

CHAPTER 3

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**Revising payment methods and  
monitoring quality of care  
in traditional Medicare**

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

## **Payment for home health services**

**3A** The Secretary should implement the proposed prospective payment system for home health services on October 1, 2000. To the extent possible, she also should refine the system's case-mix adjustment before it is implemented.

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**3B** The Secretary should vigorously monitor home health agency behavior under the prospective payment system.

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**3C** The Congress should require that HCFA establish a prospective payment system for home health goods and services that blends fixed episode payments and per-visit payments.

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**3D** The Secretary should use routinely collected data to refine the case-mix weights over time.

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**3E** The Secretary should use a home health agency wage index to adjust the prospective payment system rates for local wages.

## **Monitoring the quality of post-acute care**

**3F** The Secretary should establish systems for routinely assessing the quality of post-acute care and should use the information these systems generate to: evaluate the effects of new payment systems on quality of care, focus quality assurance activities, facilitate continuous quality improvement, and promote informed patient decisionmaking.

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**3G** The Secretary should coordinate systems for monitoring post-acute care quality across all service settings to: assess important aspects of the care uniquely provided in a particular setting, compare certain processes and outcomes of care provided in alternative settings, and evaluate the quality of care furnished in multiple-provider episodes of post-acute care.

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**3H** The Secretary should sponsor the development of post-acute care quality measures needed to monitor outcomes—such as beneficiary health and functional status—and the appropriate use of services.

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**3I** The Secretary should review all post-acute care data collection requirements. Each item should have an explicit rationale, and only information needed for accurate billing, risk adjustment, or quality measurement should be required.

*Recommendations continued on next page*

**Refining payment for care in hospitals**

**3J** The Congress should combine prospective payment system operating and capital payment rates to create a single prospective rate for hospital inpatient care. This change would require a single set of payment adjustments—in particular, for indirect medical education and disproportionate share hospital payments—and a single payment update.

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**3K** The Commission recommends continuing the existing policy of adjusting per case payments through an expanded transfer policy when a short length of stay results from a portion of the patient’s care being provided in another setting.

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**3L** To address longstanding problems and current legal and regulatory developments, Congress should reform the disproportionate share adjustment to: include the costs of all poor patients in calculating low-income shares used to distribute disproportionate share payments, and use the same formula to distribute payments to all hospitals covered by prospective payment.

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**3M** To provide further protection for the primarily voluntary hospitals with mid-level low-income shares, the minimum value, or threshold, for the low-income share that a hospital must have before payment is made should be set to make 60 percent of hospitals eligible to receive disproportionate share payments.

**Improving payment policies for physician services**

**3N** HCFA should continue to work with the medical community in developing guidelines for evaluation and management services, minimizing their complexity, and exploring alternative approaches to promote accurate coding of these services.

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**3O** HCFA should pilot-test documentation guidelines for evaluation and management services before their implementation, and/or pilot test any alternative method. The agency should continue to work with the medical community in developing the pilot tests, and should ensure adequate time for physician education.

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**3P** HCFA should disclose coding edits to physicians and should seek review of the appropriateness of those edits by the medical community.

## Revising payment methods and monitoring quality of care in traditional Medicare

**I**n its traditional fee-for-service program, Medicare pays for thousands of covered products and services furnished by a multitude of providers—health care professionals, facilities, and suppliers—in hundreds of market areas nationwide. To ensure that its beneficiaries have access to necessary care, Medicare’s payment policies and methods must set payment rates that approximate the costs an efficient provider would incur in furnishing high-quality care. Meeting this goal under varied market conditions in many different health care settings is a complex challenge, and the Congress relies on the Medicare Payment Advisory Commission for help in the form of objective analysis, advice, and recommendations. This chapter presents results from the Commission’s analyses of the fee-for-service payment policies and methods Medicare uses to pay for care in a number of settings. It also includes our recommendations to the Congress and the Secretary of Health and Human Services for improving payment methods and monitoring quality of care.

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- Rethinking payment for post-acute care
  - Monitoring the quality of post-acute care
  - Refining payments for inpatient care in prospective payment system hospitals
  - Improving payment for physicians’ services and care in hospital outpatient departments
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In its traditional fee-for-service program, Medicare uses separate payment systems to compensate each type of provider for furnishing covered services to beneficiaries. Some, such as those for hospital inpatient acute care and physician services, are well-established prospective payment systems.<sup>1</sup> Many others—including some ambulatory care payment systems and most systems for post-acute care services—still determine providers' payments partially based on their incurred costs.

The Balanced Budget Act of 1997 (BBA) required the Health Care Financing Administration (HCFA) to replace many of its cost-based payment methods with new prospective payment systems (PPSs). The Balanced Budget Refinement Act of 1999 (BBRA) mandated further changes in Medicare's payment methods. As a result, policymakers are in the process of rethinking payment system designs for hospital outpatient departments, skilled nursing facilities, home health agencies, inpatient rehabilitation facilities, and long-term care hospitals. In addition, policymakers are considering revisions to some features of other payment systems, including those for outpatient therapy, physician services, and hospital inpatient acute care.

Under the law, the Medicare Payment Advisory Commission (MedPAC) must review the design and implementation of these policy changes. In addition, we make annual recommendations to the Congress on updating Medicare's payments. In developing analyses and recommendations for each payment system, we are guided by the framework for considering Medicare payment policy issues described in our March 1999 report to the Congress (MedPAC 1999c). That policy framework is structured around the major design elements of payment systems:

- the unit of payment,
- product classification systems and relative weights,
- adjustments to the payment rates,
- initial payment levels, and
- payment updates.

The first three elements, discussed in this chapter, determine the distribution of payments among specific services and providers. The other two elements govern the amount of money in the payment system and are addressed in Chapter 4.

How closely Medicare's payment rates match efficient providers' costs depends heavily on policymakers' choices among the various options for each of these design elements. Making good choices requires an understanding of the characteristics of the products and services Medicare buys, the factors that drive efficient providers' costs, and the incentives for efficiency that payment methods create.

The first design element, the unit of payment, can be an individual product or service or a bundle of services, such as an inpatient stay, an episode of care, or a specified period of time. Larger units of payment include more services, thereby increasing providers' flexibility to economize on the mix and quantity of services and related inputs used to produce the unit. Larger payment units, however, offer no financial incentive to deliver specific services. As a result, providers may respond to the incentives of larger units in less desirable ways, such as stinting on specific services or inputs, or increasing the number of units they furnish.

The second design element consists of two interrelated parts. One is the classification system, which defines distinct services or products, consistent with the unit of payment, that are expected

to require different amounts of providers' resources. The other is a set of relative weights that measures the expected relative costliness of a unit of the product in each classification category, compared with the average cost across all categories.

The third design element—adjustments to the payment rates—allows for differences in providers' circumstances, such as variations in local prices for inputs, which may account for more than 50 percent of the observed variation in providers' costs for a given product or service. Other adjustments to payments may be desired to account for unusual circumstances, such as the delivery of specialized types of care, or special characteristics of services and beneficiaries that affect providers' costs.<sup>2</sup>

Making good choices among the policy options for each design element, however, is only one of the challenges policymakers must overcome. They also must ensure that the selected policies are applied effectively and efficiently. Applying these policies in a dynamic health care system involves uncertainty; therefore, beneficiaries' access to care and the quality of the care they receive must be monitored, to recognize when Medicare's payment systems may not be performing as policymakers intended.

Effectively applying payment design choices involves at least two important tasks: developing essential tools, such as product classification systems, and ensuring collection of accurate information without imposing unnecessary burdens on providers or beneficiaries. Limitations in the classification systems, relative weights, payment adjustments, or related information may cause Medicare to pay too much for some products and services and too little for others. Providers have financial incentives to furnish more units of a product if the payment rate exceeds costs per unit, and to limit beneficiaries' access to services if the payment rate falls

1 Under prospective payment, providers' payments are based on predetermined rates and are unaffected by their incurred costs or posted charges.

2 Hospitals that provide organ transplant surgery exemplify providers with special characteristics. These hospitals incur highly variable costs for organ acquisition. Failing to recognize these costs would give the hospitals strong incentives to stop offering transplant services.

below unit costs. Discrepancies between payments and costs thus may lead to excess program spending or access and quality problems for beneficiaries.

Monitoring beneficiaries' access to quality health care is a task not yet mastered by any insurer, including Medicare. Consequently, policymakers may not know when discrepancies between payments and costs are affecting the care beneficiaries receive or their ability to obtain care. Because of fundamental changes in Medicare's payment systems for post-acute care, we have focused special attention on how to assess the effects of these changes while developing information that also can be used to meet other program objectives.

The broad scope of this chapter reflects the diversity of Medicare's fee-for-service payment methods and the challenges facing policymakers in different settings. We begin by examining post-acute care payment methods, addressing proposals for rethinking payment for home health services, care in skilled nursing facilities, outpatient therapy services, and care in inpatient rehabilitation facilities. Then we focus on recommendations for monitoring the quality of post-acute care, a particularly germane topic given the major changes in payment methods for these services.

The next section considers several potential refinements to Medicare's PPS for hospital inpatient care. Here, we present analyses and recommendations on combining payments for operating and capital costs, improving the patient classification system and relative weights, expanding the transfer payment policy, and changing how disproportionate share payments are distributed. We conclude by exploring potential refinements to Medicare's payment systems for physicians' services and ambulatory care facilities. In this section, we address improving documentation guidelines for evaluation and management services and disclosing coding edits for physicians' services. We also describe the status of the PPS for hospital outpatient department services.<sup>3</sup>

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## Rethinking payment for post-acute care

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Payment for post-acute care is in flux, changing from cost-based to prospective payment in response to mandates in the Balanced Budget Act (BBA) of 1997 and the Balanced Budget Refinement Act (BBRA) of 1999. By October 2002, payment for almost all post-acute care will have changed or begun to change to prospective systems. Payment for skilled nursing facility (SNF) services has been prospective since July 1, 1998. Payment for both home health and inpatient rehabilitation services will be made prospectively as of October 1, 2000. Payments for long-term care hospital and inpatient psychiatric services are scheduled to be made prospectively as of October 1, 2002. Payment for outpatient therapy services has been made on the basis of the physician fee schedule since January 1999, and HCFA is required to report to Congress on recommendations for a different payment system in January 2001. These mandated changes were in response to Congressional concern about rapid growth in spending for post-acute care, which averaged increases of more than 20 percent annually since the early 1990s.

Changing from cost-based to prospective payment systems alters the financial incentives for post-acute providers, and beneficiaries may experience difficulty in obtaining needed care as providers respond to new incentives. This section focuses on developing new payment systems for services furnished by the major post-acute providers—home health care, SNF care, outpatient therapy, and inpatient rehabilitation. For home health services, we examine the unit of payment chosen for the PPS, the related classification system, and the wage adjustment made to the payment rates, and make recommendations about refining and improving each of these components. Although we support HCFA's progress to date, we discuss preliminary evidence of the need to refine the PPS for SNF care and Congressional efforts to temporarily

compensate for shortcomings of this payment system. We discuss the unit of payment for outpatient therapy imposed by the BBA and the need for more information to develop a new payment system for therapy services. Finally, we briefly present information about the unit of payment and classification system HCFA will use for the inpatient rehabilitation PPS.

## Developing a prospective payment system for home health services

The BBA required the Secretary of the Department of Health and Human Services to design and implement a PPS for home health services and supplies, and established the interim payment system (IPS) for use until the PPS was implemented (see text box, p. 56). These changes were responses to an average annual growth rate of 26.7 percent in Medicare spending for home health care from 1990–1997, which was more than three times the growth of the Medicare program as a whole.

HCFA has developed a PPS and proposes that all home health agencies (HHAs) transition to it on October 1, 2000. Though MedPAC generally supports the agency's approach, we make several recommendations to improve it over the longer term.

## Choosing the appropriate unit of payment

The unit of payment under HCFA's proposed PPS will be a 60-day episode that includes all home health services and supplies except durable medical equipment (see text box, p. 57). The payment will be adjusted for variation in case-mix, largely based on a patient assessment, and wages.

Because payments are not tied to costs, the PPS creates incentives for providers to become more efficient. However, it also introduces financial incentives to which providers may respond in less desirable ways. HHAs may take inappropriate actions to maximize revenues or stint on

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3 The Commission is awaiting the opportunity to review HCFA's forthcoming rule on the PPS for hospital outpatient services.

## Home health interim payment system

The Balanced Budget Act of 1997 (BBA) established an interim payment system (IPS) effective October 1, 1997 to control payments until a prospective payment system could be developed and implemented. The IPS controls average spending per visit and average annual spending per user. Spending per visit is controlled by an aggregate agency limit based on per-visit costs. Average annual spending per user is controlled by an aggregate limit on agency spending—the aggregate per-beneficiary limit—based on a blend of historical per-user costs for the agency and agencies in the region. By requiring HCFA to use 1994 as a base for the IPS, the Congress essentially set service levels in that year as a standard.

In general, the IPS appears to have accomplished what Congress intended: use of home health services in 1998 decreased below 1994 levels. The average number of visits per beneficiary using home health services increased from 1994–1997, but dropped substantially in 1998, returning to about the average for 1992. The median number of visits, however, may be a better indicator of central tendency for home health use. The median increased from 1994–1997, then dropped below 1994 levels in 1998 (Table 3-1). Although the number of beneficiaries receiving home health services decreased from 1997 to 1998, the number of users per 1,000 fee-for-service beneficiaries was greater in 1998 than in 1994. ■

The home health PPS is based on research that examined more than 22,000 episodes of care for 17,000 patients. When the episodes were classified into 80 groups, however, the number of episodes in some groups became smaller than what is generally considered desirable to develop case-mix weights. More than half of the Home Health Resource Groups (HHRGs) in the case-mix study contained fewer than 50 cases, which may make the rates for these smaller cells unstable. Before the final rule is published, HCFA should use Outcome and Assessment Information Set (OASIS) data—which agencies have been submitting since August 1999—and claims data to refine the case-mix adjustment and stabilize the rates for smaller case-mix classification groups.

### RECOMMENDATION 3B

**The Secretary should vigorously monitor home health agency behavior under the prospective payment system.**

Prospective payment for home health care raises two related problems: how to assure that HHAs accurately assess beneficiaries' needs and report case-mix classification assignments, and how to monitor services to ensure that beneficiaries are receiving appropriate care.

Because the OASIS assessment largely will determine the episode payment, HCFA must develop a comprehensive plan to ensure the accuracy of reporting. This plan should include mechanisms to audit providers, especially those who appear to be manipulating the payment system. Given expected large shifts in payments, some HHAs will face strong financial incentives to shift Medicare beneficiaries to higher-weighted groups to maintain payment levels. HHAs also will have incentives to stint on services to reduce costs while maintaining revenues. At the same time, the low-use episode threshold creates an incentive for HHAs to provide a few visits more than the threshold to generate payment for an entire episode.

In the short term, the Commission urges HCFA to direct regional home health intermediaries to focus medical reviews on those providers who have many

care to minimize costs. This limitation notwithstanding, MedPAC generally supports the approach HCFA has proposed.

### RECOMMENDATION 3A

**The Secretary should implement the proposed prospective payment system for home health services on October 1, 2000. To the extent possible, she also should refine the system's case-mix adjustment before it is implemented.**

Although the proposed PPS needs refinement, it represents a substantial

improvement over the IPS by accounting for case mix. A MedPAC-sponsored study found that, in response to IPS, a number of HHAs reported changing the way they operate, including being more careful about accepting long-term or higher-cost patients (Abt Associates 1999). Some HHAs reported not accepting some beneficiaries, most often long-term, chronic, or diabetic patients. Under the PPS, agencies will be paid a higher rate for patients needing more care and eligible long-term patients may have unlimited episodes. In addition, the PPS incorporates an outlier policy for beneficiaries with extraordinary costs during an episode.

**TABLE 3-1**

**Home health users, average and median visits per user in 1994, 1997, and 1998**

Fiscal year	1994	1997	1998
Home health users	3.1 million	3.5 million	3.0 million
Users per thousand FFS beneficiaries	87	103	90
Average visits per user	63	73	51
Median visits per user	26	28	21

Note: FFS (fee-for-service).

Source: MedPAC analysis of HCFA home health claims and enrollment data.

## Elements of the home health prospective payment system

The home health prospective payment system (PPS) will be fully implemented on October 1, 2000 and will pay for services on the basis of 60-day episodes. Beneficiaries can receive services for an unlimited number of episodes if they meet home health eligibility and coverage requirements.

The 60-day episode matches the basic time frame under which home health agencies (HHAs) historically have been required to manage beneficiaries' home health needs. HHAs traditionally prepare 60-day plans of care and are required to obtain physician certification every two months. The 60-day episode also matches the schedule for the Outcome and Assessment Information Set (OASIS), the patient assessment that underlies the case-mix system.

The PPS will classify patients using Home Health Resource Groups (HHRGs), an 80-group case-mix system consisting of three dimensions based on beneficiaries' scores on data elements, primarily from the OASIS (Table 3-2). The sum of scores for each data element is used to assign each patient to a severity level on a given dimension. The case-mix system defines the set of groups from all possible combinations of severity levels across the three dimensions.

Payment weights for HHRGs reflect the average relative level of resources used to provide home health services to patients in each group.<sup>4</sup> To determine the payment for each group, the payment weight will be multiplied by the standardized payment amount per 60-day episode. The labor-related component of the payment (78 percent) will be adjusted by the hospital wage index for the location in which the

beneficiary receives services.

To compute the standardized national payment rate for 60-day episodes for fiscal year (FY) 2001, HCFA used a nationally representative sample of 567 comprehensively audited HHA cost reports for FY 1997. All costs of home health visits were used to derive a national cost per visit by discipline. To calculate total costs per episode, the agency multiplied the average number of visits per episode by discipline—based on 1997 episodes with more than four visits—by the average cost per visit. HCFA adjusted estimated costs per episode to account for costs of nonroutine medical supplies and ongoing OASIS reporting. The agency then standardized the PPS amount to remove the effects of differences in case-mix and wages and adjusted it to comply with the BBA budget-neutrality requirement and to account for outlier payments.<sup>5</sup>

Episode payment rates are intended to provide full payment for all home health goods and services (including medical supplies, but not durable medical equipment) provided during the 60-day period. The PPS requires HHAs to bill for all services provided in an episode on one claim, whether services are provided directly or by an external supplier.<sup>6</sup> HHAs will be paid under a split payment method, with 50 percent paid when the initial claim is submitted and 50 percent after the final claim is submitted. The final payment will adjust for exceptions to the 60-day episode and for medical review determinations. A new initial and final bill must be submitted for each recertified episode.

There will be four exceptions to the 60-day episode:

- When patients receive four or fewer visits within an episode, providers will be paid a prospective national standardized per-visit amount by discipline for each visit type furnished.
- When a patient elects to transfer to a second HHA during an episode, the first agency will receive a partial episode payment (PEP) and a new episode will begin for the second provider if the agencies are not commonly owned.
- When a patient is discharged from an HHA and returns to the same agency within the 60-day episode, the provider will be paid a PEP for the first portion and a new episode starts after the patient returns.
- When a patient experiences a significant change in condition, resulting in a new case-mix assignment, the HHA will be paid an episode payment adjusted for the time before and after the condition change.<sup>7</sup>

Outlier payments will be made for 60-day episodes with extraordinary costs. HHAs will be eligible for additional payments when their estimated costs for an episode exceed a standardized threshold amount for all case-mix groups; HHAs will receive 60 percent of the estimated costs above the threshold amount, in addition to the case-mix adjusted episode payment. Outlier payments are financed by making base payments 5 percent less than they would be otherwise. ■

4 Weights range from 0.5 to 2.6 and are multiplied by the standardized payment amount to obtain the case-mix adjusted payment. Average resource use per discipline was estimated using data from the case-mix demonstration. HCFA used visit logs for patients in the demonstration to calculate total visit time. Visit minutes were multiplied by a standard labor cost for the type of visit, then summed for all visits within the episode to obtain the episode cost. Because visit lengths may vary substantially, HCFA did not use visit counts as a measure of resource use.

5 The BBA mandated that the PPS in FY 2001 be budget neutral to the current interim payment system with a 1.5 percent reduction in limits. The BBA postponed the reduction until after the PPS had been in effect for one year and required the Secretary to report on the need for such a reduction within six months after the PPS was implemented.

