

C H A P T E R

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**Updating and Reforming Prospective  
Payment for Hospital Inpatient Care**

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

## **For the annual update to hospital inpatient payments under Medicare's prospective payment system:**

- 3A** The operating update of market basket minus 1.8 percentage points set in law for fiscal year 2000 will provide reasonable payment rates. An update of that level, which will be 0.7 percent if the current market basket estimate holds, is within the range the Commission believes is appropriate.
- 3B** The Secretary should increase the capital payment rates for fiscal year 2000 by between market basket minus 3.0 percentage points and market basket minus 0.1 percentage point. With the current estimate of the market basket, this corresponds to an update of -1.1 percent to 1.8 percent.

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## **For Medicare's disproportionate share payments:**

- 3C** The Congress should require that disproportionate share payments be distributed according to each hospital's share of low-income patient costs, defined broadly to include all care to the poor. The measure of low-income costs should reflect:
- Medicare patients eligible for Supplemental Security Income, Medicaid patients, patients sponsored by other indigent care programs, and uninsured and underinsured patients as represented by uncompensated care (both charity care and bad debts).
  - Services provided in both inpatient and outpatient settings.
- As under current policy, disproportionate share payment should be made in the form of an adjustment to the per-case payment rate. In this way, the total payment each hospital receives will reflect its volume of Medicare patients.
- 3D** Through a minimum threshold for low-income share, the formula for distributing disproportionate share payments should concentrate payments among hospitals with the highest shares of poor patients. A reasonable range for this threshold would be levels that make between 50 percent and 60 percent of hospitals eligible for a payment. The size of the payment adjustment, however, should increase gradually from zero at the threshold. The same distribution formula should apply to all hospitals covered by prospective payment.
- 3E** The Secretary should collect the data necessary to revise the disproportionate share payment system from all hospitals covered by prospective payment.

# Updating and Reforming Prospective Payment for Hospital Inpatient Care

**M**edicare pays for most hospital inpatient care using per discharge rates developed under a prospective payment system. These rates must be updated annually. Although future updates are set in law, the Medicare Payment Advisory Commission provides guidance to the Congress on an appropriate range for the payment update each year. This chapter includes our recommendations for fiscal year 2000. For more than a decade, the prospective payment system has included a special payment adjustment for hospitals that treat a disproportionate share of low-income patients. For some time, however, policymakers have been concerned about the accuracy of the underlying measure of care to the poor and the policies for targeting these payments to specific hospitals. This prompted us last year to endorse a series of recommendations for reforming the disproportionate share adjustment. In this chapter, we repeat those recommendations, with additional discussion of the current policy context.

## In this chapter

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- Overview of the payment system and Balanced Budget Act provisions
  - Trends in payments, costs, and margins
  - Updating operating payments
  - Updating capital payments
  - Reforming disproportionate share payments
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The chapter begins by describing the major components of hospital payments under Medicare's prospective payment system (PPS) and the key provisions affecting these payments in the Balanced Budget Act of 1997 (BBA). Following is a discussion of the trends in hospital payments and costs, for Medicare and across all payers, which is important in establishing a context for our recommendations. The next two sections comprise separate recommendations for updating operating and capital payment rates under PPS. Appendixes C and D contain analyses of two key factors we considered in developing these recommendations—scientific and technological advances, and hospital productivity and product change. Lastly, we present three recommendations for modifying how disproportionate share (DSH) payments are made, addressing criteria for identifying eligible hospitals, the method of distributing the payments, and required data collection.

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## Overview of the payment system and Balanced Budget Act provisions

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Under PPS, a hospital receives prospectively determined operating and capital payments for each Medicare discharge.<sup>1</sup> Operating payments, which totaled \$69 billion in fiscal year 1998, are intended to cover all costs hospitals incur in furnishing acute inpatient services, except those for capital, graduate medical education programs for physicians, and other approved training programs (CBO 1998). Capital payments, which accounted for another \$6 billion, cover building and equipment costs (primarily depreciation and interest) allocated to inpatient services. Hospitals with approved resident training programs receive separate per resident payments, and those operating approved programs

for nurses or allied health professionals are reimbursed separately based on Medicare's share of their incurred costs.

## Components of operating and capital payments

Hospitals' operating and capital payments for inpatient discharges under PPS are determined in similar ways. Each payment consists of three main components:

- the base per-case payment rate,
- the case weight, and
- special adjustments.

The base payment rate reflects the average costliness of Medicare cases nationwide, adjusted for the relative level of input prices in the hospital's local area. The labor-related portion of the base operating payment rate is adjusted by a wage index that reflects the relative level of wages and salaries for hospital workers in each metropolitan area or statewide rural area.<sup>2</sup> A similar index, called a geographic adjustment factor, is used to adjust the base capital payment rate.

Medicare capital PPS is being phased in over a 10-year transition, which began in 1992. In 2001, all hospitals will be paid fully on the basis of national prospective rates. Until then, most hospitals have a blended base payment rate—a weighted average of the hospital's own historical capital cost and the national average cost. In fiscal year 2000, the weights for the hospital-specific and national portions of the blended payment will be 10 percent and 90 percent, respectively.

The second component of PPS payment is a weight that accounts for the relative costliness of a specific case compared with the national Medicare average. A separate weight is defined for each of 499 diagnosis related groups (DRGs), and the same DRG definitions and weights are used for both operating and capital payments. The product of the

hospital's base payment rate and the relative weight for the DRG to which the patient is assigned is the provider's DRG payment rate for the case. Consequently, a facility's DRG operating and capital payments under PPS automatically reflect its mix of Medicare patients among DRGs, as represented by the case-mix index (CMI).

The third PPS payment component is additional amounts that may be paid for unusual cases or to hospitals with certain characteristics. These factors were included in the payment system to account for differences in the cost of treating patients that are beyond hospitals' control or to accomplish broader policy objectives. Extremely costly cases can qualify for an outlier payment, which is added to the DRG payment rate. An indirect medical education (IME) adjustment accounts for the higher patient care costs of teaching facilities, and hospitals that serve a disproportionate share of low-income patients receive the DSH adjustment. Finally, special payment provisions apply to rural hospitals that are designated as sole community providers, referral centers, or small Medicare-dependent hospitals.

## Changes mandated by the Balanced Budget Act

Several provisions of the BBA affect PPS hospital payments, with five-year savings estimated at the time as \$32 billion (CBO 1997). Those that bear on the updates for operating and capital payments and the disproportionate share adjustment are summarized below.

Under previous law, the update to PPS operating payments for fiscal year 1998 and beyond was equal to the forecasted increase in the PPS hospital market basket. The BBA set these updates below market basket through 2002, but then returned them to the full market basket level beginning in 2003 (see Table 3-1). The update for capital

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1 When Medicare beneficiaries are enrolled in Medicare+Choice, services covered by the hospital inpatient PPS usually will be paid for under terms negotiated between the hospital and health plan.

2 Hospitals in Alaska and Hawaii also receive a cost-of-living adjustment for the nonlabor portion of the base operating rate.

**T A B L E  
3 - 1**

**Legislated updates  
for hospital  
operating payments**

Fiscal year	Update amount
1998	0%
1999	MB - 1.9
2000	MB - 1.8
2001	MB - 1.1
2002	MB - 1.1
2003 and beyond	MB

Note: MB (market basket index). Legislated update based on HCFA's forecast of the market basket. Applies only to services covered by Medicare's inpatient prospective payment system.

Source: Balanced Budget Act of 1997.

payments is established by the Secretary of Health and Human Services through regulation before the beginning of each fiscal year, rather than being set in law.

The BBA sharply cut PPS capital payments for fiscal year 1998 so that these payments would better reflect Medicare-allowable capital costs. The Health Care Financing Administration (HCFA) overestimated the increase in capital costs for several years in developing the prospective payment system, but budget neutrality initially prevented the overestimates from affecting capital payment rates. That policy, which had been in effect since 1992, required that the capital rates be set so that aggregate payments would equal 90 percent of anticipated Medicare capital costs, regardless of the base payment rate HCFA set. Budget neutrality expired in fiscal year 1996, however, resulting in a 22.6 percent jump in the federal capital payment rate. The BBA largely reversed this jump, and the reduction will affect the rates to which the update is applied in future years.

Effective in fiscal year 1999, the BBA defines cases in ten DRGs as transfers if they are discharged to PPS-excluded hospitals or units, skilled nursing facilities or, in some circumstances, home health care. Hospitals transferring patients are paid an

average per diem amount for the days before transfer (twice the per diem rate for the first day) up to the full DRG rate. The Secretary identified the applicable DRGs based on high volume and above average use of post-acute care, and estimated that the provision would reduce PPS payments by 0.6 percent.

The BBA cuts DSH payments determined by the previous formulas by 5 percent, with the reductions implemented in one percentage point increments between fiscal years 1998 and 2002. In addition, the Congress signaled its conclusion that the DSH adjustment needs to be overhauled in the short term by requiring HCFA to recommend a new payment formula by August 1998. The BBA requires that any new payment formula treat all hospitals equally and that the low-income share measure continue to reflect both Medicaid patients and Medicare patients eligible for Supplemental Security Income (SSI). The Secretary also was authorized to collect any data needed to implement a new formula.

