

M A R C H 2 0 0 4

REPORT TO THE CONGRESS

Medicare Payment Policy

MEDPAC Medicare
Payment Advisory
Commission



The Medicare Payment Advisory Commission (MedPAC) is an independent federal body established by the Balanced Budget Act of 1997 (P.L. 105–33) to advise the U.S. Congress on issues affecting the Medicare program. In addition to advising the Congress on payments to health plans participating in the Medicare+Choice program and providers in Medicare’s traditional fee-for-service program, MedPAC is also tasked with analyzing access to care, quality of care, and other issues affecting Medicare.

The Commission’s 17 members bring diverse expertise in the financing and delivery of health care services. Commissioners are appointed to three-year terms (subject to renewal) by the Comptroller General and serve part time. Appointments are staggered; the terms of five or six Commissioners expire each year. The Commission is supported by an executive director and a staff of analysts, who typically have backgrounds in economics, health policy, and public health.

MedPAC meets publicly to discuss policy issues and formulate its recommendations to the Congress. In the course of these meetings, Commissioners consider the results of staff research, presentations by policy experts, and comments from interested parties. (Meeting transcripts are available at www.medpac.gov.) Commission members and staff also seek input on Medicare issues through frequent meetings with individuals interested in the program, including staff from congressional committees and the Centers for Medicare & Medicaid Services (CMS), health care researchers, health care providers, and beneficiary advocates.

Two reports—issued in March and June each year—are the primary outlet for Commission recommendations. This volume fulfills MedPAC’s requirement to submit an annual report on Medicare payment policy. In addition to annual reports and occasional reports on subjects requested by the Congress, MedPAC advises the Congress through other avenues, including comments on reports and proposed regulations issued by the Secretary of the Department of Health and Human Services, testimony, and briefings for congressional staff.

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Glenn M. Hackbarth, J.D., Chairman
Robert D. Reischauer, Ph.D., Vice Chairman
Mark E. Miller, Ph.D., Executive Director

February 28, 2004

The Honorable Richard B. Cheney
President of the Senate
U.S. Capitol
Washington, DC 20510

Dear Mr. Vice President:

I am pleased to submit a copy of the Medicare Payment Advisory Commission's March 2004 *Report to the Congress: Medicare Payment Policy*. This report fulfills MedPAC's legislative mandate to evaluate Medicare payment issues and make specific recommendations to the Congress.

The report begins by examining trends in Medicare spending, beneficiary financial liability, and access to care. The report also reports on the Commission's work in assessing quality of care. It assesses the adequacy of Medicare payments and makes update recommendations for all of the major providers serving Medicare beneficiaries. It also provides recommendations on payment and eligibility for private plans in Medicare.

Sincerely,

A handwritten signature in black ink, appearing to read "Glenn M. Hackbarth".

Glenn M. Hackbarth, J.D.
Chairman

Enclosure



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February 28, 2004

The Honorable J. Dennis Hastert
Speaker of the House of Representatives
U.S. House of Representatives
H232 Capitol Building
Washington, DC 20515

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Glenn M. Hackbarth, J.D.
Chairman

Enclosure

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Executive summary

Executive summary

The Congress charges the Medicare Payment Advisory Commission with reviewing Medicare payment policies and making recommendations concerning them each March. The Commission's goal is for Medicare payments to cover the costs efficient providers incur in furnishing quality care to beneficiaries. If payments are set too low, providers will not want to participate in the program and Medicare beneficiaries may not continue to have access to high-quality care. If payments are set too high, taxpayers and beneficiaries will bear too large a burden.

In this report, we review Medicare prospective payment systems (PPSs) for seven sectors: hospital inpatient, hospital outpatient, physician, skilled nursing, home health, outpatient dialysis, and ambulatory surgical center. We also discuss payment and eligibility policy for the Medicare+Choice (M+C) program and two broader Medicare payment issues:

- the growth in Medicare spending, both as a share of the Federal budget and gross domestic product, and
- the quality of care Medicare beneficiaries receive.

The Commission seeks to improve the quality of care Medicare beneficiaries receive. In this report, in addition to reporting on the quality of care beneficiaries receive, the Commission recommends building incentives into Medicare payment systems to reward high and improved quality. Beginning in 2005, we recommend paying for quality in two sectors where there is consensus on measures and they are regularly collected—outpatient dialysis and the M+C program. We anticipate expanding payment for quality to other sectors in the future as better measures become available.

At the beginning of each chapter we list the recommendations contained in it. Within the chapters we present each recommendation, its rationale, and its implications for beneficiaries, providers, and spending. The spending implications are presented as ranges over one- and five-year periods and unlike official budget estimates, do not take into account the complete package of policy recommendations, the interactions among them, or assumptions about changes in provider behavior. In Appendix A, we present a list of all recommendations and the Commissioners' votes.

Context

In December 2003, the Congress enacted a major Medicare reform bill, the Medicare Prescription Drug, Improvement, and Modernization Act (MMA). In addition to establishing a prescription drug benefit in 2006, the MMA also makes changes affecting many of the payment systems discussed in this report. We note the features of the law that are most relevant to our discussion of each payment system. The full ramifications of the changes will take time to become evident and, in the meantime, add uncertainty to some of our estimates. In future reports the Commission will more fully consider specific aspects of the MMA.

In Chapter 1, we establish a financial context for evaluating the payment updates recommended in subsequent chapters. Even before adding in the costs of the MMA, we find that Medicare spending is likely to put increasing fiscal pressure on the federal budget, requiring policymakers to make increasingly difficult trade-offs between Medicare spending and other budget priorities. We also find that even though beneficiaries are still reporting good access to care, many beneficiaries pay large amounts out of pocket for health care and some have few options to obtain comprehensive supplemental insurance coverage for services not covered by Medicare.

Quality of care provided to Medicare beneficiaries

Ensuring that Medicare beneficiaries have access to high-quality care is a key objective of the Medicare program. Although CMS is working to improve quality, current payment systems are largely neutral or negative toward quality. It is crucial for the Medicare program to build incentives for improving quality into the payment systems.

To help target quality improvement initiatives, in Chapter 2 we analyze the quality of care in hospitals, ambulatory settings, and M+C plans using a range of available indicators. The hospital and ambulatory settings affect a large number of beneficiaries and thus quality in those settings is critical to the program. We find quality varies based on the indicators used. Hospital mortality rates are improving while at the same time, many beneficiaries experience adverse events in hospitals. Beneficiaries are being admitted to hospitals for conditions that might have been prevented in ambulatory settings, and although improving, gaps exist between care delivered and

optimum care. Yet surveys show that overall, beneficiaries rate their providers highly. These data raise questions for further research, but may also point to where payment incentives are most needed.

Assessing payment adequacy and updating payments in fee-for-service Medicare

In Chapter 3, we make payment update and other recommendations for fee-for-service Medicare. We use a two-part framework to help us develop our update recommendations. In part one, we assess the adequacy of Medicare payments for efficient providers in 2004 considering market factors, such as access to care and quality, and the relationship between payments and providers' costs. We assess payment adequacy in aggregate for all providers in each sector, taking into account policy changes scheduled to take effect under current law. In part two, we assess whether and how payments should change in 2005 considering changes in input prices, our expectation for productivity gains, and where applicable, an allowance for cost-increasing and quality-enhancing technology. A target for productivity improvement is essential to encourage providers to be more efficient and to assure that taxpayers share in savings from improvements in productivity when they occur.

Hospital inpatient and outpatient services

Our assessment of beneficiaries' access to care, volume of services, access to capital, quality, and the relationship of current Medicare payments to costs indicates that payments are adequate to cover the costs of furnishing hospital care to beneficiaries. However, there is considerable uncertainty over future trends in both cost growth and Medicare payments and the Commission is concerned about the drop in overall Medicare margins for hospitals over a relatively short period of time. Whether the rapid increase in hospitals' per unit costs has reached its peak, and how payments will change as CMS's new outlier policy and the MMA policy changes take effect are both open questions. This uncertainty argues for caution in this year's update. The Commission finds the most prudent course for this year is for the Congress to raise inpatient and outpatient payment rates by the full projected increase in the hospital market basket index.

The Commission also recommends that the Congress eliminate outlier payments in the outpatient payment system and return them to the base payment. Our analysis finds that outlier payments are predominately for low-cost outpatient services that pose little financial risk to

hospitals. In addition, the outlier payment mechanism is vulnerable to gaming. We conclude that outpatient outlier payments are not needed to protect hospitals from financial risk.

Physician services

To assess Medicare's payment adequacy for physician services, we consider four market factors and find that these indicators are generally positive or neutral. Access to physician care continues to be good overall and the number of physicians billing Medicare is increasing in relation to the Medicare population, with physicians' willingness to serve new Medicare beneficiaries essentially unchanged. Although the ratio of Medicare payment rates to private payment rates for physician services decreased slightly in 2002, it is still higher than in the mid-1990s, and the volume of physician services is increasing. Thus, the Commission recommends that payments for physician services be updated by the projected change in input prices, less an adjustment for productivity growth.

Skilled nursing facility services

The Commission concludes that Medicare payments for skilled nursing facility (SNF) services are more than adequate. Most beneficiaries appear to have sufficient access to SNF services, SNF capacity is stable, the volume of SNF services has been growing, and there are positive signs for SNFs' access to capital. The aggregate Medicare margin for freestanding SNFs is large enough to accommodate the projected increase in costs net of expected productivity improvements in 2005. Therefore, the Commission recommends that the Congress eliminate the update to payment rates for skilled nursing facility services for fiscal year 2005.

Although access to SNF services is good in general, some types of Medicare patients may experience delays in accessing care. This is because Medicare SNF payments are not fully aligned with the costs of caring for Medicare patients with different needs. Thus, we recommend that the Secretary develop a new classification system for care in skilled nursing facilities. Until this happens, the Congress should authorize the Secretary to reallocate the payment add-on currently applied to the rehabilitation payment groups to the nonrehabilitation payment groups so payments better follow patient costs. Furthermore, quality of care in nursing homes could be improved. We note that CMS is developing ways to measure and publically report the quality of care in this sector. As part

of those efforts, we recommend that the Secretary direct skilled nursing facilities to report nursing costs separately from routine costs.

Home health services

Medicare payments for home health services are more than adequate. Market factors show that access to care for most beneficiaries is good, quality has remained stable, and the number of agencies appears to have increased slightly in the past year. Our evidence suggests that improved productivity and product change will offset the increasing prices for home health inputs over the coming year; thus, the current margins, which are more than adequate, will persist. Therefore, the Commission recommends that the Congress eliminate the update to payment rates for home health services for 2005.

However, the payment system may make some types of beneficiaries less financially attractive than others, when ideally it should promote access to care for all types of eligible beneficiaries. We recommend that the Secretary continue to monitor access to care, the impact of the payment system on patient selection, and the use of services across post-acute settings. MedPAC will also continue work to determine whether refinements to the payment system are needed to improve access.

Outpatient dialysis services

Current Medicare payments for outpatient dialysis services are adequate. Our review of the evidence shows beneficiaries are not facing systematic problems in accessing care, the volume of services provided is increasing, providers have sufficient capacity to meet demand, quality is improving for some measures, and providers' access to capital is good. To account for changes in providers' costs in 2005, the Congress should maintain current law and update the composite rate for outpatient dialysis services by 1.6 percent—approximating the change in input costs less expected productivity gains.

Although quality has improved for some measures, current efforts have not improved care for all beneficiaries. Consequently, we recommend that the Congress establish a quality incentive payment policy for physicians and facilities providing outpatient dialysis services. By directly rewarding quality, the program will encourage investments in quality and improve the care beneficiaries receive.

Ambulatory surgical center services

We find that Medicare payments for ambulatory surgical center (ASC) services are at least adequate for 2004. Beneficiaries have good access to ambulatory surgical services. The supply of ASCs and the volume of ASC services received by Medicare beneficiaries have both increased significantly over the last several years. In addition, ASCs have sufficient access to capital. Current Medicare payments are at least adequate to cover the projected increase in ASCs' per-service costs in the coming year, less an adjustment for productivity growth. Therefore we recommend no update to payment rates for ASC services for fiscal year 2005.

We also recommend that the Secretary revise the ASC payment system so that its relative weights and procedure groups are aligned with those in the outpatient prospective payment system. The Congress should require the Secretary to periodically collect ASC cost data at the procedure level to refine the relative weights and to develop a conversion factor that reflects ASCs' costs. Medicare should pay no more for the same service in an ASC than an outpatient department (accounting for differences in the bundle of services).

Currently, CMS develops a list of procedures it will pay for in an ASC. After the ASC payment system is revised, we recommend that the Congress direct the Secretary to eliminate this list. Instead, CMS should pay for all ambulatory surgical procedures in an ASC except for those that do not meet clinical safety standards or that require an overnight stay. This will give physicians greater discretion over where to provide ambulatory surgical procedures and give beneficiaries wider choice, while ensuring that Medicare only pays for surgical procedures in ASCs when they are clinically appropriate for that setting.

Medicare + Choice payment policy

The Commission has consistently encouraged private plan participation in Medicare to provide beneficiaries a choice of delivery systems. Private plans have the flexibility to innovate and use management techniques such as coordination of care to potentially improve the efficiency and quality of health care services delivered to Medicare beneficiaries. The M+C program now provides the majority of Medicare beneficiaries a choice of delivery systems. The MMA created the Medicare Advantage program to replace and expand the M+C program, but many of the same issues currently facing the M+C

program will continue to pertain. In Chapter 4, we examine the current state of the M+C program, compare M+C payment with Medicare fee-for-service (FFS) spending, and make three recommendations.

First, to move toward financial neutrality between the FFS program and M+C plans we recommend that CMS continue to risk-adjust payments with the new risk adjustment system, but not continue to offset the impact of risk adjustment on overall payments. The Commission uses the concept of “financial neutrality” as a guiding principle for setting payment rates in the M+C program—

the Medicare program should be financially neutral as to whether beneficiaries choose care under the FFS program or a private plan. If the program pays more than FFS costs to plans, they will have less financial pressure to improve the delivery of care. Second, to promote access for beneficiaries we recommend that the Congress allow beneficiaries with end-stage renal disease to enroll in private plans. Third, to reward improvements in quality for beneficiaries enrolled in private plans, we recommend that the Congress establish a quality incentive payment policy for all Medicare Advantage plans. ■

CHAPTER

1

**Setting a context for
Medicare spending**

Setting a context for Medicare spending

In December 2003, the Congress enacted a major Medicare reform bill, the Medicare Prescription Drug, Improvement, and Modernization Act of 2003 (MMA). The MMA will address a major gap in the benefit package by establishing a prescription drug benefit in 2006.

Medicare spending is growing and was already expected to take up an increasingly large share of the federal budget, requiring policymakers to make difficult trade-offs between Medicare spending, beneficiaries' concerns, and other national priorities. Enactment of the MMA will further increase Medicare spending.

This chapter establishes a financial context for evaluating the payment updates recommended in subsequent chapters. The statistical evidence we offer predates passage of the MMA, but it provides a useful baseline for assessing the financial circumstances of the Medicare program.

In addition to finding that Medicare spending is likely to put increasing fiscal pressure on the federal budget, we find that many beneficiaries are paying larger amounts out of pocket. Moreover, some have few options to obtain comprehensive supplemental insurance coverage for services not covered by Medicare. The absence of supplemental insurance tends to impede access to care. Under the MMA, however, the current design, types, and availability of supplemental insurance may change. We will monitor the extent to which these changes occur.

In this chapter

- Medicare spending growth
- Beneficiary spending: patterns and implications
- Beneficiaries' perception of their access to care

The Congress has charged MedPAC with assessing the design and implementation of Medicare policy and making recommendations to the Congress to address any problems it identifies. In carrying out these responsibilities, MedPAC examines whether Medicare’s payment policy supports the ultimate goal of the program: ensuring that its beneficiaries have access to medically necessary care of high quality in the most appropriate clinical setting, without imposing undue financial burdens on beneficiaries and taxpayers.

This charge requires that we evaluate not only the technical aspects of Medicare policy, but also the trends in Medicare spending, trends in beneficiaries’ health care spending, and trends in beneficiaries’ access to care.

This chapter finds that growth in Medicare spending continues to outpace economic growth and will likely place significant strain on beneficiaries and the federal budget if it continues unabated. Measured over longer periods of time, Medicare’s growth has been comparable with (albeit somewhat lower than) that of other health care spending because many of the same factors—such as advances in technology and increases in service use—put upward pressure on all payers.

In order to stem growth in spending, many private payers are requiring their enrollees to shoulder a larger share of premiums and pay more cost sharing. To the extent that increases in cost sharing occur in individually purchased or employer-sponsored Medicare supplements, this trend may also affect Medicare beneficiaries.

For certain beneficiaries, we find that fewer comprehensive supplemental insurance options are available. Erosion or elimination of supplemental insurance is a concern because it could adversely affect access to care. However, beneficiary surveys about access to care are reassuring: the majority of beneficiaries report satisfactory access to care. Nevertheless, the Commission remains vigilant about monitoring access for those who report more difficulty.

Medicare spending growth

Medicare spending has grown rapidly since the Congress established the program. In this section we examine:

- the extent that patients have benefitted from this growth and whether the growth is sustainable;
- how much Medicare spends by type of service and how quickly Medicare is expected to grow in the future; and

- how growth in Medicare spending compares to spending by private insurers and other public-sector entities

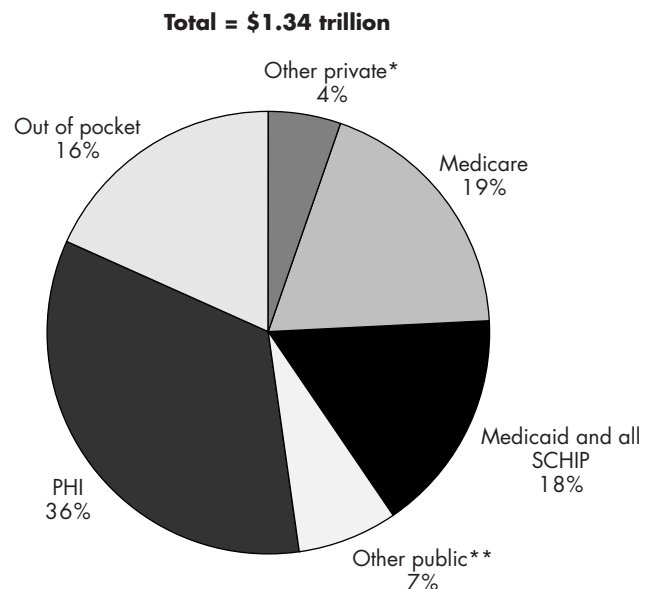
The sustainability and benefit of future growth in Medicare spending

Medicare spending totaled about \$272 billion in 2003, or \$6,880 per enrollee. In addition, beneficiaries accrued \$43 billion in Medicare coinsurance and deductibles, which they paid out of pocket or through supplemental insurance, which often requires them to pay premiums. In 2002, Medicare made up 19 percent of spending on personal health care, defined as all money spent on clinical and professional services received by patients in the United States, excluding administrative costs and profits of insurers (Figure 1-1).

Over the past several decades, health care spending financed by all payers has grown more rapidly than the

FIGURE 1-1

Medicare was about one-fifth of spending on personal health care in 2002



Note: PHI (private health insurance), SCHIP (State Children’s Health Insurance Program). Out-of-pocket spending includes cost sharing for both privately and publicly insured individuals. Personal health care spending includes spending for clinical and professional services received by patients. It excludes administrative costs and profits.

* Includes industrial in-plant, privately funded construction, and nonpatient revenues, including philanthropy.

** Includes programs such as workers’ compensation, public health activity, Department of Defense, Department of Veterans Affairs, Indian Health Service, and state and local government hospital subsidies and school health.

Source: CMS, Office of the Actuary, National Health Accounts, 2004.

overall economy. Medicare program spending per beneficiary reflects that same trend—it outpaced growth in per capita gross domestic product (GDP) between 1970 and 2002 by 3 percentage points. However, the difference in growth between Medicare and GDP was only 1.7 percentage points during 1990–2003 (CBO 2003a).

That march in spending has taken place while beneficiaries have expressed dissatisfaction with aspects of Medicare’s benefit package, notably its lack of coverage for most outpatient prescription drugs. Enactment of the Medicare Prescription Drug, Improvement, and Modernization Act of 2003 (MMA) was intended to address beneficiaries’ most immediate concerns over the benefit package, but did not address their concerns over cost sharing for other services.

Some of Medicare’s cost-sharing requirements, such as a substantial inpatient deductible and high copays on long hospital stays, can lead to a considerable and open-ended financial burden. In order to reduce those risks, over 90 percent of Medicare beneficiaries obtain supplemental coverage. But for many beneficiaries, the premiums or cost-sharing requirements for supplemental policies are growing rapidly, and certain people may have fewer opportunities to obtain that coverage at all. For example, fewer employers are making retiree coverage available.

Thus, policymakers are under pressure to stem growth in program spending, ensure continued access to health care services, and enhance Medicare’s benefit package—all at the same time. The MMA may increase the pressure to stem growth because it requires the President to propose and the Congress to consider legislation to address Medicare spending any time general revenue is projected to fund more than 45 percent of Medicare spending in two consecutive annual reports from Medicare Trustees.

In assessing Medicare spending growth, we explore three questions:

- What forces are leading to rapid growth in Medicare spending over the long term?
- What benefits have we bought with past levels of spending?
- Is Medicare’s growth sustainable?

Forces behind the growth in Medicare spending

Historically, advances in technology (which often increase use of services) have contributed substantially to the

growth in Medicare spending. Analysts also expect future growth in the Medicare population to have a large impact on Medicare spending. This section examines these two factors.

Advances in technology Some new technologies can yield savings, by reducing lengths of stay in hospitals, for example. On balance, however, new technologies tend to increase costs because they often mean that more types of services can be performed and more people can benefit from them. As a result, even though the unit cost of services may decline, total spending tends to increase.

New technologies may also replace older, less expensive ones. In some cases, the new technology can improve outcomes to the extent that higher spending on new technology is offset by lower spending on other services. In other cases, however, improvements in outcomes may be marginal or may produce benefits that are real, but do not significantly decrease service use, such as improving pain management and extending patients’ lives. In these cases, increased spending on new technology may not be offset by reduced spending on other services. Finally, when new technology is provided in addition to old technologies, total spending increases.

The diffusion of new technology is enhanced by several factors that increase demand for services:

- Insurance coverage shields many individuals from immediately facing much of the cost of their care, which often induces them to use more care than they might otherwise.
- Physicians, who usually direct beneficiaries’ care, may be insensitive to the costs of care when making treatment decisions.
- Increases in real income, which many people in the United States experienced during the 1990s, tend to increase demand for health care services.
- Beneficiaries’ expectations about their health status as they age are changing. Beneficiaries no longer view illness and debilitation as a necessary part of the aging process. Instead, many expect that medical services should enable them to retain their health and mobility, and even agility, as they age (Alliance for Aging Research 2001).

Growth in the Medicare population With the leading edge of the baby boom generation becoming eligible for Medicare in 2011 and life expectancy at age 65 projected

to increase by 20 to 25 percent between now and 2075, the proportion of the nation's population over 65 is expected to nearly double (CBO 2002). That has obvious implications for the size of Medicare's population. But it is also important to consider the implications of that demographic bulge on Medicare financing.

The ratio of the number of workers to the number of beneficiaries is projected to decline from 4.0 today to 2.4 in 2030 to 2.0 in 2077 (Boards of Trustees 2003). The Medicare program relies to a significant degree on payroll and income taxes paid by active workers. A declining ratio of active workers to beneficiaries is one indicator of the economic resources that the Medicare program will require.

What have past levels of spending bought us?

Per capita spending on health care has increased dramatically over time. This section evaluates the benefits of that increased spending and considers whether the additional care could have been furnished more efficiently.

Average returns on Medicare spending have been positive Analyses suggest that the benefits of specific advances in health technology, such as treatment of heart attacks and depression, greatly exceed their costs. Indeed, the benefits from advances in treating low-weight infants and heart attacks outweigh all increases in medical spending (Cutler and McClellan 2001). Analysts have also found that since the Medicare program's inception, the average worth of its spending has been high, as measured by improvements in life expectancy and reductions in morbidity, because improvement to health has a value to individuals (Cutler 2000).

If future returns on medical innovation are high, continued spending on technology through the Medicare program could benefit society. If instead returns are lower than those on the alternative uses of financial resources, policymakers might want to restrain future growth in spending.

Are Medicare's resources used efficiently? Even if medical innovation financed by Medicare has had a high average return, substantial evidence exists that those resources have not been allocated very efficiently. Previous work by MedPAC points out that Medicare sometimes pays different amounts for the same type of service provided in different settings.

Medicare beneficiaries may receive too little of certain treatments that have high returns, such as preventive services. Other services, particularly certain innovative

technologies, appear to be overused. Research has found significant geographic variation in practice patterns and use of supply-sensitive services; yet people living in higher-use areas do not have better health outcomes or greater satisfaction with their care. In fact, numerous measures of quality, access, and satisfaction are worse (Fisher et al. 2003).¹

These findings suggest that the benefits of technological change could have been achieved at lower cost. The policy challenge is to promote appropriate use of care. Reducing overuse will generate savings. At the same time, however, there is evidence of underuse of some services (McGlynn et al. 2003, MedPAC 2002, Foote and Hogan 2001, Wagner et al. 2001). Addressing underuse could offset these savings.

Research comparing health care spending of the United States with that of countries in the Organization for Economic Cooperation and Development (OECD) looks at this question from another perspective. It indicates that the U.S. population uses more of certain high-tech services, but most of its other use measures are near the median of other OECD countries. The measures are blunt and do not account for differences in service intensity, but the analysis suggests dramatically higher relative prices as well as higher administrative costs in the United States (Anderson et al. 2003).

Is Medicare's spending growth sustainable?

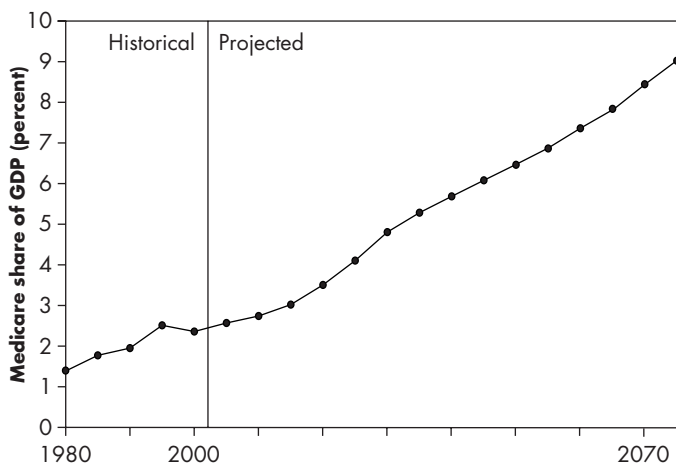
Spending on the Medicare program has grown much faster than the overall economy. It is not clear this growth is sustainable. For example, the Hospital Insurance (HI) trust fund that supports Part A services is projected for insolvency in 2026. This section examines four topics related to the sustainability of Medicare growth:

- the predicted growth of Medicare relative to the overall economy,
- the burden of future Medicare spending,
- the impact of federal budget deficits on the future of Medicare, and
- options for financing future Medicare costs.

The predicted growth of Medicare relative to the overall economy Medicare accounted for 2.6 percent of GDP in 2002. The Medicare Trustees project this to increase to 5.3 percent in 2035 and 9.3 percent in 2077 (Boards of Trustees 2003) (Figure 1-2).

FIGURE 1-2

Trustees project Medicare spending to increase as share of GDP



Note: GDP (gross domestic product). Trustees' data are incurred.

Source: 2003 annual report of the Boards of Trustees of the Medicare trust funds.

However, the Trustees made those projections before the Congress added a prescription drug benefit under the MMA. The prescription drug benefit will drive Medicare's share of GDP higher than the Trustees' projections.

Depending on one's point of view, Medicare's projected growth may signal the nation's collective preferences, a program growing out of control, or something in between. Regardless of one's perspective, however, Medicare's growing share of the economy highlights the opportunity costs: by spending more on Medicare services, less will be available to spend elsewhere.

The burden of future Medicare spending Medicare's funding comes from payroll taxes, general revenue, social security taxes, and premiums. As the program is currently structured, receipts from payroll taxes are insufficient to support spending for Part A benefits over the long term. Moreover, a rapidly increasing amount of general revenues and higher premiums will be needed to finance Part B and the new Part D (prescription drug) benefits. Greater general revenue spending could be a problem if policymakers fail to identify other spending priorities for Medicare to replace, or if they postpone steps to balance costs with revenues.

The Medicare program is financed through two trust funds: the Hospital Insurance trust fund for Part A services and the Supplementary Medical Insurance (SMI) trust fund for Part B and Part D (beginning 2006) services.

Unlike the SMI trust fund, the HI trust fund can be exhausted if spending exceeds revenue plus reserves. An accounting mechanism determines Medicare's spending authority; when the HI trust fund is exhausted, the government no longer has authority to pay Part A claims. The pending insolvency date of 2026 therefore exerts pressure on policymakers to balance trust fund revenue and spending to ensure continued operation of Part A (which now accounts for about 55 percent of program spending) (Table 1-1).

For a better understanding of the magnitude of the long-range imbalance, consider that payroll tax revenue (not counting intragovernmental transfers, such as interest on trust fund assets) currently equals 105 percent of expenditures, but is expected to cover only 73 percent of costs in 2026 and just 30 percent 75 years from now.² Illustrating what it takes to correct this shortfall, the Trustees estimate that if the Congress immediately enacted an increase, the payroll tax rate would need to rise from its current level of 2.9 percent to 5.3 percent; alternatively, HI expenditures would need to be reduced by 42 percent. If instead, the Congress enacted tax changes to meet spending growth more gradually, it would have to roughly triple the payroll tax by the end of the 75-year period.

Another important benchmark in the HI trust fund is 2013—the year that the Medicare Trustees project expenses to exceed income. This date has no impact on spending authority, but the federal budget would be affected because the HI program would require transfers from the general fund of the Treasury to reflect its draw down of HI trust fund assets. Currently, the excess of income over expenses reduces the amount of borrowing needed to support other government activity.

TABLE 1-1

Medicare HI trust fund is projected to be insolvent in 2026

Estimate of growth	Year spending exceeds tax receipts	Year HI trust fund assets exhausted
High	2004	2015
Intermediate	2013	2026
Low	2041	*

Note: HI (hospital insurance). Taxes include payroll and Social Security benefits taxes, Railroad Retirement tax transfer, and income from the fraud and abuse program. Taxes exclude a small amount from general revenues. *Not exhausted within the 75-year projection period (ending 2077).

Source: 2003 annual report of the Boards of Trustees of the Medicare trust funds. CMS, Office of the Actuary.

In contrast to the HI fund, the SMI fund—financed primarily by federal general revenues and beneficiary premiums—is designed to remain solvent indefinitely by drawing on general revenues. Current law automatically sets annual financing to cover SMI’s expected costs for the upcoming year plus a “contingency reserve.”

However, as the number of beneficiaries grows with the retirement of the baby boom generation, and as health care costs continue to rise, the SMI fund is expected to require increasing amounts of general revenue and substantial increases in beneficiary premiums. For example, the Trustees estimate that for 2002, general revenues devoted to SMI made up 7.8 percent of personal and corporate income taxes. If those taxes remained at the same share of the economy, the SMI program’s general revenue financing would require about 32 percent of total income tax revenue by 2077 (Boards of Trustees 2003). This projection does not include the effects of the drug benefit under the MMA, which will substantially increase the amount of income tax revenue devoted to Medicare.

The impact of federal budget deficits on the future of Medicare Near-term growth in Medicare spending would occur at a time when the Congressional Budget Office (CBO) projects federal budget deficits each year through 2013. Currently, CBO estimates a budget deficit of \$477 billion in 2004, \$362 billion in 2005, and a steady decline until reaching a surplus in 2014.³

However, these estimates assume all expiring tax provisions will not be extended. CBO estimates that if all current tax provisions are made permanent, the budget outlook for 2014 would change from a surplus of \$13 billion to a deficit of \$455 billion (CBO 2004).

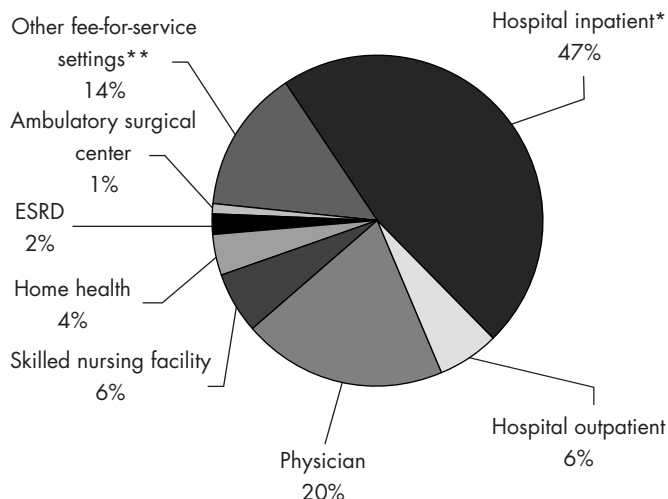
Options for financing future Medicare costs Policymakers need to consider whether Medicare’s growing requirement for economic resources matches the nation’s long-term goals. To address the discrepancy between dedicated resources and projected spending, leaders may need to consider a variety of policy changes.

Medicare’s growth could be financed by more borrowing. Under that scenario, the federal government would have to increase spending to cover larger interest payments on the federal debt. Given the magnitude of resources required to finance projected Medicare spending, such an approach could put significant upward pressure on interest rates as the federal government competes with other borrowers for investment capital. Higher interest rates could, in turn, slow economic growth.

FIGURE 1-3

Hospital inpatient was nearly half of all fee-for-service Medicare spending in 2003

Total spending in fiscal year 2003 = \$236 billion



Note: ESRD (end-stage renal disease). Spending numbers are presented as gross outlay, meaning that they include spending financed by beneficiary premiums but do not include spending by beneficiaries (or on their behalf) for cost sharing associated with Medicare-covered services. They are reported on a fiscal year, incurred basis and do not include spending on program administration. Totals may not sum due to rounding.
 * Includes all hospitals, both those paid under the prospective payment system (PPS) and PPS-exempt hospitals.
 **Includes outpatient laboratory; durable medical equipment; hospice; Part B drugs, ambulance services, and supplies; and Rural Health Clinics, Federally Qualified Health Centers, and outpatient rehabilitation facilities.

Source: CMS, Office of the Actuary, 2004 Mid-Session Review.

Other options include raising dedicated taxes to cover Medicare’s growing spending, reducing benefits, slowing growth in provider payments, promoting more efficient provision of care, increasing beneficiaries’ cost sharing, or a combination of approaches. All of those options are difficult, but in general, if policymakers wait longer to realign Medicare spending and financing, the changes they would have to make would be more drastic.⁴

Medicare spending patterns and growth

Two factors are essential to assessing the performance and financial sustainability of the program and identifying where changes are needed. First, we need to understand how much Medicare spends for which services and for which beneficiaries; second, we must determine how fast this spending is expected to grow.

Medicare spending, by type of service

In 2003, inpatient hospital services received the largest portion of the \$236 billion spent in traditional Medicare (47 percent), followed by physician services (20 percent), skilled nursing facilities (6 percent), hospital outpatient services (6 percent), and home health (4 percent) (Figure 1-3). In addition, Medicare spends \$36.4 billion in Medicare+Choice.

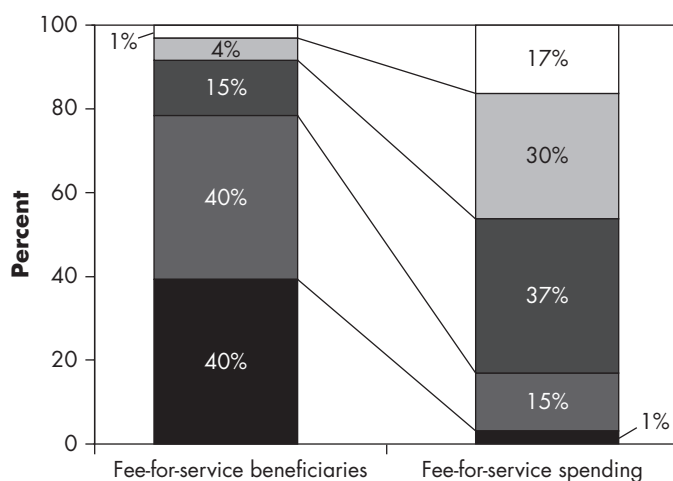
This distribution of resources has changed over time. For example, from 1992 to 2003 inpatient hospital spending shrank as a percentage of spending in traditional Medicare, from 53 percent to 47 percent.

Medicare is the single largest payer for many services. In 2002, the hospital, home health, and durable medical equipment sectors each received about 30 percent of their revenue from Medicare, followed by physicians (20 percent).

Like spending by private insurers, Medicare spending is concentrated among a small percentage of beneficiaries (see text box). Between 1995 and 1999, the costliest 5 percent of beneficiaries accounted for 47 percent of annual spending in traditional Medicare, and the costliest 20 percent accounted for 84 percent. In contrast, the least expensive 40 percent of beneficiaries accounted for only 1 percent of spending (Figure 1-4).

FIGURE 1-4

Medicare spending is concentrated in a small group of beneficiaries



Note: Reflects spending each year from 1995 through 1999. Based on a 5 percent random sample of beneficiaries. Spending is reported in 1999 dollars.

Source: Leiberan et al. 2003

Who are the costliest beneficiaries?

Some suggest that if we could better manage the care of the most expensive beneficiaries, we could improve quality and lower costs. Others are less convinced that such an approach would be successful. The debate prompts us to review what we know about the most costly beneficiaries.

- Costly beneficiaries in one year are more likely than other beneficiaries to have high costs in the following years. Of the high-cost beneficiaries who were alive at the end of 1993, over half remained in the highest quartile of spending in the next calendar year—a rate twice as high as would be expected by chance (Crippen 2002).
- Costly beneficiaries are likely to have multiple chronic conditions. One analysis found that beneficiaries with three or more conditions (46 percent of beneficiaries) account for almost 90 percent of total spending, while those with no chronic conditions account for less than 1 percent (Anderson 2002).
- Costly beneficiaries often include those in the last year of life. About 25 percent of Medicare outlays are spent on the last year of life for the 4.7 percent of beneficiaries who die each year. It is important to remember, however, that because the year or time of death is not predictable, this figure shows the cost of caring for severely ill individuals with unknown life expectancy, not the cost of care delivered in anticipation of impending death (MedPAC 2000).
- Beneficiaries with end-stage renal disease account for more than 6 percent of Medicare spending, yet comprise less than 1 percent of beneficiaries.
- Spending increases with age, but beyond a certain age, spending begins to decline. ■

Of course, over a longer interval the concentration is less dramatic. For example, over the entire five-year period from 1995 through 1999 the costliest 27 percent of beneficiaries accounted for roughly 75 percent of spending (Lieberman et al. 2003).