6 HCFA originally designed the home health consolidated billing to include durable medical equipment based on the BBA, but the BBA excluded this designation.

7 A significant change in condition is defined as one unanticipated and sufficient to trigger a new OASIS assessment that results in a new case-mix assignment.

**TABLE  
3-2**

**Dimensions, levels of severity, and items used for the home health case-mix system**

Source of Item	Dimensions		
	Clinical severity (four levels)	Functional status (five levels)	Service use (four levels)
Outcome and Assessment Information Set	<ul style="list-style-type: none"> <li>—diagnoses (orthopedic, neurologic, or diabetic conditions)</li> <li>—therapies used at home (IV or infusion therapy, parenteral and enteral nutrition)</li> <li>—vision status</li> <li>—pain frequency</li> <li>—status of pressure ulcers, stasis ulcers, and surgical wounds</li> <li>—dyspnea</li> <li>—urinary and bowel incontinence</li> <li>—bowel ostomy</li> <li>—cognitive/behavioral problems</li> </ul>	<ul style="list-style-type: none"> <li>—six activities of daily living:                             <ul style="list-style-type: none"> <li>upper body dressing</li> <li>lower body dressing</li> <li>bathing</li> <li>toileting</li> <li>transferring</li> <li>locomotion</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>—pre-admission location 14 days preceding admission to home health (home, hospital, rehabilitation, or skilled nursing facility)</li> </ul>
Initial estimate of therapy use, confirmed by claim at the end of an episode			<ul style="list-style-type: none"> <li>—projected receipt of PT, OT, and ST totaling 8+ hours (minimum of 10 visits)</li> </ul>

Note: PT (physical therapy), OT (occupational therapy), ST (speech therapy), IV (intravenous).

Source: MedPAC summary of HCFA's proposed rule.

episodes in which the number of visits slightly exceeds the low-use threshold (five or six visits) and also to review randomly selected episodes with visits just more than the threshold to achieve a sentinel effect. If HHAs know they are subject to audits, they may be less likely to manipulate low-use episodes.

Monitoring to detect stinting will be more difficult. Ultimately, developing standards to judge the appropriateness of home health services will be important for monitoring. HCFA's current work on normative standards may provide a first step in this direction. The Commission has previously noted that additional methods to ensure appropriate use of home health services need to be explored, including clear definitions of home health eligibility and coverage guidelines (MedPAC 1999c). The effects of the PPS on beneficiaries' access to home health services—in particular, whether those beneficiaries who need more care are

receiving it—and on rural or sole community HHAs also must be monitored.

In the future, a blended payment system could address the issue of HHAs inappropriately maximizing payments or minimizing costs. Such a system, using a combination of per-visit and fixed episode payments, could neutralize the financial incentives of both types of payments.

**RECOMMENDATION 3C**

**The Congress should require that HCFA establish a prospective payment system for home health goods and services that blends fixed episode payments and per-visit payments.**

HHAs have responded strongly to payment incentives in the past and MedPAC expects them to react strongly to incentives—good and bad—created by an episode-based PPS. To counteract incentives that may affect beneficiaries'

access to care, we recommend that HCFA establish a prospective payment that blends fixed episode payments with per-visit payments, using a standardized rate per visit.<sup>8</sup> This blended payment would reduce incentives to avoid patients with expected costs above the episode payment, stint on services, or add a few visits more than the low-use episode threshold to generate a full episode payment. Although HHAs would have a greater incentive to add services to increase payment than under a fixed episode payment, a carefully designed payment system would lessen incentives created by a cost-based system.

The Commission recognizes that such a blended payment system may require statutory change. Revising the PPS will also take time and, therefore, we encourage HCFA to implement the proposed 60-day episode payment system while pursuing revisions as expeditiously as possible.

8 Although we use the term "visit" to describe the unit of service common to home health at this time, we intend that this term be used more broadly to describe the elements that would be included in a blended payment system for home health services.

## Improving the classification system

Ensuring the accuracy of Medicare payments will require refining the PPS over time. For example, the inpatient hospital PPS—the gold standard for prospective payment—is refined annually.

### RECOMMENDATION 3D

#### The Secretary should use routinely collected data to refine the case-mix weights over time.

To ensure that relative payments are appropriate, case-mix weights should evolve in response to changes in practice patterns and technology that affect the level of resources required to furnish home health services to different types of patients. Two approaches could be taken to change the HHRG weights over time. Both would use standard administrative data to recalibrate the weights. The first would use information HHAs are required to provide about time spent in providing services in 15-minute increments. Under this approach, proxy costs for each visit would be developed by multiplying each increment by the estimated national cost of the discipline providing the services. The costs for an episode would be determined by summing the proxy costs for all visits associated with that episode. At that point, HCFA would follow a process similar to that used to recalibrate the diagnosis related groups payment rates. The second approach would use the charge information on the bill. Under both systems, the weights will automatically account for any shift in admission practice or coding behavior.

#### Making other adjustments to payment rates

Differences in wages among geographic areas account for much of the observed nationwide variation in providers' costs for home health services. HCFA has estimated that 78 percent of the home health episode payment is labor-related and therefore

affected by local variation in wages. Thus, errors in the wage index used to adjust payment can have substantial effects on the appropriateness of payments.

The wage adjustment for the proposed home health PPS is based on wage and hour data from hospitals. Using the hospital wage index to adjust payment rates for geographic differences is expedient, but there are two problems with using this index for the home health setting. First, the occupational mix is presumably different in the two settings. Second, the hospital wage index in and of itself does not control for occupational mix, which varies substantially among hospitals according to size and teaching status. Because markets vary in their mix of hospitals, the wage index reflects differences from this variance in the average wage rate across markets.

### RECOMMENDATION 3E

#### The Secretary should use a home health agency wage index to adjust the prospective payment system rates for local wages.

HCFA should develop an HHA-specific wage index. Periodically updating the wage index to reflect changes in HHA wage rates, however, may or may not be easily accomplished. Much will depend on the quality of the wage and hour data that HHAs submit. If HHAs supply accurate data, the wage index could be updated for FY 2002; if not, HCFA must quickly resolve reporting problems to eliminate this source of inaccuracy.

Measuring geographic variation in labor costs for HHAs is part of a larger problem. New measures are needed to account for differences in labor costs to implement each of Medicare's new prospective payment systems, including the payment system for Medicare+Choice plans. Obtaining more accurate and timely labor price data for occupations employed by all

health care providers may be more efficient and accurate as it would preclude separate data collection for each type of provider.

## Improving payments for skilled nursing facility care

Skilled nursing facility (SNF) payments have been among the fastest-growing components of Medicare spending, increasing 36 percent between 1987 and 1997. In response to these increases, Congress mandated a PPS under which SNFs are paid a single case-mix adjusted per diem rate for each patient. The rate covers all routine, ancillary, and capital costs, and the cost of Part B services provided during a beneficiary's Part A stay. The Congress enacted changes to the PPS because of concerns about payment inequities.

PPS began for each SNF on or after July 1, 1998, according to its cost reporting period. Under the SNF PPS, rates are case-mix adjusted according to the Resource Utilization Groups, Version III (RUG-III) classification system based on data from the Minimum Data Set (MDS) Version 2.0, originally designed to assess nursing facility residents. RUG-III assigns beneficiaries to one of 26 groups to account for the relative resource use (staff time) of different types of patients.<sup>9</sup> The groups include two types of patients: those who require rehabilitation services, and non-rehabilitation patients classified as extensive services, special care, or clinically complex (Table 3-3).

#### Problems with the current case-mix classification system

The RUG-III classification system reflects treatment costs associated with the time that providers spend furnishing nursing and therapy services. However, patients vary in their uses of other ancillary services and supplies; currently, these differences are reflected in the payment system's weights only in that they are correlated with the use of nursing services.<sup>10</sup> As a result, patients who

9 RUG-III has 44 groups. Patients in 26 groups are presumed to meet SNF level of care criteria, at least initially. Many patients in the remaining 18 RUG-III groups would not meet Medicare coverage criteria because these categories often are used to describe Medicaid patients.

10 Examples of other ancillary services are pharmaceuticals, respiratory therapy, infusion therapy, lab tests, imaging services, and transportation. Supplies include medical equipment, including prosthetics.

**TABLE  
3-3**

**RUG-III classification groups consistent with Medicare coverage criteria**

Patient category		Number of RUG-III groups	Examples of patients included in a category
Rehabilitation	Ultra high	3	Patients requiring any combination of PT, OT, or ST.
	Very high	3	
	High	3	
	Medium	3	
	Low	2	
Non-rehabilitation	Extensive services	3	Patients with an ADL score of at least 7 and who meet at least one of the following criteria: parenteral feeding, suctioning, tracheotomy, ventilator/respirator.
	Special care	3	Patients with an ADL score of at least 7 and who require special care (such as patients with multiple sclerosis, quadriplegia, cerebral palsy, aphasia, pneumonia, dehydration, or those requiring tube feedings or receiving radiation treatment).
	Clinically complex	6	Patients with burns, coma, septicemia, hemiplegia, diabetes with daily injections, foot wounds, or those requiring dialysis or chemotherapy.

Note: Within each category, patients are classified based on functional status (measured by an index of activities of daily living), and the number and types of services used. RUG-III (Resource Utilization Group, Version III), PT (physical therapy), OT (occupational therapy), ST (speech therapy), ADL (activity of daily living).

Source: MedPAC summary of definitions in Table 2.C., Federal Register, May 12, 1998, Vol. 63, No. 91, p. 26262.

require rehabilitation therapy are not adequately distinguished from those who require both therapy and nontherapy ancillary services because of complex medical conditions. This has resulted in excessive RUG-III payments for patients who need relatively few nontherapy ancillaries and inadequate payments for those needing relatively high levels of these ancillaries.

HCFA-sponsored research on this issue found that average nontherapy ancillary charges were much higher for patients in the extensive services groups than for others, including those in the RUG-III rehabilitation categories (White et al. 1999). Further, it found that while payment rates are the same whether patients qualify for only one of the top three rehabilitation categories or also for extensive services or special care, average costs were significantly higher for patients in the latter category.

Failure of the current case-mix classification system to account for patients who require multiple types of services means that payments are not appropriately allocated and threaten access to SNF care for such patients. As discussed in Chapter 2, interviews conducted with discharge planners revealed that, compared with patients needing short-term rehabilitation, those requiring extensive services were more difficult to place in SNFs.

#### **Interim and longer-term solutions for improving skilled nursing facility payments**

HCFA's analysis, combined with industry concerns about adequacy of payment, led the Congress to make immediate changes to payments for SNF services. Among the SNF-related changes, the BBRA mandated a 20 percent increase in per diem payments for 12 RUGs covering medically complex cases in the extensive services, special care, and clinically

complex categories, as well as three select rehabilitation RUGs.

The Commission believes that these increases are only temporary measures and do not solve the underlying problems inherent in the classification system. Although these higher payments may help offset some provider expenses, they will not necessarily improve beneficiary access to SNF services. The highest reimbursement rates continue to be concentrated in rehabilitation categories that typically do not include the most medically complex patients.

HCFA is considering longer-term solutions that will better reflect patient service needs and the costs of providing those services. The agency is currently investigating the variation in costs within each RUG to gain a better understanding of the adequacy of the PPS for drugs, respiratory, and other nontherapy ancillary costs, and the MDS items that may predict variance in nontherapy ancillary charges.

Although most attention has focused on three RUG-III patient classification categories—rehabilitation, extensive services, and special care—all are being evaluated. HCFA’s proposed modifications will be published this spring, with implementation of the changes anticipated in October 2000.

Over the next few months, MedPAC will analyze SNF use patterns and changes in the industry, examining the types of patients admitted to SNFs and addressing whether high-acuity patients received services in SNFs during the early months of the PPS phase in. We hope this research will contribute to a better understanding of SNF patients and to improving SNF payment methods.

### **Containing costs while paying fairly for outpatient therapy services**

As it did in other areas, the BBA made substantial changes to payments for outpatient therapy. These changes modified the unit of payment for most outpatient therapy settings and the payment rate for all settings. Congress eliminated cost-based payments for outpatient therapy and required payments to be based on the Medicare physician fee schedule.<sup>11</sup>

### **Choosing the appropriate unit of payment**

The BBA effectively changed the unit of payment for beneficiaries who use outpatient therapy services frequently by establishing two annual \$1,500 per beneficiary caps: one for physical therapy and speech language pathology services and another for occupational therapy services. The caps applied to beneficiaries using therapy furnished in all settings other than hospital outpatient departments (OPDs). After claims by patient advocates and providers that beneficiaries were being harmed by the outpatient therapy caps, the BBRA imposed a two-year moratorium on the caps, effective in 2000.

In January 2001, HCFA is required to report on its recommendations for establishing a revised payment policy based on diagnostic groups, including functional status.

Choosing an appropriate unit of payment requires defining the product, determining whether effective product classification systems and related data are available, and deciding whether to bundle services furnished by complementary settings. Little is known to inform the decision about the appropriate unit of payment for outpatient therapy. Preliminary analyses of beneficiary characteristics and service use by setting suggest distinct subpopulations of outpatient therapy users. In recommending a revised payment policy, HCFA will need to consider whether it is possible to define the same product and bundle of services for all users.

### **Developing an appropriate classification system**

An appropriate classification system distinguishes among patient care products and among beneficiaries expected to require different amounts of provider services. An effective classification system uses variables that are reasonably objective and easy to monitor. Beneficiary characteristics that cannot be easily manipulated—such as diagnoses or other clinical information, rather than service use—are preferred classification variables.

Preliminary analyses show that outpatient therapy users receive services in varied settings and that average payments differ widely by setting. For example, hospital OPDs provide outpatient therapy to more than 50 percent of users, but account for only 25 percent of the payments (Table 3-4). OPD users are exempt from the caps, but use the smallest average amount of therapy. Conversely, in 1996 approximately one-third of the beneficiaries receiving outpatient therapy from SNFs, rehabilitation agencies, and comprehensive outpatient

rehabilitation facilities would have exceeded one of the caps.<sup>12</sup>

Administrative data on beneficiary characteristics by setting suggest that at least two different patient populations, and possibly three, receive outpatient therapy. Nursing facility residents receiving outpatient therapy from SNFs are older and more likely to be female, poorer, and to have neurological diagnoses than users receiving therapy in ambulatory care settings. Their therapy also costs 2.5 times as much as that of ambulatory therapy users. However, beneficiary clinical information is needed to gain more insight into differences among outpatient therapy users and the settings they use. HCFA will need to consider such information when making its recommendations to the Congress on the revised payment system.

### **Developing a prospective payment system for care in inpatient rehabilitation facilities**

The BBA required HCFA to establish a case-mix adjusted PPS for inpatient rehabilitation care, effective October 1, 2000. MedPAC recommended that HCFA use the Functional Independence Measure-Functional Related Groups (FIM-FRGs) for the payment system (MedPAC 1999c). In the BBRA, the Congress required that the unit of payment be based on discharges and that HCFA use the FIM-FRG. Because HCFA is expected to issue a regulation on the inpatient rehabilitation PPS in spring 2000, MedPAC will withhold comment until the regulation is issued.

### **Monitoring the quality of post-acute care**

As significant changes in Medicare’s payment systems get under way, policy interest turns to how beneficiary care is affected by the incentives created by those new payment systems. The move to prospective payment—in progress or

11 Both of the BBA provisions—fee schedule reimbursement and dollar-based coverage limits—have been in effect for several years for services furnished by therapists in independent practice.

12 In nursing facilities, the cap applied only to beneficiaries who were residents but not covered by Part A for a SNF stay.

**TABLE  
3-4**

**Distribution of outpatient therapy users, payments, and average payments, by setting, 1996**

Outpatient therapy setting	Percent of users	Percent of payments	Average annual physical/speech therapy payment	Average annual occupational therapy payment
Hospital outpatient department	58%	24%	\$349	\$356
Rehabilitation agency	25	39	1,619	1,250
Comprehensive outpatient rehabilitation facility	4	8	2,029	1,686
Skilled nursing facility	13	29	1,549	1,304

Source: MedPAC analysis of HCFA 1996 outpatient claims data.

planning stages for many types of post-acute care services—provides a strong motive for creating systems to monitor the quality of care that beneficiaries obtain. Payment systems that reward efficient providers could cause quality problems if providers adopt cost-containment strategies that inappropriately reduce the intensity, duration, or skill level of the services they furnish. If payment levels under the new systems are set too low, either overall or for certain types of patients, access problems may result.<sup>13</sup>

Quality monitoring systems could help ensure that payment systems are designed correctly and that providers are responding appropriately to the systems’ incentives, and could also be used to accomplish several other important objectives. They could assist in tracking trends over time, or provide an early warning of impending problems in quality. Furthermore, the information generated could be used in beneficiary education programs or in efforts to safeguard or improve beneficiaries’ care. Attaining any of these ends requires routine, systematic measurement of health care quality.

The move to pay prospectively for post-acute care has provided MedPAC with an opportunity to address issues in

monitoring the quality of care provided in skilled nursing facilities, rehabilitation facilities, long-term hospitals, and beneficiaries’ homes. At present, Medicare’s capability to monitor the quality of care provided in these settings is very limited, although HCFA has taken a number of steps to generate information on the quality of care furnished by certain types of post-acute care providers. The Commission supports the intent of HCFA’s efforts, but has a number of recommendations for enhancing or redirecting them:

- The Commission would like to see quality monitoring systems developed for all types of post-acute care providers, and the information generated by those systems used to safeguard and improve the quality of beneficiaries’ care.
- The Commission believes that quality monitoring efforts should be closely coordinated across different types of post-acute care providers. Medicare should employ core measures that can be used to compare quality across post-acute care settings, in addition to a well-chosen, minimal set of supplemental measures geared toward types of care uniquely provided in particular settings.

- The Commission encourages the Secretary to invest in developing better measures of post-acute care quality. Measures of appropriate service use and those that can be used to compare outcomes across different sites of service are notably lacking. Methods for making adjustments to account for differences in patient acuity when comparing quality across providers must also be defined.
- The Commission believes that post-acute care data collection efforts need improvement. The Secretary should take steps to increase the utility of the patient assessment data currently collected for quality monitoring and payment purposes, while reducing the burden on providers and beneficiaries. To minimize reliance on patient assessment data, she should assess the use of other types of information for quality monitoring purposes, such as information from patient surveys, medical records, or claims.

This section of the chapter outlines the rationale for the quality monitoring objectives recommended by the Commission, and then discusses the need for coordinating setting-specific monitoring systems to increase the utility of monitoring efforts. It then considers the types of quality measures needed for measuring post-acute care quality, and concludes with an analysis of how to improve data reporting requirements.

### **Defining objectives for monitoring post-acute care quality**

MedPAC believes that policymakers should clearly articulate their objectives for monitoring post-acute care quality to guide the development of monitoring systems that can ultimately attain them. Perhaps the most important short-term objective is to address policymakers’ concerns about the impact of prospective payment on the quality of post-acute care. However, data-driven monitoring systems are also attractive in that they offer the

<sup>13</sup> See Chapter 2 for a review of the evidence on the effects of payment changes mandated by the BBA on beneficiaries’ access.

potential to enhance Medicare's ability to safeguard the quality of care beneficiaries receive, assist providers in improving the quality of care, and help patients make informed decisions.

The Secretary currently has work under way to develop quality monitoring systems for at least two types of post-acute care providers: home health care agencies and skilled nursing facilities. However, the work in progress differs in terms of stated objectives and system design.

### **RECOMMENDATION 3F**

**The Secretary should establish systems for routinely assessing the quality of post-acute care and should use the information these systems generate to:**

- **evaluate the effects of new payment systems on quality of care,**
- **focus quality assurance activities,**
- **facilitate continuous quality improvement, and**
- **promote informed patient decisionmaking.**

#### **Assessing the effects of prospective payment on quality of care**

Although policymakers are concerned about the potential effects of prospective payment on quality, Medicare's capability to assess the effects of those payment changes now in progress or soon to be initiated is very limited. Such capability is necessary; otherwise, policymakers must rely solely on anecdotal information and input provided by interested parties, which provide an inferior basis for decisionmaking.