**Trends in payments,  
costs, and margins**

In developing our recommendations on the annual updates for the PPS operating and capital payment rates, the Medicare Payment Advisory Commission (MedPAC) takes into account the adequacy of payments for ensuring sufficient access to appropriate care. An important indicator of the adequacy of these payment rates is the PPS inpatient margin, which compares the payments hospitals receive from Medicare for inpatient services with their Medicare-allowable costs for these services.<sup>3</sup> A major indicator of hospitals' overall financial status (and therefore their ability to continue serving Medicare beneficiaries and other patients) is the total revenue margin, which compares aggregate revenues and expenses from inpatient and outpatient care and all other hospital activities.<sup>4</sup>

The data on hospital margins portray an industry that is quickly adapting to a more competitive environment by reducing costs and, at least up to the enactment of the BBA, improving financial performance. By reducing the growth of Medicare payments for the services hospitals provide, the BBA has added to the pressures facing the hospital industry; nonetheless, the most recent data indicate that the industry has managed to maintain the balance of revenues and expenses in the face of strong pressure from payers. Moreover, these data are consistent with MedPAC's previous finding that the PPS provisions in the BBA do not negate Medicare's ability to more than cover the costs of inpatient hospital services.

**Payments and costs**

In fiscal years 1998 and 1999, the first two years under the BBA, the updates to the PPS operating payment rates were the lowest since prospective payment began (0 percent and 0.5 percent, respectively). Focusing on the nominal value of the update, however, may be misleading. The update for each year generally is set in terms of the forecast increase in the PPS hospital market basket, which measures the prices of the goods and services hospitals purchase. This reflects the notion that, as the cost of providing inpatient care rises more slowly or more rapidly, the payment rate updates should be adjusted correspondingly.

Viewed in relation to the forecast market basket increase in each year, the trend in the PPS operating updates has been fairly consistent. The low updates in fiscal years 1998 and 1999 followed an unusually high update of market basket minus 0.5 in fiscal year 1997. Overall, the PPS operating updates for fiscal years 1997 through 1999 averaged 1.8 percentage points below the forecast increases in the market basket for those years, compared with 2.0 percentage points below market basket in the three previous years. The update currently set

3 The PPS inpatient margin is calculated (in percentage terms) as the difference between PPS payments and Medicare-allowable costs (as reported on the cost report each hospital submits to HCFA), divided by PPS payments.

4 The total revenue margin is calculated (in percentage terms) as the difference between total revenues and expenses (also as reported on the Medicare Cost Report), divided by total revenues.

in law for fiscal year 2000 is 1.8 percentage points below market basket.

In fact, the increase in PPS operating payments per case has far exceeded the updates since prospective payment began (see Figure 3-1). Based on Medicare Cost Report data for the first 13 years of PPS and part of the 14th year, payments per case have increased by a cumulative 131 percent, while the payment rates have been updated by only 42 percent. Most of this difference reflects a rise in the Medicare case-mix index (CMI), which measures the resource requirements of hospital patients. As discussed more fully below, an increase in the CMI automatically raises payments by the same proportion. In addition, specific policy changes enacted by the Congress have increased PPS payments in the aggregate. Also, the use of unaudited Medicare Cost Report data to set the initial payment rates contributed to the large rise in payments in the first two years.

Nonetheless, from 1985 through 1991, the increase in PPS operating costs exceeded the increase in payments in

every year, with the cumulative increase in costs per case surpassing that in payments per case by 1990. More recently, that trend has reversed. While payments per case are rising somewhat more slowly than before, the growth in costs per case slowed sharply in 1993, fell below that of payments in 1994, and has been consistently negative since then.

Preliminary data for 1997 indicate that it will be the fourth consecutive year in which PPS operating costs per case have declined. In fact, after six years of increases averaging 9.5 percent (1985 through 1990) and a transitional period during which costs per case began to slow, the average annual growth in PPS operating costs per case over the most recent five years (1993 through 1997) has dropped to -0.5 percent. That is 3.1 percentage points below the average rate of increase in the PPS hospital market basket over the same period.

### Medicare margins

The trend in the Medicare inpatient PPS margin reflects the pattern in cost growth over time (see Figure 3-2). In the early

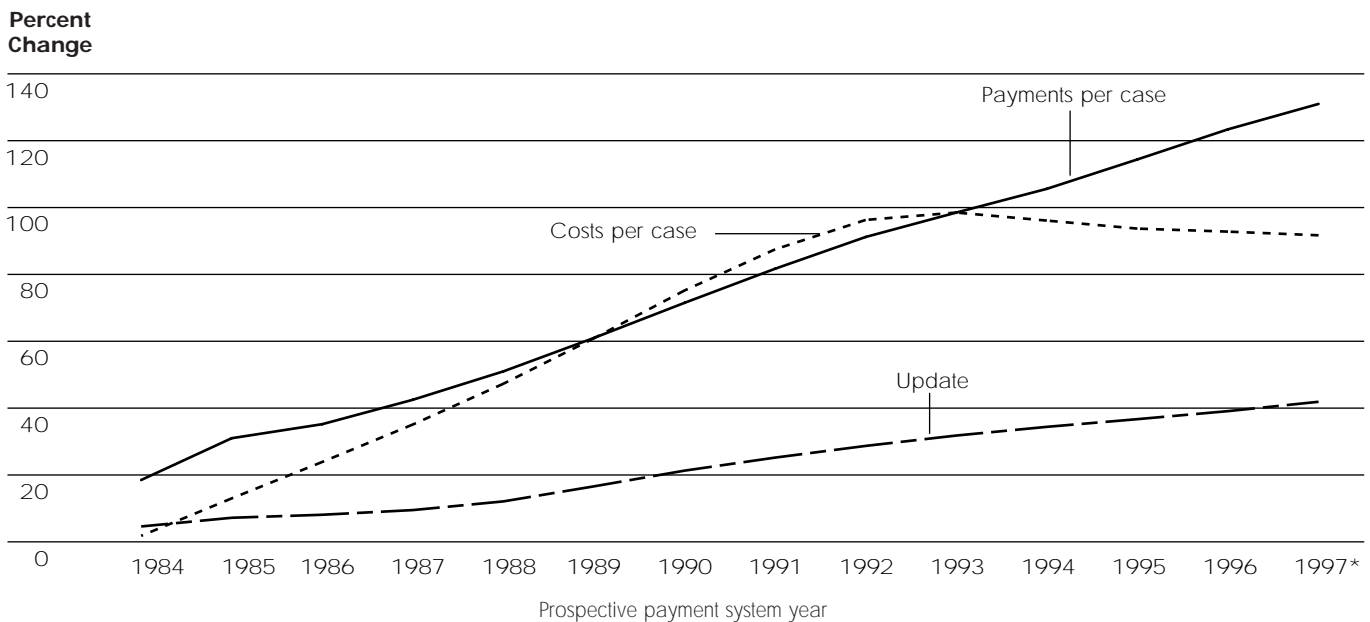
years of PPS, the margin was in double figures, due to large payment increases in the first two years and a temporary reduction in cost growth in the first year. As costs rose at their historical rate throughout the remainder of the 1980s, the PPS margin steadily fell, dropping below zero in 1990 and to -2.4 percent in 1991.

With the decline in cost growth since the early 1990s, the PPS inpatient margin has risen sharply, becoming positive again in 1993 and jumping to 15.3 percent in 1996. Preliminary data for 1997 indicate that the margin rose further, to 16.1 percent. MedPAC estimates that, given recent changes in PPS payment rates (including the effects of the BBA) and more current data on hospital cost growth, the PPS margin will decline slightly to 15.7 percent in 1999.

With the sharp increase in the aggregate PPS inpatient margin, there has been a drop in the number of hospitals with negative margins (see Figure 3-3). In 1996, 24.9 percent of all PPS hospitals had negative PPS margins—the fifth consecutive decline in this statistic and a

**FIGURE 3-1**

**Cumulative changes in Medicare hospital inpatient operating payments and costs per case and operating update, 1984-1997**



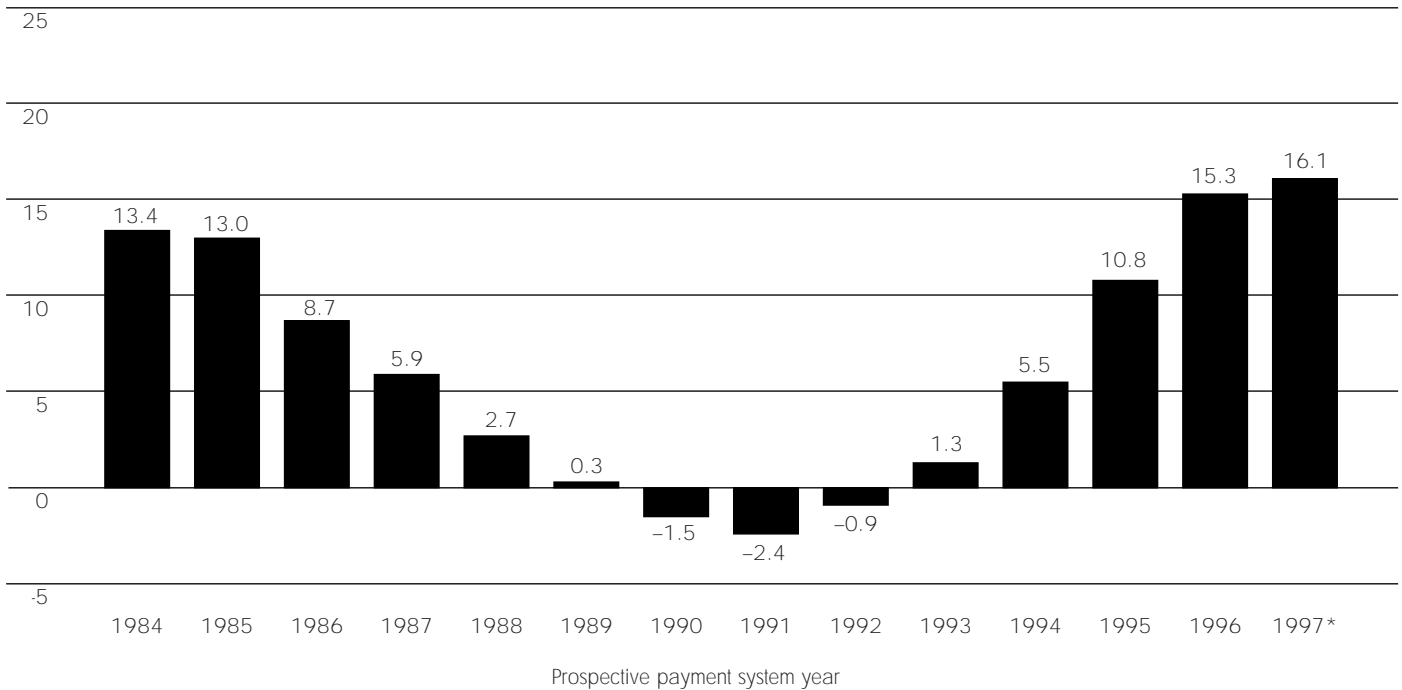
\*Data for 1997 are preliminary, based on about one-half of all hospitals covered by prospective payment.

