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United States General Accounting Office  
Washington, DC 20548

Health, Education, and  
Human Services Division

B-283429

September 1, 2000

The Honorable Pete Stark  
Ranking Minority Member  
Subcommittee on Health  
Committee on Ways and Means  
House of Representatives

Subject: Medicare and Managed Care Plans: Payments and Costs for Selected Hospitals

Dear Mr. Stark:

Hospitals have reported financial difficulties they attribute to Medicare's payment policies since the implementation of several provisions of the Balanced Budget Act of 1997 (BBA), which were intended to slow the growth in Medicare payments to hospitals. Yet Medicare Payment Advisory Commission (MedPAC) and American Hospital Association (AHA) analyses show that even after the BBA, Medicare hospital inpatient payments will, on average, more than cover the costs of treating Medicare beneficiaries.<sup>1</sup> At the same time, in the face of rising health care costs, private payers have increasingly turned to managed care plans to control their health care costs by negotiating provider payments and managing enrollee utilization. In fact, recent MedPAC analyses indicate that between 1997 and 1998, pressures exerted by private payers had a greater effect on hospital financial performance than the slower growth in Medicare payments.<sup>2</sup> This has raised congressional concerns that hospital complaints about Medicare payments are driven, in part, by overall fiscal pressures placed on hospitals by managed care plans.

In this context, you asked us to collect data on Medicare and managed care plan hospital costs and payments. Because information on managed care plan payments and costs is not available from public sources and it is difficult to collect those data, this letter provides information from a group of hospitals that were able and willing to respond to our data

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<sup>1</sup>MedPAC, Report to Congress: Medicare Payment Policy (Washington, D.C.: MedPAC, June 2000), p. 180, and the AHA-commissioned study by The Lewin Group, The Impact of the Medicare Balanced Budget Refinement Act on Medicare Payments to Hospitals (Falls Church, Va.: Feb. 2000), p. 5.

<sup>2</sup>MedPAC, p. xviii.

request.<sup>3</sup> These hospitals, however, are not representative of the industry, and it is important to remember that the experience of the responding hospitals is likely to differ from that of other hospitals. We have summarized this information according to your areas of interest: (1) the relationship between Medicare and managed care plan payments and costs, (2) managed care plan payments and the relative importance of managed care business, and (3) Medicare and managed care plan payments and costs by hospital teaching status.

We contacted over 100 hospitals that had sophisticated cost accounting systems that could provide us with fiscal year 1998 detailed cost and payment information by payer and type of case. The hospitals we contacted tended to be larger, urban hospitals, which were more likely to have a teaching program than the average hospital. Had all these hospitals responded, the data would still not be representative of all hospitals. Despite our repeated attempts to improve the response rate, fewer than half of the hospitals we contacted provided us with complete information. In addition to collecting hospital data, we interviewed industry analysts about hospital and managed care plan contracting strategies. We did not independently verify the data submissions from the responding hospitals. With this exception, our work was completed in accordance with generally accepted government auditing standards between June 1999 and August 2000. (For a detailed discussion of our scope and methodology, see encl. I.)

In brief, for the average hospital responding to our survey, payments from both managed care plans and Medicare covered their respective costs for all types of cases, although there was considerable variation across hospitals in the relationship between payments and costs. Average managed care plan payments per case for inpatient services were lower than average Medicare payments for the types of cases we examined. However, average managed care plan costs per case were also lower than Medicare's. The relationship between managed care plan payments and costs appeared to be associated with the level of managed care enrollment in the responding hospital's market area and the hospital's relative share of inpatient revenues from this payer. Responding hospitals in areas with low managed care plan enrollment or responding hospitals with more managed care plan business were more likely to have higher plan payments, relative to their costs, than other responding hospitals. The average hospital with a large teaching program reported losses from its managed care business, but Medicare payments were well above its costs. Managed care plan payments were more generous than Medicare's to the average responding hospital with a smaller teaching program, although Medicare payments still on average covered its costs.

