SECTION 2A

Assessing payment adequacy and updating payments for hospital inpatient and outpatient services

RECOMMENDATIONS

2A-1 The Secretary should add 13 DRGs to the post-acute transfer policy in fiscal year 2004 and then evaluate the effects on hospitals and beneficiaries before proposing further expansions.

*YES: 15 • NO: 1 • NOT VOTING: 1 • ABSENT: 0

2A-2 The Congress should enact a low-volume adjustment to the rates used in the inpatient PPS. This adjustment should apply only to hospitals that are more than 15 miles from another facility offering acute inpatient care.

YES: 17 • NO: 0 • NOT VOTING: 0 • ABSENT: 0

2A-3 The Secretary should reevaluate the labor share used in the wage index system that geographically adjusts rates in the inpatient PPS, with any resulting change phased in over two years.

YES: 16 • NO: 0 • NOT VOTING: 1 • ABSENT: 0

2A-4 The Congress should raise the inpatient base rate for hospitals in rural and other urban areas to the level of the rate for those in large urban areas, phased in over two years.

YES: 17 • NO: 0 • NOT VOTING: 0 • ABSENT: 0

2A-5 The Congress should raise the cap on the disproportionate share add-on a hospital can receive in the inpatient PPS from 5.25 percent to 10 percent, phased in over two years.

YES: 15 • NO: 1 • NOT VOTING: 1 • ABSENT: 0

2A-6 The Congress should increase payment rates for the inpatient PPS by the rate of increase in the hospital market basket, less 0.4 percent, for fiscal year 2004.

YES: 17 • NO: 0 • NOT VOTING: 0 • ABSENT: 0

2A-7 The Congress should increase payment rates for the outpatient PPS by the rate of increase in the hospital market basket, less 0.9 percent, for calendar year 2004.

YES: 17 • NO: 0 • NOT VOTING: 0 • ABSENT: 0

*COMMISSIONERS' VOTING RESULTS

SECTION 2A

Section 2A: Assessing payment adequacy and updating payments for hospital inpatient and outpatient services

In this section

- Assessing payment adequacy
- Policies affecting the distribution of payments
- Update for inpatient services
- Update for outpatient services

The Commission finds that Medicare payments for all hospital services are at least adequate as of fiscal year 2003, even after accounting for legislated changes. Our conclusion is based on an estimated overall Medicare margin of 3.9 percent for 2003; broad indicators such as access to capital; and factors affecting costs in the coming year such as inflation and technological advances. We recommend an update of market basket minus 0.4 percent for inpatient services, but because technological advances affecting outpatient services are frequently handled through new technology provisions, we recommend a lower outpatient update—market basket minus 0.9 percent. We view our inpatient update as part of a package that includes five other policy changes aimed at appropriately distributing payments: extending the post-acute transfer policy; implementing a low-volume adjustment; reevaluating the labor share used with Medicare's wage index; eliminating the differential in base rates for hospitals in rural and small urban areas; and increasing the cap on disproportionate share payments. In addition, we are not satisfied with the current indirect medical education adjustment because it provides payments well above the empirically justified level without accountability, and we will explore ways to target these payments to advance specific Medicare policy objectives.

In this section of Chapter 2, we present the Commission's analysis of Medicare payments for hospital services, together with seven recommendations on inpatient and outpatient payments. As background, we begin with an overview of the services hospitals provide to Medicare beneficiaries and of Medicare spending on these services. We also describe Medicare's inpatient and outpatient prospective payment systems (PPSs), which account for the bulk of Medicare spending on hospital services.

Next, we analyze the adequacy of Medicare payments for *all* hospital services—inpatient, outpatient, and other services—in fiscal year 2003**.** We then discuss the Commission's findings and recommendations for Medicare payments to hospitals under the inpatient PPS for patients transferred from inpatient hospital to post-acute settings, the indirect medical education (IME) adjustment for the costs of teaching hospitals, and payments to rural hospitals. Finally, we present MedPAC's recommendations for updates to Medicare's hospital inpatient and outpatient PPS payment rates.

Background

Hospitals provide a variety of services to Medicare beneficiaries, but the bulk of Medicare spending on hospitals is for inpatient and outpatient care. Each year, approximately one-fifth of Medicare beneficiaries receive hospital inpatient care, and one-half receive care in hospital outpatient departments. Medicare purchases these and other services from over 4,800 short-term general hospitals that meet its conditions of participation and agree to accept the program's payment rates as full payment.

The services hospitals provide

Short-term general hospitals provide Medicare beneficiaries with inpatient care for the diagnosis and treatment of acute conditions and manifestations of chronic conditions. They also provide ambulatory care through outpatient departments and emergency rooms. Many hospitals provide home health, skilled nursing facility (SNF), and rehabilitation services following surgery or an inpatient stay for medical care, and many also furnish psychiatric care.

Medicare spending on hospitals

In 2000, about three-fourths of Medicare payments to hospitals were for inpatient care and about one-seventh was for outpatient care, including emergency room services (Figure 2A-1). Most of the remaining Medicare payments went for home health care, care provided by SNFs, and care provided by hospital units exempt from the inpatient PPS.

Total hospital spending grew 8.3 percent in 2001 after increasing 5.8 percent in 2000. CMS estimates that hospital inflation increased 3.2 percent in 2001 after growth of 2.6 percent in 2000 (Levit et al. 2003). Total Medicare spending for inpatient and outpatient care increased from about $83 billion in 1992 to $119 billion in 2001 (Figure 2A-2). These expenditures increased 4.2 percent per year over the period, growing at annual rates of 4.9 percent from 1992 to 1998 and 2.7 percent from 1998 to 2001. Medicare spent $86 billion on services paid under the inpatient prospective payment system in fiscal year 2001. The Congressional Budget Office (CBO) projects that PPS inpatient spending will increase at an average annual rate of 6.2 percent from 2002 to 2007.

Medicare's payment systems for hospital inpatient and outpatient services

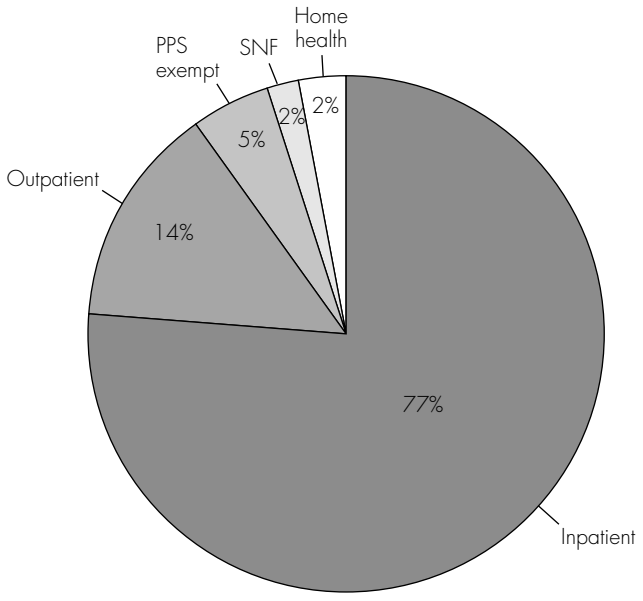
Medicare has used prospective payment for inpatient services since 1984. Medicare introduced prospective payment for hospital outpatient department services (including emergency room services) in 2000.

Medicare's hospital inpatient PPS

Medicare's hospital inpatient PPS pays hospitals predetermined amounts per discharge based primarily on the patient's condition and market conditions in the hospitals' location. Medicare assigns discharges to diagnosis related groups (DRGs), which group patients with similar clinical problems that are expected to require similar amounts of hospital resources. Separate DRG-based payments apply for operating and capital costs.

FIGURE 2A–1

Medicare hospital payments by major service line, 2000

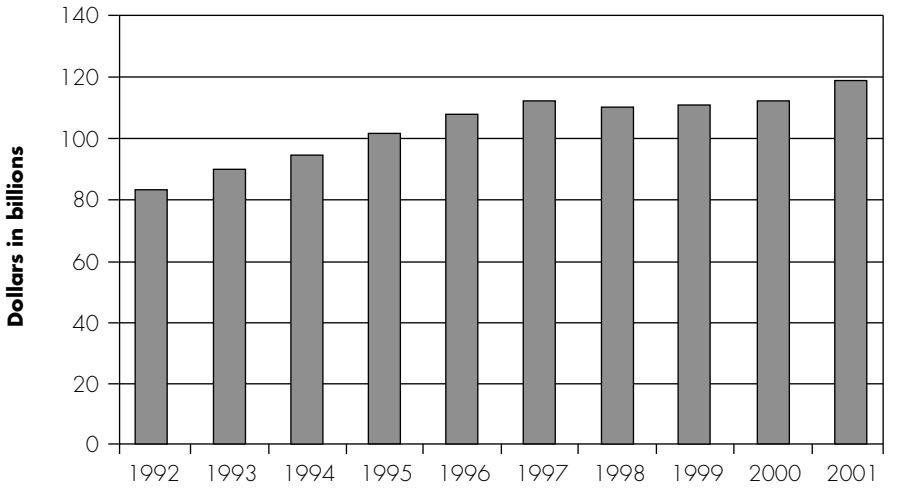


Note: PPS (prospective payment system), SNF (skilled nursing facility). PPS exempt units include inpatient psychiatric and rehabilitation services. Data are imputed for hospitals whose cost reports were not available (about 27 percent of observations). Excludes critical access hospitals.

Source: MedPAC analysis of Medicare cost report data from CMS.

FIGURE 2A-2

Payments to Medicare providers for all hospital inpatient and outpatient services, fiscal years 1992–2001



Note: Includes inpatient services covered by prospective payment (PPS); PPS-exempt inpatient services (psychiatric, rehabilitation, long-term care, cancer, and children's hospitals and units); outpatient services covered by prospective payment; and other outpatient services. Payments include both program outlays and cost-sharing incurred by beneficiaries.

Source: CMS, Office of the Actuary, 2002.

CMS sets relative weights for 508 DRGs; weights are intended to measure the expected relative costliness for a patient in each DRG compared with costs for the average Medicare patient.[1] The base payment rate reflects the average costliness of Medicare inpatient cases nationwide. The labor share of the base payment amount (71 percent) is adjusted by a wage index to reflect the relative level of input prices in the hospital's local area. The product of the hospital's base payment rate and the relative weight of the DRG to which a patient is assigned is the hospital's DRG payment rate.

The inpatient PPS makes special payments for unusual cases and to hospitals with specific characteristics. These additional adjustments are intended to recognize differences in patient treatment costs or to accomplish a policy goal. Extremely costly cases qualify for outlier payments in addition to the regular DRG payment. An indirect medical education (IME) adjustment accounts for the higher patient care costs of teaching hospitals. The disproportionate share (DSH) adjustment provides additional payment for hospitals that treat an unusually large share of low-income patients. DRG payments are reduced when a patient is transferred to another PPS hospital, or in some instances to a post-acute care setting. Special payments are made to rural hospitals that qualify as sole community providers, referral centers, or Medicare-dependent hospitals. Additional payments are made for new technologies when PPS payment rates for specific DRGs or cases within DRGs are inadequate.

Medicare's hospital outpatient PPS

By contrast with the inpatient PPS, the outpatient PPS pays hospitals a predetermined amount per service. A hospital receives payment for each inpatient discharge but a separate payment for each service provided during an outpatient encounter. Each service provided to a beneficiary is assigned to 1 of approximately 570 ambulatory payment classification (APC) groups. The APCs group procedures, evaluation and management services, and some drugs used in hospital outpatient departments. Each APC has a relative weight based on the median cost of the services grouped in the APC. A conversion factor translates relative weights into dollar payment amounts; the outpatient payment rate equals the relative weight for the APC times the conversion factor. The labor portion of the conversion factor (60 percent) is adjusted by the hospital wage index to reflect differences in local input prices.

The outpatient PPS includes five payment adjustments. Pass-through payments for new technologies supplement payments for individual services. These technologies include drugs, biologicals, and medical devices used in the delivery of services. Outlier payments are made for individual services or procedures with extraordinarily high costs relative to the payment rate for the APC. In addition, certain services are assigned to new technology APCs. Hold-harmless payments are made to cancer, children's, and small rural hospitals if their outpatient PPS payments are lower than they would have received under prior policy. Hold-harmless payments to small rural hospitals end in calendar year 2003**.** Transitional corridor payments, which are also made through 2003, are intended to partially compensate all hospitals for the difference between PPS payments and payments they would have received under previous policy.

Assessing payment adequacy

Each year, MedPAC makes payment update recommendations for hospital inpatient and outpatient services for the coming fiscal year. To inform our recommendations, we consider multiple factors, including the relationship of Medicare's current payments to providers' costs, the appropriateness of providers' current costs, and various market indicators of payment adequacy. MedPAC analysis finds that aggregate Medicare payments for all hospital services provided to beneficiaries are at least adequate as of fiscal year 2003.

1 There are 527 DRGs in 2003, but 19 of these are no longer used for Medicare payment, leaving 508 DRGs in use.

Financial status of hospitals

Hospitals' general financial health is of concern to the Commission because a severe decline could affect the ability of hospitals to provide high-quality care to Medicare beneficiaries. For that reason, it is important to monitor the impact on hospitals of the payment policies of private and public purchasers of hospital care, as well as measures of hospitals' general financial status.

During the 1990s, increased pressure from private payers on hospitals' revenues was generally credited with producing low growth in hospital costs. In 1998 and 1999, both private payer and Medicare payments fell relative to costs, providing additional pressure to control costs in those years (Figure 2A-3). The situation changed in 2000 when private payments increased relative to costs, while the decline in Medicare payments relative to costs slowed.

The increase in the private-sector payment-to-cost ratio reflects more aggressive negotiations by providers as well as shifts by payers and consumers to less-intrusive approaches to care management. Less-restrictive forms of managed care such as preferred provider organizations (PPOs) have displaced health maintenance organizations (HMOs) as the dominant private insurance models. Plans have responded to consumer demand by establishing broader provider networks. These changes have weakened the bargaining power of plans in dealing with providers—hospitals have been willing to cease contracting with specific plans to avoid price concessions (Strunk 2001).

The total margin for all payers—Medicare, Medicaid, and private payers—reflects the relationship of all hospital revenues to all hospital costs including inpatient, outpatient, post-acute, and nonpatient services. The total margin does not provide a measure of the adequacy of Medicare payments, but it is certainly the most comprehensive measure of hospitals' general financial performance.[1] Data from Medicare cost reports show that the average total margin for the period from 1990 through 2000 was 4.6 percent. After reaching a high of 6.1 percent in fiscal year 1996, the total margin fell to 3.4 percent in fiscal year 2000 (Figure 2A-4).

The decline in total margins appears to have halted in 2002. MedPAC examined data from the American Hospital Association (AHA) on developments since 2000. The AHA annual survey indicates that the total margin fell in 2001 from 4.6 to 4.2 percent (Table 2A-1). However, the national hospital indicators survey, conducted by AHA with funding from the Centers for Medicare & Medicaid Services (CMS) and MedPAC, indicates that this decline had stopped in the first nine months of fiscal 2002. This data source yields a 4.5 percent margin for fiscal years 2001 and 2002. ■

TABLE 2A-1 **Trend in hospital total margin, 1998–2002**

Fiscal year	Medicare cost report	AHA annual survey	National hospital indicators survey
1998	4.3%	5.8%	4.3%
1999	3.8	4.7	2.7
2000	3.4	4.6	4.7
2001	N/A	4.2	4.5
2002	N/A	N/A	4.5

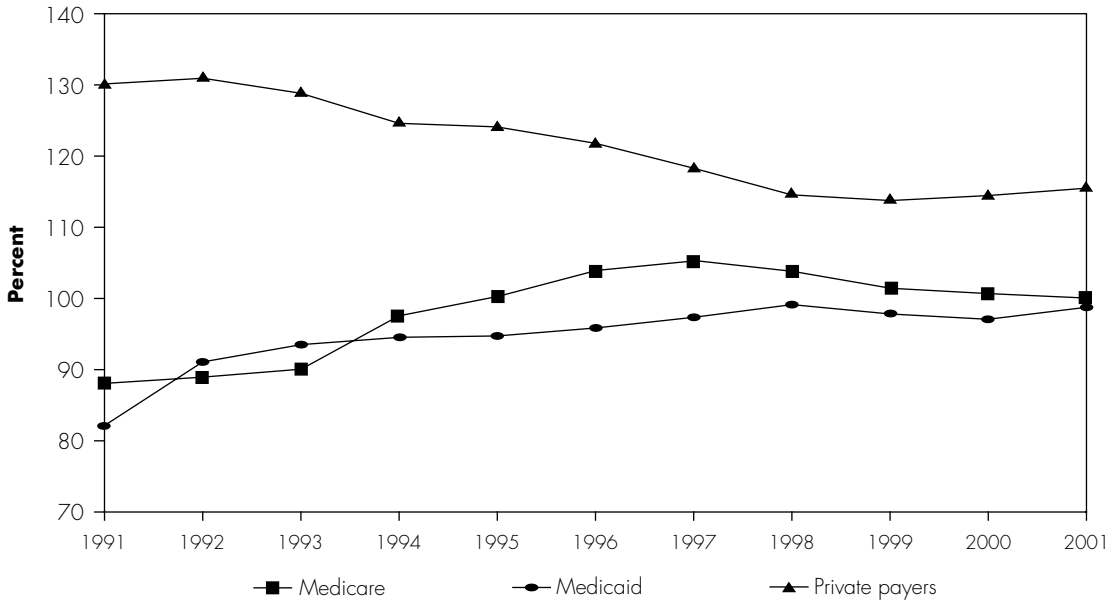
Note: AHA (American Hospital Association). Medicare cost report margins are imputed for hospitals whose 2000 cost reports were not available (about 27 percent of observations) and exclude critical access hospitals. The 2002 value for the national hospital indicators survey is based on three quarters of data and is seasonally adjusted.