Source: MedPAC analysis of Medicare Cost Report data.

**FIGURE  
3-2**

**Medicare hospital inpatient margin, 1984-1997**

Margin (in percent)



\*Data for 1997 are preliminary, based on about one-half of all hospitals covered by prospective payment.  
Source: MedPAC analysis of Medicare Cost Report data.

dramatic decrease from a peak of 61.2 percent in 1991. The percentage of hospitals with negative PPS margins in 1996 was the lowest since 1985, and preliminary data for 1997 indicate that this percentage will be even lower for that year when complete data are available.

In assessing the adequacy of Medicare payments to hospitals, it is important to remember that payments for services other than those covered by Medicare’s inpatient hospital PPS make up about one-third of hospitals’ total Medicare revenue. These include inpatient services in hospitals and units excluded from PPS (psychiatric, rehabilitation, long-term care, cancer, and childrens), outpatient services (including ancillary procedures paid at least partly on a fee schedule), hospital-

based skilled nursing care, and hospital-based home health care. Payments for each of these services cover a lower percentage of hospitals’ Medicare-allowable costs than do payments for inpatient care under PPS. For example, payments for hospital outpatient services were about 90 percent of costs in 1996, and BBA provisions will lower this payment level in the future.

While a margin based on Medicare Cost Report data that encompass all Medicare payments to hospitals has not been developed, we have calculated an all-inclusive payment-to-cost ratio using data from the American Hospital Association. This measure reflects all costs attributable to Medicare patients instead of Medicare-allowable costs.<sup>5</sup> The ratio in 1996 was 102.4 percent, which is equivalent to a 2.3 percent

aggregate Medicare margin. The 1996 ratio was the highest ever and about 6 percentage points above the level before PPS, when Medicare’s policy was to reimburse allowable costs (MedPAC 1998c).

**Total margins**

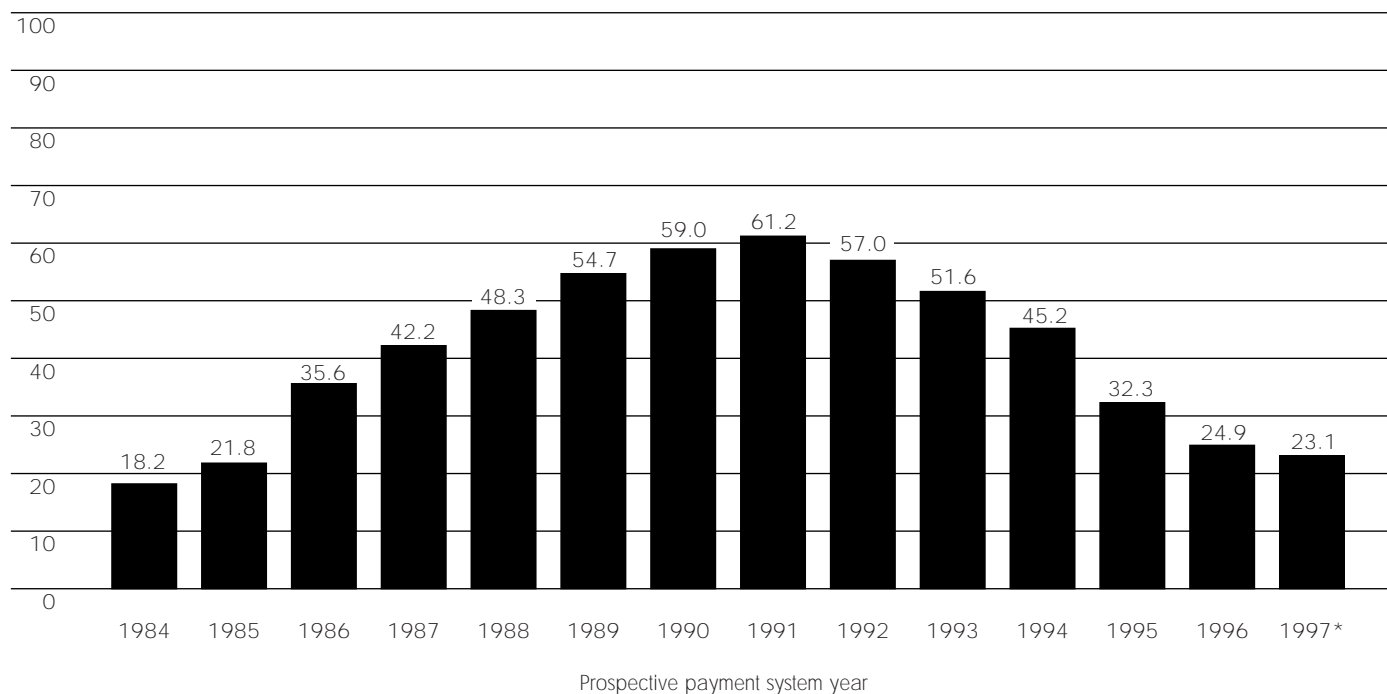
The trends in hospital total revenues and expenses have tended to move together. Through most of the 1980s and into the early 1990s, both revenues and expenses per adjusted admission rose at an annual rate of about 9 percent.<sup>6</sup> In 1993, there was a sharp deceleration in revenues per adjusted admission, and expenses per adjusted admission followed suit. This lower rate of growth in both revenues and expenses per adjusted admission has continued in recent years.

5 Examples of cost elements that Medicare does not pay for are patient telephones, direct advertising, political or charitable donations, and interest expense to the extent that it is offset by interest income or capital gains from investments.  
6 Adjusted admissions are a measure of hospitals’ combined inpatient and outpatient service volume.

**FIGURE  
3-3**

**Percent of hospitals with negative Medicare inpatient margin, 1984-1997**

Percent



\*Data for 1997 are preliminary, based on about one-half of all hospitals covered by prospective payment.  
Source: MedPAC analysis of Medicare Cost Report data.

Despite slower revenue growth, hospitals' aggregate total margin has increased (see Figure 3-4). It rose in 1996 to 6.1 percent, compared with 4.5 percent in 1993 and 3.5 percent in 1988. These margins compare favorably with data from as far back as the early 1970s, when Medicare payment was based on reimbursement of costs.

Preliminary Medicare Cost Report data for 1997 indicate that the total margin continued to increase in that year, and more current data show that hospitals have succeeded in controlling the growth in their expenses into mid-1998, implying that the total margin still is at or close to that level.

As would be expected, the financial status of individual hospitals varies widely. About one in five hospitals (21.6 percent) had negative total margins in 1996 (see Figure 3-5). This was slightly higher than in 1995 (20.7 percent), but the

lowest since PPS began, down from a peak of 35.1 percent in 1987. Preliminary data for 1997 indicate that the percentage of hospitals with negative total margins held steady for the fourth consecutive year.

### Updating operating payments

Although the PPS operating update is set in law, policymakers need to know whether the statutory updates are consistent with an analytically informed judgment about how much these rates should increase from one year to the next. For fiscal year 2000, the update currently is set at market basket minus 1.8 percentage points, which would result in a 0.7 percent increase in rates if the current market basket forecast holds.

