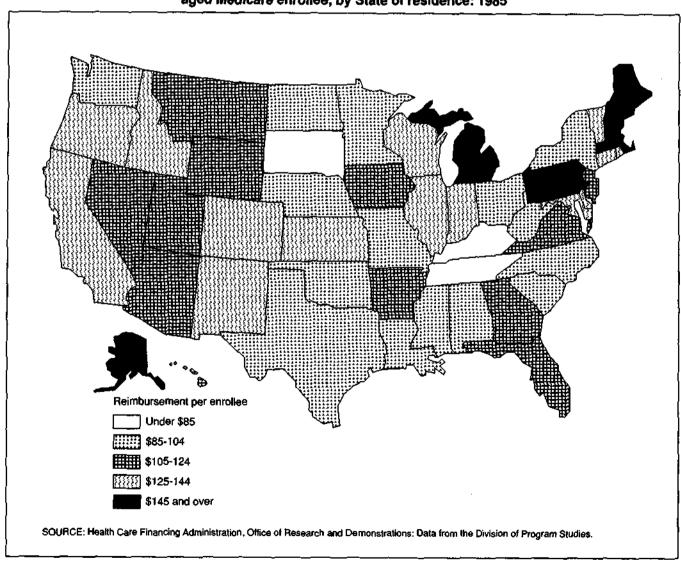
Table 4-Continued Covered charges and reimbursements for hospital outpatient services used by aged Medicare beneficiaries, by area of residence: 1985

| Area of residence           | Covered                    |                     | Total reimbursements         |                       |  |  |  |
|-----------------------------|----------------------------|---------------------|------------------------------|-----------------------|--|--|--|
|                             | charges<br>in<br>thousands | Amount in thousands | Per<br>enrollee <sup>1</sup> | As percent of charges |  |  |  |
| Pacific                     | 759,415                    | 441,873             | 125.38                       | 58.2                  |  |  |  |
| Alaska                      | 3,773                      | 2,366               | 162.63                       | 62.7                  |  |  |  |
| California                  | 599,776                    | 334,459             | 128.48                       | 55.8                  |  |  |  |
| Hawaii                      | 16,758                     | 10,649              | 116.95                       | 63.6                  |  |  |  |
| Oregon                      | 60,532                     | 44,626              | 132.77                       | 73.7                  |  |  |  |
| Washington                  | 78,576                     | 49,771              | 103.84                       | 63.3                  |  |  |  |
| Outlying areas <sup>3</sup> | 18,530                     | 12,007              | 45.91                        | 64.8                  |  |  |  |

<sup>&</sup>lt;sup>1</sup>Based on supplementary medical insurance enrollment as of July 1, 1985.

SOURCES: Health Care Financing Administration, Bureau of Data Management and Strategy: Data from the Medicare Statistical System; Office of Research and Demonstrations: Data from the Division of Program Studies.

Figure 3 Average hospital outpatient reimbursement per aged Medicare enrollee, by State of residence: 1985



<sup>&</sup>lt;sup>2</sup>Consists of 50 States and the District of Columbia.

<sup>3</sup>Consists of Puerto Rico, Virgin Islands, Guam, other areas, and residence unknown.

Table 5

Covered charges and reimbursements for hospital outpatient services used by disabled Medicare beneficiaries, excluding those with end stage renal disease (ESRD)<sup>1</sup>, by area of residence: 1985