## BACKGROUND

Hospitals derive their patient revenues from many different payers, including Medicare and state Medicaid programs in the public sector and a number of third-party insurers and managed care plans as well as individual patients in the private sector. Payment rates for Medicare and many Medicaid programs are prospectively established: hospitals are paid a

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<sup>3</sup>MedPAC contracted for a study of provider payments for various services by Medicare and other payers. That contract, however, was recently canceled because many providers were unwilling to complete the survey or unable to provide detailed, accurate data.

basic rate that is adjusted for patient- or hospital-specific factors, regardless of the actual cost of treating a patient.<sup>4</sup> Payment rates from private payers and managed care plans are generally negotiated and vary depending on a number of factors, such as hospital or market characteristics. Although any given managed care plan may constitute a small share of a hospital's inpatient business, collectively these plans may account for a substantial portion of a hospital's revenues.

Because Medicare is the largest single payer for inpatient care, its payments greatly affect the financial performance of many hospitals. Yet the financial health of most hospitals is not determined by Medicare payment rates alone, but rather by a number of other factors, including the extent to which payments from other payers cover a hospital's costs of providing inpatient care and the share of patients covered by each payer.

### Medicare Payments to Hospitals

In 1983, Medicare implemented a prospective payment system (PPS) to slow the growth in Medicare spending for acute hospital inpatient services. Hospitals receive a prospectively determined payment that covers all the required hospital services provided during a Medicare beneficiary's stay. This per-case payment varies depending on the beneficiary's diagnosis-related group (DRG), which is based on factors predictive of expected resource use, including the principal diagnosis or reason for the admission, whether surgery is performed, and whether the patient has certain other illnesses or complications. Payments to a hospital are also adjusted to reflect variation in local wage rates. Other hospital-specific payment adjustments account for the higher costs incurred by facilities with teaching programs<sup>5</sup> and compensate certain hospitals with a disproportionate share of low-income patients (termed the disproportionate share hospital—or DSH—adjustment).

The PPS was intended to provide hospitals with financial incentives to deliver care more efficiently, and hospitals appear to have responded to those incentives. Since 1989, the growth in hospital costs for treating Medicare patients has generally been declining (see fig. 1). By 1992, cost growth fell below payment increases, which contributed to steady improvements in the Medicare inpatient margin—a measure that compares Medicare payments with the costs of treating its beneficiaries.<sup>6</sup> By 1998, the last year for which actual data are available, the aggregate inpatient Medicare margin was 14.4 percent.<sup>7</sup>