Source: MedPAC analysis of cost report data from CMS, AHA annual survey of hospitals, and the national hospital indicators survey (sponsored by CMS and MedPAC, conducted by AHA).

[1] There is substantial variation in financial reporting among hospitals and between the Medicare cost report and audited financial statements of individual hospitals. These considerations suggest that comparisons of total margins among hospitals and across data sources should be treated with caution (Kane 2001).

FIGURE 2A-3

Hospital payment-to-cost ratios for Medicare, Medicaid, and private payers, 1991–2001

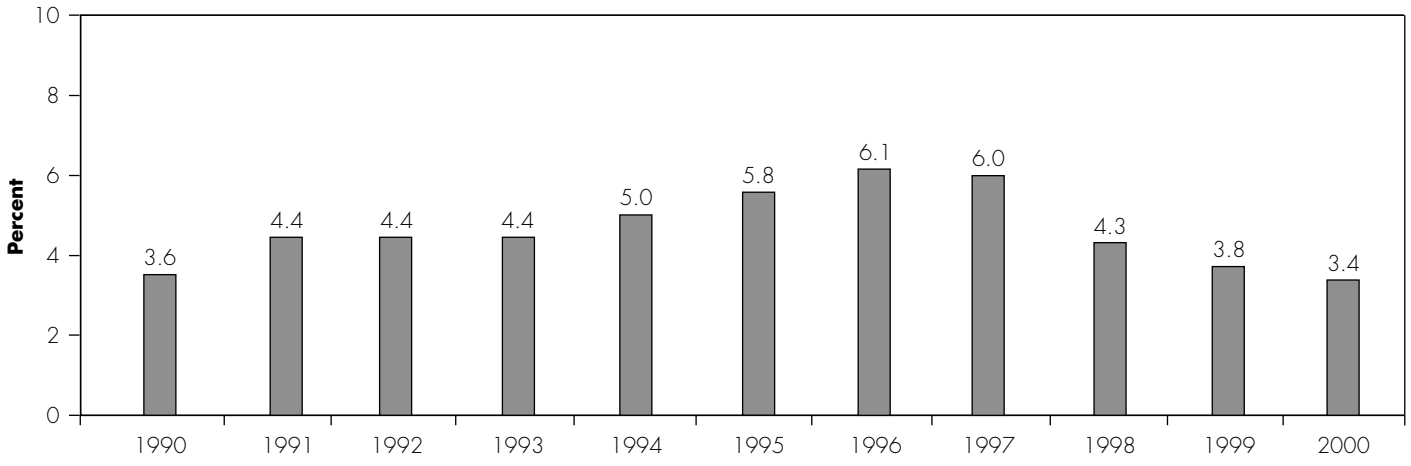


Note: Payment-to-cost ratios indicate the relative degree to which payments from each payer cover the costs of treating that payer's patients. Data are for community hospitals and cover all hospital services. Imputed values were used for missing data (about 35 percent of observations). Most Medicare and Medicaid managed care patients are included in the private payers category.

Source: Medicare analysis of data from the American Hospital Association's annual survey of hospitals.

FIGURE 2A-4

Trend in hospital total margin, 1990–2000



Note: Data are imputed for hospitals whose 2000 cost reports were not available (about 27 percent of observations). Excludes critical access hospitals.

Source: MedPAC analysis of Medicare cost report data from CMS.

Current payments and costs

One factor the Commission uses to inform its Medicare payment update recommendations for fiscal year 2004 is the estimated relationship between Medicare payments and costs (margins) for fiscal year 2003. Separate margins can be calculated for inpatient, outpatient, and all services provided to Medicare beneficiaries. We use the latest cost report data available (fiscal year 2000) from hospitals as the cost and payment base, and then estimate margins in fiscal year 2003 by projecting cost and payment increases from fiscal years 2000 to 2003. This involves applying payment updates in current law and modeling payment policy changes, including those scheduled to take effect in fiscal year 2004. We compare payments to costs in fiscal year 2003 assuming that all provisions of current law for fiscal year 2004 are in effect except the inpatient and outpatient updates.

Inpatient and outpatient Medicare margins

The inpatient and outpatient margins reflect payments and costs for services covered under Medicare's hospital inpatient PPS and all outpatient services, respectively.[2] The inpatient margin is overstated and the outpatient margin understated because of the way hospitals allocate their costs between these two settings. This variation results from accounting practices introduced when Medicare paid prospectively determined payments for inpatient services but paid for outpatient and other services at cost. Research for the Health Care Financing Administration (HCFA, now CMS) found that outpatient costs might be overstated by 15 to 20 percent (CHPS Consulting 1994).[3] This implied that inpatient costs were understated by 3 to 4 percent. Costs for the other components of hospital services are overstated for similar reasons, implying a small additional understatement on the inpatient side.

From 1999 to 2000, hospital inpatient margins declined from 12.3 to 10.8 percent, and outpatient margins increased from –16.4 to –13.7 percent (Table 2A-2). These changes were accompanied by increases in the PPS-exempt and home health margins and almost no change in the skilled nursing facility margin.

Overall Medicare margin

The overall Medicare margin incorporates payments and costs for inpatient, outpatient, skilled nursing, home health, psychiatric, and rehabilitative services for Medicare beneficiaries, as well as graduate medical education and Medicare bad debts.[4]

The overall margin is available since 1996 and the inpatient margin since 1984. Inpatient payments comprise approximately three-fourths of total Medicare payments to PPS hospitals**.** As a result, the overall margin follows a trend similar to that of the inpatient margin (Figure 2A-5). The inpatient margin increased steadily from 1991 through 1997. The overall margin increased as well, reaching a high point of 10.4 percent in 1997.

The overall Medicare margin was 5.1 percent in 1999 and 5.0 percent in 2000. We estimate that the overall Medicare margin will be 3.9 percent in 2003 (Table 2A-3). The overall margin of major teaching hospitals increased between 1999 and 2000 but is expected to decline in 2003, largely because of the scheduled reduction in IME payments. The overall margin of rural hospitals declined from 1999 to 2000. It is expected to increase by 2003, in part because of the increase in disproportionate share payments implemented in 2001 through the Medicare, Medicaid, and SCHIP Benefits Improvement and Protection Act of 2000 (BIPA).

TABLE 2A-2

Overall Medicare margin and margin by major service line, 1999–2000

Service	1999	2000
Inpatient	12.3%	10.8%
Outpatient	–16.4	–13.7
PPS-exempt	–1.8	0.6
Skilled nursing facility	–55.9	–57.4
Home health	–13.1	–9.9
Overall	5.1	5.0

Note: PPS (prospective payment system). Data are based on Medicare-allowable costs. Margins are imputed for hospitals whose 2000 cost reports were not available (about 27 percent of observations). Excludes critical access hospitals. PPS-exempt includes inpatient psychiatric and rehabilitation services. Payments and costs for graduate medical education are included in the overall Medicare margin but not in the other margins.

Source: MedPAC analysis of Medicare cost report data from CMS.

Appropriateness of current costs

In general, we find that the hospital cost base as of fiscal year 2003 is appropriate. A number of factors put downward pressure on costs in the late 1990s and 2000, so that hospital costs were constrained. Large reductions in length of stay occurred in the mid-1990s, and revenue pressure from both private and public payers increased in 1998 and 1999. Declining interest rates reduced costs and improved hospital access to capital. However, as length-of-stay decline slowed, revenue pressure moderated, and wage pressures emerged, Medicare cost-per-case growth increased in 2001.

The most direct indicator of the appropriateness of the hospital cost base is growth in Medicare inpatient cost per case

2 Outpatient margins encompass all outpatient services, not just outpatient PPS services. This approach provides consistency over time and reflects the fact that cost reporting periods for some hospitals span the implementation of the new payment system in August 2000.

3 The final report of HCFA's study contains a series of DRG-specific values, rather than a national figure for outpatient cost overstatement. However, the study's principal investigator has estimated that the national figure is between 15 and 20 percent.

4 Because of data limitations, small amounts spent on certain other services, such as ambulance and hospice, are not reflected in the overall Medicare margin.

over time. Growth in hospitals' Medicare cost per case was modest—less than the increase in the hospital market basket—from 1993 through 1998. From 1994 to 1996, cost-per-case growth was negative. This is partly because from 1990 to 1999 hospitals reduced Medicare length of stay about 33 percent, resulting in lower resource use. In an earlier study, MedPAC found that during the period of the largest length-of-stay reductions, each percentage point drop in length of stay resulted in a corresponding 0.8 percent drop in real costs per case (Ashby et al. 2000).

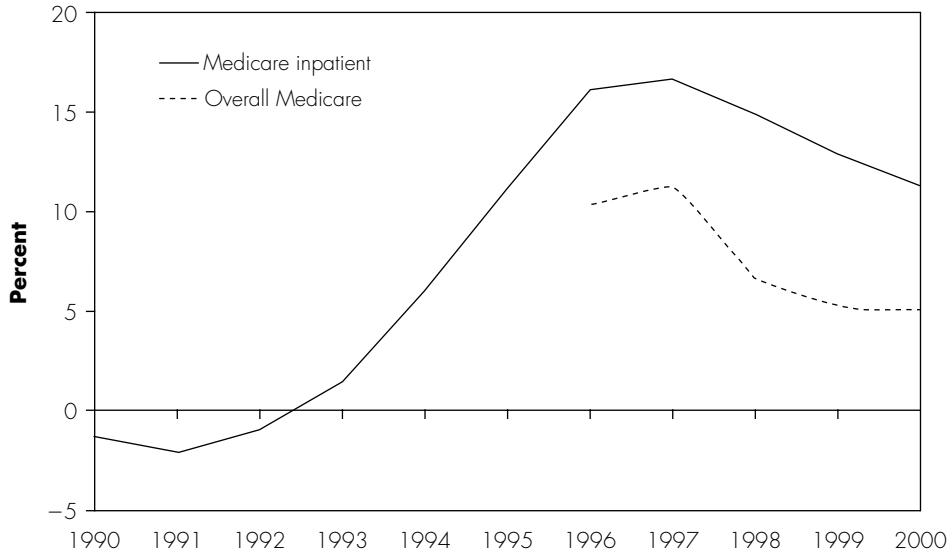
Cost-per-case growth began to accelerate at the end of the 1990s as the decline in length of stay slowed. Length of stay for all hospital inpatients has continued to fall, though at a more moderate rate, with declines of 1.8 percent in fiscal year 1999, 1.9 percent in 2000, and 1.3 percent in 2001. Similarly, the reductions in Medicare length of stay of 1.3 percent in 1999 and 1.9 percent in 2000 trailed annual declines exceeding 5.5 percent from 1993 through 1996.

Wages are the largest component of the hospital market basket. As a result, recent wage growth has contributed significantly to higher overall cost growth. Shortages of specific occupational groups, such as nurses, pharmacists, and therapists, have contributed to this greater wage pressure. Hospital industry wages rose more rapidly than wages in the general economy in 2001 and 2002, reversing a trend of slower hospital wage growth from 1994 to 2000. The employment cost index (ECI) for wages and salaries of hospital workers increased 5.4 percent compared with an increase of 3.6 percent for all workers in fiscal year 2001, and continued at 4.4 percent for hospital workers and 3.2 percent for all workers in fiscal year 2002.[5]

Efforts by private payers to exact price concessions from hospitals have moderated as the expansion of less-intrusive forms of managed care has increased the bargaining power of

FIGURE 2A-5

Trend in Medicare inpatient and overall Medicare margin,1990–2000



Note: Data are based on Medicare-allowable costs and imputed for hospitals whose 2000 cost reports were not available (about 27 percent of observations). Excludes critical access hospitals. Overall Medicare margin covers the costs and payments of hospital inpatient, outpatient, psychiatric and rehabilitation (prospective payment system exempt), skilled nursing facility, and home health services, as well as graduate medical education. Data on overall Medicare margin are unavailable before 1996.

Source: MedPAC analysis of Medicare cost report data from CMS.

TABLE 2A-3

Overall Medicare margin by hospital group, 1999–2003

Hospital group	1999	2000	Estimated 2003
All hospitals	5.1%	5.0%	3.9%
Large urban	8.4	8.4	6.9
Other urban	3.3	2.9	1.7
Rural	−2.5	−2.9	−1.9
Major teaching	13.7	14.9	12.7
Other teaching	5.7	5.0	3.8
Nonteaching	0.1	−0.2	−0.6

Note: Data are based on Medicare-allowable costs. Margins are imputed for hospitals whose 2000 cost reports were not available (about 27 percent of observations). Excludes critical access hospitals. Projections for 2003 reflect the effects of all policy changes implemented between 2000 and 2003, plus policy changes other than updates that are scheduled under current law to go into effect in 2004.

Overall Medicare margin covers the costs and payments of hospital inpatient, outpatient, psychiatric, rehabilitation, skilled nursing facility, and home health services, as well as graduate medical education.

Source: MedPAC analysis of Medicare cost report and market basket data from CMS, American Hospital Association (AHA) annual survey of hospitals, and the national hospital indicators survey (sponsored by CMS and MedPAC, and conducted by AHA).

5 Growth in the ECI for wages and salaries of hospital workers is reflected in the market basket, which leads to higher payments under both the inpatient and outpatient PPSs.

providers in their dealings with insurers (Levit et al. 2003).

One measure of hospital cost growth that is available for 2001 is the change in cost per adjusted admission from the American Hospital Association's annual survey of hospitals. It measures costs for all inpatient and outpatient services for all payers. Cost per adjusted admission rose 4.7 percent in 2001—the most rapid increase since 1992—reflecting the stabilizing length of stay and greater wage pressures discussed above.

Relationship of payments and costs

We next assess the relationship between payments and an appropriate cost base. In doing this, we consider measures of the volume of hospital services, entry and exit of providers, access to capital, and beneficiary access to care. We conclude that current payments are at least adequate.

Changes in volume

Substantial increases in volume could indicate that payment rates are too high, and decreases that payment rates are too low. The trend in hospital volume also has implications for the appropriateness of costs. If volume increases, hospitals should have more cases over which to spread fixed costs, which will reduce per-unit cost.

We measure hospital volume by total admissions, total days of care, and total outpatient visits. The volume of hospital services has grown strongly in recent years. The total number of hospital admissions grew a cumulative 6.1 percent from 1990 through 2000 despite falling from 1990 to 1994. According to the American Hospital Association annual survey, total admissions grew by 1.7 percent in 1999, 2.3 percent in 2000, and 2.2 percent in 2001. Medicare discharges grew even more rapidly, by 1.9 percent in 1999, 4.2 percent in 2000, and 3.2 percent in 2001.

Large declines in length of stay and modest admissions growth combined to reduce total inpatient days at community hospitals by 15 percent from 1990 to 1998. Stabilizing length of stay and faster admission growth have since turned this reduction around, with an increase of 1.4 percent from 1998 to 2001 to about 195 million days.

Total outpatient visits have increased steadily over 20 years. Total outpatient visits to community hospitals, including emergency visits, increased 73 percent from 1990 to 2000. Growth continued in 2001, with an increase of 3.3 percent over 2000 to almost 540 million visits.

Entry and exit of providers

Significant changes in the number of providers can indicate the relative health of the hospital market. If payments are too low, some providers may be forced to close; if payments are too high, more providers than are necessary for access may enter the field. Because Medicare is such a large purchaser of hospital services, entry and exit could be influenced by Medicare payment policy.

