Statement of
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There has been considerable interest lately in the claim that hospitals are making substantial, and partially undeserved, "profits" under Medicare's prospective payment system (PPS). This was not an issue previously, when Medicare paid hospitals only for the costs they incurred in treating beneficiaries. Now, however, profits and losses are possible, because hospitals receive fixed payments for each patient that may exceed or fall short of their costs.

Following a brief description of the PPS, my testimony will address three aspects of this issue:

- The Congressional Budget Office's (CBO's) preliminary estimates of operating margins on Medicare's PPS payments in 1984, as well as their sources and their distribution;
- Projections of these operating margins for 1985 through 1987; and
- The implications of these findings for possible changes to the PPS.

**BACKGROUND**

In passing the Tax Equity and Fiscal Responsibility Act of 1982 (TEFRA), the Congress laid the groundwork for the PPS, which was enacted as part of the Social Security Amendments of 1983. Both actions were prompted by an unacceptably high growth rate in Medicare's outlays for hospital costs, which averaged 18 percent a year between 1975 and 1982, or 8 percent a year above general price inflation. Moreover, concern was widespread that the previous cost-based reimbursement system did not encourage the efficient provision of care, and that it was not improving beneficiaries'
health in relation to federal spending. In particular, cost reimbursement encouraged hospitals to provide all services that had any benefit at all—not just those that were worth more than they cost.

The main objectives of the PPS are to lower the growth rate of Medicare's payments to hospitals and encourage efficiency in the provision of hospital care, while not adversely affecting its quality. It attempts to do so by specifying payment rates in advance and requiring hospitals to bear the loss if their costs are higher. In exchange, hospitals are allowed to keep the difference if their costs are lower than the payments. Thus, hospitals face strong financial incentives to provide care as efficiently as possible. Peer review organizations monitor the quality of care.

In principle, the fully implemented PPS promises to pay hospitals an amount for each patient, or case, equal to the cost of treatment in an efficiently run hospital. 1/ Because costs vary among equally efficient hospitals for several legitimate reasons, the system also includes numerous adjustments according to various characteristics of hospitals. As a result, Medicare's payments for the same type of case differ considerably among hospitals.

1. Some costs and some institutions are exempt from the PPS. Capital-related costs, such as depreciation and interest payments, and the direct costs of graduate medical education programs continue to be reimbursed separately. Moreover, children's hospitals, rehabilitation centers, and psychiatric hospitals are exempt from the PPS.
Specifically, the PPS sets fixed payment rates in advance for each of 471 categories known as diagnosis-related groups (DRGs) that were designed to reflect the value of resources used to treat different types of conditions. During a four-year transition, the prospective amounts have been based on a combination of hospital-specific, regional, and national PPS rates, with the hospital-specific portion reflecting each hospital's own pre-PPS costs. Starting with hospitals' fiscal years that begin in federal fiscal year 1988, however, payments will be based on national rates only. These rates will continue to be calculated separately for urban and rural areas and adjusted for differences in wage levels among geographic areas, for the size of an institution's in-hospital training program for physicians, and if a disproportionately large share of the hospital's patients have low incomes.

The national rates are based on the average cost per case in 1981, inflated to represent later years. Unfortunately, these data reflect the inefficiencies that had developed under the previous retrospective cost reimbursement system.

2. The last year of the transition will begin for all participating hospitals during federal fiscal year 1987. In this year, 75 percent of each hospital's payment is based on a combination of regional and national rates, while the remainder is based on its hospital-specific rate.

3. The same data, which had not been audited, were used to set the regional rates. Audited data on hospital costs in 1982-1983 were used to set the hospital-specific amounts.
A process for updating the payment rates in subsequent years was also established. For 1985, Medicare's PPS rates were increased by the amount estimated to result in the same payments to the hospital industry as a whole as would have occurred under TEFRA. 4/ For fiscal year 1986 and beyond, however, the Secretary of Health and Human Services (HHS) was given discretion over the percentage change in the payment rates—often referred to as the "update factor." In addition, an independent Commission—the Prospective Payment Assessment Commission (ProPAC)—was established to make recommendations about the PPS, including each year's update factor, that the Secretary is to consider in making final decisions.