|                              | Covered                  | Total reimbursements  Amount Per As percent |                        |              |  |  |
|------------------------------|--------------------------|---|------------------------|--------------|--|--|
| area of                      | charges<br>in            |   |                        |              |  |  |
| esidence                     | thousands                | in thousands                                | enroll <del>ee</del> 2 | of charges   |  |  |
| l areas                      | \$552,287                | \$333,859                                   | \$129.54               | 60.5         |  |  |
| nited States <sup>s</sup>    | 549,878                  | 332,355                                     | 131.63                 | 60.4         |  |  |
| ortheast                     | 151,523                  | 89,175                                      | 164.73                 | 58.9         |  |  |
| orth Central                 | 125,801                  | 79,598                                      | 132.14                 | 63.3         |  |  |
| outh                         | 167,951                  | 100,634                                     | 104.62                 | 59.9         |  |  |
| /est                         | 104,602                  | 62,947                                      | 150.13                 | 60.2         |  |  |
| ew England                   | •                        | •   | 220.99                 | 69.7         |  |  |
| Connecticut                  | 38,630<br>8,267          | 26,940<br>5,635                             | 220.99<br>211.60       | 68.2         |  |  |
| Maine                        |                          |   | 159.89                 | 59.7         |  |  |
| Massachusetts                | 3,900                    | 2,329                                       | 282.93                 |              |  |  |
|                              | 21,486                   | 15,424                                      |                        | 71.8<br>70.0 |  |  |
| New Hampshire                | 1,874                    | 1,385                                       | 164.57                 | 73.9         |  |  |
| Rhode Island<br>Vermont      | 2,311<br>792             | 1,572<br>596                                | 131.98<br>101.44       | 68.0<br>75.2 |  |  |
|                              |                          |   |                        |              |  |  |
| iddle Atlantic               | 112,893                  | 62,235                                      | 148.37                 | 55.1         |  |  |
| New Jersey                   | 14,291                   | 10,002                                      | 126.89                 | 70.0         |  |  |
| New York                     | 56,926                   | 30,900                                      | 155.76                 | 54.3         |  |  |
| Pennsylvania                 | 41,676                   | 21,333                                      | 149.98                 | 51.2         |  |  |
| ast North Central            | 94,078                   | 60,163                                      | 136.97                 | 64.0         |  |  |
| Illinols                     | 21,454                   | 14,379                                      | 141.31                 | 67.0         |  |  |
| Indiana                      | 11,260                   | 7,927                                       | 134.65                 | 70.4         |  |  |
| Michigan                     | 30,414                   | 18,381                                      | 169.31                 | 60.4         |  |  |
| Ohio                         | 20,049                   | 12,176                                      | 99.40                  | 60.7         |  |  |
| Wisconsin                    | 10,902                   | 7,300                                       | 153.54                 | 67.0         |  |  |
|                              |                          |   |                        |              |  |  |
| est North Central            | 31,723                   | 19,435                                      | 119.14                 | 61.3         |  |  |
|                              | 5,509                    | 3,630                                       | 135.55                 | 65.9         |  |  |
| Kansas                       | 4,139                    | 2,789                                       | 139.93                 | 67.4         |  |  |
| Minnesota                    | 6,112                    | 3,814                                       | 121.73                 | 62.4         |  |  |
| Missouri                     | 12,276                   | 7,028                                       | 114.90                 | 57.3         |  |  |
| Nebraska                     | 1,715                    | 1,089                                       | 87.90                  | 63.5         |  |  |
| North Dakota<br>South Dakota | 1,136<br>838             | 623<br>462                                  | 116.81<br>74.46        | 54.9<br>55.1 |  |  |
|                              |                          | ·   |                        |              |  |  |
| outh Atlantic                | 95,977                   | 58,133                                      | 118.38                 | 60.6         |  |  |
| Delaware                     | 1,330                    | 678   | 100.92                 | 51.0         |  |  |
| District of Columbia         | 2,365                    | 1,653                                       | 287.71                 | 69.9         |  |  |
| Florida                      | 22,169                   | 14,526                                      | 111.14                 | 65.5         |  |  |
| Georgia                      | 17,551                   | 9,604                                       | 120.93                 | 54.7         |  |  |
| Maryland                     | 11,148                   | 7,773                                       | 209.37                 | 69.7         |  |  |
| North Carolina               | 14,402                   | 8,010                                       | 96.25                  | 55.6         |  |  |
| South Carolina               | 7,463                    | 3,831                                       | 81.28                  | 51.3         |  |  |
| Virginia                     | 13,017                   | 8,809                                       | 139.95                 | 67.7         |  |  |
| West Virginia                | 6,533                    | 3,248                                       | 85.33                  | 49.7         |  |  |
| ast South Central            | 34,826                   | 19,917                                      | 86.40                  | 57.2         |  |  |
| Alabama                      | 8,339                    | 4,334                                       | 72.98                  | 52.0         |  |  |
| Kentucky                     | 7,737                    | 4,812                                       | 81.19                  | 62.2         |  |  |
| Mississippi                  | 5,675                    | 3,368                                       | 78.68                  | 59.4         |  |  |
| Tennessee                    | 13,075                   | 7,402                                       | 107.21                 | 56.6         |  |  |
| est South Central            | 37,148                   | 22,584                                      | 93.98                  | 60.8         |  |  |
| Arkansas                     | 37,146<br>4,918          | 22, <del>364</del><br>3,373                 | 93.96<br>86.30         | 68.6         |  |  |
| Louisiana                    | 4,916<br>7,897           | 4,806                                       | 89.00                  | 60.9         |  |  |
| Oklahoma                     | 7,897<br>5,135           | 4,806<br>3,284                              | 104.44                 |              |  |  |
| Texas                        | 5, 135<br>1 <b>9,198</b> | 3,2 <del>04</del><br>11,121                 | 96.04                  | 64.0<br>57.9 |  |  |
|                              |                          |   |                        |              |  |  |
| ountain<br>Arizona           | 19,794                   | 13,051                                      | 127.07                 | 65.9         |  |  |
| Arizona<br>Colorado          | 5,212                    | 3,579                                       | 112.53                 | 68.7         |  |  |
| Colorado                     | 5,320                    | 3,296                                       | 147.08                 | 61.9         |  |  |
| Idaho                        | 1,396                    | 1,000                                       | 126.37                 | 71.6         |  |  |
| Montana                      | 1,319                    | 1,038                                       | 127.53                 | 78.7         |  |  |
| Nevada                       | 1,842                    | 1,014                                       | 121.75                 | 55.1         |  |  |
| New Mexico                   | 3,076                    | 1,896                                       | 138.88                 | 61.6         |  |  |
|                              |                          |   |                        |              |  |  |
| Utah<br>Wyoming              | 1,218<br>412             | 940<br>288                                  | 118.61<br>112.05       | 77.2<br>69.9 |  |  |