As the volume of patient days declined through the 1990s, a small number of hospitals closed each year. From 1990 to 2000, there was a net reduction of 469 community hospitals across the country. This reduced the total supply of beds by about 10 percent. Closed hospitals tend to be in areas with low levels of demand for hospital services. At the same time, a smaller number of hospitals opened each year in areas with excess demand. In 1999 through 2001, the number of closures averaged 56 per year, with an average of 21 openings or reopenings (OIG 2002, AHA 2002). In 2002, 52 short stay hospitals ended their participation in Medicare while 42 were accepted in the program.[6]

Hospitals that closed in 2000 had low occupancy rates. Closed urban hospitals were smaller in size than urban hospitals nationally and had lower occupancy. Closed rural hospitals were the same average size as all rural hospitals with modestly lower occupancy rates.

The Office of Inspector General (OIG) of the Department of Health and Human Services found that hospital closures in 2000 generally had modest effects on access to care. Rural hospitals that closed had an average of 23 patients each day in the year before closure, whereas closing urban hospitals had an average of 70 patients. Inpatient care was available within 20 miles of 86 percent of rural hospitals that closed and all urban hospitals that closed. While 24-hour emergency services sometimes disappeared when hospitals closed, patients in 73 percent of rural closures and 91 percent of urban closures still had emergency services within 10 miles of the closed facility.

Despite hospital closures, increased volume of hospital services—in both admissions and total days—supports the conclusion that the capacity of the hospital industry remains adequate.

Access to capital

Access to capital is necessary for hospitals to maintain and modernize their facilities and capabilities for patient care. An inability to access capital that was widespread throughout the sector might indicate inadequate payments. Borrowing by hospitals was strong in 2002, indicating good access to capital. Long-term borrowing by acute care hospitals reached $20.0 billion in 2002, an increase of 7.3 percent over 2001.[7] Because about 85 percent of nongovernment short-term acute care hospitals are nonprofit, the level of borrowing is a strong indicator of access to capital for the hospital industry.

Hospitals obtain capital through equity markets (in the case of for-profit hospitals), bond markets, bank lending, receivables financing, and cash flow. The

6 MedPAC analysis of CMS data on number of new participating hospitals, January 2002 to December 2002.

7 MedPAC analysis of data on general acute care long-term bond issuance, Thomson Corporation, January 28, 2003.

outlook for the health care sector remained favorable in 2002. Stock of investor-owned hospital firms generally performed better than the overall stock market in both 2001 and 2002. Wall Street analysts predict continuing financial health for the investor-owned firms attributable to healthy volume growth and high private sector payments (Merrill Lynch 2003).

For those hospitals that are able to borrow on the bond market, access to capital is good. The ability of hospitals to borrow is strongly affected by the bond ratings they receive from credit rating agencies. Better ratings reduce the interest expenses hospitals must incur to raise capital while lower ratings increase them. Hospital bond downgrades exceeded upgrades each year from 1999 through 2001. In 2002, downgrades exceeded upgrades by less than in 2001, indicating easier access to capital for hospitals. Among bond issues rated by Moody's, there were 1.9 downgrades of health care bonds for every upgrade in 2002. This was an improvement compared to 2.5 downgrades for every upgrade in 2001. Fitch Ratings reported a 4:1 ratio of downgrades to upgrades in 2002 for the acute-care bond issues it rated. This was an improvement over 2001, when there were nine downgrades for every upgrade (Fitch 2003). However, these ratios mask the dollar volume of these ratings, which shows the opposite picture. The dollar volume of upgrades exceeded downgrades by 80 percent in 2002, while the volume of downgrades exceeded upgrades by 80 percent in 2001 (Moody's 2003).

Two events in 2002 led to investor concern about hospital finances. These were the difficulties of Tenet Healthcare and the bankruptcy of National Century Financial Enterprises (NCFE). In October, Tenet disclosed unusually large Medicare payments for outliers under the inpatient PPS. The Department of Health and Human Services announced an audit of outlier payments for all hospitals.

NCFE is a privately held company that provided financing to a variety of health care providers in exchange for the providers' receivables. It packaged the receivables and sold bonds based on them to raise capital and pay for more receivables. The company halted payments to its health care provider clients in October and filed for bankruptcy protection in November.

Although these events received significant publicity and had major repercussions on selected stock prices and bond ratings, neither one was expected by Wall Street to overshadow access to capital for the hospital sector as a whole for long. Wall Street analysts see factors such as admissions growth and pricing as the most important determinants of the financial status of investor-owned hospitals.

Expansion of for-profit chains in rural or small urban areas may indicate good access to capital. These firms have expanded by acquiring nonprofit hospitals that reportedly have not been able to make themselves attractive to patients. This may be a symptom of inability of these small hospitals to obtain capital, suggesting that access is constrained. Conversely, the ability of for-profit chains to acquire these hospitals hinges on their ability to enter the capital markets, suggesting that access is good. This contrast illustrates that the capital markets make distinctions among hospitals regarding their financial viability as one would expect in a properly functioning market.

Overall, the trends in the equity and bond markets indicate that both for-profit and nonprofit hospitals have sufficient access to capital if they are financially viable.

Beneficiary access to care

If payments for Medicare services are too low and providers are forced to exit the market, some Medicare beneficiaries may experience problems with access to care. Access to hospital services does not appear to be a problem for most Medicare beneficiaries.

Most hospitals typically have low occupancy rates—the national average occupancy rate was 64.4 percent in 2001. This suggests that hospitals have the capacity to treat Medicare patients. Reports of diversions of ambulances from overburdened emergency rooms and evidence of shortage of emergency department capacity in some areas, however, suggest that in a few instances hospitals may be unable to provide some services sought by beneficiaries. But it is not clear that these problems are related to the level of Medicare payments. Any capacity problems that exist may be aggravated by shortages of nurses and other health care personnel as well as rising malpractice premiums (see Chapter 3).

Medicare beneficiaries in rural areas face challenges with access to hospital services because of longer distances between hospitals, but MedPAC found that use of health services is not lower in rural areas than in urban areas (MedPAC 2001a). Medicare has addressed issues of supply of inpatient care in rural areas with the critical access hospital (CAH) program. CAHs are paid their current Medicare allowable costs for inpatient and outpatient services. The CAH program requires a hospital to be located in an isolated area without another nearby provider, or to be designated as an essential provider in a state health plan. The program has grown rapidly from 375 hospitals in April 2001 to 725 in January 2003.[8]

Policies affecting the distribution of payments

In this section, we discuss six components of the inpatient PPS that we believe could be modified to improve the distribution of payments. For the first component, we recommend extending the post acute transfer policy to 13 additional DRGs (Recommendation 2A-1). For the second one, we discuss the need to explore ways

8 MedPAC analysis of data on critical access hospitals, January 30, 2003.

to target the portion of indirect medical education payments above the empirically justified level to advance specific policy objectives within the Medicare program. Finally, we reissue four previous recommendations designed to improve payments to rural hospitals (Recommendations 2A-2 though 2A-5). These would implement a low-volume adjustment, reevaluate the labor share used in adjusting inpatient payments for geographic differences in input prices, eliminate the differential in base payment rates for hospitals in rural and small urban areas, and raise the cap on disproportionate share payments for rural hospitals.

Inpatient payments for cases transferred to other settings

When hospitals discharge patients to another care setting, some of the care furnished in the other setting may substitute for services that otherwise would have been provided during the hospital inpatient stay; thus the hospital is furnishing a product that does not include the full course of care implied by the diagnosis related group (DRG) payment. Under the inpatient PPS, Medicare treats all cases discharged from the hospital to another PPS hospital with shorter than average stays as partial cases, paying a per diem rate for each day, up to the full DRG amount. Starting in 1999, policymakers expanded the inpatient transfer payment policy to include cases in 10 DRGs that are discharged to post-acute care settings after shorter than average inpatient stays.

The incentives created by Medicare's inpatient transfer payment policy are consistent with the goal of paying efficient providers' costs, and the Commission has previously stated that this policy should be maintained (MedPAC 2000a). The transfer payment policy helps to link acute and post-acute payment systems by adjusting inpatient payments when a portion of care is shifted to another setting where Medicare also pays for the beneficiaries' care. This policy also improves hospitals' financial incentives to provide quality care. By matching payments more closely to the incremental costs of each day of care, the transfer policy helps to diminish the influence of financial considerations on hospitals' clinical decision-making. The transfer policy also adjusts payments to reflect the circumstances faced by individual hospitals, recognizing that hospitals may have different access to post-acute care services; thus, payment reductions are targeted only to hospitals that discharge patients to post-acute care with short stays.

The Balanced Budget Act of 1997 (BBA) expanded Medicare's transfer payment policy. Before 1997, Medicare considered a case to be a transfer only if an inpatient was discharged from one PPS hospital and immediately admitted to another PPS hospital.[9] Under the BBA, transfers also include inpatients in selected DRGs who are discharged from a PPS hospital either to a skilled nursing facility (SNF), to a PPS-exempt hospital or unit (i.e., a rehabilitation hospital or unit, psychiatric hospital or unit, long-term care hospital, cancer hospital, or children's hospital), or with a written plan for home health care that starts within three days of discharge and is related to the condition or diagnosis that accounted for the inpatient stay.[10]

A number of factors probably entered into the Congress' decision in 1997 to expand Medicare's inpatient transfer payment policy to include discharges from PPS hospitals to PPS-exempt hospitals and other post-acute care settings. At the time the Congress was considering this policy, data showed that Medicare beneficiaries' average inpatient length of stay had dropped substantially—22 percent between 1990 and 1995 (Prospective Payment Assessment Commission [ProPAC] 1997a). In addition, the drop in beneficiaries' average length of stay was accompanied by dramatic growth in use of and spending for post-acute care by Medicare beneficiaries (ProPAC 1997b). Furthermore, hospitals' Medicare inpatient margins had risen to record levels. The conference report accompanying the BBA noted that the conferees were concerned that Medicare might in some cases be overpaying hospitals for patients who were transferred to a post-acute setting after a very short acute care hospital stay (U.S. House of Representatives 1997).

Analysis by MedPAC and by ProPAC, its predecessor, showed that declines in inpatient lengths of stay were greatest for DRGs in which post-acute care use was most prevalent (MedPAC 1998). Furthermore, hospitals operating post-acute care facilities discharged their patients one day sooner on average than hospitals without such facilities, and their patients used post-acute care about 10 percent more frequently than patients of hospitals without such facilities (ProPAC 1996).

These trends in inpatient length of stay were consistent with the financial incentives of Medicare's hospital inpatient PPS. When the inpatient PPS began in 1984, relatively few patients were discharged to post-acute care. Prospective payments provided hospitals with a strong financial incentive to shorten the length of hospital stays; and the growth in the availability and capabilities of post-acute care providers allowed hospitals to shift some of the care once provided during inpatient hospital stays to SNFs and other post-acute care settings.

CMS's implementation of Medicare's inpatient transfer policy following the BBA, the current operation of the transfer policy, and a proposal for CMS to apply the policy more broadly are discussed

9 Discharges to hospitals excluded from Medicare's inpatient PPS because they participated in a statewide cost control program were also considered transfers. Recently, this policy has affected only discharges from PPS hospitals to acute-care hospitals located in Maryland.

10 Discharges to hospital swing beds, which are designated beds in small rural acute care hospitals that can be used for acute or skilled care, are not counted as transfers. CMS considered treating discharges to swing beds as transfers in the proposed rule for implementing the expanded transfer policy, but withdrew this proposal in the final rule in response to comments.

below. Although Medicare beneficiaries' post-acute care use has grown relatively little in recent years, the shift of services from inpatient to post-acute settings continues. Medicare's inpatient transfer policy is intended to adjust payments to hospitals for inpatient services to reflect this shift of services from inpatient to post-acute settings. So far, however, the policy has been implemented for only 10 DRGs. Consequently, Medicare still overpays hospitals for inpatient services when they discharge patients in other DRGs to post-acute care after very short stays. This is particularly true for the 13 DRGs with high use of post-acute care services. For that reason, the Commission recommends extending the policy to these 13 additional DRGs next year (Table 2A-4).

Implementation of Medicare's inpatient transfer policy

CMS implemented Medicare's expanded inpatient transfer payment policy in fiscal year 1999. To comply with the law, the Secretary selected 10 DRGs in which inpatient cases would be considered transfers if they met certain statutory criteria. The Secretary was authorized by the BBA to expand the list of DRGs

TABLE 2A-4

Hospital cases under Medicare's inpatient transfer payment policy currently and under proposed expansion

DRG Title	Number of cases	Percent of cases discharged to post-acute care	Percent of transfer cases with short stays	Percent of all cases in DRG that are short-stay transfers
DRGs under current policy				
14 Specific cerebrovascular disorders except transient ischemic attack	302,095	51.8%	22.1%	11.5%
113 Amputation for circulatory system disorders, except upper limb and toe	39,267	71.4	45.2	32.3
209 Major joint and limb reattachment procedure of lower extremity	356,891	76.7	28.7	22.0
210 Hip and femur procedures except major joint age > 17 with CC	115,722	81.9	28.1	23.0
211 Hip and femur procedures except major joint age > 17 without CC	30,572	79.8	21.7	17.3
236 Fractures of hip and pelvis	37,919	67.3	12.3	8.3
263 Skin graft and/or debridement for skin ulcer or cellulitis with CC	22,919	61.9	40.8	25.3
264 Skin graft and/or debridement for skin ulcer or cellulitis without CC	3,711	50.5	37.0	18.7
429 Organic disturbances and mental retardation	25,373	58.4	31.4	18.3
483 Tracheostomy except for face, mouth, and neck diagnoses	40,954	52.5	47.5	24.9
Total for 10 DRGs	975,423	67.2	27.8	18.7
DRGs under proposed expansion				
12 Degenerative nervous system disorders	47,929	56.2	30.9	17.4
79 Respiratory infections and inflammations age > 17 with CC	158,062	49.6	29.8	14.8
80 Respiratory infections and inflammations age > 17 without CC	8,019	42.7	25.2	10.8
107 Coronary bypass with cardiac catheterization	79,444	42.7	35.8	15.3
109 Coronary bypass without PTCA or cardiac catheterization	54,830	38.9	25.5	9.9
148 Major small and large bowel procedures with CC	123,995	39.2	31.3	12.3
149 Major small and large bowel procedures without CC	18,498	15.4	22.3	3.4
239 Pathological fractures and musculoskeletal and CT malignancy	45,479	53.6	25.2	13.5
243 Medical back problems	88,618	40.9	9.7	4.0
320 Kidney and urinary tract infections age > 17 with CC	184,099	44.0	26.9	11.9
321 Kidney and urinary tract infections age > 17 without CC	29,862	29.0	17.4	5.0
415 OR procedure for infectious and parasitic diseases	37,974	53.6	36.6	19.6
468 Extensive OR procedure unrelated to principal diagnosis	57,861	43.6	27.5	12.0
Total for 13 additional DRGs	934,670	44.0	27.5	12.1
All other DRGs	8,902,789	25.1	17.7	4.4
All DRGs	10,812,882	30.5	20.9	6.4

Note: DRG (diagnosis related group), CC (complication or comorbidity), PTCA (percutaneous transluminal coronary angioplasty), CT (connective tissue), OR (operating room). Short stays are those that are more than one day less than the geometric mean length of stay for the DRG. Percentages may be inexact because of rounding.

Source: MedPAC analysis of 2001 MedPAR data from CMS.

beginning in fiscal year 2001, but, in conjunction with the Balanced Budget Refinement Act of 1999 (BBRA), she decided to delay any expansion by at least two years.

The Secretary considered expanding the transfer policy to encompass DRGs beyond the original 10 in the proposed rule on Medicare's inpatient prospective payments for fiscal year 2003 (CMS 2002b). In the final rule the Secretary decided to defer a decision about expanding the policy until 2004. Commenters raised many issues regarding the impact of expanding the policy that need to be considered carefully before proceeding, and the Secretary stated that the limited time between the close of the comment period and the required publication date for the final rule was not sufficient for analyzing and responding to all the points raised. CMS plans to continue research to assess whether expansion of the policy to additional DRGs is warranted for fiscal year 2004 or subsequent years (CMS 2002a).

Medicare's current inpatient transfer payment policy

For transfer cases with hospital lengths of stay substantially shorter than the national average for the DRG, Medicare pays hospitals a per diem rate up to the full DRG payment—which is reached when the length of stay is one day less than the geometric mean length of stay for the DRG.[11] The per diem amount equals the full per discharge payment for the DRG divided by its national geometric mean length of stay. Hospitals receive twice the per diem amount for the first day of care and the per diem amount for all subsequent days up to the full DRG payment. Very expensive cases may qualify for outlier payments as well.