In addition, per-beneficiary spending varies geographically. For example, Medicare paid an average of \$3,500 per fee-for-service (FFS) beneficiary in Salem, Oregon, while it paid almost \$9,200 in Miami, Florida, in 2000. Variation in the cost of inputs and health status accounted for about 40 percent of this geographic disparity, while differences in practice patterns and beneficiary behavior accounted for the remainder (MedPAC 2003b).

Growth in Medicare spending

Over the long term, Medicare spending has grown rapidly—about 9.4 percent annually from 1980 to 2003. In its 2004 Mid Session Review of the President’s Budget, the CMS Office of the Actuary (OACT) projects 2003 baseline spending of \$272.4 billion, an increase of 4.9 percent over 2002.⁵ This rate of increase is lower than in 2001 and 2002, 8.8 percent and 9.2 percent respectively.

OACT predicts that spending per beneficiary will increase by 3.7 percent to \$6,880 in 2003, a smaller increase than the 7.8 percent increase in 2001 and the 8.0 percent increase in 2002. The slowdown reflects the so-called “15 percent cut” in the home health base rate, the impact on payments to skilled nursing facilities (SNFs) from expiring provisions of the Balanced Budget Refinement Act of 1999 (BBRA) and the Medicare, Medicaid, and SCHIP Benefits Improvement & Protection Act of 2000 (BIPA), and reduced reimbursement for physicians under the sustainable growth rate.

The projected slowdown in spending growth is evident across the major service areas under traditional Medicare, with spending levels for services provided by home health agencies and SNFs expected to decrease in 2003, before increasing again between 2004 and 2013 (Table 1-2).

Before the Congress enacted the MMA, OACT estimated that future Medicare spending will increase by an average of 6.3 percent annually over the next 10 years (3.9 percent real growth). CBO and the Boards of Trustees’ intermediate estimates for Medicare growth assumed a similar growth rate—6.5 and 6.6 percent (4.2 and 4.3 percent real growth), respectively—over the next 10 years (Figure 1-5).

TABLE 1-2

Changes in annual Medicare spending vary by setting

Setting	2001-2002	2003	2004-2013
Aggregate Medicare	9.0%	4.9%	6.5%
Hospital inpatient	9.0	5.3	6.3
Hospital outpatient	22.5	7.7	11.8
Physician fee schedule services	10.1	7.9	5.6
Skilled nursing facilities	15.9	-6.6	4.6
Home health agencies	8.8	-2.0	7.2

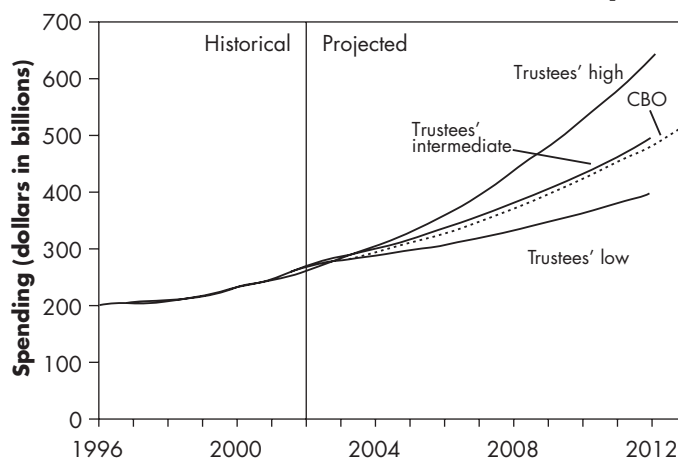
Note: Historical spending calculations based on CMS, Office of the Actuary’s 2004 Mid-Session Review.

Source: Office of the Actuary, CMS 2003.

In making their longer-term projections, both CBO and the Trustees made several assumptions. A key assumption is that Medicare spending per beneficiary will ultimately exceed per capita GDP growth by 1 percentage point through 2077, before accounting for changes in demographics of the Medicare population. Because of uncertainty surrounding these assumptions, these projections may deviate from what actually occurs in the future. In fact, the CBO director noted that this growth assumption may be optimistic, particularly given that between 1970 and 2002 Medicare spending per beneficiary grew at per capita GDP plus 3 percentage

FIGURE 1-5

Trustees and CBO project Medicare growth rate of 6 percent over next 10 years



Note: CBO (Congressional Budget Office). All data are nominal, gross mandatory program outlays. Trustees’ projections include administrative spending and are presented on a calendar year basis ending in 2012.

Source: CMS, Office of the Actuary, 2004 (historical spending). Trustees Report 2003, CBO 2003 (projections).

points (Holtz-Eakin 2003). Indeed, the number of visits to doctors by those over age 45 grew 26 percent in the last decade, even though this age group grew by only 11 percent over the same period. This reminds policymakers of the potential for increases in the intensity of care over time (Cherry et al. 2003).

These baseline estimates of future growth do not include the impacts of the MMA, which will substantially increase program spending. CBO has estimated that the MMA will increase federal spending by \$394 billion over the 2004–2013 period. Moreover, unofficial CBO estimates indicate it will increase spending by at least \$1 trillion and perhaps as much as \$2 trillion from 2014 to 2023 (Holtz-Eakin and Lemieux 2003).

At the same time, the MMA has several measures that may help moderate future program spending:

- The President must propose and the Congress must consider legislation to address Medicare spending if two consecutive annual reports by the Trustees indicate general revenue will fund more than 45

percent of Medicare spending in at least one year of a seven-year fiscal reporting period.

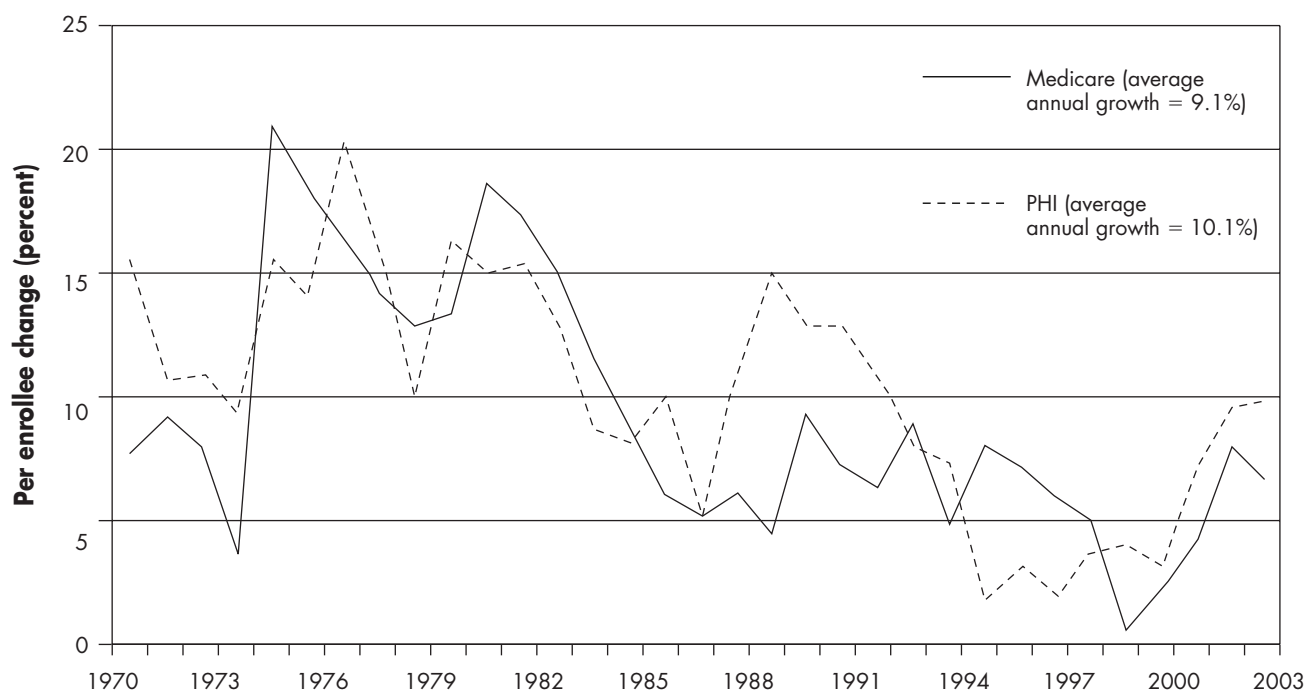
- The standard prescription drug benefit has a deductible (initially \$250) that will increase each year to reflect annual increases in per capita spending on covered outpatient drugs. Also, if combined drug spending by a beneficiary and the program exceed a specified limit (initially \$2,250), the beneficiary must pay all remaining drug costs until reaching a catastrophic limit (initially \$5,100). The size of this so-called “donut hole” will increase annually by the same rate as the deductible. Increasing the deductible and the donut hole will help hold down program spending.
- The Part B deductible increases from \$100 to \$110 in 2005. In subsequent years, it will increase at the same rate as the Part B premium.

Growth: How does Medicare compare?

Medicare’s annual growth rates have differed from those of private insurance and other sectors of the health care economy (Figure 1-6). Also, Medicare’s average annual

FIGURE 1-6

Changes in spending per enrollee differ between Medicare and private health insurance



Note: PHI (private health insurance). Chart compares services covered by Medicare and private health insurance, including hospital services, physician and clinical services, other professional services, and durable medical products.

Source: Levit et al. 2004.

growth rate over the long term is lower than the average for private insurance. This may reflect the combined effects of the program's size relative to private insurers and policies that hold down program spending, such as the inpatient prospective payment system (PPS) and provisions in the Balanced Budget Act of 1997 (BBA).

Because of Medicare's size, providers may use Medicare payment rates as a benchmark in negotiations with private insurers. In years where Medicare has relatively low increases in spending per enrollee—such as the mid-1980s, after Medicare began using the inpatient PPS—providers may argue that private insurers must offer higher rates to offset the relatively small increases in Medicare rates.

However, Medicare and private insurers cannot let their rates diverge too much. A payer with rates substantially below other payers may cause access problems for its beneficiaries.

Comparing growth rates in Medicare and private insurance may provide some insight into the effectiveness of different payers' ability to contain costs and the dynamics that underlie variations in growth rates over time.

Any comparison of growth in health care spending must be undertaken with an appreciation for its limits. First, Medicare and other purchasers do not buy the same mix of services. So, for example, the rapid growth in spending for outpatient prescription drugs has had a smaller impact on Medicare than on other purchasers. Conversely, Medicare spending on services provided by home health agencies and SNFs grew rapidly in the 1990s, but these services generally are a small part of the benefits paid by private insurers.⁶

Second, generosity of coverage (e.g., changes in cost-sharing obligations) may change over time. Cost sharing in Medicare has remained largely static because the Congress has rarely changed the cost sharing structure. In contrast, cost sharing in the private sector changes much more frequently in response to market forces, some of which are local in nature.

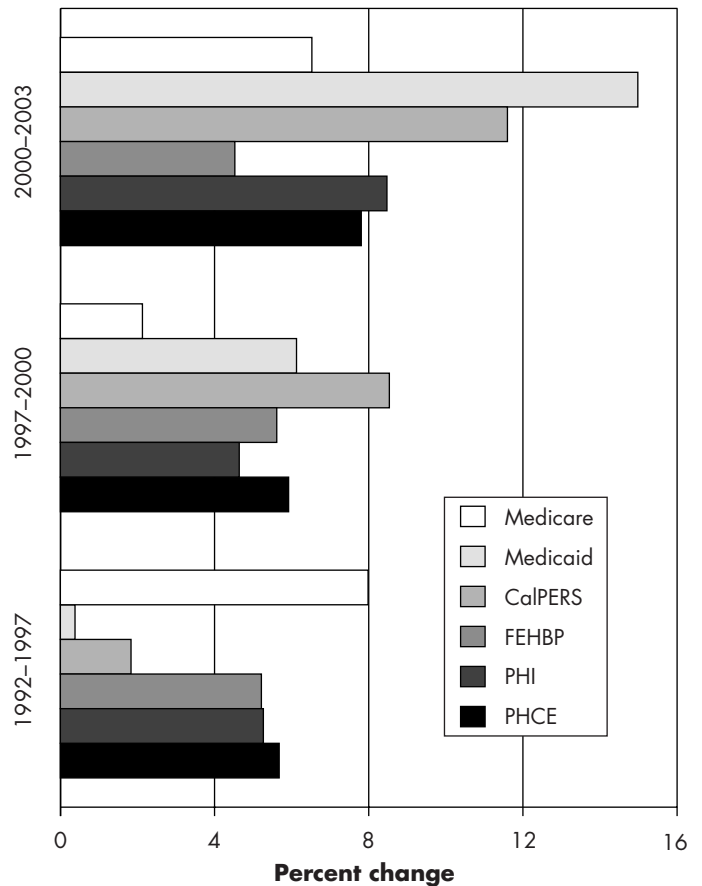
Finally, conclusions can dramatically differ depending upon the time period analyzed. For this reason, it is best to consider the data over a longer period.

Spending and premium growth among sectors of the health care economy

With these caveats on the comparability of growth rates in mind, the following discussion highlights growth trends

FIGURE 1-7

The rate of change in spending per enrollee differs between Medicare and other purchasers



Note: CalPERS (California Public Employees' Retirement System), FEHBP (Federal Employees Health Benefits Program), PHI (private health insurance), PHCE (personal health care expenditures). Changes in spending are nominal. Private health insurance spending excludes spending on administration and profits.

Source: CMS Office of the Actuary, 2004 Mid-Session Review, Medicare and Medicaid (not including SCHIP) spending; FEHBP 2004, FEHBP premium increases; CalPERS 2004, CalPERS premium increases; PHI and PHCE, 2001 National Health Expenditures.

among other subsets of the health care economy, including personal health care expenditures (PHCE), private health insurers, and large government insurers (CalPERS, FEHBP, and Medicaid). In Figure 1-7, we present the recent per enrollee growth rates for each, along with that of Medicare.

Even as insurers are challenged with steep spending increases, both the number and percentage of uninsured individuals have been increasing. According to the U.S. Census Bureau, the number of nonelderly Americans who are uninsured increased by 2.4 million to 43.6 million in 2002—the largest increase in a decade. As a result, 15.2

percent of Americans were uninsured in 2002, compared with 14.6 percent in 2001 (Bureau of the Census 2003a).⁷

Personal health care expenditures Personal health care expenditures from all sources of payment is perhaps the best subset of health spending to provide a sense of system-wide spending trends. It includes out-of-pocket spending by consumers as well as spending by a multitude of payers, such as Medicare, insurance companies, and employers. It has recently grown 7 to 8 percent annually (15.9 percent per enrollee between 2000 and 2002), and prior to passage of the MMA, analysts projected it to grow at an average annual rate of 6.4 percent between 2002 and 2012.

Currently, personal health care expenditures account for 12.2 percent of GDP. However, they are projected to constitute 15.5 percent of GDP by 2012 (Figure 1-8).

Growth in hospital spending accounted for the largest share of the increase in PHCE, and hospital price inflation accounted for a larger share of hospital spending growth in 2002 than in 2001 (Heffler et al. 2003). Growth is driven by higher hospital labor costs and increased hospital leverage in negotiations over payment rates, reflecting consolidation of hospitals in many markets and less restrictive networks of providers.

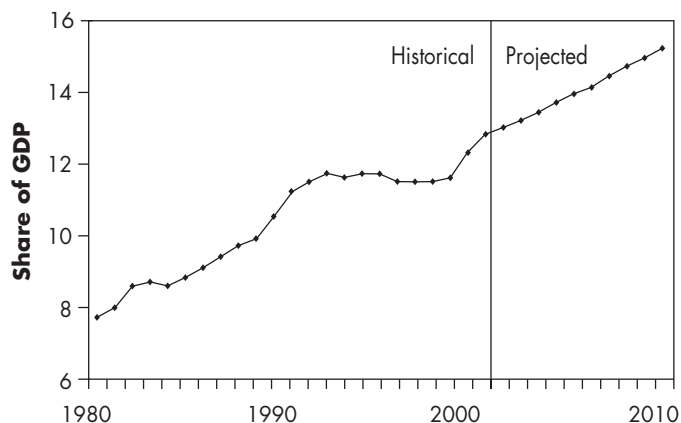
Growth in spending for prescription drugs and physician services are the next two largest contributors to overall growth. Prescription drug spending grew by 13.3 percent in 2002, even though its growth has slowed from its peak in 1999 due to the increasingly broad use of tiered copayments, fewer blockbuster drug introductions, and greater use of generic and over-the-counter drugs (Heffler et al. 2003). Nevertheless, prior to passage of the MMA, analysts projected prescription drugs to account for 14.5 percent of total health spending in 2012, up from 9.9 percent in 2001.

Physician spending is expected to slow somewhat because of negative payments required under the sustainable growth rate.⁸ There is some uncertainty about the timing of these negative updates, however. The Congress has already prevented a negative update in 2003 and has legislated positive updates for 2004 and 2005.

Private health insurance spending Health care spending by private insurers increased by about 9 percent in 2002. But, for the first time in several years, the rate of increase appears to have slowed. CMS actuaries analyzing the national health account data estimate that per-enrollee

FIGURE 1-8

Personal health care spending is increasing as share of GDP



Note: GDP (gross domestic product). Personal health care spending includes spending for clinical professional services received by patients. It excludes administrative costs and profits.

Source: CMS, Office of the Actuary. National Health Accounts, 2004.

costs for private health insurance grew about 8.9 percent in 2002—slightly slower than the 2001 growth rate of 10.8 percent. Another study, based on more recent data, suggests that the rate of increase in health care spending per privately insured person is slowing. It grew by just over 10 percent in 2001, by just under 10 percent in 2002, and by 8.5 percent in the first six months of 2003 (Strunk and Ginsberg 2003). Despite this slowdown, private health insurance spending is still rising quite rapidly.

While spending growth appears to have peaked in 2001, growth of private premiums appears to have peaked a little later. The lag in slowdown between spending and premium growth reflects the fact that insurers set premiums before they incur costs. If they overestimate costs, premiums will substantially exceed costs. In subsequent periods, they respond by reducing premiums. Results from recent surveys of employers find premium increases in the range of 14 to 17 percent in 2004, somewhat lower than the 15 to 21 percent growth in 2003. Data from the national health accounts suggest that per enrollee premium growth peaked in 2002 (Heffler et al. 2003).

Large government purchasers The Federal Employees Health Benefits Program (FEHBP) and California Public Employees' Retirement System (CalPERS) are two examples of public entities that use market-oriented

approaches to contract with private insurance plans for employee health coverage. Program administrators negotiate premiums with prospective plans. Once the program selects plans, enrollees choose from insurance options. Enrollees' premium contributions depend on the cost of the insurance plan selected.

- CalPERS is a public agency that contracts annually for health benefits coverage on behalf of 1,100 state and local public agencies in California. Many public agencies in lower-cost markets choose not to join CalPERS. Approximately 1.2 million California public employees, retirees, and dependents were in CalPERS plans in 1997 (20 percent of these were retirees). CalPERS raised premiums for its health plans by 16.4 percent on average for 2004.⁹
- FEHBP is the health benefit program run by the federal government for its civilian employees, retirees, and dependents. In 2003, it had 206 health plan options and covered 8.1 million lives (Quayle 2004). In 2004, FEHBP increased premiums by 10.6 percent.

Medicaid is the nation's largest public health insurance program, covering 51 million people, mostly low income. In addition to covering children and their families, it also fills in the gaps in Medicare coverage for low-income seniors, especially for prescription drugs and long-term care.

Because Medicaid's growth rates are influenced by unique eligibility and payment policies, its growth is not expected to be comparable to Medicare's. Nevertheless, as another large public health care program, it provides useful context. Per capita Medicaid spending grew by an average of 5.7 percent between 2001 and 2003, slightly faster than the per capita Medicaid spending over the past 10 years. Because of increased enrollment over the last few years, aggregate growth averaged more than 10 percent per year between 2001 and 2003. Motivated by budget constraints, many states have implemented cost-containment strategies that have succeeded in slowing Medicaid spending growth in 2003.

Comparing responses to rapid growth

Different responses to growth from the private and public sectors explain some of the wide variation in annual growth during certain periods. For example, throughout the 1990s, the private sector (and other public purchasers) turned to managed care as a way of controlling spending growth. In markets characterized by excess capacity

among providers, managed care plans were able to negotiate lower prices per service, and to a lesser extent, reduce the number of services provided.

In contrast, Medicare's payment rates for managed care plans during most of the 1990s were based on the cost of the average beneficiary in traditional Medicare. They were not based on plan costs (nor are they currently based on plan costs). Consequently, Medicare was not able to realize savings through managed care plans during the 1990s. But, beneficiaries typically enjoyed relatively generous benefits for services not covered by traditional Medicare because of the requirement that plans return savings as benefits.

The dynamic in the private sector has since changed, however. A backlash against managed care, provider consolidations, and higher occupancy rates have all contributed to an environment in which providers are able to negotiate higher prices and increase the volume of services delivered. As employers and payers struggle to cope with resulting premium increases, some are changing the portion of the premium enrollees must pay as well as increasing enrollee cost sharing. Many are offering higher deductible plans, higher coinsurance, or tiered networks, which offer beneficiaries lower premiums or cost sharing if they enroll in plans that have provider groups deemed to be more efficient (Lesser and Ginsberg 2003).

In contrast, the Congress has responded to Medicare's growth by changing Medicare's administered prices. After rapid spending growth in the 1990s, the Congress responded with the BBA, which enacted reductions in provider payments in virtually every sector and succeeded in dramatically slowing Medicare's rate of growth. Some of those reductions have been offset in subsequent legislation: the BBRA, the BIPA, and now the MMA.

Another factor that may influence growth rates of Medicare and private insurers and affect the relationship between the two is cost shifting. The theory is that when Medicare rates are low, providers increase pressure on insurers to pay them higher rates; thus, in a sense Medicare's costs are passed on to private insurers. Conversely, when Medicare rates increase, providers put less pressure on insurers to pay higher rates.

Analysts do not agree that cost shifting occurs. Some researchers believe it is plausible (Ginsburg 2003), while others are skeptical (Morrisey 2003, Morrisey 1996, Hadley et al. 1996). Most executives in hospitals, physician organizations, health plans, and businesses

believe that lower rates paid by Medicare and Medicaid lead to higher rates charged to private-sector payers (Ginsburg 2003).

Beneficiary spending: patterns and implications

Trends in beneficiaries' health care spending have important implications for beneficiaries' access to care. Does the cost of care adversely affect beneficiaries' ability to obtain needed care? This section examines beneficiaries' out-of-pocket spending and the factors that influence it. It also asks whether the Medicare program and available supplemental insurance options adequately limit beneficiaries' liability. We find the answer varies by beneficiary, and tends to depend on a combination of three beneficiary characteristics:

- income
- health status
- supplemental insurance status

In 2001, Medicare paid just over half (52 percent) of the total cost of beneficiaries' health care services, or \$5,874. Much of the remainder was paid out of pocket by beneficiaries. In addition to out-of-pocket spending on services, beneficiaries typically pay out of pocket for the Part B premium and supplemental insurance. We examine beneficiaries' out-of-pocket spending, which includes four main components: Part B premiums, supplemental premiums, spending on noncovered services, and spending for Medicare coinsurance and deductibles.

For beneficiaries living in the community (not in facilities, such as nursing homes) out-of-pocket spending has grown as a portion of their total health care spending—reflecting, in part, the growth in prescription drug spending and supplemental insurance premiums. The rate of growth in spending (5.9 percent) also outpaced the rate of growth in beneficiaries' income (3.5 percent) from 1993 through 2001.

Out-of-pocket spending is concentrated among a minority of beneficiaries. Five percent of beneficiaries account for 20 percent of out-of-pocket spending. However, out-of-pocket spending is less concentrated than total expenditures from all sources of payment (total spending). Five percent of beneficiaries account for 35 percent of total spending. This indicates that third-party payers (Medicare, Medicaid,

and private insurance) pay a larger share of beneficiaries' health care costs as their total spending increases. This is a positive attribute of insurance and a desirable outcome.

Income

Beneficiaries' ability to pay for their health care varies by their income and resources. Lower-income beneficiaries face a greater burden than their higher-income counterparts.

On average, beneficiaries spend about 20 percent of their incomes on health care services. However, the burden of health care spending is heavier for low-income beneficiaries. Households with incomes less than \$10,000 in 2000 spent 29 percent of their incomes on health care; the corresponding figure for households with incomes greater than \$70,000 was 4 percent (CMS 2002). Nevertheless, wealthier beneficiaries use more care and spend a higher amount out of pocket than low-income beneficiaries.

Most beneficiaries have retired or are unable to work due to disability, so many have relatively modest incomes. Data from CMS show that nearly 65 percent of Medicare beneficiaries had annual income from all sources below \$25,000 in 2000 (CMS 2002). In addition, many beneficiaries—especially those with low incomes—have few financial assets that can be used to pay for health care. Forty percent of beneficiaries have less than \$12,000 in assets, and 85 percent of beneficiaries below poverty have assets below that threshold (Moon et al. 2002).

Disabled beneficiaries are about twice as likely as those age 65 and older to have incomes below the poverty level. Among those 65 and older, the likelihood of being below the poverty level increases with age (Kaiser Family Foundation 2001). Data from the Medicare Current Beneficiary Survey (MCBS) show that in 2001 about 15 percent of noninstitutionalized beneficiaries had incomes below the poverty level, and 48 percent of beneficiaries had incomes below 200 percent of the poverty level.

The Current Population Survey (CPS) provides more recent data on beneficiaries' income compared with the income of the U.S. population as a whole. The CPS uses somewhat different methods than the MCBS for allocating income in family units, producing a lower estimate of the number of people with incomes below the poverty level. But, because the CPS data on income are more complete as well as more recent than the data in the MCBS, they provide important insights.

CPS data indicate that half of households with at least one member age 65 or older had money incomes below \$23,200 in 2002.¹⁰ Between 2001 and 2002, the median of money income declined, in real terms, by 1.4 percent among people age 65 and older. In contrast, the median real income among those age 55 to 64 increased by 1.3 percent from 2001 to 2002, to about \$47,200 (Bureau of the Census 2003b).

People age 65 and older are not, however, more likely to be classified as poor, by standard measures of poverty, than other age cohorts. In fact, the decline in poverty among older Americans is a major success story of the past half century.

The poverty rate for people age 65 and older fell from over 35 percent in 1959 to 10.4 percent in 2002, compared to 10.6 percent among adults age 18 to 64. But, official measures of money income and poverty do not necessarily provide all the information policymakers need to determine whether Medicare beneficiaries have sufficient resources to ensure access to appropriate health care. In particular, the official poverty measure may not adequately account for the population's health care needs (see text box at right).

Health status

Health status is a key driving factor in beneficiaries' health care spending. Those in poor health tend to spend much more than those in good health. For example, in 1998, beneficiaries reporting good or excellent health status spent about half as much out of pocket as those reporting poor health (Goldman and Zissimopoulos 2003). Moreover, people in poor health are disproportionately low income, and therefore are less able to contribute to their health care costs.

Beneficiaries' health status has improved over time, but the implications for future out-of-pocket spending are mixed. The number of people age 65 or older reporting fair or poor health declined by 8.3 percent from 1991 to 2001 (NCHS 2003). However, with the increase in life expectancy, more are living with chronic conditions. The numbers reporting conditions such as arthritis, heart disease, cancer, and diabetes all increased between 1984 and 1995.

The effect of this increase in chronic conditions on out-of-pocket spending is not clear. On the one hand, we would expect that with increased prevalence of chronic conditions, out-of-pocket spending would increase. These

conditions often progress and for those able to cope, many need assistance later in life with activities of daily living or incur more hospitalizations. The recent dramatic rise in obesity and in the prevalence of diabetes particularly suggests greater spending, as diabetes can be costly to treat.¹¹

On the other hand, evidence suggests a decline in the rate of disability associated with chronic disease (Manton et al. 1997, Cutler 2001). To the extent that this lower rate of disability is achieved through medical advances, such as joint replacement and pharmacology therapy, spending can be expected to increase. If instead, improved functioning results from healthier lifestyles, spending may increase less rapidly.

Finally, the reduced rate of disability may have little or no effect on cost over the long term. Recent research indicates that beneficiaries' costliness from age 70 to date of death is similar for the disabled and those with no functional impairments (Lubitz et al. 2003). Beneficiaries without impairments have lower costs per year, but they also tend to live longer. The costs incurred over the additional years they live offset their lower costs each year.

Supplemental insurance

Medicare requires beneficiary cost sharing in the form of deductibles, coinsurance, and other mechanisms and does not cover some services. Moreover, Medicare does not have an annual limit on beneficiaries' out-of-pocket spending. To offset the risk of high out-of-pocket expenses, most beneficiaries have supplemental insurance (Table 1-3, p. 18).

The drug benefit in the MMA may offset some of beneficiaries' perceived need for supplemental insurance. However, the impact on the number of beneficiaries with supplemental insurance may be small because the drug benefit can still leave beneficiaries with substantial out-of-pocket spending. In addition, the MMA prevents beneficiaries who enroll in Part D from holding a Medigap plan that includes drug coverage.

Beneficiaries who have supplemental coverage use more services and report better access to care. MedPAC analysis indicates that beneficiaries who do not have supplemental coverage are more likely to report having access problems (MedPAC 2003c). This includes not seeing a doctor when necessary, delaying care due to cost, and not having a usual source of care or usual doctor.

However, beneficiaries with supplemental insurance—except those with Medicaid coverage—have out-of-pocket spending at least as high as those without supplemental coverage. This indicates that the additional coverage provided by supplemental insurance is more than offset by beneficiaries' propensity to use care.

Beneficiaries obtain supplemental coverage through a variety of sources, including employer-sponsored retiree health benefits, individually purchased Medigap plans, Medicaid, or a Medicare+Choice (M+C) plan that offers supplemental benefits.

Measuring poverty in the Medicare population

Whether a poverty measure is useful depends on how accurately the measure reflects the basic needs of a population and the extent to which the different types of resources that are taken into consideration can meet those needs. Whether the official poverty measure reported here adequately depicts the financial well-being of the American population in general, and the well-being of older adults in particular, is a matter of controversy.

The official poverty measure used in policymaking in the United States was put in place at about the same time that the Congress created the Medicare program. The poverty definition was based on a determination of the minimum cost of an adequate diet, multiplied by a factor believed to cover other consumer necessities. That multiplier was derived from a 1955 food consumption survey that showed that families spent, on average, about one-third of their budgets on food. The remaining two-thirds included purchases of medical supplies and services, along with housing and other necessities, reflecting consumption patterns at that time. Except for minor revisions and annual updates to reflect increases in the Consumer Price Index, the official poverty measure is essentially unchanged since it was first implemented.

A panel of the National Academy of Sciences issued a report in 1995 that cited a series of problems with the official poverty measure, including (but not limited to) the fact that it does not reflect direct tax payments and in-kind benefits (such as food stamps or housing assistance), regional differences in the cost of living, differences in health insurance and health care costs, or significant changes in the overall consumption patterns of Americans since 1955.

Expenses for health care and health insurance were among the most difficult conceptual as well as

technical issues addressed in the report. The panel noted that expenditures for health care have become an increasingly larger budget item since the 1960s, but that, because these expenses are not distributed evenly, neither across families nor over time within families, it would not be possible to capture medical costs directly in poverty measures.

Instead, the panel proposed an approach that would incorporate expected medical out-of-pocket (MOOP) spending, derived from survey data, into the poverty measure. Over time, applications of this approach, along with refinements designed to address other weaknesses in the official measure, have been incorporated into “experimental poverty measures.”

The experimental measures employ three different methods for addressing MOOP expenses in six separate measures. Using data from the 2002 Current Population Survey, all these measures result in a small increase in the proportion of the total U.S. population falling below the poverty line, compared to the official poverty measure. The poverty rates under the experimental measures for adults age 18–64 ranged from 10.9 percent to 11.7 percent in 2002, compared to the official rate of 10.6 percent for this age group.

The major effect of the experimental measures occurs in the age group 65 and older. Using the official poverty measure, 10.4 percent of people age 65 and older were below poverty in 2002. Using the experimental measures, the percent of people age 65 and older below poverty was in the 13.4–17.6 range across the six experimental measures. Four of the six experimental measures indicated poverty rates of at least 16 percent for people age 65 and older (Bureau of the Census, 2003c). ■

**TABLE
1-3**

Sources of additional coverage, by selected beneficiary characteristics, 2001

All beneficiaries	Number of beneficiaries	Percent distribution					
		Employer-sponsored insurance	Medigap insurance	Medicaid	Medicare managed care	Other	Medicare only
All beneficiaries	38,508,302	32.6%	28.1%	12.2%	16.2%	2.1%	8.9%
Age							
Under 65	5,303,927	27.9	5.8	35.2	8.2	3.9	19.0
65-69	9,228,111	38.8	24.2	8.6	17.3	1.7	9.5
70-74	8,438,714	32.7	32.0	7.5	18.3	2.0	7.4
75-79	7,182,449	32.6	34.8	8.8	16.8	1.5	5.6
80-84	4,808,139	30.7	36.2	8.4	17.8	1.7	5.2
85+	3,546,961	26.5	38.1	9.9	16.4	2.0	7.2
Income status							
Below poverty	5,933,621	10.2	14.9	51.2	10.4	2.3	11.1
100 to 125% of poverty	3,914,608	19.4	23.6	23.4	15.0	2.9	15.7
125 to 200% of poverty	8,495,685	28.6	31.1	6.1	19.7	2.7	11.8
200 to 400% of poverty	12,838,007	41.9	30.1	1.1	18.5	1.5	7.0
Over 400% of poverty	7,212,890	46.8	34.8	0.3	13.1	1.7	3.3
Eligibility status							
Aged	33,085,573	33.4	31.7	8.4	17.4	1.8	7.3
Disabled	5,111,329	27.2	5.8	35.1	8.5	4.0	19.4
End-stage renal disease	311,400	39.1	10.7	37.2	6.3	1.0	5.8
Residence							
Urban	29,315,365	34.3	24.4	11.6	20.3	1.9	7.5
Rural	9,167,813	27.1	40.1	14.0	3.0	2.6	13.3
Sex							
Women	21,360,302	30.8	30.8	13.5	16.7	1.9	6.4
Men	17,148,000	35.0	24.8	10.5	15.5	2.3	12.0
Health status							
Excellent/very good	15,590,859	35.3	32.1	5.7	17.9	1.5	7.4
Good/fair	19,234,850	31.4	26.8	14.6	15.7	2.3	9.1
Poor	3,521,289	28.0	17.0	27.5	10.6	3.5	13.4

Note: Income status is defined in relationship to the poverty level (\$8,494 if living alone and \$10,715 if living with a spouse). Urban indicates beneficiaries living in metropolitan statistical areas (MSAs). Rural indicates beneficiaries living outside MSAs. Analysis includes beneficiaries living in the community.

Source: MedPAC analysis of 2001 Medicare Current Beneficiary Survey, Cost and Use file.

The availability of supplemental insurance is changing. In addition, the mix of coverage has changed. In general, we see that after a rapid increase in the mid-1990s, M+C enrollment has declined from its peak in late 1999 and early 2000. At the same time, economic pressures led employers to limit their liability for the costs of retiree health benefits, and data are beginning to reflect this among beneficiaries age 65 to 74.

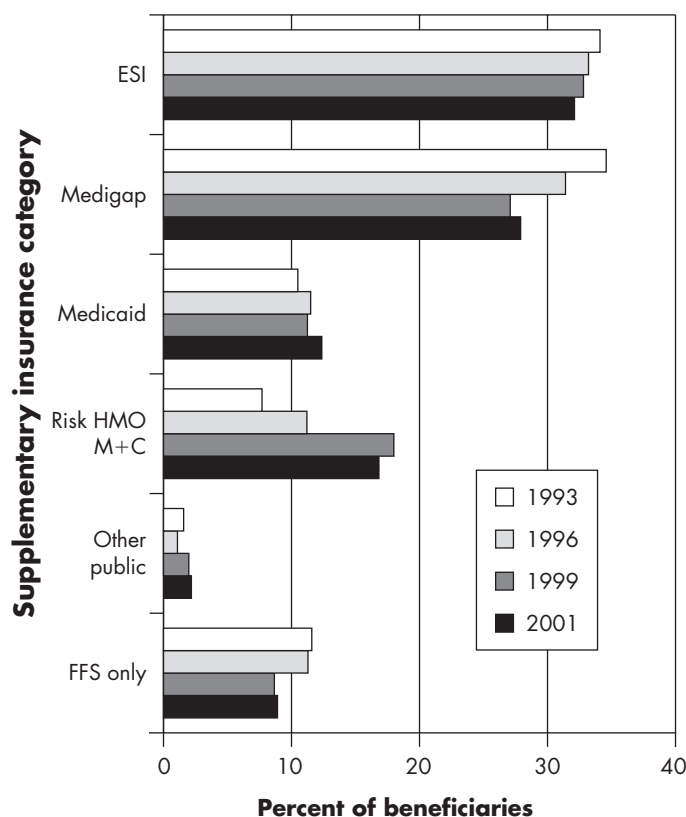
The mix will likely be affected by the MMA as well. For example, some predict employers will drop coverage when their retirees have drug benefits through Medicare. Alternatively, the MMA includes incentives for employers

to provide drug coverage to retirees, which may affect employers' decisions not to offer drug coverage.

In addition, Medigap enrollment seems to have stabilized after losing some of its enrollees to M+C plans in the mid-1990s. Our analysis of data from the National Association of Insurance Commissioners suggests the number of Medigap policies has remained virtually unchanged from 2000 to 2002.¹² Meanwhile, we see that after a decrease through the 1990s, the percentage of beneficiaries without any form of supplementary coverage has leveled off (Figure 1-9).¹³

FIGURE 1-9

Enrollment by type of supplemental insurance, 1993-2001



Note: ESI (employer-sponsored insurance), FFS (fee-for-service), M+C (Medicare+Choice). Includes community dwelling beneficiaries only. Risk HMOs are precursors of HMOs in Medicare+Choice.

Source: MedPAC analysis of 1993, 1996, 1999, and 2001 Medicare Current Beneficiary Survey, Cost and Use file.

Sources of supplemental insurance

This section discusses attributes of the five categories of supplemental coverage:

- Employer-sponsored insurance (ESI)
- Medigap
- Medicare+Choice
- Medicaid
- Medicare only

Employer-sponsored insurance About one-third of beneficiaries have ESI. These beneficiaries with ESI tend to be younger, more urban, and more affluent than other beneficiaries. In general, it is the most comprehensive

supplemental insurance option available in terms of types of services covered.

However, ESI often requires enrollees to pay coinsurance and deductibles. In addition, some employers are cutting back on the scope of retiree health benefits by increasing qualifying service requirements, or by reducing (or eliminating) the employers' contribution to the premiums, increasing beneficiary cost sharing, or reducing the scope of benefits (KFF and Hewitt Associates 2004).