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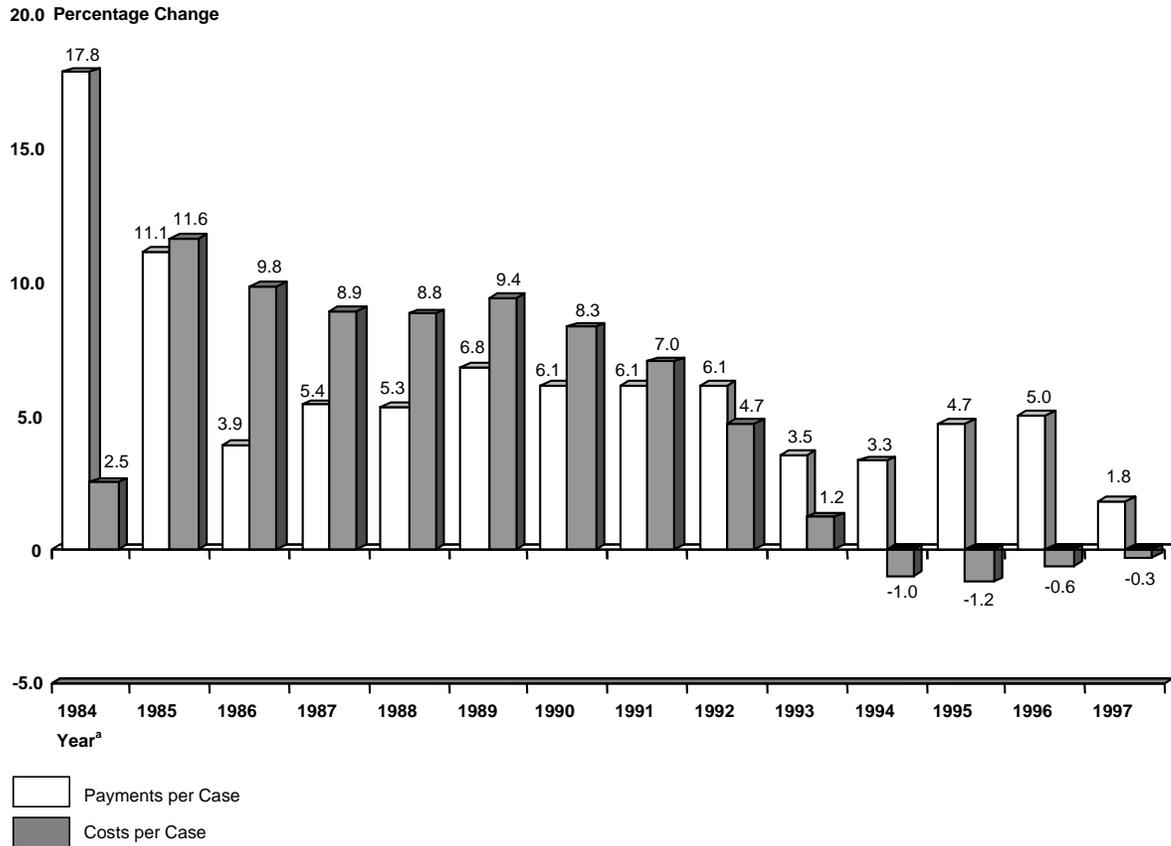
<sup>4</sup>Medicaid payment methods vary by state.

<sup>5</sup>Medicare provides additional payments to teaching hospitals to account for their costs of operating a teaching program, such as the salaries of residents and their supervising faculty.

<sup>6</sup>The inpatient PPS margin is the difference between PPS payments and Medicare-allowed inpatient costs, as a percentage of PPS payments.

<sup>7</sup>MedPAC, p. 180.

Figure 1: Percentage Change in Inpatient PPS Payments and Costs Per Case, 1984-97



<sup>a</sup>Data for each year correspond to a hospital’s fiscal year beginning in the federal fiscal year.

Source: Unpublished data from Stuart Guterman (Washington, D.C.: The Urban Institute, Feb. 24, 2000).

The BBA included several changes to Medicare hospital payments intended to slow spending over the 5-year period from 1998 through 2002. The BBA-related changes were estimated by AHA to reduce total Medicare inpatient PPS payments by 9.5 percent over this period, resulting in expected inpatient margins of about 10 percent in 2002.<sup>8</sup> The Medicare, Medicaid, and State Children’s Health Insurance Program Balanced Budget Refinement Act of 1999 (BBRA) tempered certain BBA-mandated reductions by adding an estimated \$1.2 billion to hospital inpatient payments from 2000 to 2004, which was estimated to have a small impact on the aggregate PPS inpatient margin for 2002.<sup>9</sup>

<sup>8</sup>See MedPAC, p. 180, and The Lewin Group, section II, p. 2.

<sup>9</sup>AHA estimated that BBRA changes would raise the estimated PPS margin in 2002 by 0.1 percent. The Lewin Group, section II, p. 6.

Managed Care Plan  
Payments to Hospitals

In contrast to Medicare's prospectively set national rates, payments from private payers and managed care plans are individually negotiated with hospitals. The payments can depend in part on the volume of business brought to the hospital, the competition from other hospitals, and other market characteristics. Historically, private insurers paid hospitals on the basis of billed charges and had little involvement in the actual delivery or management of services. With limited control over the level of charges or the utilization of hospital services, the insurer merely passed on the rising costs of health care to employers or enrollees through higher premiums. In the face of increasing demands from employers and other insurance purchasers for greater controls on health care costs, private payers began to develop managed care plans.