The Secretary may provide a modified per diem payment for DRGs in which a substantial portion of the cost of care is incurred in the early days of the stay. This ensures that the transfer payment will cover the full cost of care for these cases. By law, the modified payment may be no more than the average of the payment under the basic transfer policy and the full DRG payment. Currently, this modified transfer payment is provided in 3 of the 10 DRGs affected by the transfer policy; all 3 are surgical DRGs. In these instances, hospitals receive half the full DRG payment plus a single per diem payment for the first day of care. They then receive half of a per diem payment for all subsequent days of care up to the full DRG payment for the case.

In selecting the 10 DRGs originally authorized for the expanded transfer policy, the Secretary chose DRGs with a large number of discharges to post-acute care and a high rate of post-acute care use (Table 2A-4). More than half the cases in each of these DRGs were discharged to post-acute care settings. In these 10 DRGs, as in most DRGs, the patients who use post-acute care tend to have longer than average inpatient stays. For example, patients who are transferred to post-acute care settings in DRG 14 (strokes) have average acute inpatient stays of 6.8 days, which is 2.1 days higher than the national geometric mean length of stay for all cases in this DRG (Figure 2A-6). Since Medicare's transfer policy applies only to transfer cases with lengths of stay that are more than one day shorter than the national geometric mean for the DRG, patients transferred to post-acute care settings are affected only when their stays are several days shorter than those typical of post-acute care users.

Proposals to expand Medicare's inpatient transfer payment policy

CMS, as part of the proposed rule for Medicare's hospital inpatient PPS for fiscal year 2003, considered two options for expanding the transfer policy to encompass additional DRGs:

- *Expansion of the policy to some additional DRGs.* Under one option CMS would apply the inpatient transfer payment policy to 13 additional DRGs with high rates of transfers to post-acute care settings (similar to the initial group of 10 DRGs).
- *Expansion of the policy to all DRGs.* Under the second option, CMS would apply the inpatient transfer policy to all DRGs.

As discussed below, we believe that the weight of evidence supports expanding Medicare's inpatient transfer payment policy beyond the original 10 DRGs. Because expanding the policy to all DRGs might reduce PPS payments to some hospitals by as much as 4 percent, we recommend that the policy be extended initially to 13 additional DRGs, with the effects of this expansion evaluated before extending the policy to more DRGs.

Why the expanded transfer policy is needed Medicare's inpatient PPS is intended to encourage providers to seek more efficient ways to furnish high-quality care to its beneficiaries. In many instances, substituting less costly post-acute care services for more expensive inpatient care may provide a more efficient overall episode of care of comparable quality. As long as this is true and Medicare's payment policies adapt appropriately, it is in everyone's interest to promote such changes in the quantity and mix of services furnished across care settings.

There would be no need to broaden Medicare's inpatient transfer payment policy if all of the observed increases in the use of post-acute care represented additional care, or if the substitution of post-acute care for inpatient care were occurring roughly similarly across all DRGs and hospitals. In the latter case, the payments could adjust to reflect this through the update. Available evidence, however, strongly suggests that observed increases in the use of post-acute care reflect the substitution of post-acute care

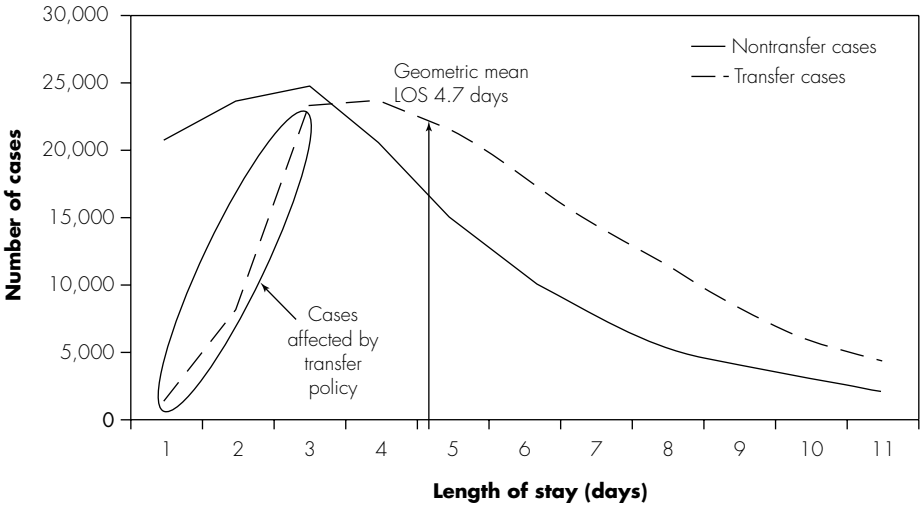
11 The geometric mean length of stay provides a more representative measure of the usual length of stay than the arithmetic average when the distribution includes many cases with extremely long stays.

for some inpatient care services, and that the substitution of services differs among DRGs and hospitals. Furthermore, expanding the transfer policy would improve the incentives for providing quality care by reducing the strong financial incentives Medicare's inpatient PPS gives providers to discharge patients to post-acute settings as quickly as possible. Expanding the policy would also improve payment equity among hospitals by accounting for differences in hospitals' short stay post-acute transfer rates.

Shifts in services from inpatient to post-acute settings In recent years, Medicare beneficiaries' average inpatient length of stay has declined, while the number of discharges from inpatient to post-acute care settings has increased. Between 1991 and 2001, Medicare length of stay fell 34 percent and Medicare discharges from PPS hospitals to post-acute care settings increased 49 percent. During this period, Medicare discharges from acute care hospitals to hospitals and units exempt from the inpatient PPS doubled; discharges from acute care hospitals to skilled nursing facilities climbed 65 percent; and discharges from acute care hospitals to home health care increased by 14 percent (Table 2A-5).

Analysis of Medicare hospital inpatient claims also suggests that some of the increase in post-acute care has substituted for inpatient days and related services.[12] One analysis, for example, has shown that length of stay declines were greater in DRGs with high rates of post-acute care use (MedPAC 1998). Another study showed that length-of-stay declines between 1991 and 1998 were greater for post-acute users compared with nonusers—4.5 days and 2.4 days, respectively (Gillman et al. 2000). Further, average length of stay in DRGs with high use of post-acute care dropped 7.1 days for users versus 5.6 days for nonusers.

FIGURE 2A-6 **Length of stay distribution for stroke (DRG 14)**



Note: DRG (diagnosis related group), LOS (length of stay).

Source: MedPAC analysis of 2000 MedPAR data from CMS.

TABLE 2A-5 **Medicare hospital discharges to post-acute care providers, 1991–2001**

	Percent of hospital cases		
	1991	**1998**	**2001**
PPS exempt hospital or unit	2.7%	4.7%	5.5%
Skilled nursing facility	9.3	15.8	15.3
Home health	8.5	9.7	9.7
Total	20.5	30.2	30.5

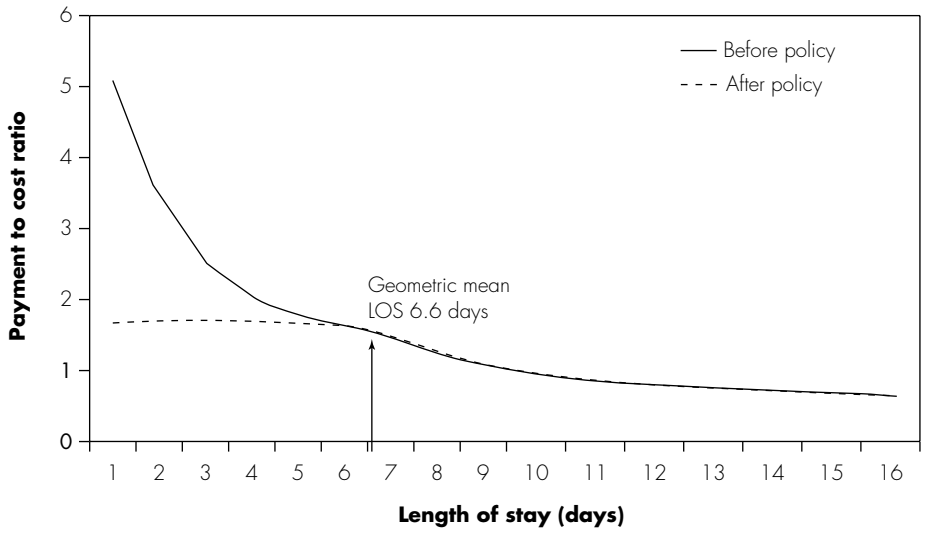
Note: PPS (prospective payment system).

Source: Gillman et al. (2000) and MedPAC analysis of 2001 MedPAR data from CMS.

Analysis of inpatient payments and estimated costs for patients discharged to post-acute care suggests that hospitals incur much lower costs for post-acute care users with very short stays. In the absence of an expanded transfer policy, this can result in large financial gains to hospitals that discharge many patients to post-acute care settings. Although hospitals receive a lower payment for short-stay cases under the transfer policy, per diem transfer payments still exceed the cost of caring for these cases on average. In DRG 79 (respiratory infections), for example, per diem transfer payments prior to reaching the full DRG payment would exceed estimated daily costs by about 50 percent (Figure 2A-7, p. 48). Almost all other DRGs would have similar outcomes under an expanded transfer policy. In the few

12 Although Medicare beneficiaries' use of post-acute care has not been growing rapidly since 1998, the substitution of post-acute services for hospital inpatient care has not yet been fully addressed in the inpatient PPS.

FIGURE 2A-7 **Payment-to-cost ratios for transfer cases before and after transfer policy, respiratory infections (DRG 79)**



Note: DRG (diagnosis related group), LOS (length of stay).
Source: MedPAC analysis of 2001 MedPAR data from CMS.

instances where per diem payments would not cover per diem costs (DRG 107, for example), applying the modified transfer payment method would provide per diem payments well above per diem costs for cases affected by the policy.

Thus there is strong evidence that the current payment system overpays hospitals that discharge patients to post-acute settings with shorter than average stays in DRGs where the expanded transfer policy does not apply. The expanded transfer policy provides a mechanism for linking acute and post-acute payments by reducing the overpayment when a portion of the care is shifted to a post-acute setting where Medicare also pays for services. The policy, however, also is necessary to account for differences in hospitals' circumstances, recognizing that access to post-acute services can vary, contributing to different financial outcomes among hospitals.

Post-acute care use patterns among DRGs and hospitals The percentage of cases discharged to post-acute care settings varies widely among DRGs. Over half of all cases are discharged to a post-acute care provider in 41 DRGs that account for about 12 percent of Medicare discharges. Between 25 and 50 percent of all cases are discharged to post-acute care in another 177 DRGs. In all, more than three-fifths of all Medicare discharges are in DRGs in which at least 25 percent of all cases go on to post-acute care. At the other end of the spectrum, 12 percent of all discharges are in 108 DRGs where less than 10 percent of cases go on to post-acute care.

Transfers to post-acute care are similarly uneven across hospitals. For instance, urban hospitals on average transfer a larger proportion of Medicare cases to post-acute care providers than do rural hospitals—32 percent and 26 percent, respectively (Table 2A-6). Finer breakdowns of urban and rural hospitals show even greater differences in use of post-acute care. Hospitals located in large urban areas (metropolitan statistical areas with over 1 million people) transferred 34 percent of their cases to post-acute care, compared with only 20 percent for rural hospitals with less than 50 beds that do not currently receive special treatment under Medicare.

Regional disparities in the use of post-acute care are even larger. For example, post-acute care transfer rates are twice as high in New England (46 percent) as in the West South Central census division (23 percent). Most other differences among hospital groups (e.g., ownership or teaching status) tend to be small, however. These small differences reflect the wide variability in post-acute care transfer rates among the hospitals within most hospital groups.

Individual hospitals' transfer rates do appear to be strongly consistent across DRGs (Table 2A-7, p. 50). When we grouped hospitals by their overall percentage of Medicare cases transferred to post-acute care, it turned out that those with low overall transfer rates also had low transfer rates in each of the DRGs we examined. Similarly, those with high overall transfer rates also had high rates in each of the DRGs. These findings suggest that hospitals' transfers to post-acute care are driven more by their specific circumstances than by any shared hospital characteristic. Short-stay transfers to post-acute care—those that have inpatient stays prior to transfer that are more than one day less than the national geometric mean length of stay for the DRG—show similar patterns, with strong hospital-specific differences and relatively small differences among hospital groups.

Average length of stay for Medicare beneficiaries varies across regions, although the differences are much less than they were 10 years ago (Table 2A-8, p. 51). Some observers have suggested that expansion of the transfer policy would penalize hospitals in regions with short stays. This concern is only valid to a point, however, because the relationship between regional average Medicare lengths of stay and the proportion of cases affected by the policy is fairly weak. Two factors influence the proportion of cases affected by the policy. One is the share of cases discharged to post-acute care and

TABLE 2A-6

Use of post-acute care providers and cases affected by expansion of transfer policy to all DRGs

Hospital group	Number of hospitals	Number of cases	Percent of cases discharged to post-acute care	Percent of transfer cases with short stays	Percent of all cases discharged to post-acute care with short stays
Total	4,613	10,812,882	30.5%	20.9%	6.4%
Urban	2,632	8,646,905	31.7	20.5	6.5
Rural	1,656	2,103,922	25.9	22.7	5.9
Large urban	1,537	4,902,476	33.6	20.3	6.8
Other urban	1,095	3,744,429	29.2	20.8	6.1
Rural referral	248	833,371	28.3	20.7	5.8
Sole community	521	476,975	23.6	24.4	5.8
Small rural Medicare dependent	241	183,454	25.0	24.1	6.0
Other rural < 50 beds	313	161,707	19.9	27.6	5.5
Other rural ≥50 beds	333	448,415	26.3	23.5	6.2
Major teaching	298	1,493,872	32.3	21.5	6.9
Other teaching	824	3,620,550	31.6	20.3	6.4
Nonteaching	3,166	5,636,405	29.4	21.1	6.2
New England	183	537,570	46.2	24.6	11.4
Middle Atlantic	474	1,605,852	37.2	17.0	6.3
South Atlantic	687	2,084,098	29.3	20.0	5.8
East North Central	696	1,914,994	32.3	22.1	7.1
East South Central	406	958,806	26.1	19.9	5.2
West North Central	571	872,834	28.6	22.7	6.5
West South Central	648	1,260,795	22.8	20.4	4.7
Mountain	328	467,115	27.9	26.1	7.3
Pacific	564	972,134	30.8	22.8	7.0
Voluntary	2,596	7,900,024	32.0	20.8	6.6
Proprietary	650	1,239,981	27.8	20.3	5.6
Urban government	368	985,048	26.9	21.8	5.8
Rural government	669	625,657	23.4	21.9	5.1

Note: DRGs (diagnosis related groups). Short stays are those that are more than one day less than the geometric mean length of stay for the DRG.

Source: MedPAC analysis of 2001 MedPAR data from CMS.

the other is the share of these cases that have short stays. Hospitals in regions with relatively short stays tend to have a higher proportion of their transfer cases discharged after a short stay, but there is no relationship between length of stay and the proportion of cases discharged to post-acute care.

Further, although hospitals located in short-stay regions may have more transfer cases affected by the policy, they benefit financially from their short stay pattern of care on all their other cases. The per discharge payment rates under the inpatient PPS reflect national average care patterns. Other things being equal, however, cases in relatively short-stay regions tend to have lower than average costs.

Hospitals with high short-stay transfer rates would lose some payments under the post-acute transfer policy, but they benefit from having relatively short stays and low

TABLE 2A-7

Share of cases discharged to post-acute care settings for selected DRGs, by hospital group

Hospital group	Percent of hospitals	DRGs 14	79	89	107	116	204	209
Group defined by percent of hospital cases discharged to post-acute care								
< 10	10%	11%	6%	5%	7%	2%	2%	20%
≥ 10–20	17	36	28	17	19	5	8	52
≥ 20–30	31	49	43	28	32	8	12	73
≥ 30–40	28	57	55	38	52	12	17	81
≥ 40–50	10	63	66	50	72	20	23	88
≥ 50	4	69	74	62	82	32	31	93
Total	100	52	50	34	43	11	15	77
Group defined by percent of hospital cases discharged to post-acute care with short stays								
< 2	10	2	2	1	2	–*	–*	3
≥ 2–5	30	7	8	3	8	–*	1	13
≥ 5–10	44	13	16	6	18	1	3	24
≥ 10–15	13	19	25	12	32	2	3	34
≥ 15	3	31	38	21	45	3	9	45
Total	100	11	15	6	15	1	2	22

Note: DRGs (diagnosis related groups), DRG 14 = stroke, DRG 79 = respiratory infections, DRG 89 = pneumonia, DRG 107 = coronary bypass with cardiac catheterization, DRG 116 = other permanent cardiac pacemaker implant, DRG 204 = disorders of the pancreas except malignancy, DRG 209 = major joint and limb reattachment procedures of lower extremity. Short stays are those that are more than one day less than the geometric mean length of stay for the DRG.