The methodologies established by both the Administration and ProPAC to determine their update factors for 1986 and beyond have two basic components. One is a measure of change in the prices of goods and services purchased by hospitals—often called the hospital's market basket. The second is a composite factor (called the discretionary adjustment factor by ProPAC), which is based on changes in technology, productivity, and cost effectiveness, as well as on forecasting errors in the payment rates for previous years. While the inflation or market-basket portion of the update factor is generally expected to be positive, the composite factor can be either positive or negative. In addition, the Administration and ProPAC recommended different ways to adjust the 1986 and 1987 payment rates to

4. Total PPS payments for 1984 were also supposed to match the outlays that would have occurred under TEFRA. TEFRA limited the growth of hospital reimbursement per admission for 1983, 1984, and 1985 to the rise in prices for the goods and services hospitals purchase as inputs, plus one percentage point for other factors such as cost-increasing advances in technology.
reflect improved coding of patients into DRGs by physicians and hospitals.
In the end, the Congress enacted a 0.5 percent increase for 1986 and a 1.15 percent increase for 1987.

**OPERATING MARGINS ON HOSPITALS' PPS PAYMENTS IN 1984**

Hospitals' 1984 operating margins, defined as:

\[
\frac{\text{revenues} - \text{costs}}{\text{revenues}} * \]

were determined by several factors. 5/ Because aggregate PPS payments were intended to match the outlays that would have occurred under TEFRA, they were expected to be lower than the operating costs that hospitals as a group were experiencing when the system first went into effect. On the other hand, policymakers hoped that hospitals would respond to the new incentives, at least by enough to lower aggregate costs to the TEFRA limits, and possibly by more. In the former case, the average operating margin would have been zero; in the latter case, it would have been positive.

Based on recently available data, CBO estimates that the average operating margin on Medicare's PPS payments during federal fiscal year 1984 was actually 12.0 percent. 6/ In other words, on average, the cost of treating each Medicare case was 88 percent of the PPS payment.

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5. A hospital's margin is not the same as its profit rate, which is the difference between revenues and costs divided by costs. For example, a margin of 10 percent is equivalent to a profit of 11.1 percent, while a margin of 15 percent is equivalent to a profit of 17.6 percent.

6. Maryland, Massachusetts, New Jersey, and New York hospitals are omitted from these calculations, because they were exempted from the PPS by waiver in 1984. The average margin is calculated by weighting hospitals according to their PPS payments.
Some hospitals have also been affected, however, by a decline in the number of Medicare beneficiaries they are treating. Although the average drop in admissions between 1983 and 1984 was 1.6 percent, larger reductions for some hospitals may have noticeably offset their operating margins per case.

Factors Contributing to Hospitals' PPS Operating Margins

The most important factor contributing to hospitals' operating margins on PPS payments in 1984 was the decrease in their costs relative to what was expected when the system was designed (see Table 1). Hospitals' actual costs were about 10 percent lower than the projections on which the national and regional payment rates were based, and 6 percent lower than the projections on which the hospital-specific rates were based. 7/ Some of these cost reductions almost certainly came from increased efficiency—that is, providing the same quality of care using fewer resources or lower priced resources—as envisaged by the system's designers. In addition, certain costs that were included in setting the payment rates may have been shifted to outpatient settings. For example, some laboratory tests and x-rays that previously occurred after admission may now take place beforehand. Such "site-shifting" activities would mean, in effect, that double payment is occurring. Medicare would be continuing its inpatient reimbursement for services actually performed outside of that setting, even though these services were also paid for separately by some combination of

7. The average 1984 cost per case for hospitals in the PPS system was expected to be $3,360 based on the 1981 data and $3,200 based on the 1982-1983 data. It was actually only $3,025.
Medicare, the patients, and their families. Finally, beneficiaries may have received a lower quality of care. Unfortunately, it is not yet possible to estimate the extent to which these three factors contributed to the overall reduction in costs, and a final determination may never be possible.

