

3 SECTION A

**Hospital inpatient and
outpatient services**

R E C O M M E N D A T I O N S

3A-1 The Congress should increase payment rates for the inpatient prospective payment system by the projected rate of increase in the hospital market basket index for fiscal year 2005.

COMMISSIONER VOTES: YES 14 • NO 0 • NOT VOTING 1 • ABSENT 2

.....
3A-2 The Congress should increase payment rates for the outpatient prospective payment system by the projected rate of increase in the hospital market basket index for calendar year 2005.

COMMISSIONER VOTES: YES 15 • NO 0 • NOT VOTING 0 • ABSENT 2

.....
3A-3 The Congress should eliminate the outlier policy under the outpatient prospective payment system.

COMMISSIONER VOTES: YES 15 • NO 0 • NOT VOTING 0 • ABSENT 2

SECTION 3A

Section 3A: Hospital inpatient and outpatient services

In this section

- Are Medicare payments adequate in 2004?
- How should Medicare payments change in 2005?
- Update recommendations
- Outpatient outlier provision

Our review of the evidence—beneficiaries’ access to care, volume of services, access to capital, quality, and the relationship of current Medicare payments to costs—indicates that payments in aggregate are adequate to cover the costs of furnishing hospital care to beneficiaries. However, future trends in costs and Medicare payments are more uncertain than usual. Hospitals’ per unit costs have increased rapidly in recent years and the future direction of payments is uncertain, given changes to CMS’s outlier policy and policy changes in the Medicare Prescription Drug, Improvement, and Modernization Act of 2003. This uncertainty argues for caution in this year’s update to buffer any unforeseen and abrupt changes that might occur. In these circumstances, the most prudent course for this year is to raise inpatient and outpatient payment rates by the full projected increase in the hospital market basket index. We also recommend that the Congress eliminate outlier payments in the outpatient payment system and return these payments to the base. The outpatient services Medicare pays for are generally narrowly defined and low cost. Evidence on the distribution of outlier payments across services and hospitals suggests that they are not needed to protect hospitals from financial risk.

This section of Chapter 3 starts with an overview of the services hospitals provide to Medicare beneficiaries and Medicare’s payment systems for inpatient and outpatient care. We then present our assessment of the adequacy of Medicare payments for most services—inpatient, outpatient, and post-acute services—provided by hospitals in fiscal year 2004. Next we present MedPAC’s recommendations for payment updates under Medicare’s hospital inpatient and outpatient prospective payment systems (PPSs). (Update recommendations for two other services hospitals provide—skilled nursing facility and home health care—are presented in later sections of the chapter.) Finally, we provide the Commission’s findings and recommendations for outpatient outlier payments.

Background

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 also provide home health, skilled nursing facility (SNF), psychiatric, or rehabilitation services to beneficiaries, often following an inpatient stay. A hospital may provide these services directly (termed “hospital based” by the Medicare program), or they may be provided by a separate organization owned by the same corporate entity as the hospital.

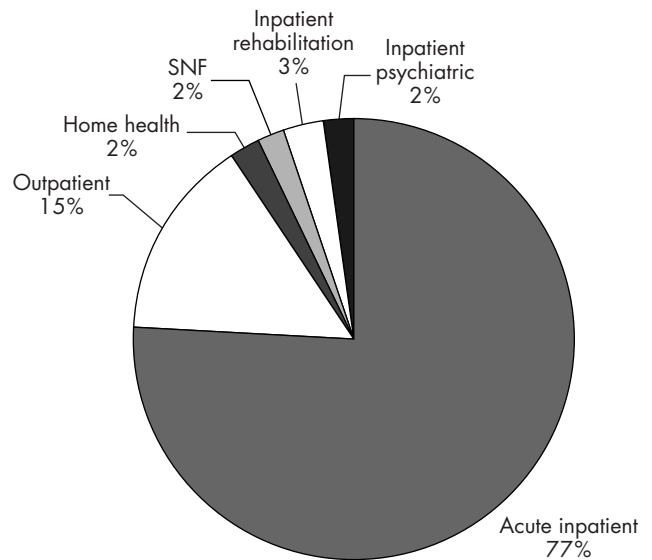
The bulk of Medicare spending on hospitals is for inpatient and outpatient care. Approximately one-fifth of Medicare beneficiaries receive hospital inpatient care and about 60 percent receive care in hospital outpatient departments each year. Medicare purchases inpatient and outpatient care, as well as other services, from over 5,000 short-term general and specialty hospitals that meet its conditions of participation and agree to accept the program’s payment rates for care.

Medicare spending on hospitals

Payments for acute inpatient care account for about three-quarters of all Medicare payments to hospitals, while payments for outpatient care (including emergency room services) comprise about one-sixth (Figure 3A-1). Spending on inpatient and outpatient care increased from about \$89 billion in 1993 to \$135 billion in 2002, representing a 4.7 percent average annual rate of growth during the decade (Figure 3A-2). From 1993 to 1997,

FIGURE 3A-1

Acute inpatient services account for the majority of hospital payments



Note: SNF (skilled nursing facility). Data exclude graduate medical education as well as several services such as hospice and ambulance that account for smaller shares of payments. Shares do not sum to 100 percent due to rounding.

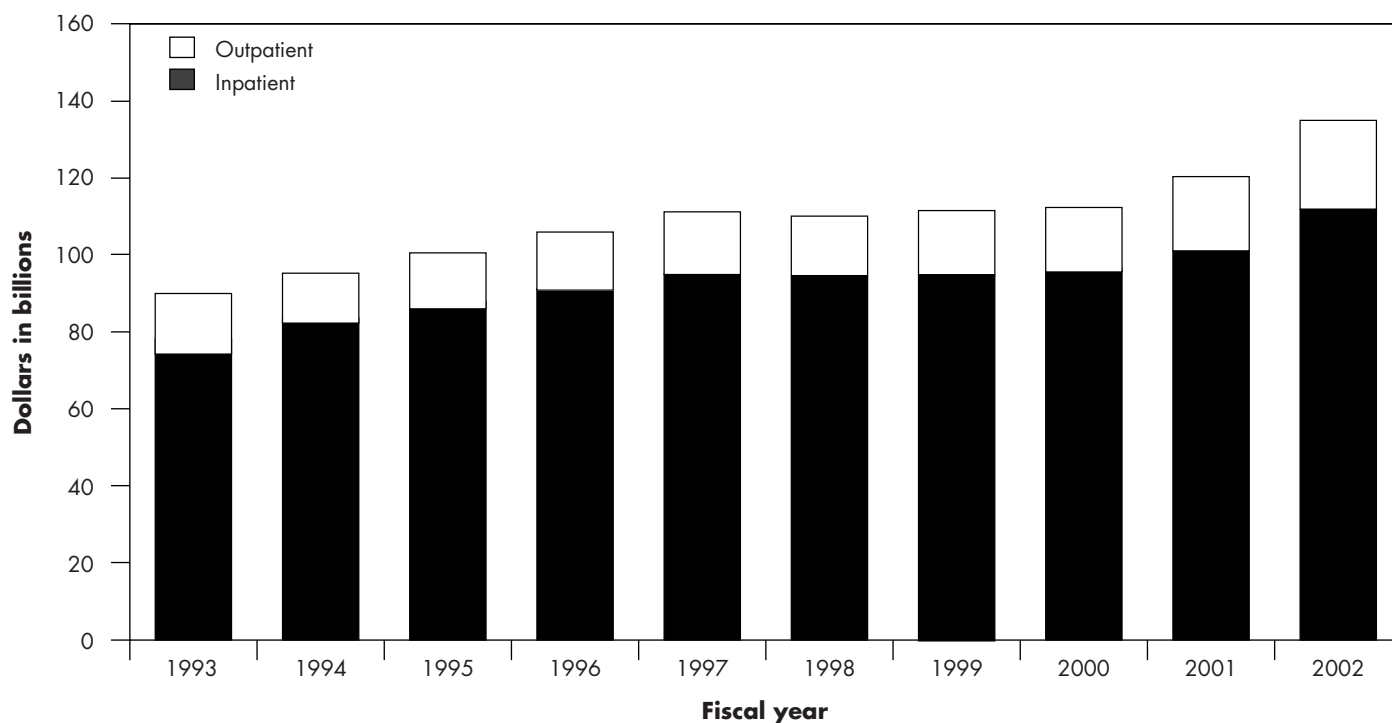
Source: MedPAC analysis of 2001 Medicare Cost Report file from CMS.

hospital expenditures grew at 5.7 percent per year. These expenditures were nearly flat for three years following the enactment of the Balanced Budget Act of 1997, and then spending growth accelerated. The most rapid growth has been in the last two years, a 7.6 percent increase in 2001 and a 10.6 percent increase in 2002.

Medicare spending for hospital inpatient and outpatient services on a per beneficiary basis was up 6.4 percent in 2001 and 9.1 percent in 2002, which is significantly higher than the increase in prices for the inputs hospitals use in providing care, 4.3 percent in 2001 and 3.8 percent in 2002. Because spending has outpaced input prices, we can conclude that the volume and intensity of hospital services provided to Medicare patients have been increasing in recent years. Looking forward, CMS’s Office of the Actuary projects that hospital inpatient payments will increase by an average annual rate of 6.2 percent from 2002 to 2012. This projected growth, which does not reflect the impact of the Medicare Prescription Drug, Improvement, and Modernization Act of 2003 (MMA), is the product of a 1.9 percent increase in enrolled beneficiaries per year and a 4.2 percent annual increase in expenditures per beneficiary (OACT 2003).

FIGURE 3A-2

Medicare payments for hospital inpatient and outpatient services accelerated after 2000, following a period of stability



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

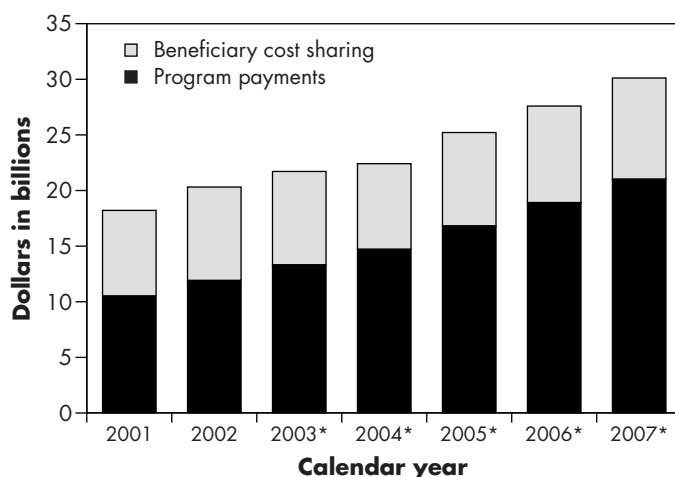
Source: CMS, Office of the Actuary Mid-Session review, 2003.

The figures presented above include all outpatient services, not just those covered under the outpatient PPS, which was implemented in August 2000 and operates on a calendar year (as opposed to fiscal year for the inpatient PPS).¹ Total spending has grown rapidly since the introduction of the outpatient PPS, rising almost 18 percent, from \$18.4 billion in 2001 to \$21.6 billion in 2003 (Figure 3A-3). The Office of the Actuary estimates that spending growth will continue, with an average annual growth rate of 8.6 percent from 2002 to 2007. The projected growth in spending is due to increases in payment rates, the number of beneficiaries, and the volume and intensity of services per beneficiary.

Beneficiaries pay a greater share of total payments for hospital outpatient services than they do in other sectors, although beneficiary cost sharing will decline slowly under the outpatient PPS until it reaches 20 percent.² In 2003, beneficiaries paid 38 percent of total payments under the outpatient PPS.

FIGURE 3A-3

Medicare outpatient PPS payments are projected to increase steadily



Note: PPS (prospective payment system).
* Estimated.

Source: CMS, Office of the Actuary.

Medicare's payment systems for hospital inpatient and outpatient services

From 1966 until 1983, Medicare payments for inpatient and outpatient hospital services were based on hospitals' incurred costs, which gave hospitals little incentive to provide services to beneficiaries efficiently. Beginning in 1984, Medicare introduced prospective payment for inpatient services; in 2000, Medicare implemented prospective payment for hospital outpatient department services (including emergency room services). This section details the inpatient and outpatient PPSs, and the text box on page 73 summarizes the changes in inpatient and outpatient payment policy enacted by the MMA.

Hospital inpatient payment system

Medicare's hospital inpatient PPS pays hospitals a predetermined amount per hospital discharge. The diagnosis related group (DRG) classification system assigns patients to over 500 groups, distinguishing cases with similar clinical problems that are expected to require similar amounts of hospital resources. The DRG-based payment for each discharge includes separately determined amounts for operating and capital costs.

A separate relative weight is defined for each DRG, based on the average charges for cases in each group. The base payment rate reflects the average costliness of Medicare inpatient cases nationwide, and the DRG payment rate is the product of this rate and the relative weight of the DRG. The labor portion of the DRG payment rate is further adjusted by the hospital wage index to account for differences in local input prices. DRG payments are made on a per diem basis when a patient is transferred to another PPS hospital, or in some instances to a post-acute care setting.

The inpatient PPS makes additional payments for unusually costly cases and to hospitals with specific characteristics. These payments 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, and since fiscal year 2003, hospitals have been eligible for additional payments for the costs of major new technologies. An indirect medical education (IME) adjustment is intended to account for the higher patient care costs of teaching hospitals.³ The disproportionate share (DSH) adjustment provides additional payment for

hospitals that treat an unusually large share of low-income patients. Finally, higher payments are made to rural hospitals that qualify as sole community providers, referral centers, or small Medicare-dependent hospitals.

Since 1997, certain small rural hospitals with 25 or fewer beds can qualify as critical access hospitals (CAHs).⁴ Because these hospitals receive cost-based reimbursement, we do not consider them in evaluating the adequacy of Medicare's DRG-based prospective payments. (More information on this program is provided on page 74.)

Hospital outpatient payment system

The outpatient PPS pays hospitals a predetermined amount per service. Each service provided to a beneficiary is assigned to one of approximately 700 ambulatory payment classification (APC) groups, which cover everything from simple X-rays and clinic visits to cataract surgeries and insertion of pacemakers. The APCs classify procedures, evaluation and management services, drugs, and devices used in hospital outpatient departments. Each APC has a relative weight based on the median cost of services in the APC. A conversion factor translates relative weights into dollar payment amounts. The labor portion of the outpatient payment is adjusted by the hospital wage index to reflect differences in local input prices.

The outpatient PPS includes three payment adjustments. Pass-through payments for new technologies provide an additional payment when certain drugs, biologicals, and devices are 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. To assist certain classes of hospitals that may face losses under the outpatient PPS, hold-harmless payments are made to cancer, children's, small rural, and sole community hospitals if their outpatient PPS payments are lower than they would have been under prior policy. Hold-harmless payments to small rural and sole community hospitals end in 2005.