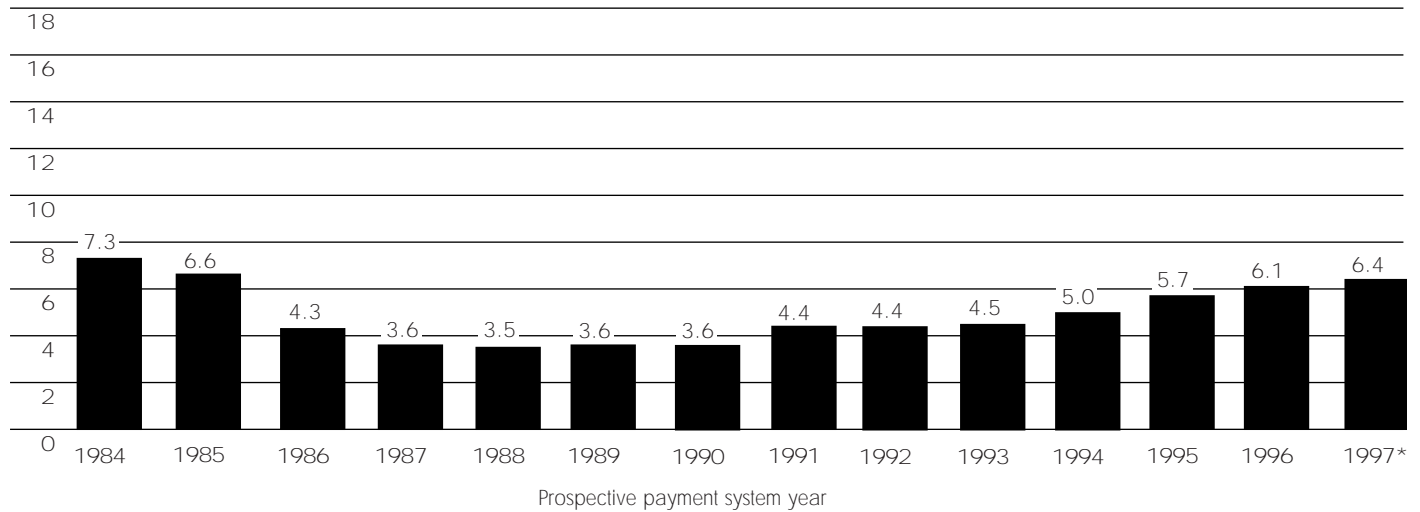
Our recommendation on an appropriate operating payment update is based on an analytical framework that provides for explicit consideration of the factors that contribute to increases in costs for an efficient hospital industry (see Table 3-2). These include hospital input price inflation, scientific and technological advances, productivity improvement, site-of-care substitution, and case-mix change. We evaluate the results of this analysis in light of the potential effect on access to and the quality of patient care. We also examine the current payment rates in the context of the latest financial information, including data on PPS and total margins as discussed above. However, while we carefully evaluate the potential effect on hospital financial performance, this is not the primary determinant of MedPAC's update recommendation.



**FIGURE  
3-4**

**Hospital total revenue margin, 1984-1997**

Margin (in percent)



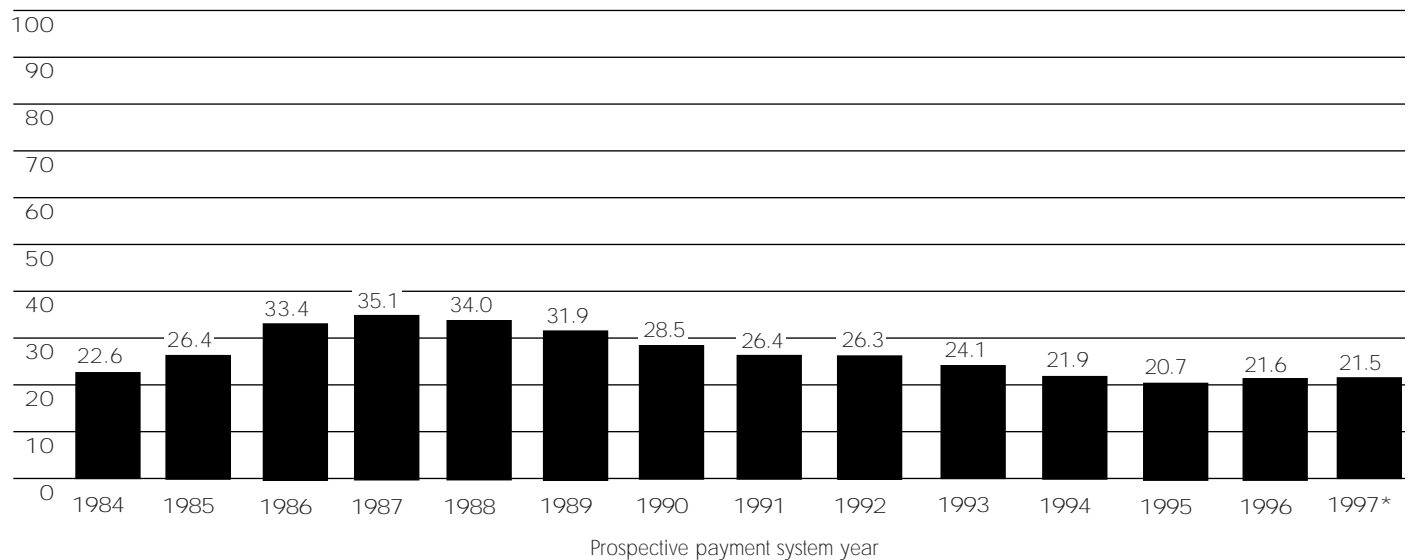
\*Data for 1997 are preliminary, based on about one-half of all hospitals covered by prospective payment.

Source: MedPAC analysis of Medicare Cost Report data.

**FIGURE  
3-5**

**Percent of hospitals with negative total revenue margin, 1984-1997**

Percent



\*Data for 1997 are preliminary, based on about one-half of all hospitals covered by prospective payment.

Source: MedPAC analysis of Medicare Cost Report data.

**T A B L E**  
**3 - 2**

**Update framework for hospital operating payments, fiscal year 2000**

Component	Percent
Fiscal year 2000 MedPAC market basket forecast	2.5
Adjustment for difference between HCFA and MedPAC market baskets	-0.2
Correction for fiscal year 1998 market basket forecast error	NA
Allowance for scientific and technological advances	0.5 to 1.0
Adjustment for productivity improvement	-1.0 to 0.0
Adjustment for site-of-care substitution	-1.8 to -0.9
Adjustments for case-mix change:	
DRG coding change	0.0
Within-DRG case-complexity change	0.0 to 0.2
Sum of components	0.0 to 2.6 (MB -2.5 to MB + 0.1)

Note: MB (market basket index), DRG (diagnosis related group). Legislated update based on HCFA's forecast of the market basket. Applies only to services covered by Medicare's inpatient prospective payment system.

Source: Balanced Budget Act of 1997.

**RECOMMENDATION 3 A**

**The operating update of market basket minus 1.8 percentage points set in law for fiscal year 2000 will provide reasonable payment rates. An update of that level, which will be 0.7 percent if the current market basket estimate holds, is within the range the Commission believes is appropriate.**

A key component of our recommendation is an adjustment to account for the cost of care shifted from acute inpatient stays to other Medicare-covered services. The volume of care received by patients in the acute inpatient setting has decreased considerably over the last several years, and the Commission believes that a significant portion of this decline is attributable to site-of-care substitution. The updates for fiscal years 1998 through 2000 account for some, but not all, of the substitution that has occurred. In developing our future update

recommendations, therefore, we will consider the need to make further adjustments to assure that Medicare payments match the services provided in each setting.

The components of MedPAC's operating update framework, and the value or range we recommend for each in fiscal year 2000, are discussed below.

**Input prices**

The input price component of the PPS operating update is based on HCFA's forecast increase in the market basket index for PPS hospitals. The market basket forecast indicates how much inpatient operating costs would be expected to rise, assuming no change in the resources hospitals use to provide care or in the types of patients hospitals treat. The current forecast for fiscal year 2000 is 2.5 percent.<sup>7</sup>

The Commission's update framework traditionally incorporates two adjustments related to input prices. The first adjustment reflects a difference

between MedPAC's and HCFA's construction of the market basket index. We weight expected growth in employee compensation in the hospital industry and the general economy equally, while HCFA gives less weight to the hospital industry projections. Because wage growth in the hospital industry has trailed that of the broader economy in recent years, MedPAC's market basket is forecast to increase more slowly than HCFA's. Correspondingly, we are making a -0.2 percentage point adjustment.

The second input price adjustment addresses errors in previous market basket forecasts. Because the annual updates are based on the forecasts available prior to the beginning of the payment year, they are subject to errors that can result in inappropriately high or low payment rates. MedPAC corrects these errors when actual data become available, two years after they are applied to payments. Because the update in fiscal year 1998 was zero and not based on the market basket forecast, however, any error in the forecast did not affect the payment rates in that year. Therefore, we are making no adjustment for market basket forecast error for fiscal year 2000.

**Scientific and technological advances**

MedPAC's review of hospital technology suggests there will be no significant changes in the overall rate at which hospitals adopt quality-enhancing but cost-increasing technologies in fiscal year 2000, with the exception of the need to address year 2000 computer problems. (See Appendix C for a more detailed description of the technologies considered in this analysis.) We believe that hospitals will incur significant operating and capital costs in becoming year 2000 compliant and that these improvements will be completed during fiscal years 2000 and 2001.

The improvements to hospital systems and medical devices to fix year 2000 problems differ from the other technologies included in the allowance for scientific and technological advances

<sup>7</sup> This forecast will be revised before the update is put into effect, and the update may change correspondingly.

in that they are not new advances or new applications of existing technologies (one of the criteria used to identify technologies for the allowance). Rather, the year 2000 improvements will maintain the current operation of information systems and medical devices, resulting in limited changes in their functions and capabilities. Nonetheless, we believe these improvements to hospital systems and devices fall under the rubric of our allowance for scientific and technological advances.

Therefore, we are explicitly increasing the allowance for scientific and technological advances by 0.5 percent from that used in our recommendation for fiscal year 1999 to account for year 2000 computer improvements. However, this increase is not considered a permanent part of the allowance, and we will reconsider the level of this adjustment in subsequent fiscal year analyses. For fiscal year 2000, MedPAC recommends an allowance for scientific and technological advances of 0.5 percent to 1.0 percent.