Health coverage for Medicare-age retirees is concentrated almost entirely among larger (over 200 employees) private sector establishments and government employers.¹⁴ Between 1988 and 2003, the number of large employers offering retiree health benefits fell from 66 percent to 38 percent (KFF and HRET 2003). In many instances, the curtailment of coverage affects new hires rather than those already in the workforce or retired, so the impact of the reductions has not yet fully played out in the Medicare population.

Nevertheless, the percentage of beneficiaries age 65 to 74 with ESI is beginning to decline. In 1993, 39 percent of retirees age 65 to 74 living in the community had ESI coverage, compared to 36 percent of retirees in this age cohort in 2001. Among older cohorts, ESI coverage rates stayed constant (MedPAC analysis of the MCBS).

Part of this decline is attributable to the way that coverage is measured by the MCBS. Beneficiaries enrolled in M+C plans are not counted as having employer-sponsored coverage, even if this coverage is provided through an employer plan. Thus, part of the decline in ESI could be accounted for by the increase in M+C enrollment among younger beneficiaries. However, MedPAC analysis indicates that less than 20 percent of all M+C enrollees are in employer contract plans, so the bulk of the decline in ESI among cohorts is from real declines in coverage.

The decline in ESI coverage is likely to continue. In 2003, ten percent of large firms that have at least 1,000 employees and offer retiree health benefits decided to discontinue coverage for future retirees. Moreover, 20 percent said they are "somewhat likely" to adopt that policy in the next three years (after 2003) (KFF and Hewitt Associates 2004).

Medigap In 2001, about 28 percent of beneficiaries had Medigap coverage, a decline from 34 percent in 1993. The percentage of beneficiaries age 65 to 69 who had Medigap

declined from 32 percent in 1993 to 24 percent in 2001; similar declines were also seen among older cohorts.

Medigap insurance is private coverage designed specifically to wrap around the Medicare benefit package. All Medigap plans cover the Part A coinsurance and Part B coinsurance, leaving beneficiaries with little out-of-pocket spending for most covered services. Most beneficiaries have chosen to enroll in plans without drug coverage because of high premiums and limited coverage. Enactment of the MMA will likely cause even fewer beneficiaries to choose Medigap plans with drug coverage.

Medicare+Choice and other managed care The number of beneficiaries with M+C and other sources of managed care coverage peaked at the end of 1999 at about 6.8 million beneficiaries.¹⁵ Medicare+Choice experienced a large decline in enrollment at the beginning of 2001 and 2002, so that by the beginning of 2003, only 5.1 million beneficiaries were enrolled in M+C and other managed care plans.

During the mid- to late-1990s, M+C plans tended to offer substantial prescription drug coverage and out-of-pocket spending protection. Since then, this coverage has declined. Fewer plans offer prescription drug coverage. In addition, while the total amount of cost sharing (including Part B premiums, plan premiums, cost sharing for hospital and physician services, and cost sharing for prescription drugs) is lower than that paid by fee-for-service beneficiaries, it doubled between 1999 and 2003 (Gold and Achman 2003).

Provisions in the MMA may spur enrollment in plans. The legislation will increase payments to all plans, and in each area served, plans must offer at least one option that includes the standard drug benefit.

Medicaid In 2001, about 12 percent of beneficiaries living in the community were enrolled in the Medicaid program that supplemented their Medicare coverage (Figure 1-9). This percentage has remained relatively constant. A vast majority of these beneficiaries are low income and are more likely to report poor health and be disabled than other beneficiaries.

Medicaid coverage varies by state, but in general, provides comprehensive coverage for both acute and long-term care services. With recent state budget constraints, however, more states are imposing limits on certain benefits and increasing cost sharing.

In addition to Medicaid coverage, more than 30 states have prescription drug assistance programs for low-income elderly or Medicare beneficiaries, but the generosity of this coverage varies. The enacted prescription drug benefit will likely have an effect on these programs.

Medicare only The percentage of beneficiaries participating in traditional Medicare without supplemental insurance declined markedly in the mid-1990s, but has leveled off since then. Given the noted declines in the availability of other sources of coverage, we could expect the number of Medicare-only beneficiaries to increase.

Medicare beneficiaries with no supplemental coverage tend to be under age 65, low income (below 125 percent of poverty), eligible due to disability, rural dwelling, and male. They also are more likely to report poor health.

Because these beneficiaries have no supplemental coverage, they are vulnerable to very high levels of out-of-pocket spending. This vulnerability may become an important issue if declines in the availability of supplemental insurance cause an increase in the number of Medicare-only beneficiaries.

Enactment of the MMA creates an interesting situation for Medicare-only beneficiaries. The number of Medicare-only beneficiaries might increase if some employers drop ESI coverage or some beneficiaries with Medigap choose to forgo that coverage. But, Medicare-only beneficiaries who enroll in Part D should be better off because the drug coverage will decrease the likelihood that a Medicare-only beneficiary will experience a very high level of out-of-pocket spending.

Beneficiaries' perception of their access to care

This final section examines recent data concerning beneficiaries' access to care, which is strongly affected by the out-of-pocket spending analyzed in the previous section. The Commission monitors three aspects of access: the capacity of the delivery system to provide care, the ability of beneficiaries to obtain services, and the ability of beneficiaries to obtain appropriate care. In this section, we used beneficiary surveys to evaluate their ability to obtain care. The capacity of the system to deliver care is addressed in each of the payment update chapters, and the appropriateness of care delivered is discussed in the quality chapter.

Beneficiaries report good access to care, but problems persist for some

Results from several beneficiary surveys are reassuring about beneficiaries' access to care. On a variety of questions pertaining to access discussed in detail below, more than 90 percent of beneficiaries report good access. However, certain beneficiaries are more likely to report problems obtaining care than others. Also, these data show access on a national level. They may hide substantial differences across regions.

Beneficiaries report that their ability to obtain care has remained stable or improved since 1991, the first year of the MCBS (Figure 1-10). In the survey, the ability to obtain care is measured along several dimensions, including whether beneficiaries delayed care due to cost, reported not seeing a doctor when they needed to, or had trouble getting health care.

- When asked whether they delayed health care due to cost, 14 percent of beneficiaries answered yes in 1991, whereas 8 percent answered yes in 2001. The

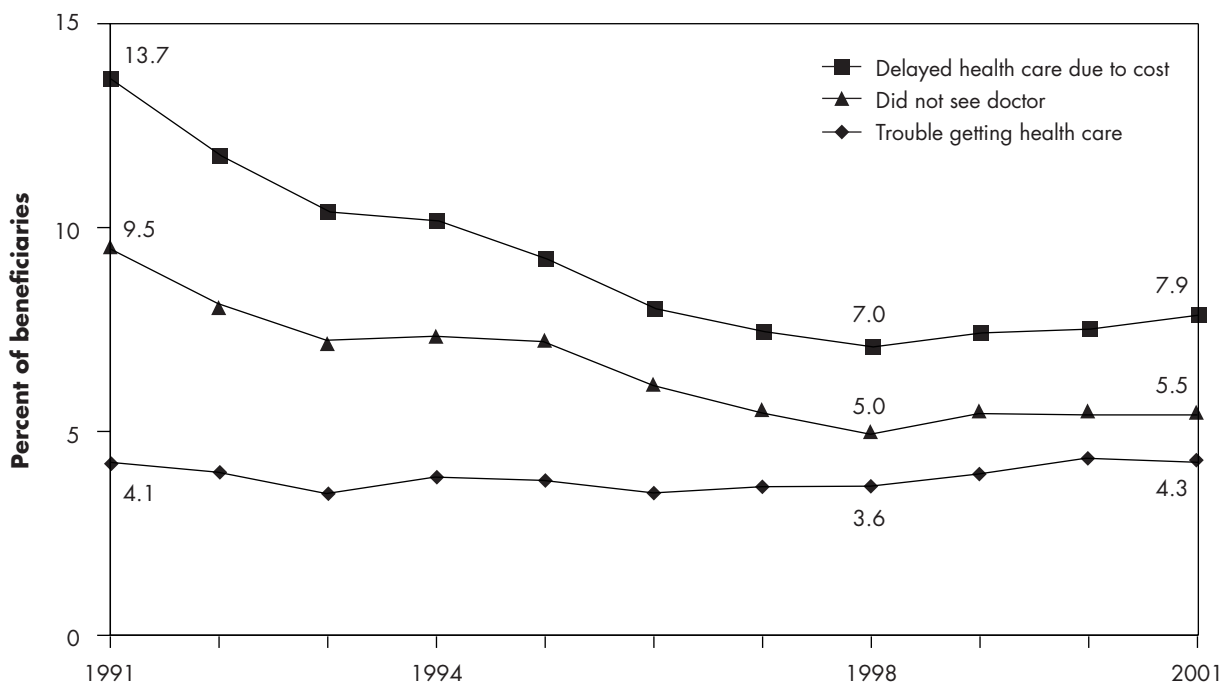
downward trend was fairly steady until 1998, after which it began creeping upward (from 7 percent of beneficiaries to 8 percent).

- Similarly, the percentage reporting that they did not see a doctor (when they needed to) declined from 10 percent of beneficiaries in 1991 to 6 percent in 2001.
- The percentage of beneficiaries reporting trouble getting health care has remained relatively stable at around 4 percent.

Data from the National Health Interview Survey (NHIS) indicate this level of satisfaction with access to care surpasses that of persons under the age of 65. In a recent report summarizing the findings from the 2002 NHIS, only 3 percent of those 65 and older reported in 2002 that they failed to obtain care due to financial barriers, compared with 6 percent of people age 18 to 64 (regardless of insurance status and including disabled Medicare beneficiaries). In the same survey, the elderly were also more likely to report a usual place to go for care than those age 45 to 64.

FIGURE 1-10

Beneficiaries' reports of difficulties obtaining care have declined or remained stable since 1991



Note: These data reflect the answers given by noninstitutionalized beneficiaries.

Source: CMS analysis of Medicare Current Beneficiary Survey, Access to Care file.

While Medicare beneficiaries as a whole report good access to care, access problems are greater among some minority groups. In the 2000 MCBS, 9 percent of Hispanics and 11 percent of African Americans reported delaying care due to cost compared with 7 percent of Whites.

In addition, while over 90 percent of beneficiaries of all races reported a usual source of care, they appear to be getting care in different settings. Almost 80 percent of Whites said their usual source of care was a doctor's office or clinic, compared with 69 percent of African Americans and 64 percent of Hispanics. African Americans and Hispanics were more likely than Whites to report their usual source of care as an outpatient clinic or emergency room. Interestingly, HMOs are the usual source of care for 14 percent of Hispanics, compared with 8 percent of African Americans and 6 percent of Whites.

The presence of supplemental insurance is also a key determinant of access to care. In 2000, 19 percent of beneficiaries without supplemental insurance reported delaying care due to cost. Beneficiaries without supplemental coverage were also more likely not to have a usual source of care—13 percent reported no usual source of care compared to the overall rate of 6 percent. The majority of beneficiaries with no additional coverage (64 percent) reported their usual source of care as a doctor's office or clinic, but this contrasts with the overall rate of 81 percent.

The type of supplemental coverage also affects access. Even though beneficiaries with additional insurance through the Medicaid program have fairly complete coverage of services, they reported higher-than-average rates of access problems. Twelve percent of beneficiaries with Medicaid as their source of supplementation in 2000 reported delaying care due to cost, compared with the average Medicare rate of 8 percent.

Because these data are not adjusted for factors such as income or patient health status, some of the differences in access may reflect differences in the types of beneficiaries who have each type of coverage. For example, beneficiaries with Medicaid coverage tend to be poorer than the average beneficiary, so they may delay care due to cost even though the cost-sharing requirements under Medicaid are nominal.

Access to different types of care

The Consumer Assessment of Health Plans Survey (CAHPS), another survey administered by CMS, is an additional source of information on access. CMS uses it to survey beneficiaries on their:

- ability to obtain necessary, urgent, and routine care,
- relationship with their primary provider, and
- ability to obtain different types of services.

Ability to obtain necessary, urgent, and routine care

The survey found that in each of the three years between 2000 and 2002, at least 97 percent of beneficiaries who required care reported no problem or a small problem receiving necessary care. In 2002, 92 percent of beneficiaries who needed urgent care also reported that they were always or usually able to receive it as soon as they wanted, and 90 percent said the same about getting routine appointments. However, while the latter two percentages were high, they declined slightly from 2000 to 2002 (Table 1-4).

Medicare beneficiaries also report a higher rate of timely access to care compared to the non-Medicare population. Fifty-eight percent of beneficiaries in traditional Medicare and 59 percent of M+C enrollees report getting care without long waits. Only 47 percent of adults with commercial insurance report the same experience.

Although access to different types of care is strong overall, beneficiaries differ in their ability to obtain care (Table 1-5). In addition to highlighting the experiences of different beneficiaries, this table shows how important question

**TABLE
1-4**

Access continues to be generally good, 2000–2002

Access to care	2000	2001	2002
Small or no problem getting necessary care	97%	98%	97%
Usually or always get urgent care as soon as wanted	93	92	92
Usually or always get routine appointments as soon as wanted	93	92	90

Source: MedPAC analysis of 2000–2002 Consumer Assessment of Health Plans Survey (CAHPS) data from CMS.

**TABLE
1-5**

Beneficiaries differ in their reports of obtaining needed, urgent, or routine care, 2001

Beneficiary characteristic	No problem getting needed care	Always got care as soon as wanted	
		Urgent	Routine
Overall	90%	73%	67%
Aged Disabled	83	65	62
White	92	74	68
African American	86	70	67
Hispanic	84	64	59
Medicare only	87	68	66
Dually eligible	82	68	62
Additional with Rx coverage	93	75	67
Additional without Rx coverage	92	75	67

Source: MedPAC analysis of data from the Medicare Fee-for-Service National Implementation Subgroup Analysis: Final Report for Year 2, March 2003, submitted to CMS by Research Triangle Institute.

wording is to the findings in a beneficiary survey. The percentage of beneficiaries reporting no problem getting needed care (shown in the first column) is significantly higher than those who report that they can get urgent or routine care as soon as they wanted it (the second two columns). This may seem inconsistent, but the last two questions add the dimension of timing into their responses. It appears that while most beneficiaries are able to get care, they may not be getting it as soon as they want it.¹⁶

Disabled beneficiaries were more likely than aged beneficiaries to report problems receiving necessary, urgent, or routine care. Eighty-three percent said that they had no problems obtaining necessary care compared with 90 percent of all beneficiaries. Sixty-five percent said that they always got urgent care as soon as they wanted, compared with the overall Medicare rate of 73 percent.

The presence and type of supplemental insurance also affected beneficiaries' ability to obtain care with no problems. Sixty-eight percent of dually eligible beneficiaries reported they always got urgent care as soon as they wanted, compared with 73 percent of all beneficiaries. Those without any supplemental insurance

(Medicare only) report the same experience as dual eligibles in obtaining urgent care as soon as they wanted.

Hispanics had a harder time than other ethnic or racial groups getting all types of care: needed, immediate, and routine. Fifty-nine percent of Hispanics reported always getting routine care as soon as they wanted, compared with 68 percent of Whites and 67 percent of African Americans.

Beneficiaries report strong relationships with providers

Responses to the CAHPS survey questions on beneficiaries' relationships with their regular providers were also quite positive. Nearly 90 percent responded that they have a regular doctor or nurse and almost 80 percent have seen their regular practitioner for two or more years. In 2002, 60 percent reported seeing their primary provider (usually a doctor) for over 5 years. Furthermore, 50 percent of beneficiaries have been seeing the same provider since before becoming eligible for Medicare.

Beneficiaries report good access to special services

Beneficiaries report that they are satisfied with their ability to obtain all types of services: Almost 90 percent say that they have a small or no problem getting most services (CAHPS reports on prescription medicines, care from a specialist, home health services, durable medical equipment, and special therapies such as physical, occupational, and speech therapy).

Of the services included in CAHPS, in 2002, beneficiaries used prescription medicines and specialists the most. Access to both services was high: 96 percent of beneficiaries report no problem or a small problem getting prescription medicines and 94 percent report the same for specialists. The high level of beneficiary satisfaction with the ability to obtain prescription medicines, although surprising, is consistent with answers to similar questions on other surveys.¹⁷ However, some surveys have found higher rates of reported access problems on differently worded questions, such as whether persons skip doses or delay filling prescriptions.

In addition, different types of beneficiaries report more problems obtaining prescriptions than others. For example, a recent survey by the Center for Studying Health System Change found that 16 percent of elderly African American Medicare beneficiaries reported not purchasing at least

one prescription in 2001 because of cost. This compares with 7 percent of Whites.¹⁸

Eighty-eight percent of beneficiaries who said that they needed home health services reported a small or no problem obtaining them. However, it appears that although some beneficiaries experienced problems obtaining home health services, they did eventually get the home health care they needed. In 2000, the percentage of beneficiaries who reported on the CAHPS survey the need for home health (7.7 percent) was almost the same as the number of beneficiaries who actually used the services (7.5 percent).

M+C beneficiaries' experience obtaining care

In both the M+C and traditional programs, most beneficiaries report no problem getting needed care. However, more beneficiaries in traditional Medicare (89 percent) report that they get needed care with no problem than beneficiaries in M+C plans (82 percent) (MedPAC 2003a). Many beneficiaries in both programs apparently believe that they have to wait too long for care. Fifty-nine percent of M+C enrollees and 58 percent of FFS beneficiaries said that they always get care without long waits. ■

Endnotes

- 1 The link between higher spending and lower satisfaction may reflect regional differences in expectations over health care. In some areas, people may expect more of their health care system than in other areas.
- 2 The Trustees' estimates assume a 4.3 percent annual increase in per capita gross domestic product and a 5.3 percent increase in Medicare expenditures per beneficiary, excluding the effects of changes in demographics.
- 3 The Office of Management and Budget's estimate of the deficit is \$521 billion in 2004 and \$364 billion in 2005.
- 4 A recent study quantifies the cost of delaying changes in the financing of federal programs through a measure called fiscal imbalance (Gokhale and Smetters 2003). This measure is the difference between projected program expenditures and available resources under current policies. The authors calculate that restoring fiscal balance would require one of the following: a 16.6 percentage point increase in payroll taxes, a two-thirds increase in federal income tax revenue, a 45 percent cut in Social Security and Medicare outlays, or elimination of the entire federal discretionary budget. Delaying policy changes until just 2008 makes necessary adjustments much worse: an 18.2 percentage point increase in payroll taxes or a 74 percent increase in income tax revenues.
- 5 These figures are gross mandatory outlays for benefits on a fiscal year, incurred basis, provided by OACT. CBO's estimate for Medicare growth in 2003, adjusted to reflect 12 capitation payments each year, is 7.6 percent. The difference is largely attributed to CBO's estimate being on a cash basis, while OACT's is on an incurred basis.
- 6 Traditional Medicare covers certain outpatient drugs, including those used in cancer treatment, dialysis, organ transplants, and treating hemophilia. Because the use and price of those drugs has increased dramatically, Medicare spending on drugs has increased substantially. Traditional Medicare spent \$8.5 billion in 2002, an increase of 35 percent over 2001.
- 7 The Census results are intended to measure the number of people uninsured throughout a year. Analysts at CBO argue the Census figures are too high and that the number of nonelderly Americans uninsured throughout 1998 was between 21 million and 31 million (CBO 2003b)
- 8 The sustainable growth rate (SGR) system is a payment update formula that adjusts the update for physician services depending on whether spending has been equal to a target. This target is determined partly by growth in the national economy. For more information on the SGR, see Chapter 2 of MedPAC's March 2001 Report to the Congress.
- 9 This figure reflects a weighted average of the premiums of all individual and family policies, calculated at the beginning of the annual open enrollment period for all enrollees except Medicare beneficiaries. CalPERS has a separate benefit design and associated premium for its retirees who are eligible for Medicare.
- 10 This estimate counts pensions and other forms of retirement income, veterans' payments, rents, and other forms of compensation.
- 11 Over the past decade, the percentage of people age 65 to 74 who are obese increased by nearly 50 percent, from about 27 percent to 39 percent. Among those 75 and older, the percentage classified as obese increased from 19 to 25 percent (NCHS 2003). The prevalence of diagnosed diabetes among people age 65 and older increased from 13.2 percent in 1997 to 16.0 percent in 2002. Nationally, direct medical spending for diabetes amounted to \$92 billion in 2002 (Hogan et al. 2003).
- 12 Given that the number of beneficiaries increases over time, the portion of beneficiaries with Medigap likely declined a small amount from 2000 to 2002.
- 13 Data on sources of supplemental insurance can be interpreted differently and show contradictory trends. In particular, our analysis (which relies on MCBS data) counts a beneficiary as Medicare only if the beneficiary has traditional Medicare without supplemental coverage as the most prevalent source (measured by number of months) of coverage throughout a year. Other analysts may rely on data reported only once a year or may assign beneficiaries to categories of coverage using different standards.
- 14 Data from the 2003 Employee Benefits in Private Industry Survey found that 3 percent of all private establishments with 1 to 99 workers provided retiree health benefits to Medicare-age retirees; 15 percent of establishments with 100 or more workers provide these benefits. The 2003 HRET/Kaiser Survey of Employers found that 38 percent of all employers with 200 or more workers provide some retiree health benefits. Among those with 200 or more employees who offer retiree benefits, about three-fourths continue these benefits after retirees reach age 65 and enroll in Medicare. Coverage is far more common among large employers: 54 percent of employers with 5,000 or more employees and 85 percent of state and local government agencies surveyed reported offering retiree health benefits.

- 15 Despite peaking in late 1999, average monthly M+C enrollment was similar throughout 1999 and 2000 at about 6.7 million.
- 16 The responses in Table 1-5 are lower than those in Table 1-4 because Table 1-4 groups beneficiaries who reported “no and small problems” and “usually and always,” instead of only reporting the most positive responses.
- 17 Similar questions were asked on the Medicare Current Beneficiary Survey and the National Health Interview Survey.
- 18 These relatively higher numbers of problems obtaining prescriptions may be due to the manner in which the question was asked.

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CHAPTER

2

**Quality of care for
Medicare beneficiaries**

Quality of care for Medicare beneficiaries

Improving the quality of care for Medicare beneficiaries is essential. Medicare beneficiaries use the health system frequently and are often more frail and complex patients. Although the Medicare program is working to improve quality, current efforts are largely grafted onto a payment system that is neutral or negative toward quality. The Commission has concluded that it is crucial for the Medicare program to build incentives for improving quality into the payment system.

To best target these and other quality improvement initiatives, MedPAC analyzed the quality of care in hospitals, ambulatory settings, and Medicare+Choice plans. We find quality varies based on the indicators used. Although care is improving, gaps exist between care delivered and optimum care. Many beneficiaries experience adverse events in hospitals and are being admitted to hospitals for conditions that might have been prevented in ambulatory settings. On the other hand, hospital mortality rates are improving and beneficiaries rate their providers highly. These data provide direction for the Medicare program and raise questions that warrant further research.

In this chapter

- How did we measure quality?
- What are the results?
- Quality of care for FFS beneficiaries
- Quality of care for Medicare beneficiaries in managed care
- How does Medicare move closer to high-quality care for beneficiaries?
MedPAC's agenda on quality

Although the United States health care system is often said to be among the best in the world, many researchers have documented serious shortcomings. The Healthy People 2010 report showed gaps in the provision of services to prevent acute episodes (DHHS 2000). The Institute of Medicine (IOM) highlighted the consequences of medical errors in hospitals (Kohn et al. 1999). Earlier this year RAND released a study documenting the significant gap between care known to be effective and the actual care delivered on 439 indicators (McGlynn et al. 2003).

Citing concern about these shortcomings, the Congress directed the Agency for Healthcare Research and Quality (AHRQ) to prepare an annual report on the quality of health care in the United States. The first report, released in December 2003, showed that quality is improving in some areas and worsening in others.

Medicare and its beneficiaries play a large role in this system (Needleman et al. 2003). Like others, many Medicare beneficiaries receive care that is less than optimal, and in some cases unsafe. Medicare beneficiaries may even be more vulnerable to quality problems because they are often frail and have more complex medical needs. Because they are in the health system more frequently, they may experience more errors.

The Medicare program currently uses a variety of strategies to improve quality for beneficiaries—conditions of participation, accreditation, the quality improvement organization program, the public reporting initiative, and a variety of demonstration projects. MedPAC strongly supports these efforts and believes that CMS, along with its accreditor partners, has acted as an important catalyst in creating the ability to measure and improve quality.

These efforts, however, are grafted onto a system with few incentives for delivering high-quality care. The Commission is concerned that current Medicare payment systems are neutral or sometimes even negative towards quality. Providers are paid the same regardless of the quality of their services and paid more if complications occur. Furthermore, the payment systems include no incentives for providers to coordinate care among sites or episodes of care. Health plans also are paid the same regardless of their quality.

Beneficiaries and the nation's taxpayers can no longer afford a payment policy that is neutral toward quality; thus, the Commission recommended in the June 2003 report that Medicare explore the use of financial incentives

for providers to improve quality. CMS and the Congress are beginning to explore such strategies. Later in this report we recommend that these types of incentives be implemented for dialysis services and in the Medicare managed care program.

To move beyond these two settings and more broadly target incentives efforts, we need to better understand the current level of quality and identify the most prevalent problems. Therefore, we are committed to answering two questions:

- What quality of care do Medicare beneficiaries receive?
- Which policies will move us in the direction of improving care for beneficiaries?

The IOM gives us a powerful description of goals for beneficiaries' care. In *Crossing the Quality Chasm*, IOM experts outlined specific goals for improving quality. Using these goals as a template, this chapter describes the quality of care Medicare beneficiaries experience in hospitals and ambulatory settings in both the fee-for-service (FFS) and managed care programs. (We discuss quality in skilled nursing facilities, home health agencies, and dialysis facilities in later chapters.) We focus on these two settings because many beneficiaries use these services.

The data in this chapter do not provide a comprehensive picture of quality of care. However, data from medical records, administrative claims, and beneficiary surveys can provide information on multiple dimensions of quality on a wide spectrum of conditions important to Medicare beneficiaries.

Mirroring trends in care for the entire population, trends for Medicare beneficiaries show significant gaps between care known to be effective and the care delivered. We also find that many patients are experiencing adverse events when they obtain care in hospitals. While care is improving on some indicators of quality, it is worsening on others. This is occurring at a time when the Medicare population is expected to grow dramatically. These findings suggest that it is critical for the Medicare program to leverage every opportunity to improve quality.

More in-depth analysis would help us understand the reasons why beneficiaries may not be receiving optimum

care and why quality improves on some measures but not others. Improving the quality of care for beneficiaries will require a variety of strategies, including some that may not be possible through Medicare payment or other policy reforms. We welcome further analysis of the measures we present here and hope to stimulate debate on strategies to improve quality.

Further analysis aside, our findings show that improvement is necessary, and provide guidance on where Medicare should focus its efforts. For example, our analysis suggests that incentives focused on hospitals should include measures of patient safety. The indicators we used found safety problems, but we will need to further refine these measures or develop others better able to capture hospital level differences before Medicare is able to compare individual hospitals and base rewards on these comparisons. In the ambulatory setting we found large numbers of beneficiaries are admitted to the hospital for potentially avoidable admissions. These data provide evidence that efforts to improve care in those settings—including coordinating among providers and settings—may need to focus on some of these conditions.

How did we measure quality?

In this chapter, we provide information about the quality of care provided to Medicare beneficiaries on four target areas identified by the IOM—effectiveness, safety, patient-centeredness and timeliness.

The IOM also identifies efficiency and equity as key quality goals. MedPAC is analyzing efficiency in other work focused on the relationship between cost and quality in various settings. Examining the equity of health care—whether certain groups of beneficiaries are experiencing the quality of their care differently than others—is critical for a full understanding of the quality problems experienced by Medicare beneficiaries. We have several analyses underway to evaluate the quality of care for various subpopulations.

The data in this chapter describe the quality of care delivered in both the FFS and Medicare managed care programs. We present new MedPAC analysis of data on each of these aspects of quality using three indicator sets and one beneficiary survey developed by AHRQ, and data gathered by the National Committee for Quality Assurance (NCQA) and CMS.

The goals we used from the IOM framework are that health care should be (Committee on the Quality of Health Care in America, IOM 2001):

- **Effective**—providing services based on scientific knowledge to all who could benefit and refraining from providing services to those not likely to benefit (avoiding underuse and overuse).
- **Safe**—avoiding injuries to patients from the care that is intended to help them.
- **Timely**—reducing waits and sometimes harmful delays for both those who receive and those who give care.
- **Patient-centered**—providing care that is respectful of and responsive to individual patient preferences, needs, and values and ensuring that patient values guide all clinical decisions.

The availability of data on these goals varies (Table 2-1). Information on the clinical effectiveness of care is more available than information on any other goal. Large gaps in information on the aspects of quality for Medicare beneficiaries exist in the three other goals—either little

TABLE 2-1

Four Institute of Medicine goals for quality and associated measures used in MedPAC's analysis

Effectiveness	Safety	Patient-centeredness	Timeliness
Inpatient mortality and mortality 30 days from admission	Adverse events in hospitals	CAHPS for ambulatory and managed care plans	CAHPS for ambulatory and managed care plans
QIO hospital measures			QIO hospital measures
QIO ambulatory care measures			QIO ambulatory care measures
Potentially avoidable hospital admissions			
CAHPS for ambulatory care			

Note: CAHPS (Consumer Assessment of Health Plans Survey), QIO (quality improvement organization).

information is available or it is only available for certain settings. Some data sets, such as the Consumer Assessment of Health Plans Survey (CAHPS) and the quality improvement organization (QIO) measure sets, provide information on several aspects of care in different settings.

The AHRQ-developed sets we use in our analysis examine the effectiveness and timeliness of care in and out of the hospital by measuring hospital mortality and potentially avoidable admissions to the hospital. They examine safety in hospitals by measuring the rate of adverse events associated with inpatient care. AHRQ chose these indicators after extensive literature review, discussions with clinical and measurement experts, and empirical testing to explore the frequency and variation of the indicators and potential bias. AHRQ designed the indicators so that the necessary information could be gathered from hospital discharge data collected in their Healthcare Cost and Utilization Project (HCUP) and through alternative administrative data sources. Using administrative data, as opposed to measures that require chart review, alleviates the burden of data collection for individual facilities.

We applied these indicators to the administrative data for hospitals in the Medicare program. Because a few of the indicators occurred infrequently, we ran the indicators on 100 percent of the Medicare Provider Analysis and Review file (MedPAR) data, that is, all hospital claims, for the years 1995, 1998, 2000 and 2002. Therefore, all of our results from the AHRQ indicator sets are statistically significant. We risk-adjusted the data according to the AHRQ methodology.

To look at patient-centeredness of care, we used another set of AHRQ-developed indicators, CAHPS. This survey also provides information on the effectiveness and timeliness of care in both the FFS and managed care programs. Patient perceptions of care are an important component of quality measurement because they complement the technical evaluation of clinical services. Sometimes, as in the cases of access to care and provider communication skills, patients are the only reliable source of information.

CAHPS was originally developed for use with private health plans by a consortium of Harvard Medical School, RAND, and Research Triangle Institute, with support from the Agency for Healthcare Research and Quality and CMS. It was subsequently adapted for surveying beneficiaries in Medicare+Choice (M+C) plans and FFS

Medicare. CMS has administered this survey to between 180,000 and 200,000 M+C beneficiaries and 168,000 to 178,000 FFS beneficiaries annually since 2000. With response rates of 70 to 80 percent, the CAHPS surveys are the largest surveys of Medicare beneficiaries.

We also include analyses from CMS published in the Journal of the American Medical Association showing the state rates for the provision of effective and timely care in hospitals and ambulatory settings. These data track the progress of providers in closing the gap between optimal care and the care delivered. CMS collected these data to guide and evaluate the efforts of each state-based QIO to help providers improve on these measures.

NCQA provided the information for comparing the Medicare scores on the Health Plan Employer Data and Information Set (HEDIS) with those of the employer-sponsored population. NCQA produces a report, the State of Health Care Quality, in which it compiles and compares these scores for Medicare, Medicaid, and employer-sponsored insurance.

What are the results?

The results are mixed: Some aspects of care improved between 1995 and 2002, while others worsened. In this section we provide a summary of our findings.

Fee-for-service Medicare

- **Hospital mortality is generally decreasing.** The good news is that rates of in-hospital mortality—an indicator of effectiveness—generally decreased between 1995 and 2002 on all conditions and procedures measured. Because 30-day mortality rates (as measured from admission) decreased at a lower pace and actually increased in one of the later time periods measured, it will be important to monitor this indicator of clinical effectiveness.
- **Appropriate processes of care are improving, but rates are still too low.** Other measures of effectiveness—the QIO program measures—also show improvement for hospitalized Medicare beneficiaries. Fourteen out of 16 measures of appropriate provision of care in hospitals improved between the periods 1998 to 1999 and 2000 to 2001 (Jencks et al. 2003). Although improvement has occurred, the measures also show that many

hospitalized Medicare beneficiaries are not receiving care known to be effective.

- **Adverse events in hospitals affect many beneficiaries.** Measures of the safety of patients in the hospital reveal that 9 out of 13 rates of adverse events for hospitalized Medicare beneficiaries increased between 1995 and 2002. Although these rates of adverse events are generally very small, 1 percent or lower, they do affect significant numbers of beneficiaries—over 300,000 adverse events affected Medicare beneficiaries in 2000 on these indicators alone. Because patient safety indicators based on administrative data cannot measure all adverse events, the true rates may even be higher.

Although many beneficiaries are affected by adverse events, the trends may need to be viewed with some caution. These data are based on diagnosis and procedure codes in hospitals, and the accuracy or rules of thumb affecting assignment of codes may have changed over our time frame. On the one hand, some experts suggest that improved coding accuracy over this time period may have contributed to a portion of the increase in adverse events. On the other hand, fear of fraud and abuse investigations may have led to less coding of complications overall, and thus, these types of complications as well. On balance, those experts with whom we spoke thought it unlikely that all of the increases in adverse events would be due to shifts in coding.

- **Potentially avoidable admissions also affect many beneficiaries.** The AHRQ indicators of ambulatory care provide information on the effectiveness and timeliness of care provided outside the hospital. Termed the “prevention quality indicators,” these measures show that significant numbers of beneficiaries are being hospitalized for conditions for which optimal ambulatory care might have prevented the admissions. Seven out of 12 indicators show increases in admissions between 1995 and 2002 for these potentially avoidable admissions. A positive finding is that the rate of admissions for beneficiaries with congestive heart failure (CHF)—the largest category of admissions for ambulatory care sensitive conditions (ACSCs)—held fairly stable over time. This could result from the many private and public efforts to better manage patients with CHF.

- **Preventive ambulatory care is improving, but rates are still too low.** Data on ambulatory care from the QIO program and the CAHPS survey show, in general, care on these measures is improving. But they also show shortcomings in the provision of effective preventive services. As measured by the QIO program data, all six measures of the provision of preventive care were lower than they should be, but showed improvement between 1998 and 2001 (Jencks et al. 2003). The rates of provision of the flu and pneumonia immunizations were similar on the CAHPS in 2002 as they were in the QIO data for 2000–2001—31 percent of beneficiaries report that they did not receive flu shots and 45 percent did not receive shots for pneumonia.
- **Beneficiaries rate highly their providers and their care.** Based on findings from the CAHPS survey, beneficiaries in FFS Medicare perceive that they receive high quality care from their health providers. Almost 80 percent of beneficiaries report long-lasting relations with their personal doctor or nurse. Ninety percent or more believe that their doctors spend enough time with, listen to, and respect them.

Medicare managed care

For Medicare managed care beneficiaries, information on quality is based on measures of clinical effectiveness collected on HEDIS and the Medicare+Choice version of the CAHPS survey. HEDIS indicators measure care both inside and outside the hospital.

- **Appropriate care in and out of the hospital is improving, but rates are still too low.** Similar to FFS beneficiaries, many beneficiaries in managed care are not receiving care known to be effective both in and out of the hospital. However, these rates have improved over the three-year period from 2000 to 2002. Furthermore, as compared with enrollees in employer-sponsored—non-Medicare—plans, Medicare beneficiaries in the managed care program, for the most part, are receiving a similar level of quality of care, though this varies by measure. On some measures, such as those for diabetes care, Medicare beneficiaries receive better care than patients with employer-sponsored plans; and on some aspects, such as mental health care, they receive worse care.
- **FFS and managed care beneficiaries both rate their care highly.** Beneficiaries in M+C plans rate some aspects of patient-centered care better and some worse compared with their FFS counterparts. For example,

beneficiaries in M+C plans are slightly more likely to report that their doctors communicate well. Those in FFS are somewhat more likely than those in M+C plans to say that they have no problem getting needed care.

Quality of care for FFS beneficiaries

In this section we provide the details of our analysis. We examine the trends in care received by FFS beneficiaries, first inside hospitals, and then outside hospitals.

Are FFS beneficiaries receiving high-quality care in hospitals?

In 2001, inpatient hospitals provided 14 million episodes of hospital care to Medicare beneficiaries. Inpatient hospital care represents about 40 percent of all Medicare expenditures. We can measure the quality of care for beneficiaries in hospitals in a variety of ways. In this section, data on mortality, the appropriateness of care, and adverse events provide a mixed picture of the clinical effectiveness, timeliness, and safety of care in hospitals. Based on our data, measures of effectiveness of care such as mortality and the provision of clinically appropriate services in a timely manner show improvement, while the safety of patients, as measured by the rate of adverse events, does not.

Effectiveness of care: Hospital mortality decreased between 1995 and 2002

Our first set of indicators measures the rate of death among beneficiaries in the hospital and 30 days after admission to the hospital. In-hospital mortality is more directly attributable to the quality of care in the hospital than the 30-day mortality rate because the hospital is the only provider of care during the hospital stay. Patients' outcomes 30 days from admission could be affected by several providers, such as skilled nursing facilities, rehabilitation facilities or doctors providing post-hospital care. If we only consider in-hospital deaths, however, we undercount the number of deaths that could be attributable to inpatient quality but occur shortly after discharge.

Many deaths associated with hospital admissions are inevitable. However, some of these deaths may be preventable. AHRQ chose these indicators based upon evidence that these rates of mortality are related to the quality of inpatient hospital care (Agency for Healthcare Research and Quality 2002b). For the procedure

indicators, evidence suggested that facilities with higher volume had lower rates of mortality for similar populations. In other cases, observational studies suggested that if hospitals changed their procedures they could affect patient outcomes. For example, surgical teams that reduced the time to cross-clamp the aorta during a coronary artery bypass graft (CABG) procedure reduced mortality.