Are Medicare payments adequate in 2004?

Each year, MedPAC makes payment update recommendations for hospital inpatient and outpatient services for the coming year. In our framework we address

How did recent legislation change inpatient and outpatient payment policies?

The Medicare Prescription Drug, Improvement, and Modernization Act of 2003 (MMA) included several provisions that will significantly affect Medicare inpatient and outpatient payments to hospitals. The Act increases inpatient payments by the projected increase in the market basket index in fiscal years 2005 through 2007. However, payments to hospitals that fail to provide data on specified quality indicators will be reduced by 0.4 percent. In addition, a number of provisions described below are designed to modify the distribution of either inpatient or outpatient payments. All but one of these (the freeze on graduate medical education payments for high-payment hospitals) are estimated to increase aggregate payments.

- Increase the inpatient base payment rate for hospitals in rural and small urban areas by 1.6 percent. With the 1.6 percent increase, the rate for these hospitals will equal the rate for hospitals in large urban areas.
- Increase the maximum disproportionate share (DSH) add-on to 12 percent of base inpatient payments for most rural hospitals and small urban hospitals. (Although the qualifying criteria are the same for all hospitals, DSH payments to these hospitals are currently capped at a 5.25 percent add-on; no cap exists for larger urban facilities.)
- Increase inpatient payments to hospitals in low-wage areas by reducing the labor-related share (the portion of the base payment rate to which the wage index is applied) from 71 percent to 62 percent in areas with a wage index below 1.0. Hospitals in higher-wage areas (with a wage index above 1.0) are held harmless.
- Allow critical access hospitals to use up to 25 beds for acute patients, an increase from the prior limit of 15 acute beds. The provision also curtails hospitals' ability to convert to critical access hospital status starting in 2006.
- Create an inpatient low-volume adjustment for rural hospitals that are more than 25 miles from another hospital. Facilities with fewer than 800 discharges from all payment sources can qualify for this payment add-on.
- Liberalize the criteria for new technologies used in inpatient care to qualify for technology pass-through payments and allow these payments to be made without budget neutrality.
- Extend the outpatient hold-harmless rule for small rural and sole community hospitals for two years, through 2005. Rural hospitals with fewer than 100 beds and rural sole community hospitals (regardless of size) qualify for hold-harmless payments.
- Create separate payment categories for many drugs provided on an outpatient basis. Set payment floors for sole-source drugs and ceilings for other drugs that are based on a reference average wholesale price.
- Temporarily raise indirect medical education payments, with a four-year phase-down to an adjustment rate slightly below the current rate.
- Freeze per-resident payment amounts for the direct costs of operating graduate medical education programs for hospitals that currently have per-resident amounts that are more than 140 percent of the national average. ■

two questions that together determine the appropriate level of aggregate funding: whether base payments for the current year (2004) are adequate, and how much efficient providers' costs should change in the coming year (2005).

We assess the adequacy of payments for the hospital as a whole and use this assessment to support both our

inpatient and outpatient update recommendations. Hospitals furnish a number of services to Medicare beneficiaries that have separate payment systems, including acute inpatient care, outpatient care, inpatient psychiatric and rehabilitation services provided in distinct part units, and hospital-based skilled nursing facility and home health services. The methods used to allocate

overhead and ancillary costs among these services might distort our measure of costs—and therefore our assessment of the adequacy of payments—for any one service. MedPAC’s analysis finds that Medicare’s aggregate payments to PPS hospitals are adequate in 2004 to cover efficient providers’ costs of furnishing services to beneficiaries.

Our determination of payment adequacy considers several market factors along with our estimate of payments and costs for hospital services provided to Medicare beneficiaries in 2004. These market factors include beneficiaries’ access to care, changes in volume of services, changes in quality of care, and hospitals’ access to capital.

Beneficiaries’ access to care

We examined two indicators of beneficiaries’ access to care: the per capita service use of rural beneficiaries compared with those living in urban areas, and the number of providers participating in the Medicare program, including CAHs in rural areas. We found no indication that access to hospital services has been a problem for most Medicare beneficiaries.

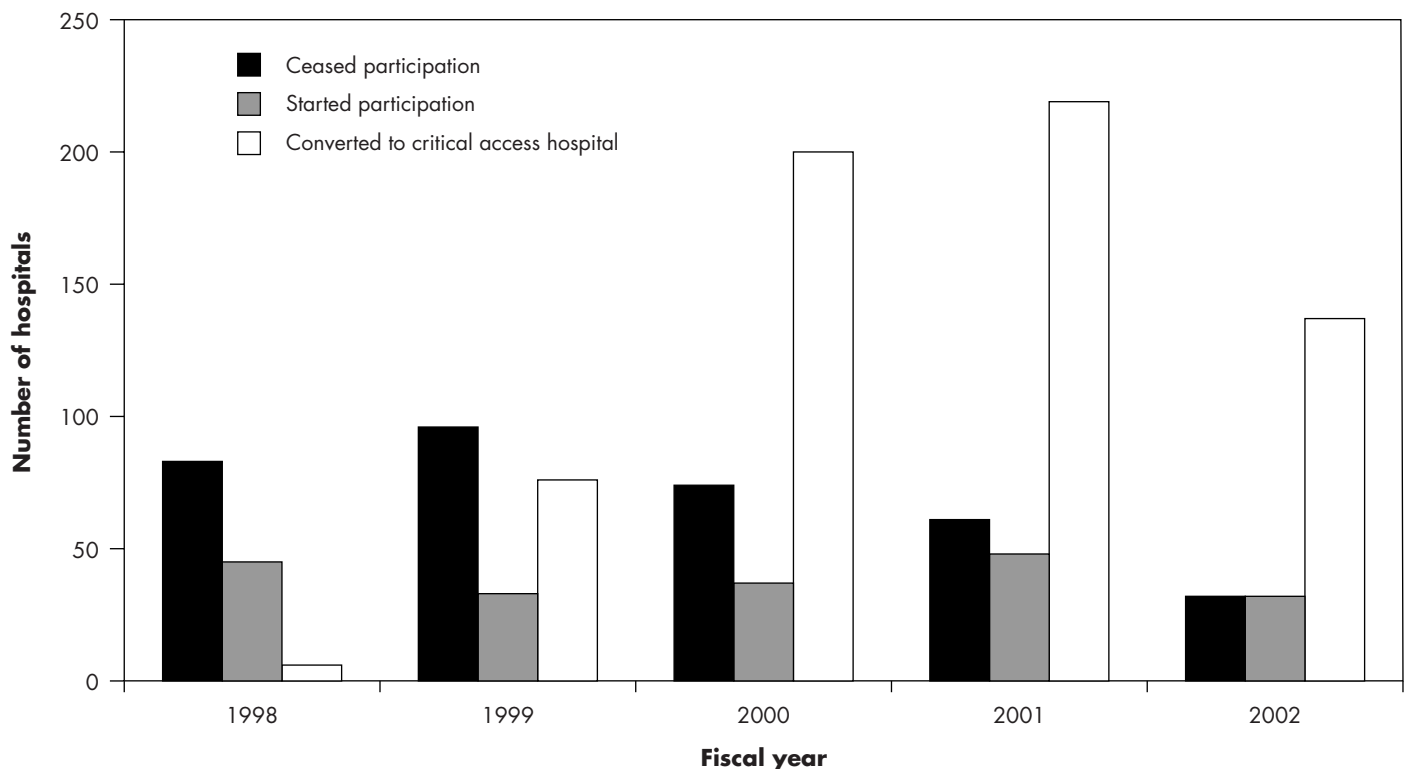
Access to care in rural areas

Policymakers have been particularly concerned in recent years that Medicare beneficiaries in rural areas may face challenges with access to hospital services. However, MedPAC’s comprehensive review of health services in rural areas found that in 1999 rural beneficiaries used both hospital inpatient and outpatient services at a slightly higher rate than those living in urban areas (MedPAC 2001). An update of this analysis to 2000, which was not disaggregated by type of service, found that the overall use rate has remained stable.

Congressional concern about the financial viability of hospitals in rural areas and the potential for access problems among rural beneficiaries led the Congress to enact the CAH program in the Balanced Budget Act of 1997. CAHs are not subject to either the inpatient or outpatient PPS. They were initially paid 100 percent of their Medicare-allowable costs for inpatient and outpatient services, and the MMA raised this payment to 101 percent of costs. Between 1997 and 2002, 636 facilities converted to or opened as CAHs (Figure 3A-4), and by October of 2003, this number had risen to 835—more than 40 percent

FIGURE 3A-4

Fewer hospitals are ceasing participation in Medicare, while many have become critical access hospitals



Source: MedPAC analysis of Provider of Services file from CMS.

of all rural facilities. Under the liberalized payment provisions of the MMA, even more hospitals likely will convert to CAHs, although some may opt for PPS because of the payment provisions targeted to hospitals in rural areas.

Hospital participation in Medicare

The number of facilities ceasing participation in the program (as opposed to converting to CAH status) has dropped each year since 1999. Moreover, hospitals beginning Medicare participation have offset many of the departures. By 2002, only 31 hospitals left the program, and an equal number entered. Of the 115 new participants between 2000 and 2002, 80 percent were in urban areas.

The percentage of hospitals that provide outpatient services has grown slightly over the last decade (Table 3A-1). In 1991, 92 percent of hospitals provided outpatient services; in 2002, 94 percent did. The percentage offering outpatient surgery increased more significantly, from 79 percent in 1991 to 84 percent in 2002. Hospitals have also become slightly more likely to provide emergency services; the proportion increased from 91 percent in 1991 to 93 percent in 2002. The introduction of the outpatient PPS has had no discernable effect on the share of hospitals providing outpatient services, which did not change from 2001 to 2002.

Supply of beds

The number of hospital beds nationally has been falling for more than two decades, because of shifts from inpatient to outpatient care and greater use of post-acute care. In 2001, however, the number of beds grew for the first time since 1983 (AHA 2003b). In 2002 and 2003, hospitals in many areas began construction programs to respond to anticipated demand for inpatient and outpatient services (see discussion of access to capital below).

Changes in volume of services

We use the number of discharges and average length of stay as indicators of inpatient volume, and we measure outpatient volume by number of services. Both inpatient and outpatient volume have increased in recent years.

Inpatient volume

The rate of increase in discharges for both Medicare and all payers rose from 1997 through 2001 (Figure 3A-5). Although the growth rate slowed in 2002, it remained at

TABLE 3A-1

The share of hospitals offering outpatient services has increased slightly

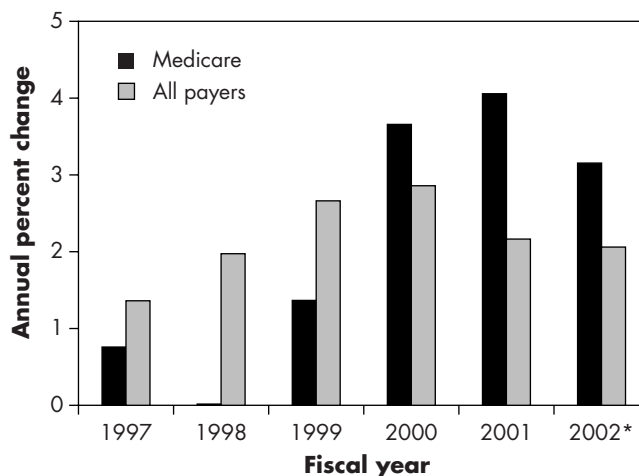
	Outpatient services	Outpatient surgery	Emergency services
1991	92%	79%	91%
1997	93	81	92
2001	94	84	93
2002	94	84	93

Note: Excludes long-term and alcohol- and drug-abuse hospitals, as well as critical access hospitals. Includes all others paid under the outpatient prospective payment system.

Source: MedPAC analysis of the Provider of Services file from CMS.

FIGURE 3A-5

Hospital discharges continued to grow through 2002



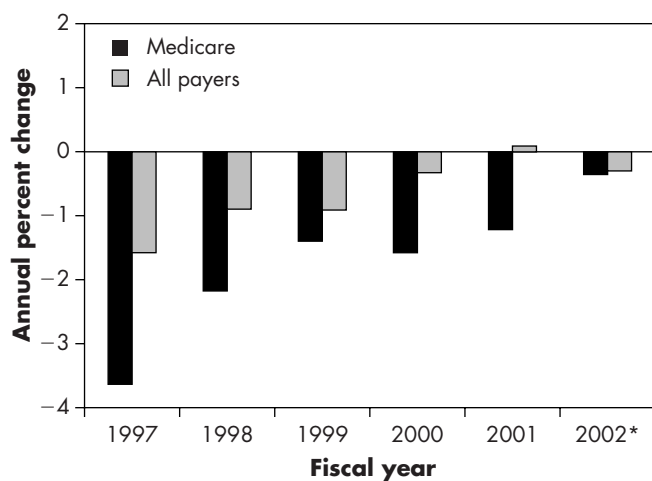
Note: Data are for hospitals covered by the Medicare inpatient prospective payment system in 2002.

* Preliminary, based on data from 60 percent of hospitals.

Source: MedPAC analysis of Medicare Cost Report file from CMS.

3.2 percent for Medicare and 2.1 percent for all payers—both greater than the rate at which the relevant population (Medicare fee-for-service beneficiaries and the overall population, respectively) was increasing.

The average length of stay for Medicare patients fell more than 30 percent during the 1990s (MedPAC 2003b). However, the rate of decline has been slowing since 1997,

**FIGURE
3A-6****The decline in hospital
length of stay is slowing**

Note: Data are for hospitals covered by the Medicare inpatient prospective payment system in 2002.

* Preliminary, based on data from 60 percent of hospitals.

Source: MedPAC analysis of Medicare Cost Report file from CMS.

and the decline was only 0.3 percent in 2002 (Figure 3A-6). The pattern of change in length of stay for all payers has generally been similar, although the decline each year was usually smaller. All-payer length of stay actually increased by a tenth of a percent in 2001 and then declined the same amount as Medicare in 2002.

Outpatient volume

Analysis of Medicare outpatient PPS claims from 2001 and 2002 shows increasing volume.⁵ The claims indicate an increase of about 15 percent in the volume of services provided per fee-for-service beneficiary. This measure looks at services, rather than visits, because the outpatient PPS generally pays for individual services assigned to APCs. Changes in hospitals' coding practices, service definitions, and data issues probably contribute to the measured growth, but do not account for all of it. Growth for high-volume ambulatory surgical procedures, which were not subject to significant changes in service definitions, was over 9 percent. The rate of increase in payments—9.5 percent from 2001 to 2002—also reflects an increase in volume.⁶

In 2000 and 2001, over 60 percent of fee-for-service beneficiaries used hospital outpatient services, including those paid under the outpatient PPS, under other fee schedules (e.g., clinical laboratory, ambulance, durable medical equipment), and on the basis of costs.⁷

Changes in the quality of care

Measurements of the quality of care provided by hospitals to Medicare beneficiaries show a mixed picture. Mortality rates have dropped, and CMS's indicators of clinical effectiveness have improved. However, the rates of adverse events—patient safety indicators—have moved in the opposite direction. We discuss each indicator briefly below and in more detail in Chapter 2.