Table 5—Continued Covered charges and reimbursements for hospital outpatient services used by disabled Medicare beneficiaries, excluding those with end stage renal disease (ESRD)1, by area of residence: 1985

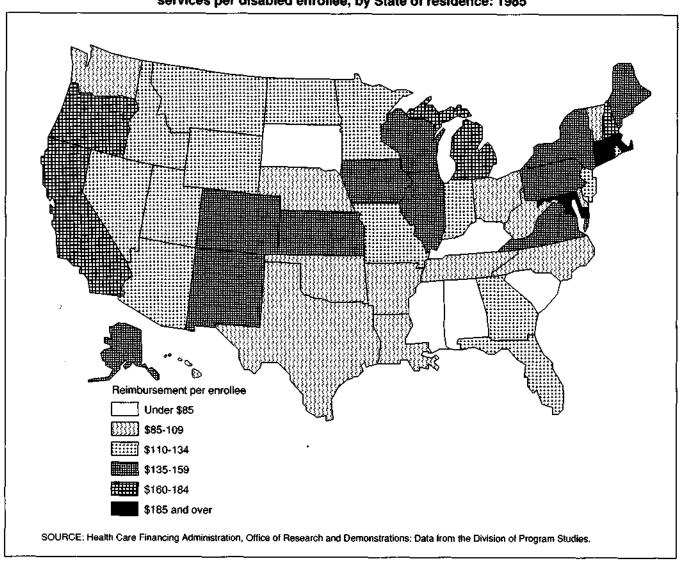
| Area of residence           | Covered                    | Total reimbursements |                              |                       |  |  |
|-----------------------------|----------------------------|----------------------|------------------------------|-----------------------|--|--|
|                             | charges<br>in<br>thousands | Amount in thousands  | Per<br>enrollee <sup>2</sup> | As percent of charges |  |  |
| Pacific                     | 84,808                     | 49,896               | 157.61                       | 58.8                  |  |  |
| Alaska                      | 381                        | 255                  | 145.72                       | 67.1                  |  |  |
| California                  | 70,694                     | 40,446               | 166.49                       | 57.2                  |  |  |
| Hawaii                      | 1,074                      | 610                  | 91.20                        | 56.8                  |  |  |
| Oregon                      | 6,490                      | 4.655                | 173.68                       | 71.7                  |  |  |
| Washington                  | 6,169                      | 3,930                | 102.34                       | 63.7                  |  |  |
| Outlying areas <sup>4</sup> | 2,409                      | 1,504                | 29.26                        | 62.4                  |  |  |

<sup>1</sup> Excludes ESRD data because larger reimbursements for a relatively few disabled ESRD-only enrollees would significantly distort the State reimbursement per enrollee.