We risk-adjusted the rates from our analysis shown in Table 2-2 by age, sex, and severity of patients' condition based on the all patient refined diagnosis related groups (APR-DRGs). Major findings include:

- In-hospital mortality has improved across the board; the rate of mortality dropped for each procedure or condition we measured. The most substantial improvements occurred for congestive heart failure and gastrointestinal hemorrhage.
- Thirty-day mortality has also generally improved, though the rate of mortality following pneumonia, the most common precedent of mortality among those we measured, rose between 1995 and 2002. The rate of mortality following hospitalization for craniotomy also rose slightly between 1995 and 2002.
- The 30-day mortality rate and the in-hospital mortality rate diverged between 2000 and 2002. While the in-hospital mortality rates continued to decline over this period, the 30-day mortality rates increased. The relationship between the rates for different conditions and procedures remained consistent over the entire period: The rate of mortality is greater after patients leave the hospital than during their stay in the hospital, with the exception of those hospitalized for an abdominal aortic aneurysm repair and CABG.

Even though mortality in hospitals is declining, which is good news, the recent increase in 30-day mortality rates makes monitoring and exploring reasons for the trend critical. This increase could result from poor care in settings outside the hospital or could be due to hospitals' discharging patterns.

Effectiveness and timeliness of care: Hospital processes of care are improving, but rates are still too low

Like hospital mortality rates, data from the QIO program on the effectiveness and timeliness of care in hospitals also show improvement over time. Perfect performance on the process measures rates used by the QIO program would be

**TABLE
2-2**

Effectiveness of care: Hospital mortality decreased, 1995–2002

Risk-adjusted rate per 10,000 discharges

Diagnosis or procedure	1995	1998	2000	2002	Percent change 1995–2002	Observed deaths in 2000
In-hospital mortality						
Pneumonia	1,122	1,032	1,012	949	-15.4	78,999
AMI	1,670	1,477	1,414	1,309	-21.6	43,750
Stroke	1,357	1,240	1,212	1,159	-14.6	39,099
CHF	689	585	541	474	-31.2	38,828
GI hemorrhage	504	434	400	355	-29.5	11,155
CABG	580	522	482	427	-26.3	8,669
Craniotomy	1,033	963	986	931	-9.9	3,216
AAA repair	1,258	1,178	1,161	1,130	-10.2	2,632
30-day mortality						
Pneumonia	1,525	1,531	1,377	1,557	2.1	107,502
CHF	1,063	1,006	818	907	-14.6	58,678
Stroke	1,816	1,808	1,620	1,807	-0.5	52,263
AMI	1,899	1,792	1,627	1,690	-11.0	50,367
GI hemorrhage	757	718	590	649	-14.3	16,438
CABG	532	496	441	412	-22.5	7,932
Craniotomy	1,164	1,158	1,123	1,182	1.6	3,666
AAA repair	1,158	1,116	1,069	1,072	-7.4	2,423

Note: AMI (acute myocardial infarction), CHF (congestive heart failure), GI (gastrointestinal), CABG (coronary artery bypass graft), AAA (abdominal aortic aneurysm). Rate is for discharges eligible to be considered in the measure.

Source: MedPAC analysis of 100 percent of MedPAR data using Agency for Healthcare Research and Quality indicators and methods.

100 percent. Thus, although we know that care is improving, beneficiaries are still not receiving care known to be effective—all these measures are well below 100 percent.

The public-private hospital reporting initiative relies on a subset of these measures, as do the new reporting requirements from the Joint Commission on Accreditation of Healthcare Organizations (JCAHO). According to the American Hospital Association, over 2,300 hospitals have signed up to participate in this initiative and to report quality data to CMS. Ideally, these new data collection efforts will allow the Medicare program to work even more effectively with hospitals to improve care for beneficiaries. The data reported in this section were collected before the new reporting initiative began.

The measures shown in Table 2-3 (p. 38) are care processes known to be effective in preventing myocardial infarction, heart failure, pneumonia, and stroke. These data

were collected first in 1998–1999 to create a baseline and then measured again in 2000–2001. Because these are measures of care that should always be given to all beneficiaries who meet certain criteria regardless of their age, sex, or comorbidities, the measures do not need to be risk-adjusted. The first two columns show the rate for the median state. The last column shows an average for all states weighted by their populations.

Major findings from CMS’s analysis of data on these measures include:

- Care has improved on 14 out of 16 hospital measures used by the quality improvement organization program between the periods 1998–1999 and 2000–2001. The median improvement ranges from 1 to 13 percent.
- Because many Medicare beneficiaries are still not receiving clinically indicated services, many opportunities for further improvement exist.

**TABLE
2-3**

**Effectiveness and timeliness of care in hospitals:
Processes of care are improving but rates are still too low, 1998–2001**

Process	1998–1999	2000–2001	
	Median state's rate	Median state's rate	Weighted average
Acute myocardial infarction			
Aspirin in 24 hours	84%	85%	84%
Aspirin at discharge	85	86	84
Beta blockers in 24 hours	64	69	68
Beta blockers at discharge	72	79	78
Angiotensin-converting enzyme inhibitor in acute myocardial infarction	71	74	71
Smoking cessation counseling	40	43	38
Congestive heart failure			
Evaluation of left ventricular ejection fraction	65	70	71
Angiotensin-converting enzyme inhibitor in heart failure	69	68	66
Stroke			
A-fibrillation	55	57	57
Antithrombotic	83	84	83
Nifedipine	95	99	99
Pneumonia			
Antibiotic time	85	87	85
Antibiotic prescription	79	85	84
Blood culture	82	82	81
Influenza screen	14	27	24
Pneumonia screen	11	24	23

Note: The rates reflect the percentage of beneficiaries receiving clinically indicated services in a state (a perfect performance is 100 percent). These data show the median state's rate for each indicator for both time periods. The weighted average is based on the number of beneficiaries in each state.

Source: CMS data from the quality improvement organization program (Jencks et al. 2003).

Safety of care in hospitals: Adverse events affect many beneficiaries

Patient safety indicators (PSIs) developed by AHRQ identify the incidence of possibly preventable adverse events resulting from hospital care. We provide data on 13 of these PSIs for Medicare beneficiaries in hospitals (Table 2-4).

Most of the rates are relatively rare events with rates under 100 per 10,000 discharges; hence, small absolute changes can result in large percentage differences. However, collectively they affect many beneficiaries. Over 300,000 adverse events occurred in 2000. In addition, because it is impossible to measure the occurrence of all adverse events using administrative data, beneficiaries may be experiencing other types of adverse events that are not counted in this analysis. For example, adverse events due to medication error—one of the largest sources of errors

in the hospital setting—are difficult to observe using claims data.

In a recent article published in the *Journal of the American Medical Association*, the authors Zhan and Miller analyze the impact of these type of events on patients from all payers and on the health system as a whole (Zhan and Miller 2003). Their study evaluated the impact on mortality, length of stay, and charges of patients who had any one of the AHRQ-developed 18 indicators of patient safety.¹ The study concluded that these 18 types of medical events may account for 2.4 million extra hospital days, \$9.3 billion in excess charges, and almost 32,600 attributable deaths in the United States annually. The authors discuss the limitations of their work, including factors that may also affect the results presented here and subsequent policy options. It is unclear whether these patient safety indicators can be used to compare individual

**TABLE
2-4**

Safety of care: Adverse events affect many beneficiaries, 1995–2002

Risk-adjusted rate per 10,000 discharges eligible

Patient safety indicator	1995	1998	2000	2002	Change in rate 1995–2002	Percent change 1995–2002	Observed adverse events 2000
Decubitus ulcer	237	273	297	319	82	34.5	128,774
Failure to rescue	1,772	1,683	1,652	1,511	–261	–14.7	57,491
Postoperative PE or DVT	98	108	120	123	25	24.5	36,795
Accidental puncture/laceration	28	31	32	36	8	30.7	34,171
Infection due to medical care	24	27	28	30	6	28.5	24,524
Iatrogenic pneumothorax	10	12	11	11	1	4.8	10,985
Postoperative respiratory failure	43	66	75	87	44	99.6 ^b	8,184
Postoperative hemorrhage or hematoma	N/A	27	26	24	–3 ^a	–11.2	8,056
Postoperative sepsis	89	112	127	135	46	50.7	6,739
Postoperative hip fracture	18	18	18	13	–5	–24.2	3,707
Death in low-mortality DRGs	39	30	31	30	–9	–23.6 ^c	3,453
Postoperative wound dehiscence	38	41	37	38	0	0.4	2,043
Postoperative physiologic and metabolic derangement	11	12	13	14	3	31.8	1,952

Note: PE (pulmonary embolism), DVT (deep vein thrombosis), N/A (not available), DRG (diagnosis related group).

^achange from 1998–2002.

^bSome of this increase may be due to the introduction of a new code in 1998 for acute and respiratory failure.

^cAgency for Healthcare Research and Quality researchers identified low-mortality DRGs for all payers, not Medicare beneficiaries only.

Source: MedPAC analysis of 100 percent of MedPAR data using Agency for Healthcare Research and Quality indicators and methods.

hospitals, or to fully distinguish complications that could have been prevented.

These indicators give a risk-adjusted rate per 10,000 discharges that were eligible to be counted for the measure. The rates are risk-adjusted by age, sex, and comorbidities. Whether a particular condition was counted as an adverse event depended on the circumstances of the specific beneficiary. Only certain discharges were considered at risk for the adverse event. For example, the decubitus ulcer indicator includes in the denominator only patients with stays longer than five days. Also, some discharges were excluded for other reasons; for example, it might be impossible to tell if the complication observed was a result of hospital error or present at admission. In the case of decubitus ulcer, the AHRQ researchers excluded patients with major skin disorders or those admitted from a long-term care facility so that, to the extent possible, only adverse events due to care in the hospital were included in the rates.

Major findings include:

- From 1995 to 2002, 9 out of 13 rates of adverse events experienced by Medicare beneficiaries increased.
- Four of the indicators have seen decreasing rates; these include failure to rescue, one of the most common and, because it results in death, most severe. The other indicator related to mortality—death in low-mortality diagnosis related groups (DRGs)—also decreased.

These rates show that not only are many Medicare beneficiaries experiencing adverse events, but they are doing so at increasing rates. As noted in the text box (p. 40), because these data are based on administrative data, they may be affected by changes in coding definitions or practices.² However, those coding experts with whom we spoke believed it unlikely that, with the two exceptions noted in the text box, the observed increases in adverse events were due to shifts in coding alone.

Are beneficiaries receiving high-quality care outside the hospital?

Many settings of care outside the hospital affect the quality of patient care. Care provided by physicians within offices or clinics is important, as are services provided by various post-acute providers, such as home health agencies and skilled nursing facilities. Because care provided

outside the hospital relies on a multitude of settings as well as beneficiary initiative to seek care or to care for themselves, it is hard to assign accountability for performance on the measures of quality we present in this section. In some cases poor performance may signal access problems. Nonetheless, this analysis provides insight into the types of conditions toward which Medicare may want to target improvement efforts.

Using administrative data to measure patient safety

Is information on patient safety from administrative data valid? That is, do these data measure what they are supposed to measure, and do changes in coding definitions or practices affect the trends?

More work needs to be done to answer this question more definitively. Variation in coding among facilities and physicians exists (as discussed below) and could affect the trends. But even if all hospitals and physicians coded the same way, an increase or decrease in the types of complications included in this chapter could be due to factors other than the safety of care.

Alternatives to administrative data, however, are also imperfect (Weingart and Iezzoni, 2003). In a recent article Weingart and Iezzoni discuss the relative merits of data sources for measuring safety in hospitals. Alternatives to administrative sources for data on safety include individual facility reporting and clinical chart review. Facility reporting might provide a more detailed picture of safety problems, but is subject to bias. Chart review might also provide a more detailed picture of safety problems in hospitals. However, it is expensive, may miss events that occurred but were not documented in the record, and, similar to administrative data, may limit reviewers' ability to ascertain preventable complications. The authors conclude by suggesting that "creative combinations of administrative data elements" could yield insight into clinical events or conditions that might represent safety problems. The Agency for Healthcare Research and Quality (AHRQ) recognized this opportunity when they worked with researchers at the University of California at San Francisco and the Stanford Evidence-based Practice Center to develop these indicators.

How would changes in coding practices or definitions result in increased reports of patient safety problems? Regarding coding definitions, a recent article reported that the introduction of a new ICD-9-CM code for "acute and chronic respiratory failure" in 1998 may have led to the increase in the rate of postoperative respiratory failure (Romano et al. 2003). Also, the zero rate reported on postoperative hemorrhage or hematoma in 1995 is probably due to a new code being introduced in this clinical area in 1996.

Several trends in coding practices may have affected the calculations of changes in the prevalence of adverse events. However, coding experts told us they did not believe that these changes in coding would be significant enough by themselves to account for the increases in adverse events shown in our data analyses. Experts noted that the accuracy of coding has improved over the time period reflected in our data. This new level of accuracy may mean that complications would have been coded more frequently, thus increasing the rates of adverse events. On the other hand, some noted that concern over heightened enforcement of fraud and abuse statutes may have led to fewer coded cases of complications; therefore, our analysis would have undercounted adverse events. Because coding practices vary between individual hospitals, we were warned about relying too heavily on these data to compare individual hospital performance.

More research is needed to better understand how variation in coding practices among settings of care and over time affects these trends. CMS, in tandem with AHRQ, is evaluating several of the patient safety indicators to determine whether other sources of data confirm the level of adverse events found through administrative data. ■

Analyses of the quality of care delivered in skilled nursing facilities, home health agencies, and dialysis facilities are included in subsequent chapters in this report for purposes of determining payment adequacy. For dialysis patients and M+C enrollees, the Commission also includes recommendations for the Congress to use pay-for-performance strategies to improve their care.

Effectiveness and timeliness of care: Potentially avoidable admissions increase for many beneficiaries

AHRQ developed the indicators displayed in Table 2-5 to assess the quality of the health care system as a whole, especially the quality of ambulatory care outside the hospital. These conditions were chosen because evidence suggests that admissions for these ambulatory care sensitive conditions could have been avoided, at least in part, through better care outside the hospital. High rates of admission for these conditions could be due to problems accessing care, inappropriate care management even if the beneficiary sees a practitioner, or lifestyle changes over which the beneficiary has primary control. Increasing prevalence of conditions such as diabetes or congestive heart failure could also affect these trends, as could outbreaks of influenza.

Another factor that could affect this analysis is the overall trend in admissions of Medicare beneficiaries. The number of beneficiaries in the Medicare program increased by 7 percent between 1995 and 2001; over this same time period, the overall number of admissions for Medicare beneficiaries increased 16 percent. Because these types of conditions are a significant proportion of all Medicare admissions, their growth helps explain why admissions grew faster than the number of beneficiaries over this time period.³

Some of these conditions, such as urinary tract infections and bacterial pneumonia, are also likely to develop when patients are in other settings of care, such as nursing homes. To ensure that only beneficiaries admitted from the community were counted in these indicators, the AHRQ indicators exclude beneficiaries admitted to the hospital from other institutions from the analysis.⁴ The rates are risk-adjusted by age and sex.

Major findings from the analysis include:

- The top five most prevalent ACSCs in Medicare are CHF, bacterial pneumonia, chronic obstructive pulmonary disease, urinary infection, and dehydration.
- Rates of admissions for 7 out of 12 conditions increased between 1995 and 2002.

TABLE 2-5

Effectiveness and timeliness of care outside the hospital: The change in the rate of potentially avoidable hospital admissions is mixed, 1995–2002

Risk-adjusted rate per 10,000 beneficiaries

Conditions	1995	1998	2000	2002	Percent change 1995–2002	Observed admissions in 2000
Congestive heart failure	241	257	244	238	-1.0	703,012
Bacterial pneumonia	154	182	193	192	24.1	567,995
COPD	104	121	122	118	13.6	368,674
Urinary tract infection	60	64	67	66	9.4	209,550
Dehydration	50	55	58	65	30.2	181,785
Diabetes long-term complication	35	38	39	41	18.5	125,053
Adult asthma	24	21	20	23	-6.3	65,680
Angina without procedure	50	24	19	14	-71.4	59,983
Hypertension	9	10	11	13	38.3	37,334
Lower extremity amputation	15	16	15	14	-2.1	24,224
Diabetes short-term complication	7	7	7	7	2.1	22,425
Diabetes uncontrolled	10	8	7	6	-38.1	22,416

Note: COPD (chronic obstructive pulmonary disease).

Source: MedPAC analysis of 100 percent of MedPAR data using Agency for Healthcare Research and Quality indicators and methods.

- One important exception to this trend is CHF—the condition representing the most potentially avoidable admissions. Given that admissions for beneficiaries with CHF decreased 1 percent between 1995 and 2002, ambulatory care (including drug therapy) may have improved slightly.
- The rates of admissions for beneficiaries with angina who did not subsequently undergo a procedure also decreased significantly. This may be due to improvements in ambulatory care. It is possible that beneficiaries are receiving better revascularization therapies in outpatient settings which would reduce all angina admissions, including those for patients who do not need procedures. Alternatively, this finding may be due to increases in the percent of patients admitted with angina who receive a procedure.

Regardless of alternative explanations, the trend towards increased ACSC admissions points to worsening management of beneficiaries' chronic conditions. Provisions in the recently enacted Medicare Prescription Drug, Improvement, and Modernization Act (MMA) that require CMS to develop and implement a program to improve care for beneficiaries with these types of conditions could, over time, help decrease these rates.

Effectiveness and timeliness of care: Provision of effective care outside hospital is improving, but rates are still too low

The data on potentially avoidable admissions provide information on the quality of ambulatory care by looking at outcomes. Data from the QIO program provide information on the effectiveness and timeliness of care directly by measuring the percentage of beneficiaries who receive effective treatment or preventive services (Table 2-6). These results show that although improvement has occurred, the health system is failing to provide many beneficiaries care known to be effective.

While the previous section looked at admissions for certain preventable acute episodes, these measures represent care processes known to be effective in preventing and managing (including preventing hospitalizations for) influenza, pneumonia, breast cancer, and diabetes. These data were collected first in 1998–1999 to create a baseline and again in 2000–2001. Because these measures represent care that should always be given to all beneficiaries who meet certain criteria, it is not necessary for them to be risk-adjusted.

TABLE 2-6

Effectiveness and timeliness of care outside the hospital: Effective care processes are improving, but rates are still too low, 1998–2001

Process	1998–1999	2000–2001	
	Median state's rate	Median state's rate	Weighted average
Adult immunization			
Influenza	67	72	71
Pneumonia	55	65	64
Breast cancer			
Mammography	55	60	77
Diabetes			
HgbA1c	70	78	70
Eye exam	68	70	74
Lipid profile	60	74	76

Note: HgbA1c (hemoglobin A1c). The rates reflect the percentage of beneficiaries receiving clinically indicated services (a perfect performance is 100 percent). These data show the median state's rate for each indicator for both time periods. The weighted average is based on the number of beneficiaries in each state.

Source: CMS data from the quality improvement organization program (Jencks et al. 2003).

The major findings include:

- Care has improved on all six measures of ambulatory care used by the quality improvement organization program between 1998–1999 and 2000–2001. The median improvement ranges from 1 to 16 percent.
- Because significant numbers of Medicare beneficiaries are still not receiving services necessary to manage a chronic condition or prevent acute episodes, many opportunities for further improvement exist.

The CAHPS survey also provides information on whether beneficiaries are receiving preventive care. The CAHPS data show rates of flu and pneumonia immunizations similar to those of the QIO program. In 2002, 69 percent of beneficiaries reported that they received flu immunizations, and 61 percent said that they received a pneumonia shot. Both data sets show that 30 percent or more of beneficiaries do not receive immunizations known to help prevent illness and hospitalizations. These data provide examples of treatment that could help prevent hospital admissions for beneficiaries with some of the ambulatory care sensitive conditions described in the previous section.

Patient-centeredness of care: Fee-for-service beneficiaries rate primary care and specialist providers highly

One of the least well understood and measured dimensions of quality identified by the IOM is the patient-centeredness of care. To better understand this dimension of quality AHRQ developed a tool to measure how beneficiaries perceived their access to and quality of care. This survey—CAHPS—was first designed to capture enrollee perception of private health plans.

Beneficiaries rate their Medicare providers high on patient-centeredness. Many beneficiaries have an established and multiyear relationship with either a personal doctor or nurse, and specialists are generally available when care is needed. Beneficiaries also report that providers listen to them and are respectful.

Policymakers often find it hard to reconcile the apparent dichotomy between beneficiaries' high ratings of their care and other measures of clinical effectiveness and safety that reveal significant gaps in the quality of care. They also worry about the subjective nature of beneficiary surveys. However, these ratings capture an important dimension of quality that is not available otherwise. Consumer assessments measure the interpersonal component of quality and can provide a valuable supplement to more traditional sources of data (Davies and Ware 1988).

In addition, the seemingly contradictory findings may be reconciled by considering beneficiaries' knowledge. Most patients do not usually know whether their physicians or other providers are following clinical guidelines or whether an adverse event could have been prevented with better care. Thus, they may not know whether the care they receive is the most clinically effective or safe.

A high percentage of beneficiaries have a personal doctor or nurse and have had that relationship for more than two years (Table 2-7). Most beneficiaries report that they see a primary care physician (86 percent in 2002). However, 12 percent identify their specialist as their personal doctor, and 2 percent, and 1 percent, respectively, report a physician's assistant or nurse as their personal caregiver. A large proportion have no or a small problem finding a specialist.

- Beneficiaries' access to personal doctors or nurses appears to be consistently good, and almost 80 percent of beneficiaries report that they have been going to their personal doctors or nurses for two or more years.

TABLE 2-7

Patient-centeredness of care: Continuity and access to providers is stable

Question	2000	2001	2002
Do you have one person you think of as your personal doctor or nurse (the health provider who knows you best)?			
Yes	N/A	89.0%	89.0%
No	N/A	11.0	11.0
How many months or years have you been going to your personal doctor or nurse?			
2 years or more	N/A	79.2	78.9
Less than 2 years	N/A	20.8	21.1
In the last 6 months, how much of a problem, if any, was it to see a specialist that you needed to see?			
None or small problem	93.6	94.8	94.3*
Big problem	6.4	5.2	5.7*

Note: N/A (not available).
*Indicates a statistically significant change between 2000 and 2002, at a 95% confidence level ($p < 0.05$).

Source: MedPAC analysis of 2000–2002 Consumer Assessment of Health Plans Survey (CAHPS) data for fee-for-service Medicare from CMS.

- In 2002, about 50 percent of beneficiaries reported that they needed to see specialists; of those beneficiaries, 94 percent said that it was a small or no problem to see the specialists. Only five percent said that it was a big problem.

In addition to access to health care providers, we examined the type of interactions beneficiaries reported having with their personal doctor or nurse. We found that a large proportion of Medicare beneficiaries highly rate their interactions with their personal doctor or nurse (Table 2-8, p. 44).

- More than 80 percent of beneficiaries gave a rating of 8 or higher on a scale of 1 to 10 (10 being the highest) to their personal doctor or nurse and the specialist that they saw most often in the last 6 months. The same was true for all the health care they received in the last 6 months.

**TABLE
2-8**

**Patient-centeredness of care:
Beneficiaries rate interactions
with health care providers highly**

Question	2000	2001	2002
Care			
How would you rate your personal doctor or nurse?	84.7%	83.5%	83.7%*
How would you rate the specialist you saw most often in the last 6 months, including a personal doctor if he or she is a specialist?	85.5	83.3	84.4*
How would you rate all the health care you got in the last 6 months from all doctors and other health providers?	85.4	84.8	85.2
Quality of interactions			
In the last 6 months, did doctors or other health providers:			
Usually or always listen carefully to you?	94.8	94.8	94.6
Usually or always explain things in a way you could understand?	93.4	93.7	93.8*
Usually or always show respect for what you had to say?	94.9	94.7	94.8
Usually or always spend enough time with you?	91.1	90.9	90.6*

Note: The first section shows the percentage of beneficiaries who rated care as 8, 9, or 10 on a scale from 1–10.
*Indicates a statistically significant change between 2000 and 2002, at a 95% confidence level (p<0.05).

Source: MedPAC analysis of 2000–2002 Consumer Assessment of Health Plans Survey (CAHPS) data for fee-for-service Medicare from CMS.

- They also highly rate the quality of interactions with their doctor or other health provider. For example, between 93 and 95 percent of beneficiaries reported that their doctors or other health care providers usually or always listened carefully to them, explained things in a way that they could understand, and showed respect for what they had to say.
- Beneficiaries are slightly less satisfied with the amount of time spent with their personal doctor or nurse; but still, over 90 percent are satisfied with this aspect of their health care.

Quality of care for Medicare beneficiaries in managed care

Quality of care is improving in Medicare managed care plans. Medicare beneficiaries in managed care report a similar level of quality compared with their employer-sponsored counterparts and with FFS Medicare beneficiaries. The trends and comparisons of managed care quality in Medicare provide good news; nonetheless, these rates, on the whole, show room for improvement. Similar to the FFS population, many beneficiaries in managed care plans in Medicare are not receiving care known to be effective.

The analysis in this section is based on data from HEDIS and the CAHPS survey for Medicare+Choice plans. Through plan reporting on HEDIS, the Medicare program collects clinical effectiveness and timeliness data both in and out of the hospital on over 80 measures, with specific focus on 18 measures.⁵ The CAHPS M+C survey provides information on beneficiaries' perception of the quality of and access to care on questions similar to those answered by FFS beneficiaries.

On the measures of beneficiary perceptions, scores are relatively high. Scores for M+C plans and FFS Medicare are similar, and both programs score more favorably than employer-sponsored plans.

Effectiveness and timeliness of care: Health plan process-of-care measures improve, but some are still too low

Data in this section show that the clinical effectiveness of care in M+C plans is improving over time. However, they also reveal gaps between care known to be effective and the care provided. The level of quality is similar or better compared with employer-sponsored plans and Medicaid. Only in one area—mental health—is the quality of care in Medicare managed care lower than for employer-sponsored plans.

Data on these HEDIS measures are collected from the plans by reviewing administrative claims and medical charts. They are audited by an NCQA-accredited auditor and then reported directly to NCQA. Under contract with CMS, NCQA then prepares a report on each health plan on HEDIS and other measures.⁶

These data show the rate at which members eligible for the clinical care being measured receive that care. For

example, the measure for provision of beta blocker after heart attack tracks the number of beneficiaries with a heart attack who received a prescription for a beta blocker upon discharge.

Care on almost all of the 16 measures reported improved over the last three years (Table 2-9). Rates of provisions of two services decreased. Given that diabetes care has been the focus of many of CMS's and others' improvement efforts, improvement in the provision of preventive services for diabetes may be a sign that these efforts are working.

To understand how Medicare managed care plans compared to employer-sponsored plans, we compared the national average for 2002 for 15 measures (Figure 2-1, p. 46). Although M+C plan scores are comparable to those for plans serving employer-sponsored members on most HEDIS measures, their performance is higher on measures of good diabetes care. This difference might reflect the emphasis CMS places on the treatment of diabetics in the Medicare program. CMS identified care for diabetics as the first national quality project for its managed care plans in 1999 and has also made it a focus of the QIO program. On measures of the quality of care provided to the mentally ill, however, Medicare managed care plans score lower than their employer-sponsored counterparts. Fewer Medicare beneficiaries receive appropriate follow-up after hospitalization for mental illness and effective management after an acute episode or on an ongoing basis.

Patient-centeredness of care: Medicare managed care beneficiaries rate highly their access to and relationships with both primary care and specialist providers

Beneficiaries' ratings of satisfaction with FFS and M+C are generally similar (Table 2-10, p. 46). Beneficiaries report obtaining care when they need it and do not report long waits. Some 84 percent of beneficiaries in both programs give their health care high ratings.

Enrollees in employer-sponsored plans have a lower opinion of the care they receive than do Medicare beneficiaries. Understanding this finding more fully might explain whether the Medicare population is answering the questions differently or whether gaps in quality between those in Medicare and in the under-65 employer-sponsored population are real.

TABLE 2-9

Effectiveness and timeliness of care: Plans improve, but rates are still low on some measures, 2000-2002

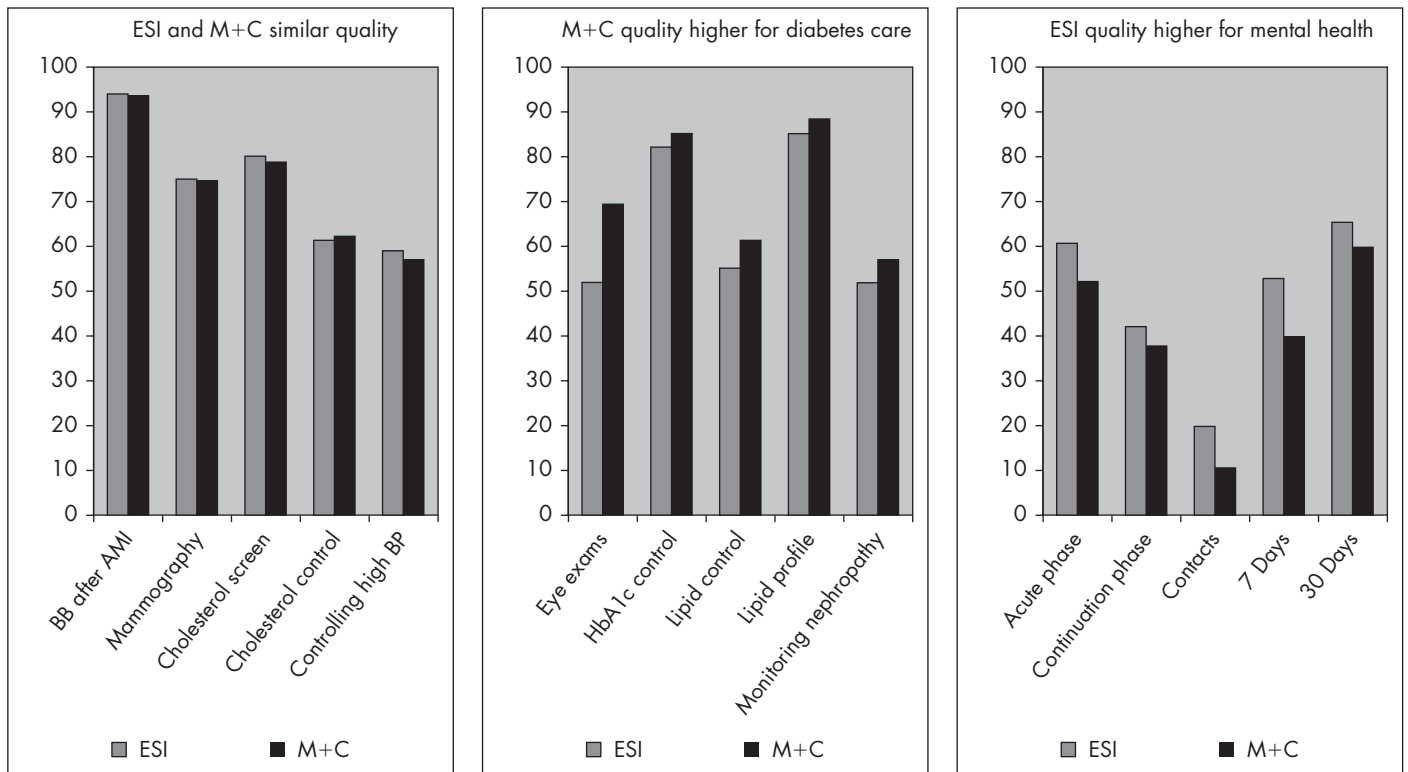
Measure	2000	2001	2002
Beta-blocker treatment after heart attack	89.3	92.9	93.0
Breast cancer screening	73.9	75.3	74.5
Cholesterol management			
Control	52.9	58.4	62.3
Screening	70.6	75.5	77.7
Controlling high blood pressure	46.7	53.6	56.9
Comprehensive diabetes care			
Eye exams	62.8	66.0	68.4
HbA1c control	82.5	85.7	85.0
Lipid control	50.9	57.5	62.6
Lipid profile	80.5	85.7	87.9
Monitoring diabetic nephropathy	45.0	51.9	57.3
Poor HbA1c control*	33.4*	26.8*	24.5*
Antidepressant medication management**			
Acute phase	N/A	51.3	52.1
Continuation phase	N/A	36.8	37.7
Contacts	N/A	11.9	10.8
Follow-up after hospitalization for mental illness			
Less than 7 days	37.5	37.2	38.7
Less than 30 days	59.3	60.6	60.6

Note: HbA1c (hemoglobin A1c). Rates refer to patients who received the clinically indicated treatment.
 *Lower rates are better than higher ones for this measure.
 ** Acute phase refers to the percent of patients receiving effective treatment after a new episode. Continuation refers to the percent of patients remaining on antidepressants continuously for six months after initial diagnosis. Contacts refers to the percent of patients who received at least three follow-up office visits in a 12-week acute phase.

Source: Health Plan Employer Data and Information Set data, 2000-2002, from National Committee for Quality Assurance.

**FIGURE
2-1**

Effectiveness and timeliness of care: M+C and employer-sponsored plans' performance varies by process measure, 2002



Note: ESI (employer-sponsored insurance), M+C (Medicare + Choice), BB (beta blocker), AMI (acute myocardial infarction), BP (blood pressure), HbA1c (hemoglobin A1c).

Source: Health Plan Employer Data and Information Set data, 2002, from National Committee for Quality Assurance.

**TABLE
2-10**

Patient-centeredness of care: Medicare programs rate higher than employer-sponsored plans in 2001

Measure	FFS	M+C	Employer-sponsored
No problem getting care when needed	89%	82%	77%
Usually or always got care without long waits	87	87	79
Doctors usually or always communicate well	94	93	91
Rated health care overall 8-10	84	84	73
Rated plan 8-10	78	77	62

Note: FFS (fee-for-service), M+C (Medicare+Choice). The ratings on the last two indicators show the percentage of beneficiaries who gave ratings of 8, 9, or 10 on a scale of 1-10.

Source: MedPAC analysis of 2001 Consumer Assessment of Health Plans Survey (CAHPS) data for fee-for-service and Medicare+Choice plans from CMS; and 2001 CAHPS data on employer-sponsored plans from the National Committee for Quality Assurance.

How does Medicare move closer to high-quality care for beneficiaries? MedPAC's agenda on quality

Discussing all of these data together in this chapter provides a multidimensional picture of the quality of care our health system provides Medicare beneficiaries. To improve quality, we must first identify quality problems, understand why they occur, and find strategies to address them. These data provide a basis for discussion and further research, and insight into key areas for targeting Medicare quality improvement efforts. In some cases the data provide clear guidance, in others the guidance is more ambiguous.

Questions for further analysis include:

- Are improvements in hospital care responsible for decreasing mortality rates?
- How can we better determine whether certain adverse events in hospitals are preventable and which practices lead to their prevention?
- How do we reconcile hospital mortality decreasing, while adverse events appear to be increasing?
- Are the high rates of admission for potentially avoidable episodes due to quality, access, or patient compliance issues?
- What is the best way to use these data to target improvements for the chronically ill?
- Can Medicare policies or programs improve care for those often frail beneficiaries who end up with dehydration or urinary infections at home?
- What do the generally high ratings beneficiaries provide tell us about the overall quality of care?

Answering these questions is critical. The Medicare program provides care for some of the most vulnerable Americans. The data presented in this chapter do not, however, only raise questions. They also document quality problems that must be addressed. This work provides guidance to the Congress, CMS, and the Commission on how to better target policies to improve quality. CMS has already developed a broad set of tools for addressing some of these quality problems. It has tools to collect and measure care (various assessment instruments and other data sets), encourage improvement (regulatory

requirements and public reporting), assist providers and plans to improve (the QIO program), and explore new options to improve quality (demonstrations and pilot projects). CMS could use these data, along with its own knowledge and experience of quality problems to:

- develop priorities for the QIO program's next scope of work;
- update the conditions for participation in Medicare to recognize safety problems;⁷
- target the newly mandated chronic illness improvement program at conditions responsible for large numbers of potentially avoidable admissions; and
- determine which quality problems and measures should be targeted in its various pay-for-performance demonstrations and programs. For example, safety measures may be added to the data collected for hospitals.

The Commission has three major priorities to address quality:

- using financial incentives to improve quality;
- using disease and care management to better address the needs for coordination of care for those with chronic conditions; and
- exploring the relationship between cost and quality.

The data in this chapter identify the types of quality problems these analyses and subsequent policy options could target.

- **Using financial incentives to improve quality.** The Congress, CMS, and MedPAC have stated their commitment to using financial incentives to improve quality. The recently enacted MMA included several provisions linking payment with either quality performance or information. CMS has demonstrations underway for dialysis patients, group practices, and hospitals to test pay-for-performance strategies.

In its June 2003 report, the Commission found that Medicare should take a lead role in adopting pay-for-performance strategies. Two key criteria for success are that ready measures and standardized data collection exist to compare individual organizations. Because physicians and facilities that deliver dialysis services and M+C plans have been reporting on their

quality for some years and have achieved some improvement, they meet these criteria.

In later chapters in this report, we recommend that, as a first step, Medicare base a portion of payment on performance for M+C plans and dialysis physicians and facilities. M+C plans could use their leverage with providers to help address the lack of coordination and appropriate management of chronic conditions and to improve their providers' quality of care. Although care has improved on some measures over the last few years, policymakers are still concerned about the quality of care for the vulnerable beneficiaries who receive dialysis. Basing a portion of dialysis payment on quality of care should further improvement.

The analysis in this chapter identifies additional important target areas for pay-for-performance strategies. Of note is the finding that patient safety is a growing problem in hospitals. While CMS, in cooperation with hospital organizations, is building the foundation for standardized data collection of measures of care effectiveness, incentives strategies will also need to emphasize patient safety improvement. Hospital-specific safety measures are needed. Given the level of potentially avoidable admissions, incentives in the ambulatory sector are also needed. Perhaps other strategies, such as the chronic illness improvement program mandated in the MMA will help, but if an incentives program is established without a focus on ambulatory care quality, an important opportunity for improving care may be missed.

More and better data on quality to be used in pay-for-performance programs is needed. Administrative data paint a broad picture of the level of quality beneficiaries receive. These data are, in some cases, difficult to use in evaluating individual providers. Although these data may indicate safety problems, it is unclear whether they provide usable measures for rewarding individual hospital performance. Such measures need to be developed. Although not highlighted here, safety is also an issue in the ambulatory setting, but much less work has been done

to document the scope of the problem or develop measures useful for improvement strategies.

- **Using disease management as a quality improvement tool.** The large number of potentially avoidable admissions should prompt Medicare to identify ways to manage conditions more effectively in the ambulatory setting. In the recently enacted MMA, the Congress established a program focused on finding ways to better manage care for the chronically ill, who account for a large proportion of these potentially avoidable admissions. Passage of a prescription drug benefit also makes it possible for the Medicare program to develop improved measures of quality for managing particular chronic conditions.