## Productivity improvement

We make a downward adjustment in the framework to reflect expected improvements in hospital productivity. This adjustment is a policy target, reflecting our position that Medicare should require hospitals to reduce their inputs relative to output by at least a modest amount each year. Hospitals that can surpass this target will be able to keep the additional gains they achieve in the next year.

Our analysis of factors related to hospital productivity suggests that annual improvements of about 3 percent in inputs used per discharge, exclusive of the impact of site-of-care substitution, have been achieved in 1997 and 1998.<sup>8</sup> Although gains have been registered each year from 1992, those in the last two years appear to have been by far the largest.

However, the change in real costs per discharge in these years was well

below the rate of inflation in the goods and services hospitals use in producing inpatient care, despite smaller length of stay declines than in previous years. We doubt that this rate of improvement is sustainable. Moreover, our productivity adjustment is intended to represent the level of improvement that can be achieved without adversely affecting quality, and yet it is not possible to adjust for changes in quality when measuring the productivity trend. We are concerned that requiring efficiency gains of the level measured in recent years might pose a serious threat to maintaining quality. Therefore, we set a range of -1.0 to 0.0 percent for the productivity improvement adjustment in fiscal year 2000.

## Site-of-care substitution

The average length of Medicare inpatient stays declined 5.4 percent a year between 1991 and 1996, and we estimate that this led to per discharge cost savings of 2.4 percent a year. We believe that some of these savings reflect a shift of costs to other settings, as care in those settings was substituted for the latter days of inpatient stays. A variety of substitute forms of care can be involved, including skilled nursing, inpatient and outpatient rehabilitation, physicians' services in an office or hospital setting, and home health care. Because Medicare automatically pays for the care in the new settings, the site-of-care substitution adjustment is designed to shift funding along with the associated costs.

When care in an ambulatory or post-acute setting replaces acute inpatient days, there may be a systemwide reduction in costs. If a skilled nursing day substitutes for an acute care day, for example, the hospital's variable costs (like daily food, housekeeping service, and nursing care) may be reduced by more than the amount of newly incurred costs in the skilled nursing facility. Assuming no change in clinical outcome, we would consider this net savings a productivity gain, which should count

toward the target set by the adjustment for productivity improvement. However, the additional skilled nursing costs in this example have simply been shifted from the hospital, and payments need to be realigned accordingly.

The systemwide savings implied by this example may not materialize if multiple units of post-acute care replace a day of acute care. There may even be a systemwide increase in costs. In such situations, the entire savings to the hospital from cutting length of stay should be attributed to site-of-care substitution.

In cumulative terms, the average length of stay of all hospital patients nationally has fallen by 18 percent since 1989. The effect of length of stay reductions on per-case costs is less than proportionate, however, because some costs (particularly those associated with surgery) are fixed. Taking this into account, we estimate that the 18 percent cut in length of stay resulted in about a 13 percent drop in aggregate costs per discharge.<sup>9</sup> Four percentage points of this total have already been accounted for by previous Commission update recommendations. In developing this year's recommendation, the most difficult task we faced was estimating how much of the remaining 9 percentage points should be attributed to site-of-care substitution.

The evidence that site-of-care substitution has occurred on a large scale among Medicare patients is indirect. Perhaps the most compelling finding is that Medicare length of stay has fallen 31 percent since 1989, compared to the 18 percent decline cited above for all patients. One of the key reasons for this difference could be that hospitals covered by PPS have a strong financial incentive to discharge Medicare patients to a post-acute setting as soon after an acute stay as possible. Because their per-case payments are not affected, they keep all of the savings resulting from the shorter stays. Hospitals frequently do not

8 Because of lags in the availability of Medicare Cost Report data, our 1997 and 1998 estimates are based on relationships from earlier cost report measurements applied to more recent data available from the American Hospital Association. The estimate cited is the inflation-adjusted change in costs per discharge (adjusted for real changes in case mix), exclusive of the net cost impact of length of stay reductions. This estimate may be conservative because only a portion of the net effect of the drop in length of stay may be attributable to site-of-care substitution. See Appendix D for additional information.

9 Appendix D shows the trend in length of stay and cost per discharge, for all patients and Medicare patients alone. It also details MedPAC's analysis of the net cost impact of length of stay reductions.

have the same financial incentive for privately insured patients, because HMOs and other insurers often pay either a per diem amount or a percentage of the patient's billed charges for acute stays.

Three other trends that MedPAC or its predecessor commissions have documented also support the conclusion that a substantial amount of site-of-care substitution has occurred among Medicare patients:

- Large increases in the volume of various types of post-acute care coincided with the large reduction in hospital length of stay.
- The decline in length of stay has been the greatest for DRGs in which the use of post-acute care is most prevalent.
- Hospitals that operate hospital-based post-acute care services have experienced a larger drop in length of stay than those that do not.

At the same time, however, site-of-care substitution may not be responsible for the entire decline in length of stay. Some of the increase in post-acute care volume occurred before length of stay began declining, in response to reinterpretation of the home health and skilled nursing care benefits. In addition, some patients are able to be discharged earlier without an increased need for follow-up care due to endoscopic surgery and other technological advances. Length of stay also has fallen, although not as steeply, for DRGs in which patients rarely use post-acute care immediately after an acute care stay.

These factors led us to conclude that cost reductions of from 3 to 6 percentage points, out of the total of 9 points cited above, could be attributed to site-of-care substitution and adjusted for in the update framework. Phasing in this adjustment over the course of three years would result in a single-year adjustment of  $-2.0$

to  $-1.0$  percent.

One more issue must be considered, however, in quantifying an adjustment for site-of-care substitution—Medicare's newly implemented (BBA mandated) policy on payment for transfer cases. As discussed earlier, this policy limits payments within certain DRGs for patients who are discharged from a PPS hospital to one of several post-acute care settings. HCFA estimates that aggregate PPS payments will fall by 0.6 percent as a result. Because the policy is designed to limit hospitals' gains from site-of-care substitution, we will subtract its estimated impact from the 3 to 6 percentage points of such substitution that we believe should be reflected in future updates. Phasing in the remaining amount over three years then results in an adjustment of  $-1.8$  to  $-0.9$  percent for fiscal year 2000. Subject to refinements in our measurement as more recent data become available, or additional declines in lengths of stay occur, we anticipate making similar adjustments for fiscal years 2001 and 2002.

## Case-mix change

The case-mix adjustment is intended to adjust payments so they reflect the real resource requirements of patients. The complexity of cases treated in hospitals generally goes up from year to year. Under Medicare, case complexity is measured by the CMI. The CMI is the average DRG weight for all cases paid under PPS and reflects the distribution of patients among DRGs. Increases in the CMI automatically result in a proportionate rise in PPS operating and capital payments.

An increase in payments is appropriate as long as the CMI growth reflects real changes in patient resource requirements. Changes in coding practices, however, can raise the CMI without a corresponding change in resource use. At the same time, an increase in the complexity of cases within DRGs can affect resource needs without a

commensurate rise in payments. When these changes occur, payments should be adjusted to account for their effects. Our case-mix adjustment modifies the next year's payment rates to account for the effects of this year's changes in coding practices and within-DRG case complexity. In this way, the effects of discrepancies between the CMI and actual patient resource requirements are removed from the payment rates for future years.

Past Commission analyses have found a relationship between hospital coding of cases and CMI growth. In 1988 and 1991, Medicare made major changes in the DRG system, and these changes were followed by increases in CMI growth. There have been no major changes in the DRGs since 1991, however, and CMI growth now appears to be much lower.<sup>10</sup> In light of this low growth, we believe that hospital coding behavior is not contributing to increases in the CMI. Thus, an adjustment to the update to reflect DRG coding is not necessary.

Cases classified to a single DRG will differ in severity of illness and the complexity of the care received. Changes in the distribution of cases within DRGs can thus increase or decrease patient resource needs without changes in the measured CMI or in the payments hospitals receive under PPS. As the DRG system has improved, the payment system has increased its ability to reflect real changes in case complexity. Complexity change is now reflected more in shifts in the distribution of cases among DRGs and less within DRGs. The Commission estimates that within-DRG case-complexity change will be 0 to 0.2 percent.

The combination of no adjustment to reflect hospital coding and 0 to 0.2 percent within-DRG case-complexity change suggests a total adjustment for case-mix change of 0 to 0.2 percent for the update in fiscal year 2000.

10 The Office of the Inspector General of the Department of Health and Human Services estimates that incorrectly coded PPS inpatient hospital claims accounted for almost \$2 billion in Medicare overpayments in fiscal years 1996 and 1997 (OIG 1998). This finding, and the related attempts to recover payments, may in fact have contributed to a backlash to the "DRG creep" that occurred in recent years. Preliminary data indicate that the case-mix index did not increase and may even have decreased in 1998 (Savord 1998).

## Implications

The Commission believes the current legislated update will provide a suitable increase in payments for fiscal year 2000. This conclusion is based on our consideration of the factors that would be expected to affect cost growth, as well as the need to adjust future payment rates for past shifts of care from acute care stays to other Medicare-covered services.

The data on hospital performance corroborate that conclusion. Hospital occupancy rates remain low in the aggregate, after increasing only slightly in recent years, indicating continued system overcapacity and opportunities for hospital productivity improvements. Hospitals also generally appear to be in good financial shape overall, with PPS margins likely to remain relatively high even after accounting for the reduced updates and other changes enacted through the BBA. And equally important, the proportion of hospitals with negative PPS and total margins is at the lowest level since PPS was implemented.