In-hospital mortality rates dropped between 1995 and 2002 for all eight measures analyzed; half of them dropped by over 20 percent. The 30-day mortality rate, which measures the rate of death within 30 days of admission, decreased for 6 measures from 1995 to 2002 but increased slightly for 2 measures. The 30-day rate captures not only the in-hospital experience but often care experienced in post-acute settings as well.

Data from the Quality Improvement Organization program on the clinical effectiveness and appropriateness of inpatient care in hospitals also shows improvement. These indicators are taken from the medical records of Medicare beneficiaries and compare care in 1998 and 1999 with care in 2000 and 2001. Care improved for 14 of 16 measures. Despite this improvement, the data show that many beneficiaries are still not receiving care known to be effective (Jencks et al. 2003).

Adverse events can compromise patient safety. The rate of adverse events has increased for 9 of the 13 measures analyzed from 1995 to 2002. Although these are rare events, often with rates under 100 per 10,000 eligible discharges, together they affected over 300,000 cases in 2000. These events vary in frequency and severity. The most common is *decubitus ulcer*, for which the rate increased over the period. The second most common, *failure to rescue*, always results in death. The rate for this measure and for one other measure of unexpected mortality both decreased over the period, which is consistent with the decline in mortality rates.

Given this mixed picture—on some measures quality is good and improving, but on others there is room for improvement—we are concerned about the trend for some indicators, including the patient safety indicators. However, none of these measures provide compelling evidence that payments are, or are not, adequate. The information on quality measures helps us better understand those aspects of quality in the hospital that have improved and those upon which the Medicare program should focus further efforts. As these quality

measures become more available and their dynamics better understood, it should become possible to re-orient payment policy to reward quality in the hospital sector.

MedPAC strongly favors efforts to improve quality, including linking payment to quality performance. As we discuss in Chapter 2 on quality, Section 3E on dialysis, and Chapter 4 on Medicare+Choice, collecting data on standardized measures is an essential part of quality incentive efforts. These data should be provided by all hospitals without exception. Furnishing data to properly assess quality should be a condition of participation in Medicare.

Hospitals' access to capital

Access to capital allows hospitals to maintain and modernize their facilities and capabilities for patient care. An inability to access capital that was widespread throughout the hospital sector might in part reflect the adequacy of Medicare payments, although Medicare only makes up about a third of hospital revenues. Access to capital is also influenced by other payers, changes in uncompensated care, management actions concerning the hospital and related businesses, and investors' perceptions of the regulatory environment, including the possibility of changes to federal and state hospital payment policies.⁸

Several factors suggest that access to capital for the sector overall is good. In the sector as a whole, hospital construction spending and capital spending plans continue to be strong. Hospital construction spending increased 20 percent in 2002 and an estimated 11 percent in 2003 (Census Bureau 2004). The ratio of fixed assets acquired to reported depreciation and amortization expenses, which we calculated for 1997 to 2001 using data in a recent report, is greater than 2 (HFMA 2004). Overall debt issuance is expected to be higher in 2003 than 2002, and 2001 saw the first increase in the aggregate number of inpatient beds available since 1983 (FitchRatings 2003, AHA 2003a). In addition, over 80 percent of nonprofit hospitals (which make up about 85 percent of the industry) plan to expand over the next two years, according to one survey (HSC 2003b).

However, other factors have given the investment community some concern. In addition, although access to capital is generally good, not all hospitals share the same degree of access. We discuss these issues in the following sections.

Investment community concerns

Two factors give the investment community some misgivings: decreasing hospital volume and an increase in provision for bad debt.

Moody's reports that for the 566 nonprofit hospitals and healthcare systems it rates, all-payer inpatient admissions growth was 3.7 percent in 2001, 1.8 percent in 2002, and flat or declining for some hospitals in early 2003 (Moody's 2003). No consensus explanation exists for the fall-off in volume, but several explanations offered are the weakness in the economy, the rise in cost sharing for those with insurance, the rise in the number of uninsured, and a mild flu season in late 2002 and early 2003. The last explanation may be most germane to Medicare admissions, and if it is a factor, it should be reversed by the severe flu epidemic in late 2003.

Economic and health insurance trends also factor into the increase in bad debt. The number of people without insurance is increasing, as is the prevalence of higher cost sharing. In addition, because the uninsured are often charged full price for the same treatment that insured patients obtain at discounted prices, the amount considered bad debt may appear even higher.

However, for-profit hospital firms have for the most part shaken off these concerns. Share prices have increased for seven of the eight largest firms over the last year, and three of them outpaced the increase in the Standard & Poor's 1500 index (Merrill Lynch 2003). The one firm with a decrease in share price has other concerns related to outlier payments and ongoing investigations. Even if some firms' ability to raise capital in the equity market may have decreased, the for-profit hospital chains issued about \$3.7 billion in equity in 2000 and 2001, which, combined with large debt issuances in those years (\$10.2 billion in 2001 alone) gives them a large amount of capital in reserve (CMS 2003a). The availability of capital for the for-profit chains is evidenced by continued acquisitions, which are particularly strong for the for-profit chains that concentrate on hospitals in rural or small urban areas.

Access varies by hospitals' financial condition

Both for-profit and nonprofit hospitals traditionally have accessed capital through bond markets, bank lending, and cash flow. Their ability to access capital through these methods varies along with their individual financial circumstances: Those hospitals that are doing well financially have good access; those that are doing poorly do not.

Varied access is illustrated by looking at hospital financial performance through credit rating. Hospitals' credit ratings and their ability to access capital move in line with their financial performance. Those rated speculative grade (under 10 percent of rated hospitals) have, for example, median operating cash flow margins of 6.9 percent as compared with margins of around 10 percent for most hospitals with investment grade ratings (Standard & Poor's 2003b). Hospitals that are not rated at all often have even more restricted access to capital.

Although rating downgrades have exceeded upgrades in 2003, they have done so by a smaller degree than in the last few years, even though increased borrowing for capital spending has increased debt and worsened some associated measures of financial performance. The dollar value of upgrades exceeded downgrades in 2002, but this was reversed in early 2003 (Moody's 2003). Most hospitals have been stable—that is, they have not been upgraded or downgraded.

Hospitals that are part of hospital systems tend to have better credit ratings through the system than stand-alone hospitals. The financial community looks more favorably upon systems because their business is often spread over several markets and several providers within a market, thus mitigating the risks of competition. Lower business risk improves the likelihood of achieving a given credit rating. The American Hospital Association reports that almost 1,700 hospitals are in nonprofit multihospital systems and another 860 are in investor-owned systems (AHA 2003a). Thus, many hospitals have access to capital beyond what their individual financial condition might indicate.

Hospitals are also turning to less traditional methods of obtaining capital, including receivables financing (which can be more costly), capital leases, and sale of assets such as medical office buildings. These less traditional methods can both provide capital directly and in some cases, by improving hospitals' balance sheets, improve access to traditional sources of capital as well (HFMA 2003). The use of other sources of capital, taken together with the improvement in credit ratings through system membership, may explain the continued access to capital evidenced by hospitals' current and planned strong capital spending.

Payments and costs for 2004

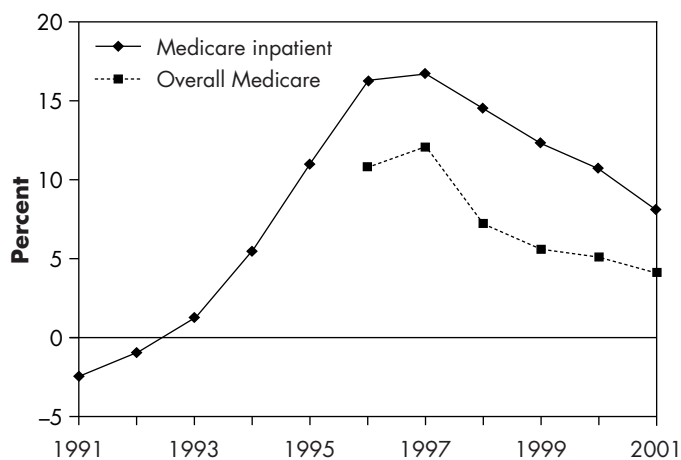
In addition to the market factors discussed above, the Commission considers the estimated relationship between Medicare payments and costs in the current year—fiscal

year 2004—in assessing payment adequacy. We consider the adequacy of payments for the hospital as a whole, and thus our indicator of the relationship between payments and costs is the overall Medicare margin. This margin includes payments and costs for the six largest hospital service components plus graduate medical education. We take this approach because hospitals' financial incentives historically encouraged cost allocation practices in the Medicare cost report that overstate costs for some service sectors and understate them for others. Only by combining data for all major services can we be certain that cost allocation problems are not affecting the estimate of Medicare allowable costs we use for measuring the relationship between payments and costs.

This section begins by presenting the trend in the overall Medicare margin, including our estimate for fiscal year 2004. Then we discuss the component cost and payment factors that influenced the margin changes occurring between 2000 and 2004. Finally we review the pattern of margin changes by hospital group and the distribution of margins across all hospitals.

FIGURE 3A-7

Overall Medicare and Medicare inpatient margins have returned to levels of mid-1990s



Note: Data are for all hospitals covered by Medicare prospective payment in 2002. A margin is calculated as revenue minus costs divided by revenue; margins are based on Medicare-allowable costs. Overall Medicare margin includes acute inpatient, outpatient, hospital-based skilled nursing facility and home health, and inpatient psychiatric and rehabilitation services, plus graduate medical education.

Data for the overall Medicare margins are not available for 1990–1995. However, because inpatient services account for about three-quarters of Medicare payments to hospitals, the inpatient and overall margins probably tracked closely during this period.

Source: MedPAC analysis of Medicare Cost Report file from CMS.

Margins fell in 2002 but little change expected through 2004

The overall Medicare margin was 4.1 percent in 2001, which is similar to the levels experienced in the mid-1990s (Figure 3A-7). Over the last decade, the overall Medicare margin has fluctuated from negative values to double digits.⁹

The change in the overall Medicare margin from 5.1 percent in 2000 to 4.1 percent in 2001 was due to a drop in the inpatient margin partially offset by a significant increase in the outpatient margin (Table 3A-2). In 2002, the overall margin was 1.7 percent and we observed declines in both the inpatient and outpatient margins, although the outpatient margin remained well above its 2000 level. We estimate that the overall margin will remain steady at 1.8 percent in 2004, reflecting 2005 payment policy (Table 3A-3).¹⁰

The lower margins in 2001 and 2002 were caused primarily by unusually large increases in hospitals' per unit costs. The margin estimate for 2004 reflects our assumption that cost growth will moderate and includes the net impact of substantial increases in payments from the MMA and decreases in payments from CMS's tightening of inpatient outlier payments. We discuss these factors in more detail in the following sections.

TABLE 3A-2

Hospital Medicare margins, 2000–2002

Measure	2000	2001	2002
Overall Medicare	5.1%	4.1%	1.7%
Inpatient	10.7	8.1	4.7
Outpatient	-12.2	-6.0	-8.1

Note: Data are for all hospitals covered by Medicare prospective payment in 2002. A margin is calculated as payments minus costs divided by payments; margins are based on Medicare-allowable costs. Overall Medicare margin covers acute inpatient, outpatient, hospital-based skilled nursing facility and home health, and inpatient psychiatric and rehabilitation services, plus graduate medical education. Data are imputed for hospitals whose 2002 cost reports were not available (about 40 percent of observations).

Source: MedPAC analysis of Medicare Cost Report file, MedPAR, and market basket data from CMS.

Unit cost growth unusually high in 2001 and 2002

The annual rate of increase in Medicare *inpatient* costs per discharge has risen dramatically since the mid-1990s (Figure 3A-8, p. 80). The growth in cost per discharge was only 0.1 percent in 1997, as Medicare length of stay continued its decade-long decline, but rose sharply to 3.1 percent by 2000. In 2001, the rate of growth more than doubled to 6.6 percent—the largest increase since 1991—

TABLE 3A-3

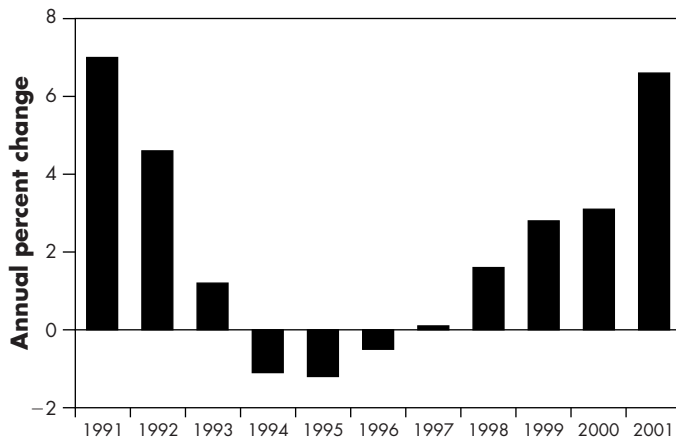
Overall Medicare margin by hospital group, 2000–2002 and estimated 2004

Hospital group	2000	2001	2002	Estimated 2004	Degree of impact from wage index and CAH provisions
All hospitals	5.1%	4.1%	1.7%	1.8%	Included
Urban	6.4	5.0	2.6	1.3 *	++
Rural	-2.4	-1.9	-3.9	2.3 *	+++
Major teaching	14.8	12.3	10.7	8.8 *	+
Other teaching	4.9	3.7	1.5	0.8 *	++
Nonteaching	0.3	-0.1	-2.8	-1.6 *	+++

Note: CAH (critical access hospital). Data are for all hospitals covered by Medicare prospective payment in 2002. A margin is calculated as payments minus costs divided by payments; margins are based on Medicare-allowable costs. Overall Medicare margin covers acute inpatient, outpatient, hospital-based skilled nursing facility and home health, and inpatient psychiatric and rehabilitation services, plus graduate medical education. Data are imputed for hospitals whose 2002 cost reports were not available (about 40 percent of observations). Estimates for 2004 reflect the effects of policy changes implemented between 2002 and 2004, plus policy changes (other than updates) scheduled under current law to go into effect in 2005.