HCFA has announced plans to evaluate the effects on quality of some, but not all, of the new post-acute care PPSs. As directed by the BBA, the agency has set

up a process to evaluate the effects of the new SNF PPS on the quality of skilled nursing care beneficiaries receive and to ensure that beneficiaries obtain appropriate services under the system.<sup>14</sup> Although MedPAC believes that this process represents a reasonable use of existing resources, limitations in those resources cast doubt on the system's potential effectiveness in uncovering changes in beneficiary care caused by changes in payment methods or amounts. Furthermore, it is unclear whether the agency plans to assess the effects on quality of forthcoming prospective payment systems for home health agencies, rehabilitation facilities, or long-term hospitals. The Congress has not issued a mandate to do so, nor has HCFA indicated that it intends to undertake such an assessment.

HCFA could use the SNF quality medical review process as a model to evaluate the effects of new payment systems for other types of post-acute care as they are initiated. In the home health area, HCFA could use OASIS data collected before and after implementation of the PPS to evaluate whether certain health care outcomes change, following the change in payment. Developing the capacity to evaluate the effects of future payment systems for long-term hospitals and rehabilitation facilities would require additional planning on HCFA's part. Because the agency does not currently collect patient assessment data (comparable to MDS or OASIS) from long-term hospitals or rehabilitation facilities, HCFA must either begin to collect such data before implementing the PPS or use other types of information to assess quality before and after the payment changes occur.

#### **Using quality monitoring systems to fulfill other objectives**

MedPAC's recommendation to establish routine quality monitoring systems for post-acute care is motivated only partly by the shift to prospective payment for these services. The Commission has previously

noted the need to establish systems for monitoring, safeguarding, and improving the quality of all types of care Medicare beneficiaries receive (MedPAC 1999b). Such efforts are needed in light of the findings of the Institute of Medicine and the President's Advisory Commission on Consumer Protection and Quality, which have concluded that measurable quality problems exist in all health care settings under all types of payment arrangements (Chassin et al. 1998, Quality Commission 1998).

Monitoring the nature and extent of quality problems is necessary, but will not alone be sufficient to address any problems identified. As MedPAC noted in our June 1999 report to the Congress, quality monitoring is a means of developing information that can be used for a variety of purposes. Whether and how that information is used determines the extent to which monitoring affects quality of care (MedPAC 1999b).

To affect quality, HCFA must develop valid and reliable information on quality, use that information in administering the Medicare program, and assist beneficiaries and providers in using the information appropriately. However, not all types of information serve all purposes equally well, and data collection places burdens on health care providers and beneficiaries that could reduce resources available for care. Therefore, MedPAC believes it is critical that HCFA be parsimonious in identifying the key information necessary for quality monitoring purposes, and that every effort be taken to ensure that such information is collected efficiently.

In addition to evaluating the effects of payment changes, MedPAC supports developing routine quality monitoring systems to provide information for three purposes. First, information on quality should be used to strengthen existing quality assurance mechanisms. For example, findings could be used by survey and certification agencies to target oversight efforts on particular providers or quality issues.

<sup>14</sup> The so-called quality medical review process focuses on the appropriateness and effectiveness of patient care, rather than the accuracy and validity of SNF claims. HCFA's fiscal intermediaries also conduct medical reviews of PPS claims, which involves verifying the level of services billed by the facility, drawing upon MDS data or medical records.

## Quality medical review process for skilled nursing facility care

As required by the Balanced Budget Act, the Health Care Financing Administration (HCFA) has initiated a quality medical review process to evaluate the effects of the prospective payment system (PPS) on quality and access to skilled nursing facility (SNF) care, and to ensure that beneficiaries obtain appropriate services under the new payment system. The initiative involves two components: developing databases for analyzing changes in SNF quality, and testing state-level SNF quality monitoring, assurance, and improvement activities.

For the first component of the initiative, HCFA awarded a two-year contract to PRO-West, the Washington state peer review organization (PRO), to merge components of existing databases containing information pertinent to SNF care quality and, through analysis of this information, to identify changes in care since implementation of the PPS. Key data include:

- Medicare and Medicaid billing data;
- the Minimum Data Set (MDS), patient assessment data that all certified nursing homes must collect and report; and

- data from the Online Survey, Certification, and Reporting System, which documents information about facilities collected by state survey agencies as part of annual licensing and certification review procedures.

The second component of HCFA's initiative is a two-year pilot test of the ability to develop data-driven, state-level SNF quality monitoring systems to track the effects of PPS on quality and access, and to implement a cooperative, cross-contractor approach to assessing and improving the quality of SNF care. This five-state pilot test involves coordinated efforts of the PROs, state survey agencies, and fiscal intermediaries. Efforts in three of the five states also include the state Medicaid agencies, in an attempt to examine trends in care for longer-stay dually eligible patients.

In the course of the pilot project, HCFA hopes to address several questions:

- Does the MDS help target SNF quality of care problems (in addition to the long-term care quality issues it was designed to address)?
- Can program integrity, quality of care, and medical review contractor

roles be improved by coordinating their activities?

- Is there a role for the PROs to play in promoting quality improvement in SNFs?

HCFA has created a technical expert panel to assist in identifying clinical conditions that might be adversely affected by the new SNF payment system and which could potentially be measured using available data. In accordance with the panel's recommendations, the state pilot project teams are focusing their monitoring efforts in three areas. First, they will monitor the outcomes of rehabilitation care for patients with hip fracture, stroke, or pneumonia—chosen because each has a large volume of frequently occurring admitting diagnoses for elderly nursing home admissions. Using MDS data, the teams will evaluate rehabilitation patients' functional improvements between assessments. Second, they will monitor average lengths of stay, emergency room visits, and rehospitalization rates for SNF patients. Third, the teams will test, for short-stay SNF care, the use of a set of quality indicators developed to measure the quality of care provided to long-term nursing home residents. ■

Second, such information should also be used in quality improvement efforts, such as those developed and managed by Medicare's peer review organizations. This requires generating information that providers can use to compare their performance levels with benchmarks derived from standards of care or the performance of peers. Following an intervention, such as provider education or redesign of a delivery system process, performance is measured again.

Finally, information derived from quality monitoring efforts should be used to assist beneficiaries in considering quality when choosing among providers. Although few consumers use this type of information now, some experts believe demand for this information will grow as consumers gain familiarity with it and as the content, presentation, and delivery improve.<sup>15</sup> In addition, the sentinel effect associated with publicizing certain information may provide incentives for quality improvement.

For home health care and skilled nursing facility care—but not yet for long-term hospital care or rehabilitation facility care—HCFA has efforts under way that will allow the agency to routinely measure quality and use that information for quality assurance and quality improvement purposes (see text boxes, p. 64 and p. 65). The agency also recently established an Internet site to help potential nursing home patients compare the quality of care these facilities provide. The Web site ([www.medicare.gov/nursing/home.asp](http://www.medicare.gov/nursing/home.asp)) provides descriptive

<sup>15</sup> See MedPAC's June 1999 Report to the Congress for a review of the evidence on health care consumers' use of information on quality.

information and data on the number and type of deficiencies found in the most recent program certification survey. However, the site does not include focused information on the quality of skilled nursing care.

### **Coordinating monitoring efforts across sites of service**

Because issues in the quality of post-acute care include those common to different settings and those unique to specific sites of care, coordinating quality monitoring systems for different types of providers would maximize the utility of the information they generate. Rather than develop quality monitoring for each type of post-acute care provider independently, the Commission believes that systems should be designed to provide a limited amount of key information relevant to the quality of care furnished in a particular setting and a limited amount of additional information with which to compare processes and outcomes of care provided in different post-acute settings. Information used in making such comparisons must be risk adjusted to control for differences in patient acuity across different settings. System design should also consider future interest in evaluating the quality of care furnished in multiple-provider episodes of post-acute care.

### **RECOMMENDATION 3G**

**The Secretary should coordinate systems for monitoring post-acute care quality across all service settings to:**

- **assess important aspects of the care uniquely provided in a particular setting,**
- **compare certain processes and outcomes of care provided in alternative settings, and**
- **evaluate the quality of care furnished in multiple-provider episodes of post-acute care.**

Although HCFA is developing quality monitoring systems for evaluating care

## **Outcome-based quality improvement for home health care**

HCFA is developing a data-driven quality monitoring system for use in home health quality improvement and quality assurance programs. The system may also eventually be used for consumer information purposes. The outcome-based quality improvement system for home health care, in development for a number of years, is based upon analysis and dissemination of information on patient outcomes using patient assessment data from the Outcome and Assessment Information Set (OASIS).

A three-year national demonstration of the use of OASIS in a quality improvement program, involving 50 home health agencies, was completed in September 1999. Although no formal evaluation of the demonstration was commissioned, demonstration contractors reported they could generate quality reports using the data submitted by agencies participating in the demonstration, and that agencies achieved quality improvements, such as reductions in the rate of

rehospitalizations, over the course of the demonstration period.

HCFA has initiated a pilot test of the use of peer review organizations (PROs) to support home health agencies in meeting Medicare's new participation requirement to improve patient outcomes. Under this project, a PRO is to work with home health agencies in the region it serves to help identify and implement interventions designed to improve quality, interpret outcome reports, provide training of staff, and disseminate information on best practices. Depending in part on the success of this pilot test, HCFA may seek to expand the purview of the PROs to include home health care on a permanent and formal basis.

HCFA also plans to develop agency-specific outcome reports for use by the state survey agencies in targeting agencies for review and in identifying problems for investigation in the course of review. ■

provided by SNFs and home health agencies, both the Medicare program specifically and the health system in general are ill-equipped to compare the care provided in different post-acute care settings and to evaluate the care patients receive when it involves more than one type of provider. Ongoing rapid evolution of the health care delivery system intensifies the need for, and potential benefit of, developing this capacity. This limitation is particularly important as Medicare begins to create alternatives to the traditional Medicare program such as the Program of All-Inclusive Care to the Elderly (PACE) and, potentially, bundling payments for a post-acute care episode that could encompass care provided by multiple provider types.

PACE exemplifies the problems with developing uncoordinated quality monitoring systems for different sites of service. PACE is designed to offer integrated delivery and financing of primary, acute, and long-term care services for a frail (nursing-home eligible) population. Because 18 of the 25 PACE sites are licensed as home health care agencies in the states in which they operate, these sites are required to collect and submit OASIS data.<sup>16</sup> Furthermore, HCFA has sponsored the development of a patient assessment data collection tool that could address PACE patient care issues. Although the PACE instrument is expected to have an outcomes-oriented focus, similar to that of OASIS, the extent to which these tools will be comparable is unknown.

<sup>16</sup> The other sites are exempt from HCFA's patient assessment data reporting requirements. However, according to the National PACE Association, PACE sites continue to collect and submit patient assessment data using the formerly required PACE data set, because it is required to maintain private accreditation status.

## Developing needed measures of post-acute care quality

A critical limitation in the development of post-acute care quality monitoring systems is in the availability of quality measures. Investing in developing and validating quality measures is needed to provide a basis for assessing important aspects of post-acute care quality.

### RECOMMENDATION 3H

#### **The Secretary should sponsor the development of post-acute care quality measures needed to monitor outcomes—such as beneficiary health and functional status—and the appropriate use of services.**

The dearth of indicators of post-acute care quality that can be monitored with regularly collected data represents a considerable problem. Measures of home health outcomes that use OASIS data have been tested and validated. Quality indicators for use with the MDS also have been developed, but they focus on issues relating to long-term nursing home care. HCFA is in the process of testing—through the pilot project of the SNF quality medical review system—whether these indicators also provide meaningful information about the quality of skilled nursing care. The extent of patients' functional improvements resulting from rehabilitation care can be measured using the Functional Independence Measure (FIM), a patient assessment instrument, but those data are not collected by HCFA.

Home health care quality measures based on information in OASIS were developed by researchers at the Center for Health Services and Policy Research at the University of Colorado through projects co-funded by HCFA and the Robert Wood Johnson Foundation. The measures, which form the basis of HCFA's forthcoming outcome-based quality improvement system for home health, are of three types: those designed to measure

changes in health status; those that measure changes in behavior, emotions, or knowledge that can influence health status; and measures of health care use (such as acute care hospitalization) that serve as a proxy for outcome changes. To calculate these measures, patients are grouped in one of 25 quality indicator groups, which are designed to provide relatively homogeneous classifications based on diagnosis, requirements for specialized care, and functional status.

With the focus on outcome measures in HCFA's forthcoming home health quality measurement system, the agency will not directly measure whether underuse of needed care results from inappropriate responses to the PPS incentives for increased efficiency. Underuse may or may not be reflected in inferior outcomes of care, depending on the sensitivity of the particular measures.

HCFA also sponsored the development of 24 quality indicators that use MDS data to provide information on the quality of nursing home care at either the individual resident of facility resident population levels. Developed by the Center for Health Systems Research and Analysis at the University of Wisconsin–Madison, the measures document the extent to which patients have certain conditions (such as symptoms of depression) or are recipients of certain care (such as tube feeding). Two of the measures describe the extent to which the patient's condition improved or worsened over the measurement intervals. Some of the measures are calculated separately for patients deemed at high risk for a particular condition (for example, incontinence rates are calculated separately for those who are severely cognitively impaired), while others exclude certain residents (such as comatose patients). These methods provide a means of accounting for differences in the resident population across different facilities.

The need for additional measures of the clinical quality of SNF care depends on HCFA's findings as to whether the long-

term care quality indicators derived from MDS data also apply to SNF patient care, and on whether the MDS provides adequate data for assessing functional outcomes of rehabilitation patients. At present, many SNFs use the FIM with their rehabilitation patients for this purpose, but these data are not currently collected by HCFA.<sup>17</sup> If HCFA finds that the long-term care quality indicators it is testing are not useful measures of SNF care quality, the agency might seek to determine whether more appropriate measures of SNF quality could be derived from MDS data. Ultimately, the agency could find that MDS data do not provide the information needed to monitor the quality of SNF care.

Measures of whether beneficiaries receive appropriate care could provide additional assistance in interpreting any declines in service volume that result from PPS implementation. MedPAC is sponsoring a project to assess the feasibility of developing indicators of beneficiaries' use of appropriate SNF care that draw upon routinely available administrative data. In response to a BBA mandate that the Secretary establish normative guidelines on the frequency and duration of home health services needed by different beneficiaries, HCFA funded a project that could potentially serve as a basis for further work in this area. However, this work is likely to focus on identifying thresholds for overuse of services, rather than underuse, because the Congress couched its mandate in the context of developing standards for denying inappropriate claims.

HCFA has also sponsored work by Abt Associates to identify quality measures that could be used across inpatient post-acute care settings. No report on the project has been issued, but HCFA staff report that the agency's contractors found that very few post-acute quality measures have been developed and even fewer have been validated. The current phase of the project funds the development of new measures that could be used with existing data.

17 In our March 1999 Report to the Congress, MedPAC recommended that the Secretary conduct a demonstration to assess the potential of the FIM-FRG classification system in predicting the resource use of intensive rehabilitation patients in SNFs.

In developing new measures of post-acute care quality, the Secretary can draw upon not only the resources and expertise of HCFA, but also the resources of other agencies with relevant mandates. Among the agencies that could play a role is the Agency for Healthcare Research and Quality (AHRQ), formerly the Agency for Health Care Policy and Research. In recent legislation renaming and reauthorizing AHRQ, the Congress recognized the importance of funding research and development work to measure, safeguard, and improve health care quality.

### Improving data for post-acute care quality measurement

The Commission has a number of concerns relating to the collection of patient assessment data from post-acute care providers. Lack of coordination in the design of the instruments, and in their use by Medicare, limits the utility of the information they furnish. Furthermore, the subjective nature of these data is an issue, particularly because they now form (or are expected to form in the future) the basis for payments and quality measurement in post-acute care settings. Finally, MedPAC is concerned about the scope of the data collected, which seems to place an unnecessarily large burden on health care providers and post-acute care patients.

#### RECOMMENDATION 31

**The Secretary should review all post-acute care data collection requirements. Each item should have an explicit rationale, and only information needed for accurate billing, risk adjustment, or quality measurement should be required.**

HCFA now requires patient assessment data collection in some, but not all, post-acute settings. Medicare requires home health agencies and SNFs to fulfill OASIS and MDS data collection and reporting requirements, respectively. Although in some cases, these providers may be providing similar services to patients with similar characteristics, the data HCFA

collects on these patients and their care differ significantly. No comparable reporting requirements have been developed for rehabilitation facilities or

long-term hospitals, although they are likely to be established as HCFA instigates new payment systems for these providers.

### Patient assessment data collection tools

Since June 1998, HCFA has required nursing homes to collect and submit patient assessment data in a standardized format known as the Minimum Data Set (MDS).<sup>18</sup> The Resident Assessment Instrument that serves as the basis for collecting MDS data was originally developed as a comprehensive care planning tool, but the information it generates is now also used to classify patients for determining SNF payments, as well as for measuring the quality of long-term nursing home care. The current version of the MDS includes approximately 300 elements grouped in 18 domains. Assessments of SNF residents are required to be conducted periodically by a clinician (nurse or therapist). The reliability and validity of MDS items has been extensively studied (Won et al. 1999). For most items, researchers documented high levels of validity and reliability (interrater and test-retest), but a few areas, such as depression and incontinence, have proved problematic.

HCFA established requirements for home health agencies to collect and report standardized patient assessment and outcome data as of July 1999. The Outcome and Assessment Information Set (OASIS), which consists of 79 items in its current iteration, collects a variety of information that relies on the collector's assessment of patient capacity as well as on patient responses. OASIS data are collected by a nurse or therapist for each patient at the start of care, every 60 days thereafter for the duration of treatment, and at discharge. Home health agencies report the data to their state survey and certification agencies, which in turn report the data to a central repository maintained by HCFA.

Unlike SNFs and home health agencies, rehabilitation facilities are not currently required by HCFA to collect or submit patient assessment data. Many rehabilitation facilities assess their patients using a relatively short, outcomes-oriented measurement known as the Functional Independence Measure (FIM). Some facilities report these and other data to the Uniform Data System for Medical Rehabilitation, a national repository. The FIM consists of items geared toward measuring functional capacity in six domains: communication, social cognition, locomotion, transfers, sphincter control, and self care. Studies of the FIM have found good interrater reliability (Hamilton et al. 1994).

HCFA may or may not require submission of FIM data by rehabilitation facilities in the future. The agency plans to use the Functional Independence Measure-Functional Related Group (FIM-FRG) system for classifying patients for payment under the PPS; therefore, HCFA will need to collect patient-level data of the type required to generate FIM-FRG classifications. However, the Minimum Data Set-Post-Acute Care (MDS-PAC), which HCFA developed and is currently refining based on tests of use in alternative inpatient post-acute care settings, may also provide information needed to generate FIM-FRG classifications, and could therefore potentially be required instead. HCFA and the rehabilitation care community have longstanding disagreements over the extent to which various iterations of the MDS-PAC have incorporated the FIM. ■

<sup>18</sup> The MDS had been in use in long-term care facilities since at least 1991, however.

**TABLE  
3-5**

**Characteristics of selected patient assessment data sets**

<b>Data set</b>	<b>Patient assessment instrument on which based</b>	<b>Purpose for which developed</b>	<b>Type of care designed to address</b>	<b>Medicare payment usage</b>	<b>Quality measurement application(s)</b>	<b>HCFA reporting requirement</b>
Minimum Data Set	Resident Assessment Instrument	Care planning	Long-term care	SNF	Long-term care; applicability to SNF care being tested	NF and SNF
Uniform Data System for Medical Rehabilitation	Functional Independence Measure	Assessing functional status	Rehabilitation care	Not currently; could be used for rehabilitation facility payments in future	Rehabilitation care	No
Minimum Data Set—Post Acute Care	Incorporates items from the Resident Assessment Instrument and the Functional Independence Measure	Collecting core information across sites of service	Inpatient post-acute care sites (SNF, rehabilitation facilities, and long-term hospitals)	Not currently; could be used for inpatient post-acute care payments in future	Unknown	No; potential future requirement for SNF, rehabilitation facilities, and long-term hospitals
Outcome and Assessment Information Set	Not applicable	Measuring quality	Home health care	Home health agencies	Home health care	Home health agencies

Note: NF (nursing facility), SNF (skilled nursing facility).