Managed care plans attempt to control the delivery and cost of covered health care services for their enrolled members. Depending upon the structure of the plans, they may direct their members to selected providers, manage the utilization of covered services, negotiate payment rates with providers, administer payment for the services, or perform some combination of these functions.<sup>10</sup> An important factor in rate negotiations can be a plan's ability to direct patients to a particular hospital—generally, the higher the volume and the more competition among hospitals, the stronger the negotiating position of the plan.

From the hospital's perspective, negotiations with managed care plans focus primarily on securing plan business and obtaining payment rates that cover the facility's costs. Factors influencing the payment rates that the hospital ultimately accepts include its occupancy rate, the loss of patient volume and revenue if it did not contract with a plan, and the amount of hospital competition in the area.<sup>11</sup> A hospital may sometimes accept prevailing "market" rates for certain specialty services regardless of its own costs of providing that service rather than lose the business to another hospital.<sup>12</sup> Finally, a hospital may accept lower rates on selected inpatient services or types of cases if the plan's payment rates are profitable overall or if the payments for other services, such as outpatient and physician services, are attractive.

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<sup>10</sup>Larry Levitt, Janet Lundy, and Srija Srinivasan, "Trends and Indicators in the Changing Health Care Marketplace," The Kaiser Changing Health Care Marketplace Project (Menlo Park, Calif.: The Henry J. Kaiser Family Foundation, Aug. 1998).

<sup>11</sup>Peter R. Kongstvedt, "Negotiating and Contracting with Hospitals and Institutions," The Managed Health Care Handbook (Gaithersburg, Md.: Aspen Publishers, 1996), pp. 202-205.

<sup>12</sup>For example, managed care plans often negotiate rates for cardiac bypass or cardiac catheterization services, which then become the market rate, regardless of an individual hospital's actual cost of providing those services.

AVERAGE MANAGED CARE  
PLAN AND MEDICARE  
PAYMENTS AND COSTS  
FOR RESPONDING HOSPITALS

Managed care plan payments were lower than Medicare payments, but the costs of managed care plan enrollees were also lower than Medicare beneficiary costs.<sup>13</sup> On average, managed care plan payments were 7 percent higher than its enrollee costs, and Medicare payments were 9 percent higher than beneficiary costs. However, these averages masked considerable variation across the responding hospitals, particularly for managed care plan payments relative to enrollee costs.