2Based on supplementary medical insurance enrollment as of July 1, 1985.

SOURCES: Health Care Financing Administration, Bureau of Data Management and Strategy: Data from the Medicare Statistical System; Office of Research and Demonstrations: Data from the Division of Program Studies.

Figure 4 Average Medicare reimbursement for hospital outpatient services per disabled enrollee, by State of residence: 1985



<sup>&</sup>lt;sup>3</sup>Consists of 50 States and the District of Columbia.

<sup>&</sup>lt;sup>4</sup>Consists of Puerlo Rico, Virgin Islands, Guam, other areas, and residence unknown.

Table 6

Number of hospital outpatient bills, covered charges, and relmbursements under Medicare, by principal diagnosis: 1985

| Principal diagnosis  | ICD-9-CM<br>code1 | Number<br>of<br>bills | Covered charges in thousands | Reimbursements<br>in<br>thousands | Average<br>charge<br>per<br>bill | Average<br>reimbursement<br>per<br>bill |
|--|-------------------|-----------------------|------------------------------|-----------------------------------|----------------------------------|---|
| Total, all diagnoses   |                   | 33,621,380            | \$6,480,777                  | \$4,082,303                       | \$192.76                         | \$121.42                                |
| Leading diagnoses  | _                 | 8,926,740             | 1,746,799                    | 1,059,961                         | 195.68                           | 118.74                                  |
| Diabetes mellitus<br>Special investigations and                        | 250               | 1,578,520             | 82,646                       | 48,163                            | 52.36                            | 30,51                                   |
| examinations   | V72               | 1,285,640             | 97,501                       | 58,422                            | 75.84                            | 45.44                                   |
| Essential hypertension<br>Symptoms involving<br>respiratory system and | 401               | 1,263,600             | 92,702                       | 52,533                            | 73.36                            | 41.57                                   |
| other chest symptoms   | 786               | 957,100               | 140,046                      | 79,906                            | 146.32                           | 83.49                                   |
| General symptoms   | 780               | 825,780               | 118,330                      | 68,716                            | 143.29                           | 83.21                                   |
| Cataract Other symptoms involving                                      | 366               | 780,080               | 902,726                      | 567,814                           | 1,157.22                         | 727.89                                  |
| abdomen and pelvis<br>Other disorders of urethra                       | 789               | 709,560               | 119,896                      | 70,411                            | 168.97                           | 99.23                                   |
| and urinary tract Other forms of chronic                               | 599               | 643,100               | 70,275                       | 39,405                            | 109.27                           | 61.27                                   |
| ischemic heart disease<br>Acute, but ill-defined,                      | 414               | 532,760               | 57,343                       | 34,147                            | 107.63                           | 64.10                                   |
| cerebrovascular disease  | 436               | 350,600               | 65,336                       | 40,445                            | 186.35                           | 115.36                                  |
| All other diagnoses  |                   | 24,694,640            | 4,733,978                    | 3,022,342                         | 191.70                           | 122.39                                  |

<sup>&</sup>lt;sup>1</sup>Principal diagnosis from the International Classification of Diseases, 9th Revision, Clinical Modification, Volume 1.

SOURCES: Health Care Financing Administration, Bureau of Data Management and Strategy: Data from the Medicare Statistical System; Office of Research and Demonstrations: Data from the Division of Program Studies.

Figure 5

Number of bills and average charges for hospital outpatient services under Medicare, by leading principal diagnosis: 1985