* Two provisions of the Medicare Prescription Drug, Improvement, and Modernization Act of 2003 that will be implemented in fiscal year 2005 could not be modeled at the hospital-specific level. These are a one-time opportunity for hospitals to appeal their wage indexes and liberalization of payments for CAHs. Consequently, the group-level margin estimates for 2004 are understated by an average of 0.4 percent. The far right column of the table provides an indication of the relative magnitude of additional funds each group would receive.

Source: MedPAC analysis of Medicare Cost Report file, MedPAR, and market basket data from CMS.

**FIGURE
3A-8****Increase in costs per discharge
for Medicare inpatient services has
grown substantially since 1997**

Note: Data are for hospitals covered by the Medicare inpatient prospective payment system in 2002.

Source: MedPAC analysis of Medicare Cost Report file from CMS.

and our preliminary estimate for 2002 (with about 60 percent of hospitals reporting) is even higher.

Evidence suggests, however, that the rate of increase in per unit costs across *all* of the major services hospitals provide (the most appropriate indicator for assessing payment adequacy for the hospital as a whole) is lower than the rate of increase for inpatient services alone. Although data constraints prevent us from constructing an all-service measure for Medicare only, the increase in an all-service measure across all payment sources was 5.0 percent in 2001, about 1.6 percentage points below the increase for Medicare inpatient costs.¹¹ In 2002, our preliminary estimates again show a lower rate of increase measured for all services and all payment sources than for Medicare inpatient services alone.

Labor costs dominate cost growth Both wage and benefit rates and use of labor (including employees and contract personnel) increased at unusually high rates in 2002 (Figure 3A-9, p. 81 and Figure 3A-10, p. 82). The increase in labor costs is responsible for the majority of the higher cost growth in 2002 compared with the past several years. Although capital and malpractice costs have also increased at above-average rates, these cost elements make up smaller shares of the hospital cost base than labor, and hence, their contributions to cost growth are smaller.

The shortage of nurses and other professional workers is an important factor in the unusually high rate of compensation increases. One study estimated that the hourly cost of compensating nurses at private hospitals grew by 8.8 percent during 2002, four times the average rate of increase during the last half of the 1990s (HSC 2003a). Further, we found that employee benefit costs rose even faster than wage and salary costs during 2002. Rapidly rising benefit costs reflect double-digit increases in health benefits, and may also reflect the need of hospitals to expand their pension reserves as the value of their investments fell.

Although the overall increase in full-time hospital employees paralleled volume growth in 2002, the increase in employed nurses probably exceeded the increase in other categories of workers. One study estimated that the number of full-time equivalent nurses employed by hospitals increased by 7 percent in 2002 and that total nurse employment increased by nearly 100,000 (Buerhaus et al. 2003). These increases were at least partly in response to volume increases, but may also reflect other factors, such as initial response to new mandatory minimum nurse staffing ratios in California and a slowing economy, which encourages more nurses to seek employment.

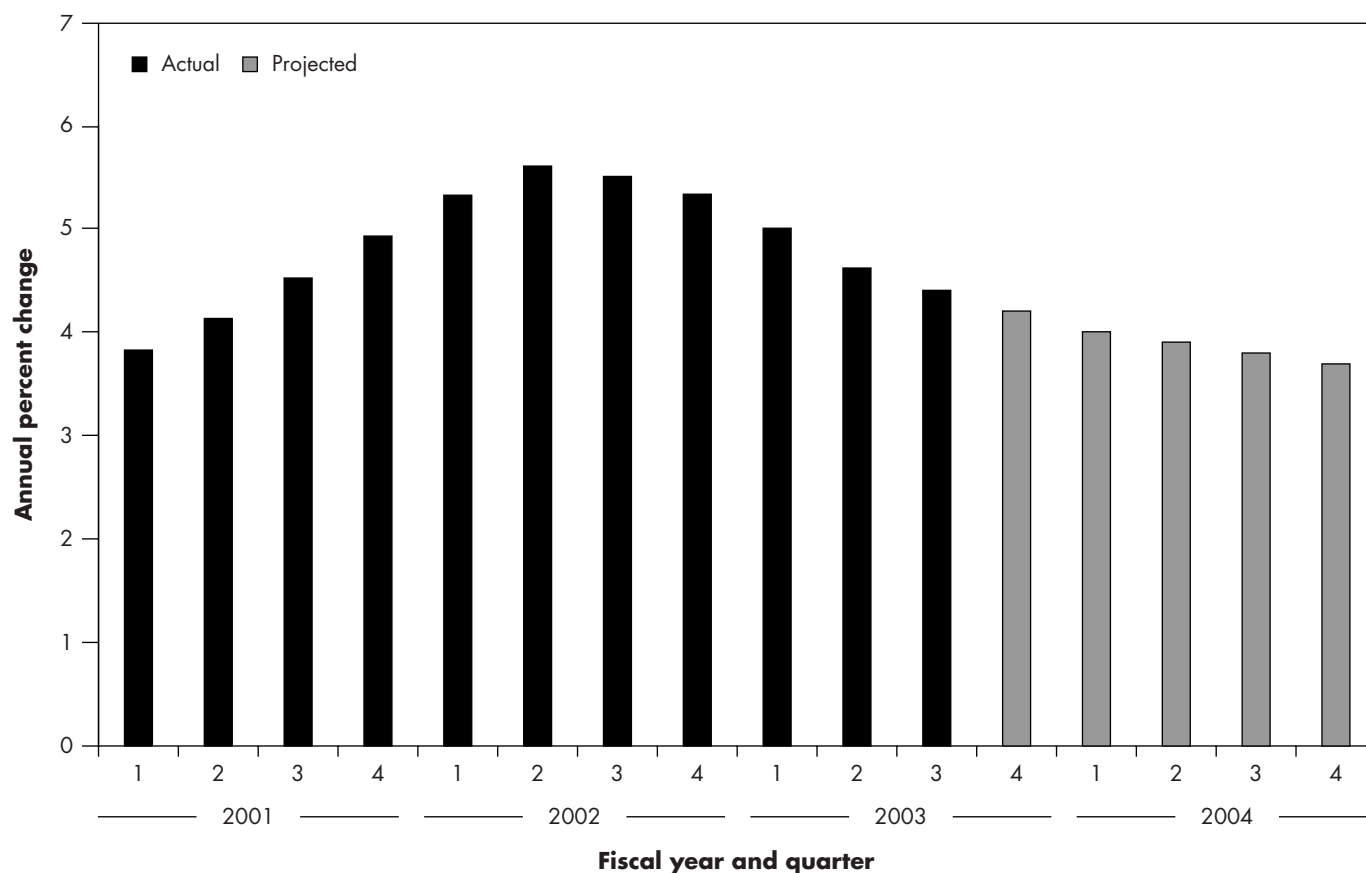
Hospitals, nursing education programs, and state governments have responded to the nursing shortage in a variety of ways, including recruitment and retention programs, sign-on and other bonuses, steps to improve the work environment, accelerated degree programs, and increased scholarship and loan funding. These measures appear to have contributed to increased enrollment in nursing programs and increased hiring by hospitals. We believe that the hiring boom is largely over, but because the new nurses in hospitals are disproportionately over the age of 50 and foreign born, some argue that supply pressures may re-emerge over the next two decades (Buerhaus et al. 2003).

One other factor contributing to the unusually large cost increases of 2001 and 2002 is increased payments from private insurers. Several analysts have argued that this contributes to cost growth by weakening the incentive to control spending for additional employees, wages and benefits, and other inputs (discussed further below) (HSC 2004).

Lower cost growth expected after 2002 Although we do not yet have cost growth data from Medicare cost

**FIGURE
3A-9**

Increase in average compensation rate for hospital employees peaked in early 2002



Note: Values are four-quarter averages ending in the quarter shown. Includes wages and benefits.

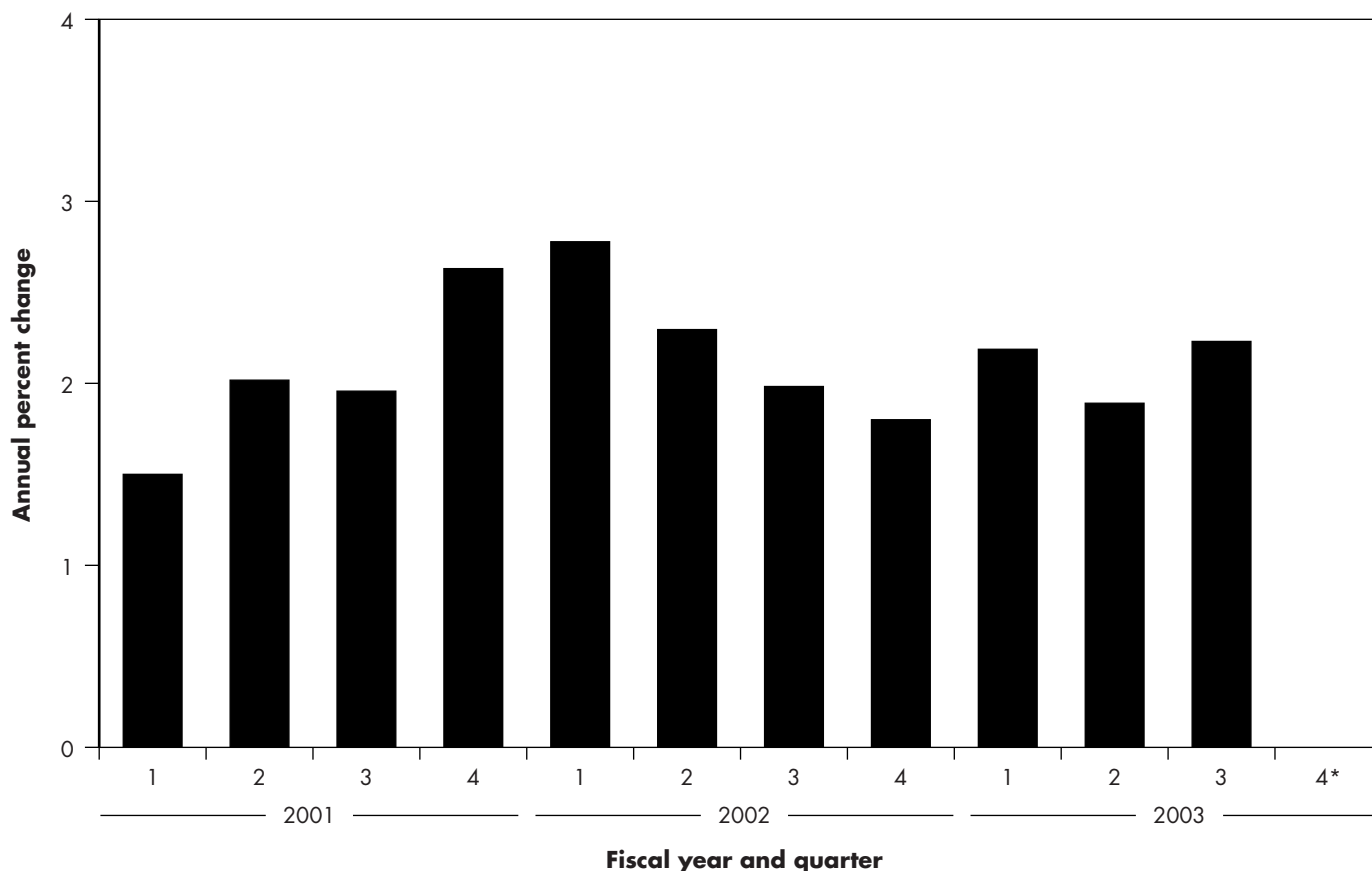
Source: Global Insights, Health Care Cost Review, third quarter 2003.

reports for 2003, evidence from other sources suggests that some of the forces behind the unusually high rate of increase in hospital unit costs in 2001 and 2002 may already have abated.

Both employment and compensation increases show signs of slowing. Compensation increases peaked in 2002 at about 5.5 percent and fell to about 4 percent by the third quarter of fiscal year 2003 (Figure 3A-9). The Bureau of Labor Statistics forecasts a further drop in the rate of growth in 2004. Hospital employment increases peaked in early 2002 at 2.8 percent and dropped to around 2 percent during the last half of 2002 and through the first three quarters of 2003 (Figure 3A-10, p. 82). The increase in hospital employees in 2002 was supplemented by a substantial increase in use of contract nurses, but the large increase in employed nurses in recent years may reduce the need for contract nurses in the future.

Because malpractice premiums are cyclical in nature, the extremely large increase in malpractice costs in 2002 should moderate at some point. Similarly, the costs hospitals incurred to increase their pension reserves as the stock market declined in the early 2000s are abating as the market recovers, and health insurance premiums may already have peaked as well (discussed in Chapter 1). Capital expenses, on the other hand, may grow at a faster pace in the future as costs from completed construction projects come on line. However, Medicare capital payments are not intended to fluctuate with levels of new capital investment; rather, hospitals should expect lower margins for some period of time after major construction projects are completed, and all else being equal, they will see higher margins later in the capital cycle.

Appropriateness of costs Whether the level of cost increase in recent years was that expected of efficient

**FIGURE
3A-10****Increase in hospital employment peaked in early 2002**

Note: Annual percent change is for full-time equivalent employees. Values are four-quarter averages ending in the quarter shown.

* Data not available.

Source: Current employment survey series, 2000–2003 from Bureau of Labor Statistics.

providers is difficult to discern. Some have suggested that higher cost growth (and particularly the substantial increase in labor costs) is making up for the cost pressures hospitals were under in the last half of the 1990s. But it might also be argued that the willingness of private insurers to negotiate larger payment increases in recent years has had a substantial effect (HSC 2004).

The balance of power appears to have shifted to hospitals in negotiations with private insurers over the last three years, and consequently, hospitals have received annual rate increases ranging from the mid- to high-single digits, with double-digit increases fairly common (HSC 2001, Hay 2003, and Standard & Poor's 2003a). These increases have tracked the large premium increases that insurance companies have been able to obtain. Further, research indicates that the rate of cost growth is influenced by

financial pressures affecting hospitals (Chalkey and Malcomson 2000). In particular, increasing HMO penetration and bargaining pressure coupled with restrained Medicare payment rates were credited with reduced hospital cost growth in the early 1990s (Gaskin and Hadley 1997). The opposite would also be expected to occur when pressure is alleviated—costs would rise faster.

One aspect of the recent hospital spending growth that has been questioned is the level of capital expansion currently underway. One study concluded that although additional capacity might be needed in some markets, better management of existing resources—including actions to convert hospital capacity to match areas of demand, responses to the nursing shortage, and communitywide efforts to reduce emergency department diversions—might be more effective (Bazzoli et al. 2003).