One strategy used in the private sector is disease management.⁸ MedPAC is exploring the evidence on disease management and considering its potential for beneficiaries who are chronically ill. However, the data in this chapter also show that other conditions cause hospital admissions that might have otherwise been avoided. Of the top five conditions, three are not chronic conditions—bacterial pneumonia, dehydration, and urinary tract infections. The Medicare program should consider strategies to help beneficiaries and their providers prevent beneficiaries' health from deteriorating to the extent that hospitalization is required for those types of conditions.

- **Clarifying the relationship between cost and quality in various settings.** These data raise questions about the quality of care, but only provide national data. To design policies that encourage improvement in specific facilities or settings, it is important to understand what drives quality at that level. One factor could be the cost of care. In our June 2003 report, we asked whether a relationship exists between the cost of care and the quality of care in dialysis facilities. We found that low-cost providers were as likely as high-cost providers to perform well on quality measures. The Commission wants to learn more about the relationship between the cost and quality of care in different settings. ■

Endnotes

- 1 We present a subset of 13 of these 18 indicators. We excluded pediatric and birth indicators, and several that rarely occurred.
- 2 As explained in the text box, increases in coding complications over this time period may have had some effect on these results. However, not all complications are adverse events. Many are due to factors other than safety. Those included in this indicator set represent, to the best ability of AHRQ researchers, complications that should not occur. Because these data rely on tracking certain types of complications, coding practices for all types of complications could affect these data.
- 3 Even though the trends in the growth of the Medicare population and the overall increase in admissions are calculated from 1995–2001, and our analysis of potentially avoidable admissions uses the time frame 1995–2002, the relationship is similar without the additional year.
- 4 Although the intent was to exclude patients admitted from other facilities, the reliability of admission source data is somewhat questionable. Our analysis excluded the following types of discharges based on the MedPAR admission source variable: transfer from other hospital and transfer from another facility, including long-term care.
- 5 CMS requires HMOs, preferred provider organizations (PPOs), and private fee-for-service (PFFS) plans to report data on clinical effectiveness, timeliness, and patient-centeredness of care delivered through their plans. Because of the difficulty PPO and PFFS plans might have obtaining data from medical records and working with providers to improve upon the measures, the Congress directed CMS to exempt those types of plans from reporting on all the measures.
- 6 NCQA is a private sector organization that accredits health plans for commercial and Medicare markets. It was instrumental in the development of HEDIS and continues to work with health plans and private and public sector purchasers to continually update the measures.
- 7 JCAHO has included requirements in its accreditation standards for hospitals to further address safety problems. CMS may want to include some of these requirements in the conditions of participation.
- 8 In this discussion, the term disease management is used to refer to a variety of concepts; for example, care coordination and care management for the seriously chronically ill.

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CHAPTER

3

**Assessing payment adequacy
and updating payments in
fee-for-service Medicare**

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

Section A: Hospital inpatient and outpatient services

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

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

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

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

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

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

Section B: Physician services

3B The Congress should update payments for physician services by the projected change in input prices, less an adjustment for productivity growth of 0.9 percent, in 2005.

COMMISSIONER VOTES: YES 17 • NO 0 • NOT VOTING 0 • ABSENT 0

Section C: Skilled nursing facility services

3C-1 The Congress should eliminate the update to payment rates for skilled nursing facility services for fiscal year 2005.

COMMISSIONER VOTES: YES 16 • NO 1 • NOT VOTING 0 • ABSENT 0

.....
3C-2 The Secretary should develop a new classification system for care in skilled nursing facilities. Until this happens, the Congress should authorize the Secretary to:

- ▶ remove some or all of the 6.7 percent payment add-on currently applied to the rehabilitation RUG-III groups.
- ▶ reallocate the money to the nonrehabilitation RUG-III groups to achieve a better balance of resources among all of the RUG-III groups.

COMMISSIONER VOTES: YES 17 • NO 0 • NOT VOTING 0 • ABSENT 0

.....
3C-3 The Secretary should direct skilled nursing facilities to report nursing costs separately from routine costs.

COMMISSIONER VOTES: YES 17 • NO 0 • NOT VOTING 0 • ABSENT 0

Section D: Home health services

3D-1 The Congress should eliminate the update to payment rates for home health services for 2005.

COMMISSIONER VOTES: YES 16 • NO 0 • NOT VOTING 1 • ABSENT 0

.....
3D-2 The Secretary should continue to monitor access to care, the impact of the payment system on patient selection, and the use of services across post-acute care settings.

COMMISSIONER VOTES: YES 17 • NO 0 • NOT VOTING 0 • ABSENT 0

Section E: Outpatient dialysis services

3E-1 The Congress should maintain current law and update the composite rate by 1.6 percent for 2005.

COMMISSIONER VOTES: YES 16 • NO 0 • NOT VOTING 1 • ABSENT 0

.....
3E-2 The Congress should establish a quality incentive payment policy for physicians and facilities providing outpatient dialysis services.

COMMISSIONER VOTES: YES 17 • NO 0 • NOT VOTING 0 • ABSENT 0

Section F: Ambulatory surgical center services

3F-1 There should be no update to payment rates for ASC services for fiscal year 2005.

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

.....
3F-2 The Secretary should revise the ASC payment system so that its relative weights and procedure groups are aligned with those in the outpatient prospective payment system. In addition:

- ▶ The Congress should require the Secretary to periodically collect ASC cost data at the procedure level to monitor the adequacy of ASC rates, refine the relative weights, and develop a conversion factor that reflects the cost of ASC services.
- ▶ The Congress should ensure that payment rates for ASC procedures do not exceed hospital outpatient PPS rates for the same procedures, accounting for differences in the bundle of services.

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

.....
3F-3 After the ASC payment system is revised, the Congress should direct the Secretary to replace the current list of approved ASC procedures with a list of procedures that are excluded from payment based on clinical safety standards and whether the service requires an overnight stay.

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

Assessing payment adequacy and updating payments in fee-for-service Medicare

MedPAC makes payment update recommendations annually for fee-for-service Medicare. We use a framework to help us develop our recommendations in the most thoughtful and consistent way possible. The framework breaks the process into two parts: first assessing the adequacy of Medicare payments for efficient providers in 2004 and then assessing whether and how payments should change in 2005. When considering whether current payments are adequate, we also account for policy changes scheduled to take effect under current law.

This year we make update recommendations in seven sectors: hospital inpatient, hospital outpatient, physician, skilled nursing facility, home health, outpatient dialysis, and ambulatory surgical center. Generally we found that current payments are at least adequate—and in some cases more than adequate—in these sectors.

In this chapter

- Hospital inpatient and outpatient services
- Physician services
- Skilled nursing facility services
- Home health services
- Outpatient dialysis services
- Ambulatory surgical center services

The goal of Medicare payment policy is to align payments with efficient providers' costs of furnishing health care and in doing so maintain beneficiaries' access to high-quality services. Achieving this goal involves setting the base payment rate (for services of average complexity) at the right level, developing payment adjustments that accurately reflect cost differences among types of services and for varying market conditions and types of patients, and then annually considering the need for a payment update.

MedPAC makes payment recommendations for the major fee-for-service Medicare providers. Our general approach to developing payment policy recommendations attempts to:

- make enough funding available to cover the costs of efficient providers, thus maintaining Medicare beneficiaries' access to high-quality care, and
- correct payment inequities among services and providers.

The Commission's annual update recommendations address the first of these objectives. In addition, we also make recommendations that address distributional issues. The update and distributional recommendations will often be coupled because meeting the goals of access to care and adequate payments may require distributional changes as well as updates.

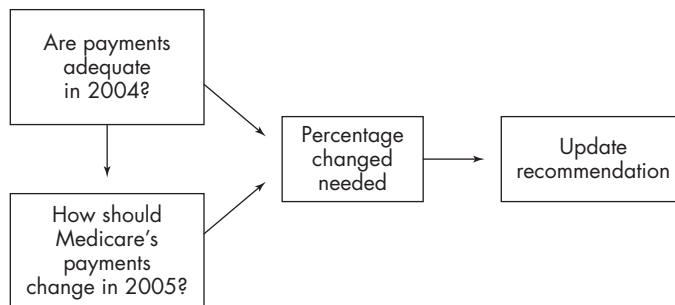
MedPAC uses a framework to guide our update decision-making process in the most thoughtful and consistent way possible. In our model, we sequentially address two questions that together determine the appropriate level of aggregate funding for a given payment system:

- Are payments adequate for efficient providers in 2004?
- How should Medicare payments change in 2005?

In the first part of our adequacy assessment, we can recommend a percentage change factor if we judge that Medicare payments compared to efficient providers' costs are too high or too low in the current year—2004 (Figure 3-1). In the second part, we can recommend a percentage change in Medicare's payments based on how we expect efficient providers' costs to change in the next payment year—currently 2005. We may also consider changes in how the total pool of dollars in each sector should be distributed among providers in the next payment year and thereafter (if necessary). We then consider both parts of the model together to produce our recommended update.

FIGURE 3-1

Framework for assessing payment adequacy and updating payment rates



Our model separates assessing the adequacy of current payments from updating payments because commingling these processes has caused confusion in the past. For example, one of the factors the Commission believed was responsible for hospital payments being too high in the 1990s was unbundling of services during an inpatient stay—the unit of payment. Hospitals shifted care at the end of patients' acute inpatient stays to other settings, such as rehabilitation or skilled nursing facilities, thereby reducing hospitals' costs. The industry's response to the Commission's decision to recommend reduced updates was that the updates would not adequately cover hospital cost inflation. Separating the analysis of current payments from an analysis of cost growth in the coming year would have presented a clearer rationale for our recommendation by showing that current payments were more than adequate.

This section of the chapter reviews our two-part model. The chapter then proceeds through the Commission's analysis of payment adequacy and development of update and other recommendations for hospital inpatient and outpatient, physician, skilled nursing facility (SNF), home health, outpatient dialysis, and ambulatory surgical center services.

Are Medicare payments adequate in 2004?

The first part of MedPAC's approach to developing payment updates is to assess the adequacy of current payments. For each sector, we judge whether current Medicare payments are adequate by examining a broad array of information about:

- beneficiaries' access to care
- changes in the supply of providers
- changes in the volume of services
- changes in the quality of care
- providers' access to capital
- Medicare payments and providers' costs for 2004

Because the goal of Medicare payment policy is to align payments with efficient providers' costs of furnishing health care, and in so doing maintain beneficiaries' access to high-quality services, our measures are both beneficiary-focused (access to care and quality of care) and provider-focused (providers' access to capital and payments and costs for 2004). We consider multiple measures because the direct relevance, availability, and quality of each type of information varies among sectors, and no one measure provides all the information needed for MedPAC to judge payment adequacy.

Beneficiaries' access to care

In the absence of evidence showing widespread and systematic access problems, Medicare's payment rates could be at least adequate or too high. Whether Medicare's payments influence access to care will depend on the extent to which Medicare is the dominant payer for that service. It is important to bear in mind that factors unrelated to Medicare's payment policies, such as beneficiaries' preferences, supplemental insurance, and transportation difficulties, may also affect access to care.

The indicators we use to assess beneficiaries' access to care depend on the availability and relevance of information in each sector. For example, we assess physicians' willingness to serve beneficiaries and ask beneficiaries about their access to physician care. For home health services, we examine whether communities are served by providers and whether beneficiaries report they can obtain care.

Changes in the supply of providers

Rapid growth in the capacity of providers to furnish care may indicate that payments are more than adequate to cover providers' costs. Changes in practice patterns and technology, however, may also affect providers' capacity.

Substantial increases in the number of providers may also indicate that payments are more than sufficient to cover

providers' financial needs, potentially leading to unnecessary services being provided. For instance, evidence that more physicians in private practice continue to accept new Medicare patients could suggest that Medicare's payment rates are at least adequate and potentially more than adequate. Facilities closing is the extreme opposite outcome, although it can be difficult to distinguish between closures that have serious implications for access to care in a community and those that have resulted from excess capacity. Moreover, if Medicare is not the dominant payer, changes in the number of providers may be influenced by other payers' payment policies.

Changes in the volume of services

Increases in the volume of services could suggest that Medicare's payment rates are too high.¹ Conversely, reductions in the volume of services may indicate that revenues are inadequate for providers to furnish the same level of services. Either trend also could be explained by other factors, such as incentives of the payment system, changes in disease prevalence among beneficiaries, technology, practice patterns, and beneficiaries' preferences.

Changes in the quality of care

In the absence of evidence showing declines in the quality of care, Medicare's payment rates could be either about right or too high. However, as in the case of access to care and Medicare payments, assessing the relationship between quality and Medicare payments may be difficult. Quality is influenced by many factors, such as beneficiaries' preferences and compliance, providers' adherence to clinical guidelines, and public reporting efforts. Also, the influence of Medicare's payments on quality of care may be limited when Medicare is not the dominant payer. Even when Medicare is not the dominant payer, however, the program's quality improvement activities can influence the quality of care for a given service. Finally, increasing payments may not be an appropriate response to quality problems, particularly for those sectors for which MedPAC judges payments to be adequate. Rather, as discussed in Section 3E and Chapter 4, MedPAC supports linking payment to quality to hold providers accountable for the care they furnish.

Providers' access to capital

Access to capital is necessary for providers to maintain and modernize their facilities and capabilities for patient care. An inability to access capital that was widespread

throughout a sector might in part reflect on the adequacy of Medicare payments. However, access to capital may not be a useful indicator of the adequacy of Medicare payments when providers derive most of their payments from other payers or other lines of business. For example, the majority of hospital and SNF revenues—70 percent in hospitals and 88 percent in SNFs—come from private sources (private health insurance) and other government payers (such as Medicaid). Finally, circumstances can occur within a sector that can discourage outside investment because of the actions of certain providers. For example, outside investment could be discouraged for providers who are subject to a high level of government oversight because of fraudulent billings to the Medicare program.

For both nonprofit and for-profit providers, we examine changes in bond ratings. Such changes may indicate that access to needed capital has deteriorated or improved, although the data are difficult to interpret because access to capital depends on more than just bond ratings. We also use indirect measures that can demonstrate providers' access to capital, such as increases in the acquisition of facilities by chain providers and spending on construction. Thus, a sector's volume of borrowing and overall level of capital expenditures may provide evidence of access to capital. For publicly owned providers, we can also monitor changes in share prices, public debt, and other publicly reported financial information.

Payments and costs for 2004

We estimate total Medicare payments nationally for the year preceding the one to which our update recommendation will apply. In this report, we are estimating payments and costs for 2004 to inform our update recommendations for 2005.

For providers who submit cost reports to CMS—hospitals, SNFs, home health agencies, and outpatient dialysis facilities—we also estimate total Medicare-allowable costs and assess the relationship between Medicare's payments and providers' costs. The relationship between payments and costs is typically expressed as a margin.² A margin is calculated as payments less costs divided by payments—conceptually, the share of revenue a provider keeps. Because the latest payment and cost report data available to us are from either 2001 or 2002, we must estimate the 2004 margin.

To estimate payments, we first apply the annual payment updates specified in law for 2003 and 2004 to our 2002 base numbers. We then model the effects of other policy

changes that will affect the level of payments during this period. We also model policy changes—other than payment updates—that are scheduled to go into effect in the decision year (2005). This allows us to consider whether current payments would be adequate under all applicable provisions of current law. Our result is an estimate of what payments in 2004 would be if 2005 payment rules were in effect.

To estimate 2004 costs, we generally assume that the cost per unit of output will increase at the rate of input price inflation. As appropriate, we adjust for changes in product and productivity based upon our review of trends in key indicators.

Using margins

As noted earlier, we calculate Medicare margins for the following services: hospital, skilled nursing care, home health care, and outpatient dialysis. In most cases, we assess payment adequacy for the services furnished in a single sector and covered by a specific payment system (for example, SNF and home health services). When a sector provides services that are paid for in multiple payment systems, however, our measures of payments and costs for the sector may become distorted because of cross-subsidization and allocation of costs among services. Examples of this phenomenon are hospitals and outpatient dialysis facilities. In these instances, we assess, to the extent possible, the adequacy of payments for the whole range of Medicare services that the sector furnishes. For hospitals, we calculate an overall Medicare margin that includes payments and costs for the six largest Medicare services hospitals provide—acute inpatient, inpatient rehabilitation, inpatient psychiatric, outpatient hospital, SNF, and home health. For outpatient dialysis services, we assess aggregate payments and costs for services included in the prospective payment bundle and for services for which providers receive separate payments from Medicare, such as injectable drugs.

Total margins—which include payments from all payers as well as revenue from all nonpatient sources—do not play a direct role in MedPAC's update deliberations (see text box, p. 61). MedPAC believes that Medicare payments should relate to the costs of treating Medicare beneficiaries and our recommendations address a sector's Medicare payments, not total payments.

We reached this conclusion based on evidence suggesting that total margins are largely unrelated to Medicare

margins. For example, previous MedPAC analysis shows little relationship between hospitals' overall Medicare margins and their total margins (MedPAC 2003a). This finding is not unexpected because a variety of factors other than Medicare payment determine total margins. The factors include the amount of private sector business, the policies of the insurers with whom providers have contracts, Medicaid payment policy and the amount of Medicaid business, the amount of uncompensated care provided, and revenue earned from nonpatient care services, investment income, and donations. The lack of a consistent relationship between Medicare margins and total margins suggests that changes in Medicare's payment policies may not provide a reliable tool for addressing the total financial performance of a sector. In addition, accurately calculating a total margin is problematic because no one data source reports all revenue streams for a given provider and its related organizations (Kane and Magnus 2001).

We calculate a sector's Medicare overall margin to inform our judgement about whether total Medicare payments cover efficient providers' costs. To assess whether changes are needed in the distribution of payments, we calculate Medicare margins for categories of providers that are significant to Medicare's payment policies. For example, we calculate Medicare margins based on where hospitals are located (in large urban, other urban, and rural areas) and by their teaching status (major teaching, other teaching, and nonteaching). Last year, MedPAC found on average rural hospitals had worse financial performance under Medicare than their urban counterparts (MedPAC 2003b). This led us to recommend policy changes to improve payments to rural hospitals so that beneficiaries' access to care would be maintained.

Multiple factors can contribute to a gap between current payments and costs, including changes in the management and efficiency of providers, unbundling of the services included in the payment bundle, and other changes in the product (such as reduced lengths of inpatient hospital stays). Developing information about the extent to which these factors have contributed to the gap may help in deciding whether and how much to change payments.

Finally, MedPAC makes a judgment when considering the relationship between payments and costs. No single standard governs this relationship. Rather, the desired relationship between payments and costs varies from sector to sector and depends on the degree of financial risk

faced by individual providers, which can vary over time. Thus, the Commission considers the relationship between payments and costs anew each year, one sector at a time.

Appropriateness of current costs

Our assessment of providers' costs and the relationship between Medicare's payments and providers' costs is greatly influenced by whether current costs approximate what efficient providers would be expected to spend in furnishing high-quality care to beneficiaries. Our assessment is also influenced by how accurately providers report cost data in cost reports and how often CMS audits cost reports.

To assess whether actual costs provide a reasonable representation of the costs of efficient providers, we examine trends in the average cost per unit of output and evidence of change in the product being furnished. Although it is nearly impossible to know whether costs are "efficient" in the absolute, the rate of change in unit costs at least provides some evidence of whether the initial level of appropriateness has been maintained. Other things being equal, we would generally expect average growth in unit costs to be somewhat below the market basket increase because of productivity improvements.

In addition, changes in product can have a major effect on unit costs. For example, substantial reductions in the length of or the number of visits in home health episodes would be expected to reduce the growth in providers' costs (inflation adjusted). Finally, another way we could assess the appropriateness of current costs is to examine the relationship between providers' costs and quality of care.

Accurate cost reports are important for determining appropriate costs. Current costs could be overstated and our margin calculations could be biased downward when data are obtained from unaudited cost reports. We know that for at least one sector—outpatient dialysis—some portion of reported costs were found to be unallowable after facilities' cost reports were audited (MedPAC 2002, MedPAC 2003b).³

The frequency, timeliness, and intensity of CMS's audits varies among sectors. Hospitals make up a large portion of the facilities selected for audit because of the magnitude of payments they receive for items and services outside of the inpatient prospective payment system (e.g., graduate medical education, organ acquisition costs). The Balanced Budget Act of 1997 requires that dialysis facilities be

audited every three years. Other facilities are also selected for audit primarily for items paid outside of prospective payment systems (e.g., bad debts). In addition, any provider can be selected for audit based on a random selection process. The intensity of each audit varies and ranges from a desk review of the provider's cost report—which can consist of determining whether reported costs exceed threshold amounts to identify unusual variances and questionable treatment of costs that may require additional review—to an onsite audit of a provider's records. As appropriate, MedPAC adjusts the costs reported by providers to reflect the findings of an audit (see Section 3E, page 178).

In addition, we suspect that the allocation of hospitals' costs among service lines is distorted in the Medicare cost report, which in turn affects sector-specific margin calculations. Through most of the 1990s, hospitals were paid prospectively determined rates for acute inpatient services, but they were paid on the basis of incurred costs (subject to some limits) for all other services. Hospitals thus had an incentive to allocate as much of their costs as possible to services other than acute inpatient, potentially resulting in an overstated inpatient margin and understated margins for other components. Hence, we use the overall Medicare margin when assessing the adequacy of hospital payments.

How should Medicare payments change in 2005?

The second part of MedPAC's approach to developing payment update recommendations is to account for expected cost changes in the next payment year. For each sector, we review evidence about the factors that are expected to affect providers' costs. One major factor is changes in input prices, as measured by the applicable CMS price index. For most providers, we use the forecasted increase in an industry-specific index of national input prices, called a market basket index. For physician services, we use a similar index, known as the Medicare Economic Index. Forecasts of these indexes are intended to approximate how much providers' costs would rise in the coming year if the quantity, quality, and mix of inputs they use to furnish care were to remain constant.

Several other factors may also affect providers' costs in the coming year:

- *Scientific and technological advances*—Many improvements in medical science and technology enhance quality and reduce providers' costs (or leave costs unchanged). No increase in Medicare's payment rates is needed to accommodate these changes because providers have a financial incentive to adopt them. For medical advances that both improve quality and increase costs, MedPAC can include an allowance in its update recommendation. When reaching this judgment, the Commission takes into account the design of the payment system and how Medicare pays for new technology. For outpatient dialysis services, for example, we judged that a positive allowance was not necessary because the costs of most medical advances are paid for outside of the prospective payment system (MedPAC 2003b).
- *Improvements in productivity*—The Commission believes that Medicare's payment systems should encourage efficiency and that providers should be able to reduce the quantity of inputs required to produce a unit of service by at least a modest amount each year while maintaining service quality. Consequently, we have adopted a policy goal to create incentives for efficiency and include an adjustment for productivity when accounting for providers' cost changes in the coming year. MedPAC's productivity goal is based on a 10-year average of the U.S. Bureau of Labor Statistics' estimate of economy-wide, multifactor productivity growth, which is currently estimated at 0.9 percent. Our approach links Medicare's expectations for efficiency to the gains achieved by the firms and workers who pay taxes that fund Medicare. Market competition constantly demands improved productivity and reduced costs from other firms; as a prudent purchaser Medicare should also require some productivity gains each year. Medicare should expect improvements in productivity consistent with the average realized by the firms and workers that fund it. Historically, providers who are under fiscal pressure slow their cost growth more than those facing less fiscal pressure (MedPAC 2004).

Update and distributional recommendations

MedPAC's approach to updating payments can result in a percentage change that determines the final update recommendation. Coupled with the update recommendation, we may also make recommendations concerning the distribution of payments among providers.

These distributional changes are sometimes, but not always, budget neutral within the payments we judge to be adequate.

The Commission is aware of—and we document in this report—how spending for each recommendation would

compare with expected spending under current law. We develop rough estimates of the impact of recommendations relative to the current budget baseline, placing each recommendation into one of several cost-impact categories. In addition, we assess the likely impact of our recommendations on beneficiaries and providers. ■

Total margins

MedPAC considers the Medicare margin—the difference between Medicare payments and costs for services provided to Medicare beneficiaries expressed as a percentage of payments—as one factor in our assessment of payment adequacy. We can do this only for sectors with data on current Medicare payments and costs—hospitals, skilled nursing facilities, home health agencies, and outpatient dialysis facilities. Total margins—calculated by including payments and costs from all payers and revenues from all business ventures—do not play a role in MedPAC’s judgement of payment adequacy because:

- They are largely unrelated to Medicare margins.
- Medicare policies cannot reliably address a sector’s total financial performance.
- Increasing Medicare margins to offset lower margins of other payers could affect the judgments of other payers.
- They do not reliably measure a sector’s overall financial health.
- Medicare’s payments should not reward inefficient providers.

Total margins are largely unrelated to Medicare margins

Previous MedPAC research shows that for hospitals, at least, overall Medicare margins are not highly correlated with total margins (MedPAC 2003a). Using 1999 data, we concluded that hospitals with negative Medicare margins and those with positive Medicare

margins were almost equally likely to have had positive total margins (Figure 3-2, p. 62). Specifically, we found that 65 percent of hospitals with negative overall Medicare margins had positive total margins, while 69 percent of hospitals with positive overall Medicare margins had positive total margins.

What explains the lack of a consistent relationship between Medicare margins and total margins? Lower rates of return from investment income, lower donations, and poor financial performance of other business ventures will all drive down total margins. In addition, for sectors in which the majority of patient-care revenues are not derived from Medicare—such as hospitals and nursing homes—other payers’ payment policies will have a greater impact than Medicare’s policies on overall financial performance. For example, 70 percent of revenues in hospitals and 88 percent in nursing homes come from other government payers (such as Medicaid) and private sources (primarily private health insurance but also out-of-pocket spending, in the case of nursing homes).

Medicare’s payment policies cannot reliably address total financial performance

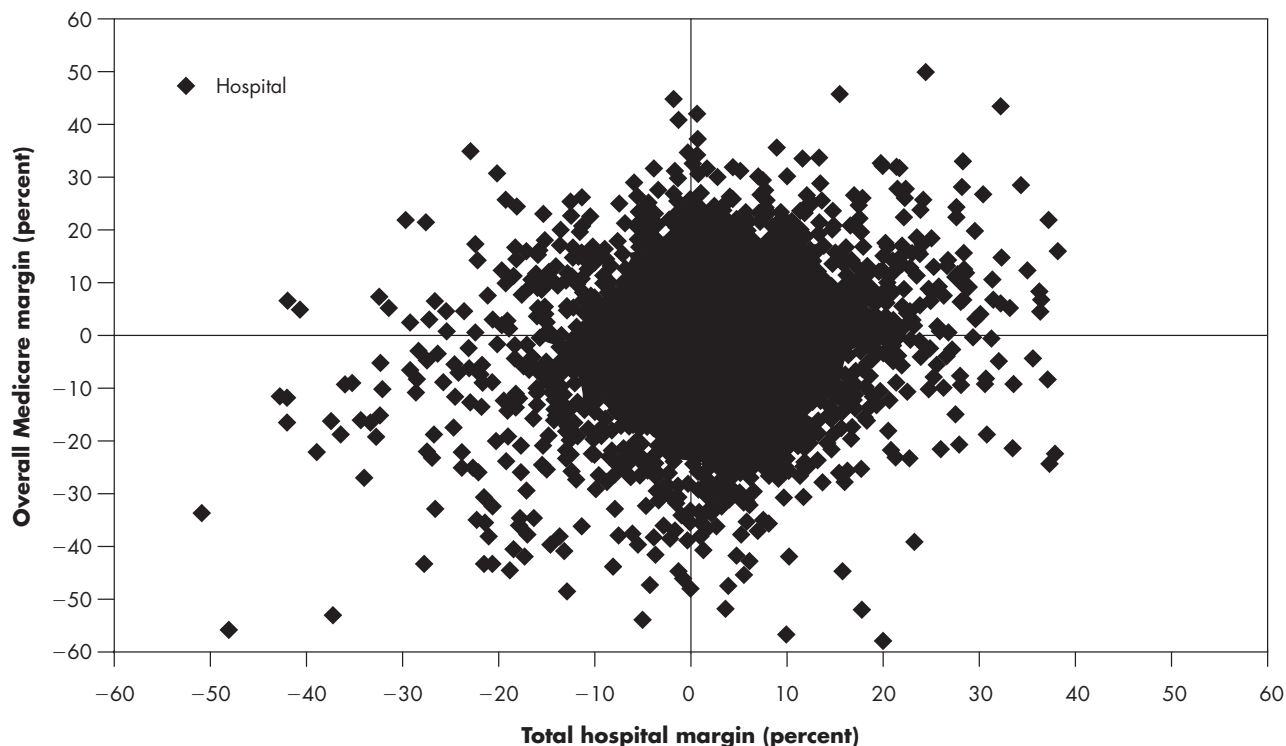
The lack of a consistent relationship between Medicare margins and total margins suggests that changes in Medicare’s payment policies may not provide a targeted tool for addressing the total financial performance of a sector. As MedPAC’s analysis showed, increasing Medicare payments for providers with low Medicare margins would help providers with low total margins but also would help providers with high total margins. The benefit of increasing Medicare payments to providers would be proportionate to their

(continued next page)

Total margins (continued)

**FIGURE
3-2**

Relationship of overall Medicare and total margins, 1999



Note: A margin is calculated as revenue minus costs, divided by revenue. Overall Medicare margin covers the costs and payments of hospital inpatient, outpatient, psychiatric and rehabilitation (prospective payment system-exempt), skilled nursing facility, and home health services, as well as graduate medical education and bad debts. Total margin includes all patient care services funded by all payers, plus nonpatient revenues.

Source: MedPAC analysis of Medicare cost report file from CMS.

Medicare volume. Providers treating a lower volume of beneficiaries would not receive as much benefit from increasing Medicare payments as providers treating a higher volume of beneficiaries.

If Medicare were to offset reductions in the rates of other payers, this might encourage other payers to reduce their payments even more. This, in turn, could adversely affect providers who treat a higher proportion of non-Medicare patients, because they would:

- not benefit from increasing Medicare payments, and
- would be disproportionately hurt by any subsequent reduction in payments from other payers.

If this happened, Medicare's higher payments would not have their intended effect of improving the financial performance of a sector.

Finally, increasing Medicare payments to offset the lower margins by other payers might, in turn, affect the judgments of other payers about what services they pay for. For example, states enact certificate of need regulations to limit the supply of nursing home beds. Using Medicare to offset the decisions of others undermines the pluralistic nature of our system and will increase the program's costs.

(continued next page)

Total margins (continued)

Lack of reliable data to estimate total margins

Total margins derived from the Medicare cost reports may not be a good measure of a sector's overall financial performance. Kane and Magnus (2001) concluded that the information used to calculate total margins for hospitals is poorly defined and lacking in critical detail. Hospital cost reports were never intended to provide comprehensive data on hospital liquidity, solvency, profitability, or cash flows and thus offer limited financial accounting data about the sector's overall financial performance.

Other publicly reported data sources for this sector are also limited in their ability to assess overall financial performance. For nonprofit hospitals, some information about their revenues and expenses may be obtained from the returns these providers are required to file with the Internal Revenue Service (Form 990). However, this data source may not provide complete information about the revenues and expenses of affiliated organizations. And, in some cases, the affiliated organizations may not be clearly delineated.

Other sectors' cost report data may also be limited in their ability to reveal overall financial performance. Again, much of the difficulty stems from our inability to obtain information about all of the entities associated with a provider. For example, a recent filing with the U.S. Securities and Exchange Commission indicated that 47 percent of net revenues reported by a

large nursing home chain were derived from pharmacy services, not from inpatient services. It is unclear how much a total margin derived from the cost reports for inpatient nursing home services would reflect this additional source of revenue.

Two additional points about the reliability of total margins are worth noting. First, it is not always possible to compare total margins across organizations, because different corporate structures lead to different accounting practices. Second, for strategic purposes, providers may decide to show negative total margins for a period of time. For example, Kane and Magnus (2001) noted that the liquidity position of a hospital may gradually deteriorate as it serves as a funding source for the other entities affiliated with it, such as physician practices, foundations, parent companies, and other ventures.

Medicare's payment policies should not reward inefficient providers

Increasing Medicare payments to offset low total margins of some poorly performing providers is a very costly and inefficient strategy. It also might discourage providers from becoming more efficient over time. The Commission believes that Medicare's payment systems should encourage providers to be efficient. The goal of Medicare payment policy is to align payments with *efficient* providers' costs of furnishing health care, and in doing so, maintain beneficiaries' access to high-quality services. ■

Endnotes

- 1 Changes in the volume of physician services must be interpreted cautiously because some evidence suggests that volume goes up when payment rates go down—the so-called “volume offset.”
- 2 Alternatively, the relationship can be expressed as a ratio of payments to costs.
- 3 MedPAC’s comparison of audited cost report data for 1996 with unaudited 1996 outpatient dialysis data showed that the allowable cost per treatment for composite rate services and injectable drugs for freestanding facilities was about 96 percent of the reported cost of treatment.

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3 SECTION A

**Hospital inpatient and
outpatient services**

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

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

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

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

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

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

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

SECTION 3A

Section 3A: Hospital inpatient and outpatient services

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

In this section

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

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

Background

Hospitals provide Medicare beneficiaries with inpatient care for the diagnosis and treatment of acute conditions and manifestations of chronic conditions. They also provide ambulatory care through outpatient departments and emergency rooms. Many hospitals also provide home health, skilled nursing facility (SNF), psychiatric, or rehabilitation services to beneficiaries, often following an inpatient stay. A hospital may provide these services directly (termed “hospital based” by the Medicare program), or they may be provided by a separate organization owned by the same corporate entity as the hospital.

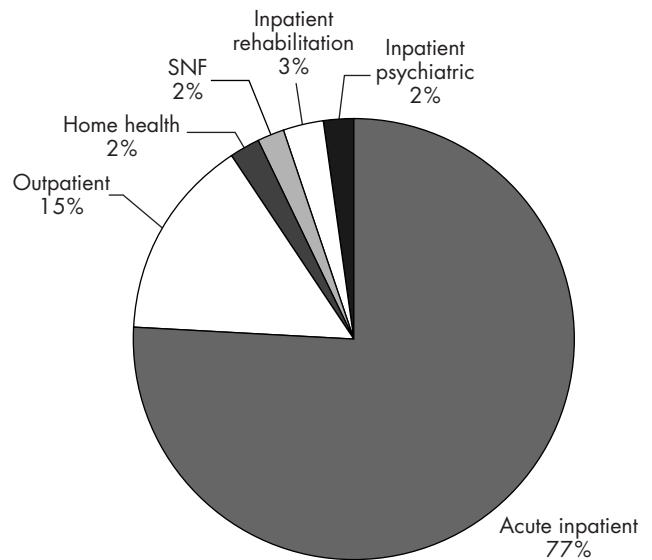
The bulk of Medicare spending on hospitals is for inpatient and outpatient care. Approximately one-fifth of Medicare beneficiaries receive hospital inpatient care and about 60 percent receive care in hospital outpatient departments each year. Medicare purchases inpatient and outpatient care, as well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

Medicare spending on hospitals

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

FIGURE 3A-1

Acute inpatient services account for the majority of hospital payments



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

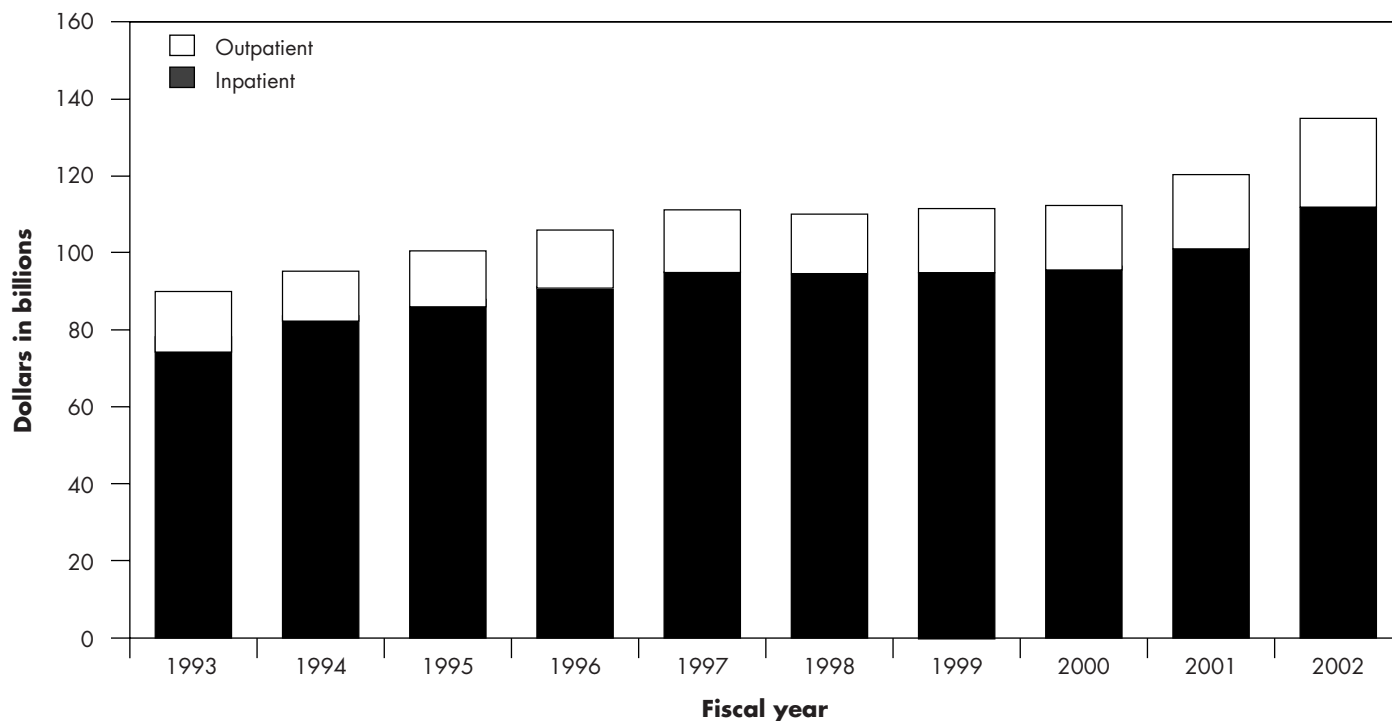
Source: MedPAC analysis of 2001 Medicare Cost Report file from CMS.

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

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

FIGURE 3A-2

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



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

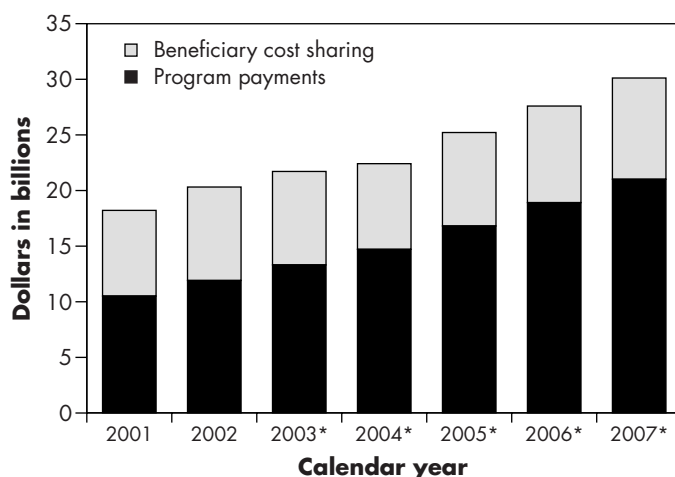
Source: CMS, Office of the Actuary Mid-Session review, 2003.