* Less than 0.5 percent

Source: MedPAC analysis of 2001 MedPAR data from CMS.

costs throughout their Medicare caseload, which contributes to their having higher Medicare inpatient margins (Table 2A-9).[13] When hospitals are grouped by their short-stay post-acute transfer rates, those with high proportions of short-stay transfers on average have relatively short overall Medicare lengths of stay. For instance, hospitals that had more than 15 percent of their cases transferred to post-acute care settings after short inpatient stays had average actual lengths of stay about 20 percent lower than we would expect given their mix of cases among the DRGs.[14] They also had a higher proportion of cases discharged to post-acute care overall.

Improving incentives for quality care A per case payment system provides strong financial incentives for hospitals to shorten inpatient stays. Per diem payments reduce hospitals' incentives to transfer patients to post-acute settings by bringing payments more in line with the estimated incremental cost of providing care. The rationale for the policy does not assume that hospitals are prematurely discharging patients to post-acute care settings but that they substitute post-acute services for acute care. Nevertheless, the expanded transfer policy provides a better set of incentives to protect beneficiaries from potential premature discharge to post-acute care. When hospitals are paid less for short stays and more for long stays, the decision to transfer will be influenced less by financial considerations. Hospitals should be financially indifferent to the decision to transfer a patient to a post-acute setting if the marginal cost of care and the per diem payment amounts are close. Past research has shown that Medicare's current transfer payment method provides a reasonable approximation of marginal cost (Carter and Rumpel 1993).

HCFA (now CMS) analysis of the initial 10 DRGs showed that per diem payments would on average more than cover the cost of care for the affected transfer cases (HCFA 1998). Consequently, hospitals still had a financial incentive to discharge patients to post-acute care, and in fact the percentage of cases in the original 10 DRGs discharged to post-acute care increased slightly after the policy was implemented. As discussed earlier, our analysis also shows that per diem transfer payments would more than cover the estimated daily cost of care for short-stay cases in the original 10 DRGs and in other DRGs to which the policy might be expanded.

Providing a more equitable distribution of payments Another reason to expand the transfer policy is that it would improve payment equity across cases and hospitals. The expanded transfer policy would help improve payment equity in two ways. First, it would account for differences across providers in the availability and use of post-acute care for short-stay cases. In general, the policy would provide a

13 Medicare inpatient margins were calculated excluding disproportionate share hospital payments and IME payments above the teaching cost relationship. These amounts were excluded because they are unrelated to the transfer policy and they tend to obscure the relationships between average length of stay, short-stay post-acute transfers, and hospital financial performance.

14 To make this calculation, we compared each hospital's actual average length of stay for Medicare patients with what the average would have been if its cases had the national average length of stay in each DRG.

TABLE 2A-8

Use of post-acute care, transfers, and length of stay by region, 2001

Region	Average length of stay	Percent of transfer cases with short stays	Percent of cases discharged to post-acute care	Percent of all cases discharged to post-acute care with short stays
Total	5.6 days	20.9%	30.5%	6.4%
Middle Atlantic	6.7	17.0	37.2	6.3
South Atlantic	5.6	20.0	29.3	5.8
East South Central	5.5	19.9	26.1	5.2
West South Central	5.5	20.4	22.8	4.7
New England	5.5	24.6	46.2	11.4
Pacific	5.3	22.8	30.8	7.0
East North Central	5.3	22.1	32.3	7.1
West North Central	5.1	22.7	28.6	6.5
Mountain	4.8	26.1	27.9	7.3

Note: Short stays are those that are more than one day less than the geometric mean length of stay for the DRG.

Source: MedPAC analysis of 2001 MedPAR data from CMS.

payment reflecting the care provided during the acute inpatient stay, recognizing that use of post-acute care can begin at different points in similar patients' care. Hospitals that have their own post-acute care units, for example, may be able to move patients safely to a post-acute care unit earlier than hospitals where patients would need to be transported for post-acute care. In addition, the timing of discharge or use of post-acute care may be affected by the availability of open beds in facilities that are able to handle patients' specific treatment needs. The transfer policy matches payments to the local circumstances, rather than applying the same payment in widely differing circumstances.

Second, expanding the transfer policy would improve the accuracy of the DRG weights in the affected DRGs. The DRGs not included in the expanded transfer policy are now affected adversely because cases that would be treated as transfers are treated as discharges—and not discounted in recalibration. Thus DRGs not included in the expanded transfer policy that have experienced substantial declines in length of stay (and charges) because of increased post-acute transfers have likely seen their relative weights fall. In this situation, hospitals able to discharge patients early likely are paid too much while those that are unable to do so (because of limited access to post-acute services) are paid too little.

Tracheostomy cases provide an example of the potential inequities of the payment before the expanded transfer policy was put in place. Cases in DRG 483 tend to have very long lengths of stay (the geometric mean is 35 days) and receive very high DRG payments (the payment rate is more than 10 times the average for all cases). However, hospitals located in areas with facilities that can provide ventilator support for these patients are potentially able to transfer patients relatively early in a stay (after as few as three days) and thus receive a full DRG payment and a large financial gain. Under the expanded transfer policy, cases with

TABLE 2A-9

Use of post-acute care, Medicare inpatient operating margins, and length of stay, 2001

Hospital group defined by percent of cases transferred to post-acute care with short stays	Percent of hospitals	Percent of cases discharged to post-acute care	Ratio of actual to expected length of stay	Medicare inpatient margin excluding DSH and above cost IME*	Change in payments if transfer policy expanded to all DRGs
<2	10%	10%	115%	–1.8%	–0.2
≥ 2–5	30	24	107	–0.9	–0.7
≥ 5–10	44	33	97	1.8	–1.3
≥ 10–15	13	42	88	7.2	–2.3
≥ 15	3	50	80	10.4	–3.8

Note: DSH (disproportionate share), IME (indirect medical education). Short stays are those that are more than one day less than the geometric mean length of stay for the DRG.
*Portion of the IME adjustment above the relationship between teaching intensity and cost per discharge.

Source: MedPAC analysis of 2001 MedPAR data from CMS.

short stays receive much smaller per diem payments, and the DRG relative payment weight is raised for the remaining cases. Even though short-stay transfer cases are paid less than the full DRG amount, analysis shows that transfer payments for DRG 483 are still greater on average than the cost of care provided in the hospital (Gillman et al. 2000, HCFA 1998). The availability of long-term care hospitals and SNFs with ventilator support capacity varies tremendously, and hospitals in close proximity to these providers benefited relative to other hospitals before the expanded transfer policy was adopted. The expanded transfer policy, however, brings payments more in line with the cost of providing care for all hospitals.

Criticisms of the expanded transfer policy One of the criticisms leveled against the transfer policy is that in a system based on averages, expansion of the transfer policy penalizes hospitals for providing efficient care. However, if hospitals establish true efficiency gains by reducing length of stay, the transfer policy does not penalize them. If length-of-stay declines result from transferring patients to another setting, this change results in a transfer of costs to another setting, not a gain in efficiency by the hospital. In such circumstances, Medicare ends up paying twice for the care, once through a full DRG payment and then again in the payments made to the post-acute care provider. The transfer policy allows Medicare to split the total payment appropriately between the two providers involved in the episode of care. Moreover, even though payments are reduced for short-stay transfers, they will on average continue to exceed the hospital's cost of care for these cases.

Critics have also argued that the current policy (and its expansion to other DRGs) violates the averaging principle of PPS by taking away the opportunity for hospitals to balance losses associated with long stay cases with gains on short-stay cases. This argument, however, ignores the cost reducing effect of site-of-care substitution. The transfer policy treats short-stay cases that are discharged to post-acute care as partial cases, reflecting that part of the care is provided in another setting. Even though the policy reduces payments for these cases, our analysis shows that hospitals on average would continue to be paid more than the cost of care for these cases. On average, gains made on short-stay cases would continue to offset losses on high-cost longer stay cases.

Some critics of the transfer policy suggest that it creates a disincentive to provide quality care by encouraging hospitals to attain a target length of stay in each DRG. Without a transfer policy, the current payment system gives hospitals an incentive to discharge patients to post-acute care as quickly as possible. The transfer policy changes hospitals' financial incentives by setting payment rates close to the marginal cost of care. The additional financial gains a hospital might achieve by keeping the patient an additional day, however, are small. As a result, the transfer policy provides a better balance between financial and clinical considerations.

RECOMMENDATION 2A-1

The Secretary should add 13 DRGs to the post-acute transfer policy in fiscal year 2004 and then evaluate the effects on hospitals and beneficiaries before proposing further expansions.

IMPLICATIONS 2A-1

Spending

- This policy would reduce Medicare payments by between $200 million and $600 million in the first year and between $1 billion and $5 billion over 5 years.

Beneficiary and provider

- This policy would not adversely affect beneficiaries and would better align incentives for hospitals as they consider when to place patients in post-acute care.
- It would reduce payments to providers who discharge many patients to post-acute care more than one day before reaching the national geometric mean length of stay for cases in DRGs affected by the policy.

Adding the 13 DRGs considered by the Secretary would allow the transfer policy to capture a larger share of cases transferred to post-acute care providers. With these 13 plus the original 10 DRGs, almost one-third of cases discharged to post-acute care and about two-fifths of the short-stay transfers would be affected (Table 2A-10). The 13 DRGs have a lower percentage of cases transferred to post-acute care settings compared with the initial 10 DRGs, but a similar proportion of transfer cases with short stays (Table 2A-11).

TABLE 2A-10

Distribution of hospital cases under the transfer policy, 2001

	Share of all cases	Share of cases discharged to post-acute care	Share of transfer cases with short stays	Share of savings if transfer policy applied to all DRGs
DRGs under current policy	9%	20%	26%	34%
DRGs under proposed expansion	9	12	16	20
All other DRGs	82	68	57	46
All DRGs	100	100	100	100

Note: DRGs (diagnosis related groups). Columns may not total to 100 percent because of rounding. Short stays are those that are more than one day less than the geometric mean for the DRG.

Source: MedPAC analysis of 2001 MedPAR data from CMS.

TABLE 2A-11

Characteristics of hospital cases under the transfer policy, 2001

	Share of all cases	Percent of cases discharged to post-acute care	Percent of transfer cases with short stays	Percent of all cases discharged to post-acute care with short stays	Change in payments from expanded transfer policy
DRGs under current policy	9%	67%	28%	19%	−0.6%
DRGs under proposed expansion	9	44	28	12	−0.4
All other DRGs	82	25	18	4	−0.8
All DRGs	100	31	21	6	−1.8

Note: DRGs (diagnosis related groups). Short stays are those that are more than one day less than the geometric mean length of stay for the DRG.

Source: MedPAC analysis of 2001 MedPAR data from CMS.

Adding 13 DRGs to the transfer policy would decrease Medicare payments by 0.4 percent, assuming hospitals' transferring behavior remains unchanged. The proportion of all cases affected by the policy would increase by about 1 percentage point. The effects on PPS payments would be fairly uniform across provider groups, although this would differ substantially across regions; hospitals in New England would see the largest decline (0.7 percent) and those in the West South Central region the smallest (0.2 percent) (Table 2A-12, p. 54).

Extending the policy to all DRGs would reduce Medicare payments by about 1.2 percent. About 6 percent of Medicare cases would receive a partial DRG payment. Despite the drop in Medicare spending, per case payments under the expanded transfer policy on average would remain above the cost of care for covered cases.

The effects of expanding the transfer policy to all DRGs would be substantially larger than expansion to 13 additional DRGs, but with similar patterns across hospital groups and regions. In New England, which has the highest proportion of cases transferred to post-acute settings, payments would fall by about 2.4 percent, compared with 0.8 percent in the West South Central Census division, which has one of the lowest rates of transfer to post-acute care. Differences in the financial impact for rural and urban hospitals are mostly in the original 10 DRGs; the impact of expanding to all DRGs is much more uniform for the remaining set of cases.

The indirect medical education adjustment for inpatient payments

Teaching hospitals—hospitals that train physicians in approved residency training programs—have always had higher Medicare inpatient costs per discharge than nonteaching hospitals. Part of the cost difference reflects the direct costs of operating graduate medical education (GME) programs, such as stipends for residents, salaries for teaching physicians, and related overhead expenses. Teaching hospitals' costs per discharge also tend to be higher for other reasons that are associated with teaching activity but difficult to measure directly. These include unmeasured differences in patients' severity of illness, inefficiencies in service use associated with residents' learning by doing, greater use of emerging technologies, and so forth.

When the Congress established the hospital inpatient PPS in 1983, it recognized teaching hospitals' higher costs in two ways. First, it excluded direct GME costs from the PPS payment rates; these costs continued to be reimbursed on a reasonable cost basis. The Congress later established a separate prospective payment for direct GME costs based on hospital-specific costs per resident in 1984 trended forward to account for inflation.[15]

Second, the Congress included an indirect medical education (IME) adjustment to the hospital inpatient payment rates. The IME adjustment is a percentage add-on to the PPS payment rates for teaching hospitals, which is based on the estimated relationship between their Medicare costs per discharge and their teaching intensity as measured by the ratio of residents to beds. Because of doubts about the ability of the PPS to fully capture differences in patient severity and other factors that might account for teaching hospitals' higher costs, the Congress required the Secretary to double the empirically estimated IME adjustment (see the text box on the history of the IME adjustment for more information on how the adjustment has changed over time, p. 55). Teaching hospitals receive IME add-on payments for Medicare patients whose care is paid for under the inpatient PPS and also for those whose care is paid for by a Medicare+Choice plan.

15 Teaching hospitals' per resident amounts vary widely. In the Balanced Budget Refinement Act of 1999, the Congress established a floor per-resident payment currently set at 85 percent of the geographically adjusted national average per-resident amount. The Congress also reduced annual increases in per-resident payments for hospitals with very high per-resident amounts (above 130 percent of the national average, after geographic adjustment).

TABLE 2A-12

Change in inpatient payments from expanded transfer policy, 2001

Hospital group	Number of hospitals	Number of cases	Change in payments for the DRGs under current policy	Change in payments for the DRGs under proposed expansion	Change in payments if policy expanded to all DRGs
Total	4,613	10,812,882	–0.6%	–0.4%	–1.2%
Urban	2,632	8,646,905	–0.7	–0.4	–1.2
Rural	1,656	2,103,922	–0.5	–0.4	–1.2
Large urban	1,537	4,902,476	–0.7	–0.4	–1.2
Other urban	1,095	3,744,429	–0.6	–0.4	–1.1
Rural referral	248	833,371	–0.5	–0.3	–1.1
Sole community	521	476,975	–0.4	–0.4	–1.2
Small rural					
Medicare dependent	241	183,454	–0.3	–0.4	–1.4
Other rural < 50 beds	313	161,707	–0.3	–0.4	–1.3
Other rural ≥ 50 beds	333	448,415	–0.5	–0.4	–1.3
Major teaching	298	1,493,872	–0.7	–0.4	–1.3
Other teaching	824	3,620,550	–0.6	–0.3	–1.2
Nonteaching	3,166	5,636,405	–0.6	–0.4	–1.2
New England	183	537,570	–0.6	–0.7	–2.4
Middle Atlantic	474	1,605,852	–0.5	–0.3	–1.1
South Atlantic	687	2,084,098	–0.6	–0.3	–1.0
East North Central	696	1,914,994	–0.8	–0.4	–1.4
East South Central	406	958,806	–0.6	–0.3	–0.9
West North Central	571	872,834	–0.6	–0.4	–1.3
West South Central	648	1,260,795	–0.7	–0.2	–0.8
Mountain	328	467,115	–0.8	–0.4	–1.3
Pacific	564	972,134	–0.6	–0.4	–1.3
Voluntary	2,596	7,900,024	–0.6	–0.4	–1.2
Proprietary	650	1,239,981	–0.7	–0.3	–1.0
Urban government	368	985,048	–0.7	–0.3	–1.1
Rural government	669	625,657	–0.4	–0.3	–1.1

Note: DRGs (diagnosis related groups).

Source: MedPAC analysis of 2001 MedPAR data from CMS.