The future trend of cost growth remains uncertain, making it difficult to judge whether and how quickly efficient hospitals can return to normal patterns of cost growth. But we would expect hospitals to respond to the recent spike in unit costs by evaluating the sources of higher cost growth and exploring potential solutions, such as improvements in supply management and substitution of more efficient inputs. We would expect these responses to lead to moderation in the rate of increase in unit costs, unless other payers continue to accept payment increases that fuel continuing higher rates of growth. We will monitor volume and cost growth closely in the coming year.

Multiple policy changes affect payment growth

Although an unusually large increase in per unit costs was the principal factor in the changes in overall Medicare margin between 2000 and 2004, changes in payment policy also played a role. In this section, we discuss the effects of inpatient and outpatient policy changes implemented in 2001 through 2004 as well as the policy changes mandated by the MMA.

In 2001, the Congress equalized the qualification criteria for DSH payments and increased the cap on the DSH payment rate (which applies to most rural hospitals and to small urban facilities) from 4.0 to 5.25 percent. This change modestly increased aggregate inpatient payments.

In 2002, CMS discovered that certain hospitals were manipulating the inpatient outlier system, resulting in systematic overpayment for outlier cases. Because of this problem, aggregate outlier payments exceeded the target level of 5.1 percent of DRG operating payments and 5.3 percent of DRG capital payments from 1999 through 2002, rising to an average of more than 7 percent of base payments (MedPAC 2003a). In June of 2003, CMS implemented a revised methodology for determining outlier payments with the intent of returning aggregate payments to the target level (CMS 2003b). In modeling inpatient payments for 2004, we assumed that CMS's new outlier policy will achieve that goal. However, given the difficulty of forecasting the impact of this policy change, which CMS must do to determine the appropriate outlier threshold for the coming year, it is quite possible that outlier payments will remain above the intended level. In that event, our margin estimate for 2004, all else equal, would be too low.

Hospital outpatient payments increased significantly after the PPS was implemented in August of 2000. This

increase partly reflects funds added to the system. Transitional corridor payments provided additional funds for hospitals that received lower payments under the outpatient PPS than they would have previously (see text box on transitional corridor payments, p. 84). In addition, CMS made pass-through payments for new technologies in excess of the targeted budget-neutrality cap, and outlier payments also exceeded the targeted amount (see the discussion of outlier payments later in the chapter).

Outpatient payments were tightened in 2002. Excess pass-through payments were no longer made and outlier payments declined as CMS raised the outlier threshold, decreased the marginal payment factor, and removed certain costs from calculating outliers. In modeling payments in 2004, we assumed that these policies would remain constant.

The MMA implemented a number of provisions that will increase both inpatient and outpatient payments to hospitals. These are described briefly in the text box on page 73. However, a substantial portion of the increase in payments from the MMA for some types of hospitals may be offset by the aggregate effect of the declines expected in some hospitals' inpatient outlier payments.

The distribution of margins will change

The unusually large cost increases in 2001 and 2002 appear to have affected all major hospital groups, as did the increase in outpatient payments following introduction of the outpatient PPS. However, the DSH policy change discussed above raised rural hospitals' inpatient payments by considerably more than those of urban hospitals, and so rural margins increased in 2001 while those of all other groups declined (Table 3A-3, p. 79).

For our 2004 estimate, CMS's measures to eliminate inappropriate inpatient outlier payments will have a substantial affect on some urban hospitals, but many urban hospitals will benefit from MMA provisions targeted primarily at rural facilities. In addition, most teaching hospitals benefitting from the increase in IME payments are in urban areas.¹²

Rural hospitals, on the other hand, benefit from most of the provisions of the MMA. In addition, rural facilities generally do not have many outlier cases, and thus few will be affected materially by CMS's elimination of excess inpatient outlier payments. Because the payment dynamics differ for urban and rural hospitals, we see that compared

Transitional corridor payments

With implementation of the outpatient prospective payment system (PPS) in 2000, Medicare moved from paying hospitals based on their costs to a payment schedule based on average (median) costs for all hospitals. Recognizing that some hospitals might receive lower payments under the outpatient PPS, the Congress included a transition mechanism, called transitional corridor payments.

The corridors were designed to make up part of the difference between payments that would have been received under the old payment system and those under the new outpatient PPS. To provide incentives for efficiency, Medicare did not compensate the full difference, except for rural hospitals with 100 or fewer beds, cancer hospitals, and children's hospitals. These hospitals were "held harmless" from decreases in payments under the PPS.¹³

Each year on their cost reports, hospitals calculated the difference between actual PPS payments and what payments would have been under previous policy. If PPS payments were lower, then a transitional corridor payment was allowed. For all but small rural, cancer, and children's hospitals, Medicare paid a decreasing

share of the difference between payments under previous policies and under the PPS each year.

Based on analysis of cost report data that has recently become available, transitional corridor payments represented 2.3 percent of total outpatient PPS payments in 2001, growing to 2.6 percent in 2002 (Table 3A-4).¹⁴ In 2001, rural hospitals received a somewhat greater share of total PPS payments from the transitional corridor payments (2.8 percent) than urban hospitals (2.1 percent). In 2002, however, the difference was greater (4.2 percent versus 2.3 percent).

Among rural hospitals, those with 100 or fewer beds—which were held harmless—received a relatively large share of their payments from transitional corridor payments: 4.7 percent in 2001 and 6.4 percent in 2002. Sole community hospitals, which were not held harmless unless they had 100 or fewer beds, surpassed the small rural hospitals. They received 5.5 percent of their payments in the form of transitional corridors in 2001, and 7.4 percent in 2002. In 2000, about 85 percent of sole community hospitals had 100 or fewer beds. Major teaching hospitals also reported greater shares of transitional corridor payments, receiving just under 5 percent of their payments from this source. ■

**TABLE
3A-4**

Transitional corridor payments as a share of outpatient payments are highest for small rural hospitals

Hospital group	2001		2002	
	Number of hospitals	Share of payments from transitional corridors	Number of hospitals	Share of payments from transitional corridors
All hospitals	3,388	2.3%	2,091	2.6%
Urban	2,121	2.1	1,337	2.3
Rural ≤ 100 beds	990	4.7	584	6.4
Rural > 100 beds	272	0.8	167	1.8
Major teaching	249	4.9	137	4.7
Other teaching	700	1.2	436	1.6
Nonteaching	2,434	1.9	1,515	2.5

Note: A small number of hospitals could not be classified due to missing data. The 2002 file includes about 60 percent of hospitals. The 2002 results have not been adjusted to be representative of all hospitals.

Source: MedPAC analysis of Medicare Cost Report file from CMS.

with 2002 when rural hospitals had lower margins than urban ones, the situation has reversed for 2004.

The nonteaching hospital group includes almost all rural hospitals, but about 70 percent of Medicare payments in this group go to urban facilities. Urban nonteaching hospitals have experienced about the same cost increases as their teaching counterparts, but they receive none of the IME payments above the estimated impact of teaching on hospital costs, and their DSH payments are also below average. Moreover, urban nonteaching facilities will benefit much less from the provisions of the MMA than rural hospitals.¹⁵

We estimate that 50 percent of all hospitals will have negative overall Medicare margins in 2004, after accounting for the effects of MMA provisions. Hospitals with negative margins will receive an estimated 46 percent of Medicare payments.

How should Medicare payments change in 2005?

As described earlier, we consider whether Medicare's current aggregate payments are adequate to cover efficient hospitals' costs of furnishing most types of care to Medicare beneficiaries. However, we make separate update recommendations for hospital services covered by Medicare's inpatient operating PPS and those covered by the outpatient PPS.¹⁶ The question is: What are the appropriate payment updates for inpatient and outpatient services in 2005?

For the inpatient PPS, the update in current law for fiscal year 2005 is the forecasted increase in the hospital market basket index. For 2005 to 2007, the law requires CMS to reduce inpatient PPS payments by 0.4 percent for hospitals that fail to provide data to CMS on specified quality indicators. For the outpatient PPS, current law provides an update for calendar year 2005 equal to the forecasted increase in the market basket index.

Factors in the update decision

To help guide our thinking about update recommendations, our update framework combines our judgments on current payment adequacy and how much Medicare costs per unit of output for efficient hospitals should change in 2005. The judgment about efficient providers' cost growth reflects three factors that are likely to affect future costs: the projected increase in input prices,

our expectation for productivity gains, and our allowance for the effects of diffusing new technologies that increase costs while enhancing the quality of care.

Conclusion on payment adequacy

The weight of the evidence presented earlier suggests that Medicare's aggregate payments to hospitals will remain adequate in 2004 to cover efficient providers' costs of furnishing high-quality care to beneficiaries. Although we see lower overall Medicare margins compared with recent years, and the change over a relatively short period of time concerns the Commission, other important indicators of payment adequacy remain positive or neutral. We find no evidence of any deterioration in beneficiaries' access to care, volumes of inpatient and outpatient services continue to increase, and providers' overall access to capital is good. Although quality-of-care indicators show mixed results, no linkage is discernable between Medicare's payment rates and either measured quality improvements or quality problems. At this time, however, we have more than the usual amount of uncertainty in the hospital sector because future trends in both efficient providers' costs and Medicare's payments are not clear.

Changes in input prices

CMS measures price inflation for the goods and services that hospitals use in producing inpatient and outpatient services with the hospital operating market basket index. CMS's latest forecast of this index for fiscal year 2005 is 3.4 percent.

Technology

Technological advances may lower or raise the costs hospitals incur in furnishing care to Medicare beneficiaries. Hospitals facing fixed payment rates have a strong financial incentive to adopt new technologies that help to lower costs while maintaining or improving quality of care. The effects of adopting these technologies should appear as improvements in productivity. By the same reasoning, providers have a financial disincentive to adopt new technologies that increase costs but improve quality—although competitive pressures may ameliorate that incentive. To ensure that aggregate Medicare payments to hospitals would be sufficient to enable hospitals to adopt cost-increasing and quality-enhancing new technologies, our inpatient update recommendation has traditionally included an explicit allowance. In recent years, we have provided an allowance of 0.5 percent. As discussed below, the inpatient and outpatient payment systems have somewhat different mechanisms for making additional

payments for costly new technologies, and the Congress has broadened and liberalized these mechanisms in the MMA.

Inpatient technology payments Since fiscal year 2003, new technology pass-through payments have supplemented the base DRG payment rates in the inpatient PPS, although these payments have been made on a budget-neutral basis. CMS published qualifying criteria, and to date pass-through payments have been approved for two technologies. However, the MMA removed the budget-neutrality constraint from pass-through payments, and also liberalized the criteria that new technologies must meet to qualify for pass-through payments. In the future, this mechanism may provide an adequate funding source for cost-increasing new technologies, and consequently we may conclude that a technology allowance in the update is no longer necessary.

Outpatient technology payments MedPAC has not previously made an allowance for major cost-increasing, quality-enhancing new technologies in its outpatient recommendation because the outpatient payment system includes two mechanisms to account directly for new technologies.

The first mechanism, new technology APCs, pays for completely new services, such as a positron emission tomography scan or a new radiologic procedure. Services are placed in a new technology APC based only on their expected costs.¹⁷ In 2004, 88 services will be covered under the new technology APCs; in 2003, 75 services were covered. In addition, CMS reviews an ongoing stream of applications for new technology payments quarterly.

Technologies that are placed in new technology APCs will generate payments for each service rendered, resulting in increased expenditures. Thus, the costs of new technologies covered by the new technology APCs are already incorporated into the payment system and do not need to be factored into the update. In 2002, about 1.5 percent of APC payments were for new technology APCs; this compares with 1 percent in 2001.

The second mechanism, pass-through payments, covers technologies that are inputs to a service, such as a drug or medical device, rather than a service as a whole. The pass-through payment is an add-on to the base APC payment. The law requires CMS to implement pass-through payments in a budget-neutral manner. If payments are above the cap, all payments should, by law, be subject to a

pro rata reduction. However, CMS has made a pro rata reduction only once, in 2002. Estimates for 2004 indicate that spending will be below the cap, with 9 device categories and 22 drugs receiving pass-through payments.¹⁸ Currently, CMS has one application pending for a new pass-through device and six applications for new pass-through drugs. Again, CMS generally receives and reviews new applications quarterly.

Productivity

One of the Commission's policy principles is that Medicare's payment systems should encourage efficiency. Hospitals and other health care providers should be able to reduce the quantity of inputs required to produce a unit of service by at least a modest amount each year while maintaining service quality. Our approach links the target for efficiency improvement to the gains achieved by the firms and workers who pay taxes to fund Medicare benefits. Market competition constantly demands improved productivity and reduced costs from other firms; as a prudent purchaser, Medicare should also require some productivity gains each year. Historically, providers who are under fiscal pressure generally have managed to slow their cost growth more than those facing less fiscal pressure (Gaskin and Hadley 1997).

As discussed earlier, our efficiency target is the Bureau of Labor Statistics' estimate of the 10-year average growth rate of total factor productivity in the general economy, which currently equals 0.9 percent. When included in our update recommendation, the 0.9 percent is a policy objective, not an empirical estimate (MedPAC 2004). To the extent that hospitals fail to fully achieve our productivity target in a given year, the causes and consequences are considered in our analyses of payment adequacy in following years.

Update recommendations

As discussed earlier, it is more difficult than usual this year to make our judgment about the pace of efficient providers' cost growth in 2005. There is also a great deal of uncertainty over the magnitude of changes in payments. The uncertainty reflects both cyclical cost patterns of uncertain duration and the unknown impact of payment policy changes, including those resulting from the MMA.

To better understand future hospital performance, we will carefully track emerging data on our market indicators, cost trends, and the distribution of hospitals' overall

Medicare margins. Next year, as the impact of the provisions in the MMA on hospitals' Medicare payments and the direction of cost trends become more clear, we will use our framework (including appropriate targets for productivity growth and new technologies) to help inform a new round of update recommendations. We also plan to explore the need for recommendations designed to improve the distribution of payments among hospitals.

This year, in making our update recommendations for hospital inpatient and outpatient payment rates in 2005, it is prudent to suspend temporarily the net effect of our expectation for productivity improvement and our allowance for cost-increasing and quality-enhancing new technologies. We take this action because the uncertainty regarding trends in efficient providers' costs and Medicare payments is greater than usual.

Although we have evidence that the cost pressures faced by hospitals are beginning to fade, the cost growth that will occur in 2005 remains uncertain. Payment changes are also uncertain. Several provisions in the MMA will change hospital payments, but their full impact is difficult to anticipate. For example, if hospitals reclassify into higher wage index areas or accrue technology payments at different rates than we estimated, payments may be higher or lower than we projected. In addition, if CMS's policies to curb excessive outlier payments are not fully successful, payments may turn out to be higher than estimated. On the outpatient side, the MMA changed payments for outpatient drugs. Hospitals may respond to those changes in ways that differ from the assumption we used in our estimate.