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

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

FIGURE 3A-3

Medicare outpatient PPS payments are projected to increase steadily



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

Source: CMS, Office of the Actuary.

Medicare's payment systems for hospital inpatient and outpatient services

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

Hospital inpatient payment system

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

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

The inpatient PPS makes additional payments for unusually costly cases and to hospitals with specific characteristics. These payments are intended to recognize differences in patient treatment costs or to accomplish a policy goal. Extremely costly cases qualify for outlier payments in addition to the regular DRG payment, and since fiscal year 2003, hospitals have been eligible for additional payments for the costs of major new technologies. An indirect medical education (IME) adjustment is intended to account for the higher patient care costs of teaching hospitals.³ The disproportionate share (DSH) adjustment provides additional payment for

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

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

Hospital outpatient payment system

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

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

Are Medicare payments adequate in 2004?

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

How did recent legislation change inpatient and outpatient payment policies?

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

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

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

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

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

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

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

Beneficiaries’ access to care

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

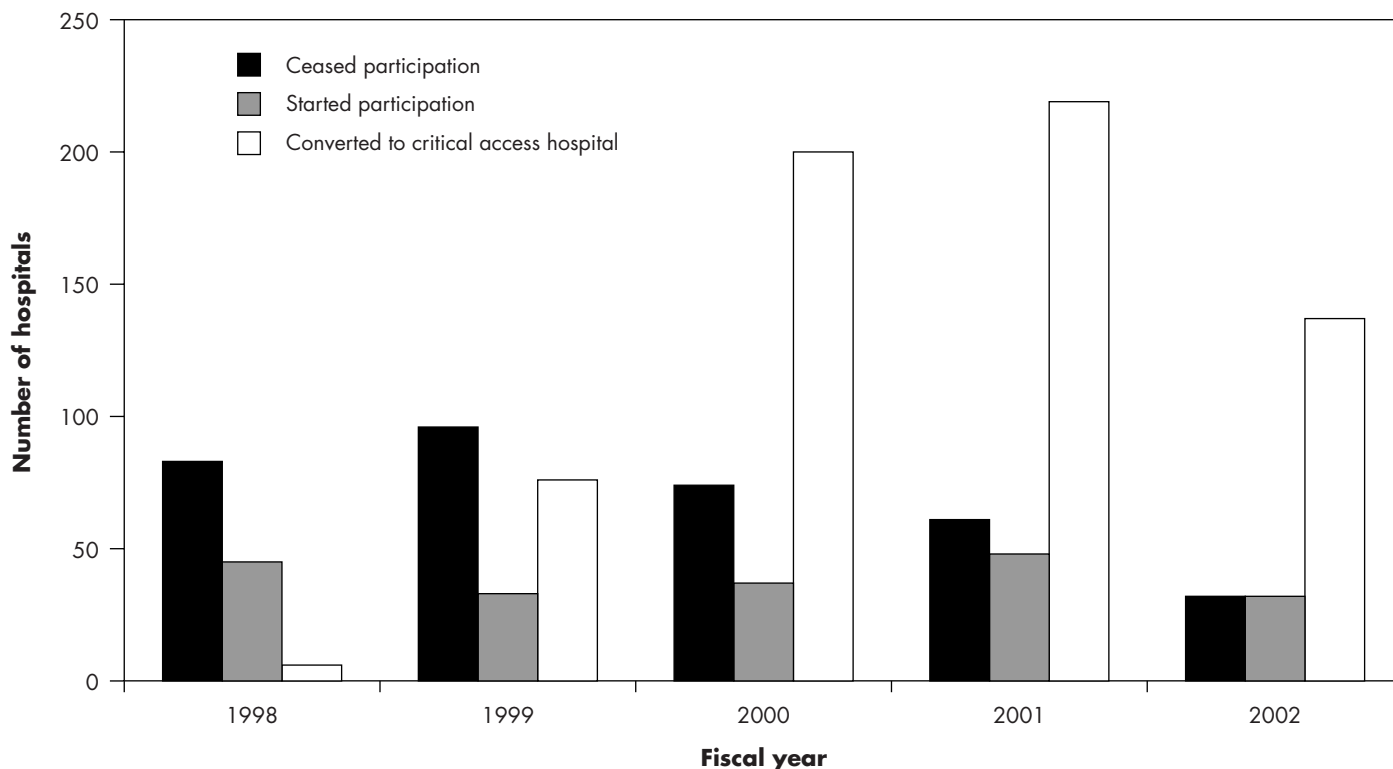
Access to care in rural areas

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

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

FIGURE 3A-4

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



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

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

Hospital participation in Medicare

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

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

Supply of beds

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

Changes in volume of services

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

Inpatient volume

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

TABLE 3A-1

The share of hospitals offering outpatient services has increased slightly

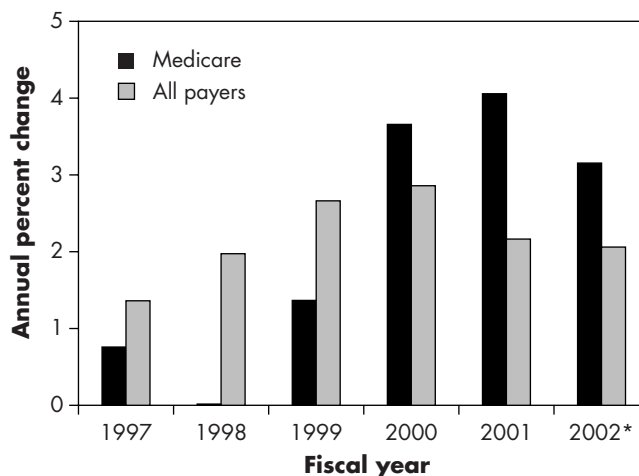
	Outpatient services	Outpatient surgery	Emergency services
1991	92%	79%	91%
1997	93	81	92
2001	94	84	93
2002	94	84	93

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

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

FIGURE 3A-5

Hospital discharges continued to grow through 2002



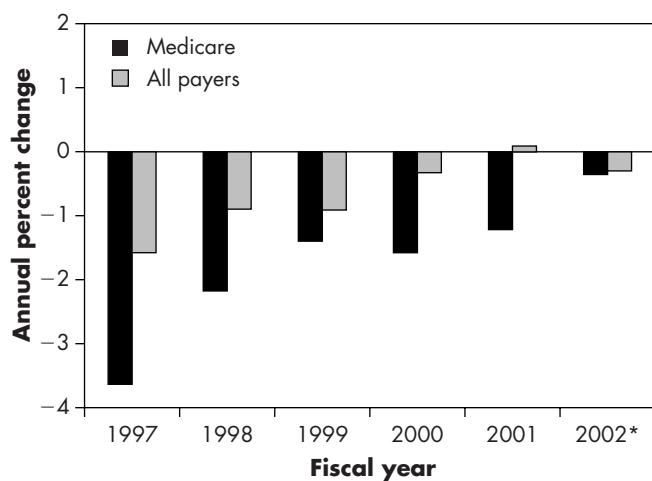
Note: Data are for hospitals covered by the Medicare inpatient prospective payment system in 2002.

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

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

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

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

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

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

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

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

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

Outpatient volume

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

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

Changes in the quality of care

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

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

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

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

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

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

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

Hospitals' access to capital

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

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

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

Investment community concerns

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

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

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

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

Access varies by hospitals' financial condition

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

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

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

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

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

Payments and costs for 2004

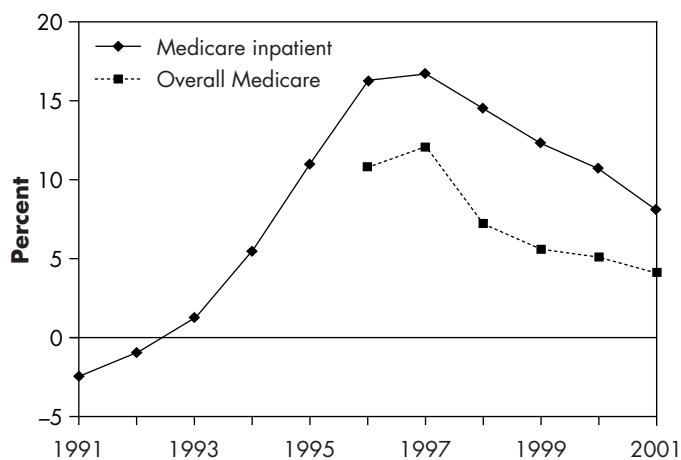
In addition to the market factors discussed above, the Commission considers the estimated relationship between Medicare payments and costs in the current year—fiscal

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

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

FIGURE 3A-7

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



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

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

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

Margins fell in 2002 but little change expected through 2004

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

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

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

TABLE 3A-2

Hospital Medicare margins, 2000–2002

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

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

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

Unit cost growth unusually high in 2001 and 2002

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

TABLE 3A-3

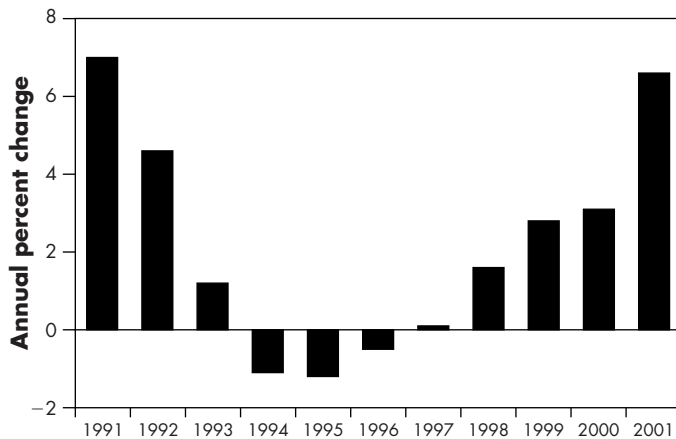
Overall Medicare margin by hospital group, 2000–2002 and estimated 2004

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

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

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

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

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

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

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

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

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

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

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

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

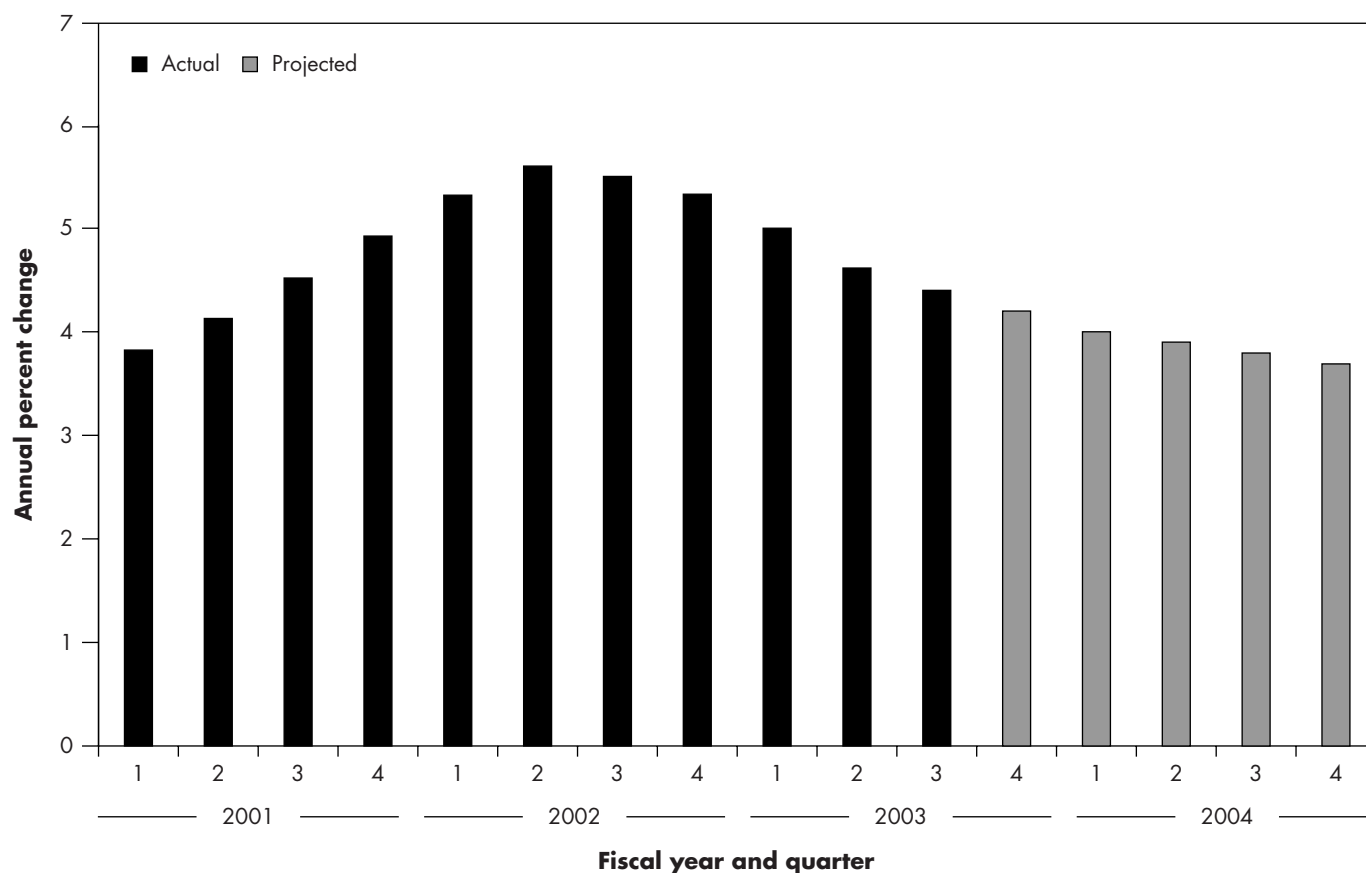
Hospitals, nursing education programs, and state governments have responded to the nursing shortage in a variety of ways, including recruitment and retention programs, sign-on and other bonuses, steps to improve the work environment, accelerated degree programs, and increased scholarship and loan funding.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

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

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

**FIGURE
3A-9**

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



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

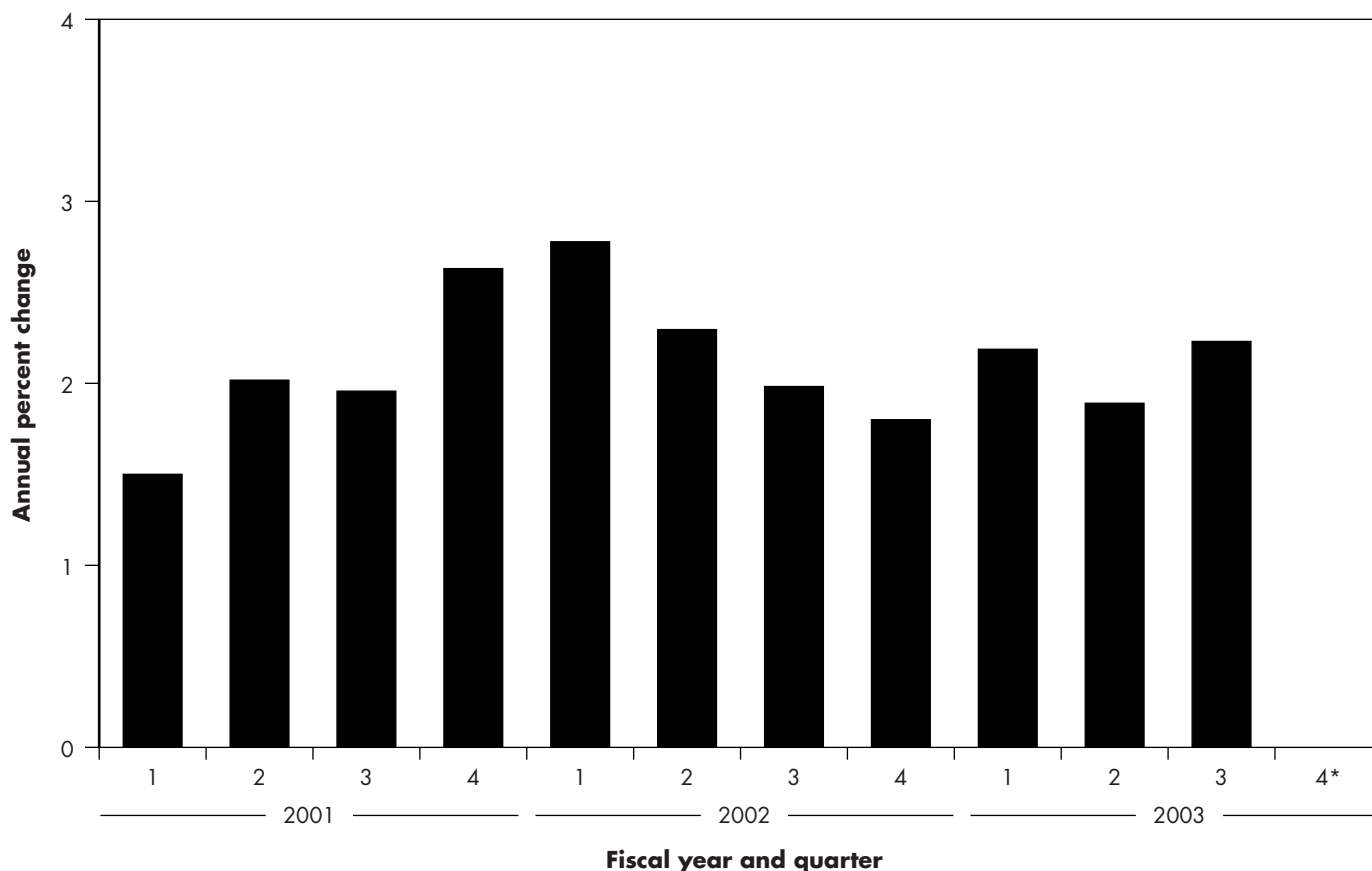
Source: Global Insights, Health Care Cost Review, third quarter 2003.

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

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

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

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

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

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

* Data not available.

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

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

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

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

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

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

Multiple policy changes affect payment growth

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

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

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

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

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

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

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

The distribution of margins will change

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

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

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

Transitional corridor payments

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

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

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

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

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

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

**TABLE
3A-4**

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

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

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

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

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

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

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

How should Medicare payments change in 2005?

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

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

Factors in the update decision

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

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

Conclusion on payment adequacy

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

Changes in input prices

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

Technology

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

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

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

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

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

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

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

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

Productivity

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

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

Update recommendations

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

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

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

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

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

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

RECOMMENDATION 3A-1

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

RECOMMENDATION 3A-2

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

RATIONALE 3A-1 AND 3A-2

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

IMPLICATIONS 3A-1 AND 3A-2

Spending

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

Beneficiary and provider

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

Outpatient outlier provision

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

Why have outlier payments?

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

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

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

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

Variability in costs

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

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

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

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

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

Size of the potential loss

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

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

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

How does the outpatient outlier policy work?

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

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

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

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

Current implementation

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

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

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

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

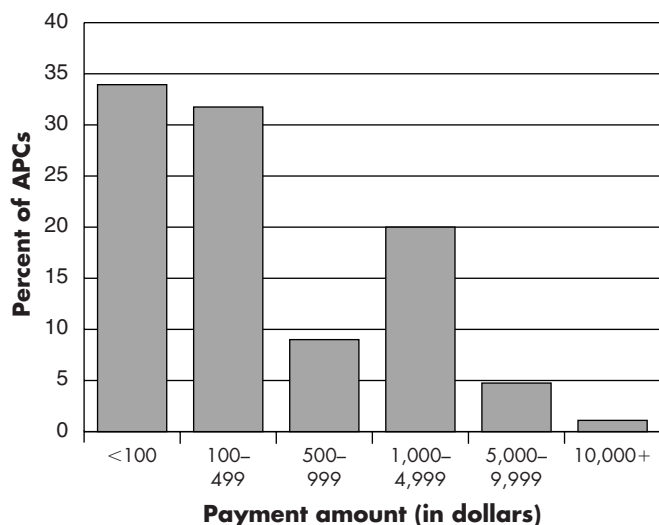
The fiscal intermediaries (FIs) that administer payments under contract with Medicare check whether each APC on a claim has costs high enough to qualify for outlier payment.²³ They estimate costs by reducing a hospital's charges to costs using a single cost-to-charge ratio (CCR) for all outpatient services.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

Implications of the outlier calculation

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

FIGURE 3A-11

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



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

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

Calculating outpatient outlier payments

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

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

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

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

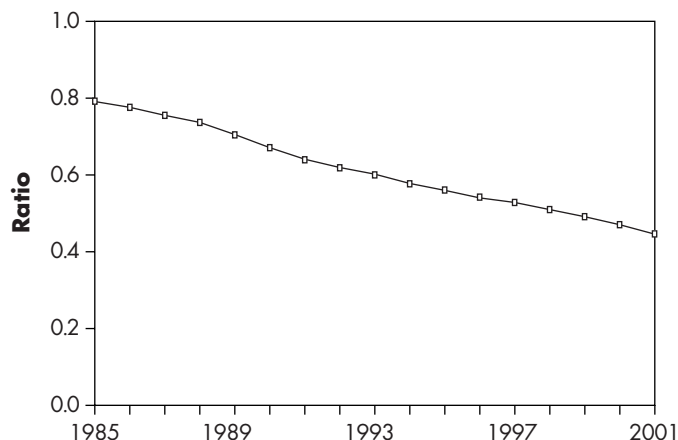
Step 4. The outlier payment equals 50 percent of estimated costs above the threshold, or \$375 (0.5 x \$750).

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

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

FIGURE 3A-12

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



Note: Includes all community hospitals.

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

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

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

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

How were outlier payments distributed in 2001 and 2002?

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

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

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

Outlier payments not evenly distributed across services

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

**TABLE
3A-5**

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

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

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

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

Methodology for assigning outpatient outlier payments to services

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

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

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

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

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

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

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

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

TABLE 3A-6

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

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

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

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

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

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

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

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

TABLE 3A-7

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

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

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

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

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

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

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

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

Outlier payments not evenly distributed among hospitals

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

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

**TABLE
3A-8**

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

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

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

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

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

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

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

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

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

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

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

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

**TABLE
3A-9**

Outpatient outlier payments were not equally distributed across hospitals in 2002

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

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

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

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

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

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

Does the outpatient payment system need an outlier policy?

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

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

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

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

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

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

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

RECOMMENDATION 3A-3

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

RATIONALE 3A-3

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

IMPLICATIONS 3A-3

Spending

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

Beneficiary and provider

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

Endnotes

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

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

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3
SECTION
B

Physician services

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

The Congress should update payments for physician services by the projected change in input prices, less an adjustment for productivity growth of 0.9 percent, in 2005.

COMMISSIONER VOTES: YES 17 • NO 0 • NOT VOTING 0 • ABSENT 0

SECTION 3B

Section 3B: Physician services

In this section

- Are current Medicare payments for physician services adequate?
- How should Medicare payments for physician services change in 2005?
- Update recommendation

To assess the adequacy of Medicare payments for physician services, MedPAC considers several factors, including access to physician care, physician supply, private payment levels, and the volume of physician services. We also examine estimated 2005 input costs for physician services. Our analysis of payment adequacy finds that these indicators are generally positive or neutral. Thus, the Commission recommends that payments for physician services be updated by the projected change in input prices, less an adjustment for productivity growth. This increase in payments would maintain beneficiary access to care and maintain physician willingness and ability to furnish services to Medicare beneficiaries.

Background

Medicare pays for physician services according to a fee schedule. The fee schedule assigns each service relative weights intended to reflect the resources needed to furnish each physician service. These weights are adjusted for geographic differences in practice costs and multiplied by a dollar amount—the conversion factor—to determine payments. In general, Medicare updates payments for physician services by increasing or decreasing the conversion factor.

In 2004, Medicare's payments for physician services increased by a modest amount through a 1.5 percent increase in the conversion factor legislated by the Medicare Prescription Drug, Improvement, and Modernization Act of 2003 (MMA). The Act mandates at least the same update in 2005. Over and above this increase, the MMA targeted additional payments to certain physicians—primarily, those who practice in rural areas (see text box).

Before the MMA was enacted, Medicare was slated to decrease 2004 payments for physician services by about 4.5 percent and 2005 payments by about 1.7 percent. These cuts would have resulted from the implementation

of the sustainable growth rate (SGR) formula required by statute, which ties physician payment updates to a number of factors including growth in the volume of physician services relative to growth in the national economy. MedPAC has discussed the problems associated with the SGR formula in previous reports and continues to follow a two-step approach for making update recommendations for physician services (consistent with the other provider sectors).¹ This approach first considers the adequacy of current payments and then assesses the factors that will affect efficient providers' costs in the coming year—2005.

Are current Medicare payments for physician services adequate?

A discussion of payment adequacy requires collecting and examining indicators related to physician care. First, we consider available information on beneficiary access to physician care, which includes a review of beneficiary and physician survey information and physician supply data. Second, we compare Medicare's reimbursement levels with those of the private sector. Third, we examine changes in the volume of physician services to assess trends that may be associated with payment levels.

The recent Medicare legislation includes several physician payment provisions

In addition to increasing the physician fee schedule's conversion factor by at least 1.5 percent in 2004 and 2005, the Medicare Prescription Drug, Improvement, and Modernization Act of 2003 (MMA) includes provisions that will raise payments for services furnished by many fee-for-service physicians:

- A floor is established for the physician work component of the fee schedule's geographic practice cost index (GPCI). This floor will raise payments for services furnished in areas with below average physician work GPCIs, and will be in place from 2004 to 2006.
- Geographically adjusted payments for services provided in Alaska will increase to become 67 percent higher than the national average. That is, the work, practice expense, and medical malpractice

GPCIs will each be increased to 1.67. This increase will be in effect in 2004 and 2005.

- Services provided by physicians in newly established scarcity areas—determined separately for primary care physicians and specialists—will receive a 5 percent bonus in Medicare payments. This bonus will occur from 2005 to 2007.
- For the pre-existing 10 percent bonus payment to physicians practicing in designated health professional shortage areas, responsibility for identifying eligibility will shift from the individual physician to the Secretary of Health and Human Services. These automatic 10 percent bonus payments will start in 2005.

A service furnished in an area that qualifies for both the scarcity area bonus and the shortage area bonus can receive both incentive bonuses described above. ■

As with other sectors, MedPAC’s framework for assessing payment adequacy for physician services relies on indicators of beneficiary access to physicians and physician willingness to serve Medicare beneficiaries. Physicians are not required to report their costs to Medicare as are other providers—such as hospitals. Thus, we do not look at financial performance directly, and focus our payment adequacy assessment more intensely on monitoring trends in beneficiary access and physician availability. Indeed, as discussed in our March 2003 report, MedPAC assessed physician response to cuts in 2002 fee schedule payments through a physician survey. Results from this survey inform our current analysis of payment adequacy.

Our review of trends in access and payment adequacy do not reveal problems at the national level, but the Commission finds that it is important to understand and monitor variations among different markets and among different services and physician specialties. For example, the distribution of payments—among market areas, services, or specialties—may not be optimal even if the overall level of payments is adequate. Indeed, surveys sponsored by the Centers for Medicare & Medicaid Services (CMS) find geographic variation in beneficiary access to physician care.² MedPAC continues to examine these issues to inform future discussions, but the current update analysis is based primarily on information at the national level.

Beneficiary access to physician services

Physicians are often the most important link between Medicare beneficiaries and health care. Some 80 percent of noninstitutionalized beneficiaries report that a doctor’s office or a doctor’s clinic is their usual source of care (CMS 2003). Monitoring access to physicians, therefore, helps us evaluate beneficiaries’ access to health care.

To assess beneficiary access to physician services, this section examines results from surveys of beneficiaries and reviews data on physician supply and physicians’ willingness to serve Medicare patients. By design, many of the surveys’ questions rely on respondents’ own views. For example, respondents use their own judgment when determining if they are able to schedule timely appointments. Subjective responses can be useful measures for tracking beneficiary experience and perceptions, particularly over time.

Our analysis of access to physician services includes data collected in 2002, when the fee schedule’s conversion

factor decreased by 5.4 percent. Despite this decrease, most indicators do not imply a significant reduction in beneficiaries’ access to physician care during 2002. Further, in cases where we are able to analyze 2003 data, we find that, on a national level, access to physician care was good in 2003.

Beneficiary assessment of access to physicians

Results from several different surveys conducted between 2000 and 2003 show that beneficiary access to physicians appears to be good overall. The majority of beneficiaries report that they are able to find new doctors and schedule medical appointments in a reasonable amount of time. Small subsets of beneficiaries, however, report that they experience problems in this regard. Because most surveys do not compare access measures between Medicare beneficiaries and other privately insured people, it is difficult to determine the extent to which access problems, such as appointment delays, are unique to the Medicare population. Available research, which has compared these populations, has found an increase in access concerns for both populations between 1997 and 2001 (Trude and Ginsburg 2002).

A large and relatively new beneficiary survey—the Consumer Assessment of Health Plans Survey for Medicare fee-for-service (CAHPS-FFS)—provides useful information on access to physician care. This annual CMS-sponsored survey is conducted primarily through the mail; it samples between 100,000 and 120,000 beneficiaries each year, including community-dwelling, institutionalized, and disabled individuals. Chapters 1 and 2 of this report provide more detailed discussions of the CAHPS-FFS survey.

Results from the CAHPS-FFS survey indicate that beneficiaries usually consider physicians to be their main source of health care, and increasingly, these physicians are generalists rather than specialists. Among the 89 percent of beneficiaries who reported having a “personal” provider in 2002, 86 percent said that this provider was a generalist, and 12 percent said he or she was a specialist. Between 2000 and 2002, the share of beneficiaries who reported a generalist to be their regular provider increased by 3 percentage points, while the share of beneficiaries who reported a specialist to be their regular provider fell 3 percentage points.

This survey also asked about problems obtaining health care, seeing specialists, and scheduling medical

**TABLE
3B-1**

Most beneficiaries report good access to necessary, specialty, and routine care, 2000–2002

Survey question	2000	2001	2002
Within the past 6 months. . . .			
If you or your doctor believed you needed care (e.g., tests or treatment), how much of a problem, if any, was it to get this care?			
No problem or small problem	97.0%	97.5%	97.1%
Big problem	2.9	2.5	2.9
If you or your doctor thought you needed to see a specialist, how much of a problem, if any, was it to see a specialist?			
No problem or small problem	93.6	94.8	94.3*
Big problem	6.4	5.2	5.7*
If you made an appointment for regular or routine care, how often did you get an appointment as soon as you wanted?			
Always or usually	92.5	92.1	90.3*
Sometimes	6.4	6.7	7.9*
Never	1.2	1.2	1.8*

Note: *Indicates a statistically significant change between 2000 and 2002, at a 95% confidence level ($p < 0.05$). $N > 100,000$. Numbers may not add to 100 percent due to rounding.

Source: MedPAC analysis of 2000–2002 Consumer Assessment of Health Plans Survey (CAHPS) data for fee-for-service Medicare from CMS.

appointments. As discussed in Chapter 1, almost all beneficiaries (97 percent) in 2002 reported small or no problems receiving care that they or their doctor thought was necessary (Table 3B-1). Additionally, 94 percent of beneficiaries reported that they had small or no problems seeing a specialist when necessary. When asked specifically about the timeliness of scheduling an appointment for regular or routine care, 90 percent reported that they usually or always received care as soon as they wanted. This share dropped from 93 percent in 2000, suggesting that continued monitoring of this access indicator is important.³

In an effort to obtain more timely data on beneficiary access to physician services, MedPAC has begun sponsoring a telephone survey to Medicare beneficiaries age 65 and over (Berk and Schur 2003). Although this survey—interviewing about 1,000 beneficiaries per round—is much smaller in scope than the CAHPS-FFS

survey, it provides useful, more up-to-date information on trends in access to physician services.⁴ The initial round of the survey was conducted in the fall of 2003, and provides baseline information.

Results from this initial survey indicate that 93 percent of beneficiaries who were seeking a new physician reported that they encountered small or no problems; 5 percent reported big problems; and 2 percent reported being unable to find a new doctor. When asked about access to specialists, similarly, 93 percent of beneficiaries who tried to find a new specialist reported having small or no problems finding one; 3 percent reported a big problem; and 2 percent reported being unable to find a new specialist. (One percent responded that they did not know.)

This telephone survey also found that most beneficiaries did not typically encounter delays when trying to schedule doctor appointments for both routine and illness- or injury-related care. For routine care, 71 percent of the beneficiaries who tried to schedule an appointment reported that they never experienced delays; 21 percent reported that they sometimes experienced delays; 3 percent said they usually experienced delays; and 5 percent said that they always experienced delays. Compared to the CAHPS-FFS survey, a higher share of beneficiaries in this MedPAC survey sometimes encountered appointment delays and fewer never encountered delays.

As expected, for illness- or injury-related needs, beneficiaries' ability to schedule timely appointments was better. Specifically, 80 percent of the beneficiaries who tried to schedule an appointment for an illness or injury reported that they never experienced delays; 16 percent said they sometimes experienced delays; 3 percent said they usually experienced delays; and 1 percent said that they always experienced delays.

For our access analysis, we also examined surveys conducted between 1997 and 2001 by the Center for Studying Health System Change (HSC), which compared Medicare beneficiaries' access to care to that of privately insured people aged 50 to 64 (near elderly).⁵ In general, these results suggest that both populations encountered somewhat growing rates of access problems between 1997 and 2001. Medicare beneficiaries tended to fare somewhat better, though this difference may be closing (Trude and Ginsburg 2002). For example, in 1997, 16 percent of the Medicare beneficiaries who reported delaying or not obtaining care said that they could not get an appointment soon enough, compared with 21 percent of

the privately insured, near elderly respondents. By 2001, this share had grown to 24 percent for Medicare beneficiaries and 25 percent for the privately insured near elderly (Ginsburg 2002).

Changes in supply of physicians

The number of physicians furnishing services to Medicare beneficiaries has more than kept pace with the growth in the beneficiary population in recent years (Table 3B-2). From 1995 to 2002, the number of physicians billing traditional Medicare grew by 10 percent, but Medicare Part B enrollment grew by only 6.5 percent. This difference in growth rates led to an increase in the number of physicians per 1,000 beneficiaries, from 12.9 to 13.4. Note, however, that the number of physicians per Medicare beneficiary does not necessarily reflect the share of beneficiaries in physicians' patient caseloads; some physicians in this count may treat relatively few beneficiaries per year, while others may treat mostly Medicare beneficiaries.

When comparing 1991 with 2001, the General Accounting Office (GAO) also found increases in physician supply across the United States. GAO reports that during the study period, the number of physicians in the U.S. increased by 26 percent—twice the rate of total population

growth in the study period. The mix of generalists to specialists remained about the same—one-third generalists to two-thirds specialists (GAO 2003). The increase in physician supply compared to the total population parallels the increase in the number of physicians billing Medicare per beneficiary.

Assignment and participation rates

To supplement our data on the supply of physicians treating Medicare patients and patients' access to physician care, we examine assignment rates—the share of allowed charges for which physicians accept assignment—and physician participation rates—the share of physicians signing Medicare participation agreements. (The text box on p. 110 provides related definitions.) Based on claims data from 2002, 99 percent of allowed charges for physician services were assigned (Figure 3B-1). That is, for almost all allowed services, physicians agreed to accept the Medicare fee schedule amount as the service's full charge.

TABLE 3B-2

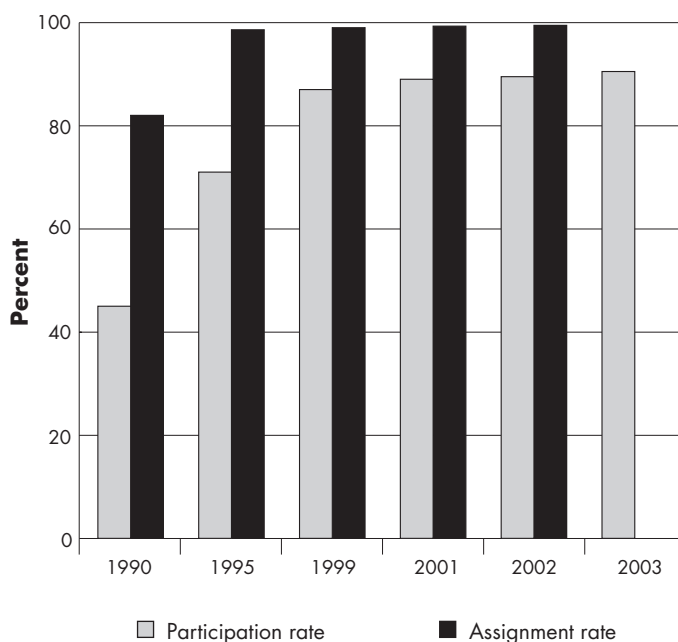
The number of physicians billing fee-for-service Medicare is increasing, 1995–2002

Year	Number of physicians	Part B enrollment (millions)	Number of physicians per 1,000 beneficiaries
1995	460,700	35.641	12.9
1996	469,915	36.104	13.0
1997	476,164	36.445	13.1
1998	478,123	36.756	13.0
1999	484,576	37.022	13.1
2000	489,067	37.315	13.1
2001	494,718	37.657	13.1
2002	506,594	37.946	13.4

Note: The number of physicians includes allopathic and osteopathic physicians and excludes nurse practitioners, physician assistants, psychologists, and other health care professionals. The denominator is the number of beneficiaries enrolled in Medicare Part B, including traditional Medicare and Medicare+Choice, on the assumption that physicians are providing services to both types of beneficiaries.

Source: MedPAC analysis of unpublished CMS data.

FIGURE 3B-1 Participation and assignment rates have grown to high levels



Note: Participation rate is the percent of physicians signing Medicare participation agreements. Assignment rate is the percent of allowed charges paid on assignment. The assignment rate for 2003 is not shown; it requires calculations from claims not yet available.

Source: Committee on Ways and Means' Green Book (2000), unpublished CMS data, and MedPAC analysis of 2002 claims for a 5 percent random sample of Medicare beneficiaries.

What it means when physicians accept assignment, participate, or balance bill

A **cept assignment**—A physician is able to choose whether or not to accept assignment on a claim paid under the fee schedule. When accepting an assigned claim, the physician bills the program directly and is typically paid an amount equal to 80 percent of the fee schedule amount. The physician may not charge the beneficiary more than the applicable deductible and coinsurance amounts. In the case of nonassigned claims, the physician still bills the program directly; however, Medicare reimburses the beneficiary, rather than the physician. Consequently, the beneficiary is liable for the physician's charges, which includes the difference between the fee schedule amount and the physician's actual charge—the balanced bill amount (described below).