## Updating capital payments

In fiscal year 1992, Medicare began paying hospitals for capital costs based on prospectively determined per case rates. Capital costs include depreciation, interest, rent, taxes, insurance, and similar expenses for plant and fixed equipment and for movable equipment.

Our recommendation for updating PPS capital payments is based on a framework similar to the one we use for the PPS operating rates (see Table 3-3). It includes factors for capital asset price changes (the capital market basket index), forecast error correction, scientific and technological advances, productivity, site-of-care substitution, and case-mix change. Some of these components have different values when applied to capital. MedPAC's framework also includes a discretionary financing policy adjustment for use during extended periods of unusually high or low real interest rates.

**TABLE  
3-3**

**Update framework for hospital capital payments, fiscal year 2000**

Component	Percent
Fiscal year 2000 MedPAC market basket forecast	1.9
Correction for fiscal year 1998 market basket forecast error	-0.4
Financing policy adjustment	-0.3 to 0.0
Allowance for scientific and technological advances	0.5 to 1.0
Adjustment for productivity improvement	-1.0 to 0.0
Adjustment for site-of-care substitution	-1.8 to -0.9
Adjustments for case-mix change:	
DRG coding change	0.0
Within-DRG case-complexity change	0.0 to 0.2
Sum of components	-1.1 to 1.8 (MB -3.0 to MB -0.1)

Note: MB (market basket index). DRG (diagnosis related group). Legislated update based on HCFA's forecast of the market basket. Applies only to services covered by Medicare's inpatient prospective payment system.

Source: Balanced Budget Act of 1997.

## RECOMMENDATION 3B

**The Secretary should increase the capital payment rates for fiscal year 2000 by between market basket minus 3.0 percentage points and market basket minus 0.1 percentage point. With the current estimate of the market basket, this corresponds to an update of -1.1 percent to 1.8 percent.**

Although operating and capital payment rates under PPS are determined separately, they correspond to costs generated by providing the same inpatient hospital services to the same Medicare patients. The distinction between them in the context of payment is arbitrary and does not foster efficient overall decision making about the allocation of resources.

The 10-year transition to a single capital rate, which was implemented to allow hospitals time to adjust to the new payment system, makes it impossible to combine the operating and capital payment systems now. However, both payments are made on the basis of cases

defined by DRGs and share many other characteristics. We believe that the annual updates to capital and operating payments should not differ substantially. Consequently, other than in the adjustments for price change and interest rates, we use the same components in our capital and operating update frameworks.

## Input prices

The capital update should reflect the expected change in the cost of capital purchases in the coming year. This change is measured by the projected increase in a market basket index that reflects increases in the prices of capital assets that hospitals purchase. The market basket index is analogous to the one we use in updating operating payment rates but differs from the one used by HCFA in updating capital payment rates.

The Commission's capital market basket index includes three components: building and fixed equipment, movable equipment, and other capital-related costs. Price changes for these components are measured using forecasts of specific price proxies. Our capital market basket index

measures the one-year change in the price of a fixed mix of capital goods. It is intended to allow hospitals to accumulate, over time, adequate resources for future capital purchases. By contrast, HCFA's market basket measures anticipated increases in annual accounting expenses associated with the existing capital stock. Much of this stock was purchased at a time when Medicare reimbursed hospitals for their own capital costs.

The Commission believes it is inappropriate to set updates to future capital payment rates based on the annual expenses associated with historical capital spending. Updates should reflect the purchase price of new capital.

As of January 1999, the projected increase in MedPAC's market basket index for fiscal year 2000 is 1.9 percent. Unforeseen economic developments may cause substantial discrepancies between the projected and actual increases in the market basket index, leading to potentially significant underpayment or overpayment of hospitals. The update framework includes a correction for past forecast errors in the HCFA market basket index because that was the index used to set payment rates. Because actual market basket increases are not known until two years after they are used in the update, the forecast error correction in the 2000 update framework reflects the discrepancy between the forecast and actual increases in the market basket for 1998. The forecasted increase for that year was 1.1 percent, while the actual increase was approximately 0.7 percent, 0.4 percentage points lower. As a result, our fiscal year 2000 recommendation includes a forecast error correction of -0.4 percent.

### Interest rates

Unlike HCFA, MedPAC addresses changes in real interest rates in a separate component of our update framework. This component adjusts the PPS capital update when available data indicate that current interest rates differ markedly from their long-run average. During extended periods of unusually high rates,

hospitals may have to choose between postponing needed renovation projects or incurring indebtedness beyond what Medicare's payments support. At times of low interest rates, hospitals can borrow at low cost for current projects and refinance existing debt to reduce interest expense due to past capital investment. Capital payments should be adjusted upward to account for the extra expense of unusually high interest rates and downward in the opposite circumstances.

Since the effects of changes in prices are measured by the capital market basket index, our adjustment reflects changes in the real interest rate. The specific measure is the long-term interest rate on hospital borrowing, as calculated by HCFA, minus expected change in the gross domestic product implicit price deflator as forecast by the Congressional Budget Office. Since we are concerned with adjusting the update for lasting rather than transitory deviations in real rates, we compare a 5-year moving average of real interest rates to a 15-year average. This measure, weighted by the share of financing costs in total annual capital costs, is the adjustment to the update for interest changes.

Based on this analysis, we recommend an adjustment for interest rate change of -0.3 to 0 percentage points for fiscal year 2000.

### Other factors

Like MedPAC's operating update framework, the capital update framework includes components to account for the effects of scientific and technological advances, productivity, site-of-care substitution, and case-mix change on hospital costs. The Commission uses values for these factors in both update frameworks that reflect their combined effects on operating and capital payments and costs.

## Implications

MedPAC's recommended update to the PPS capital payment rates for fiscal year 2000 is between market basket minus 3.0 percentage points and market basket minus 0.1 percentage point. The current estimate for this range is -1.1 percent to 1.8 percent. Because the distinction between operating and capital payments is arbitrary, under normal circumstances the updates applied to both should be similar. As with the operating update, we believe that an update within the recommended range will provide a suitable increase in payments for hospitals for the coming year.

When the transition to fully prospective capital payment has been completed, a single PPS payment rate should be developed for hospital inpatient services to Medicare beneficiaries. This would make Medicare payment consistent with the way that hospitals purchase the vast majority of goods and services, with a single price to reflect the costs of production, rather than separate components to represent operating and capital costs.

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## Reforming disproportionate share payments

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Medicare's special payments to hospitals that treat a disproportionate share of low-income payments could be made more equitable by using a better measure of care to the poor and a distribution formula that more consistently links each hospital's DSH payment to its low-income patient share. We have three recommendations that would accomplish this.

MedPAC made these same recommendations last year (MedPAC 1998a), in advance of HCFA's Congressionally mandated report on how DSH payments should be distributed. HCFA has not yet published its report, which was due in August of 1998. We believe that our recommendations

provide a complete template for the Congress to legislate needed changes in the DSH adjustment, and that they should be implemented as soon as possible. Nonetheless, we will consider HCFA's recommendations carefully when their report is delivered.

This section describes the current DSH payment system, why it needs reform, and the three recommendations. Volume II of our report to the Congress on payment issues last year (MedPAC 1998b) includes an analysis of the payment changes that would result from several distribution formulas that might be considered, and we use these data to further explain the rationale for our recommendations.

## Background

The Medicare DSH adjustment was implemented in May 1986, in the third year after prospective payment began. The original justification for the adjustment was that poor patients are more costly to treat, at least in urban areas, so that hospitals with substantial low-income patient loads would likely have higher costs allocated to Medicare patients than would otherwise similar institutions. Over the past decade, however, the adjustment has increasingly been viewed as serving the broader purpose of protecting access to care for Medicare and low-income populations by assisting the hospitals they use. In addition to facing above-average costs in some cases, these hospitals tend to face large uncompensated care burdens and difficulty in attracting privately insured patients.

Medicare DSH payments have grown rapidly since fiscal year 1989, rising more than fourfold to \$4.5 billion in 1998 (CBO 1998).<sup>11</sup> Through 1995, DSH spending grew much faster than overall PPS operating payments, expanding from just over 2 percent of payments to about 6 percent. This was largely due to legislative changes that raised the DSH payment rate for some hospitals. Since the last of these changes was implemented in 1995, the share of total inpatient payments

devoted to the DSH adjustment has held steady.

Because DSH payments are distributed through a percentage add-on to the basic DRG payment rate, a hospital's DSH payments are tied to its volume and mix of PPS cases. The add-on for each case is determined by a complex formula and the hospital's percentage, or share, of low-income patients. That percentage is the sum of two ratios—Medicaid patient days as a share of total patient days and patient days for Medicare beneficiaries who are eligible for SSI as a percentage of total Medicare patient days.

The DSH distribution formula includes a threshold, or minimum value, for the low-income patient share a hospital needs to qualify for a payment. This criterion limits eligibility to about 40 percent of PPS hospitals. In addition, the formula in most cases is progressive; above the threshold, the adjustment rate rises as the hospital's low-income patient share increases.

## Problems with the current system

A major problem with the current low-income share measure is that it does not include all care to the poor, most notably omitting uncompensated care. The distribution formula uses the proportion of care provided to Medicaid recipients to represent the relative amount for the entire poor population under the age of 65. However, states have always had different eligibility requirements for Medicaid, and changes implemented under waivers in recent years (particularly in Tennessee and Oregon) have created even more inconsistency. As a result, state Medicaid programs cover vastly differing proportions of the population below the federal poverty level. Moreover, previous analysis has established that, even within states, the hospitals with the largest uncompensated care burdens often do not have the largest Medicaid patient loads, and vice versa.