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**TABLE 1. HOSPITALS' OPERATING MARGINS ON PPS PAYMENTS BY SOURCE, FISCAL YEAR 1984 a/**

<table>
<thead>
<tr>
<th>Source</th>
<th>In Percent Per Case</th>
<th>In Dollars Per Case</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cost Reductions b/</td>
<td>5.5</td>
<td>190</td>
</tr>
<tr>
<td>1981-1984 Case Mix Increases Not Accompanied by Cost Increases c/</td>
<td>2.5</td>
<td>85</td>
</tr>
<tr>
<td>Use of Unaudited 1981 Cost Data in Setting 1984 Payments d/</td>
<td>1.0</td>
<td>35</td>
</tr>
<tr>
<td>All Other Factors e/</td>
<td>3.0</td>
<td>105</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>12.0</strong></td>
<td><strong>415</strong></td>
</tr>
</tbody>
</table>

**SOURCE:** Congressional Budget Office.

a. Operating margin is **defined** as payment per case, minus cost per case, divided by payment per case.

b. Difference between 1981 costs per case projected to 1984, which served as the basis for setting the national and regional rates, and **1984** actual cost per case.

c. Effect on margins of the difference between 1984 case mix and 1981 case mix after accounting for any contributions of higher case mix to actual 1984 costs.

d. According to estimates by the General Accounting Office and CBO, the regional rates for 1984 would have been 3 percent to 5 percent lower, if audited data had been used.

e. Other factors include errors in forecasting, the increase in the cost of the market basket, as well as interactions among the factors shown separately above.
Another 2.5 percent of the 1984 operating margins is attributable to the rise in the average "case mix" of hospitals that occurred because patients were placed in DRGs with higher payment rates, on average, than had occurred before. 8/ About three-quarters of this increase in the average case mix came about because hospitals had much stronger incentives to code patients accurately than when the DRG classification did not affect their receipts from Medicare. Because hospitals did not incur any greater costs than they had previously, however, their operating margins rose. In contrast, about one-fourth of the increase in the average case mix resulted from other factors, such as some less costly procedures being shifted to outpatient settings. 9/ Because this portion was accompanied by an increase in hospitals' average costs, it did not contribute to their operating margins.

Another 1 percent of the operating margins is the result of the 1984 regional PPS rates being based on hospitals' costs from unaudited 1981 reports, which subsequent analyses reveal were too high. 10/ The remaining 3.0 percent of hospitals' operating margins stems from a variety of factors.

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8. A hospital's "case mix" is a number that reflects the resource intensity of its patients. It is based on the distribution of the hospital's patients among the various DRGs.

9. Another possible factor is the aging of Medicare beneficiaries.

10. The General Accounting Office found they were about 3 percent too high. See "Use of Unaudited Hospital Cost Data Resulted in Overstatement of Medicare's Prospective Payment System Rates," Report to Congress, July 18, 1985. In addition CBO estimates that, if the audited 1982-1983 data had been used instead, the regional rates would have been 4 percent to 5 percent lower.
including forecasts of inflation in the cost of the hospitals' market basket that were higher than actually occurred.

Differences in Margins for Groups of Hospitals

While the average operating margin on PPS payments is 12 percent, the values for certain groups of hospitals differed considerably. Urban hospitals—which represent about 50 percent of hospitals, but account for over 80 percent of PPS payments—had an average operating margin of 13.1 percent. In sharp contrast, the average margin for rural hospitals was 6.6 percent, or about one-half that of urban hospitals (see Figure 1). In addition, the operating margins of teaching hospitals were noticeably higher than those of nonteaching hospitals—15.4 percent for major teaching hospitals and 13.8 percent for minor teaching hospitals, compared with 10.2 percent for nonteaching ones. 11/

The considerable variation in operating margins between urban and rural, and teaching and nonteaching, hospitals results from the same factors that explain the average margin. For example, costs for urban hospitals dropped by 6.2 percent, while costs for rural hospitals were only 3.8 percent lower. In addition, the average case mix of major urban hospitals rose by 7.9 percent, compared with 5.4 percent for rural hospitals. Finally, although

11. Differences in operating margins would also be observed for hospitals with varying numbers of beds or located in different census divisions. These differences are explained by the varying proportions of urban hospitals and teaching hospitals in these groups—not by the size of the hospital or its region. Major teaching hospitals are defined as those with 25 or more interns and residents for each 100 beds; minor teaching hospitals have smaller programs.
Figure 1. Hospitals' Operating Margins on PPS Payments by Selected Characteristics, 1984

Source: Preliminary Congressional Budget Office estimates.
only 25 percent of the 1984 payment was affected by the indirect teaching adjustment, it was deliberately set above the level estimated to account for teaching hospitals' extra operating costs for patient care. 12/

PROJECTED OPERATING MARGINS ON PPS PAYMENTS, 1985-1987

Although it is not yet possible to estimate accurately the operating margins of hospitals on PPS payments after 1984, CBO has prepared some illustrative projections of these margins under several assumptions about the behavior of payments and costs.