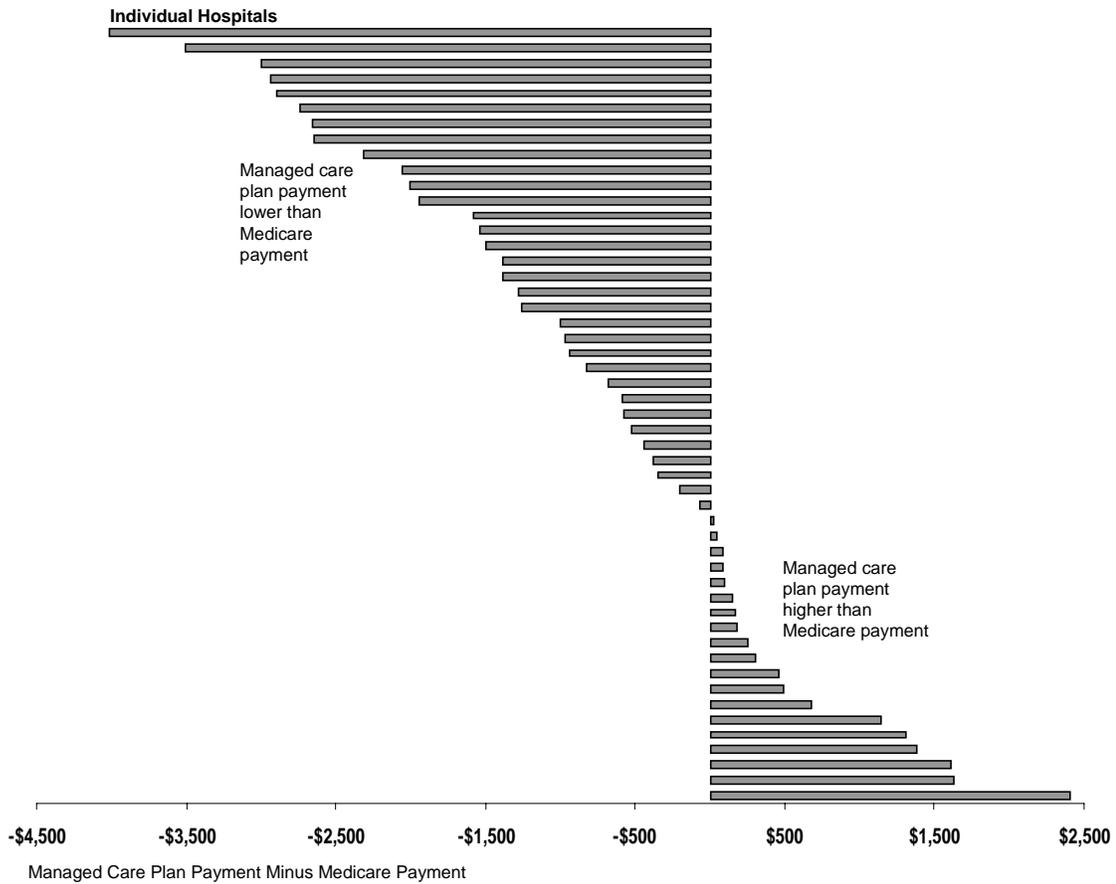
Average per-case managed care plan payments were considerably lower than Medicare payments for over half the hospitals responding to our survey (see fig. 2). Managed care plan payments per case were 14 percent lower than Medicare payments across the 15 types of cases, averaging \$4,721, compared with \$5,459 from Medicare.<sup>14</sup> The same pattern was evident across the individual types of cases. Average managed care plan payments to responding hospitals were lower than average Medicare payments for 11 of the 15 types of cases examined (see encl. II).

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<sup>13</sup>In this study, managed care is defined broadly to include health maintenance organizations (HMO), preferred provider organizations, and point of service plans. Medicare includes only fee-for-service patients. Medicare managed care was grouped into the “other” payer category because its share of revenue was small for most hospitals.

<sup>14</sup>We examined more detailed payment and cost data for 15 types of cases, defined by DRGs that represented a range of medical and surgical cases, complex and routine cases, and acute and chronic conditions.

**Figure 2: Difference Between Average Managed Care Plan and Medicare Payments per Case for Responding Hospitals**



Source: GAO analysis of fiscal year 1998 revenue data for 51 hospitals.

Average per-case managed care plan costs were also lower than average per-case Medicare costs for the majority of the responding hospitals. Managed care plan costs per case were 11 percent lower than Medicare costs across the 15 types of cases, averaging \$4,421 compared with \$4,923 from Medicare. Only 6 of the 51 hospitals (12 percent) had average managed care plan per-case costs that were higher than Medicare’s. There were similar results across most of the individual types of cases: the average cost per case of managed care patients was lower than Medicare’s for 13 of the 15 types of cases (see encl. II).

Managed care plan payments exceeded their enrollee costs by 7 percent for the average responding hospital, and Medicare payments averaged 9 percent higher than its beneficiary costs.<sup>15</sup> However, there was considerable variation across the hospitals because of the range

<sup>15</sup>The Medicare payment-to-cost ratio for our sample translates into a 9.6 percent aggregate margin. This is lower than the 14.4 percent aggregate margin reported by MedPAC for all

in payments and differences in costs (see table 1). Many responding hospitals (21) lost money on their managed care business, and 6 hospitals had payments that were at least 20 percent below their costs. However, 17 hospitals had managed care payments that were at least 20 percent higher than their costs. For Medicare, the extremes were narrower. While 12 hospitals lost money on Medicare, only 2 hospitals had payments that were at least 20 percent lower than their costs, and 12 hospitals had payments that were at least 20 percent higher than their costs.