Our temporary suspension this year of the net effect of our productivity goal and our allowance for cost-increasing new technologies does not mean that we are abandoning our update framework or its policy targets. Our general practice of including a target for productivity gains maintains some pressure on hospitals to control their costs, reinforcing the efficiency incentive inherent in prospectively determined payment rates. If hospitals fail to achieve the productivity target, their overall Medicare margins will fall and MedPAC would consider this decline, together with the appropriateness of cost growth for an efficient hospital and other factors in our payment adequacy framework, when recommending future payment updates. This year, uncertainty about where hospitals are in cost growth cycles and uncertainty about future payment trends lead us to recommend a full market basket update for both inpatient and outpatient services.

RECOMMENDATION 3A-1

The Congress should increase payment rates for the inpatient prospective payment system by the projected rate of increase in the hospital market basket index for fiscal year 2005.

RECOMMENDATION 3A-2

The Congress should increase payment rates for the outpatient prospective payment system by the projected rate of increase in the hospital market basket index for calendar year 2005.

RATIONALE 3A-1 AND 3A-2

Our assessment of beneficiaries' access to care, volume growth, access to capital, quality, and the relationship of Medicare payments to costs in the hospital sector indicates that the level of payments in the aggregate is adequate. However, considerable uncertainty exists over future trends in both cost growth and Medicare payments. Consequently, the prudent course of action for this year is a full market basket update for both the inpatient and outpatient PPSs.

IMPLICATIONS 3A-1 AND 3A-2

Spending

- These recommendations are the same as current law for the hospital inpatient and outpatient PPS updates, and thus should not affect Medicare spending.

Beneficiary and provider

- These recommendations should have no impact on beneficiaries or providers.

Outpatient outlier provision

In addition to the update recommendations, we consider one distributional issue: the outpatient outlier provision that is designed to provide additional payments for extremely costly cases under the outpatient PPS.

Why have outlier payments?

Medicare's prospective payment systems for inpatient and outpatient hospital care set payments in advance based on the average costliness of the service (in the case of the outpatient PPS, Medicare uses the median). Hospitals are expected to balance losses from more costly patients with gains from less costly patients. However, hospitals may incur extraordinary costs for certain patients, perhaps because they are extremely sick or an unexpected

complication occurs. To prevent hospitals from trying to avoid those patients, and to protect hospitals from extreme financial losses, the outlier payment covers some of the unusually high costs.

Conceptually, outlier payments serve as insurance, protecting hospitals against unexpected, large losses at the service level (in the case of the inpatient PPS, it is per case; for the outpatient PPS, it is per service). As an insurance mechanism, outliers are important in two instances. First, outliers may be needed when considerable variability exists in the costs of providing a given service. Variability in costs can be affected by the product definition, particularly the extent to which various inputs are bundled into a single service or separated out. Second, outliers may be needed when the potential losses to the hospital are great.

Other goals have also been cited for the inpatient PPS outlier policy—goals that could be extended to the outpatient PPS. Outliers can improve equity if some providers consistently receive higher-cost patients by increasing payments to those providers. Outliers may also protect access to care in the event that providers are able to identify high-risk patients in advance and take steps to avoid them. Finally, outliers diminish incentives to limit the care provided to sick patients once they are being treated (Keeler et al. 1988).

Variability in costs

The more variable the costs of the services for which payment is made, the higher the probability that a hospital will see an unusually costly patient. Variability in costs is important conceptually, but difficult to measure in practice. Estimating costs accurately depends on successfully matching claims files and Medicare cost reports. Both data sources can potentially introduce error into the estimating process. In the case of the claims files, the coding may not be accurate; in the case of cost reports, it may be difficult to match costs reported by revenue centers to the services on the claims.

Another problem in estimating variability is the incentive the outlier policy provides for hospitals to increase charges, as we discuss below. Because we base our estimates of costs on charges, increased charges result in increased cost estimates. If hospitals follow different strategies in setting charges, the variability of the estimated costs will increase. Analysis of claims and cost reports (data not shown) shows the variability in estimated costs to be highest for items

with very low cost, and for those with known coding problems, such as pharmaceuticals.

Other attributes of the service, such as the product definition, may predict variability of costs. In general, if the product is broadly defined (encompassing a number of services in a single unit), the variability is likely to be greater, suggesting the need for an outlier policy. If it is narrowly defined (encompassing only one service or a small number), the variability is likely to be lower, suggesting less potential financial risk and less need for an outlier policy.¹⁹

The scope of product definition varies across Medicare's payment systems. The hospital inpatient PPS pays for a broadly defined product, covering all the inputs needed to furnish an inpatient stay, and has an outlier policy. In contrast, the physician fee schedule has a narrower product definition, a single physician service, and does not have an outlier policy. The outpatient PPS has a wide range of products. Some ambulatory payment classification groups include single services, such as an X-ray. Others bundle together all the inputs needed to perform a procedure, such as coronary angioplasty or other surgeries. The Congress and CMS have taken steps that have narrowed the outpatient PPS product definition since its original design. Medicare now pays separately for many inputs, such as blood products and many drugs and biologicals. In addition, the Congress limited the variability of median costs for payable services placed in the same APC group to a factor of two.

Size of the potential loss

Insurance theory generally concludes that the most efficient insurance will focus coverage on the largest losses (Ellis and McGuire 1988). For the outlier policy, which provides insurance at a case or service level, the size of the potential loss is mostly a function of the absolute costs incurred by the hospital. If the level of costs for furnishing a product (either narrowly or broadly defined) is high relative to the payment rate, the financial implications for a hospital of treating an unusually expensive patient can be serious, even if the probability of having an unusually costly case is low. If the dollar value of the costs is relatively low, however, the financial risk is less significant, and an outlier policy may not be needed, even when the variability in costs is high.

The payments for the APCs under the outpatient PPS vary considerably, with average national payments ranging from under \$10 for some services to \$20,000 for other

services. However, one-third of APCs have per unit payments of less than \$100, almost two-thirds have per unit payments of less than \$500, and almost 75 percent have per unit payments of less than \$1,000 (Figure 3A-11).²⁰

How does the outpatient outlier policy work?

The outpatient PPS originally proposed in 1998 did not have an outlier policy. The rationale for this approach was that the APCs had limited bundling (most services were paid for separately) and hospitals could be paid for multiple services on the same day. Emergency cases would have different levels of payment (low, mid, and high level) and separate payment would be made for additional services provided to emergency patients (imaging, surgeries, etc.).

The Balanced Budget Refinement Act of 1999 (BBRA) mandated an outlier policy at the APC level based on multiples of the payment amount. CMS was required to set the parameters so that outlier payments would not exceed 2.5 percent of projected total payments through 2003, and no more than 3.0 percent in 2004 and later. The

BBRA also allowed a lower target. The Secretary makes estimates and sets the parameters of the outlier policy (the cost threshold and the marginal payment amount, described below) to meet the target. From August 2000 to March 2002, the target amount was 2 percent. From April to December 2002, the target was 1.5 percent. In 2003 and 2004, the target was again 2 percent.

By law, CMS must implement the outlier policy to be budget neutral, reducing the conversion factor to fund the expected outlier payments. However, the conversion factor is not adjusted retroactively when actual outlier expenditures exceed or fall below the estimates.

Current implementation

How has CMS implemented the outlier provisions in law? For 2004, all APC groups except pass-through drugs and devices and separately paid drugs can receive outlier payments.²¹ For example, if a hospital provides an emergency visit, takes an X-ray, and sets a cast, each service can be eligible for an outlier payment.

In 2004, CMS has targeted outliers to equal 2 percent of total payments. Simulations based on claims from 2002 led to the following parameters in 2004 for hospitals:

- a cost threshold of 2.6 times the APC payment amount, and
- a marginal payment factor of 50 percent.²²

Thus, for a service to be eligible for an outlier payment, estimated costs must exceed the cost threshold. The outlier payment will equal 50 percent of the costs above the threshold.

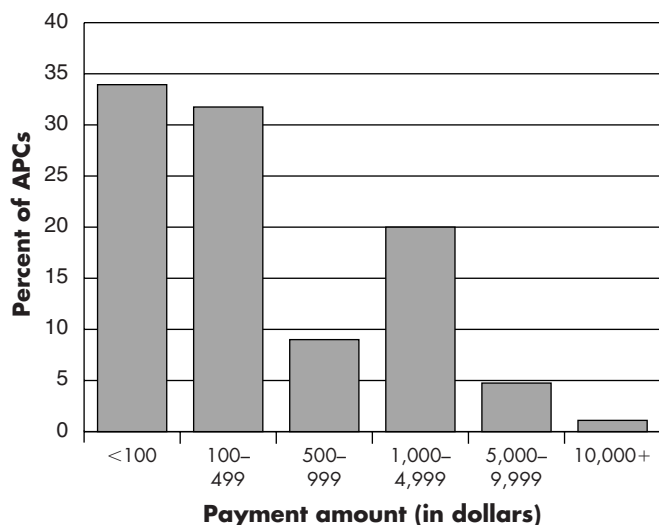
The fiscal intermediaries (FIs) that administer payments under contract with Medicare check whether each APC on a claim has costs high enough to qualify for outlier payment.²³ They estimate costs by reducing a hospital's charges to costs using a single cost-to-charge ratio (CCR) for all outpatient services. If a claim has more than one payable APC, the FIs allocate costs of services and items that are not linked to a specific payable service among the payable APCs. The text box on p. 90 gives a simplified example of how outlier payments are calculated.

Implications of the outlier calculation

The manner in which outlier payments are calculated provides hospitals with an incentive to increase their charges. A time lag exists between the cost report data

FIGURE 3A-11

Two-thirds of ambulatory payment classification groups have payment rates of less than \$500 in 2004



Note: APC (ambulatory payment classification). In 2004, there are about 700 APC groups.

Source: MedPAC analysis of CMS data presented in Addendum A of CMS publication Medicare Program; changes to the hospital outpatient prospective payment system and calendar year 2004 payment rates; final rule. Federal Register, November 7, 2003, Vol. 68, No. 216, p. 63397.

Calculating outpatient outlier payments

Under the outpatient prospective payment system, the fiscal intermediary (FI) determines the outlier payment based on the charges submitted on each claim. This example uses cataract surgery, which has a higher payment rate than most ambulatory payment classification (APC) groups.

Step 1. Hospital X provides a cataract surgery with lens insert (APC 0246). The charges on the claim related to that APC total \$8,000.

Step 2. The FI uses the cost-to-charge ratio from the most recent cost report for Hospital X, in this case 0.5, to estimate costs. The estimated costs of providing the cataract surgery were \$4,000 ($0.5 \times \$8,000$).

Step 3. The FI compares the estimated costs with the cost threshold. The payment rate for the service is \$1,250; therefore, the cost threshold is \$3,250 (2.6 times the payment rate). The service is eligible for an outlier payment, with \$750 in estimated costs above the threshold ($\$4,000 - \$3,250$).

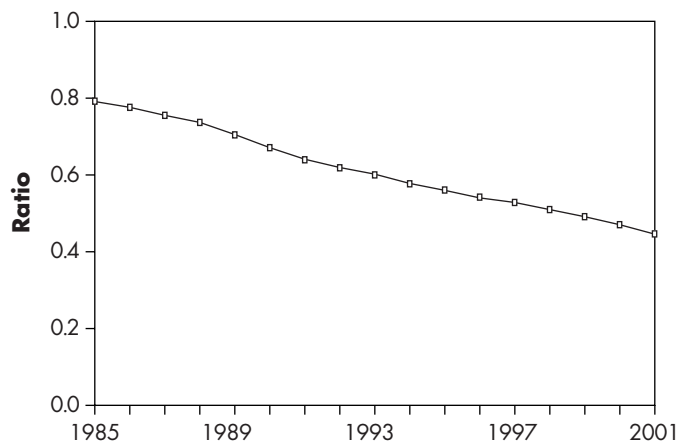
Step 4. The outlier payment equals 50 percent of estimated costs above the threshold, or \$375 ($0.5 \times \750).

Step 5. The total payment for the service equals the payment rate plus the outlier payment. In this example, the total payment is \$1,625 ($\$1,250 + \375). ■

used to calculate the CCR and the charges hospitals submit on a claim. Consequently, if hospitals increase their charges faster than their costs are rising, applying a CCR from a previous time period will overstate costs, potentially resulting in greater outlier payments. Hospitals have been steadily increasing their charges in relationship to their costs since the mid-1980s, causing the CCR to fall (Figure 3A-12). Of course, the incentives of the outlier policy are not the only reason hospitals might increase charges.

FIGURE 3A-12

Cost-to-charge ratio for hospital patient care services fell steadily, 1985–2001



Note: Includes all community hospitals.

Source: MedPAC analysis of data from the American Hospital Association Annual Survey of Hospitals.

CMS recently implemented changes to the outlier policy under the inpatient PPS, following evidence that certain hospitals were receiving large shares of revenues from outlier payments. First, the FIs now use the latest available tentatively settled or settled cost report for calculating CCRs under the inpatient outlier policy. In addition, they no longer apply a statewide average CCR when the CCR from a hospital's cost report is considered abnormally low (CMS 2003b). The outpatient outlier policy also uses the latest available tentatively settled or settled cost report. The statewide average CCR is not used (CMS 2003c).²⁴

In the 2004 proposed rule for the outpatient PPS, CMS provided evidence of charge escalation among a subset of community mental health centers (CMHCs) billing for partial hospitalization services. Some of these facilities received outlier payments that were equal to their base payments for providing services. As a consequence, in 2004 CMHCs will have an outlier cost threshold that is higher than that for hospitals.

In addition, the fiscal intermediaries apply a single CCR to all services when calculating outlier payments. Therefore, to the extent that hospitals have higher markups of charges over costs for one department over another, certain services are more likely to receive outlier payments. In such cases, the higher outliers reflect higher charges, not higher costs. The converse will be true for a service with a markup of charges over costs that is lower than average.

How were outlier payments distributed in 2001 and 2002?

In 2001, outlier payments represented about 3.3 percent of the payments for services paid under the outpatient PPS, although the target was 2 percent. From April to December 2002 (the latest period for which data are available), outliers represented about 1.7 percent of the payments to hospitals; in this period, the target was 1.5 percent.²⁵ Our estimates are based on analysis of the claims. Therefore, total payments are the sum of the line-item payments for outpatient PPS services and the outlier payments. They do not include transitional corridor payments, which are calculated on the cost reports.

The parameters governing the outlier policy changed between 2001 and 2002. For the latter year, CMS set a higher cost threshold and a lower marginal payment factor.²⁶ These changes lowered outlier payments. In

addition, policies regarding which services are eligible for outliers changed between those years, notably by removing pass-through items. CMS also narrowed the definition of bundled costs to be included in the outlier calculation. Changes to the calculation of the cost-to-charge ratio would not be reflected in the 2002 data, as they went into effect in 2003.