Most factors that determine PPS payments are specified in advance by legislation or regulation; some uncertainty in these projections remains, however, because changes in hospitals' average case mix are known only after their bills are filed. 13/ Consequently, CBO's projections consider two alternatives:

- All changes in the average case mix of hospitals after 1985 were accompanied by matching cost increases; and
- Over and above this type of change, the average case mix rose 1.5 percent for 1986 and 1.0 percent for 1987.


13. In 1985, the average case mix rose by 5.1 percent. Cost increases are estimated to have accompanied about 2.5 percentage points of this change.
There is considerably more uncertainty about how hospitals' costs have changed, since they are subject to many forces such as changes in input prices, greater efficiencies in operation, adoption of new technologies, and changes in the overall level of admissions. 14/ As a result, the projections are based on the same increases in the cost of the hospitals' market basket, but consider four different assumptions about the degree to which the cost reductions for the first year of PPS were reversed or continued:

- Declining admissions and changes in technology together accounted for an annual increase in costs of 1 percentage point for 1985 through 1987;
- All factors other than the change in the cost of the market basket exactly offset one another each year.
- Overall costs after 1984 rose at the rate of increase in the cost of the market basket minus 2.5 percentage points for 1985, minus 1 percentage point for 1986, and minus 1 percentage point for 1987; and
- Additional efficiencies were achieved that approximately equaled those achieved by specifically, overall costs grew by the increase in the cost of the market basket minus 4 percentage points for 1985, minus 2 percentage points for 1986, and minus 1 percentage point for 1987.

Table 2 shows the operating margins that would occur under combinations of the assumptions about the average case mix and hospitals' costs. 15/ The projected rise in margins for 1985—to between 17.6 percent and 19.4 percent—also results from the larger proportion of payments that

14. The recent overall decline in admissions may contribute to rising costs per case, as fixed costs are spread over fewer patients. Total admissions are estimated to have fallen by 5.1 percent in 1985 and by 2.5 percent in 1986.

15. The estimates exclude Massachusetts and New York because of a lack of data, even though they entered the PPS in 1986. Maryland and New Jersey are also excluded because they remain exempt from the PPS by waiver.
| Post-1984 Costs Reflect Changing Input Prices and Small Net Cost Increases |
|---|---|---|
| Case Mix Increases in 1985, Constant Thereafter | 17.6 | 15.7 | 12.8 |
| Case Mix Increases Through 1987 | 17.6 | 17.2 | 13.8 |

| Post-1984 Costs Reflect Changing Input Prices and No Net Cost Reductions |
|---|---|---|
| Case Mix Increases in 1985, Constant Thereafter | 17.6 | 16.6 | 14.5 |
| Case Mix Increases Through 1987 | 17.6 | 18.1 | 15.5 |

| Post-1984 Costs Reflect Changing Input Prices and Some Net Cost Reductions |
|---|---|---|
| Case Mix Increases in 1985, Constant Thereafter | 18.8 | 18.5 | 17.3 |
| Case Mix Increases Through 1987 | 18.8 | 20.0 | 18.3 |

| Post-1984 Costs Reflect Changing Input Prices and Larger Net Cost Reductions |
|---|---|---|
| Case Mix Increases in 1985, Constant Thereafter | 19.4 | 19.9 | 18.8 |
| Case Mix Increases Through 1987 | 19.4 | 21.4 | 19.8 |

SOURCE: Congressional Budget Office.
was based on the regional and national rates and from some errors in forecasting inflation. For 1986 and beyond, the projected margins generally move downward slightly. This decline takes place because legislated updates in payments were below the change in the cost of the market basket by 2.6 percentage points in 1986 and 2.4 percentage points in 1987, and because of the assumptions about hospitals' costs and their average case mix. The range of uncertainty about the cumulative effects of these forces widens the band of possible margins for the later years.