Participate—A physician participates, or becomes a participating provider, by voluntarily signing an agreement with Medicare to accept assignment on all claims for the forthcoming year. There are a number of

incentives for physicians to become participating physicians, chief of which is higher fee schedule payments. Allowed charges for nonparticipating physicians are only 95 percent of the fee schedule amounts; participating physicians can receive the full fee schedule amount. Nonphysician practitioners who bill Medicare Part B may also sign Medicare participation agreements.

Balance bill—Balance billing occurs when a physician's charges exceed the fee schedule amount. Medicare limits the amount physicians may balance bill the patient. The total nonassigned charges for a service may not exceed the fee schedule amount by more than 9.25 percent.⁶ Given the limitations on balanced billing and the small share of charges at the unassigned amount, the average annual beneficiary liability for balance billing is quite small. The extent of balance billing, however, varies by physician location and specialty. ■

Further, while 95.6 percent of allowed charges were for services furnished by participating physicians, 3.6 percent were for services furnished by nonparticipating physicians who decided to accept assignment. Only 0.9 percent of allowed charges were for services furnished by nonparticipating physicians who did not accept assignment. For these nonassigned charges, physicians likely billed higher amounts, making the beneficiary liable for added coinsurance, a practice known as balance billing.

The high share of charges with accepted assignment is likely due in large part to the additional, valuable benefits physicians receive when accepting assignment and signing Medicare participation agreements. When physicians accept assignment, they can receive payments directly from Medicare (less the beneficiary cost-sharing portion) rather than collecting from the beneficiary. A high rate of assigned charges also reflects the high rate of physicians who agree to participate in Medicare—91 percent in 2003 (Figure 3B-1). Participating physicians agree to accept assignment on *all* allowed claims, in exchange for a 5 percent higher payment on allowed charges than nonparticipating physicians. Participating physicians receive other valuable benefits, including the listing of their name and contact information on Medicare's website,

and the ability to verify a patient's Medicare eligibility and Medigap status. Medicare's physician participation agreement does not place any requirements on physicians to take Medicare patients.

Physicians' willingness to accept new beneficiaries
A key indicator in examining physician supply is the degree to which physicians are accepting new Medicare patients into their practices. In general, the most recently available data indicate that most physicians practicing in the United States are willing to accept new Medicare beneficiaries, particularly those who have a practice with a relatively large proportion of Medicare patients already.

The smaller share of physicians who report reluctance to serve Medicare beneficiaries may be responding to a variety of factors other than, or in addition to, payment adequacy. These other factors may include the administrative burden of Medicare, local physician supply, demand for physician services, local market insurance conditions, dependence on referrals, size of Medicare patient caseload, and the amount of time physicians are willing to devote to patient care. Unfortunately, it is difficult to disentangle these other factors. Consequently, our discussion on physician willingness to serve Medicare

patients is limited to physician responses to simple questions on whether they provide care to Medicare patients. Where possible, we also compare physicians' willingness to accept Medicare patients with their willingness to accept all patients.

The most recent survey information on physicians' willingness to serve new Medicare beneficiaries comes from the National Ambulatory Medical Care Survey (NAMCS). This survey is conducted in 52 reporting periods during the year to ensure that responses are evenly spread throughout the year. Results from the 2002 NAMCS survey indicate that 95 percent of office-based physicians reported that they accepted any new patients and 93 percent of physicians with at least 10 percent of their practice revenue coming from Medicare accepted any new Medicare patients. These figures do not differ significantly from the percentage reported on the 2001 NAMCS (Burt 2003).

This finding is similar to results from a 2002 MedPAC-sponsored survey of physicians who spent at least 10 percent of their time with Medicare fee-for-service (FFS) patients. This study was started in April of 2002, after physicians had time to learn about and react to a fee schedule conversion factor cut of 5.4 percent. It found that among physicians who were accepting *any* new patients, 96 percent were accepting some or all new FFS Medicare patients. The percentage accepting *all* new Medicare patients, however, was lower, at about 70 percent. Further, physicians reported that they were more likely to accept Medicare patients than Medicaid, HMO, uninsured, self-pay, and charity care patients, but less likely to accept Medicare FFS patients than private FFS and preferred provider organization (PPO) patients (Schoenman and Feldman 2003).⁷

HSC surveys conducted between 1997 and 2001 also compare physicians' willingness to accept new Medicare patients with their willingness to accept new privately insured patients (Trude and Ginsburg 2002). The proportions in both cases fell at about the same rate. Specifically, the proportion of physicians accepting all new Medicare patients fell from 75 percent in 1997 to 71 percent in 2001; the proportion of physicians accepting all new privately insured patients fell from 71 to 68 percent. (Note that this rate does not include physicians who accept some but not all Medicare beneficiaries.)

Some local market analyses reveal that physician surveys and patient surveys produce seemingly contradictory

results. HSC found that in some local markets, patients' assessments of access to physician care do not necessarily track with physicians' willingness to accept patients. In Boston, for example, HSC found relatively high rates of appointment delays reported by Medicare and privately insured, near elderly patients, but relatively low rates of physician unwillingness to accept these patients. The reverse effects were reported in the Seattle area (Hargraves et al. 2003).

Private payer reimbursement for physician services

Medicare purchases many of the same types of physician services as private payers—traditional indemnity insurers, PPOs, HMOs—and Medicaid. Historically, Medicare's payment rates for physician services have been below private insurers' rates, on average (PPRC 1996). If Medicare's payment rates fall relative to the rates of other payers, some physicians may stop accepting Medicare patients and instead focus their practices on other patients. A widening of the gap between Medicare and private rates may not lead to access problems for beneficiaries, however. Multiple factors influence access to care, including the supply of physicians, supplemental insurance coverage, and the administrative burden for physicians of one payer relative to another.

To assess Medicare's position in the marketplace over time, MedPAC hired a contractor—Direct Research, LLC—to compare Medicare rates for physician services with those of private insurers (Hogan 2003). Using two large claims databases, the contractor analyzed trends in Medicare rates for physician services relative to private rates.⁸ Previous work by this contractor has shown that, through 2001, the difference between Medicare and private rates had decreased since the mid-1990s. Shifts in private plan enrollment from higher-paying indemnity plans to lower-paying PPOs and HMOs accounted for most of the decline. Medicare's rates were about 66 percent of private rates in 1994, but this percentage had risen to about 83 percent in 2001.

Analysis of 2002 data shows that the gap between Medicare and private rates widened (Hogan 2003). It is still much narrower than it was in the mid-1990s, however. The factors behind the change in 2002 were:

- Average private rates for physician services dropped slightly—1 percent. The main factor was a continued shift of private enrollment from plans with relatively

high payment rates, such as traditional indemnity insurance, to plans with lower payment rates, such as preferred provider organizations.

- Medicare’s payment rates dropped more than private rates in 2002, with a 5.4 percent decrease in the physician fee schedule’s conversion factor. This reduction was mitigated somewhat by the increases in payment rates for non-fee schedule services—laboratory services and Part B drugs—that are included in CMS’s definition of physician services.

The net effect was that overall Medicare rates for physician services, as a percentage of private rates, went from 83 percent, in 2001, to 81 percent, in 2002.

Changes in the volume of physician services used

Changes in the volume of services are another indicator of the adequacy of Medicare’s payments for services. If the overall volume of services provided to beneficiaries falls, it may mean that providers are offering fewer services because payments are inadequate. Conversely, large increases in volume growth may indicate that Medicare is overpaying for services. However, data on growth in the volume of physician services must be interpreted cautiously; some evidence suggests that volume goes up when payment rates go down, the so-called volume offset (Codespote et al. 1998). Such a volume offset, if it occurs, makes interpreting an increase in the volume of physician services very difficult.

Bearing this in mind, we analyzed growth in the volume of physician services using claims data for 1999 through 2002. We measured volume as per capita use of physician services by beneficiaries in fee-for-service Medicare. For this measure, units of service were weighted by each service’s relative weight from the physician fee schedule. The result is a measure of volume growth that accounts for changes in both the number of services and the complexity, or intensity, of those services.

Across all services, volume growth rates have increased:

- 5.6 percent, from 2001 to 2002,
- 5.4 percent, from 2000 to 2001, and
- 4.3 percent, from 1999 to 2000.^{9,10}

Among broad categories of services—major procedures, evaluation and management, other procedures, imaging, and tests—growth rates vary, but all are positive. Imaging and tests grew the most. From 2001 to 2002, the imaging growth rate is 9.4 percent, and the growth rate for tests is 11.1 percent.

Within these categories, some services grew much faster than others (Table 3B-3). From 2001 to 2002, we see the highest growth in volume—approaching 20 percent—of nuclear medicine, computed tomography, magnetic resonance imaging, laboratory tests, and minor procedures which include outpatient rehabilitation.

By contrast, some services show decreases in volume. Those services include coronary artery bypass graft (CABG), hip fracture repair, colectomy, and arthroscopy. No evidence suggests that these decreases are due to inadequate payments, however. Some of the decreases are small, in a range from 1.6 percent to 2.3 percent. The decrease in arthroscopy volume in 2002 follows relatively rapid growth in previous years and may not signal a change in access for Medicare beneficiaries. For example, research results published in 2002 raised questions about the efficacy of arthroscopy in the treatment of osteoarthritis of the knee, so the decline may be a response to medical knowledge (Moseley et al. 2002).

The decrease in CABG volume is larger than for other services, at 4.1 percent from 2001 to 2002. One likely explanation for this decrease is that it represents substitution of one service for another. Specifically, the CABG decrease is occurring at the same time that there is greater use of coronary angioplasty, which is a newer procedure for treating coronary artery disease.

How should Medicare payments for physician services change in 2005?

In addition to considering current payment adequacy, the MedPAC update framework also analyzes changes in costs projected for the coming year. For physicians, we examine two factors to forecast input costs: change in input prices and MedPAC’s policy goal for productivity growth. Input price change generally reflects inflationary growth and thereby increases expected physician expenses; productivity growth, on the other hand, reduces costs and thereby decreases expected physician expenses.

**TABLE
3B-3****Use of physician services in fee-for-service Medicare, for selected services, 1999–2002**

Type of service	Percent change in units of service per beneficiary		Percent change in volume per beneficiary		Percent of total volume
	Average annual 1999–2001	2001–2002	Average annual 1999–2001	2001–2002	
All services	3.8%	5.1%	4.9%	5.6%	100.0%
Evaluation and management					
Office visit—established patient	2.2	2.8	2.7	4.0	18.3
Hospital visit—subsequent	1.9	2.6	2.1	4.0	8.5
Consultation	4.6	4.2	5.8	6.0	5.9
Emergency room visit	4.1	2.8	6.9	6.6	2.7
Hospital visit—initial	0.3	1.1	0.4	1.8	2.2
Office visit—new patient	0.4	1.2	0.1	0.9	2.1
Nursing home visit	-0.8	1.2	0.3	3.5	1.8
Imaging					
Echography—heart	9.2	9.8	11.0	13.1	2.0
Standard—nuclear medicine	14.7	12.1	18.0	17.1	1.9
Advanced—CT: other	14.5	13.8	16.4	16.5	1.8
Advanced—MRI: other	18.5	15.3	22.3	17.4	1.5
Standard—musculoskeletal	3.5	3.7	5.5	6.5	1.2
Advanced—MRI: brain	19.2	12.3	16.1	13.8	1.0
Standard—chest	-0.4	1.9	-1.1	1.2	0.8
Advanced—CT: head	5.6	5.6	4.9	5.3	0.4
Imaging and procedure—heart, including cardiac catheterization	6.9	3.2	8.8	6.4	0.3
Major procedures					
Coronary artery bypass graft	0.0	-2.8	-1.8	-4.1	0.9
Knee replacement	9.0	10.4	8.2	9.5	0.7
Coronary angioplasty	9.9	5.7	8.8	5.1	0.5
Hip fracture repair	-1.4	-2.2	-1.2	-1.6	0.4
Hip replacement	7.7	3.7	7.4	3.1	0.4
Explore, decompress, or excise disc	10.3	5.6	11.7	5.5	0.4
Colectomy	0.6	-1.5	-0.6	-2.3	0.3
Other procedures					
Minor—other, including outpatient rehabilitation	18.6	20.1	16.2	18.3	3.4
Cataract removal and lens insertion	-0.3	3.4	-0.2	3.5	2.1
Colonoscopy	12.4	9.1	12.0	10.0	1.2
Upper gastrointestinal endoscopy	4.4	3.6	3.5	3.5	0.6
Cystoscopy	1.7	1.5	0.9	4.0	0.6
Arthroscopy	13.7	-4.4	13.4	-2.3	0.3
Tests					
Electrocardiogram	1.0	3.0	1.1	3.3	0.8
Cardiovascular stress test	9.1	8.7	10.4	12.0	0.5
Electrocardiogram monitoring	1.9	5.4	3.4	6.6	0.2
Lab test—other (physician fee schedule)	12.2	14.0	13.9	16.9	0.2

Note: CT (computed tomography). Volume is measured as units of service multiplied by each service's relative weight (relative value units) from the physician fee schedule. To put service use in each year on a common scale, we used the relative weights for 2002. For billing codes not used in 2002, we imputed relative weights based on the average change in weights for each type of service.

Source: MedPAC analysis of claims data for 100 percent of Medicare beneficiaries from all 12 months of each year.

**TABLE
3B-4****Medicare Economic Index weights
and forecasted input price changes
for physician services for 2005**

Input component	Category weight (percent)	Price changes for 2005 (percent)
Total	100.0%	3.5%
Physician work	52.5	3.4
Wages and salaries	42.7	3.3
Fringe benefits (nonwage compensation)	9.7	4.0
Physician practice expense	47.5	3.6
Nonphysician employee compensation	18.7	3.5
Wages and salaries	13.8	3.3
Fringe benefits (nonwage compensation)	4.8	4.1
Office expense	12.2	2.1
Professional liability insurance	3.9	9.4
Medical equipment	2.1	2.4
Drugs and supplies	4.3	2.7
Pharmaceuticals	2.3	3.1
Medical materials and supplies	2.0	2.0
Other professional expenses	6.4	2.5

Note: Forecasted price changes for individual components are calculated by multiplying the component's weight by its price proxy. Forecasted price changes are not adjusted for productivity. Numbers may not total exactly because of rounding.

Source: Unpublished, fourth-quarter 2005 estimates from CMS, dated December 12, 2003.

Input price inflation

To measure input price inflation for physician services, we use the Medicare Economic Index (MEI), which CMS constructs from various datasets on price information and survey data supplied by the American Medical Association (AMA). The MEI provides a weighted average of price changes for inputs used to furnish physician services. For 2005, the MEI forecasts that input prices for physician services will increase by 3.5 percent (Table 3B-4).

Within this aggregate estimate of input cost increases are individual input cost changes. CMS sorts the specified inputs into two major categories: physician work and physician practice expense. Physician work includes salaries and fringe benefits allotted for physicians. Physician practice expense includes nonphysician employee compensation, office expenses, professional liability insurance (PLI), drugs and supplies, and medical equipment.

To calculate the projected costs for these inputs, CMS first estimates the share—or weight—of physicians' practice revenues attributable to each input, based primarily on data supplied by the AMA. CMS attributes 52.5 percent of physician revenues to physician work and 47.5 percent to practice expense, which includes a PLI weight of 3.9 percent (CMS, 2003).¹¹

Compared with the data used to determine the input weights, the data used to forecast input price changes is more timely. CMS currently projects that from 2004 to 2005, input prices for physician work will increase 3.4 percent, based on increases of 3.3 percent in wages and salaries and 4.0 percent in nonwage compensation. Practice expenses are projected to increase by 3.6 percent. This projection includes a 9.4 percent increase in PLI, which continues to be the fastest growing input cost. As 2005 approaches, this figure may change to reflect updated premium information.

Some physicians—particularly those practicing in certain geographic areas and those whose specialty includes high-risk procedures—report PLI premium increases that are much higher, and thus make up a significantly higher percentage of their revenues than forecasted in the MEI. The MEI, however, is not designed to reflect price changes for individual physicians nor their patient caseloads, but is instead designed to account for an *average* price change for all physicians (see text box on p. 116).

Productivity growth

As discussed in the beginning section of this chapter, which outlines MedPAC's framework for analyzing payment adequacy, the Commission believes that efficient providers should be able to reduce the quantity of inputs required to produce a unit of service by at least a modest amount each year while maintaining service quality. MedPAC has adopted this policy standard, or goal, to encourage provider efficiency when making its update recommendation. MedPAC has determined that achievable productivity growth—based on a 10-year average of the Bureau of Labor Statistics' estimate of economy-wide, multifactor productivity growth—is currently 0.9 percent for 2005.¹² By considering both productivity growth and forecasted input price inflation, we expect the cost of producing physician services to increase by about 2.6 percent during the coming year.

Update recommendation

RECOMMENDATION 3 B

The Congress should update payments for physician services by the projected change in input prices, less an adjustment for productivity growth of 0.9 percent, in 2005.

RATIONALE 3 B

Our analysis finds that current Medicare payments for physician services are adequate. Currently, the projected change in input prices for 2005 is 3.5 percent and MedPAC's standard for 2005 productivity growth is 0.9 percent. Because the forecast of the MEI is updated quarterly, this recommendation assumes that the Congress would use the most recent MEI estimates.

Spending

- Our estimates indicate that implementing this recommendation would increase Medicare spending in 2005 by \$200–600 million, relative to current law.

Beneficiary and provider

- This recommendation would maintain current levels of beneficiary access to physician care. It would also help maintain physician willingness and ability to furnish services to Medicare beneficiaries. ■

Professional liability insurance (PLI) payments in Medicare

Medicare accounts for physicians' costs for professional liability insurance (PLI) in three ways. One way is through the Medicare economic index (MEI), which is used to adjust payments equally to account for PLI costs across all physicians serving Medicare beneficiaries. The other two ways are through the physician fee schedule, which assigns relative value units (RVUs) to services and geographic practice costs indexes (GPCIs) to areas of the country. These two components of the fee schedule allow Medicare payments to account for PLI differentially—by service and by geographic area—based on PLI premium differences (Figure 3B-2).

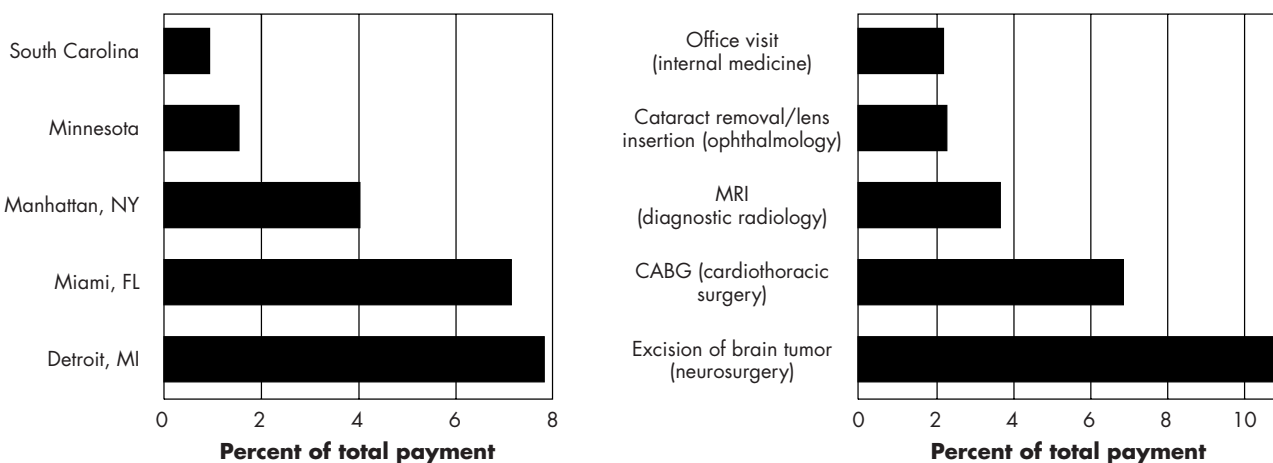
In contrast, the PLI weight in the MEI reflects the average circumstance of physicians who treat Medicare beneficiaries. Because the majority of services used by

Medicare beneficiaries are not major procedures (which usually lead to high PLI premiums), the MEI's PLI weight is less representative of specialists who furnish a large number of such procedures.

The fee schedule's RVUs, on the other hand, designate higher payments for services furnished by neurosurgeons and cardiothoracic surgeons, who bear higher PLI premiums. Similarly, the fee schedule's GPCIs adjust payments to physicians who practice in geographic areas with high PLI premiums, such as Detroit, Michigan. Given both of these factors, over 20 percent of Medicare's payments to a Detroit neurosurgeon under the fee schedule can be attributable to PLI, if a fairly high proportion of the neurosurgeon's practice consists of major procedures. ■

FIGURE 3B-2

PLI payments vary by locality and service, as a percentage of total payments under the Medicare fee schedule, 2002



Note: (PLI) professional liability insurance, (CABG) coronary artery bypass graft. PLI payments for services are national averages.

Source: MedPAC analysis of claims for 100 percent of Medicare beneficiaries in 2002.

Endnotes

- 1 For a detailed discussion of the SGR, see MedPAC's March 2002 report, p.74.
- 2 In particular, results from the Consumer Assessment of Health Plans Survey for Medicare fee-for-service (CAHPS-FFS) indicated geographic differences in access to primary care physicians and specialists.
- 3 Changes in the wording of this survey question between the years may have affected responses.
- 4 This survey was limited to beneficiaries age 65 and over, due to sample size limitations. Because this telephone survey is limited to a three-week period, its response rate is not comparable with those of government-sponsored surveys with field periods of several months. The reported results from this survey, however, are weighted to be nationally representative with respect to basic demographic variables.
- 5 In its Community Tracking Study, HSC surveys households, physicians, and employers in 12 communities across the country. These sites were selected to be nationally representative when analyzed collectively.
- 6 The 9.25 percent cap on balance billing is equal to 115 percent of the nonparticipating physicians' allowed charge (95 percent of the fee schedule amount).
- 7 For further details, the report on this survey is available on MedPAC's website. Unlike the NAMCS, this survey was able to distinguish Medicare FFS from Medicare managed care caseloads.
- 8 To compare Medicare and private payment rates, the contractor first calculated a price index for each type of private plan (health maintenance organization, point-of-service, preferred provider organization, and indemnity). Each price index was a weighted average of service-level price comparisons between Medicare and private payment rates, using Medicare's volume in each service as the weights. These plan-specific estimates were then weighted based on estimates of private enrollment in each type of plan.
- 9 These estimates include only services paid for under the physician fee schedule. The estimates would be higher if they included the volume of other services in CMS's definition of physician services, such as Medicare Part B drugs and laboratory services. Estimates of volume growth from CMS illustrate this point (Grissom 2003). According to these estimates, volume growth for 2001 to 2002 was 6 to 8 percent. The low end of this range is volume growth for services paid under the physician fee schedule, which is the definition of physician services used in this report. The high end of the range includes volume growth for the broader definition of physician services.
- 10 These growth rates are higher than reported in MedPAC's March 2003 Report to the Congress: Medicare payment policy. For instance, the all-services growth rate from 2001 to 2002 in that report was 4.3 percent, which is 1.3 percentage points below our current estimate for this growth rate. Reasons for the increase in MedPAC's estimates include: use of full-year data instead of data for the first six months of each year, and claims data for 100 percent of beneficiaries instead of data for a 5 percent sample of beneficiaries.
- 11 CMS recently updated its input category weights, based on 2000 survey data from AMA. Rebased these weights resulted in a decrease in the share of revenues going towards physician work, and an increase in the share of revenues going towards practice expense, with an increase in the PLI share.
- 12 MedPAC's productivity standard is similar to CMS's estimate, which is also based on private, nonfarm multifactor economic data from the Bureau of Labor Statistics.

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SECTION 3C

Skilled nursing facility services

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

3C-1 The Congress should eliminate the update to payment rates for skilled nursing facility services for fiscal year 2005.

.....
COMMISSIONER VOTES: YES 16 • NO 1 • NOT VOTING 0 • ABSENT 0

3C-2 The Secretary should develop a new classification system for care in skilled nursing facilities. Until this happens, the Congress should authorize the Secretary to:

- ▶ remove some or all of the 6.7 percent payment add-on currently applied to the rehabilitation RUG–III groups.
- ▶ reallocate the money to the nonrehabilitation RUG–III groups to achieve a better balance of resources among all of the RUG–III groups.

.....
COMMISSIONER VOTES: YES 17 • NO 0 • NOT VOTING 0 • ABSENT 0

3C-3 The Secretary should direct skilled nursing facilities to report nursing costs separately from routine costs.

.....
COMMISSIONER VOTES: YES 17 • NO 0 • NOT VOTING 0 • ABSENT 0

SECTION 3C

Section 3C: Skilled nursing facility services

In this section

- Are Medicare payments adequate in 2004?
- How should Medicare payments change in 2005?
- Update and distributional recommendations

The available evidence leads us to conclude that aggregate Medicare payments for skilled nursing facility (SNF) services are more than adequate in fiscal year 2004. Most beneficiaries appear to have sufficient access to SNF services, although some may experience delays in getting SNF care. The growth in SNFs' capacity to provide services and in the volume of SNF services indicate no emerging problems for beneficiaries' access to SNF care. Higher-than-expected earnings growth at the end of 2003 and higher-than-expected Medicare and Medicaid SNF payments for 2004 are positive signs for SNFs' access to capital. The aggregate Medicare margin for freestanding SNFs is 15.3 percent in fiscal year 2004. However, Medicare SNF payments may not be aligned with the costs of caring for Medicare patients with different needs. Because of this, patients needing certain types of complex care may remain in the acute care hospital setting longer before accessing SNF services. Furthermore, evidence indicates mixed results for the quality of care provided in SNFs and nursing homes, and the payment system may not encourage SNFs or nursing homes to devote enough resources to quality improvement. For this reason, we need to develop ways to measure and reward quality in this sector.

Medicare beneficiaries needing short-term skilled care (nursing or rehabilitation services) on a daily basis in an inpatient setting following a medically necessary hospital stay of at least three days qualify to receive covered services in skilled nursing facilities (SNFs).¹ These services may be provided either in freestanding or hospital-based SNFs, with freestanding SNFs representing about 90 percent of all SNFs. A freestanding SNF is typically part of a nursing home that also provides residential long-term care, which Medicare does not cover.

With approval from CMS, certain Medicare-certified hospitals (typically small, rural hospitals and critical access hospitals) may also provide extended care skilled nursing services in the same hospital beds they use to provide acute care services. These are called swing bed hospitals. Beginning July 1, 2002, Medicare pays swing bed hospitals that are not critical access hospitals according to the SNF prospective payment system (PPS). Critical access hospitals continue to receive payment for their swing beds based on their costs of providing care. (We do not include an analysis of swing bed hospitals in this report.)

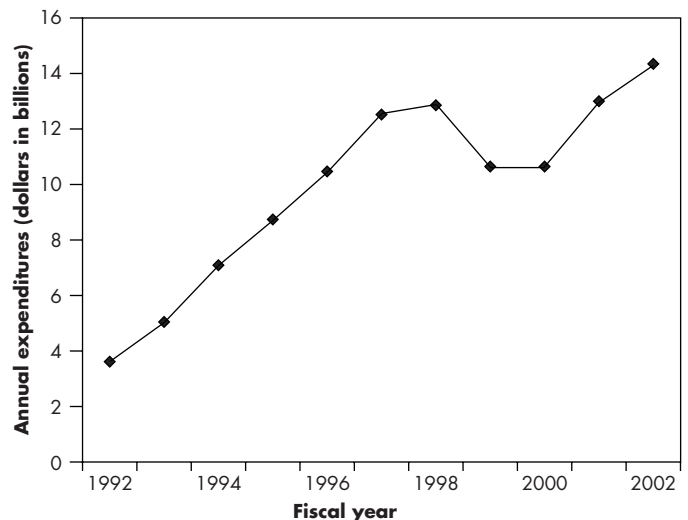
In July 1998, the Medicare payment system for SNFs underwent major changes when Medicare adopted a prospective payment system for SNF services. Previously, SNFs were paid on the basis of their costs subject to some limits. Currently, the SNF payment system pays SNFs a set amount for each day of care, adjusted for the case mix of the patients. These per diem payment rates cover all routine, ancillary, and capital costs, as well as costs for many items and services previously reimbursed under Medicare Part B.²

Trends in Medicare spending for SNF services show the effects of the PPS. Between fiscal years 1992 and 2002, spending grew at an average annual rate of 15 percent, with a noticeable dip in spending occurring in fiscal years 1999 and 2000 (Figure 3C-1). Total Medicare spending for SNF services in fiscal year 2002 was \$14.5 billion, about 5.6 percent of total Medicare spending for all services. This total represents the Medicare program's payments for covered SNF services and does not include beneficiaries' payments for cost-sharing obligations.

The Congressional Budget Office (CBO) projects that Medicare expenditures for SNF services will grow by about 5.4 percent per year from fiscal years 2003 to 2008. This is a slower rate of growth in SNF spending than occurred before the implementation of the SNF PPS.

FIGURE 3C-1

Medicare spending for skilled nursing facility services increased from 2000 to 2002



Note: Spending is for Part A services only.

Source: CMS, Office of the Actuary, 2003.

Are Medicare payments adequate in 2004?

The available evidence suggests that Medicare payments to SNFs in 2004 are more than adequate, although problems with the distribution of payments within the SNF PPS persist. Overall, our analysis finds no major changes in any of the market factors we examine that would indicate problems for beneficiaries needing SNF services. The market factors we examine include:

- beneficiaries' access to care,
- changes in the supply of SNFs (i.e., availability of facilities and beds),
- changes in the volume of services (i.e., number of discharges, bed days, and length of stay),
- changes in the quality of care, and
- SNFs' access to capital.

Furthermore, our analysis of the relationship between Medicare payments and Medicare costs in fiscal year 2004 suggests that payments will be sufficient to cover SNFs' costs of caring for Medicare beneficiaries in 2005.

Beneficiaries' access to care

The majority of beneficiaries appear to have little or no delay in accessing SNF services, especially if they need rehabilitation therapies. However, beneficiaries with certain complex or special care needs may remain in the hospital setting longer.

The Office of Inspector General (OIG) released a series of reports in 1999, 2000, and 2001 providing the most comprehensive look at beneficiaries' access to SNF services since implementation of the SNF PPS (OIG 2001, OIG 2000, OIG 1999a).³ All three reports, based on interviews with over 200 hospital discharge planners nationwide, concluded that beneficiaries needing physical, occupational, or speech therapies (otherwise referred to as rehabilitation therapies) have little or no delay in accessing SNF services. However, beneficiaries needing other types of complex care or special services (for example, intravenous therapy, dialysis, specialized beds, expensive prescription drugs, or specialized feeding) may experience delays of a few days, weeks, or longer in accessing these services. This is consistent with the incentives in the payment system, which generally pays higher rates for patients needing rehabilitation services than for patients with other types of needs. Patients who cannot access SNF services typically stay longer in the acute care hospital. It is not clear that remaining in the hospital longer is detrimental to the patient.

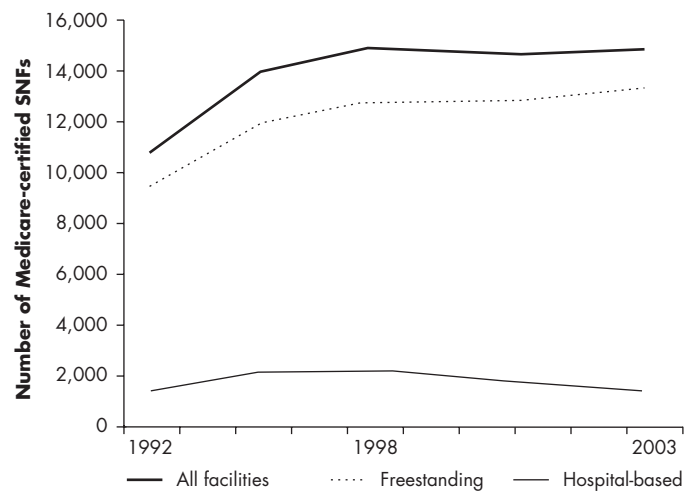
MedPAC's own discussions with hospital discharge planners support these findings. Because comprehensive reports of beneficiary access did not exist for 2002 and 2003, we contacted discharge planners to get a sense of how the OIG's findings might be changing over time.⁴ In October 2002, we convened a focus group of 15 hospital discharge planners from urban and rural areas. In October 2003, we conducted follow-up interviews with these same discharge planners. Both times, they indicated that patients needing rehabilitation services in SNFs generally had no delays in accessing these services, but that patients with other types of special needs might experience delays. These findings were similar to the OIG's findings, and do not appear to be changing substantially over time.

Changes in the supply of SNFs

We find that the overall supply of Medicare-certified SNFs and SNF beds is stable from 2002 to 2003, suggesting that beneficiaries' access to SNF services remains unchanged. Between 1998 and 2003, the total number of Medicare-certified SNFs increased slightly, with the number of

FIGURE 3C-2

Number of freestanding SNFs that are Medicare certified increased, while the number of hospital-based SNFs decreased to 1993 levels



Note: SNF (skilled nursing facility).

Source: MedPAC analysis of CMS Online Survey, Certification, and Reporting System (OSCAR) data. 1992–1996 data from ProPAC, Medicare and the American Health Care System: Report to the Congress, June 1997.

Medicare-certified freestanding SNFs increasing and the number of Medicare-certified hospital-based SNFs decreasing (Figure 3C-2). We also find evidence that freestanding SNF beds may substitute for hospital-based SNF beds in areas where hospital-based SNFs close.

The number of Medicare-certified freestanding SNFs increased by 4.6 percent between 1998 and 2003.⁵ Furthermore, the availability of Medicare-certified freestanding SNF beds in most areas has increased. The average number of Medicare-certified freestanding SNF beds in the almost 3,500 hospital service areas (HSAs) nationwide grew from 411 in 1997 (before the SNF PPS) to 420 in 2001 (after the SNF PPS) (White 2003a).

In contrast, the number of Medicare-certified hospital-based SNFs decreased by about one-third, from 2,173 to 1,463 between 1998 and 2003. Although this drop in the number of hospital-based SNFs seems relatively large, it follows a period from 1992 to 1998 in which the number of hospital-based SNFs increased by 61 percent. Thus, the current number of Medicare-certified hospital-based SNFs is approximately the same as the number that were Medicare certified in 1993.

Hospital-based SNFs are continuing to leave Medicare, at a rate of about 9 percent per year from 2001 to 2003 (see

text box, p. 125). Between 1998 and 2003, hospital-based SNFs were more likely to exit the Medicare program if they

- were new to the market,
- were for profit (especially members of chains),
- had a higher proportion of patients with high pharmaceutical costs (White 2003b), or
- were located in urban areas (Table 3C-1).

**TABLE
3C-1**

Among hospital-based SNFs, those that were for profit or located in urban areas were more likely to exit Medicare

Characteristics	Active in 1997	Exited 1998-2003	Percent exited
All hospital-based SNFs	2,125	652	31%
Location			
Urban	1,379	530	38
Rural	741	122	16
Type of control			
Nonprofit	1,357	354	26
For profit	430	229	53
Government	338	69	20

Note: SNF (skilled nursing facility).

Source: MedPAC analysis of 2002 Provider of Services file from CMS.

Although hospital-based SNFs continue to leave Medicare, evidence suggests that growth in Medicare-certified freestanding SNF beds compensates for the loss of hospital-based SNF beds. In areas that lost one or more hospital-based SNFs, we find a substantial increase in the average number of Medicare-certified freestanding SNF beds. For example, in areas that had only one hospital-based SNF in 1997 and none in 2001, the average number of Medicare-certified freestanding SNF beds in the area increased from 336 to 352 over the period (White 2003a).

In addition to freestanding SNFs, we find that other settings—such as long-term care hospitals and inpatient rehabilitation facilities—appear to provide substitute care settings for at least some types of patients previously cared for by hospital-based SNFs. In areas that lost a hospital-based SNF between 1997 and 2001, the number of Medicare days in long-term care hospitals and inpatient rehabilitation facilities increased significantly (White 2003a).

Changes in the volume of services

Recent growth in the volume of SNF services—defined as number of discharges, number of covered days, and average length of stay—suggests continued access to SNF care for beneficiaries. The volume of SNF services increased between 2000 and 2001, with total payments to SNFs increasing by about 22 percent, total number of Medicare admissions to SNFs increasing by about 7 percent, covered days increasing by 9 percent, and average length of stay increasing by 2 percent (Table 3C-2).

Some of the increase in total SNF payments between 2000 and 2001 was due in part to a temporary payment increase

**TABLE
3C-2**

Volume of SNF services increased in 2001

Volume measure	1997	1998	1999	2000	2001	Percent change, 2000-2001
Payment (billions)	\$11.0	\$11.3	\$9.5	\$10.4	\$12.7	22%
Average payment/day	\$233	\$250	\$223	\$236	\$266	13
Admissions (1,000s)	1,890	1,885	1,796	1,824	1,950	7
Covered days (1,000s)	47,245	44,469	42,412	43,811	47,913	9
Average days/discharge	25.0	23.6	23.6	24.0	24.6	2

Note: SNF (skilled nursing facility). Data include Puerto Rico, Virgin Islands, and unknown. Data do not include swing bed units.

Source: CMS. Data were developed by CMS' Office of Research, Development, and Information from Inpatient SNF MedPAR stay records.

Why do hospital-based SNFs leave Medicare?

Hospital-based SNFs may choose to leave the Medicare program for many reasons, some related directly to Medicare SNF payments and others not. The reasons directly related to Medicare SNF payments stem in part from the structure of the SNF payment system.

Designers of the SNF prospective payment system (PPS) recognized only part of the higher costs of hospital-based SNFs in the SNF payment rates that took effect beginning in 1998. Before 1998, Medicare paid SNFs based on their costs, subject to some limits. Hospital-based SNFs' costs were generally much higher than freestanding SNFs' costs. The Balanced Budget Act of 1997 required that the formula used to calculate payment rates be based on the full per diem costs for freestanding SNFs and half the differential between hospital-based and freestanding SNFs' per diem costs. Therefore, hospital-based SNFs with very high costs were, by design, paid less than their costs under the SNF PPS.

Given this situation, we would expect hospital-based SNFs with higher-than-average costs to have left the Medicare program after the implementation of the new payment rates. Evidence suggests that they did. Hospital-based SNFs that experienced more than a 40 percent decline in payments after the implementation of the SNF PPS had a higher-than-average exit rate from the program from 1998 to 2000 (White 2003b). Also, hospital-based SNFs that closed reported average per diem costs in 1998 that were approximately 43 percent higher than those reported by hospital-based SNFs that remained open (Figure 3C-3).