Outlier payments not evenly distributed across services

Almost all APCs received at least some outlier payments in 2002. However, a relatively small number—21—account for 50 percent of outlier payments (Table 3A-5). These same services account for only 36 percent of base APC payments. (See the text box on page 92 for a description of our methods for allocating outlier payments to services.)

**TABLE
3A-5**

A small set of services accounted for half of outpatient outlier payments in 2002

APC	Service description	Share of outlier payments	Share of APC payments	Outlier payments as percent of all payments	Payment rate
0260	Level I plain film except teeth (X-ray)	4.8%	3.1%	2.7%	\$ 36
0120	Infusion therapy except chemotherapy	4.2	1.8	3.9	158
0343	Level II pathology	3.6	0.6	10.0	20
0143	Lower gastrointestinal endoscopy	3.6	3.2	1.9	372
0099	Electrocardiograms	3.4	0.6	8.8	18
0612	High-level emergency visits	3.2	3.0	1.8	179
0332	Computed tomography/angiography without contrast material	3.1	2.4	2.3	166
0300	Level I radiation therapy	2.9	2.2	2.2	106
0352	Level I injections	2.5	0.3	14.5	21
0286	Myocardial scans	2.5	2.6	1.6	276
0283	Computed tomography with contrast material	2.3	3.6	1.1	230
0141	Upper gastrointestinal procedures	2.2	1.6	2.3	369
0206	Level III nerve injections	2.1	0.5	7.1	184
0019	Level I excision/biopsy	2.0	0.2	15.3	216
0600	Low-level clinic visits	1.7	1.4	2.0	44
0160	Level I cystourethroscopy and other genitourinary procedures	1.2	0.1	13.0	263
0100	Stress tests and continuous electrocardiogram	1.1	0.5	3.5	75
0117	Chemotherapy administration by infusion only	1.0	0.5	3.7	205
0246	Cataract procedures with intraocular lens insert	1.0	4.7	0.4	1,055
0016	Level V debridement and destruction	1.0	0.3	6.1	155
0611	Mid-level emergency visits	1.0	2.3	0.8	110
Total for these services		50.5	35.6		

Note: APC (ambulatory payment classification). Overall, outlier payments accounted for about 1.7 percent of APC payments. This does not include transitional corridor payments. Outlier payments as percent of all payments is defined as outlier payments divided by the sum of outlier payments plus APC payments.

Source: MedPAC analysis of Special Analytic file of 100 percent of outpatient prospective payment system claims for April to December 2002 from CMS.

Methodology for assigning outpatient outlier payments to services

Hospitals can be paid for multiple services on the same Medicare claim, such as an emergency visit, an X-ray, and applying a cast. The charges for those services, and hence their costs, may not all be reported under the Healthcare Common Procedure Coding System (HCPCS) code for each payable service. Some charges may be reported under a bundled HCPCS code or under a revenue center code, an accounting code used by hospitals. However, all of these charges are considered when estimating costs for the purposes of determining the outlier payment.

The claims file we analyzed provided only the total outlier payment per claim; it did not allocate the outlier payments to specific services. In order to allocate outlier payments to specific services, we followed a procedure analogous to that which CMS uses to calculate outlier payments for each service.

First, we summed up all of the charges on a claim that were not reported as part of an HCPCS code that was payable under the outpatient PPS, but were for bundled items or reported under revenue center codes. We then allocated those charges to each of the payable HCPCS codes on the claim based on the share of payments for that service to the total payments for all payable services. After adding the share of bundled charges to the charges for each payable HCPCS, we allocated the outlier payments on the claim to each payable service in proportion to the newly computed charges. We then totaled outlier payments by service across all claims.

When the fiscal intermediaries calculate outlier payments, they convert charges to costs using a single cost-to-charge ratio. Costs are then allocated to services. In our process, we used charges to allocate the total outlier payment on the claim across services. Since a single cost-to-charge ratio is used to calculate costs, the two approaches result in the same allocation of outlier payments to services. ■

The 21 APCs receiving half of the outlier payments include many common services with low payment rates. The payment rates range from \$18 for an electrocardiogram to over \$1,000 for a cataract procedure. However, the payment rates for all services but the cataract procedures are under \$400, and under \$100 for 6 of the APCs.

In 2002, simple X-rays of a body part other than the teeth received 4.8 percent of the outlier payments, more than any other service. These X-rays accounted for 3.1 percent of base APC payments. Infusion therapy (except chemotherapy) was the service receiving the next largest share of outlier payments—4.2 percent—while it accounted for 1.8 percent of base payments. This service could experience considerable variability in costs, given that intravenous supplies and some drugs can be part of the service and may vary by patient, by charging patterns for drugs on the part of hospitals, and by prices set by manufacturers. However, CMS now pays for more drugs separately than it did in 2002, so the variability in costs for this service should diminish in 2004 and beyond.

A number of the services in the list have little inherent rationale for variations in cost and pose little financial risk to hospitals: X-rays (which top the list), pathology tests (3rd rank), electrocardiograms (5th rank), and different types of computed tomography (CT) scans (7th and 11th on the list). For some of these services, the share of outlier payments is much greater than the share of overall payments. In addition, some services receive a large share of their total payments in the form of outlier payments: 10 percent for level II pathology and 9 percent for electrocardiograms.

High-cost services accounted for small share of outliers Most high-cost services did not receive a large share of outlier payments (Table 3A-6). Services with payment rates greater than \$1,000 accounted for 26 percent of base payments and less than 8 percent of outlier payments. For these services, outliers made up 0.5 percent of all payments. The same pattern holds for specific services with very high payment rates. For example, the payment rate for insertion or replacement of a cardioverter-defibrillator (APC 0107) was \$19,500, but only 0.2 percent of payments for this service came from outlier payments. Insertion or replacement of a pacemaker pulse generator (APC 0090) had a payment rate of about \$5,900, but only 0.1 percent of payments for this service came from outlier payments. A more common surgery with a payment rate of about \$1,800, diagnostic cardiac

**TABLE
3A-6**

Seventy-five percent of outpatient outlier payments were for services with payment rates of \$300 or less in 2002

Payment rate	Percent of outlier payments	Percent of APC payments
Less than \$50	24.1%	10.9%
\$50 to \$99	9.7	10.3
\$100 to \$199	26.0	21.5
\$200 to \$299	15.0	11.4
\$300 to \$399	8.6	8.0
\$400 to \$499	2.1	3.4
\$500 to \$999	6.9	7.4
\$1,000 or more	7.6	26.2

Note: APC (ambulatory payment classification). Percent of APC payments does not sum to 100 because some services (such as pass-through items) do not have a payment rate.

Source: MedPAC analysis of Special Analytic file of 100 percent of outpatient prospective payment system claims for April through December 2002 from CMS.

catheterization (APC 0080), accounted for 3.5 percent of base payments, but less than 1 percent of outlier payments.

At the other end of the spectrum, 24 percent of outlier payments were for services with payment rates of less than \$50. These same services accounted for less than 11 percent of APC payments. Seventy-five percent of outlier payments went to services with payment rates of \$300 or less.

Classifying claims: A different approach The preceding discussion looked at the share of outlier payments by individual service. However, hospitals can and do bill for multiple services provided to a patient on the same claim. It could be that some of the services receiving high outlier payments, such as X-rays, are just one of a group of services provided to a patient.

We also analyzed outlier payments on a claim basis, rather than on a service basis (Table 3A-7). All payments on a claim were assigned to one of 16 groups, which are based on the Berenson-Eggers Type of Service classification. The groups are hierarchical, in the order they appear in the table. This means that if a claim includes an emergency or critical care service, it will fall in the first category, regardless of the other services also appearing on the claim. The assignment continues down the hierarchy.

**TABLE
3A-7**

Distribution of claims and payments by principal reason for outpatient visit, 2002

Reason for visit	Percent of all claims	Percent of all payments	Percent of outlier payments
Emergency/critical care	19.2%	14.3%	11.5%
Major procedures	2.7	17.5	10.2
Chemotherapy	0.9	4.6	2.4
Radiation therapy	1.1	6.0	7.4
Eye procedures and ophthalmology services	2.6	6.3	2.4
Endoscopy	9.7	15.3	28.9
Minor/ambulatory procedures	4.5	7.4	9.8
Clinic visit (includes consult and specialist services)	20.6	6.2	4.2
Imaging/procedure	1.3	1.3	2.0
Echography	7.8	8.8	5.5
Advanced imaging	6.2	4.0	2.5
Standard imaging	16.3	6.1	7.4
Cardiology tests	1.9	0.4	2.0
Lab tests and pathology services	2.5	0.5	2.0
Other tests	2.5	1.2	1.0
All other	0.3	0.2	0.5

Note: Reason for visit is determined by classifying each claim into one of 16 hierarchical service groups. Payments for all services on the claim are then assigned to that group. The hierarchy is in the order presented, beginning with emergency/critical care. The groups are based on the Berenson-Eggers Type of Service Classification developed by CMS. Major procedures include services such as breast surgery, coronary angioplasty, pacemaker insertion, and orthopedic surgery. Minor and ambulatory procedures include services such as hernia repair, lithotripsy, and skin/musculoskeletal procedures. Advanced imaging includes magnetic resonance imaging and computed tomography scans. Standard imaging includes X-ray and standard nuclear medicine. Cardiology tests include stress tests and electrocardiograms. Columns may not sum to 100 due to rounding and inability to classify some claims.

Source: MedPAC analysis of Special Analytic file of 100 percent of outpatient prospective payment system claims for April to December 2002 from CMS.

The hierarchical classification attempts to capture the principal reason a person went to the hospital outpatient department: for emergency care, a major procedure, chemotherapy, etc. The order of the hierarchy starts with emergency services, moves on to procedures, then clinic visits, followed by imaging and tests. In this classification, the definition of procedure is generally limited to surgical or medical procedures; it does not include imaging.

For patients coming to the hospital for emergency or critical care in 2002, the share of outlier payments (11.5

percent) is lower than the share of all payments (14.3 percent). This finding seems counterintuitive, given that emergency patients' needs could be expected to vary considerably. Another category for which we might expect high outlier payments is major procedures; their level of bundling is greater and the payments are generally higher. Here, however, the share of outlier payments (10.2 percent) is also lower than the share of all payments (17.5 percent). Thus, outlier payments do not appear to be concentrated in the kinds of encounters for which they might conceptually be most needed.

A few of the hierarchical groups have a greater share of outlier payments than all payments: endoscopy, minor and ambulatory procedures, standard imaging (including X-rays), and cardiology tests.

Outlier payments not evenly distributed among hospitals

Outlier payments in 2001 and 2002 were not evenly distributed among types of hospitals (Table 3A-8). The differences in distribution may be explained by differences in service mix, differences in cost structures, differences in charging patterns over time, or a mix of these factors. The following section describes the trends in 2002; they were similar in 2001.

In general, hospitals located in large urban areas received a disproportionately greater share of outlier payments than those in other urban or rural areas. In the aggregate for 2002, hospitals located in large urban areas received about 47 percent of the base APC payments for services, and about 60 percent of the outlier payments. In contrast,

**TABLE
3A-8**

Outpatient outlier payments were not evenly distributed across hospital groups in 2001 and 2002

Hospital group	2001			2002		
	Percent of APC payments	Percent of outlier payments	Outlier payments as percent of all payments	Percent of APC payments	Percent of outlier payments	Outlier payments as percent of all payments
All hospitals	100.0%	100.0%	3.3%	100.0%	100.0%	1.7%
Large urban	46.3	56.7	4.0	47.3	59.7	2.2
Other urban	34.4	28.4	2.7	34.6	27.8	1.4
Rural	19.3	15.0	2.6	18.1	12.5	1.2
Urban	80.7	85.0	3.5	81.9	87.5	1.8
Rural 1-100 beds	9.5	9.5	3.3	8.5	7.4	1.5
Rural 101+ beds	9.7	5.5	1.9	9.6	5.2	0.9
Cancer	1.0	1.7	5.7	1.0	1.7	2.9
Noncancer	99.0	98.3	3.3	99.0	98.3	1.7
Major teaching	17.2	28.2	5.3	18.1	25.8	2.4
Other teaching	32.4	28.5	2.9	32.9	30.9	1.6
Nonteaching	49.1	41.1	2.8	47.5	40.8	1.5
Government	12.6	12.0	3.1	12.5	10.1	1.4
For profit	11.1	17.2	5.0	11.0	18.0	2.8
Nonprofit	74.5	68.7	3.1	74.7	69.7	1.6

Note: APC (ambulatory payment classification). Group values may not sum to 100 because not all hospitals could be classified into each group. Analysis is based on claims data. Therefore, total payments are the sum of the line-item payments for outpatient prospective payment system (PPS) services and outlier payments. This does not include transitional corridor payments. Outlier payments as percent of all payments is defined as outlier payments divided by the sum of outlier plus base APC payments.

Source: MedPAC analysis of Special Analytic file of 100 percent of outpatient PPS claims for all of 2001 and for April to December 2002 from CMS.

hospitals in rural areas received 18 percent of the base APC payments, but only 12.5 percent of the outlier payments.

Differences in the distribution in 2002 were also evident by teaching status. Major teaching hospitals received about 18 percent of the base APC payments, but 26 percent of the outlier payments. Both other teaching hospitals and nonteaching hospitals received a smaller share of outlier payments than base APC payments.

For-profit hospitals received a disproportionately greater share of outlier payments than nonprofit and government hospitals in 2002. As a group, for-profit hospitals received about 11 percent of the base APC payments, but 18 percent of outlier payments. Government hospitals received about 12.5 percent of APC payments and 10 percent of outlier payments. Nonprofit hospitals received a lower share of outlier payments (70 percent) than APC payments (75 percent).

The share of total payments coming from outlier payments indicates the importance of these revenues to hospitals.²⁷ For all hospitals, outliers represented 1.7 percent of total payments in 2002. Cancer hospitals received the greatest share of total payments from outlier payments (2.9 percent), followed by for-profit hospitals (2.8 percent). Major teaching hospitals obtained 2.4 percent of their total payments from outliers. The share was larger for hospitals in large urban areas (2.2 percent), and smaller for hospitals in small urban areas (1.4 percent) and rural areas (1.2 percent). Although these results might reflect case-mix

differences across hospitals, they could also be due to differences in cost structures or charging patterns over time.

Distribution of outlier payments by individual hospital At the individual hospital level, the share of revenues derived from outlier payments varied considerably (Table 3A-9). Most hospitals received a small share of their payments as outliers and accounted for a small share of the outlier payments. A few hospitals, however, received a substantial share of their payments from outliers and accounted for a large share of all outlier payments.