Source: MedPAC analysis of information from several sources.

Patient assessment data collection tools in current or potential future use among post-acute care providers are highly diverse, varying in terms of the purpose for which they were designed, the types of care they were designed to address, the types of providers that use them, and the payment, quality measurement, care planning, or other purposes for which they are used (Table 3-5).

The information collected by these tools is also quite different, not only in terms of the types of information collected, but also in the way similar items are framed. The items in the MDS and OASIS relating to patient bathing status provide an illustration of such differences. The MDS and OASIS items differ dramatically in how they define bathing, what about bathing is of interest (documenting what actually occurs or the perceived ability to undertake the

activity), and the number and nature of response codes. The MDS defines the bathing item as “how resident takes full-body bath/shower, sponge bath, and transfers in/out of the tub/shower (exclude washing of back and hair),” while OASIS defines bathing as “patient ability to wash entire body (exclude grooming, washing face and hands only).” The MDS provides 11 response codes to the bathing item; 6 are for coding patients’ bathing self-performance and 5 for coding staff-supported bathing activity. The OASIS offers seven response codes that range from full patient independence to complete dependence on another person for bathing.

The lack of comparability across post-acute patient assessment data collection concerns MedPAC for several reasons. The differences limit the use of the data to make comparisons across settings, even in

cases in which the patients and the care furnished may be comparable in important respects. They also create differential burdens on providers and patients across settings and serve as a limiting factor in moving toward better integration of post-acute care.

MedPAC therefore supports developing and using improved patient assessment data collection tools that use common definitions, items, and data collection methods wherever possible. This can be undertaken, in part, by ensuring that patient assessment instruments used in each setting identically measure functional status, patient conditions, and other items of common interest, and that the instruments use common definitions, terms, and rating scales wherever possible. The Commission would like to see additional steps taken to link information collection requirements to the

type of care being provided, such as rehabilitation care, rather than to the setting in which that care is furnished. The Commission plans to assess whether the forthcoming Minimum Data Set–Post-Acute Care addresses the Commission’s concerns. MedPAC will also be interested in exploring how home health care assessments can be better coordinated with any common data collection efforts for inpatient post-acute care.

MedPAC has concerns about the reliance on patient assessment data for both monitoring quality and paying for post-acute care services.<sup>19</sup> The subjective nature of these data creates opportunities for miscoding, while the payment and monitoring systems provide incentives to do so. For example, the integrity of the OASIS data, which form the future basis of both payment and quality monitoring systems for home health agencies in Medicare, may be affected by the apparent alignment of payment and quality monitoring incentives for providers to classify a patient as being of poor health and functional status for purposes of the initial assessment. Incentives for subsequent patient assessments depend on whether the patient is being discharged—in which case providers face incentives to find improvements to enhance quality measurement results—or is obtaining a 60-day followup, in which case the incentives created by payment and quality monitoring systems oppose one another.

In the short term, HCFA must establish sound processes for assessing and ensuring data integrity, coupled with consequential penalties for abuse, to counteract incentives for miscoding.<sup>20</sup> In the longer term, MedPAC supports reducing the reliance on subjective data for measuring quality and determining payments.

MedPAC calls upon the Secretary to reduce the burden of patient assessment data collection on patients and providers.

First, data collection requirements must be reduced to the bare minimum required to make payments and estimate key quality indicators, including that necessary to classify patients appropriately on the basis of different risk factors for both payment and quality assessment purposes. A second step is to examine whether patient assessment data collection can be reduced by focusing the collection of information beyond that needed for payment on a subset of patients, rather than the full set of patients using post-acute care. (This could potentially be accomplished by the use of sampling methods.) A third step would be to gather information for quality measurement from other sources, reducing the reliance on patient assessment data. For example, patient medical records, patient surveys, and claims might be useful sources of information for measuring certain aspects of quality.

MedPAC acknowledges that changing patient assessment data collection efforts will be challenging. Because the diverse post-acute care payment systems have been based on current patient assessment tools, any transition will likely require a period of dual data collection efforts to ensure that items needed to form the basis of payment are collected under the new systems.

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### **Refining payments for inpatient care in prospective payment system hospitals**

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Effective FY 1984, Medicare replaced the cost-based methods it used to pay hospitals for inpatient care with an inpatient PPS. Despite a variety of subsequent modifications, the system’s main features have remained remarkably stable. In this section, we consider further refinements to several elements of the PPS and make recommendations that the

Congress or the Secretary of Health and Human Services could adopt to strengthen the effectiveness of Medicare’s hospital payment policies.

In our work this year on refining payments for care in hospitals, we have not attempted a comprehensive review of all elements of the inpatient PPS. Instead, we have focused on selected policy issues concerning four components of the payment system:

- Should Medicare continue to set separate operating and capital payment rates, or combine them into a single comprehensive payment rate per discharge?
- Could Medicare substantially improve payment accuracy by refining the diagnosis related groups (DRG) patient classification system, the methods it uses to measure expected relative resource requirements among DRGs, and its method for financing outlier payments for extraordinarily expensive cases?
- Is Medicare’s expanded transfer payment policy appropriate, and should it be extended from 10 DRGs to all DRGs?
- How can Medicare refine its policies for making additional payments to providers that serve a disproportionate share of low-income patients to improve equity among hospitals?

The first issue concerns the desirability of combining Medicare’s separate payments for the operating and capital components of inpatient care. Originally, PPS payment rates covered only the operating costs of inpatient care. Capital costs—mainly depreciation, loan interest, and rent—were reimbursed based on each provider’s incurred costs. In FY 1991, capital

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19 Using the same data source for quality monitoring and defining payment classification may provide valuable incentives in the long-term care arena, however. Incentives to code patients as sick and dependent to maximize payment may be offset by concerns about the increased risk of poor findings from quality monitoring.

20 HCFA has contracted with the Center for Health Services and Policy Research at the University of Colorado to develop a program for ensuring OASIS integrity. The program is expected to rely on auditing OASIS data, checking patient assessments against medical records, and conducting concurrent assessments. The contract also involves developing algorithms that can be used with claims to identify instances of potential miscoding for focused review. The agency also has a contract with Abt Associates to develop processes and protocols for ensuring MDS data accuracy, the results of which are expected this year.

prospective payment rates were introduced with a 10-year phase-in period. The end of the transition raises the issue of whether Medicare should continue to make separate operating and capital payments.

The second issue concerns the desirability of refining Medicare's inpatient classification system and its relative weights. HCFA annually sets separate payment rates for about 500 distinct types of cases, as defined by the DRG patient classification system. These per discharge payment rates are the product of two components: the hospital's base operating or capital payment amount per discharge, and the relative weight for the patient's DRG, which measures the expected relative costliness of a typical case in that category compared with the average cost for all Medicare cases. The relative weights thus determine how much payment rates vary among distinct types of cases.

The DRG definitions and the methods used to calculate relative weights have important limitations that affect payment accuracy at the case level. MedPAC is evaluating several potential refinements intended to address this problem. In this section, we report preliminary findings from our analysis.

Payments for some cases are also adjusted to accommodate variations in costs that reflect unusual differences in the care furnished. The outlier policy provides additional payments to hospitals when their costs for a case are extraordinarily high compared with the regular PPS payment. Outlier payments help defray part of the financial losses hospitals otherwise would incur in treating unusually severe cases. These payments thus reduce hospitals' financial risks from extraordinary cases, thereby limiting financial incentives to avoid costly patients and ensuring that severely ill beneficiaries continue to have access to high-quality care.

The third issue explores the transfer policy, which reduces payments for some cases when the full course of care normally provided to patients in the same

DRG is only partly furnished in the hospital, with the remainder furnished in another PPS hospital. The BBA expanded the transfer policy to cases in 10 DRGs when the patient is discharged to a PPS-exempt hospital or a post-acute care provider (such as a SNF), or when the patient is discharged with a plan of care to receive related home health services. The law also allowed the Secretary to extend the new policy to other DRGs, raising the issue of whether she should do so.

Medicare also adjusts hospitals' PPS payments to accommodate systematically higher costs of care in teaching hospitals and to partially offset lost revenues for providers serving a disproportionate share of low-income patients. The indirect medical education (IME) adjustment and the disproportionate share hospital (DSH) adjustment are intended to help preserve beneficiaries' access to care in hospitals that often provide high-technology services not widely available elsewhere.

Although MedPAC is exploring potential policy changes that might improve Medicare's payments to teaching hospitals, this work is not yet complete. We plan to continue our analysis over the next few months and publish the findings and related recommendations in a June report on hospital payment policies.

We also have previously recommended ways to make the DSH adjustment more effective while promoting payment equity among hospitals. In considering this fourth issue, we revisit policy questions concerning payment equity and recommend ways to further refine this payment adjustment.

### **Combining payments for operating and capital costs**

Medicare uses prospective payment systems for the operating and capital costs of PPS hospitals. During a 10-year transition to fully prospective capital payment with federal rates—which ends in FY 2001—most hospitals have been paid based on a blend of hospital-specific and federal rates. The Congress should now address the unit of payment for

inpatient hospital services by combining operating and capital payments into a single prospective hospital payment rate.

Separate operating and capital payments are a relic of the era of cost reimbursement for health care, and there is a strong conceptual case for combining them after the end of the transition. Both support services to the same Medicare beneficiaries, and both payment amounts are proportional to the DRG weight of the case. Further, in seeking to approximate market behavior, Medicare's administered prices should follow other industries where prices cover both operating and capital costs. Such a change would simplify the hospital prospective payment system, reduce the costs and complications of maintaining the PPS, and clarify incentives facing hospitals.

### **RECOMMENDATION 3J**

**The Congress should combine prospective payment system operating and capital payment rates to create a single prospective rate for hospital inpatient care. This change would require a single set of payment adjustments—in particular, for indirect medical education and disproportionate share hospital payments—and a single payment update.**

When the Medicare capital PPS was introduced in FY 1992, it was understood that operating and capital payments would be combined in a single prospective payment after the end of the transition in FY 2001. It will be appropriate, at that time, to combine operating and capital payments.

During the transition, hospital capital payments have been a blend of prospective federal rates based on data from all PPS hospitals and prospective hospital-specific rates, based on hospitals' historic costs. The blend will shift from 10 percent federal and 90 percent hospital-specific, in annual 10 percentage point increments, to 100 percent federal in

2001. Thus, by FY 2002, all hospitals will be paid entirely with federal rates.<sup>21</sup>

With the end of the transition for capital payments, both operating and capital prospective payments will be made using standard federal rates. The operating base rates, or standardized amounts, differ according to hospital location in large urban areas or other areas, while a single capital base rate applies to all hospitals. In FY 2002, federal prospective payment rates could be calculated by adding the current standardized amounts for operating costs and the standard federal rate for capital costs to yield a rate that would vary by hospital location, as do current standardized amounts.

Both operating and capital payments are adjusted to reflect certain attributes of hospitals and patients. However, the operating and capital adjustments differ from one another; a combined payment system would require a single set of adjustments, which the Congress would have to take legislative action to implement.

A combined payment system would also require a single update to reflect changes in prices and other factors. The general update framework MedPAC intends to use to recommend updates in the future is based on the premise that capital and operating payments will be combined (Chapter 4). Operating updates are currently set by statute, while capital updates are set at the discretion of the Secretary. The Congress will have to decide whether updates for combined rates will be set by statute or by the Secretary through the rulemaking process.

As discussed later in this chapter, the Commission is examining broad reforms to the PPS, including DRG refinement

and modification of the graduate medical education payment and the IME and DSH adjustments. The Commission believes that a combined hospital prospective payment rate should be established whether or not broader reforms are undertaken. However, if the Congress acts on any or all of the Commission's recommendations, it should consider combining operating and capital payments as part of a larger package. Creating a combined payment is a simple change with no budgetary impact but with substantial payoff in terms of the simplicity and credibility of Medicare hospital payment.

MedPAC's recommendation to combine operating and capital payments is not intended to change total payments. The Commission believes that the Congress should introduce a combined payment system with budget neutrality rules similar to those applied to other major PPS changes.

The conceptual appeal of combining rates would be irrelevant if major unforeseen and negative consequences resulted. Accordingly, the Commission analyzed the impact of a combined payment rate on hospitals. We found negligible changes in revenue across groups of hospitals and small changes for individual hospitals.

We modeled the combined rate policy by examining the distribution of payments under FY 2000 payment rules (other than those changed in the simulation).<sup>22</sup> We applied the operating DSH adjustment to total payments at hospitals qualifying for the operating adjustment in 2000. We also applied a newly estimated IME adjustment appropriate for use with combined payments.<sup>23</sup> The analysis introduces both changes in a budget neutral manner so that there is no change

in aggregate disproportionate share, indirect medical education, or total payments.

By design, combining capital and operating payments does not change total payments. Payments for major classes of hospitals change less than 0.1 percent, and in some cases as little as 0.01 percent (Table 3-6). When hospitals are grouped by number of beds, census division, DSH status, and special payment status (such as sole community, rural referral center, and high Medicare), no group has a change greater than 0.5 percent. Despite applying operating DSH rules to capital payments, only the rural DSH hospital group experiences a change exceeding 0.25 percent.

Changes are fairly uniform within each group of hospitals. We ranked major groups of hospitals by percentiles of changes in payment within each group. In all but one case, the increase or decrease for hospital groups at the 1st and 99th percentiles is less than 1 percent. That is, the 1 percent of hospitals with the greatest decline experienced less than a 1 percent drop in total payments, while the 1 percent with the greatest increase had less than a 1 percent jump.

### **Improving the patient classification system and relative weights**

Medicare uses the diagnosis related groups (DRG) patient classification system to set operating and capital payment rates for about 500 distinct types of cases that are expected to require different amounts of providers' resources. HCFA annually updates the DRG definitions to account for changes in technology and medical practice that may affect treatment costs for specific diseases

21 A small number of hospitals will continue to receive hold-harmless payments and will not be paid entirely with prospective federal rates in 2001. These hold-harmless payments will not be made in 2002 after the end of the transition.

22 Both operating and capital payment systems apply adjustments to the standard rates to reflect differences between hospitals. Although most adjustments address similar issues, they generally differ in formulas and variables. The DSH adjustment uses different formulas for operating and capital payment. Rural hospitals and urban hospitals with less than 100 beds are eligible for the operating adjustment, but not for the capital adjustment. The IME adjustment applied to operating payments adjusts for differences in the number of residents per bed, while the IME applied to capital payments adjusts for differences in the number of residents per average daily inpatient census. The Congress will have to resolve these differences to combine operating and capital payments.

23 The Commission has made recommendations for major reform of DSH payment policy and for payments for medical education (MedPAC 1999a, 1999c). It is considering proposals to develop a more refined DRG system (discussed next in this chapter). Because the work is ongoing, this analysis does not include these changes.

**TABLE  
3-6**

**Change in total payments under combined payment for hospital operating and capital costs**

Hospital group	Average percentage change	Percentiles	
		1 <sup>st</sup>	99 <sup>th</sup>
All hospitals	0.00%	-0.47%	0.66%
Rural	0.07	-0.13	0.70
Urban	-0.01	-0.63	0.61
Major teaching	0.04	-2.85	0.68
Other teaching	-0.01	-0.61	0.59
Nonteaching	-0.01	-0.24	0.67
Proprietary	0.01	-0.90	0.71
Rural government	0.10	0.00	0.68
Urban government	0.08	-0.45	0.61
Voluntary	-0.01	-0.52	0.65

Source: MedPAC analysis of Medicare Cost Report data.

and conditions. It also sets relative weights for the DRGs, which are intended to measure the relative costliness of a typical case in each category compared with the average cost for all Medicare cases. The base PPS payment rates for each case are determined by multiplying the hospital's base operating and capital payment amounts by the relative weight for the DRG to which the patient is assigned.<sup>24</sup> Hospitals also may receive extra payments for cases—called outliers—that are extraordinarily costly compared with the regular payment rates in the applicable DRG.

All else being equal, Medicare's payments would automatically reflect efficient hospitals' expected costs for the mix of cases they treat if the DRG definitions and weights were accurate. Limitations in either the classification system or the relative weights, however, may cause Medicare to pay too much for cases in some DRGs and too little for those in other categories. These potential payment

errors could lead to access or quality problems for beneficiaries or, at the very least, weaken the relationship between hospitals' levels of efficiency and their financial outcomes.

MedPAC's preliminary research suggests that refining the DRGs and relative weights would make the PPS payment rates more accurately reflect hospitals' costs of furnishing care to Medicare beneficiaries. It also indicates that these refinements would result in a substantial redistribution of payments among providers.

**Limitations in the DRG definitions and the relative weights**

The Commission's current interest in case-mix refinement originated in its August report to the Congress on payment policies for graduate medical education and teaching hospitals (MedPAC 1999a). In that report, we argued that Medicare's separate payments for hospitals' direct

costs of graduate medical education (GME) programs and its IME payments under PPS should be viewed as payments for patient care, rather than as support for residents' training. We also promised to evaluate potential policy changes that might make this concept operational, with the goal of developing specific recommendations for Medicare payment policy.

In this context, we initially viewed refining the DRG definitions and relative weights as one element of a potential strategy for improving Medicare's payment policies for teaching hospitals—those that operate approved GME programs for training physician residents. Historically, inpatient care costs for these providers have been systematically higher than those experienced by other hospitals. To the extent that teaching hospitals' higher costs reflect their tendency to treat a disproportionate share of severely ill patients, refinements in case-mix measurement might improve payment accuracy. Further, many observers anticipated that capturing severity differences more effectively through the DRG payment rates might substantially diminish the role of the IME payment adjustment and improve payment equity among hospitals.

After further consideration, however, we realized that the same refinements might address long-standing limitations in case-mix measurement, which have affected payment accuracy for cases in virtually all hospitals. Individual DRG categories often include patients with predictably different expected resource costs. Although HCFA has repeatedly improved the DRG definitions since 1984, they still fail to account fully for differences in illness severity associated with substantial disparities in providers' costs.<sup>25</sup>

24 Each hospital's base operating and capital payment amounts are determined by adjusting national average operating and capital standardized amounts per discharge to reflect the level of prices for labor, supplies, and capital assets in the provider's location. For the operating payment amount, HCFA makes these adjustments using a hospital geographic wage index and a cost of living adjustment (COLA); for the capital payment amount, HCFA uses a capital geographic adjustment index and the same COLA.

25 In 1994, HCFA considered making substantial refinements to the DRG definitions to better capture severity differences among patients (HCFA 1994). In its 1995 March report to the Congress, the Prospective Payment Assessment Commission (ProPAC 1995) recommended that the Secretary adopt the proposed refinements and also change the methods used to calculate the DRG weights. HCFA did not adopt the proposed refinements, largely on the grounds that it lacked statutory authority to make prospective adjustments to the PPS payment rates. HCFA policymakers felt that prospective adjustments would be needed to offset unwarranted spending growth that might result from changes in hospitals' case-mix reporting in response to major revisions in the DRG definitions and weights.

Limitations in the relative weights stem from their basis and method of calculation and from the statutory scheme for financing outlier payments. As presently calculated, the weights may understate the relative costliness of typical cases in some DRGs while overstating it for other DRGs. These distortions occur because the weights are based on the total billed service charges hospitals report on their claims for all cases in each DRG; therefore, the measured relative values partly reflect systematic differences among hospitals in the average mark-up of charges over costs and in the level of average costs. Also, the weights reflect total charges for all cases without accounting for differences among DRGs in the prevalence of outlier cases and related payments.

### Potential refinements

To address the limitations of the current DRGs and relative weights, MedPAC is evaluating three potential refinements in Medicare's policies and methods. One would change the DRG definitions to account more completely for severity differences among patients. The other two would alter the current methods of calculating the DRG relative weights and the policy for financing outlier payments.

**Refining the DRG definitions** To illustrate potential gains of DRG refinement, we are using the severity class definitions from the all patient refined diagnosis related groups (APR-DRG) patient classification system.<sup>26</sup> The APR-DRG definitions differ from the current DRGs primarily in how they use information about patients' secondary diagnoses reported on their hospital claims.