Based on current law and the most recent data, the adjustment is still set at a level that is twice the estimated effect of teaching intensity on hospitals' costs per discharge. The Commission has previously recommended that the Congress combine IME and direct GME payments into a single payment adjustment that would better account for the higher costs of inpatient care in teaching hospitals (MedPAC 2000b). In the absence of congressional action, teaching hospitals continue to receive separate direct GME and IME payments. This section focuses on the IME adjustment.

Current IME adjustment

Medicare's IME adjustment is based on a statutory formula that in fiscal year 2003 increases payments by about 5.5 percent for each 10 percent increment in teaching intensity, as measured by the ratio of residents to hospital beds (see text box on IME adjustment formula, p. 56). The adjustment in fiscal year 2003 is about 15 percent lower than it was in fiscal year 2002, when it was set at 6.5 percent. Hospitals with a higher ratio receive a larger add-on adjustment to their inpatient

History of Medicare's indirect medical education adjustment for inpatient payments

Medicare's indirect medical education (IME) adjustment has changed over time.

Setting the IME adjustment for the start of Medicare's inpatient prospective payment system

- Regression analysis was used to estimate indirect medical education (IME) costs—the relationship between inpatient operating costs per discharge and teaching intensity as measured by the ratio of residents per bed. This analysis (conducted in 1983 using 1981 data) suggested that inpatient operating costs increase by about 5.8 percent for every 10 percent increase in the resident-to-bed ratio.

- At the start of Medicare's inpatient prospective payment system, the Congress doubled the IME adjustment to 11.6 percent, because analyses suggested that teaching hospitals would not fare as well as other hospitals under the new payment system.[1] Doubling the adjustment was the simple, but arbitrary, way the Congress then chose to ensure that teaching hospitals would not be harmed by the new payment system. Because total projected payments were held constant, the revenues to double the adjustment were obtained by reducing the base payment rates for all hospitals.

Modifying the IME adjustment when disproportionate share hospital payments were introduced

- When the disproportionate share hospital (DSH) adjustment was introduced in 1986, the IME adjustment was reduced to 8.1 percent to help pay for part of the costs of the new adjustment and to reflect the impact of the DSH adjustment on the empirical level of the IME estimate. At this point the adjustment was still set at double the relationship between resident intensity and costs per case.

- With additional expansion of the DSH adjustment, the IME adjustment was further reduced to 7.7 percent in 1988 (1.89 times the empirical level as calculated when the DSH adjustment was implemented in 1986).

Recent legislative history

- The Balanced Budget Act of 1997 (BBA) reduced the level of the IME adjustment from 7.7 percent in fiscal year 1997 to:
  - 7.0 percent in fiscal year 1998,
  - 6.5 percent in fiscal year 1999,
  - 6.0 percent in fiscal year 2000, and
  - 5.5 percent in fiscal year 2001 and subsequent years.
- The Balanced Budget Refinement Act of 1999 modified the BBA reductions by holding the IME adjustment at 6.5 percent through fiscal year 2000, then lowering the adjustment to 6.25 percent in fiscal year 2001, and finally reducing it to 5.5 percent in fiscal year 2002 and subsequent years.
- The Medicare, Medicaid, and SCHIP Benefits Improvement and Protection Act of 2000 (BIPA) further delayed the reduction by holding it to an average of 6.5 percent in both fiscal year 2001 and fiscal year 2002, before allowing it to fall to 5.5 percent in fiscal year 2003. ■

[1] Two factors contributed to the projected adverse effects on teaching hospitals. First, they understated the complexity of their case mix in the base year, leading to an underestimate of the prospective payment system (PPS) payments they would receive. Second, the analysis used to estimate the relationship between teaching intensity and costs per case included some factors, such as number of beds, which were not a part of the new payment system, lowering the estimated IME cost relationship. Teaching hospitals in fact did not perform poorly under PPS.

DRG payments. A teaching hospital with 400 beds and 40 residents, for example, would receive a payment add-on of 5.3 percent for each Medicare discharge in fiscal year 2003 compared with an adjustment of 24.1 percent per discharge for a 400-bed hospital with 200 residents (Table 2A-13, p. 56). The Congressional Budget Office (CBO) estimates that Medicare IME payments will total $5.1 billion in fiscal year 2003. These payments go to about 1,100 hospitals that train residents, or about one-fourth of all PPS hospitals.

Commission's views on Medicare's payments to teaching hospitals

In an August 1999 report to the Congress on Medicare payment policies for graduate medical education and teaching hospitals, the Commission concluded that

IME adjustment formula

The current IME adjustment is based on the following formula that is multiplied by hospitals' base payment rate for a case to determine the IME payment:

$$1.35 \times [(1 + \text{number of residents/beds})^{0.405} - 1]$$

The formula essentially has three parts:

- The 1.35 multiplier increases the level of the adjustment to the target level. The 5.5 percent adjustment level for every 10 percent increase in the resident to bed ratio is derived by multiplying 1.35 by the 0.405 exponent. This multiplier is what the Congress changed when it altered the level of the IME adjustment.
- The resident-to-bed ratio reflects the number of residents training in the hospital and the number of licensed inpatient beds that a hospital is operating. The resident count used in the IME formula, however, is capped at 1996 levels.[1]
- The 0.405 exponent factor was derived from a Congressional Budget Office analysis of 1980 cost report data on the relationship between teaching intensity and costs per case and several other factors. ■

[1] The Congress capped the number of residents in the BBA to counter hospitals' financial incentives to increase residents in order to raise payments.

TABLE 2A-13

Percent increase in inpatient payment rates under alternative levels of the indirect medical education adjustment

Indirect medical education adjustment percentage*	Resident-to-bed ratio .05	.10	.25	.50	.75
6.5	3.2%	6.3%	15.1%	28.6%	40.7%
5.5	2.7	5.3	12.8	24.1	34.3
2.7	1.3	2.6	6.2	11.6	16.3

Note: The 6.5 percent indirect medical education (IME) adjustment percentage was in effect from fiscal year 2000 through fiscal year 2002. The 5.5 percent IME adjustment started in fiscal year 2003. The 2.7 percent adjustment is the estimated empirical level of the IME adjustment.
* Per 10 percent increment of teaching intensity, measured by the ratio of residents to beds.

Source: MedPAC analysis.

residents bear the cost of their training by receiving lower wages than they might otherwise earn and that Medicare payments for direct GME costs should therefore be considered patient care expenses (MedPAC 1999). The Commission consequently recommended folding costs for inpatient direct GME into Medicare's PPS rates for inpatient services through a revised adjustment to teaching hospital payments (MedPAC 2000b). The Commission also recommended that federal policies intended to affect the number, specialty mix, and geographic distribution of health care professionals be implemented through specific targeted programs rather than through Medicare payment policies.

As part of the Commission's report on teaching hospitals, we assumed that the IME adjustment would gradually phase down to 5.5 percent as the Balanced Budget Act of 1997 instructed. In addition, last year's payment update recommendation and evaluation of payment adequacy for inpatient services was based on the assumption that the IME adjustment would be set at 5.5 percent in fiscal year 2003, down from 6.5 percent in fiscal year 2002.

Relationship of Medicare's IME payments to patient care costs

Medicare's IME payments exceed the estimated cost relationship between teaching intensity and costs per case. Our most recent analysis of the relationship between teaching intensity and patient care costs, conducted with 1999 cost report data, found that inpatient operating costs increase about 2.7 percent for every 10 percent increase in the ratio of residents to hospital beds (or 2.8 percent if capital costs are included). Our analysis of 1997 data showed that this relationship was 3.2 percent (or 3.1 percent if capital costs were included). Payments above this cost relationship are unrelated to higher patient care costs or to education and training costs of residents—which are paid separately on a per-resident basis. In fiscal year 2003 these payments (those above the cost relationship) will account for about 2.5 percent of Medicare inpatient operating payments.

In conducting our analysis we standardize hospitals' inpatient costs for cost-related payment factors (the area wage index, case mix, and outlier payments) to reflect how these factors are used in the PPS. This method allows the IME adjustment to pick up the effect of any remaining

16 Estimated Medicare inpatient margins for major teaching hospitals remain more than 3 percentage points higher than those for nonteaching hospitals after disproportionate share hospital (DSH) payments and IME payments above costs are removed from the calculation, also suggesting that the IME estimate is conservative.

variation in costs not captured in the payment system that may be related to the level of teaching activity in the hospital. These methods tend to produce higher estimates of the effect of teaching on hospital patient care costs than we would get if we included other cost factors (patient severity within DRG, for example) in the analysis. Thus the estimated impact of teaching on hospital costs would be lower (and the amount of payments above the cost relationship would be even higher) if we were to control for other factors like these.[16] We do not control for these other factors, however, because the payment system does not consider them in setting payment rates.

The empirical level of the IME adjustment has fallen over time, probably as a result of two factors. One is that teaching hospitals have had lower cost growth than other hospitals over time. The second is that increases in the resident-to-bed ratio do not necessarily correspond to higher patient care costs. The resident-to-bed ratio, for instance, can increase if hospitals decrease the number of beds without any change in the number of residents trained. In addition, the number of residents in training has also grown by more than 35 percent since the beginning of PPS, and increases in the number of residents trained may cause little if any increase in costs per case (especially if resident salaries and benefit costs are excluded and paid separately as is the case in the current payment system).

The calculation of the empirical level of the IME adjustment is based on policy parameters at a point in time and may change somewhat with future modifications in the payment system. For example, changes in the wage index—such as the addition of an occupational mix adjustment—might raise the IME estimate somewhat. On the other hand, case-mix refinements might lower the estimate because more of the difference in costs between teaching and nonteaching hospitals would be captured in measured case-mix differences.

In fiscal year 2003, Medicare's IME payments above the empirical cost relationship will total an estimated $2.6 billion, accounting for a little more than half of total IME payments received by teaching hospitals. Reducing the IME adjustment to the empirically justified level would substantially lower Medicare inpatient payments to teaching hospitals; for major teaching hospitals—those with 25 or more residents per 100 hospital beds—payments would fall by 7.2 percent, and other teaching hospitals' payments would decline by 1.7 percent. Lowering the IME adjustment from 5.5 to 5.0 percent would decrease IME payments by about 8 percent, or about 0.4 percent of total Medicare inpatient revenues, with payments to major teaching hospitals falling 1.3 percent and payments to other teaching hospitals dropping by 0.3 percent.

Financial performance of teaching hospitals under Medicare

Teaching hospitals have substantially higher Medicare margins than other hospitals. In fiscal year 2000 (the latest data available), the Medicare inpatient margin for major teaching hospitals was 22.9 percent (Table 2A-14). This compares with 10.2 percent for other teaching hospitals, and 4.9 percent for nonteaching hospitals. If the IME adjustment had been set at 5.5 percent in fiscal year 2000 instead of 6.5 percent, the inpatient margin would have been 20.7 percent for major teaching hospitals and 9.5 percent for other teaching hospitals.

The overall Medicare margin (considering most Medicare services furnished by hospitals) was also substantially higher for major teaching hospitals in fiscal year 2000: 14.9 percent compared with 5.0 percent for other teaching and –0.2 percent for nonteaching hospitals (Table 2A-15, p. 58). Teaching hospitals' overall Medicare margins still remain substantially higher even after accounting for the current 5.5 percent IME adjustment level: 13.1 percent for major teaching hospitals and 4.5 percent for other teaching hospitals.

In 2000, the portion of the IME payment above the measured cost relationship accounted for about 10 percent of major teaching hospitals' Medicare inpatient payments. If this portion of IME payments were removed, the net inpatient margin for major teaching hospitals in fiscal year 2000 still would have been 13.8 percent, and the overall Medicare margin 7.5 percent.

TABLE 2A-14

Medicare inpatient margin in fiscal year 2000 and at alternative indirect medical education adjustment levels

Hospital group	Indirect medical education adjustment percentage		
	6.5	5.5	2.7
All hospitals	10.8%	10.1%	7.7%
Major teaching	22.9	20.7	13.8
Other teaching	10.2	9.5	7.6
Nonteaching	4.9	4.9	4.9

Note: The 6.5 percent indirect medical education (IME) adjustment percentage was in effect from fiscal year 2000 through fiscal year 2002. The 5.5 percent IME adjustment started in fiscal year 2003. The 2.7 percent adjustment is the estimated empirical level of the IME adjustment. Margins were imputed for hospitals whose 2000 cost reports were not available (about 27 percent of observations). Excludes critical access hospitals.

Source: MedPAC analysis of Medicare cost report data (fourth quarter 2002) from CMS.

TABLE 2A-15

Overall Medicare margin in fiscal year 2000 and at alternative indirect medical education adjustment levels

Hospital group	Indirect medical education adjustment percentage 6.5	5.5	2.7
All hospitals	5.0%	4.3%	2.5%
Major teaching	14.9	13.1	7.5
Other teaching	5.0	4.5	2.9
Nonteaching	–0.2	–0.2	–0.2

Note: The 6.5 percent indirect medical education (IME) adjustment percentage was in effect from fiscal year 2000 through fiscal year 2002. The 5.5 percent IME adjustment started in fiscal year 2003. The 2.7 percent adjustment is the estimated empirical level of the IME adjustment. Margins were imputed for hospitals whose 2000 cost reports were not available (about 27 percent of observations). Excludes critical access hospitals.

Source: MedPAC analysis of Medicare cost report data (fourth quarter 2002) from CMS.

Medicare inpatient margins grew for all hospitals in the 1990s, but the largest growth was for major teaching hospitals, which saw Medicare inpatient margins climb from 6 percent in 1990 to 26 percent in 1997 (Figure 2A-8). In contrast, inpatient margins for nonteaching hospitals rose from –5 percent in 1990 to 12 percent in 1997. Recently, Medicare inpatient margins have fallen from their 1997 peak, down to 23 percent for major teaching hospitals and to 5 percent for nonteaching hospitals.

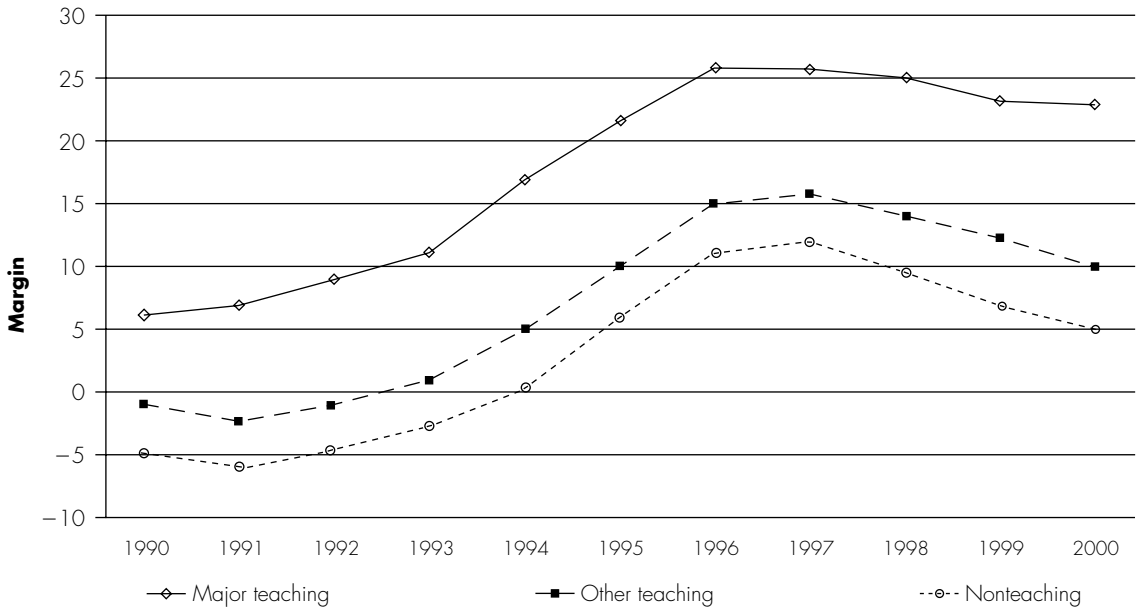
Uncompensated care in teaching hospitals

One argument against reducing the indirect medical education adjustment is that teaching hospitals provide a substantial amount of uncompensated care, which the IME payments may offset.[17] The cost burden of uncompensated care, however, is not uniform across teaching hospitals. AHA annual survey data show that uncompensated care accounts for 20 percent of costs in public major teaching hospitals compared with 5 percent in private major teaching hospitals (Figure 2A-9). Private major teaching hospitals provide about the same amount of uncompensated care as other private hospitals.

IME payments are not targeted to hospitals with the most uncompensated

FIGURE 2A-8

Change in Medicare inpatient margins, by teaching status, 1990–2000



Note: Major teaching hospitals have at least 25 residents per 100 hospital beds.