Table 1: Distribution of Managed Care Plan and Medicare Payments Relative to Their Respective Costs for Responding Hospitals

Payment-to-cost ratio <sup>a</sup>	Managed care plan		Medicare	
	Number of hospitals	Average payment-to-cost ratio	Number of hospitals	Average payment-to-cost ratio
Less than 0.8	6	0.68	2	0.77
0.80 - 0.99	15	0.93	10	0.92
1.00 - 1.09	7	1.04	16	1.06
1.10 - 1.19	6	1.14	11	1.13
1.2 and above	17	1.31	12	1.27
<b>All hospitals</b>	<b>51</b>	<b>1.07</b>	<b>51</b>	<b>1.09</b>

<sup>a</sup>A payment-to-cost ratio compares payments with costs. A value greater than 1.0 indicates that payments exceeded costs; a value less than 1.0 indicates that costs exceeded payments.

Source: GAO analysis of fiscal year 1998 cost and revenue data for 51 hospitals.

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hospitals in 1998. Several factors could account for this difference. MedPAC data reflect the universe of PPS hospitals. Payments and costs for resident salaries and their supervising physicians are excluded from the MedPAC estimate. Further, MedPAC measures only Medicare-allowed costs, while our data included both allowed and nonallowed costs, which depress the reported margin. See MedPAC, p. 180.

VARIATION IN MANAGED CARE  
PLAN PAYMENTS AND COSTS

Managed care plan payments relative to enrollee costs were higher for responding hospitals in areas with low managed care plan enrollment than for responding hospitals in areas with high enrollment.<sup>16</sup> Managed care plan payments were, on average, 18 percent higher than their costs for responding hospitals in areas with low managed care enrollment, compared with 7 higher percent for hospitals in areas with high enrollment. This is consistent with industry research that showed that as managed care plan enrollment in a market increases, hospital gains from managed care plans decline.<sup>17</sup>

The responding hospitals were more likely to lose money on managed care plans when they had less business from this payer. Of the 13 hospitals with a small share of their revenues from managed care plans, 10 reported losses (see table 2). Further, hospitals that lost on their managed care business were also more likely to be high-cost facilities than hospitals that gained on their managed care business.<sup>18</sup> Of the 11 high-cost hospitals, 8 hospitals had losses on their managed care business.

Table 2: Hospital Managed Care Plan Performance, by Hospital Characteristics for Selected Hospitals

<b>Hospital characteristics</b>	<b>Managed care performance</b>		
	<b>Hospitals with losses</b>	<b>Hospitals with gains</b>	<b>Total</b>
Low managed care share of revenue <sup>a</sup>	10	3	13
High-cost hospitals <sup>b</sup>	8	3	11
<b>All responding hospitals</b>	<b>21</b>	<b>30</b>	<b>51</b>

<sup>a</sup>The 25 percent of responding hospitals with the lowest managed care plan shares of inpatient revenues.

<sup>b</sup>Hospitals with average managed care plan per-case costs of \$5,000 or more.

Source: GAO analysis of fiscal year 1998 cost and revenue data for 51 hospitals.

<sup>16</sup>In this analysis, a hospital market is defined as the metropolitan statistical area (MSA) in which it is located.

<sup>17</sup>Ernest Valente and Keven G. Serrin, “Managed Care and the Financial Condition of Academic Medical Center Hospitals, 1992 – 1995,” Implications for Policy, Delivery and Practice (Washington, D.C.: Health Services Research, June 1998).

<sup>18</sup>High-cost hospitals were defined as hospitals with an average managed care plan per-case cost of \$5,000 or more, after adjusting for differences in the mix of cases and variations in local wage rates.

MEDICARE AND MANAGED CARE  
PLAN PAYMENTS COMPARED WITH  
SIZE OF TEACHING PROGRAM

The average responding teaching hospital had payments from both payers that covered their respective costs, although there was considerable variation in this relationship for both payers across the hospitals. Responding hospitals with large teaching programs were more likely to fare better from Medicare than from managed care plans, while the opposite was true for responding hospitals with smaller or no teaching programs (see table 3).