Current DRG definitions are based on the principal diagnosis (the condition determined to have caused the patient's admission for care), operating room procedures, age, and the presence or absence of specific secondary diagnoses

representing clinically significant comorbidities or complications (CC).<sup>27</sup> Approximately two-thirds of all DRGs comprise related pairs or triplets of categories representing adult patients with uncomplicated cases (those without a CC), adults with complications (at least one CC), or pediatric patients (under age 18) with similar conditions or surgical treatment. The remaining one-third are not distinguished by either age or the presence of secondary conditions.

The APR-DRGs aim to more accurately capture differences in patient severity of illness. Patients are initially assigned to one of 355 categories, which reflect distinct illnesses or conditions (indicated by the principal diagnosis) and the medical or surgical nature of the treatment strategy. Patients in each APR-DRG are then assigned to one of four severity classes—minor, moderate, major, and extreme—based on combinations of secondary diagnoses, age, procedures and other factors. This process yields 1,420 groups distinguished by APR-DRG and severity class, compared with about 500 current DRGs.

The principal advantage of the APR-DRG system lies in its treatment of comorbidities and complications. Instead of differentiating patient categories based on the presence or absence of a CC, the APR-DRG severity classes group patients based on the presence and the level of the CC. Moreover, the importance of a particular secondary diagnosis varies according to the nature of the patient's problems, including the principal condition, age, and the presence of certain operative procedures. Consequently, the same secondary diagnosis might result in different severity class assignments, depending on the other characteristics of the patient's condition or treatment.

If these refinements were successful, the new patient categories would discriminate more effectively among patients with

different expected costs. Other things being equal, relative weights and payment rates based on the new definitions would more accurately reflect efficient providers' costs for individual cases. Consequently, Medicare's payments would account more effectively for variations in costs among hospitals due to differences in the mix of cases they treat.

**Revising the method for calculating relative weights** The relative weights are intended to measure the relative costliness of treating a typical case in each DRG, compared with the cost of the average Medicare case. The weight for each DRG is constructed by dividing the national average standardized total charge per case for all cases in the category by the overall national average standardized charge for all cases.<sup>28</sup> Basing the weights on the average standardized charge per case in each DRG, however, makes them vulnerable to distortion from several sources.

One source of distortion is systematic differences among hospitals in the mark-up of charges over costs. Overall average cost-to-charge ratios vary among hospitals according to ownership, size, teaching and disproportionate share status, and location. In addition, the pattern of mark-ups across services varies among hospitals.

If cases in all DRGs were allocated at random among hospitals, then variations in charge mark-ups would not create any systematic distortion in the relative weights. Cases in high-weight DRGs, however, are much more likely to be treated in large urban and teaching hospitals; those in low-weight DRGs are disproportionately likely to be treated in small urban and rural hospitals. Consequently, the average mark-up implicit in the national average standardized charges varies among the DRGs. This distorts the DRG weights, making them vary more than the actual relative cost of treatment.

26 The APR-DRGs are one of several commercially available sets of refined DRG definitions (Averill et al. 1998).

27 Comorbidities and complications are defined as coexisting conditions that were present at admission and those that developed during the stay, respectively.

28 The reported total charges for each case are standardized to remove the effects of geographic differences in input prices, and of the IME and DSH adjustments.

A similar problem results from systematic differences in costs among hospitals. Standardizing the charges for each case aims to remove variation caused by geographic differences in the level of input prices and by hospital-specific differences in the extent of their teaching activity and service to the poor. However, the payment adjustments used for this purpose do not accurately represent cost differences among hospitals. Moreover, these adjustments do not account for systematic differences in costs that reflect other factors, such as variations in practice patterns or in efficiency. Because cases are not randomly distributed among hospitals, these differences also may affect the weights.

These problems could be addressed by calculating the DRG relative weights based on hospital-specific relative values. The relative weights would continue to be based on hospitals' billed charges; however, the charges for each hospital's cases would be converted to relative values.<sup>29</sup> Then, the national relative weight in each DRG would be calculated as the case-weighted average of the relative values for all cases in the category.<sup>30</sup>

This relative value method would eliminate distortions caused by systematic differences among hospitals in the level of charge mark-ups or costs.<sup>31</sup> Other things being equal, the relative weights would more accurately reflect the relative costliness of typical cases in each DRG, thus improving payment accuracy at the case level and payment equity among hospitals.

**Revising Medicare's outlier financing policy** The third potential refinement attempts to address long-standing problems associated with the method of financing outlier payments. Medicare makes extra payments for unusually costly cases, intended to limit hospitals' financial

risk from extraordinary cases and diminish any financial incentive to avoid patients with especially serious illnesses.

Under current law, outlier payments are financed by offsets applied to the operating and capital base payment amounts—in FY 2000, 5.1 percent for the operating payment amount and 6.1 percent for the capital amount. All hospitals thus pay for mandatory outlier insurance through a flat proportionate reduction in their regular payments for cases in all DRGs.

Outlier cases and payments are concentrated, however, in certain DRGs; outlier payments as a proportion of total DRG payments vary from nearly zero in many DRGs to more than 20 percent in a few categories. The mismatch between uniform financing of outlier payments and the disparities in their prevalence causes two problems. The amounts that Medicare charges for outlier insurance do not reflect hospitals' risks of encountering outlier cases. Low-risk hospitals—small urban or rural hospitals, for instance—are overcharged for outlier coverage, while high-risk providers—large urban and teaching hospitals, for example—are undercharged.

The second problem arises because the relative weight in each DRG is based on total standardized charges for all cases in the category, without accounting for differences in the expected prevalence of outlier cases and payments among categories. If outlier payments were expected to account for 20 percent of total DRG payments in a particular category, and the weighted average operating and capital offset was 5.2 percent, then the payment rates for typical cases in that DRG would be 14.8 percent too high. Similarly, the payment rates for a DRG in which outlier payments account for 0.1 percent of total DRG payments would be 5.1 percent too low.

The third potential refinement would finance expected outlier payments in each DRG through an offsetting reduction in the relative weight for the category, rather than by the current flat reduction in the base payment amounts. The relative weight for each DRG would thus approximate more accurately the relative costliness of typical (nonoutlier) cases in the category, largely eliminating this source of distortions in the payment rates among DRGs with different outlier prevalence rates.

### Overall findings from the analysis

In our analyses to date, MedPAC has focused on the effects of each potential case-mix refinement, compared with current policies, with the refinements analyzed as incremental policy combinations (Table 3-7). The first option consists of using refined DRGs—illustrated by the severity class definitions of the APR-DRGs—with relative weights based on conventional methods similar to those HCFA now uses. The second option uses refined DRGs, but replaces the conventional weights with new ones based on hospitals' relative values (relative value weights). The third option uses refined DRGs with relative value weights individually reduced to finance expected outlier payments for the cases in each refined DRG.

The Commission has developed and examined several measures to illuminate potential effects of the case-mix refinements under consideration. These include indicators of:

- the extent to which costs vary among the cases within each DRG and APR-DRG severity class,
- the dispersion of the relative weights under each refinement option,

29 Hospital-specific relative values are calculated by dividing the charges for each case by the hospital's overall average charge per case, and then multiplying by the hospital's case-mix index. The latter adjustment is necessary to scale the relative values consistently across hospitals because a hospital's overall average charge, and the level of its relative values, reflects its mix of cases.

30 The current practices of standardizing the case-level charges and excluding statistical outliers from the weight calculation also might be discontinued.

31 Some distortion in the weights may remain to the extent that patterns of charge mark-ups among services vary systematically across hospitals. These distortions would be reflected in the weights because the mix of services furnished differs across DRGs.

**TABLE 3-7**

**Current policies and incremental case-mix refinement policy options**

Policy components:	Current policies	Option 1	Option 2	Option 3
Patient classification system				
DRGs	✓			
Refined DRGs (APR-DRG/ severity classes)		✓	✓	✓
Relative weight calculation method				
Conventional method	✓	✓		
Relative value method			✓	✓
Outlier financing method				
Offsets to the base payment amounts	✓	✓	✓	
Offsets to the weights for refined DRGs				✓

Note: DRG (diagnosis related group), APR-DRG (all patient refined diagnosis related group). Conventional method: weights are based on average standardized charges in each DRG or refined DRG. Relative value method: weights are based on the average of hospitals' relative values in each refined DRG.

- changes in hospitals' case-mix indexes and PPS payments under each option, and
- changes in the volume and distribution of outlier cases and payments among hospitals under each option.

Estimates for these measures were based on Medicare hospital inpatient claims for PPS hospitals in FY 1997. The Commission employed its PPS payment model to estimate hospitals' PPS

payments under current policies and each refinement option, using operating and capital payment amounts for FY 1999, but setting most other parameters to reflect the policies in effect for FY 2000.

**Using refined DRGs: option 1** The Commission's analysis of these policy options suggests a number of preliminary findings. First, adopting severity distinctions similar to those embodied in the APR-DRGs would identify many more distinct patient categories with marked differences in expected costs. In

many instances, cases now classified in one DRG would be reassigned to the four severity classes of a single APR-DRG. In other instances, the number of groups would increase more modestly because cases from two or three DRGs would be regrouped into the severity classes of one APR-DRG. Sometimes, cases from a single DRG would be regrouped into the severity classes of two or more APR-DRGs.

The last case is illustrated by DRG 14, which includes specific cerebrovascular disorders except transient ischemic attack. Cases in DRG 14—mainly stroke patients—would be reassigned to the severity classes within four separate APR-DRGs, making a total of 16 categories (Table 3-8). Note, however, that more than 70 percent of all cases would fall into the moderate or major severity classes and relatively few would be assigned to the minor or extreme groups.

Estimated average standardized costs per case generally differ substantially among the refined DRG categories (Table 3-9). Not all cost differences are large, however. In APR-DRGs 045, 046, and 058, for example, the average cost differences between the minor and moderate classes are all less than \$700.

Several hundred of the 1,420 refined DRGs are empty or have only a few cases,<sup>32</sup> and cost differences among some of the remaining categories may be too

**TABLE 3-8**

**Cases in DRG 14, by APR-DRG and severity class, 1997**

APR-DRG	Number of cases	Percent of		Percent of APR-DRG cases by severity class			
		DRG 14	APR-DRG	Minor	Moderate	Major	Extreme
Total	352,679	100%					
044	42,600	12	100%	17%	35%	34%	14%
045	222,691	63	100	10	54	26	10
046	86,023	24	80	12	56	25	7
058	1,365	1	5	23	52	22	2

Note: DRG (diagnosis related group), APR-DRG (all patient refined diagnosis related group). Groups: 044—intracranial hemorrhage, 045—cerebrovascular accident (CVA) with infarct, 046—non-specific CVA and precerebral occlusion without infarct, and 058—other disorders of nervous system. Severity Class percents may not total 100 due to rounding.

Source: MedPAC analysis of fiscal year 1997 hospital claims data from HCFA.

32 Although 1,286 refined DRGs have at least one case in the 1997 data, 87 of these categories have fewer than 25 cases, 919 have more than 500 cases, and 383 have more than 5,000.

**TABLE  
3-9**

**Average standardized cost for cases in DRG 14, by APR-DRG and severity class, 1997**

APR-DRG	Average standardized cost				Percent increase compared with minor		
	Minor	Moderate	Major	Extreme	Moderate	Major	Extreme
044	\$3,195	\$4,214	\$5,454	\$11,255	32%	71%	252%
045	3,323	4,101	5,764	10,990	23	74	231
046	2,984	3,604	4,902	8,963	21	64	200
058	2,534	3,224	4,639	10,192	27	83	302

Note: DRG (diagnosis related group), APR-DRG (all patient refined diagnosis related group). The comparable average standardized cost in DRG 14 is \$4,969. Groups: 044—intracranial hemorrhage, 045—cerebrovascular accident (CVA) with infarct, 046—nonspecific CVA and precerebral occlusion without infarct, and 058—other disorders of nervous system.

Source: MedPAC analysis of fiscal year 1997 hospital claims data from HCFA.

small for useful severity distinctions. Consequently, making judicious severity distinctions might raise the number of distinct categories from about 500 in the current DRGs to perhaps as high as 1,000.

Adopting refined DRGs also would substantially reduce cost variation among

the cases grouped within the refined patient categories, compared with variation within the current DRGs (Table 3-10). To make these comparisons, we calculated the average absolute difference between the standardized cost of each case and the mean standardized cost of the category to which it was assigned.<sup>33</sup> The

average absolute differences are generally smaller when cases are grouped in the refined DRGs than when the same cases are grouped in DRG 14. Moreover, similar results hold among all refined DRGs and among all types of hospitals; aggregate average absolute differences in costs for the refined DRGs are 9-10 percent lower than those for the current DRGs in all hospital categories.

Other things being equal, these findings imply that the refined DRGs would capture differences in severity and expected costliness among patients more effectively than the current DRG definitions. The evidence also shows directly that relative weights based on refined DRGs and conventional calculation methods would be more diverse and sensitive than those based on the present classification system. Together, these findings strongly suggest that PPS payment rates based on the refined DRGs would reflect more accurately providers' production costs than those currently in use.

The refined DRGs' effectiveness derives from making better use of clinical information about secondary diagnoses and procedures recorded on each hospital inpatient claim. Consequently, the refined DRGs distinguish both low- and high-severity cases that are currently treated the same. Sorting out these cases would affect

**TABLE  
3-10**

**Average absolute differences in standardized cost from group means, DRG 14 and refined DRGs, 1997**

APR-DRG severity class	Cases	Average absolute cost difference		Percent change
		DRG	Refined DRG	
0441	7,210	\$2,437	\$1,635	-33%
0442	15,041	2,397	2,148	-10
0443	14,553	3,015	3,128	4
0444	5,796	7,075	6,437	-9
0451	21,937	2,163	1,362	-37
0452	119,710	2,024	1,714	-15
0453	58,084	2,564	2,684	5
0454	22,960	6,486	5,517	-15
0461	10,556	2,309	1,251	-46
0462	48,036	2,096	1,499	-28
0463	21,588	2,331	2,314	-1
0464	5,843	4,857	4,688	-3

Note: DRG (diagnosis related group), APR-DRG (all patient refined diagnosis related group). The last digit of the APR-DRG number indicates the level of the severity class: 1—minor, 2—moderate, 3—major, and 4—extreme. Groups: 044—intracranial hemorrhage, 045—cerebrovascular accident (CVA) with infarct, and 046—nonspecific CVA and precerebral occlusion without infarct. Refined DRG—severity classes of APR-DRG.

Source: MedPAC analysis of fiscal year 1997 hospital claims data from HCFA.

33 Absolute differences for cases in DRG 14 were thus calculated relative to the average standardized cost in that category (\$4,969). The overall average absolute difference for all cases in this DRG was \$2,646, but the average difference varies substantially among the subsets of cases assigned to different refined DRGs. Average absolute differences for the cases assigned to individual refined DRGs were calculated relative to the mean standardized cost per case in each refined category—the average standardized cost amounts shown in Table 3-9.

**TABLE  
3-11**

**Aggregate average percent change in payments compared with current policies for three case-mix refinement options**

Hospital group	Percent change in payments over current policies		
	Option 1	Option 2	Option 3
Urban hospitals, 100 beds or more	0.5%	0.4%	0.2%
Major teaching and DSH	1.5	1.5	0.2
Major teaching only	0.8	0.5	-0.1
Other teaching and DSH	0.2	0.1	0.2
Other teaching only	0.9	0.7	0.7
Neither teaching nor DSH	0.0	0.0	0.3
Urban hospitals, less than 100 beds	-1.6	-0.8	0.2
All rural hospitals	-2.7	-2.0	-1.5
Rural referral centers	-1.3	-1.0	-0.7
Sole community hospitals	-3.0	-2.1	-2.9
Other hospitals, less than 50 beds	-5.1	-3.9	-2.1
Other hospitals, 50 beds or more	-3.4	-2.7	-1.4

Note: DRG (diagnosis related group), DSH (disproportionate share hospital: a hospital that qualifies for additional payments because it serves a disproportionate share of low-income patients). Option 1: refined DRGs and conventional weights. Option 2: refined DRGs and relative value weights. Option 3: Option 2 plus DRG-specific outlier offsets.

Source: MedPAC analysis of fiscal year 1997 hospital claims from HCFA.

both the distribution of payments among hospitals, and providers' incentives to report accurate and complete clinical information on their claims.

In principle, reassigning cases to categories with appropriately low or high weights could balance out for most hospitals, with lower payments for some cases offset by higher payments for others. Aggregate PPS payments would remain the same because changes in the DRG definitions and weights are required by law to be budget neutral.<sup>34</sup>

In practice, however, our estimates of changes in case-mix indexes and payments for individual hospitals indicate that payments would rise or fall substantially for many providers. On average, payments to small urban and rural hospitals would decline, suggesting that these hospitals treat substantial numbers of patients with low severity of illness, which is masked in the current

DRGs (Table 3-11). Conversely, large urban and teaching hospitals would receive somewhat higher payments because, on average, they treat patients with higher illness severities and costs than shown by the DRGs.

The most striking result, however, is that estimated payments based on the refined DRGs would rise for some hospitals within these provider groups, but fall for many others compared with payments under current policies. MedPAC's estimates suggest that most hospitals in every provider group would experience some negative or positive change in PPS payments, indicating a substantial redistribution of payments among providers. The magnitude of the change is inversely associated with hospitals' Medicare case volumes (Figure 3-1). Almost all hospitals that would experience a rise or fall in payments of more than 10 percent had fewer than 30 Medicare cases in 1997.

Hospitals' estimated payments based on the refined DRGs could differ from those under the current DRGs for three reasons. First, the refined DRGs reveal that hospitals treat cases with lower or higher severity and expected costs than the current DRGs indicate, which means that many hospitals are now being either overpaid or underpaid relative to their expected costs. For some hospitals, payment reductions would take away revenues they should not be receiving, given the characteristics of their patients. Conversely, estimated increases in payments represent amounts that some hospitals should be receiving to accurately reflect their expected costs.

Second, our estimates might show reduced payments under the refined DRGs because hospitals may have failed to report complete clinical information. Providers that now report incomplete information about patients' secondary diagnoses do not lose payments under the current DRGs if the missing information would not have changed their patients' DRG assignments. If payments were based on the refined DRGs, the absence of the same information might cause patients' illness severity to be understated and the payment model simulation would show declines in payments for these hospitals. However, if refined DRGs were adopted, hospitals would provide the clinical information necessary to ensure full payment.<sup>35</sup>

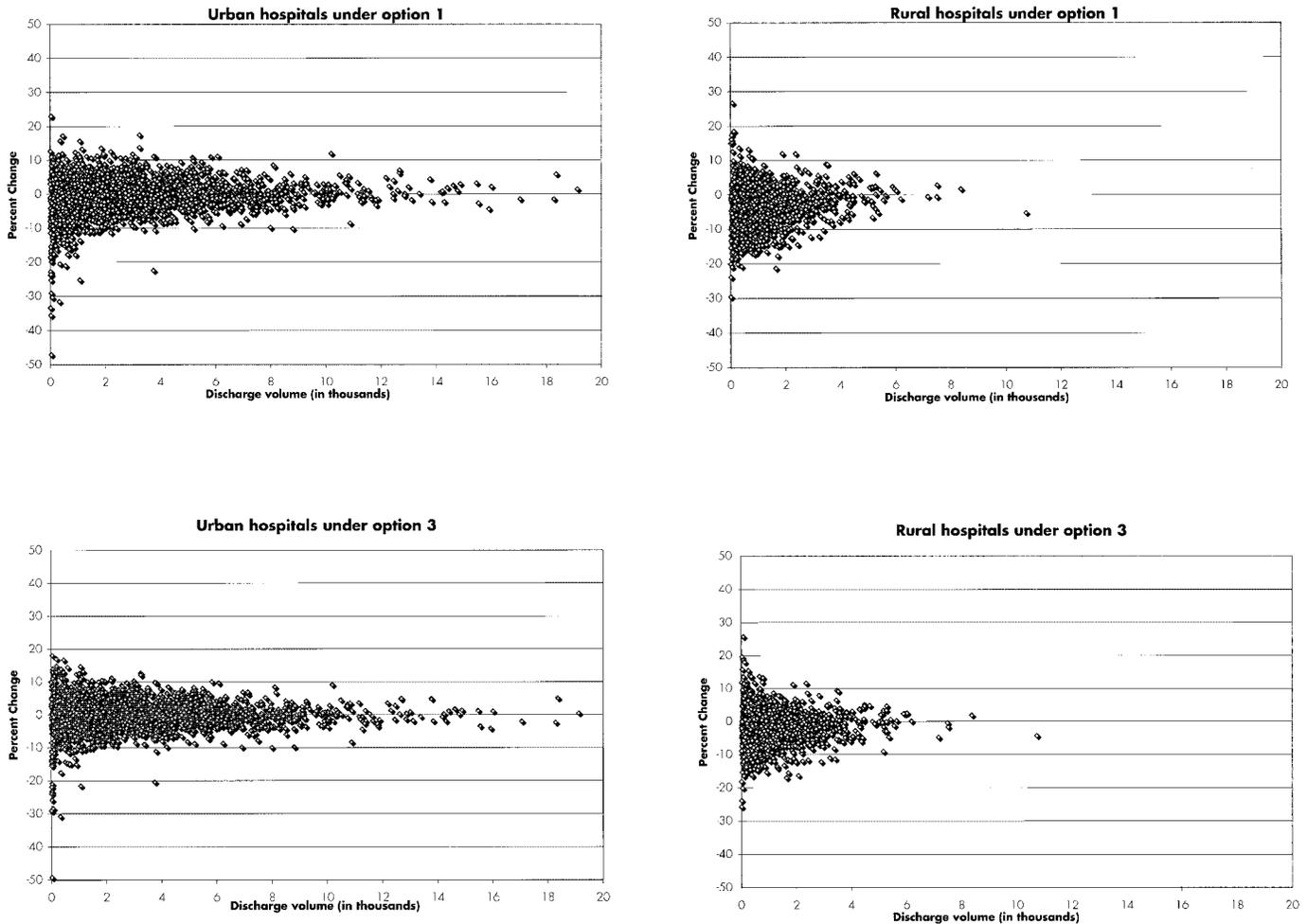
Finally, the payment changes shown in these estimates may partly reflect measurement distortion—differences among hospitals in the level of charge markups and costs and in the prevalence of outlier cases among DRGs—that exists under the current DRGs but is magnified when the refined DRGs are used. The next section discusses ways to correct these distortions, which could result in larger payment changes for individual hospitals than otherwise would occur.