Source: MedPAC analysis of Medicare cost report data (fourth quarter 2002) from CMS.

17 Uncompensated care is defined as care provided by hospitals or other providers that is not paid directly (by the patient, or by a government or private insurance program). It includes charity care, which is furnished without the expectation of payment, and bad debts, for which the provider has made an unsuccessful effort to collect payment due.

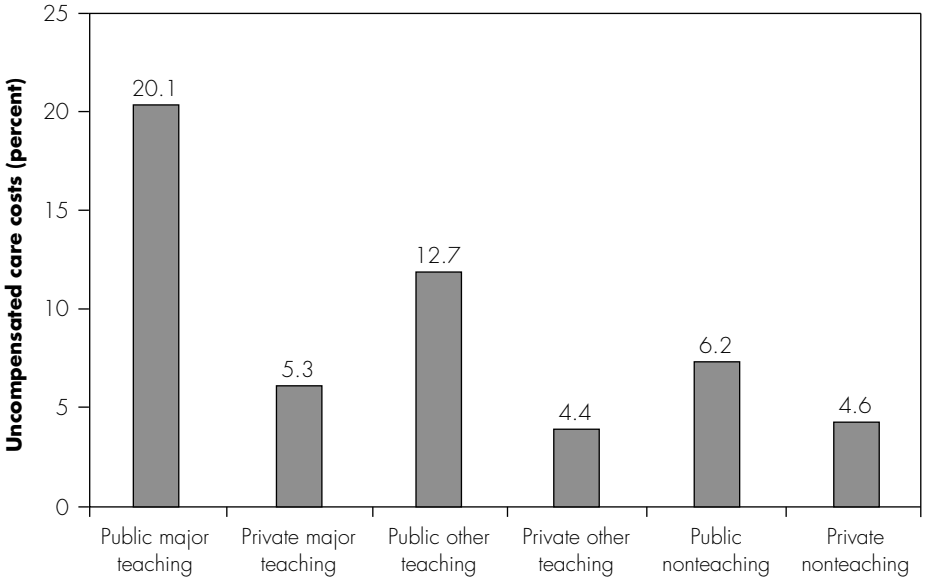
care. Only 27 percent of major teaching hospitals and 8 percent of other teaching hospitals, for instance, are public hospitals that tend to have higher than average levels of uncompensated care. Further, because Medicare accounts for only 20 percent of patient care costs in public major teaching hospitals, IME payments above the cost relationship can have only limited effectiveness in helping defray these hospitals' uncompensated care burdens. Moreover, the variable that determines IME payments, the resident-to-bed ratio, does not reflect uncompensated care costs.

Medicare's DSH payments are explicitly designed to help hospitals with a high share of low-income patients and, presumably, a high load of uncompensated care. In 2000, teaching hospitals received about $3 billion or two-thirds of Medicare DSH payments. Teaching hospitals' share of uncompensated care costs was about 62 percent in 2000. Teaching hospitals also received more than 80 percent of state and local payments for uncompensated care, the vast majority of which went to public major teaching hospitals.

Hospitals can also make up for losses from uncompensated care through other payments, such as those from private payers and nonpatient care revenues. On average, private major teaching hospitals have much lower payment-to-cost ratios from private payers than other providers, 3.4 percent compared to 12.5 percent for all providers.[18] Although public major teaching hospitals have private payer payment-to-cost ratios that are much higher than average—25.8 percent—private payers account for a much smaller share of their case load. Teaching hospitals use nonpatient care revenue (e.g., endowments, parking) more to support operations than other facilities, accounting for 6.5 percent of total revenue in major teaching hospitals, compared to 3.8 percent in nonteaching hospitals.

FIGURE 2A-9

Uncompensated care costs as a percentage of total hospital costs, by hospital group, 2000



Source: 2002 American Hospital Association annual survey of hospitals.

Conclusion

The Commission believes that Medicare should recognize the higher costs teaching hospitals incur in caring for beneficiaries. The IME adjustment currently provides payments well above an empirically justified level. The Commission is not satisfied with the current policy because it provides payments to teaching hospitals above the empirically justified level without accountability for their use or without targeting policy objectives consistent with Medicare's goals. However, we were not able to reach consensus on reducing the adjustment to the empirical level at this time. To address this problem, the Commission will explore ways to target some or all of the IME payments above the empirically justified level to advance specific Medicare policy objectives such as providing enhanced medical education to better prepare providers with the capacity to manage the changing needs of Medicare beneficiaries. The Commission believes this problem should be addressed promptly.

Inpatient payments for rural hospitals

In a Congressional report devoted exclusively to rural health care issues, MedPAC found that rural hospitals on average had worse financial performance under Medicare than their urban counterparts (about 7 percentage points lower on both Medicare inpatient and overall Medicare margins). The Commission responded to this finding by reviewing Medicare's payment policies and making four recommendations designed to improve inpatient payments to rural hospitals (MedPAC 2001a). The next year we issued a fifth recommendation with a similar objective (MedPAC 2002). In each case, our recommendation was based on evidence that the current payment system does not account for factors that systematically raise some providers' unit costs beyond their short-term control, or that the current

18 The payment-to-cost ratio is expressed as a percentage by taking the ratio, subtracting 1.0 and multiplying by 100.

system does not treat rural and urban hospitals equitably.

CMS has already implemented one of the recommendations we made in the rural report administratively. That recommendation was to implement immediately (in contrast to a three-year phase-out) the policy of excluding the salaries of personnel categories paid under Part B from the hospital wage index. Because these personnel—teaching physicians, residents, and certified registered nurse anesthetists—all receive relatively high wages and are more frequently employed by urban than rural hospitals, excluding them in calculating the wage index modestly increases payments for areas with low wage index values (mostly rural) and decreases payments for areas with high wage index values (mostly urban).

The other four recommendations would require legislative changes, and although the Congress has considered all four, none has been enacted to date. We are repeating these four recommendations this year. In this section we summarize the recommendations along with the rationale for and impact of each. Appendix C provides additional background, explanation, and support for the four recommendations.

Implementing a low-volume adjustment

The inpatient PPS applies the same base rate to payment for hospitals of all sizes. Our analysis revealed that hospitals with a small volume of total discharges have higher costs per discharge than larger facilities, after controlling for the other cost-related factors recognized in the payment system.[19] Thus, the current system places smaller providers at a financial disadvantage. The critical access hospital, sole community hospital, and Medicare-dependent hospital programs benefit many small and isolated hospitals, but eligibility for these programs is not well targeted to those with low discharge volume. Consequently, low-volume hospitals on average have much lower Medicare inpatient margins than larger facilities.

A low-volume adjustment is most critical for isolated hospitals, where the facility is important for maintaining beneficiaries' access to care. Adjusting payments for a low-volume hospital that is near other facilities offering similar services, on the other hand, is not a priority; in fact, the close proximity of two hospitals in the same rural market may be one of the primary reasons for the low volume of service.

RECOMMENDATION 2A-2

The Congress should enact a low-volume adjustment to the rates used in the inpatient PPS. This adjustment should apply only to hospitals that are more than 15 miles from another facility offering acute inpatient care.

IMPLICATIONS 2A-2

Spending

- This policy change would be implemented with new monies without a phase-in schedule, but it is expected to increase total spending for PPS inpatient services by less than $50 million in the first year and less than $250 million over five years.

Beneficiary and provider

- This additional payment option should help maintain access to basic emergency service and inpatient care in isolated rural areas by maintaining the financial viability of small rural hospitals. A number of these institutions do not qualify for assistance under the current payment mechanisms designed to help rural hospitals within the PPS.
- A low-volume adjustment will provide substantial financial relief to small and isolated rural hospitals, enabling some to earn a margin on their inpatient services by remaining in the PPS rather than electing cost-based payment through the critical access hospital program.

Reducing the labor share used in geographic adjustment

The labor share is an estimate of the national average proportion of hospitals' costs associated with inputs that are directly or indirectly affected by local wage levels. It is used to determine the portion of the PPS base payment rate to which the wage index is applied. For inpatient hospital services, the labor share currently is set at 71.1 percent.

Most of the inputs that CMS has included within the labor share are purchased in local markets. However, a number of categories (data processing and accounting services, for instance) appear to include some inputs that are purchased in national markets and some in local markets. As a result, the national average labor share may be somewhat lower than 71.1 percent.

Since our rural report, we have obtained preliminary results from an analysis of the factors explaining variation in hospitals' costs per discharge that provide strong evidence that the current labor share is too high. However, the study found that, contrary to what many observers have assumed, the labor-related share of expenses is lower in high-wage markets (most of which are in large urban areas) than in low-wage markets (most of which are rural). This pattern occurs because hospitals in major metropolitan areas generally provide more sophisticated services and treat more complex patients, which raises their costs for plant and equipment. In the coming year, MedPAC will undertake a follow-up study designed to identify the best labor share value for the hospital industry as a whole.

19 Although Medicare payments are intended to cover the costs of Medicare patients, a hospital's total volume of service (that is, including patients covered by all payers) determines its unit costs of production.

RECOMMENDATION 2A-3

The Secretary should reevaluate the labor share used in the wage index system that geographically adjusts rates in the inpatient PPS, with any resulting change phased in over two years.

IMPLICATIONS 2A-3

Spending

- Any change in the labor share used for geographic adjustment of rates should be implemented budget neutrally, such that it would have no impact on aggregate spending for PPS inpatient services.

Beneficiary and provider

- By better aligning payments to efficient providers' costs, a lower labor share should contribute to maintaining access to care in low-wage communities, many of which are in isolated rural areas.
- Depending on the exact labor share chosen, this recommendation should marginally increase payments for hospitals in areas with below-average wage index values (mostly rural areas) and marginally reduce them in areas with above-average values (mostly large urban areas).

Eliminating the base rate differential

In Medicare's inpatient PPS, the operating base payment rate for hospitals in large urban areas (metropolitan areas with more than 1 million people) is 1.6 percent above the payment rate for other hospitals, and the differential is 3.0 percent for the capital base rate (comprising about 10 percent of the overall rate).

When we compared hospitals' costs by location, we found no statistically significant difference between the costs of hospitals in large urban and other areas after controlling for other cost-related payment adjustments in the inpatient PPS. In addition, after removing the effects of DSH payments and IME payments above the measured relationship between teaching and unit costs, hospitals in large urban areas still have Medicare inpatient margins that are three percentage points above those of hospitals in other urban and rural areas.

RECOMMENDATION 2A-4

The Congress should raise the inpatient base rate for hospitals in rural and other urban areas to the level of the rate for those in large urban areas, phased in over two years.

IMPLICATIONS 2A-4

Spending

- Because this policy change would be implemented with new monies, it would raise aggregate spending for PPS inpatient payments by between $200 and $600 million in the first year and between $1 and $5 billion over 5 years.

Beneficiary and provider

- This policy change should help to maintain access to care in rural and less populated urban areas of the country by better aligning hospitals' payments to their average costs.
- The change will increase payments for hospitals in rural and other urban areas, while having no impact on hospitals located in large urban areas.

Raising the cap on disproportionate share payments

Medicare's DSH adjustment for hospital inpatient services is designed primarily to offset the financial pressure of uncompensated care. However, the Commission has concluded that the current system has two key design flaws (MedPAC 2000b, 2001a):

- The current low-income share measure (used to distribute DSH payments) does not include uncompensated care.
- The system has separate payment rates for 10 hospital groups, with the least favorable rates given to most rural hospitals and to urban facilities with fewer than 100 beds.

Previous legislation mandated that CMS collect the uncompensated care data needed to reform the system and partially addressed the unequal treatment of rural facilities. Since MedPAC's complete reform package probably cannot be implemented until at least fiscal year 2005, because of the time required to collect and process uncompensated care data, an appropriate interim step is needed.

RECOMMENDATION 2A-5

The Congress should raise the cap on the disproportionate share add-on a hospital can receive in the inpatient PPS from 5.25 percent to 10 percent, phased in over two years.

IMPLICATIONS 2A-5

Spending

- This policy change would be implemented with new monies. Due to the 2-year phase-in schedule, the first-year impact on aggregate spending for PPS inpatient services would fall into the $50 to $200 million range.
- Over five years, it would raise spending by between $200 million and $1 billion.

Beneficiary and provider

- Because this policy change would mitigate the effects of uncompensated care for many rural hospitals, it should help protect access to care for Medicare beneficiaries in rural communities.
- The policy would raise payments for qualifying rural hospitals as well as urban facilities with fewer than 100 beds. Other hospitals would not be affected.

Impact of rural recommendations (2A-2 through 2A-5)

In two instances—our recommendations calling for Congress to implement a low-volume adjustment and to reevaluate the labor share used in its geographic adjustment of rates—the impact would depend on design decisions that Congress or CMS must make. But we have simulated sample designs to illustrate the pattern and general magnitude of impact these policy changes would likely have.

To illustrate the financial impact of a low-volume adjustment, we simulated an adjustment that increases payments by up to 25 percent and drops to zero for hospitals with 500 or more discharges.[20] Payments would rise by about 8 percent for hospitals with fewer than 200 discharges and 4 percent for those with 201 to 500 discharges. Since low-volume hospitals account for a small share of Medicare discharges, however, the aggregate increase in payments across all hospitals would be less than 0.1 percent.

We simulated an illustrative change in labor share from 71.1 percent to 68 percent. On average, this change would raise payments for hospitals in both rural and small urban areas by 0.2 percent while reducing payments for those in large urban areas by the same amount. By design, the change would have no effect on overall payments.

Our recommendation to eliminate the differential in base payment rates would raise payments for hospitals in rural areas by 1.2 percent. With the two year phase-in we are recommending, a 0.3 percent increase in funding would be needed in fiscal year 2004, followed by a 0.4 percent increase in 2005.

Implemented with new funding, our recommendation to raise the cap on the DSH add-on from 5.25 to 10 percent would increase rural hospitals' payments by 1.2 percent. However, because rural hospitals account for only about 15 percent of PPS spending, the change would increase aggregate inpatient payments by 0.2 percent. With a two-year phase-in schedule, an increase in funding of 0.1 percent would be needed in each of fiscal years 2004 and 2005.

As shown in Table 2A-16, the four recommendations combined would increase rural hospitals' payments by 1.3 percent in 2004 and 2.6 percent in 2005, eliminating more than a third of the difference in inpatient margins between rural and urban facilities. (The impact of each policy change implemented in isolation is detailed in Appendix C.) Although the policy changes affect rural hospitals the most, hospitals in small urban areas would receive a 1.7 percent increase because the recommended increase in base rates applies to them. Payments would decline by 0.1 percent for hospitals in large urban areas because of budget neutral implementation of the reduction in the labor share. By far the largest payment increases—over 4 percent—would go to hospitals that do not benefit from any of the existing programs aimed at helping rural hospitals. These facilities currently have the lowest inpatient margins.

Update for inpatient services

We now turn to the question of the appropriate payment update for inpatient services in fiscal year 2004. The Commission concluded that payments are adequate in light of current costs. The

TABLE 2A-16

One- and two-year impacts on Medicare inpatient payments of recommendations to improve payments to rural hospitals

Hospital group	Baseline margin	Change in payments	
		One-year	Two-year
All hospitals	10.3%	0.4%	0.9%
Urban	11.3	0.3	0.6
Rural	3.9	1.3	2.6
Large urban	13.6	–0.1	–0.1
Other urban	7.7	0.8	1.7
Rural referral	3.9	1.3	2.5
Sole community	4.6	0.5	1.1
Small rural Medicare-dependent	7.2	1.6	3.0
Other rural < 50 beds	3.7	2.3	4.4
Other rural ≥ 50 beds	2.5	2.1	4.2
Major teaching	20.7	0.1	0.1
Other teaching	9.6	0.4	0.8
Nonteaching	5.4	0.7	1.3

Note: Baseline margin is the actual 2000 margin adjusted to reflect the increase in disproportionate share payments implemented in 2001 and the decrease in indirect medical education payments implemented in 2003. Margins were imputed for hospitals whose 2000 cost reports were not available (about 27 percent of observations). Excludes critical access hospitals.

Source: MedPAC analysis of cost report, MedPAR, and impact file data from CMS.

20 The formula we used in this simulation, which derives from our multivariate cost analysis, is documented in Appendix C.

update must account for the expected increase in efficient providers' costs.

Accounting for cost changes in the coming year

After any adjustments to the update for payment adequacy, the Commission examines likely changes in providers' costs in the coming year. The estimate of changes in the costs of efficient providers reflects expected changes in prices, the impact of the costs of scientific and technological advances that improve quality but increase costs, and expected improvements in productivity.