Responding hospitals with large teaching programs were likely to lose on their managed care business, but their Medicare payments were substantially higher (22 percent ) than beneficiary costs. Of the 15 hospitals with large teaching programs, 12 reported managed care plan payments that were below enrollee costs, yet all of them received Medicare payments above their costs.

The picture is different for responding hospitals with smaller teaching programs. Responding hospitals were likely to fare better from managed care plans than from Medicare. Managed care plan payments averaged 14 percent higher than enrollee costs, while Medicare payments averaged 5 percent higher than beneficiary costs. Of the 20 hospitals in this category, 15 hospitals had positive managed care plan margins, and 14 hospitals had positive Medicare margins.

The experience of large teaching and other teaching hospitals is dissimilar because their costs as well as their Medicare and managed care plan payments are different. The costs of managed care plan patients were, on average, 37 percent higher at the 15 large teaching hospitals than at the 20 hospitals with smaller programs, yet their payments were only 17 percent higher.<sup>19</sup> While Medicare costs per case at large teaching hospitals were on average 32 percent higher than at hospitals with smaller teaching programs, its payments were even higher (41 percent).

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<sup>19</sup>The average costs and payments per case reported are for the 15 types of cases examined.

Table 3: Average Managed Care Plan and Medicare Inpatient Payment-to-Cost Ratios, by Teaching Status of Responding Hospitals

Payer	Teaching hospitals			Nonteaching hospitals	All hospitals
	Large teaching <sup>a</sup>	Other teaching <sup>b</sup>	All teaching		
Managed care plan	0.98	1.14	1.07	1.07	1.07
Medicare	1.22	1.05	1.12	1.01	1.09

<sup>a</sup>Hospitals with more than 25 residents per 100 hospital beds.

<sup>b</sup>Hospitals with 25 or fewer residents per 100 hospital beds.

Source: GAO analysis of fiscal year 1998 cost and revenue data for 51 hospitals.

For the average responding nonteaching hospital, managed care plan payments were 7 percent higher than costs compared with 1 percent higher for Medicare. Of the 16 nonteaching hospitals, 12 hospitals had managed care plan payments that were higher than enrollee costs, compared to 10 hospitals with Medicare payments higher than beneficiary costs.

AGENCY AND OUTSIDE REVIEWER COMMENTS

We sent a copy this letter to the Health Care Financing Administration, which elected not to provide any comments. We also sent a copy of this letter to an outside reviewer who agreed with its content, and provided technical comments, which we have incorporated where appropriate.

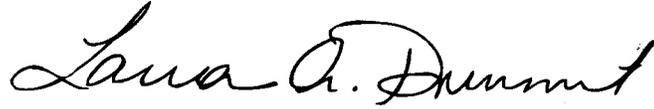
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We are sending copies of this letter to the Honorable Nancy-Ann Min DeParle, Administrator of the Health Care Financing Administration; appropriate congressional committees; and others who are interested.

B-283429

If you or your staff have any questions, please call me at (202) 512-7119 or Carol Carter at (312) 220-7711. Other major contributors include Iola A. D'Souza, Jennifer M. Dulac, and Daniel K. Lee.

Sincerely yours,

A handwritten signature in black ink that reads "Laura A. Dummit". The signature is written in a cursive style with a large initial 'L' and 'D'.

Laura A. Dummit  
Associate Director, Health Financing and  
Public Health Issues

Enclosures - 2

### OBJECTIVES, SCOPE, AND METHODOLOGY

Managed care plan and cost and payment information at the diagnosis-related group (DRG) level is not available in Health Care Financing Administration claims data or Medicare cost reports. To obtain these data, we needed to survey hospitals, and we chose to focus only on those with cost accounting systems that would allow these hospitals to provide the detailed information we required. We requested payment and cost information by payer for 15 DRGs and for all inpatient cases. The DRGs were selected to represent a mix of medical and surgical cases, more and less complex cases, and acute and chronic cases.