Because the Medicaid and Medicare SSI ratios are simply added together to form the low-income share, the current system

gives more than proportionate weight to the amount of care provided to poor Medicare patients. Patients eligible for SSI account for only about 4 percent of total days, compared with 14 percent for Medicaid. But 8 percent of Medicare days are accounted for by SSI eligibles, and this larger ratio is used in calculating the low-income shares.

Due to concerns about specific groups of hospitals, the Congress has enacted nine different DSH formulas. That has resulted in a highly complex program along with questionable equity of payments; hospitals with the same share of low-income patients can have substantially different payment adjustments. In particular, current policy favors hospitals located in urban areas; almost half of urban hospitals receive DSH payments compared with only about a fifth of rural facilities. In addition, urban hospitals with at least 100 beds benefit from steeply graduated payment adjustments, while rural and small hospitals receive lower, fixed adjustments. Consequently, more than 95 percent of all DSH payments go to urban hospitals. Among rural facilities, the payment add-on is higher for those that have qualified for special Medicare payments as sole community hospitals or rural referral centers.

In addition, public hospitals that receive at least 30 percent of their net revenue from indigent care funds provided by state or local governments (with Medicaid payments not counted as such funds) qualify for a special DSH payment rate. Public hospitals may also qualify under the normal criteria. This provision, known as the "Pickle provision" for the Congressman who initially proposed it, is currently used to determine DSH payments for only eight hospitals. However, two recent court cases have found that HCFA's interpretation of Congressional intent is incorrect. Rather than requiring that state and local subsidies account for 30 percent of total patient care revenue, the courts' interpretation is that such subsidies need only comprise 30 percent of patient revenue *other than Medicare and Medicaid payments*. If upheld on appeal,

11 This discussion is confined to the DSH adjustment made on operating payments under PPS. There is also a DSH adjustment to capital payments, which is based on the same underlying measure of low-income share but has a different distribution formula and involves a much smaller amount of money.

this ruling could substantially increase the number of hospitals that qualify for DSH payment under the Pickle provision, which would create even more inconsistency in the payments received by hospitals treating similar shares of low-income patients.

All of the current DSH formulas have a large payment “notch,” or substantial jump in payments when a hospital’s low-income share crosses the threshold. This also produces inequities. For example, an urban hospital with at least 100 beds receives a 2.5 percent add-on to its PPS payments if its low-income patient share is 15 percent (the threshold for that group), but gets nothing if its share is 14.9 percent. Most rural facilities receive a 4 percent adjustment if they can meet the much higher threshold of 30 percent low-income share, but again will get nothing with a share that is just slightly lower.

The primary impetus for our decision to recommend changes in the DSH adjustment is the problem with the underlying measure of low-income share. As discussed earlier, the Medicaid component of the low-income share measure has never been considered an accurate indicator of a hospital’s overall care to the nonelderly poor, and it appears that the problem can only get worse in the future. In addition, we question the policy of favoring urban over rural hospitals in the distribution of DSH payments in light of the broader purpose now attributed to the adjustment.

## Recommendations

Our recommendations are based on the general understanding about the purpose of DSH payments that has evolved over time—that the DSH adjustment is meant to protect access to care for Medicare beneficiaries by providing additional funds to hospitals whose viability might be threatened by their providing care to the poor. The first two recommendations deal with the basic structure of the adjustment and the formulas governing how payments are distributed. Table 3-4 compares some of the key provisions of these recommendations with features of the current system. The last recommendation addresses the data that

will be needed to implement the system we envision.

### Structure of the disproportionate share adjustment

The first recommendation addresses the basic structure of the DSH adjustment, including the underlying measure of care to the poor on which it is based.

#### RECOMMENDATION 3C

**The Congress should require that disproportionate share payments be distributed according to each hospital’s share of low-income patient costs, defined broadly to include all care to the poor. The measure of low-income costs should reflect:**

- **Medicare patients eligible for Supplemental Security Income, Medicaid patients, patients sponsored by other indigent care programs, and uninsured and underinsured patients as represented by uncompensated care (both charity care and bad debts).**
- **Services provided in both inpatient and outpatient settings.**

**As under current policy, disproportionate share payment should be made in the form of an adjustment to the per-case payment rate. In this way, the total payment each hospital receives will reflect its volume of Medicare patients.**

The policy of linking the DSH payment a hospital receives to both its low-income share and volume of Medicare patients helps to target payments toward the hospitals in most need while protecting Medicare patients’ access to care at the facilities they use.

The measure of low-income patient share should include poor Medicare patients and patients covered by any

indigent care program, as well as those who receive uncompensated care. Low-income Medicare patients would continue to be identified by their eligibility for SSI payments. Indigent care programs would include Medicaid and other programs sponsored by city, county, or state governments. All other low-income patients would be represented by uncompensated care, reflecting the unpaid bills of uninsured patients as well as deductibles and copayments that privately insured individuals fail to pay.

Because program eligibility criteria vary among states and localities, the relative sizes of these four groups of patients also vary. In particular, hospitals’ uncompensated care burdens tend to be greater when Medicaid eligibility and coverage are limited. Thus, the omission of uncompensated care from the current measure has kept some of the most financially stressed hospitals from receiving the most help from the DSH adjustment. Local indigent care programs provide insurance for a substantial number of poor people in some areas, but payments often cover only a fraction of the costs of care. Omitting patients covered by these programs from the low-income share measure may also shortchange some of the neediest hospitals. For these reasons, the low-income share measure needs to encompass the entire low-income patient population.

The current DSH payment system contains two features designed to compensate for the current low-income share measure not accounting for uncompensated care or local indigent care programs other than Medicaid. One is the Pickle provision, which as noted earlier provides certain public hospitals with an alternative method of qualifying for DSH payments, and the other is a progressive payment formula that increases payments more than proportionally as low-income share rises. With uncompensated care and local indigent care programs accounted for directly in the measure of low-income share, our analysis suggests that these special provisions will no longer be needed.

A measure of provider costs is the best way to determine the amount of care



**TABLE  
3-4**

**Comparison of methods for distributing disproportionate share payments: current policy and MedPAC recommendations**

Feature	Current policy	MedPAC policy recommendations
Form of payment	Percentage add-on to the per-case payment rate	No change
Patient groups reflected in the low-income share measure	Medicare patients eligible for Supplemental Security Income and Medicaid patients	Current groups, plus patients covered by other indigent care programs and patients receiving uncompensated care
Type of care included in the low-income share measure	Inpatient	Inpatient and outpatient—to reflect the broader role of hospitals in protecting access to care
Unit of measure for low-income care	Patient days	Costs—to reflect more accurately the resources hospitals devote to caring for the poor
Formulas for distributing payments	Nine widely differing formulas for groups by urban/rural location, bed size, and eligibility as a sole community hospital or rural referral center	One formula—so that all hospitals with a given low-income share receive the same payment add-on
Special treatment for public hospitals	Alternative eligibility criterion provided, to make up for low-income shares omitting uncompensated care (the Pickle provision)	None needed—the measure of care to the poor includes uncompensated care
Treatment of hospitals with low-income share just above the minimum threshold	Large payment adjustment at the threshold, nothing just below it, creating a “notch effect”	Small payment adjustment at the threshold, with a smooth progression toward higher payments as low-income share rises

furnished to low-income patients. The costs associated with each of the four groups representing low-income patients (defined earlier) could simply be summed to arrive at an approximation of the total costs of treating the poor, with each group automatically weighted appropriately. Those costs as a percent of the hospital’s total patient care expenses would then reflect the share of resources the hospital devotes to caring for the poor. The current approach of measuring patient days may distort the measure of care to the poor and is not appropriate for uncompensated care (because hospitals can waive payment on a portion of a patient’s bill) or for outpatient care.

While it clearly seems appropriate to use some measure of uncompensated care

to represent low-income patient care in the private sector, whether the measure should be limited to charity care (meaning the patient was deemed unable to pay) or should also include bad debts (meaning the patient was considered able to pay but did not do so) is a difficult question. Ideally, amounts that patients can reasonably be expected to pay should be excluded in calculating a hospital’s low-income share. But because the income and asset criteria hospitals apply in determining eligibility for charity care vary widely, patients who are expected to pay in some hospitals might be eligible for charity care in others. Some facilities reportedly attempt to collect from nearly all patients to avoid them having the stigma of being labeled as eligible for charity. Moreover, many

patients have incomes only marginally above the poverty standards used and realistically cannot afford the costs of major medical episodes.

An equally important consideration in answering this question is the difficulty of developing separate measurements of charity care and bad debts. The uniform definitions, record keeping requirements, and auditing procedures required to obtain consistently reported charity care values separate from bad debts would be a substantial burden for hospitals and HCFA alike. Many facilities already report the amount of charity care they provide using state-established criteria that differ from those they use for internal reporting and financial management. MedPAC’s approach would avoid

requiring them to develop yet a third estimate of charity care defined by Medicare’s criteria. Considering the practical problems involved—both definitional and measurement—we believe that it is necessary to include both charity care and bad debts in the measure of care to the poor.

In our proposed measure, the costs hospitals incur in treating indigent patients would not be offset by the payments they receive. The full value of services to the poor would be used to determine each hospital’s low-income patient share and the per-case payment add-on it receives. We recognize that some jurisdictions provide more funding than others to hospitals that care for the poor. But this approach would avoid creating an incentive for state and local governments to reduce their funding for Medicaid payments, local indigent care programs, charity care pools, or operating subsidies for public hospitals. It also would avoid the need to collect data on funding sources that differ widely from area to area.