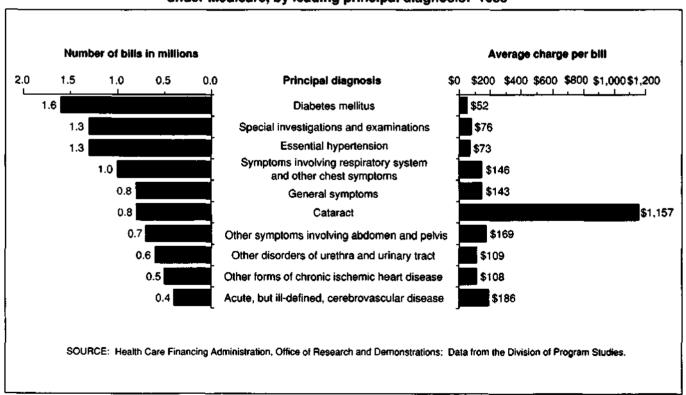


Table 7

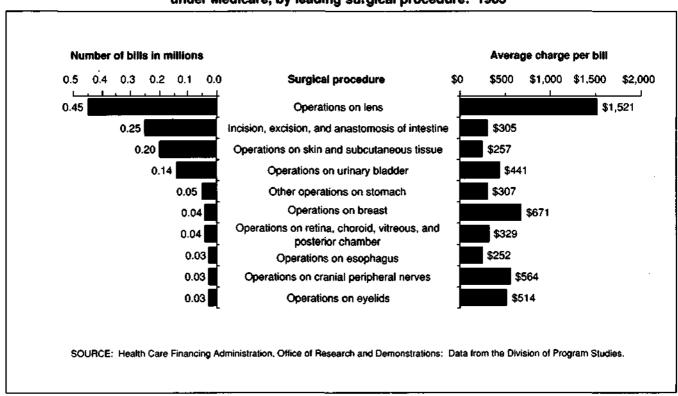
Number of hospital outpatient bills, covered charges, and reimbursements under Medicare, by principal surgical procedure: 1985

| Principal surgical procedure   | ICD-9-CM<br>code <sup>1</sup> | Number<br>of<br>bills | Covered charges in thousands | Reimbursements<br>in<br>thousands | Average<br>charge<br>per<br>bill | Average<br>reimbursement<br>per<br>bill |
|--|-------------------------------|-----------------------|------------------------------|-----------------------------------|----------------------------------|---|
| Total, all procedures  |                               | 2,935,920             | \$1,476,699                  | \$931,999                         | \$502.98                         | \$317.45                                |
| Leading procedures   |                               | 1,271,200             | 979,296                      | 621,667                           | 770.37                           | 489.04                                  |
| Operations on lens<br>Incision, excision, and  | 13                            | 454,240               | 690,688                      | 438,875                           | 1,520.53                         | 966.17                                  |
| anastomosis of intestine<br>Operations on skin and                                   | 45                            | 251,480               | 76,642                       | 48,384                            | 304.76                           | 192.40                                  |
| subcutaneous tissue  | 86                            | 200,220               | 51,507                       | 31,614                            | 257.25                           | 157.90                                  |
| Operations on urinary bladder  | 57                            | 142,960               | 63,105                       | 40,672                            | 441.42                           | 284.50                                  |
| Other operations on stomach  | 44                            | 46,540                | 14,288                       | 9,098                             | 307.00                           | 195.49                                  |
| Operations on the breast<br>Operations on retina, choroid,<br>vitreous and posterior | 85                            | 40,640                | 27,271                       | 17,748                            | 671.04                           | 436.70                                  |
| chamber  | 14                            | 36,000                | 11,831                       | 7,283                             | 328.64                           | 202.30                                  |
| Operations on esophagus Operations on cranial and                                    | 42                            | 33,020                | 8,328                        | 5,286                             | 252.21                           | 160.09                                  |
| peripheral nerves  | 04                            | 33,180                | 18,730                       | 12,128                            | 564.49                           | 365.51                                  |
| Operations on eyelids  | 08                            | 32,920                | 16,905                       | 10,580                            | 513.53                           | 321.37                                  |
| All other procedures   | _                             | 1,664,720             | 497,404                      | 310,333                           | 298.79                           | 186.42                                  |

<sup>&</sup>lt;sup>1</sup>Principal surgical procedure from the International Classification of Diseases, 9th Revision, Clinical Modification, Volume 3.

SOURCES: Health Care Financing Administration, Bureau of Data Management and Strategy: Data from the Medicare Statistical System; Office of Research and Demonstrations: Data from the Division of Program Studies,

Figure 6
Number of bills and average charge for hospital outpatient services under Medicare, by leading surgical procedure: 1985



### Acknowledgments

Martin Ruther of the Division of Program Studies made significant contributions to this article. A substantial portion of the background material presented in the first section of this article was based on information contained in chapter 6 of the Secretary's Report to Congress: The Impact of the Medicare Hospital Prospective Payment System, 1985 Annual Report. Chapter 6 of the mandated report was written by Sherry Terrell, Chief, Non-Institutional Studies Branch, Judith Sangl,

Terrence Kay, and John Petrie, all with the Division of Reimbursement and Economic Studies.

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