We sent surveys to 121 hospitals and received responses from 68 hospitals. Because of data limitations and inconsistencies, we could use the data from only 51 responding hospitals in 28 states. The hospitals in our study are not representative of the hospital industry. The responding hospitals are generally larger than the national average, and only one is a rural facility. The majority of the responding hospitals (35) in our sample are teaching facilities.

We categorized hospital revenues into one of five payer groups (Medicare, managed care, Medicaid, traditional private insurance, and other) on the basis of discussions with staff from individual hospitals. We used a broad definition of managed care that included HMO plans, preferred provider organization plans, and point-of-service plans. The “other” category included revenues from the Civilian Health and Medical Program of the Uniformed Services (CHAMPUS), charity, grants, miscellaneous/unknown, self-pay, workers’ compensation, and the Department of Veterans Affairs. Medicare managed care revenues were grouped into the “other” category because for most hospitals their share of revenues was small. Medicaid managed care revenues were included in the Medicaid category.

In addition to collecting hospital data, we interviewed industry analysts about hospital and managed care plan contracting strategies.

We used data from the June 1999 InterStudy Competitive Edge Regional Market Analysis<sup>20</sup> to determine the level of managed care plan market enrollment in each hospital’s MSA. Hospitals were grouped according to the level of HMO enrollment in their market area, defined as the percentage of the population within the hospital’s MSA enrolled in an HMO. Low enrollment was defined as less than 16 percent of the population enrolled in an HMO, medium enrollment between 16 and 40 percent, and high enrollment as greater than 40 percent.

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<sup>20</sup>Changes in MSA Enrollment, Subdirectories: Metropolitan Markets, Part III: Regional Market Analysis, The InterStudy Competitive Edge (St. Paul, Minn.: InterStudy Publications, June 1999).

**AVERAGE MEDICARE AND MANAGED CARE PLAN PER-CASE PAYMENTS, COSTS,  
PAYMENT RATIOS AND COST RATIOS FOR SELECTED DRGs**

DRG <sup>a</sup>	Description	DRG weigh	Payments			Costs		
			Medicar	Managed care plan	Ratio of managed care plan payment to Medicare	Medicare	Managed care plan	Ratio of managed care plan
	<b>Medical cases</b>							
014	Cerebrovascular disorders	1.19	\$6,398	\$6,556	1.02	\$6,196	\$6,122	0.99
079	Respiratory infections with cc <sup>b</sup>	1.63	8,722	10,148	1.16	8,073	8,632	1.07
088	Chronic obstructive pulmonary disease	0.97	5,007	5,042	1.01	4,645	4,238	0.91
089	Simple pneumonia with cc	1.10	5,762	5,068	0.88	5,209	4,452	0.85
127	Heart failure and shock	1.02	5,301	4,905	0.93	4,960	4,385	0.88
140	Angina pectoris	0.60	3,109	2,941	0.95	2,816	2,492	0.88
294	Diabetes	0.76	4,133	3,893	0.94	4,358	3,543	0.81
	<b>Surgical cases</b>							
106	Coronary bypass with cardiac catheterization	5.58	31,000	24,942	0.80	24,420	21,258	0.87
112	Percutaneous cardiovascular procedures	2.00	10,853	7,753	0.71	8,861	8,427	0.95
148	Major small and large bowel procedures with cc	3.39	18,791	15,150	0.81	14,891	12,769	0.86
209	Joint and limb reattachment procedures of lower extremity	2.23	11,553	8,704	0.75	10,930	10,925	1.00
210	Hip and femur procedures excluding major joint procedures with cc	1.83	9,718	10,311	1.06	9,346	10,712	1.15
302	Kidney transplant	3.76	41,087	35,493	0.86	48,661	41,118	0.84
306	Prostatectomy with cc	1.22	6,295	4,542	0.72	5,211	4,180	0.80
481	Bone marrow transplant	11.28	76,271	62,784	0.82	54,188	53,217	0.98

<sup>a</sup>Diagnosis-related group.

ENCLOSURE I

ENCLOSURE I

<sup>b</sup>With complications or comorbidity.

Source: GAO analysis of fiscal year 1998 revenue and cost data for 51 hospitals.

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