Outlier payments were highly concentrated among relatively few hospitals. The bottom half of the distribution (those at or below the 50th percentile) had outlier payments equal to 0.9 percent or less of all payments (50th percentile). This half of the distribution received about 15 percent of all outlier payments. The top 10 percent of hospitals (those at or above the 90th percentile value of 4.8 percent) received 35 percent of the outlier payments. One percent of hospitals (those above the 99th percentile) received more than 42 percent of their payments from outliers and accounted for almost 4 percent of outlier payments.

We also see an uneven distribution of outlier payments by hospital for specific services, such as X-rays (APC 0260) and electrocardiograms (APC 0099). For X-rays, the bottom half of the hospitals had outliers represent 1.2 percent or less of all payments for X-rays. They received

**TABLE
3A-9**

Outpatient outlier payments were not equally distributed across hospitals in 2002

Segment of distribution	All services		Level I X-ray (APC 0260)		Electrocardiogram (APC 0099)	
	Outliers as share of all payments	Share of outlier payments	Outliers as share of all payments	Share of outlier payments	Outliers as share of all payments	Share of outlier payments
Bottom ten percent	0.1% or less	0.1%	0.1% or less	0.1%	0.5% or less	0.1%
Bottom half	0.9% or less	14.8	1.2% or less	10.8	4.7% or less	12.3
Top ten percent	4.8% or more	35.0	7.7% or more	42.8	24.1% or more	38.3
Top one percent	42.0% or more	3.7	41.9% or more	4.6	63.7% or more	6.3

Note: APC (ambulatory payment classification). Hospitals are classified according to the share of all payments derived from outliers, defined as outlier payments divided by the sum of outlier payments plus base APC payments. Hospitals in the bottom ten percent of the distribution have outliers as a share of all payments at or below the 10th percentile value, while those in the bottom half are at or below the median. At the top of the distribution, those in the top 10 percent have outliers as a share of all payments at or above the 90th percentile value, while the top 1 percent are at or above the 99th percentile. APC 0260 Level I plain films (X-ray) excludes teeth.

Source: MedPAC analysis of Special Analytic file of 100 percent of outpatient prospective payment system claims for April to December 2002 from CMS.

about 11 percent of outlier payments for X-rays. The top 10 percent of hospitals (those receiving 7.7 percent or more of their payments for X-rays from outlier payments) accounted for about 43 percent of outlier payments for X-rays. For electrocardiograms, the lower half of the distribution got 4.7 percent or less of payments from the outlier policy and accounted for about 12 percent of the outlier payments. At the other end of the distribution, 10 percent of hospitals (those receiving at least 24.1 percent of payments for electrocardiograms from outliers) received about 38 percent of outlier payments for electrocardiograms.

A closer look at teaching hospitals Teaching hospitals receive a larger-than-average share of outlier payments. The role teaching hospitals sometimes play in providing innovative care and serving sicker patients might suggest that teaching hospitals serve a different set of patients that makes outlier payments more important for them. However, the patterns noted above for all hospitals also hold for teaching hospitals (data not shown). Simple X-rays account for 4 percent of outlier payments to teaching hospitals, compared with 4.8 percent for all hospitals. The same eight APC groups receive the greatest share of outlier payments in both settings (the first eight APCs in Table 3A-5, but in a slightly different order for teaching hospitals), accounting for 29 percent of outliers for all hospitals and 27 percent for teaching hospitals. High-cost services (those with payment rates over \$1,000) account for 27.5 percent of APC payments for teaching hospitals and 8 percent of outlier payments. As noted above, the analogous figures for all hospitals were 26 percent and 7.6 percent, respectively.

The distribution of outlier payments across individual teaching hospitals is as variable as it is for all hospitals. We classified teaching hospitals by their outliers as a share of all payments (data not shown). The bottom half of teaching hospitals received 1.1 percent or less of their payments in the form of outliers and accounted for only 16 percent of outlier payments. The top 10 percent of hospitals (above the 90th percentile value of 4.4 percent), however, accounted for 42 percent of outlier payments.

Does the outpatient payment system need an outlier policy?

A number of factors argue against the need for an outlier policy in the outpatient PPS:

- The narrow definition of many of the services provided in hospital outpatient departments suggests

that variability in costs should not be great. The unbundling of some elements of the outpatient PPS in recent years (such as separate payment for more expensive drugs) narrows the product definition further.

- Payment amounts are small. Indeed, the services that have received the largest share of outlier payments in 2001 and 2002 have been low-cost services. High-cost services have received a much smaller share of outlier payments than of base APC payments.
- The outlier policy is susceptible to “gaming” through charge inflation. CMS may be able to discourage gaming and recoup overpayments through enforcement actions. Such actions might include retroactively calculating outlier payments using cost-to-charge ratios from the same period and recouping outlier payments deemed to be excessive when cost reports are settled. However, those actions would be administratively difficult and costly.
- The outlier policy is required to be budget neutral. Thus, payments for all APCs are reduced to fund the outliers. However, the distribution of outlier payments benefits some hospital groups more than others: Some 10 percent of hospitals received 35 percent of the outlier payments in 2002. Returning funds to the base payments may result in a better distribution of payments among hospitals. Furthermore, actual outlier payments may exceed the target amount and raise total expenditures (as they did in 2001). Eliminating the outlier policy would prevent that from happening.
- A large number of services can be provided in more than one setting. If one setting has an outlier mechanism (the outpatient department) and another setting does not (ambulatory surgical centers), then the payment differentials across settings can be distorted even more. The outpatient PPS is the only ambulatory payment system with an outlier policy.
- Finally, having an outlier policy introduces an additional complication to the payment system. The fiscal intermediaries must assess every claim to see if it is eligible for additional payment and continually update the cost-to-charge ratios used in estimating costs. CMS must estimate outlier spending and conduct simulations to determine the outlier parameters. These administrative actions incur costs and must compete for resources with other priorities.

Arguments supporting an outlier policy can also be made, but they are outweighed by the factors listed above:

- The outlier policy may protect access to care for costly patients and prevent hospitals from limiting the care given to these costly patients (stinting). These are goals that have been ascribed to the inpatient outlier policy (Keeler et al. 1988). The threat to access rests on hospitals being able to identify unusually costly cases in advance and avoiding them; both of these steps seem unlikely for beneficiaries needing relatively low-cost services. Furthermore, access to care for emergency services is protected by the Emergency Medical Treatment and Active Labor Act. Once the patient is in the outpatient department, the outpatient PPS pays for each service delivered, mitigating any incentive to stint on care. Furthermore, the types of services that received outlier payments had low payment rates, suggesting that the financial loss hospitals might be incurring for a single patient is not high enough to adversely affect access.
- Given the trend of more sophisticated services moving out of inpatient settings and into outpatient settings, the complexity and costs of services may be increasing over time. The need for an outlier could be revisited periodically as the service mix changes.
- Some might argue that the outlier policy cushions a new payment system. If the data available to CMS make it difficult to set accurate payment rates, the outlier policy might allow hospitals to receive additional payment for services when payments really do not cover costs. However, the PPS is no longer new, and payment rates are less volatile than they were in the first few years.

- Finally, if some hospitals routinely serve patients that are more costly than average, and the payment system does not adequately control for severity, then the outlier policy could help offset losses to those hospitals. A better policy would be to adequately account for severity when setting payments rates.

RECOMMENDATION 3A-3

The Congress should eliminate the outlier policy under the outpatient prospective payment system.

RATIONALE 3A-3

The outpatient PPS pays for services that are generally narrowly defined and low cost, suggesting that the policy is not needed to protect hospitals from financial risk. In 2002, 75 percent of outlier payments were made for services with payment rates of \$300 or less. In addition, the mechanism for calculating outlier payments leaves it vulnerable to gaming. Furthermore, outlier payments have been unequally distributed among hospitals, although payments for all hospitals are reduced to fund the outlier payments. For these and other reasons, we conclude that the policy is not needed.

IMPLICATIONS 3A-3

Spending

- The outlier policy is budget neutral; therefore, eliminating it will have no implications for spending.

Beneficiary and provider

- The policy should have no material impact on beneficiaries' access to care. Hospitals that had been receiving large shares of the outlier payments may have lower revenues; other hospitals will receive higher APC payments when the outlier funds are returned to the conversion factor. ■

Endnotes

- 1 Most services provided in the hospital outpatient department are now covered under the outpatient PPS, including clinic and emergency visits, procedures, imaging, and most ancillary services. Outpatient services not covered by the outpatient PPS include those paid on a separate fee schedule, such as clinical laboratory, ambulance, rehabilitation and other therapies, and durable medical equipment, as well as those still reimbursed on a cost basis, such as organ acquisition, and, beginning in 2003, some vaccines. In 2003, spending under the outpatient PPS represented 91 percent of all outpatient spending (excluding clinical laboratory services).
- 2 Historically, beneficiary cost sharing for hospital outpatient services was based on 20 percent of charges, whereas the Medicare program based its payments on hospitals' costs. Over time, charges increased more quickly than costs, resulting in beneficiaries paying a greater share of total payments. The policies introduced in the outpatient PPS froze copayment amounts in 2000, leading to coinsurance rates that vary by service. As payment rates are updated, the beneficiary share will decline. Once it reaches 20 percent for a given service, it will stay at that rate. The upper limit on the coinsurance amount is 50 percent in 2004, 45 percent in 2005, and 40 percent in 2006 and thereafter.
- 3 This payment adjustment is set at a much higher level than MedPAC's estimate of the impact of teaching on hospital inpatient costs per discharge.
- 4 To qualify for the program, a hospital must be 35 miles by primary road or 15 miles by secondary road from the nearest similar hospital and have an average length of stay of no more than 4 days. However, state governors may waive the distance criteria, and CMS data indicate that only 10 percent of CAHs are more than 35 miles from another hospital.
- 5 MedPAC analysis of special analytic files of 100 percent outpatient PPS claims from April to September 2001 and April to September 2002.
- 6 Data from the Office of the Actuary, CMS.
- 7 The data, which come from the CMS Office of Information Services, do not distinguish between services provided in hospital outpatient departments and those provided in inpatient settings that can be billed as outpatient services.
- 8 The relationship of Medicare payments to hospitals' access to capital is not direct. However, according to one recent study, hospitals with broad access to capital in 2001 had seen increases in Medicare admissions from 1997 to 2001, while hospitals with limited access to capital had seen decreases in Medicare admissions. This study is limited because it assesses hospitals' access to capital individually, even when they are members of systems (HFMA 2003).
- 9 Although the overall Medicare margin has only been available since 1996, its trend is similar to that of the Medicare inpatient margin because inpatient services account for more than three-quarters of Medicare's payments to hospitals.
- 10 We estimated the overall Medicare margin for 2004 by projecting the growth in unit costs between 2002 and 2004 and modeling the impact of changes in payment policy, assuming that the volume of services stayed constant at 2002 levels. Changes in payment policy included those occurring between 2002 and 2004, as well as provisions other than updates mandated by the MMA for implementation in 2004 or 2005. Thus, our margin estimate reflects what payments would have been in 2004 had the policies of the MMA been in effect at the time.
- 11 This measure is known as costs per adjusted discharge. Adjusted discharges are calculated as number of discharges times the ratio of total charges to inpatient charges.
- 12 The impact of one MMA provision that will benefit some urban hospitals—a one-time opportunity for hospitals to appeal their wage indexes—could not be modeled at the hospital-specific level and therefore is not reflected in our estimate of urban hospitals' margin in 2004.
- 13 For a more detailed explanation, including the payment formulas and an example, see MedPAC's June 2000 Report to the Congress.
- 14 The cost reports reflect each hospital's own fiscal year; thus, they do not overlap completely with calendar years. Our analysis uses the most recent settled or as-submitted cost report, with the majority as submitted. Few of the cost reports are audited. The 2002 cost reports come from a sample of about 60 percent of all hospitals. We have not imputed values for hospitals missing their 2002 cost reports.
- 15 The impact of two provisions—the one-time opportunity to appeal wage indexes and liberalization of payments for critical access hospitals—will probably benefit nonteaching hospitals more than teaching facilities. Our estimated Medicare margin for nonteaching hospitals does not reflect the increase in payments from these provisions.
- 16 The Congress sets the updates for payment rates under the inpatient operating PPS and the outpatient PPS. The update for the inpatient capital PPS is not specified by law; rather, it is set annually by CMS.
- 17 In 2004, the outpatient classification system will contain 74 new technology APCs, with cost ranges from \$0–\$50 to \$9,500–\$10,000. Each APC may include multiple services—identified by Healthcare Common Procedure Coding System

- codes—that are assigned based on their costs. Payments are set at the midpoint of the cost range for the APC. Of the 74 new technology APCs, half are subject to a payment reduction when multiple procedures are performed.
- 18 The Congress limited pass-through payments to 2 percent of total payments for 2004 and after. However, CMS estimates that pass-through spending will be only 1.3 percent of spending in 2004. The difference between the 2003 pass-through estimate of 2.3 percent and the 2004 estimate of 1.3 percent was returned to the base payments through an increase in the conversion factor of 1 percent.
 - 19 This relationship will not necessarily always hold. A broad but well-defined product that is uncomplicated and routine may have low variability in costs. Empirically, smaller units may also have higher measured variability due to data issues and imprecise measurement.
 - 20 Some of the APCs with low per-unit rates are generally billed with multiple units, such as multiples of a specified dosage for drugs that have been administered.
 - 21 In 2000 and 2001, the fiscal intermediaries that administer payment under contract with Medicare included the costs of pass-through items when calculating outlier payments. Separately paid drugs could receive outlier payments through 2003.
 - 22 CMS established a separate threshold of 3.65 times the payment amount for community mental health centers billing for partial hospitalization services (APC 0033). They will have the same marginal payment factor of 50 percent.
 - 23 Between August 2000 and March 2002, CMS calculated outliers on a claim basis because it did not have the resources to make calculations at the APC level.
 - 24 Under the inpatient PPS, CMS will also reconcile outlier payments when settling cost reports and recoup overpayments due to the use of historical cost-to-charge ratios. This approach would be complicated for the outpatient PPS due to the large volume of claims that would have to be reprocessed upon cost report settlement.
 - 25 We do not estimate outlier payments to CMHCs. In its 2004 final rule, CMS estimates that outliers represented about 1.78 percent of total payments, but 1.54 percent of payments to hospitals. Discussions with CMS indicate that the agency's estimates were performed on slightly different files than those made available to MedPAC.
 - 26 In 2001, the threshold was 2.5 times the APC payment amount with a marginal payment factor of 75 percent. For the period April 1 through December 31, 2002, the parameters were 3.5 times and 50 percent, respectively.
 - 27 The share of total payments coming from outlier payments is defined as outlier payments divided by the sum of outlier payments plus base APC payments. This number is based on analysis of the claims. Therefore, total payments are the sum of the line-item payments for outpatient PPS services and the outlier payments. It does not include transitional corridor payments.

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