34 This requirement is appropriate because these changes alter only the measurement of hospitals' case mix without changing their underlying treatment costs.

35 Although the possibility that some hospitals may overstate their patients' severity cannot be ruled out, it seems unlikely that this would be a major source of error in the payment estimates.

**FIGURE 3-1**

**Percentage change in payments for option 1 and option 3, compared with current policies, by discharge volume, urban and rural hospitals**



Note: Option 1: refined DRGs and conventional weights. Option 3: refined DRGs and relative value weights with DRG-specific outlier offsets.

Source: MedPAC analysis of fiscal year 1997 hospital claims data from HCFA.

**Adding weights based on hospitals' relative values: option 2** Replacing the relative weights based on conventional methods with new ones based on hospitals' relative values can reduce the previously mentioned distortions. Measurement distortions are reduced in the new weights because the charges for all cases are converted to relative values at the hospital level before they are averaged together for each refined DRG. To the extent that systematic disparities in the level of charges (or costs) among hospitals affect all of their cases equally, the

conversion to relative values at the hospital level prevents those disparities from affecting the national average relative weights.

Our estimates show that relative value weights differ from the conventional weights for the same cases and tend to be higher for refined DRGs that have low conventional weights. This is because small urban and rural community hospitals—which tend to have below-average charge markups and costs—account for a disproportionate share of cases in these low-weight DRGs, pulling

the conventional weights downward. Conversely, the relative value weights are lower than the conventional ones for some refined DRGs that have high conventional weights. This is because large urban and teaching hospitals—which tend to have above-average charge markups and costs—account for most of the cases in these DRGs, thereby making the conventional weights too high.

Because the weights based on hospitals' relative values are not subject to distortions from variations in charge mark-ups and costs, they are more

accurate predictors of expected costliness among the refined DRGs than are the conventional weights. Therefore, other things being equal, the relative value weights should improve overall payment accuracy across hospitals.

Replacing conventional weights with relative value weights would tend to diminish some of the effects on hospitals' payments discussed for refined DRGs with conventional weights. The estimated average declines in payments for small urban and rural hospitals and the estimated increases for large urban and teaching hospitals would be smaller than those for refined DRGs with conventional weights (Table 3-11).

In addition, adding relative value weights would tend to narrow the distribution of changes in payments among the individual hospitals in almost all hospital groups (Table 3-12). Fewer hospitals thus would experience a large percentage change in their payments, relative to those under current policies, than would be the case with refined DRGs and conventional weights.

**Adding DRG-specific financing for outlier payments: option 3** Financing outlier payments with DRG-specific offsets to the weights would tend to diminish further many of the payment effects (relative to payments under current policies) observed when payments are based on refined DRGs with weights constructed from hospitals' relative values. Under this option, hospitals' base operating and capital payment amounts would be uniformly increased by removing the outlier offsets (5.1 percent for the operating amount and 6.1 percent for the capital amount), which are now applied to the national average payment amounts. Then, the weight for each refined DRG would be reduced to fully finance anticipated outlier payments for cases in that category.

The aggregate average percentage change in payments for the DRG-specific financing option, compared with current payments, would be closer to zero for almost all hospital groups than the changes observed for the other options (Table 3-11). The distribution of the percentage changes in payments estimated for individual hospitals also would narrow somewhat in almost all hospital groups (Figure 3-1). However, PPS payments still would change substantially for many hospitals (Table 3-12).

### Plans for further evaluation of case-mix refinement options

Although the Commission has developed and examined many of the measures needed to support potential policy recommendations on these case-mix refinement options, its evaluation effort is not yet complete. At present, a number of important questions remain unanswered:

- How would the refinement options affect payment accuracy at the case level?
- Would they alter the effectiveness of Medicare's outlier policy in limiting hospitals' financial risk from extraordinary cases, and if so, what changes in that policy might be appropriate?
- How would they affect payment equity and financial margins among hospitals?
- What administrative burdens might these refinements entail, both for Medicare and its fiscal intermediaries and for hospitals?
- What other policies might be needed if these refinements were adopted?

To answer these questions, substantial additional work will be necessary. In addition, we are interested in how the case-mix refinement options might fit together with potential changes in

Medicare's policies for making payments to teaching hospitals. We plan to continue our work on both topics over the next few months, with the goal of disseminating our findings and any related recommendations in a special report on hospital inpatient payment policies in June of this year.

### Expanding the transfer payment policy

Generally, the unit of payment under Medicare's inpatient hospital prospective payment system is the discharge. Medicare's transfer payment policy, however, is intended to recognize that when hospitals discharge patients to another provider, they may not provide the full course of care implied by a full DRG payment. Transfer cases with shorter-than-average stays, therefore, are counted as partial cases and paid a graduated per diem rather than a full DRG amount. MedPAC believes that the incentive created by the transfer policy is consistent with paying efficient providers' costs, and therefore should be maintained as part of the payment system.

Before the BBA, a case was considered a transfer only if the patient was discharged from one PPS hospital and immediately admitted to another PPS hospital.<sup>36</sup> The BBA expanded the transfer payment policy to include cases in selected DRGs discharged to PPS-exempt hospitals or units (these include rehabilitation hospitals and units, psychiatric hospitals and units, long-term care hospitals, cancer hospitals, and children's hospitals) or skilled nursing facilities.<sup>37</sup> Cases discharged from hospitals with a written plan for home health care starting within three days of discharge, related to the condition or diagnosis that accounted for the inpatient stay, are also subject to the expanded transfer policy (see text box for more details on payment methods for transfer cases). The expanded transfer policy started in FY 1999 with 10 DRGs

36 Discharges to hospitals excluded from PPS because they participated in a statewide cost control program or demonstration were also considered transfers. Recently, this policy has affected only discharges from PPS hospitals to acute care hospitals in Maryland.

37 Discharges made to hospital swing bed units, which are designated units in small rural acute care hospitals that can be used either for acute or skilled care, are currently not subject to the expanded transfer provision. HCFA considered discharges to swing beds as transfers in the proposed rule, but withdrew this provision in the final rule due to industry concerns.

**TABLE  
3-12**

**Estimated distribution of hospitals by percent change in payments compared with current policies under each policy option, for selected hospital groups**

Hospital group	Percent change in PPS payments compared with current policies						
	> -10	-5 to -10	-1 to -5	-1 to 1	1 to 5	5 to 10	> 10
Urban hospitals, 100 beds or more							
Option 1	1	9	28	21	31	10	1
Option 2	1	8	29	21	31	10	2
Option 3	*	6	28	23	33	9	1
Major teaching and DSH							
Option 1	0	5	20	16	42	13	5
Option 2	0	5	16	17	43	15	5
Option 3	0	5	26	28	26	14	1
Major teaching only							
Option 1	0	2	32	25	32	7	2
Option 2	0	2	33	28	29	6	2
Option 3	0	3	38	30	25	4	1
Other teaching and DSH							
Option 1	1	11	28	21	27	9	1
Option 2	1	9	30	20	28	10	2
Option 3	*	7	29	22	31	9	2
Other teaching only							
Option 1	1	5	25	18	36	14	1
Option 2	1	5	25	20	34	13	2
Option 3	0	6	23	21	38	12	0
Neither teaching nor DSH							
Option 1	1	9	31	21	31	6	*
Option 2	*	7	32	22	31	7	*
Option 3	*	5	27	25	35	7	*
Urban hospitals, less than 100 beds							
Option 1	12	23	29	14	14	6	2
Option 2	7	19	29	15	19	8	3
Option 3	5	13	25	21	24	10	3
All rural hospitals							
Option 1	16	30	29	12	11	3	1
Option 2	10	28	31	13	14	4	1
Option 3	6	20	34	16	18	5	1
Rural referral centers							
Option 1	3	16	39	18	20	4	0
Option 2	1	17	35	20	24	4	0
Option 3	1	9	36	25	24	4	0
Sole community hospitals							
Option 1	18	29	28	12	10	3	1
Option 2	11	27	29	13	14	5	1
Option 3	11	26	32	13	13	5	1
Other rural, less than 50 beds							
Option 1	22	35	25	8	8	2	1
Option 2	13	34	29	10	11	3	1
Option 3	5	23	33	15	18	5	1
Other rural, 50 beds or more							
Option 1	10	29	32	15	11	2	1
Option 2	7	26	34	14	16	4	1
Option 3	4	15	36	17	22	5	1

Note: PPS (prospective payment system), DSH (disproportionate share hospital: a hospital that qualifies for additional payments because it serves a disproportionate share of low-income patients). Option 1: refined DRGs and conventional weights. Option 2: refined DRGs and relative value weights. Option 3: Option 2 plus DRG-specific outlier offsets. \* Less than 0.5 percent.

Source: MedPAC analysis of fiscal year 1997 hospital claims from HCFA.

## Payment methods for transfer cases

Most transfer cases are paid a per diem payment determined by dividing the full DRG payment for a case by the geometric mean length of stay for the DRG.<sup>38</sup> Hospitals receive twice the per diem amount for the first day of care, and the per diem amount for all subsequent days of care up to the full DRG payment for the case. Very expensive cases may also qualify for outlier payments.

Under the expanded definition of transfers, the Secretary may instead provide a modified transfer payment for DRGs in which a substantial portion of the cost of care is incurred in the early days of the stay. By law, the modified payment may be no more than the average of the transfer payment and the full DRG payment. Currently, this modified transfer payment is provided in 3 of the 10 DRGs affected by the expanded transfer policy, all of which are surgical DRGs. Under the modified transfer payment that HCFA developed, hospitals receive half the full DRG payment plus a single per

diem payment for the first day of care. They then receive half a per diem payment for all subsequent days of care up to the full DRG payment for the case. HCFA decided to provide the modified payment to hospitals in selected DRGs after analysis showed that the basic transfer payment would not cover the full cost of care for these cases.

In selecting the 10 DRGs included in the expanded transfer policy, HCFA chose DRGs with a large number of discharges to post-acute care and a high rate of post-acute care use. Data from the first part of FY 1999 show that at least half the cases in these DRGs were discharged to a PPS-exempt hospital or unit, SNF, or home health care agency (Table 3-13). However, only a portion of the cases transferred to one of these settings had payments reduced, because the policy reduces payments only for short-stay cases. In most DRGs, cases that use post-acute care tend to have longer-than-average inpatient stays. ■

38 The geometric mean length of stay for a DRG is calculated by taking the product of lengths of stay for all cases in the DRG raised to 1/number of cases in the DRG. The geometric mean length of stay for a DRG is always lower than the arithmetic mean.

acute spending and use by Medicare beneficiaries (ProPAC 1997a). At the same time, hospitals' Medicare inpatient margins rose to record levels.

The conference report accompanying the BBA noted that conferees were concerned that Medicare may in some cases be overpaying hospitals for patients transferred to post-acute settings after very short hospital stays (U.S. House of Representatives 1997). Analysis by MedPAC and its predecessor Commission has shown that length-of-stay declines were greatest for DRGs in which post-acute care use was most prevalent (MedPAC 1998b). The Prospective Payment Assessment Commission (ProPAC) also found that hospitals with post-acute care units discharged their patients an average of one day sooner than did those without such units, and that their patients used post-acute care about 10 percent more frequently (ProPAC 1996).

These trends were consistent with the basic incentives of the payment system. When the hospital PPS began, the use of post-acute care providers was limited. PPS provided hospitals with a strong incentive to shorten hospital stays, and the growth in the availability and capabilities of post-acute care providers allowed hospitals to shift some of the care once provided during an acute care hospital stay to post-acute care providers.<sup>39</sup> The expanded transfer policy was intended to adjust PPS payments to reflect this shift in care for the cases where the shift was most likely to occur.

The expanded transfer policy has been a highly contentious issue within the hospital industry, which has lobbied for its repeal. The industry contends that the transfer policy "... penalizes hospitals for effective, efficient treatment and for getting post-acute patients the right care at the right time in the right setting. . . . and that it undercuts the principles and objectives of the Medicare prospective payment system, which encourage hospitals to reduce patients' length of stay" (AHA 1999).

selected by the Secretary. The Secretary is authorized (but not required) to expand the list of DRGs as of FY 2001 and has decided to delay any expansion by at least two years in conjunction with the BBRA.

### RECOMMENDATION 3K

**The Commission recommends continuing the existing policy of adjusting per case payments through an expanded transfer policy when a short length of stay results from a portion of the patient's care being provided in another setting.**

Because the expanded transfer policy was only instituted in FY 1999, limited data are available on its impact. The Commission believes the impact of the policy should be more fully understood before it is expanded to all DRGs.

A number of factors likely contributed to the Congress's decision to expand Medicare's transfer policy to include discharges to PPS-exempt hospitals and other post-acute settings. At the time the Congress was considering this policy, data showed Medicare inpatient length of stay had dropped 22 percent between 1990 and 1995 (ProPAC 1997b). This decline was accompanied by dramatic growth in post-

39 In 1988, as a result of a class action suit, HCFA clarified coverage guidelines for SNF and home health that had discouraged many beneficiaries from applying for the benefit. This change partly contributed to the growth in post-acute care use.

**TABLE  
3-13**

**Diagnosis related groups selected for expansion of transfer payment policy, 1999**

DRG	Title	Percent of all PPS cases in DRG	Percent of cases in DRG transferred to post-acute care	Percent of transferred cases with reduced payments
14	Specific cerebrovascular disorders except TIA	2.9%	51.8%	20.2%
113	Amputation for circulatory system disorders excluding upper limb and toe	0.4	69.1	47.2
209*	Major joint limb reattachment procedure of lower extremity	2.9	75.2	24.0
210*	Hip and femur procedures except major joint, age 17 or older, with CC	1.1	79.9	47.2
211*	Hip and femur procedures except major joint, age 17 or older, without CC	0.3	78.9	22.5
236	Fractures of hip and pelvis	0.3	66.6	39.0
263	Skin graft and/or debridement for skin ulcer or cellulitis with CC	0.2	61.8	44.0
264	Skin graft and/or debridement for skin ulcer or cellulitis without CC	**	51.0	37.3
429	Organic disturbances and mental retardation	0.2	56.1	43.0
483	Tracheostomy except for face, mouth, and neck diagnoses	0.4	50.3	49.7
	DRGs subject to expanded transfer policy	8.8	65.5	30.0
	All PPS cases	100.0	31.0	5.6

Note: DRG (diagnosis related group), PPS (prospective payment system), TIA (transient ischemic attack), CC (complication and/or comorbidity).  
 \* DRG with modified transfer payment. All other DRGs are paid a graduated per diem amount based on the geometric mean length of stay for the DRG.  
 \*\* Less than 0.05 percent.

Source: MedPAC analysis of partial fiscal year 1999 claims data from HCFA.

**Rationale for the expanded transfer policy**

The Commission agrees that the decision to transfer a patient to a post-acute care setting should be based on clinical rather than financial considerations and concludes that Medicare’s transfer payment policy should help lessen the influence of financial considerations on clinical decision making. Two strong conceptual rationales support the basic concept of the expanded transfer policy. The first concerns improving the financial incentives in the payment system, and the second involves enhancing the overall equity of Medicare payments for patient care.

**Financial incentives** A per case payment system provides strong financial incentives for hospitals to shorten inpatient stays, which can occur in one of three ways. First, hospitals can provide care more efficiently—for example, by adopting new technologies. Second, they can shift a portion of care to another setting. Finally, hospitals can stint on care—discharging “quicker and sicker.”

A graduated per diem payment reduces the incentive for hospitals to transfer

patients to post-acute settings by bringing payments more in line with the marginal cost of providing care. When hospitals are paid less for short stays and more for long stays, the decision to transfer will be influenced less by financial considerations; hospitals should be financially indifferent to the decision to transfer a patient to a post-acute setting if the marginal cost of care and the per diem payment amounts are close. Past research has shown that Medicare’s current transfer payment method provides a reasonable approximation of marginal cost (Carter and Rumpel 1994). HCFA’s analysis shows that its payments should, on average, more than cover the cost of care for these cases (HCFA 1998).

**Payment equity** A second major rationale for adopting the expanded transfer policy relates to improving the equity of payments across cases. The expanded transfer policy provides a more targeted approach than adjusting payment updates to account for unbundling. Both the transfer policy and the adjustment for unbundling in MedPAC’s update framework (discussed in Chapter 4) remove from PPS payments what might

be considered a double payment for care. However, the update approach removes the excess payment proportionately from all hospitals and cases, while the transfer policy reduces payments only for cases of unbundling.

The expanded transfer policy also accounts for differences across providers in the availability and use of post-acute care for short-stay cases. In general, it provides a payment reflecting the care provided during the acute inpatient stay, recognizing that use of post-acute care can begin at different points in similar patients’ care. Hospitals with post-acute care units, for example, may be able to move patients safely to a post-acute care unit earlier than would hospitals that need to transport patients for post-acute care. Similarly, hospitals that have nearby specialized post-acute facilities may be able to arrange an appropriate transfer, while other hospitals have few practical alternatives to completing the episode of care in the acute setting. The transfer policy matches payments to the local circumstances, rather than applying the same payment in widely differing circumstances.

Tracheostomy cases provide an example of the potential inequities of the payment before the expanded transfer policy. Cases in DRG 483 have a geometric mean length of stay of 33 days and receive DRG payments more than 10 times the average for all cases. However, hospitals in areas with facilities that can provide ventilator support for these patients are potentially able to transfer patients relatively early in a stay (after as few as three days) and thus receive a full DRG payment and a large per case profit. Under the expanded transfer policy, these cases now receive a much smaller payment. Even so, HCFA's analysis shows that transfer payments are still greater on average than the cost of care provided in the hospital (HCFA 1998). Because the availability of long-term care hospitals and SNFs with ventilator support capacity varies tremendously, hospitals in close proximity to such providers were greatly advantaged relative to other hospitals. The expanded transfer policy, however, will reduce payments to the transferring hospital in such situations, bringing payments more in line with the cost of providing care and removing the potential for a large per case profit realized from transferring such a patient.