Changes in input prices

CMS measures price inflation for the goods and services that hospitals use in producing inpatient services with the hospital market basket. Separate market baskets measure operating and capital cost changes. CMS's latest forecast for fiscal year 2004 is 3.5 percent for the operating market basket and 1.4 percent for the capital market basket. Under current law the operating update will equal the rate of increase in the market basket, while the capital update is not specified by law and is set by CMS.

Scientific and technological advances

Technological advances may increase the costs hospitals incur in providing care to Medicare beneficiaries. MedPAC takes account of this in its update recommendation based on information on anticipated technological changes in the hospital industry in the coming year. Although we have not conducted a comprehensive review of new technology, we note that CMS approved only one technology for inpatient technology pass-through payments. Accordingly, we believe that an allowance of 0.5 percent for fiscal year 2004 will compensate adequately for this one major technological advance as well as numerous other smaller advances.

Increases in productivity

The Commission believes that hospitals should be able to cover the costs of technological advances with the savings resulting from productivity gains. Increases in productivity decrease hospital unit costs. An index of productivity change estimates the change in output associated with a given increase in inputs. MedPAC has established a standard for expected productivity growth based on the 10-year average growth rate of total factor productivity in the general economy, which currently equals 0.9 percent. Productivity growth has been even higher than this average in the last several years.

Update recommendation

Medicare separately updates payments for operating costs (such as labor and supplies) and capital costs (primarily buildings and equipment) in the PPS for acute inpatient services. The Congress sets the update for operating payments, usually several years in advance, and CMS sets the capital update. The Commission's inpatient update recommendation focuses solely on the operating update because operating costs account for about 92 percent of total hospital costs and because the operating update is of primary interest to the Congress.

RECOMMENDATION 2A-6

The Congress should increase payment rates for the inpatient PPS by the rate of increase in the hospital market basket, less 0.4 percent, for fiscal year 2004.

IMPLICATIONS 2A-6

Spending

- This recommendation would increase payments by a smaller amount than under current law. Consequently, it would result in savings of between $200 and $600 million in one year. Over 5 years, the savings would be between $1 and $5 billion.

Beneficiary and provider

- The recommendation results in a payment increase that should be adequate to cover increases in provider costs for 2004. To the extent that adequate payment allows hospitals to meet beneficiaries' health care needs, beneficiaries' access to care would be unchanged.
- The recommended update would increase Medicare inpatient payments to hospitals covered by the inpatient PPS by 3.1 percent in fiscal year 2004. In combination with the Commission's recommendations on expansion of the post-acute care transfer policy and its rural recommendations the update recommendation would increase payments by 3.2 percent (Table 2A-17, p. 64).

The increase in the market basket and the recommended offset for the costs of technological advances net of productivity change affect recommended payments to all hospitals equally. The distributional impacts of the rural and transfer policy recommendations affect hospital groups differently. Together, the Commission's recommendations lead to payment increases of 4.2 percent for hospitals in rural areas, 3.6 percent for hospitals in other urban areas, and 2.7 percent for hospitals in large urban areas. Payments would rise 3.5 percent for nonteaching hospitals, 3.2 percent for other teaching hospitals, and 2.8 percent for major teaching hospitals.

Update for outpatient services

At the beginning of this chapter, we reviewed the adequacy of Medicare's payments in relationship to current costs for most of hospitals' services and found them to be at least adequate. Although MedPAC considers Medicare payment adequacy for the hospital as a whole, we make a separate update recommendation for hospital outpatient services covered by Medicare's outpatient PPS.

As shown in Table 2A-2 (p. 40), the aggregate margins for Medicare hospital outpatient services improved between 1999 (–16.4 percent) and 2000 (–13.7 percent). The improved margins are consistent with policies that added funds

TABLE 2A-17

Impact on Medicare inpatient payments of update and distributional recommendations

Hospital group	Market basket	Update offset	Distributional changes	Net change in payments
All hospitals	3.5%	–0.4%	0.1%	3.2%
Large urban	3.5	–0.4	–0.4	2.7
Other urban	3.5	–0.4	0.5	3.6
Rural	3.5	–0.4	1.1	4.2
Major teaching	3.5	–0.4	–0.3	2.8
Other teaching	3.5	–0.4	0.1	3.2
Nonteaching	3.5	–0.4	0.4	3.5

Note: Recommendations include the update; a low-volume adjustment; eliminating the base rate differential; reducing the labor share; raising the cap on disproportionate share payments; and expanding the transfer policy. Payments are imputed for hospitals whose 2000 cost reports were not available (about 27 percent of observations). Excludes critical access hospitals.

Source: MedPAC analysis of Medicare cost report, MedPAR, impact file, and market basket data from CMS.

to the outpatient PPS: transitional corridor payments to limit hospitals' losses under the new payment system and new technology payments. The transitional corridor payments made up some of the difference between what hospitals received under the PPS and what they would have received under previous payment policies for hospitals that received lower reimbursements under the PPS. Hospitals receiving higher reimbursements under the PPS kept the gains. The Congress authorized new monies to fund these payments. In contrast, the pass-through payments for certain new technologies are budget neutral by law.[21] However, from August 2000 to April 2002, CMS did not enforce the budget-neutrality provisions due to administrative and congressional actions.

As discussed previously, the large negative values for the outpatient margins appear to be the result of cost allocation decisions by hospitals, where a disproportionate share of fixed costs seem to be allocated to outpatient services rather than to inpatient services.[22] Consequently, the outpatient margins are understated and the inpatient margins overstated. In examining overall Medicare payments to hospitals in relationship to costs, the fiscal year 2000 margin is 5.0 percent, with an estimated overall Medicare margin of 3.9 percent in 2003 (Table 2A-3, p. 41). This and other indicators, including volume, entry and exit, and access to capital suggest that payments are at least adequate.

The Congress mandated development of the outpatient PPS in the BBA; it was implemented in August 2000. Unlike the hospital inpatient PPS, the outpatient PPS operates on a calendar year. Updates for outpatient services were set in legislation for calendar years 2001 and 2002. The Secretary set the update for 2003 at the projected rate of increase for the hospital market basket. Current law also provides for an update equal to the rate of increase in the hospital market basket for 2004.

Trends in Medicare payments for outpatient services

Total Medicare payments for services covered by the outpatient PPS in calendar year 2001 were $16.3 billion, including $9.2 billion by the program and $7.1 billion in beneficiary cost-sharing.[23] This $16.3 billion represents about 6 percent of total Medicare spending. Given that the outpatient PPS was implemented in August 2000, calendar year 2001 is the first year in which spending data are available specifically for services covered by the outpatient PPS.

In 2001, services covered under the outpatient PPS represented about 87 percent of all hospital outpatient spending. Hospital outpatient services not covered by the outpatient PPS include those paid on a separate fee schedule (e.g., ambulance, clinical lab services, rehabilitation and other therapies, and durable medical equipment), as well as those still reimbursed on a cost basis (e.g., organ acquisition, and, beginning in 2003, some vaccines).

Information on trends in Medicare spending on outpatient services is only available for all outpatient services, not just those covered under the outpatient PPS. Such spending has grown considerably over the past decade, almost doubling in nominal dollars from calendar year 1991 to 2001 (Figure 2A-10).

21 See Chapter 4 for further discussion of the pass-through payment mechanism.

22 The Health Care Financing Administration (now CMS) commissioned a study of hospitals' cost allocation practices and found that the general pattern of over-allocation to outpatient services existed, at least in part as a response to the introduction of prospective payment for inpatient services, while outpatient services continued to be reimbursed based on reported costs (CHPS Consulting 1994).

23 Beneficiary cost-sharing for hospital outpatient services has not been based on 20 percent of total payments, as it has been for most other Part B services. Historically, the Medicare program based its payments on hospitals' costs, whereas the beneficiary coinsurance was based on 20 percent of charges. Over time, charges increased more quickly than costs, resulting in beneficiaries paying a greater share of total payments, reaching 50 percent by 2000. This trend was reversed under the outpatient PPS, and beneficiary cost-sharing will slowly decline, although it will continue to be greater than 20 percent for the foreseeable future.

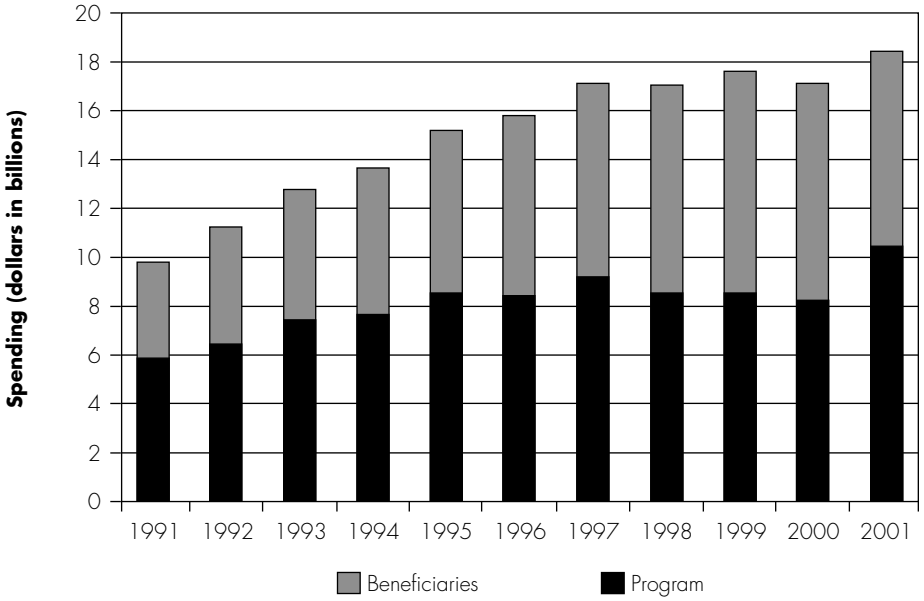
Growth was fastest early in the 1990s and slowed from 1997 to 2001.

Several factors contributed to the slowing of growth since the mid-1990s, including policy changes such as the elimination of inadvertent overpayments in the BBA and the introduction of Medicare's outpatient PPS in 2000.[24] Other explanatory factors might be reactions to stepped-up fraud and abuse efforts and a slowing of medical inflation in the late 1990s. Projections by both the CMS Office of the Actuary and the Congressional Budget Office, however, forecast future growth. Payments under the outpatient PPS are projected to increase at an average annual rate of about 8 percent between calendar years 2002 and 2007.

Payments for outpatient services accounted for approximately 14 percent of Medicare payments to hospitals in 2000 (Figure 2A-1, p. 36).

FIGURE 2A-10

Spending on all hospital outpatient services, 1991–2001



Note: Spending includes both services covered by the outpatient prospective payment system and those paid on separate fee schedules or on a cost basis.

Source: Office of the Actuary, CMS.

Accounting for cost changes in the coming year

We now turn to factors likely to affect hospitals' unit costs for outpatient services in 2004, such as changes in input prices, scientific and technological advances, and increases in productivity.

Changes in input prices

The hospital market basket forecast is our best approximation of increases in input prices paid by providers. The outpatient update will be implemented on January 1, in contrast to October 1 for the inpatient update. The latest forecast of the hospital market basket for calendar year 2004 is 3.4 percent.

Scientific and technological advances

Technological advances may increase or decrease unit costs for outpatient services in 2004, but most new outpatient technologies that increase costs will be paid for explicitly through two special provisions discussed below:

- new technology ambulatory payment classification groups; and
- transitional pass-through payments.[25]

Given these special mechanisms to pay for new technology, MedPAC concludes there is no need for an addition to the outpatient PPS update for scientific and technological advances in 2004.

New technology ambulatory payment classification groups

The new technology APCs pay for completely new services, such as a positron emission tomography (PET) scan or a new surgical procedure. Services are placed in a new technology APC based only on their expected costs. New technology APCs start at $0 to $50 and continue through $5,000 to $6,000, with an additional category for $19,500 to $20,500. Payment is set at the midpoint of the range. Currently, 75 services (as denoted by a Healthcare Common Procedure Coding System, or HCPCS, code) are paid for under the new technology APCs. In addition, CMS has five applications under review for services to be placed in new technology APCs. Technologies that fall into new technology APCs will generate payments for each service rendered. This payment mechanism has no budget neutrality provision, so these payments represent increased expenditures. The costs of new technologies covered by the new technology APCs, therefore, do not need to be factored into the update. In 2001, payments for services in new technology

24 The BBA eliminated so-called formula-driven overpayments, which were generated by a mistake in the payment formula for some ambulatory surgery, radiology, and other diagnostic services that inadequately accounted for beneficiary copayments when setting program payments, leading to excessive total payments.

25 See Chapter 4 for a full discussion of these payment mechanisms for new technology.

APCs accounted for about 1 percent of total payments.[26]

Transitional pass-through payments
Pass-through payments cover technologies that are inputs to a service, such as a drug or medical device, rather than a service as a whole. Pass-through payments are made in addition to base APC payments. The Congress required CMS to implement the pass-through payments in a budget neutral manner, with a cap of 2.5 percent of total payments. If CMS estimates that pass-through payments will be above the cap, all payments should, by law, be subject to a pro rata reduction. From August 2000 to April 2002, however, no pro rata reduction was made. Consequently, in 2001, payments for pass-through items exceeded $1.3 billion (8 percent of total payments), rather than the limit of about $450 million (2.5 percent of total payment).[27] Thus, excess payments of about $750 million were made. For the last nine months of 2002, however, CMS imposed a pro rata reduction of 64 percent on pass-through payments to ensure the cap was met.

CMS estimates that pass-through spending for calendar year 2003 will be below the cap. Projections by industry and CMS suggest that the same will be true in 2004 (2004 marks a change in the statutory limit for the cap from 2.5 percent to 2 percent). Currently, fewer than 10 applications for new pass-through technologies are pending. Therefore, the full costs of pass-through items should be covered by the payment mechanism.

If estimated pass-through payments exceed the cap in 2004, requiring a pro rata reduction, some might argue that the reductions in payments represent costs that are not covered by the payment system that should be factored into the update. If this situation arises, however, a judgment would be needed to determine whether the reduced payments actually cover hospitals' costs for these items. The estimated payments are based on the existing payment mechanisms, which the Commission has previously stated could result in overpayments (MedPAC 2002) and likely exceed providers' costs. Payments for pass-through drugs equal 95 percent of average wholesale price, generally considered to be well above providers' acquisition costs. Payments for devices equal hospitals' charges reduced to costs using a cost-to-charge ratio. This payment mechanism provides hospitals an incentive to increase charges to increase payments.

Increases in productivity

Whereas technological advances may increase or decrease the unit costs of providing services, increases in productivity decrease unit costs. Last year, MedPAC conservatively assumed that the increases in unit costs from new technologies were offset by improved productivity. We acknowledged that this assumption was likely to benefit hospitals, given the limited number of pass-through technologies expected to be approved in 2003. The decision hinged on the newness of the payment system and the uncertainty over the flow of pass-through items. The experience in setting rates for 2003, however, has confirmed that fewer technologies are currently flowing through the pass-through mechanism. Consequently, this year we conclude that most increases in costs of technology are already reflected in the payments and do not offset productivity gains.

Given that prospective payment systems are designed to provide incentives for efficiency, hospitals should be expected to improve productivity at a rate that is consistent with multifactor productivity improvement in the economy as a whole. The latest estimate of the 10-year moving average of multifactor productivity in the economy as a whole is 0.9 percent. This estimate averages lower productivity growth in the past with larger increases in more recent years.

Update recommendation

After reviewing the adequacy of current payment and costs, as well as the factors likely to affect hospitals' costs in calendar year 2004, we make the following recommendation:

RECOMMENDATION 2A-7

The Congress should increase payment rates for the outpatient PPS by the rate of increase in the hospital market basket, less 0.9 percent, for calendar year 2004.

IMPLICATIONS 2A-7

Spending

- This recommendation would increase payments by a smaller amount than under current law. Consequently, it would result in savings of between $50 and $200 million in one year. Over 5 years, the savings would be between $250 million and $1 billion.

Beneficiary and provider

- Although it is below the update established in current law, this recommendation would result in a payment increase that is adequate to cover increases in provider costs for outpatient services for 2004. Hospitals should be able to realize productivity gains to partially offset the increases in input prices reflected in the hospital market basket.
- To the extent that adequate payment allows hospitals to meet beneficiaries' health care needs, beneficiaries' access to care would be unchanged. ■

26 Based on MedPAC analysis of 2001 outpatient PPS claims from CMS.

27 Based on MedPAC analysis of 2001 outpatient PPS claims from CMS.

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