Although DSH payments would continue to be made only for Medicare inpatient cases, the measure of low-income patient costs should encompass both inpatient and outpatient services.<sup>12</sup> This would help hospitals that provide a substantial amount of outpatient care that is uncompensated or covered by Medicaid, and thus more accurately identify the institutions that are most vulnerable due to treating the poor. It also would recognize that many hospitals are unable to separate their inpatient and outpatient costs accurately, particularly for uncompensated care.

### **Distribution of disproportionate share payments**

The next recommendation addresses the principles that should govern how DSH payments are targeted to specific hospitals, given each hospital’s low-income share value.

## **RECOMMENDATION 3 D**

**Through a minimum threshold for low-income share, the formula for distributing disproportionate share payments should concentrate payments among hospitals with the highest shares of poor patients. A reasonable range for this threshold would be levels that make between 50 percent and 60 percent of hospitals eligible for a payment. The size of the payment adjustment, however, should increase gradually from zero at the threshold. The same distribution formula should apply to all hospitals covered by prospective payment.**

The Commission believes the objective of protecting Medicare patients’ access to hospital services is best met by concentrating DSH payments on Medicare cases in the hospitals with the largest low-income patient shares. This can be done by establishing a minimum value, or threshold, for the low-income share that a hospital must have before payment is made. Our analysis shows that using a threshold in conjunction with the expanded measure of low-income patient costs helps to direct the payments to hospitals that are currently under the most financial stress (MedPAC 1998b).

At the same time, it is best to avoid creating a payment “notch” at the threshold, as found in each formula under current policy. This not only produces inequitable results, but creates an incentive for hospitals with shares just below the threshold to pursue strategies aimed at increasing their values slightly. A notch effect can be avoided by making the per case adjustment proportional to the difference between the hospital’s low-income share and the threshold.<sup>13</sup> In this way, a hospital falling just above the threshold would receive only a minimal

increment above its base payment, with the percentage add-on rising in smooth progression as low-income share increases from that point.

About 50 percent of urban hospitals currently receive some DSH payment. However, this degree of concentration reflects the notch effect—any hospital eligible for a DSH payment receives at least a 2.5 percent payment add-on. With some hospitals receiving a smaller add-on under our approach, a greater proportion of hospitals would have to be eligible for those with the largest low-income shares to receive a proportion of the DSH funds similar to what they currently receive. This is one consideration in recommending a threshold that would make between 50 percent and 60 percent of PPS hospitals eligible for DSH. MedPAC’s analysis shows that a threshold in this range would concentrate payments among the hospitals with the greatest proportion of care to the poor while minimizing the disruption caused by a massive redistribution of payments.

Using a threshold in the recommended range would modestly increase the proportion of DSH payments going to the urban public facilities that form the backbone of the nation’s safety net. At the same time, a system allowing between 50 and 60 percent of hospitals to receive a DSH adjustment would support those with mid-level low-income shares to a greater degree than a more restrictive system. These mostly voluntary hospitals play an important role collectively in the safety net without having access to public funds to offset their uncompensated care costs.

Applying the same formula in distributing DSH payments to all hospitals would help protect access to care for all Medicare beneficiaries, regardless of the size or location of the hospitals they use. As mentioned previously, some of the formula differences in the current system resulted

12 While the recommendations discussed here apply only to inpatient payments, the same low-income patient share measure and method for distributing DSH payments could be adopted for use with a Medicare prospective payment system for outpatient services.

13 For example, if the threshold were 20 percent, a hospital with a low-income share of 30 percent (10 points above the threshold) would receive a percentage add-on to its base PPS payment twice that of a hospital with a low-income share of 25 percent (5 percentage points above the threshold).

from attempts to make up for deficiencies in the low-income share measure, which should not be necessary under MedPAC's proposal. Further, the much higher minimum thresholds that rural hospitals must meet in the current system would not be appropriate under a policy based on ensuring access to care. Access is a critically important consideration in all geographic areas, and the average cost share devoted to treating low-income patients is roughly equal in urban and rural areas.

## Data collection to support disproportionate share reform

To implement the proposed low-income share measure, HCFA would have to collect low-income patient cost data from each PPS hospital. Accurate and consistent data are not available from existing secondary sources.

### RECOMMENDATION 3 E

#### The Secretary should collect the data necessary to revise the disproportionate share payment system from all hospitals covered by prospective payment.

The required low-income patient cost data could be obtained by straightforward means, without using a complex cost allocation process like that in the Medicare Cost Report. Each hospital's low-income share could be estimated by dividing charges for care to the groups of patients representing the poor (Medicare SSI, Medicaid, other indigent care programs, and uncompensated care) by total patient charges. Because Medicare requires that hospitals use the same price schedule for all patients in preparing their cost reports, regardless of the amount of payment received or its source, this approach should produce consistent estimates of the share of resources devoted to treating the poor across all hospitals.<sup>14</sup>

The only data needed would be

charges for each relevant patient group along with total patient care charges. Charges for low-income Medicare patients would be estimated by multiplying each hospital's total Medicare charges by its ratio of SSI patient days to total Medicare days. A system is already in place to compute these hospital-specific SSI ratios for the current DSH payment system.

Initially, data would be needed from all PPS hospitals to evaluate, and possibly to recalibrate, the payment formula. On an ongoing basis, however, it would be necessary only to require reports from hospitals that expect to receive a DSH payment, which would minimize the resources hospitals and HCFA need to devote to data development.

The Secretary would need to develop uniform definitions and reporting instructions to govern hospitals' reporting of charge data. Several key definitional guidelines would include:

- All charges incurred by a patient must be assigned to a single primary payer (meaning, for example, that the charges associated with days of care beyond the number of days a Medicaid program will pay for are still assigned to Medicaid).
- The contractual discounts of Medicare, Medicaid, and local indigent care programs cannot be included in uncompensated care.
- Courtesy discounts (such as those given to employees or clergy) cannot be included as uncompensated care.

In addition, the Secretary would have to decide whether hospitals can include the unreimbursed portion of Medicare bad debts. Medicare has historically reimbursed all of the bad debts resulting from beneficiaries failing to pay their coinsurance, but the BBA reduces this compensation to 55 percent of the uncollected amount by fiscal year 2000.

A sample of hospital reports would need to be audited each year. However, several aspects of the Commission's

proposal should increase the likelihood that hospitals would be able to comply with the reporting requirements, thereby reducing the scope and intensity of the auditing effort. By far the most important is including total uncompensated care—bad debts along with charity care—in the low-income share measure. This approach eliminates the need for HCFA to develop and enforce uniform income and asset criteria for defining charity care, and for hospitals to apply the criteria and meet attendant recordkeeping requirements. Hospitals would need only to report their total uncollected charges, something they already do routinely. Extending the low-income share measure to include outpatient care would also minimize reporting problems because many hospitals have difficulty separating their inpatient and outpatient uncompensated care charges.

One of the most commonly cited problems in the reporting of charges or costs by payer is changes in patients' principal source of payment. Standard accounting procedure calls for assigning charges to whatever primary payer the patient identifies on admission. That source often changes, however, and not all data systems can reassign charges accordingly. The broad low-income share measure we are recommending should help to minimize the effect of this potential problem because the majority of payer assignment problems involve changes among low-income patient groups.

The most common problem of changing primary payer occurs when uninsured patients are initially authorized to receive charity care but later are determined eligible for Medicaid. A hospital's failure to reassign charges in this situation would not cause a problem because only the sum of charges across low-income patient categories is needed. Ensuring that uncompensated care charges are offset by any payments received later from a private insurer, a routine part of the collections process, would be the most important concern.

<sup>14</sup> Hospitals would have an incentive to raise their charges for services used more frequently by poor patients. The effects of this incentive could be largely offset, however, by implementing our recommendations on a budget neutral basis. This would require a conversion factor, which could be recalibrated periodically based on the systemwide total of DSH payments.

HCFA has expressed the concern that including bad debts in the measure of low-income patient costs would encourage some hospitals to relax their collection efforts, thereby increasing Medicare's DSH payments. But we believe that including bad debts would not materially weaken the incentive to attempt collection. For the majority of hospitals, the amount of additional DSH payment that might be received by forgoing collection efforts would be dwarfed by the amount they stand to gain from the patient. These institutions, therefore, can be expected to continue their collection attempts. The few

hospitals with very large low-income shares, on the other hand, rarely serve the type of patients for whom aggressive collection would be worthwhile. Whether labeled bad debt or charity care, these hospitals' unpaid bills generally emanate from medically indigent patients who are appropriately reflected in any measure of low-income share.

A final data collection issue is that hospitals would need to capture the costs of Medicare and Medicaid managed-care patients, which means that they must determine these patients' sponsorship at

the time of admission. Hospitals already need to identify Medicaid managed-care patients to avoid being shortchanged on their DSH payments, and our proposal would extend this requirement to Medicare managed-care enrollees.<sup>15</sup> It would not be appropriate to rely on patients to report their own coverage status; the health plan must provide the information necessary for the hospital to count these patients. A relatively simple way to do this is to include a sponsorship code in each patient's insurance identification number. ■

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15 Teaching hospitals already need to identify Medicare managed care patients if they want to receive direct or indirect medical education payments for these admissions. Thus, only nonteaching hospitals would have a new data collection task for care provided to managed care enrollees as a result of our DSH recommendations.

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