### Impact of the expanded transfer policy on hospital payments

The expanded transfer policy reduced payments for only a small portion of PPS hospital discharges. The 10 DRGs subject to the policy accounted for 9 percent of PPS discharges. Almost 66 percent of these cases were discharged to a SNF, PPS-exempt hospital or unit, or home health care agency, but only 30 percent of the cases transferred to one of these settings had payments reduced (Table 3-13). Overall, the expanded transfer policy reduced payments for 1.7 percent of all PPS cases.

Based on preliminary data from FY 1999, Medicare's expanded transfer policy reduced PPS payments by approximately 0.7 percent (Table 3-14). However, the payment impacts were highly concentrated: More than half of the savings (60 percent) came from DRG 483 (tracheostomy except for head and neck diagnoses) and more than half of the cases with reduced payments were in just two DRGs, 209 (major joint and limb reattachment procedures of the lower extremity) and 210 (hip and femur procedures except major joint, age 17 or older, with complications or

comorbidities). The payment impact on hospitals was also concentrated. Half of all hospitals had payments fall by less than 0.3 percent as a result of the expanded transfer policy, but one-tenth had payments fall by 1.5 percent or more.

From 1997–1999, the DRGs subject to the expanded transfer policy had a smaller drop in inpatient length of stay (1.4 percent in aggregate) than the decline for all cases (2.7 percent). The average length of stay drop in other DRGs with a large number of cases that use post-acute care was 3.1 percent. The lack of adverse impacts, combined with strong policy rationales, led the Commission to recommend continuing the expanded transfer policy.

### Improving disproportionate share payment calculation and distribution methods

Medicare disproportionate share (DSH) payments are distributed through a hospital-specific percentage add-on applied to the basic DRG payment rates. Consequently, a hospital's DSH payments are tied to its volume and mix of PPS cases. The add-on for each case is

**TABLE  
3-14**

**Impact of expanded transfer policy on Medicare prospective payment system payments, by diagnosis related group, 1999**

DRG	Title	Aggregate payment reduction for cases in DRG	Share of savings from expanded transfer policy	Share of cases with reduced payments
14	Specific cerebrovascular disorders except TIA	2.6%	8.2%	17.5%
113	Amputation for circulatory system disorders excluding upper limb and toe	9.9	10.6	7.3
209*	Major joint limb reattachment procedure of lower extremity	1.8	10.4	30.7
210*	Hip and femur procedures except major joint, age 17 or older, with CC	2.8	5.0	23.9
211*	Hip and femur procedures except major joint, age 17 or older, without CC	1.6	0.5	2.6
236	Fractures of hip and pelvis	3.1	0.7	4.9
263	Skin graft and/or debridement for skin ulcer or cellulitis with CC	8.4	3.5	3.3
264	Skin graft and/or debridement for skin ulcer or cellulitis without CC	4.8	0.2	0.3
429	Organic disturbances and mental retardation	5.5	1.1	3.4
483	Tracheostomy except for face, mouth, and neck diagnoses	7.8	59.9	6.1
	DRGs subject to expanded transfer policy	4.9	100.0	100.0
	All PPS cases	0.7	100.0	100.0

Note: DRG (diagnosis related group), TIA (transient ischemic attack), CC (complication and/or comorbidity), PPS (prospective payment system). \*DRG with modified transfer payment. All other DRGs are paid a graduated per diem amount based on the geometric mean length of stay for the DRG.

Source: MedPAC analysis of partial fiscal year 1999 claims data from HCFA.

determined by a complex formula based on the hospital's share of low-income patients, which is the sum of two ratios—Medicaid patient days as a share of total patient days, and patient days for Medicare beneficiaries who receive Supplemental Security Income (SSI) as a percentage of total Medicare patient days.

DSH payments grew rapidly between FY 1989–1997, rising from \$1.1 billion to \$4.5 billion;<sup>40</sup> 1998 payments were also \$4.5 billion. Changes instituted by the BBA had reduced DSH payments by 3 percent in 2000, 4 percent in 2001, and 5 percent in 2002.<sup>41</sup> However, the BBRA restored some of these payment cuts, holding them to 3 percent in 2000 and 2001 and 4 percent in 2002. According to Congressional Budget Office estimates, the cost of these restorations over five years is \$100 million. The BBRA also adopted a previous MedPAC recommendation that directs the Secretary to collect data on uncompensated inpatient and outpatient care—including non-Medicare bad debt and charity care, as well as Medicaid and other indigent care charges—for cost periods after October 1, 2001, as a foundation for developing a new Medicare DSH payment formula.

Several longstanding problems with the calculation of DSH payments have been recently compounded by issues arising from the legal and regulatory interpretation of DSH payment policies. Now more than ever, the Commission believes that a more equitable and much simplified alternative is needed.

### **Purpose of the disproportionate share adjustment**

The original justification for the DSH adjustment presumed that poor patients are more costly to treat; therefore, hospitals with substantial low-income patient loads must have higher costs associated with caring for Medicare patients than do similar institutions.

ProPAC, MedPAC's predecessor Commission, adopted an alternative objective statement that had evolved over time: To protect access to care for Medicare beneficiaries, additional funds should be provided to hospitals whose viability might be threatened by providing care to the poor. Although the financial pressure from treating low-income patients can include any extra costs incurred, the primary threats are underpayment or nonpayment. MedPAC data has shown that of the major payer groups, Medicaid payments, on average, are the lowest. Payments of local indigent care programs are lower than those of the major payer groups, and uninsured patients generate the least funding, even after accounting for local operating subsidies (MedPAC, 1998a).

An important corollary to the notion that the DSH adjustment should help protect access to care for Medicare beneficiaries is that the assistance should go to hospitals used by Medicare patients. This can be best accomplished by continuing to make a case-level adjustment (that is, as a percentage add-on to the base DRG payment), assuring that the amount of assistance a hospital receives is proportional to its Medicare patient load as well as its low-income patient load. Thus, a hospital serving only a few Medicare patients might receive a large add-on in percentage terms, but the total amount of assistance would still be fairly limited.

### **Problems with the current system**

The Commission believes that special policy changes are needed to ameliorate several problems inherent in the existing disproportionate share payment system. The current low-income share measure does not include care to all the poor; most notably, it omits uncompensated care. Instead, the measure relies on the share of resources devoted to treating Medicaid

recipients to represent the low-income patient load for the entire nonelderly poor population. 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 widely differing proportions of the population below the federal poverty level. Moreover, previous MedPAC 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.

In addition, because the Medicaid and Medicare SSI ratios are simply added 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 receiving SSI account for only about 3 percent of total patient care costs, compared with 11 percent for Medicaid, but their higher proportion of Medicare costs (about 8 percent) is currently used in calculating the low-income shares.<sup>42</sup> MedPAC's approach would treat SSI patients as other poor patients by making the low-income share equal to the sum of all low-income costs as a percent of total patient care costs.

Because of concerns about specific groups of hospitals, the Congress has legislated 10 different DSH formulas. Each includes a threshold, or minimum value, for the low-income patient share needed to qualify for a payment adjustment. This criterion limits eligibility to about 40 percent of PPS hospitals. In addition, in most cases the formula is progressive; above the threshold, the adjustment rate rises as the hospitals' low-income patient shares increase. This feature increases the DSH add-on for hospitals that devote the greatest share of their resources to treating Medicaid and SSI patients, partially offsetting the fact that these hospitals

40 This discussion is confined to the DSH adjustment made on operating payments under PPS. There is also a DSH adjustment to capital payments, based on the same underlying measure of low-income share but with a different distribution formula and a much smaller amount of money. To facilitate combining operating and capital payments, MedPAC recommends that the same formula for distributing DSH payments be used for both payment elements.

41 Medicaid payments to hospitals also include a disproportionate share component. While the BBA made cuts to funding for these payments, in 1998 the federal portion of these payments totaled more than \$9 billion.

42 These data cover the proportion of costs, although proportion of days is used in constructing low-income shares under current law.

generally have fewer Medicare cases on which to receive a DSH payment.

Using 10 different formulas to distribute payments has resulted in a highly complex program and raised questions about the equity of payments; for example, two 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 one-fifth of rural facilities. Among rural facilities, the payment add-on is somewhat higher for those qualified for special Medicare payments as sole community hospitals or rural referral centers.

These underlying issues have been exacerbated by three recent problems of legal or regulatory interpretation:

- **The Pickle provision** Public hospitals that receive at least 30 percent of their net revenue from funds provided directly by state or local governments qualify for a special DSH payment rate. Known as the “Pickle provision” for the Congressman who initially proposed it, this provision is currently used to determine DSH payments for only eight hospitals. However, two recent court cases have found that HCFA’s interpretation of the law is incorrect. Rather than requiring that state and local subsidies account for 30 percent of total patient care revenue, the courts concluded that such subsidies need only make up 30 percent of patient revenue other than Medicare and Medicaid payments.

If upheld on appeal, the ruling could substantially increase the number of hospitals that qualify for DSH payment under the Pickle provision, which would shift additional funds from private to public hospitals and create even more inconsistency in the DSH payments received by hospitals treating similar shares of low-income patients.

- **State Children’s Health Insurance Programs (CHIP)** Under CHIP, states can increase health insurance coverage for low-income children up to age 19 (and in some cases their parents) by expanding Medicaid, establishing a new program separate from Medicaid, or implementing a combination of both. As of August 1, 1999, all 50 states and the District of Columbia had developed plans for children’s health insurance expansions. Eighteen states have expanded their Medicaid program, 17 states have created insurance programs separate from Medicaid, and 16 states have done some combination of both.

The fact that all states have embraced the CHIP program has raised the question: Will the covered hospital days be used in calculating a hospital’s low-income share for Medicare DSH payments? HCFA has clarified that CHIP days will count only if the state’s program is part of Medicaid. HCFA’s interpretation is consistent with the law, and it does limit the unbudgeted increase in DSH payments that will result from the states’ implementation of CHIP programs. However, the ruling will unintentionally penalize states that chose the separate program option, thus exacerbating the inequity inherent in the current distribution of DSH monies.

- **State general assistance programs** A number of states have state-only funded indigent care programs known as “general assistance” programs. In past years, Medicare’s fiscal intermediaries have counted general assistance days in calculating hospitals’ low-income shares, at least partly because they are sometimes administratively indistinguishable from true Medicaid days. Although the hospital industry believes HCFA’s policy guidance has been unclear, HCFA claims that its policy has always been clear: only patient days covered under the jointly funded (state/federal) Medicaid program can

be counted in calculating a hospital’s DSH payment. Initially HCFA planned to recoup the millions of dollars in alleged overpayments. However, in a program memorandum recently issued to intermediaries, HCFA has clarified this policy issue, but has agreed to forgo recovery from past years (HCFA 1999a).

## Reforming the DSH adjustment

The following recommendations essentially reiterate the basic reform proposal that MedPAC has recommended for the last two years (MedPAC 1998c, MedPAC 1998d, MedPAC 1999c). However, the Commission wishes to refine an aspect of the proposal that specifically addresses the level of the threshold. (For more details on its previous recommendations, see MedPAC’s 1998 and 1999 March reports to the Congress.)

### RECOMMENDATION 3L

**To address longstanding problems and current legal and regulatory developments, Congress should reform the disproportionate share adjustment to:**

- **include the costs of all poor patients in calculating low-income shares used to distribute disproportionate share payments, and**
- **use the same formula to distribute payments to all hospitals covered by prospective payment.**

The remainder of this section explains in greater detail the key components of MedPAC’s recommendation. Since discussions began several years ago regarding the misallocation of DSH payments, problems arising with the Pickle provision, CHIP, and general assistance programs have further strengthened our position that DSH payments must be reformed. MedPAC’s proposal would resolve all three of these issues, although a legislative change

would be required to repeal the 10 existing distribution formulas, including the Pickle provision.

### **Including the costs of all poor patients in calculating disproportionate share payments**

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 (both charity care and bad debts), reflecting the unpaid bills of uninsured patients as well as deductibles and co-payments 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—Medicare patients eligible for SSI, Medicaid patients, patients sponsored by local indigent care programs, and uncompensated care—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. If uncompensated care and local indigent care programs are accounted for directly in the measure of low-income share, our analysis suggests

that special provisions, such as a progressive payment formula that increases payments proportionally as low-income share rises, would no longer be needed.

A measure of provider costs is the best way to determine the amount of care furnished to low-income patients. The costs associated with each of the four groups representing low-income patients 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. To minimize the burden of data collection, charges can be used to represent costs for each of the four low-income patient groups and for all patients.

Adopting MedPAC's approach would also solve the problems presented by the Pickle provision, CHIPs, and general assistance programs. By pegging the DSH payment rate to the amount of subsidy revenue a hospital receives, the Pickle provision becomes a back-door method of recognizing uncompensated care (given that a hospital's operating subsidy is usually intended to cover uncompensated care costs). Because MedPAC's approach recognizes uncompensated care directly, there would be no further need for the provision and no need for HCFA to continue expensive court appeals.

Our approach would also account for CHIP patient days. Because all indigent care programs would be included, it would not matter whether the state chose the Medicaid or the separate program approach, resulting in a much more equitable allocation of payments. Additionally, our methodology would likely be implemented on a budget-neutral basis; therefore, overall DSH spending would not increase because of the implementation of CHIP programs.

Finally, MedPAC's approach would eliminate the controversy created by the states' general assistance programs—at

least for the future. Because all indigent care programs would be included, it would no longer matter whether patient days emanated from a jointly funded or a state-only program.

### **Using the same formula to distribute disproportionate share payments to all hospitals**

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. At the same time, it is best to avoid creating a payment "notch" at the threshold—as found in each formula under current policy<sup>43</sup>—by making the per case adjustment proportional to the difference between the hospital's low-income share and the threshold. In this way, a hospital 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.

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 earlier, some of the formula differences in the current system resulted from attempts to alleviate 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.

### **Refining the distribution of payments**

MedPAC previously recommended a threshold that would allow between 50

43 As an 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 1.5 percent (the threshold for that group) or more, but gets nothing if its share is 14.9 percent.

percent and 60 percent of hospitals to receive a DSH payment (MedPAC 1998c, MedPAC 1998d, MedPAC 1999c). A threshold in this range would concentrate payments among hospitals providing the greatest proportion of care to the poor, while moderating the disruption caused by a massive redistribution of payments. The broader definition of low-income patient share proposed by MedPAC shifts DSH payments to public hospitals because they tend to have the greatest uncompensated care levels. Of primary interest is protecting private hospitals with mid-level low-income shares that provide uncompensated care but receive little or no direct government funding. With the intent of reaching the optimum distribution of payments, we are revising our previous recommendation on the appropriate threshold level governing eligibility for DSH from a level that allows 50 percent to 60 percent of hospitals to receive DSH payments to a level that makes 60 percent of hospitals eligible.

### RECOMMENDATION 3M

**To provide further protection for the primarily voluntary hospitals with mid-level low-income shares, the minimum value, or threshold, for the low-income share that a hospital must have before payment is made should be set to make 60 percent of hospitals eligible to receive disproportionate share payments.**

Tables 3-15 and 3-16 compare the percentage change in total PPS payments resulting from implementing this recommendation by public-private teaching status and type of ownership. The tables contrast the 50 percent and 60 percent eligibility options. (Impacts on other hospital groups are presented in Appendix A, which includes a set of tables comparing thresholds that would allow between 50 percent and 60 percent of hospitals to receive DSH payments). One of the tables shows no overall change in the impact of PPS payments for urban and rural hospitals when the eligibility

**TABLE 3-15**

**Percentage change in total payments due to recommended disproportionate share policy changes, by threshold level and public/private teaching status**

Teaching status	Threshold making 50% eligible	Threshold making 60% eligible
Major teaching		
Public	3.3	1.2
Private	-0.4	-0.7
Other teaching		
Public	0.6	0.0
Private	-1.7	-1.5
Non teaching		
Public	4.5	4.5
Private	0.6	0.8

Note: Private hospitals include voluntary and proprietary ownership.

Source: MedPAC analysis of 1997 data from Medicare cost reports and the American Hospital Association Annual Survey of Hospitals.

**TABLE 3-16**

**Percentage change in total payments due to recommended disproportionate share policy changes, by threshold and urban/rural ownership**

Ownership type	Threshold making 50% eligible	Threshold making 60% eligible
Urban		
Voluntary	-1.1	-1.0
For-profit	-2.8	-2.9
Public	1.5	0.5
Rural		
Voluntary	5.0	5.3
For-profit	10.8	10.4
Public	8.9	8.6

Note: Private hospitals include voluntary and proprietary ownership.

Source: MedPAC analysis of 1997 data from Medicare cost reports and the American Hospital Association Annual Survey of Hospitals.

option was changed from 50 percent to 60 percent (-1.0 percent versus 6.5 percent, respectively).

In each category, increases in payments to public hospitals are larger than those to private hospitals (Table 3-15). However, when the minimum low-income share for eligibility is reduced to the level that makes 60 percent eligible, the increase in total PPS payments between major public

and other public teaching hospitals is greatly reduced, as is the payment disparity among public and private hospitals. At major public teaching hospitals, payment changes drop from a 3.3 percent increase to a 1.2 percent increase; other public teaching hospitals drop from a 0.6 percent increase to zero. At the same time, however, payment changes to major private and other private teaching hospitals experience a slight

additional decline. On the other hand, changing the threshold results in a modest increase in total PPS payments to private non-teaching hospitals and has virtually no effect on public non-teaching hospitals. This occurs because a large portion of public and private non-teaching hospitals are located in rural areas, and thus the current system greatly restricts their access to DSH funds. Appendix A (Tables A-5 and A-6) illustrates how the shift in DSH monies among this hospital group is influenced by the amount of Medicare and uncompensated care provided.

Table 3-16 highlights how the shift in total PPS payments to public hospitals located in urban areas is greatly reduced when the threshold is lowered from the 50 percent to the 60 percent eligibility level (1.5 percent increase reduced to 0.5 percent). Breaking the private hospital group into subgroups, the 60 percent option lessens the adverse impact for urban voluntary hospitals (1.1 percent reduction to 1.0 percent reduction) while slightly exacerbating the impact for for-profit facilities (from 2.8 percent reduction to 2.9 percent reduction). The pattern is similar in rural areas—voluntary hospitals are helped slightly more under the 60 percent option, while for-profit and public hospitals are helped somewhat less.

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## **Improving payment for physicians' services and care in hospital outpatient departments**

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Medicare's payment methods for physicians' services and hospital outpatient departments (OPDs) are in different stages of evolution. Payments to physicians are based on a fee schedule introduced in 1992. In contrast, OPDs are in transition toward a fee schedule called the OPD PPS, which HCFA is expected to implement in 2000. In both cases, Medicare aims to set fair payment rates, paying enough to ensure beneficiaries' access to needed care but not more than necessary to cover the cost of care.

The physician payment issues addressed in this chapter relate to how physicians' services are classified for payment under the physician fee schedule. The classification system is based on the HCFA Common Procedure Coding System (HCPCS). To promote accurate use of HCPCS codes when physicians bill Medicare for services, HCFA has taken two steps. First, the agency does pre- and post-payment reviews, including some forms of sampling and focused review. As part of this effort, HCFA has implemented documentation guidelines for an important group of services—evaluation and management (E&M) services. Second, HCFA requires its contractors to use computerized coding edits to look for inconsistencies in code assignments. The Commission agrees that documentation guidelines and coding edits may be appropriate, but offers recommendations on making these measures fairer and less burdensome.

Also, this chapter briefly introduces the Commission's concerns about making the OPD PPS consistent with payment systems for physician services and ambulatory care facilities. MedPAC is awaiting the final rule on the PPS from HCFA and will further address OPD issues after its publication.

### **Improving documentation guidelines for physicians' evaluation and management services**

Documentation guidelines for E&M services are intended to ensure that physicians are paid sufficiently, but not excessively, for the care they provide. The content of the guidelines has been controversial. Several issues are important, including the burden the guidelines impose and how they affect patient records. MedPAC believes that HCFA should work with the medical community in developing guidelines or alternatives to them. In addition, before carrying out changes, HCFA should pilot-test guidelines and/or alternatives to ensure that they are workable.

E&M services are provided by physicians during office visits or consultations, for the purpose of diagnosing and treating diseases and counseling patients. E&M services can consist of a medical history and physical examination, a review of records, patient and family counseling, contact with other health care professionals, charting, and scheduling. Types of E&M services include office and other outpatient visits, hospital inpatient visits, consultations, emergency department visits, and nursing facility visits.