Operating margins for 1988 would be 2 percent lower than the illustrations for 1987, if the only additional factor affecting them were the legislated increase in payment rates that is set at 2 percent less than the rise in the cost of the market basket. But other factors such as higher or lower costs would also affect the margins. Moreover, their pattern will not be the same in 1988 as is shown in Figure 1 for 1984 for various types of hospitals. One reason is that payments will be based entirely on national rates, so they will be redistributed among hospitals with different characteristics. In addition, little is known about the distribution of cost changes among types of hospitals.

**IMPLICATIONS FOR CHANGES TO THE PPS**

The substantial operating margins on Medicare's payments to hospitals—in 1984 and most likely in subsequent years as well—have some generally acknowledged implications, but they raise other issues for the design of the PPS over which there is considerable disagreement.
One of the most important implications concerns federal expenditures, because these margins suggest that PPS payments could be reduced compared with continuing current policies. In fact, it is generally agreed that the payment rates should be adjusted to reflect several factors that have contributed to increases in the operating margins of hospitals. First, the increment in payments from increases in the measured case mix that were not accompanied by additional costs should be removed. Second, any site-shifting that lowered hospitals' costs should lead to lower PPS outlays, regardless of how payments for the services delivered in other sites are split among Medicare, the beneficiaries, and their families. Finally, forecasting errors that led to incorrect rates being set should be corrected in subsequent periods. (Although both ProPAC and the Secretary of HHS followed these principles in determining the update factors for 1986 and 1987, the downward adjustments actually made to the PPS rates were smaller than recent data suggest were warranted.)

A much more fundamental issue is how the gains from greater efficiency should be divided between the hospitals and the federal government, the latter operating on behalf of taxpayers and beneficiaries. The hospital industry argues that it should keep most or all of these gains as a reward for its increased efficiency. In their view, this portion of the current operating margins is largely the complement of the risk of losses if costs were not controlled. On the other hand, because the initial PPS rates were based on average costs and reflected the inefficiencies that had been fostered under retrospective cost reimbursement, others argue that
taxpayers or beneficiaries should receive most of the gains from increased efficiency.

While there is general agreement that incentives for hospitals to achieve greater efficiency should be maintained, the implications of this view for dividing the gains from efficiency are also sharply debated. Industry representatives contend that if hospitals were not allowed to retain most or all of the gains, they would lose their incentives to be efficient. Others point out, however, that from 1984 through 1987 lags in the availability of data meant that payment rates remained above the levels at which it now appears that care can be delivered efficiently. Since these lags could, at best, be shortened, hospitals would permanently retain part of the gains from efficiency, even if the PPS rates were always cut to absorb all of them as soon as the data were available to measure them.

A third argument concerns the fact that the PPS system, despite its complexity, still falls short of adjusting for all legitimate sources of variation in hospitals' costs. For example, it appears that the wage index does not adequately reflect differences among localities and that the DRG classification does not fully account for severity of illness and, hence, for the costliness of different types of patients. Therefore, some hospitals may have high PPS margins, while others have much smaller or negative ones, even though they are equally efficient.
In response, industry representatives argue that aggregate operating margins should remain high as a "cushion" for hospitals that might otherwise be adversely affected by deficiencies in the PPS rates. They emphasize that the adverse consequences that might result from these deficiencies—such as lower quality of care or reduced access for some beneficiaries—are more likely to occur if the average operating margin is substantially reduced. Opponents of this viewpoint acknowledge the imperfections in the present rates, but want to focus effort on improving the measurement of legitimate differences in costs. They point out that inflating the margins of all hospitals also benefits those that are gaining from the current deficiencies in the system, so they believe that at most a small "cushion" should be provided as a temporary measure.

Yet another factor to consider is that the overall health care system is changing rapidly, with the potential for some undesirable outcomes. For example, many in the Congress are concerned about the provision of uncompensated hospital care for the medically indigent. Although it has always been Medicare's tradition to pay only for Medicare patients, some of the current operating margins on PPS payments may be cross-subsidizing uncompensated care. In this case, if the Congress decides to restrain PPS payments, it may want to consider new initiatives for uncompensated care at the same time.

Perhaps the clearest implication is that having data available more rapidly would reduce the lags between setting the rates and evaluating their
accuracy. Information about 1984 is now being used in setting the 1988 payment rates. Such lags have led both to higher payments, on average, than intended and to variations in payments for different types of hospitals that appear not to be related to differences in efficiency. The principles of the PPS system could be implemented more accurately, if the four-year lag in data were shortened.