Documentation guidelines for E&M services describe the elements necessary in the medical record to justify the level, or intensity, of service billed. HCFA's emphasis has been to ensure correct coding for accurate payments and to prevent upcoding. The guidelines are used by physicians to record E&M services billed to Medicare, by Medicare contractors to evaluate the appropriateness of submitted codes, and by the Office of the Inspector General (OIG) in its audits of Medicare expenditures.

The content of the guidelines has been controversial, however, as evidenced by frequent and proposed changes. In 1995, HCFA developed the first set of documentation guidelines for E&M services. The agency instituted revised guidelines in 1997, and proposed new guidelines again in 1998, but implementation of the latest set has been postponed several times pending further review. At present, physicians can use either the 1995 or 1997 guidelines.

To address this controversy, HCFA will need to consider:

- developing a system that ensures accurate coding;
- avoiding overly complex and burdensome requirements for physicians, such as counting formulas that assign points for each element of a physician's service to determine the level at which services can be billed;<sup>44</sup>

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44 Concern about the regulatory burden of the Medicare program prompted the Congress to require, in the BBRA, a MedPAC study on the regulatory burdens placed on providers by the program.

- reducing documentation for billing purposes that distracts from the role of the medical record as a tool for communication between physicians; and
- limiting rigid criteria for payment that result in specialists providing care not typically considered medically necessary to justify higher-level codes.

In the current debate, counting requirements are particularly contentious. HCFA maintains that some amount of counting is necessary for consistent carrier payment, although the agency agrees that the 1998 proposed guidelines were unworkable and too cumbersome, even following physician training to use them (Tilghman 1998).

MedPAC believes documentation guidelines in some form are necessary and urges HCFA to work with the medical community to balance concerns about payment accuracy and the burden of guidelines on physicians.

### RECOMMENDATION 3N

**HCFA should continue to work with the medical community in developing guidelines for evaluation and management services, minimizing their complexity, and exploring alternative approaches to promote accurate coding of these services.**

HCFA has had success in working with the medical community on payment policy issues, and the Commission commends the agency for its efforts in this regard. For example, the agency seeks advice from the American Medical Association's (AMA) Relative Value Scale Update Committee (RUC) when conducting its five-year review of the accuracy of the physician fee schedule's relative value units (RVU). It also receives advice from the RUC when refining the fee schedule's practice expense RVUs. This partnership between HCFA and the medical community

permits the agency to fulfill its statutory responsibilities while taking advantage of the expertise of practicing physicians to help resolve complex payment policy issues.

In June 1999, the Current Procedural Terminology (CPT) Editorial Panel submitted to HCFA recommendations for revised E&M documentation guidelines that could be used consistently and accurately by physicians and health plan reviewers. The panel described its recommended documentation process as simpler, more patient-centered and clinically relevant, and less focused on numerical formulas, while still aimed at meeting HCFA's needs. Additionally, the panel emphasized that the primary role of the medical record is clinical communication and that the record needs to remain confidential.

HCFA has not yet announced a formal position on the panel's June 1999 recommendations.

In addition to supporting HCFA's work with the physician community to develop current documentation guidelines, the Commission also encourages the agency to work with the medical community in considering alternatives to documentation guidelines that also promote accurate coding. Options under the agency's consideration include the use of:

- encounter time as part of the documentation process,
- the complexity of the medical decisionmaking process when reviewing the "appropriate" level of code, and
- alternatives to random claims audits, including focused peer review of statistical outliers.

Whatever changes are ultimately proposed, HCFA should carefully consider their applicability in practical settings before proceeding.

### RECOMMENDATION 3O

**HCFA should pilot-test documentation guidelines for evaluation and management services before their implementation, and/or pilot test any alternative method. The agency should continue to work with the medical community in developing the pilot tests, and should ensure adequate time for physician education.**

Overly complex guidelines will not succeed and may compromise time spent with patients. Without testing, it is difficult to predict how physicians will interpret and react to the guidelines and their alternatives. Pilot testing would help reveal necessary changes before full implementation and identify strategies for physician training. Training of carrier medical review staff will also be important.

Pilot tests should obtain reliable data on the ease of using the guidelines or alternatives, the consistency in understanding among physicians and carrier review staff, and the effects on coding accuracy. Furthermore, the tests should include a representative sampling of physician practices in different specialties, geographic locations, and types of practice, such as solo practices and small- and large- group practices.

#### Changes in coding patterns

To receive payment for providing E&M services to Medicare beneficiaries, physicians must submit a claim, or bill, that identifies the specific services provided. HCFA has established a service coding scheme for this purpose, known as the HCFA Common Procedure Coding System (HCPCS).<sup>45</sup>

The HCPCS codes for E&M services permit billing for multiple levels of services, depending on the intensity of the service provided (Table 3-17). For example, an office visit provided to a new patient can be at one of five different levels; the level of the service is determined by the nature of

45 HCPCS codes include Physicians' Current Procedural Terminology codes, developed by the American Medical Association, and other codes developed by HCFA.

**TABLE  
3-17****Average allowed charges for high-volume evaluation and management services, by level of visit, 1998**

Type of service	Level	HCPCS code	Average allowed charge, 1998	
Office and other outpatient New patient	1	99201	\$ 30.20	
	2	99202	48.17	
	3	99203	66.82	
	4	99204	99.52	
	5	99205	125.98	
Established patient	1	99211	13.67	
	2	99212	26.46	
	3	99213	38.42	
	4	99214	58.82	
	5	99215	91.99	
Hospital inpatient	Initial care	1	99221	67.57
		2	99222	109.86
		3	99223	141.93
	Subsequent care	1	99231	35.81
		2	99232	53.34
		3	99233	74.82
Consultation Office	1	99241	44.89	
	2	99242	71.80	
	3	99243	94.65	
	4	99244	133.65	
	5	99245	181.93	
Initial inpatient	1	99251	48.61	
	2	99252	74.21	
	3	99253	98.93	
	4	99254	137.36	
	5	99255	187.07	
Follow-up inpatient	1	99261	27.15	
	2	99262	47.66	
	3	99263	70.48	
Emergency department	1	99281	20.91	
	2	99282	32.43	
	3	99283	59.74	
	4	99284	91.88	
	5	99285	145.61	
Nursing facility	Initial assessment	1	99301	56.27
		2	99302	72.97
		3	99303	104.41
	Subsequent care	1	99311	32.99
		2	99312	49.19
		3	99313	65.68

Note: HCPCS (HCFA Common Procedure Coding System). These HCPCS codes are on an ascending scale that measures the provider's complexity of decisionmaking and the comprehensiveness of the history and examination.

Source: MedPAC analysis of 1998 Medicare claims, 5 percent sample of beneficiaries.

the history and examination (problem-focused, detailed, or comprehensive) and by the complexity of the medical decisionmaking. E&M services typically have three to five levels. Important patient characteristics—including age, type and severity of health problem, and presence of chronic conditions—also contribute to the level of E&M service provided.

Because E&M services have accounted for approximately 40 percent of Medicare payments to physicians, changes in coding have the potential to significantly affect payments. Codes submitted by physicians must accurately reflect the care patients receive.

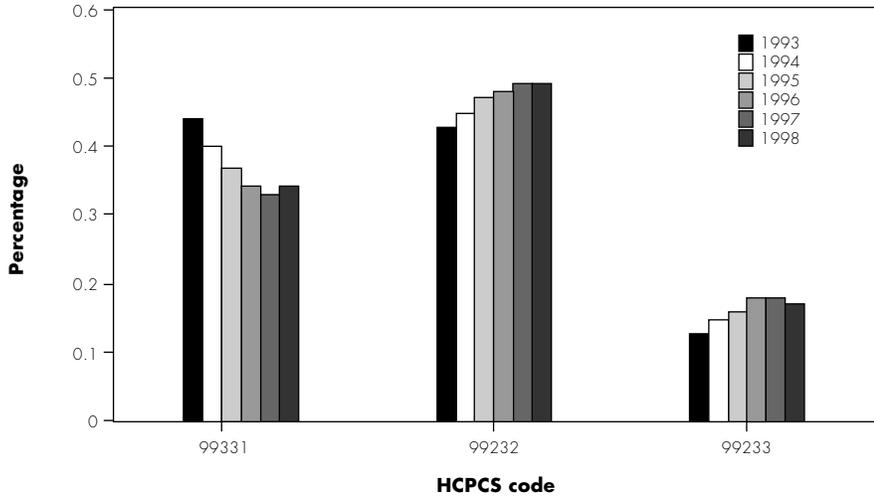
Various factors could affect changes in coding patterns over time. Payment rates are one such factor. As shown in Table 3-17, payment rates vary among the different levels of each type of E&M service; the payment rate for one level of a service is approximately 50 percent higher than is the payment rate for the next lowest level. Given such differences, any ambiguity about proper coding creates an incentive to assign higher-level codes.

Other factors that could affect coding patterns include changes in the population and the care they receive, as well as changes in coding rules. Population changes may reflect aging beneficiaries. They also may reflect changes in the proportion of beneficiaries in Medicare's fee-for-service and Medicare+Choice programs, to the extent that beneficiaries in the two programs have different health profiles. With respect to the care beneficiaries receive, advances in medical capabilities may affect coding patterns to the extent that these advances increase or decrease the complexity of medical decisionmaking. In addition, shifts of care out of hospitals may have led to increased coding intensity for services provided in ambulatory care settings.

Actual experience with coding of E&M services shows shifts toward higher-level codes from 1993–1997. Coding patterns for a common type of service—hospital inpatient E&M services for subsequent care (HCPCS codes 99231–99233)—illustrate this point (Figure 3-2).

**FIGURE 3-2**

**Distribution of hospital inpatient evaluation and management services for subsequent care, by HCFA Common Procedure Coding System code, 1993–1998**



Note: Data are for the first six months of each year. HCPCS (HCFA Common Procedure Coding System).

Source: MedPAC analysis of Medicare claims, 5 percent sample of beneficiaries.

From 1993–1997, coding of the lowest level of this service (HCPCS code 99231) decreased from 44 percent to 33 percent of all claims paid.<sup>46</sup> During the same period, coding of the next-highest level of this service (HCPCS code 99232) increased from 43 percent to 49 percent of all claims, and coding of the highest level of this service (HCPCS code 99233) increased from 13 percent to 18 percent.

This trend appears to characterize not just the hospital inpatient E&M services discussed above, but nearly all other types of E&M services (Table 3-18). If coding intensity is measured as constant average allowed charges (using 1998 charges), coding intensity increased from 1993–1997 for all E&M services frequently provided to Medicare

beneficiaries. For the E&M services most frequently provided—office visits provided to established patients and hospital inpatient visits for subsequent care—the average annual increases were 1.0 percent and 1.5 percent, respectively.

This trend of increasing coding intensity ceased in 1998, when decreases began to occur for almost all types of E&M services (Table 3-18).<sup>47</sup> This change occurred simultaneously with several factors, including heightened attention to fraud and abuse issues in the Medicare program and random audits investigating documentation in E&M claims.<sup>48</sup>

It is unclear why the change in 1998 occurred. It may reflect a return to a more appropriate level of coding. Alternatively,

the change may indicate the beginning of downcoding; that is, physicians erring on the side of being overly cautious. This downcoding may be inappropriate, given that the beneficiary population is older and in poorer health (MedPAC 1999c) and that Medicare+Choice programs generally draw low-risk individuals from the traditional program. These dynamics would predict a trend toward higher-level E&M codes. Indeed, a recent study reports an increase in the scope of care provided by primary care physicians. The scope of care refers to the complexity and severity of medical conditions treated by physicians (St. Peter 1999). Finally, the change in coding trend could represent just a one-year aberration.

Whatever its source, the importance of changes in coding intensity for Medicare spending is clear. The average decrease in coding intensity among all E&M services, from 1997–1998, was 1.7 percent. With E&M services responsible for about 43 percent of Medicare expenditures for physicians' services in 1997, this decrease equates to a substantial 0.7 percent decrease in spending for physicians' services. Therefore, continuing attention to these trends is important.

### Disclosing coding edits

Like documentation guidelines, coding edits help to ensure that Medicare pays fairly for physicians' services. Coding edits are rules used by Medicare carriers and private insurers during claims review to detect improperly coded claims.

Examples of improperly coded claims include claims with two or more codes for services that should be billed under a single, bundled code, and claims with codes for two or more procedures that are not typically performed on the same patient and on the same day.

46 The year 1993 was judged to be a better baseline for this analysis than 1992, when major changes in E&M coding were introduced and physicians were becoming familiar with them.

47 The rate of growth for the case-mix index (CMI) in hospitals has also slowed over the past few years, and preliminary data indicate that it did not increase and may have decreased in 1998. This change is difficult to interpret, however, as attempts to recover overpayments for FY 1996 and 1997 may have contributed to the change in CMI (MedPAC 1999).

48 Results from the Chief Financial Officer's (CFO) audit of FY 1996 Medicare spending prompted HCFA to address concerns about the adequacy of documentation for services billed (Tilghman 1998). Random audits grew from this impetus and results from this and the subsequent two CFO audits further focused attention on fraud and abuse issues.

**TABLE  
3-18**

**Change in evaluation and management service coding, by type of service, 1993–1998**

Type of service	Levels	Average coding intensity						Annual change in coding intensity		Percentage of total allowed charges, 1998
		1993	1994	1995	1996	1997	1998	1993-1997	1997-1998	
Office, new patient	5	\$ 73.34	\$ 73.76	\$ 73.99	\$ 74.46	\$ 74.58	\$ 73.26	0.4%	-1.8%	4.8%
Office, established patient	5	40.23	40.69	41.01	41.50	41.82	41.16	1.0	-1.6	40.6
Hospital inpatient, initial care	3	122.28	123.51	124.49	125.26	125.33	124.60	0.6	-0.6	6.2
Hospital inpatient subsequent care	3	48.49	49.54	50.33	51.09	51.50	51.14	1.5	-0.7	21.9
Consultation, office	5	111.73	112.87	113.90	115.21	115.52	114.20	0.8	-1.1	6.3
Consultation initial inpatient	5	124.59	126.35	127.96	129.16	129.86	127.47	1.0	-1.8	7.4
Consultation, follow-up inpatient	3	44.53	45.92	46.56	47.30	48.31	47.52	2.1	-1.6	1.0
Emergency department	5	80.58	82.28	84.71	85.14	85.79	83.42	1.6	-2.8	6.6
Nursing facility, initial assessment	3	77.29	78.57	79.91	82.07	82.87	83.55	1.8	0.8	0.9
Nursing facility, subsequent care	3	42.01	42.59	43.11	43.79	44.31	43.83	1.3	-1.1	4.3

Note: Average visit intensity is the average charge for each type of visit, weighted by the number of visits at each level. Charges are constant, 1998 average allowed charges. Data are from the first six months of each year.

Source: MedPAC analysis of 1993–1998 Medicare claims, 5 percent sample of beneficiaries.

Using coding edits to enforce Medicare payment policies is generally accepted, but disagreement exists about whether the edits should be disclosed. MedPAC believes that the advantages of disclosing coding edits outweigh the disadvantages.

**RECOMMENDATION 3P**

**HCFA should disclose coding edits to physicians and should seek review of the appropriateness of those edits by the medical community.**

The Commission supports disclosing coding edits because it is important for physicians to know the criteria for claims

payment. Coding edits should enforce Medicare coverage policy, as defined by Medicare law, regulations, and instructions to carriers for claims payment. If coding edits are not known, physicians cannot know whether their claims are being paid in accordance with Medicare policies. Coding edits are effectively coverage policies. Other Medicare coverage policies are not secret; therefore, coding edits should not be secret either.

However, the Commission recognizes that disclosing coding edits has some disadvantages. If physicians know the rules, they may manipulate their billing

practices to maximize reimbursement. In addition, some may argue that businesses may be reluctant to produce edits if they must disclose them, because disclosure may limit their ability to make a profit on their product.

Currently, HCFA uses coding edits from two sources: AdminiStar and McKessonHBOC. The Medicare program initiated its Correct Coding Initiative in 1996 to address improperly coded claims; AdminiStar is a Medicare carrier responsible for creating the Correct Coding Initiative (CCI) edits. The CCI edits incorporate a standard set of edits used by Medicare carriers. These edits are

made public and shared with the medical community and the American Medical Association's (AMA) Correct Coding Policy Committee (CCPC) for review and comment before their implementation. Not all of the CCI edits are ultimately accepted. When a specialty society disagrees with an edit, its concerns are reviewed by the CCPC, HCFA and AdminiStar to ensure that the edit is consistent with CPT (Current Procedural Terminology) coding guidelines. Of the 120,000 CCI edits currently in use, only 1-2 percent were considered inappropriate by those involved in their review.

McKessonHBOC is a private vendor supplying commercial-off-the-shelf (COTS) edits, so-called "black box" edits that are proprietary and generally not disclosed to the medical community before they are carried out (Board of Trustees 1998). Claims are denied without explanation, often triggering costly and time-consuming appeals.

HCFA's contracts with both AdminStar and McKessonHBOC expire in October 2000. The agency has promised that future contracts for coding edits will not include non-disclosure provisions, and the Commission agrees with HCFA's position.

A second important issue that HCFA should consider in future contracts is the cost of the coding edits and the savings they produce. Over approximately three years, HCFA has paid about \$700,000 for 120,000 CCI edits, producing average annual savings of \$236 million. In contrast, HCFA's two-year contract for the use of COTS edits cost \$20 million, producing projected savings of only about \$8 million in 1998 (American Medical

Association 1999), based on the use of 156 edits.

Before implementing COTS edits, the Congress and the General Accounting Office advocated that HCFA employ them. This recommendation and the actual adoption of the edits was based on a 1996 Iowa demonstration claiming potential savings of up to \$465 million from the use of the edits.<sup>49</sup> However, the purported savings were based on an assumption that all 500 edits initially selected would be used. Following internal review, HCFA eliminated edits found to contradict established Medicare policy. In addition, HCFA eliminated more edits after negotiating a confidential review of the remaining edits by the CCPC. Ultimately, the agency used only 156 of the original 500 edits. Recently, more edits have been added and reviewed by HCFA and the CCPC, and still more may be added during the final six months of the contract. The Commission urges HCFA to continue involving the CCPC in evaluating coding edits.

### **Developing a prospective payment system for care in hospital outpatient departments**

Like some of the post-acute care payment systems discussed earlier in this chapter, the payment system for hospital outpatient departments is in transition. To control spending growth, payments to OPDs are changing from a system based partly on cost to a fully prospective payment system. The BBA required implementation of this new payment system on January 1, 1999, but HCFA delayed the process, citing year 2000 computer system concerns. The agency now plans to implement the PPS in 2000.

The PPS will be much like the physician fee schedule, in which payments are determined by multiplying a fixed dollar amount (the conversion factor) by a relative weight indicating the expected relative costliness of a given service. Although payments will be based on individual services, relative weights will not be determined by service as they are for physicians' services. Instead, weights will be determined based on Ambulatory Payment Classifications (APCs), which consist of groups of services.

MedPAC has been concerned about the consistency of payments across ambulatory care settings, including OPDs, physicians' offices, and ambulatory surgical centers (ASCs). Accordingly, in comments on a proposed rule from HCFA on the OPD PPS, the Commission expressed concerns about HCFA's proposal to calculate relative weights for APCs and not individually coded services. The Commission believes that assigning uniform relative weights for all services in an APC group will not promote consistency of payment across settings. While HCFA also has proposed payments for ASCs based on APCs, payments for physicians' services are calculated based on relative weights for individually coded services.

HCFA will publish another rule on the OPD PPS at least 90 days before implementing the system. Awaiting publication of this rule, MedPAC has decided to limit its discussion of the OPD PPS, although the Commission does consider the topic in its discussion of updating payments for ambulatory care in Chapter 4 of this report. MedPAC will comment on the PPS rule when it is published. ■

<sup>49</sup> Congress recently reaffirmed their interest in COTS edits in their report accompanying the Senate Appropriations bill for the Department of Health and Human Services for FY 2000. The Senate Appropriations Committee reasserts that these edits will result in savings and urges HCFA to adopt them.

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