In addition, hospitals make business decisions to close their hospital-based SNFs for a number of reasons, including:

- Increased demand for acute care hospital beds—Acute care hospital occupancy rates have increased in recent years at the same time that the nation has experienced a shortage of nurses. In response, some hospital administrators report that they have shifted beds and nurses from the SNF to their acute care units. In some cases, they closed the SNFs altogether.

- State and federal regulatory issues—Some hospital administrators report that regulatory requirements at the state and federal level for hospital-based SNFs have increased over time, making it more difficult to operate these units.

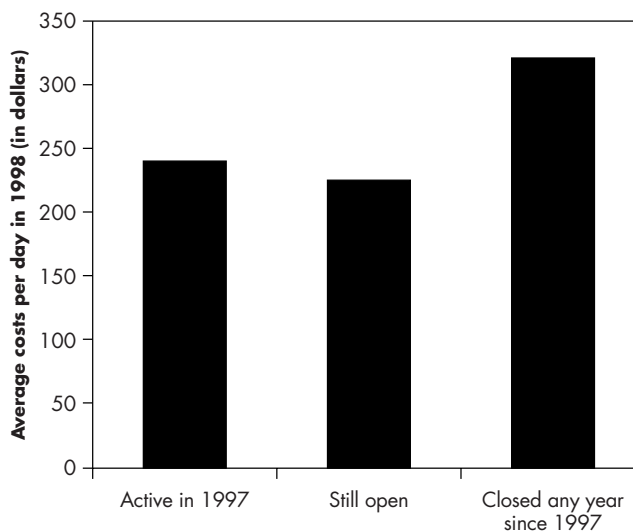
What happens to patients when hospital-based SNFs close?

It appears that patients who would have been cared for in hospital-based SNFs are distributed among the range of other options available in the area after their discharge from acute care hospitals. When a hospital-based SNF closes in an area, the probabilities that patients remain in acute care hospitals, or go to long-term care hospitals, inpatient rehabilitation facilities, freestanding SNFs, or home all increase.

It is difficult to measure exactly how these closures affect patients' outcomes of care. Mortality rates, a crude outcome measure, do not appear to change. We are analyzing other outcomes.

FIGURE 3C-3

Hospital-based SNFs that closed had higher costs in 1998



Note: SNF (skilled nursing facility).

Source: MedPAC analysis of 1998 skilled nursing facilities cost report data and 2003 Provider of Services file from CMS.

(continued next page)

Why do hospital-based SNFs leave Medicare? (continued)

What happens to Medicare spending in areas where hospital-based SNFs close?

The evidence indicates little overall change in Medicare spending in these areas. Decreases in Medicare spending for hospital-based SNF services are typically offset by increased spending for acute care hospital services, long-term care hospital services,

inpatient rehabilitation services, and freestanding SNF services. For example, spending for hospital-based SNF services, on average, decreases by \$186 per patient discharged from an acute care hospital in areas where hospital-based SNFs close. However, spending for freestanding SNF services increases by \$125 per hospital discharge in these areas (White 2003a). ■

that took effect in April 2001 (a 16.66 percent increase to the nursing component of SNF payment rates mandated by the Medicare, Medicaid, and SCHIP Benefits Improvement & Protection Act of 2000). However, about 40 percent of the increase in total SNF payments resulted from increases in the use of SNF services.

Changes in the quality of care

Two important questions arise in relation to SNF quality in the context of Medicare payment rates:

- How has the quality of care in SNFs changed since implementation of the SNF prospective payment system?
- What effect do Medicare payment rates have on SNF quality?

How has the quality of SNF care changed?

The available evidence regarding quality of care in SNFs since implementation of the SNF PPS is mixed. Evidence from studies of Medicare SNF patients shows no change or even slight improvements in some basic quality measures, such as activity of daily living (ADL) scores, walking scores, rates of rehospitalization, and incidence of mortality since the SNF PPS (Gifford and Angelelli 2002). Also, CMS finds improvements (i.e. reductions) between 2002 and 2003 in the percentage of short-stay SNF patients who experienced pain (CMS 2004).

Our analysis of adjusted SNF rehospitalization rates among Medicare SNF patients from 1999 to 2001 for five potentially preventable conditions—congestive heart failure, respiratory infection, electrolyte imbalance, sepsis, and urinary tract infection—suggests mixed results. After controlling for diagnosis and functional severity of patients, we find slight increases in three of the five measures and decreases or no change in the remaining two

measures (Table 3C-3). Since we compute these rates from all SNF stays, not a sample of SNF stays, any changes we observe are actual changes within the SNF population.

Many more researchers have studied the quality of care provided in nursing homes as a whole (not just SNFs). These studies tend to find a drop in nurse staffing levels (attributable in part to the nursing shortage in 2001 and 2002) and an increase in the number of reported deficiencies since implementation of the SNF PPS (Kilpatrick and Roper 2002, Hodlowsky et al. 2001, White 2003d). One study of longer-stay nursing home residents found negative effects of the SNF PPS on quality of care, as measured by increased probability of urinary tract infections, fractures, and unexpected weight loss, after controlling for patient severity (Konetzka 2003).

**TABLE
3C-3**

SNF patients' rehospitalization rates indicate mixed results for quality

Condition	1999	2000	2001	Percent change 1999-2001
Electrolyte imbalance	3.7%	3.7%	3.9%	5%
Respiratory infection	3.0	2.9	2.9	-3
CHF	3.2	3.3	3.6	13
Sepsis	1.2	1.2	1.2	0
Urinary tract infection	2.1	2.2	2.2	5

Note: SNF (skilled nursing facility). CHF (congestive heart failure). In calculating rehospitalization rates, we adjust for SNF patients' expected rates of rehospitalization (based on patient characteristics and conditions). The data contain all SNF admissions for the time period presented.

Source: MedPAC analysis of Medicare claims data.

We tend to assume that these findings for the nursing home as a whole reflect the situation in SNFs as well, although little research exists on the relationship between nursing home quality and SNF quality. On the one hand, it seems reasonable to assume that nursing homes would care for their SNF patients the same way they care for their long-term care patients, especially if SNF patients make up a relatively small proportion of facilities' patient populations. On the other hand, SNF patients may be different enough in the types of care they need and the resources needed to provide that care that quality measures for the nursing home as a whole are not as useful for describing the quality of care for SNF patients. More research is needed on this important topic.

How do Medicare payments affect SNF quality?

Because the evidence regarding SNF and nursing home quality since 1998 is mixed, it is important to encourage quality improvement in these settings. However, raising payments to SNFs without changing the incentives in the payment system will likely do little to encourage quality improvement (see text box, p. 133). The relationship between the level of Medicare payments to SNFs and quality of care in SNFs or in nursing homes is not well established and is complicated by:

- the nature of the SNF PPS, which provides incentives to reduce costs but not to improve quality,
- Medicare's small share of nursing home payments relative to Medicaid, and
- the challenge of measuring quality in this sector.

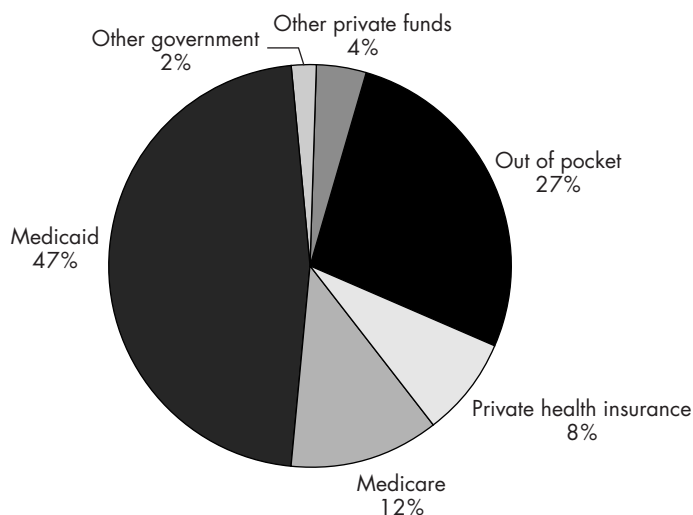
The SNF PPS by design allows SNFs that lower their costs of caring for SNF patients to keep any difference between Medicare's payments and their costs, regardless of their performance on quality. Some SNFs may respond to these incentives by lowering costs in ways that could potentially lead to stinting on quality.

Medicare represents only about 12 percent of nursing homes' revenues (25 percent of revenues in many large for-profit nursing home chains), while Medicaid represents almost half of revenues (Figure 3C-4). Therefore, we would expect Medicaid rates to have a larger effect on quality of care in nursing homes than Medicare rates.

Researchers use many different measures of quality in the SNF and nursing home sectors. The various measures all reflect different dimensions of care and sometimes lead to

FIGURE 3C-4

Medicaid accounted for the largest share of funds for nursing home services in 2001



Source: Levit et al. 2003.

differing results. Over the coming year, MedPAC plans to analyze the issue of SNF and nursing home quality measurement in more depth.

SNFs' access to capital

The evidence regarding SNFs' ability to access capital is mixed, although the situation appears to be improving. Determining how well SNFs are actually performing financially is difficult because no single data source or measure provides reliable information on total overall financial performance. Medicare cost reports are not designed to provide detailed information on SNFs' (or nursing homes') overall financial picture, and other financial statements are difficult to interpret (see discussion in Chapter 3, p. 63).

Nonetheless, we do have information on how access to capital has changed recently and how Medicare payments affect SNFs' access to capital. Since hospital-based SNFs are a small proportion of all SNFs and access capital through their parent hospital organizations, we focus the discussion in this section on freestanding SNFs' access to capital.

How has SNFs' access to capital changed in 2004?

Bankruptcies, payment uncertainties, and the costs of liability insurance may have negatively affected SNFs' access to capital in recent years. The situation appeared to have worsened in the early part of 2003, caused in part by uncertainty surrounding Medicare and Medicaid payments, but now appears to be improving. Large Medicare payment increases, higher-than-expected earnings growth in many large for-profit SNF chains, and higher-than-expected Medicaid nursing home payments in many states at the end of 2003 have prompted a substantial improvement in investors' outlook for this sector (Merrill Lynch 2003a, b).

Access to capital varies by nursing home control, size, and whether the home is part of a larger organization. For-profit companies dominate the industry—about two-thirds of nursing homes are for profit. However, the 10 largest nursing home chains account for only about 16 percent of nursing home beds.

In the past, nursing home chains have been able to access capital by issuing stock, but nursing homes did not issue public equity in 1999, 2000, or 2001 (and only one company did in 2002). The lack of equity issuances during this period coincided with the bankruptcy of five of the major chains in 1999 and 2000. However, the stronger for-profit chains continue to access capital through the debt market and secured credit facilities.

Access to capital for smaller nursing homes and for many nonprofit nursing homes has always been limited. Smaller nursing homes often have to issue unrated bonds at higher interest rates. If these smaller nursing homes are part of a larger organization with assisted living or continuing care retirement communities, they may have greater access to capital. Some can resort to bank lending, and others may be able to finance facilities through Real Estate Investment Trusts (REITs), who then lease back the properties to the nursing homes. Federally guaranteed loans, another source of funding, can be used for new construction, major rehabilitation, and refinancing. Approximately \$1.2 billion in loans were insured in fiscal year 2002.

Nursing homes that are nonprofit and not part of a chain have had less access to capital markets than their larger for-profit counterparts. From a peak of over two billion dollars in 1998, annual public debt issuance—on which nonprofit facilities rely—has declined to about half a billion dollars in 2002.

According to recent industry financial reports, SNFs' access to capital may have improved in the later part of 2003. Merrill Lynch indicates that “the outlook for nursing homes has improved dramatically” and that long-term care sector stock prices have grown at more than twice the rate of the S&P 500 index (Merrill Lynch 2003a). One of the largest for-profit SNF chains, for example, reported a “significant acceleration” of earnings growth because of a large increase in Medicare SNF payments, a leveling-off of labor costs due to a slowdown in wage growth, and Medicaid payment rates that were higher than expected (Merrill Lynch 2003b).⁶

Are Medicare payments responsible for SNFs' access to capital?

Because a larger share of nursing home revenues come from Medicaid, Medicaid payments likely affect nursing homes' access to capital at least as much as Medicare payments. A recent study of nursing home access to capital by FitchRatings indicates that a large part of the reason for the worsening investor outlook on this sector in early 2003 was investors' worries about shrinking state budgets (FitchRatings 2003). Investors feared that states would increasingly see a need to cut back on spending for nursing home services, a large component of states' Medicaid budgets.

Despite these fears, findings from the Kaiser Commission on Medicaid and the Uninsured indicate that nursing homes fared better than other providers in terms of Medicaid payments for 2003 and 2004 (Kaiser 2003). They report that some states did cut nursing home payments in 2003 and 2004 (17 and 19 states, respectively). However, many more states increased nursing home payments in these years (33 in 2003 and 29 in 2004). The remaining states froze payments to nursing homes. The report finds that “nursing homes were the provider group most likely to be given a rate increase in both years.” Some states raised taxes on nursing homes and other provider groups to help finance their rates. Nonetheless, it appears that nursing homes are being treated better than other providers when Medicaid budgets are under fiscal pressure. It is unclear whether this will continue in the future if states' budget conditions worsen.

Payments and costs for 2004

In examining current fiscal year 2004 payments and costs, we use an aggregate Medicare margin for SNFs. (We compute the Medicare margin as the difference between total Medicare payments and costs, as a percentage of

Medicare payments.) Conceptually, this represents the percentage of Medicare revenues the providers keep.

In the aggregate, we estimate the Medicare margin for the almost 90 percent of all SNFs that are freestanding (located in nursing homes) to be about 15.3 percent in fiscal year 2004. This figure represents an increase of about 4 percentage points over the 11 percent we estimated for freestanding SNFs in fiscal year 2003. The increase is due to two factors:

- higher reported margins in fiscal year 2001 (19 percent) than in fiscal year 2000 (17 percent), and
- a 3.26 percent increase in SNFs' fiscal year 2004 base rates (in addition to the full 3.0 percent update to the base rates for fiscal year 2004) to correct for errors in forecasting the SNF market basket index for fiscal years 2000 through 2003.

In contrast to the positive Medicare margin for freestanding SNFs, the aggregate Medicare margin for hospital-based SNFs was -62.7 percent in 2001.

Measuring hospital-based SNF Medicare margins in the context of hospital cost allocation is difficult, and we are unsure what the Medicare margin for hospital-based SNFs means in the context of an efficient SNF provider. Hospitals traditionally allocate a portion of their entire overhead costs among all of the units in their facilities, including their SNF units. While this is a standard, accepted practice, it likely means that hospital-based SNF units record higher costs than they otherwise would have if they had recorded only the costs of providing services to SNF patients. In addition, hospitals may have higher cost structures than freestanding nursing homes. If this is the case, though, it is not clear whether Medicare should recognize these costs as those of efficient providers.

The Commission remains concerned about the numbers of hospital-based SNFs that are leaving the Medicare program and about the negative aggregate Medicare margin for these providers. We have several ongoing research projects examining what happens to patients in areas where hospital-based SNFs close and differences in the types of patients, outcomes of care, and cost trends over time between hospital-based and freestanding SNFs.

How should Medicare payments change in 2005?

In recommending Medicare payment changes for fiscal year 2005, MedPAC first considers whether payments are adequate in fiscal year 2004 and then examines how costs are likely to change in fiscal year 2005. In the previous section, we found that Medicare payments to SNFs appear more than adequate in fiscal year 2004. In this section, we discuss why we do not expect to see big changes in SNF costs in fiscal year 2005.

SNFs' costs of providing care have changed dramatically over the years as payment incentives have changed. Medicare SNF spending grew rapidly during the 1980s and 1990s, largely because Medicare paid SNFs based on their reported costs and placed relatively few limits on the costs SNFs could report.⁷ Both the General Accounting Office (GAO) and the OIG found that the reported costs during this period were excessively high (GAO 1998, OIG 1999b). SNF spending grew an average of about 23 percent per year between 1990 and 1996 (MedPAC 2002). Much of the spending growth was attributable to the increased provision of ancillary services.⁸

Under the PPS, SNFs have financial incentives to decrease their costs, and evidence indicates that freestanding SNFs have responded accordingly by:

- negotiating lower prices for contract therapy (physical, occupational, and speech therapists) and for pharmaceuticals,
- substituting lower-cost labor for higher-cost labor (Liu et al. 2000, White 2003c), and
- decreasing the number of therapy staff (White 2003e).

In addition, research suggests that the overall amount of therapy SNFs provide may have fallen since the SNF PPS began (Gifford and Angelelli 2002, White 2003e).

Although nursing wages may have increased for SNFs in recent years because of the nursing shortage, costs may not have risen by as much as wages if SNFs substituted lower skilled labor. Recent evidence suggests that wage growth is stabilizing.

Finally, we are aware of only one cost-increasing, quality-enhancing technology that SNFs may use to provide care to beneficiaries—vacuum assisted closure (VAC) therapy for healing wounds. However, the extent to which SNFs

are actually adopting this technology is unclear. The SNF industry reports that per diem rental charges for the device used to administer VAC therapy can amount to almost one-half of the Medicare SNF per diem payment amount. Most medical professionals agree that use of this technology for patients with serious wounds improves the quality of care for these patients and shortens the time it takes for the wounds to heal. However, a per diem payment system does not encourage SNFs to shorten the length of stay.

Update and distributional recommendations

SNFs should be able to accommodate any cost changes or adoption of technology in 2005 with the Medicare margin they have in 2004. Therefore, we recommend:

RECOMMENDATION 3C-1

The Congress should eliminate the update to payment rates for skilled nursing facility services for fiscal year 2005.

RATIONALE 3C-1

The market factor evidence generally indicates no major problems for Medicare beneficiaries in accessing quality SNF services (although we continue to monitor quality). We project the Medicare margin for freestanding SNFs to be 15.3 percent in fiscal year 2004, and we expect prior cost trends to continue. Given this, the SNF base rate appears to be more than adequate, and no update to payment rates is needed.

IMPLICATIONS 3C-1

Spending

- Because this recommendation provides no update to payments for skilled nursing facility services, whereas current law updates payments for these services by the SNF market basket index, we expect this provision to reduce Medicare spending relative to current law by between \$200 million and \$600 million for fiscal year 2005 and between \$1 billion and \$5 billion over 5 years.

Beneficiary and provider

- With a Medicare margin of 15.3 percent, we do not anticipate that this recommendation will have major implications for beneficiaries or for the majority of providers.

Recommendation to improve the distribution of payments

We reiterate our recommendation from last year to improve the distribution of payments in the SNF PPS.

RECOMMENDATION 3C-2

The Secretary should develop a new classification system for care in skilled nursing facilities. Until this happens, the Congress should authorize the Secretary to:

- **remove some or all of the 6.7 percent payment add-on currently applied to the rehabilitation RUG-III groups.**
- **reallocate the money to the nonrehabilitation RUG-III groups to achieve a better balance of resources among all of the RUG-III groups.**

RATIONALE 3C-2

The Commission remains concerned that the current SNF patient classification system does not appropriately distribute resources among patients with different resource needs. SNFs who care for more patients with expensive nonrehabilitation therapy needs may not be able to operate as profitably under the SNF PPS as SNFs that care for a higher proportion of patients with short-term rehabilitation needs. This could be the reason that patients with expensive nonrehabilitation therapy needs may experience longer delays in accessing SNF services than other types of patients. This recommendation would provide a better balance of resources among patients with different resource needs within the SNF payment system.

IMPLICATIONS 3C-2

Spending

- Because this recommendation suggests a redistribution of resources already in the system, we anticipate that this provision will be spending neutral.

Beneficiary and provider

- This provision could potentially lead to expanded access to care for beneficiaries, if it results in payments that track more closely with the expected resource needs of different types of SNF patients and, therefore, increases incentives for providers to accept patients with high nontherapy ancillary service needs. It could also lead to a more equitable distribution of Medicare payments among SNF providers, especially those providers that care for a disproportionate

number of SNF patients with high nontherapy ancillary service needs. To the extent that hospital-based SNFs treat more of these types of patients, this redistribution would provide them with more resources.

Below, we provide a brief explanation of how the RUG–III classification system used to adjust SNF payments works and what some of the problems with the system are.

How does the RUG–III classification system work?

SNFs assign each Medicare patient receiving care in their facility to 1 of 44 groups, called resource utilization group, version III (RUG–III). Medicare pays SNFs the pre-determined rate per day for each RUG–III group. In theory, each RUG–III group includes patients who should require similar amounts of resources. SNFs periodically assess patients’ conditions, based on their need for:

- physical, occupational, or speech therapy,
- special treatments (such as tube feeding), and
- assistance with ordinary activities of daily living, such as eating and using the toilet.

The daily rate for each RUG–III group is the sum of three components:

- a fixed amount for routine services (such as room and board, linens, and administrative services),
- a variable amount reflecting the intensity of nursing care and ancillary services patients will likely require, and
- a variable amount for the expected intensity of therapy services (physical, occupational, and speech therapies).⁹

Medicare computes payment rates for SNF services separately for urban and rural areas, and adjusts the labor portion of the total rates to reflect the wage market conditions within each SNF’s geographic location. Medicare also updates SNF payment rates each year based on the projected increase in the SNF market basket index, a measure of the national average price level of goods and services SNFs purchase to provide care.

Shortly after implementation of the SNF PPS in 1998, the Congress mandated a series of temporary payment rate increases:

- The Balanced Budget Refinement Act of 1999 (BBRA) increased rates for all 44 RUG–III groups by 4 percent from April 2000 to September 2002.
- The Medicare, Medicaid, and SCHIP Benefits Improvement & Protection Act of 2000 (BIPA) increased the nursing component of SNFs’ base payment rate by 16.66 percent from April 2001 to September 2002.
- BBRA and BIPA increased payment rates for the 14 RUG–III groups that include patients needing rehabilitation therapies by 6.7 percent and rates for the 12 RUG–III groups that include patients needing certain types of complex care by 20 percent. According to current law, these increases will expire when CMS adopts a refinement to the RUG–III classification system.

What are the major problems with the RUG–III classification system?

Researchers find three major problems with the RUG–III classification system:

- It bases payments for rehabilitation therapy on the number of minutes of therapy (or the estimated number of minutes) rather than on patients’ clinical characteristics,
- It does not fully account for the costs of providing nontherapy ancillary services, such as prescription drugs, and
- It bases the relative weights that allocate payments among different RUG–III groups on old data that is expensive and time consuming for CMS to update.

By paying more for rehabilitation therapy based on the number of minutes of physical, occupational, or speech therapy patients receive, the RUG–III system encourages SNFs to provide more therapy (at least to the point that they receive additional money for doing so). At the same time, the system may also provide SNFs with the incentive to stint on other needed services, such as prescription drugs and other specialty care. The SNF payment system is unusual among Medicare’s prospective payment systems in the degree to which RUG–III group

assignments and payments are driven by the amount of services provided.

The RUG–III classification system was not designed to directly capture differences in patient costs that arise from nontherapy ancillary services, such as prescription drugs and respiratory therapy. Accordingly, it does a poor job of allocating resources for these services. The RUG–III groups do a relatively good job of identifying differences in patients’ needs for nursing care resources. This makes sense, because the RUG–III system bases the weights assigned to its different groups on studies of nurse staffing time spent with patients (the system assumes that patients needing more nurse staffing time require more nontherapy ancillary services). Therefore, RUG–III groups capture the costs of nontherapy ancillary services only to the extent that these costs track with nursing costs. This assumption may be an increasingly poor one, however. As prescription drug and other ancillary costs increase rapidly, the system may not be correctly allocating these costs.

Finally, updating the weights for RUG–III groups is expensive and time consuming. Nurse staffing studies conducted in 1995 and 1997 form the basis for the current weights. These studies included a relatively small sample of facilities in part because the cost of a larger study would have been prohibitively high. Thus, although the weights need to be updated, the resources may not soon be available to repeat the studies.

Recommendation to collect nurse staffing information

As discussed earlier in the chapter, MedPAC is concerned about the quality of care SNF and nursing home patients receive. For this reason, we recommend collecting nursing cost information so that the Medicare program can evaluate the relationship between SNFs’ nursing costs, total costs, and quality of care.

Although SNFs must report total routine costs to CMS on their annual cost reports, they do not separate out their nurse staff costs. For example, they must report wage and salary information for employees in the facility that provide care to patients, but this information likely also includes wages and salaries for therapy specialists and other non-nursing staff. In addition, because many different kinds of nurses care for patients in SNFs and nursing homes, it would be useful for SNFs to break the nursing costs down by type of nurse (i.e. registered nurses, licensed practical nurses, and nurse aides).

RECOMMENDATION 3C-3

The Secretary should direct skilled nursing facilities to report nursing costs separately from routine costs.

RATIONALE 3C-3

Studies indicate a positive relationship between nurse staffing levels and quality of care in nursing homes (HCFA 2000). While CMS already collects basic nurse staffing information in its survey and certification process, additional information on nursing homes’ spending for nurse staffing will help the Medicare program better evaluate the relationship between staffing levels and the costs and quality of care. This information could also be useful in developing a SNF-specific wage index.

IMPLICATIONS 3C-3

Spending

- This recommendation should not affect Medicare benefit spending.

Beneficiary and provider

- This provision should have no effect on beneficiaries. Providing the additional information could result in a modest additional cost to providers. ■

What can Medicare do to encourage improvements in quality of care for SNF and nursing home patients?

For years, reports of nursing home quality have shown a need for improvement in the quality of care some nursing homes provide (GAO 2003). Many efforts are currently under way to improve quality in SNFs and in nursing homes, but these efforts are grafted onto a payment system that is largely neutral or even negative with respect to quality. Offering financial rewards to providers, such as SNFs and nursing homes, is an effective way of providing incentives to improve quality (MedPAC 2003). However, in the SNF and nursing home sector, quality measurement may not yet be advanced enough to form the basis for providing financial rewards.

Current efforts

One of the efforts currently under way to improve quality of care in nursing homes is CMS's nursing home quality initiative. Started in 2002, this initiative focuses on:

- improving regulation and enforcement efforts to assure nursing homes' compliance with rules regarding patient health, safety, and quality of care,
- improving consumers' access to nursing home quality information (through advertising, print media, the telephone hotline service, and the internet),
- encouraging nursing homes to seek help from the Medicare quality improvement organizations (QIOs) to improve performance on published quality measures and develop and implement quality improvement projects, and
- encouraging more communication among federal and state agencies, QIOs, independent health quality organizations, consumer advocates, and nursing home providers regarding ways to improve nursing home quality.

According to a recent CMS press release, these efforts have resulted in about 2,500 nursing homes pursuing quality improvement efforts with help from their QIOs, nearly all nursing homes contacting their QIOs about the quality initiative, and more than 60 percent of

nursing homes attending QIO-sponsored quality workshops, among other responses. In addition, CMS finds improvement in some of the publicly reported quality measures since 2002, including decreasing reports of pain among long- and short-stay patients and decreasing use of physical restraints (CMS 2004).

As part of these efforts, CMS has recently taken steps to improve its nursing home quality measures. It is now using a set of nursing home quality measures endorsed by the National Quality Forum (NQF), a nonprofit consensus-building organization. This set includes measures for long-stay nursing home residents, for short-stay post-acute care patients, and for nursing homes as a whole. The measures for short-stay post-acute care patients are:

- the percentage of recently hospitalized patients who experienced moderate to severe pain at any time during the assessment period,
- the percentage of recently hospitalized patients with symptoms of delirium, and
- the percentage of recently hospitalized patients with pressure ulcers.

In addition to CMS's efforts, SNFs (as represented by their industry associations) have recently publicly pledged to devote more resources to patient care (Grassley 2003). Some SNF industry associations have also been advocating for research and demonstration programs to develop ways of recruiting and retaining nursing staff and have been assembling work groups to share best practices in quality improvement.

What more could be done?

More work is needed before we can appropriately measure and reward quality in SNFs and nursing homes. MedPAC's update framework suggests that Medicare payments are sufficient to provide quality care to beneficiaries, but that the SNF payment system provides little financial incentive for SNFs or nursing homes to invest in activities that would improve quality.

(continued next page)

What can Medicare do to encourage improvements in quality of care for SNF and nursing home patients? (continued)

Part of the problem is that it is difficult to measure quality accurately enough to provide financial rewards in the nursing home setting. Measures of quality for SNF patients are relatively few and have been developed only in recent years. While it may be possible to complement the short-stay SNF measures with the long-stay nursing home measures (we have many more of these), we need more research to better understand how long-stay nursing home measures reflect the quality of care received by the short-stay SNF patients.

Measures such as rates of rehospitalization for certain conditions and Minimum Data Set-derived measures like those that CMS reports may provide both a useful national picture of quality and information for internal analysis by individual SNFs and nursing homes. However, they may not yet be appropriate for distributing payments among providers. For example, we would not want to inadvertently penalize a facility (by withholding a financial reward) that has a higher proportion of patients with pressure ulcers because they specialize in treating pressure ulcers. We also would not want to inadvertently discourage SNFs from taking patients that enter the facilities with delirium or with pressure ulcers.

Measures of quality based on the survey and certification process, such as deficiencies and staffing levels, may also be useful. However, states often

interpret these measures differently and have varying degrees of oversight.

Thus, before we can begin to implement quality incentives for SNFs and nursing homes, we need to take stock of the SNF and nursing home quality measures currently being used. As we have outlined elsewhere in this report (Chapter 3E, p. 173 and Chapter 4, p. 214), we apply four main criteria in determining whether a particular set of quality measures can be used to provide financial incentives for quality improvement. The set of measures must be:

- well-accepted,
- collected using a standardized data collection system,
- appropriately risk adjusted, and
- sensitive enough to changes in provider behavior that providers can demonstrate improvement.

Over the next year, we plan to assess the measures currently being used and any additional measures that might be used, according to these criteria. For example, studies generally show a strong relationship between lower nurse staff turnover rates and higher quality in nursing homes (IOM 2001). This is an area for further research. ■

Endnotes

- 1 Medicare covers 100 SNF days in a spell of illness. Medicare pays 100 percent of the rate for the first 20 days of a SNF stay. From the 21st to the 100th day, beneficiaries are responsible for a copayment equal to one-eighth of the hospital deductible, or \$109.50 per day in 2004.
- 2 The SNF per diem payment rates do not cover the costs of physician services, services of certain other practitioners (such as qualified psychologists), or dialysis services and supplies. Medicare Part B covers these services. In addition, to limit SNFs' liability for services typically outside the scope of SNF care, the Congress excluded payments for certain high-cost, low-probability ancillary services from the SNF per diem rates. Thus, Medicare pays separately when SNF patients receive emergency room care, outpatient hospital CAT scans, MRIs, and surgeries, and certain high-cost chemotherapy agents and customized prosthetic devices. However, the per diem rates do cover the costs of physical, occupational, and speech therapies, even if a physician supervises.
- 3 The OIG plans a follow up report on beneficiaries' access to SNF services in fiscal year 2005.
- 4 Ideally, we would like to use Medicare's administrative and claims data to further analyze changes in beneficiaries' access to care. However, the data were not yet available to analyze the period following major Medicare payment changes.
- 5 Medicare certification is a requirement for Medicaid certification in some states. Thus, part of the increase in Medicare-certified facilities may be the result of Medicaid-only nursing facilities becoming dually certified for Medicare and Medicaid (in fact, the number of nursing facilities certified as Medicaid-only has declined since 1998). Although the number of SNFs in Medicare has increased, the nursing home industry as a whole has experienced declines, as the overall health of the elderly population has improved and competition from assisted living facilities and other alternative care sites has reduced demand for nursing home services.
- 6 One large for-profit nursing home chain reports "that the Medicaid environment has been substantially better than anticipated earlier this year [2003]. Average Medicaid rate [increases] in the second half of the year are expected to be better than the 0–2% previously expected. Preliminary estimates for 2004 Medicaid rate increases are estimated in the 4 percent range." (Merrill Lynch 2003b)
- 7 According to the SNF payment system in place before 1998, SNFs had limits for routine operating costs (for example, room and board) but no limits on costs for ancillary services, such as physical therapy. Separate limits applied based on location (urban or rural) and whether facilities were hospital based or freestanding, with hospital-based facilities having higher limits than freestanding facilities. In addition, new SNFs were exempt from the routine cost limits for up to their first four years of operation.
- 8 In addition, during the 1990s, the OIG found that some SNFs were billing Medicare for therapy that was not medically necessary, that was provided by staff without the proper skill level, and that may not have been provided at all. They also found that, in some cases, Medicare may have been paying SNFs as much as 86 percent more than the SNFs actually paid their contractors to provide the therapy. These improper billing practices likely contributed to Medicare's spending increases for SNFs over the period (OIG 1999b).
- 9 For placing patients in certain RUG–III groups, SNFs may estimate the number of minutes of therapy the patient will need on the 5-day and the readmission assessments. For placing patients in other RUG–III groups, SNFs must provide a minimum amount of therapy within a certain time period.

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3D

SECTION

Home health services

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

3D-1 The Congress should eliminate the update to payment rates for home health services for 2005.

COMMISSIONER VOTES: YES 16 • NO 0 • NOT VOTING 1 • ABSENT 0

.....
3D-2 The Secretary should continue to monitor access to care, the impact of the payment system on patient selection, and the use of services across post-acute care settings.

COMMISSIONER VOTES: YES 17 • NO 0 • NOT VOTING 0 • ABSENT 0

SECTION 3D

Section 3D: Home health services

In this section

- Are Medicare payments adequate in 2004?
- How should Medicare payments change in 2005?
- Should the prospective payment system change?

Aggregate payments for home health services are more than adequate, relative to costs. Access to care for most beneficiaries is good; quality has remained stable. The number of agencies appears to have increased slightly in the past year. The Medicare margin for home health services in 2004 is 16.8 percent, suggesting that Medicare's payments more than cover the costs of caring for Medicare home health users. Our evidence suggests that productivity and product change will offset the increasing prices for home health inputs over the coming year; thus, the high margins will persist. However, the payment system may make some types of beneficiaries less financially attractive than others, which may lead providers to focus on some types of beneficiaries and be less willing to serve others. MedPAC and others should examine the payment system to determine whether refinements might promote access to care for all types of eligible beneficiaries.

Background

Home health care is skilled nursing, therapy, aide service, or medical social work provided to beneficiaries in their homes.¹ Medicare pays for home health service in units called episodes. Episodes begin with patients' admission to home health and end 60 days later. Most patients complete their course of care and are discharged in one payment episode. If patients' care is not completed within 60 days, they may start another episode of payment without a break in their care.

The payment system starts with a base payment for an episode of home health care. The base payment is adjusted to account for differences in patients' expected resource needs, as reflected by their clinical and functional severity, recent use of other health services, and therapy use (see text box). Payment is also adjusted for differences in local prices using the hospital wage index. Adjustments for several other special circumstances, such as unusually high costs or very short episodes, can also modify the payment:

- An outlier payment offsets some of the cost of an episode if the estimated cost exceeds the payment by a certain amount.
- A low utilization payment adjustment (LUPA) makes payment by the visit if a patient receives fewer than five visits during an episode.
- A change-in-condition adjustment can increase the payment for days remaining in the episode following a major change in the patient's health.
- A partial episode payment allows two agencies to split the payment for a patient who transfers from one agency to another during an episode.

The early 1990s were years of rapid growth in home health, both in the number of users and the amount of service they used. At the same time, the home health benefit increasingly began to resemble long-term care and look less like the medical services of other Medicare post-acute care benefits. For example, by 1996, one-third of all visits were provided to beneficiaries who received more than 300 visits a year (MedPAC 1998). Aide services were a large proportion of all visits, as opposed to skilled nursing and therapy visits.

In the middle of the 1990s, legislative and administrative steps were taken to check the growth of the benefit. The

Balanced Budget Act of 1997 (BBA) included refinements to the eligibility standards and changes to the payment system that were followed by reduced spending on home health, decreased number of visits, and increased proportion of visits that were skilled nursing and therapy. Subsequent legislation established civil liabilities for physicians who knowingly falsely certified the eligibility of a beneficiary. The Secretary initiated Operation Restore Trust to investigate suspected fraud and abuse of the benefit.² For a complete discussion of the historic trends in spending and use of the benefit, see MedPAC's March 2003 report, Section 2D.

The total number of beneficiaries using the benefit grew for the first time in several years between 2001 and 2002, from about 2.2 million users to 2.4 million, a number similar to the level of use in the early 1990s. The Congressional Budget Office projects that home health spending will grow 17.7 percent in 2004 and continue to grow at an average annual rate of 14 percent from 2005 to 2009, driven by continued growth in volume. The Office of the Actuary at CMS predicts 7.6 percent average annual growth between 2005 and 2009, based on different assumptions about the rate of growth in volume.

Generally speaking, Medicare's home health benefit is relatively straightforward; the particulars of this benefit, however, are not clear (MedPAC 1999, 2000). By statute, the purpose of the home health benefit must be the same as the general purpose of all the services covered by the Medicare program: diagnosis or medically necessary treatment of illness, injury, or deformity over a spell of illness. However, precisely how the concepts of medical necessity and spell of illness pertain to home health is less clear for this service than for others. Home health has no definitive clinical practice standards to determine what treatments are necessary and for what kinds of patients they are appropriate. The range of services covered by home health is fairly broad: skilled services necessary to treat patients—nursing and therapy—as well as nonskilled or nonmedical services that are necessary to maintain the patients' health or facilitate their treatment—aide services and social work. Unlike other benefits that cover a broad range of services, there is no annual or lifetime limit on the number of days of home health care that Medicare will cover.

Instead, Medicare determines the amount of service the benefit will cover based upon the eligibility and needs of the beneficiary. As set forth in the manuals for home health, the program only covers home health services for

How is payment adjusted for patients' conditions?

The home health prospective payment system (PPS) uses indicators of the clinical severity of patients' conditions, their functional limitations, and their service use to adjust the payment for an episode of care to cover the expected cost of meeting patients' needs. Nurses or therapists assess each patient's needs at the beginning of the episode with a standardized tool called the Outcome and Assessment Information Set (OASIS). The OASIS includes tasks such as observing patients' functional ability, reviewing medical records, asking patients or their caregivers about their condition, and assessing patients' environments to determine a score for each of three domains: clinical, functional, and service use. For example, a patient with a surgical wound from a hip replacement who cannot easily move from her bed and will need therapy to restore her mobility could receive a minimum score for clinical severity, a moderate score for functional impairment, and a moderate score for service use. If the classification system fails to account for characteristics of some patients that lead to higher costs for their care, patients with those characteristics could be less financially attractive compared to others in the same payment group.

The three domain scores are combined to determine patients' home health resource group (HHRG). A total

of 80 HHRGs encompass every possible combination of domain scores. Each HHRG is given a weight to reflect the expected costliness of patients in that group relative to patients in other HHRGs. The base payment amount is multiplied by the HHRG weight to match the payment amount for the episode with the anticipated needs of the patient. Thus, episodes for patients with greater needs for care receive a higher payment than episodes for patients with fewer needs.

The process for selecting the OASIS items to include in the HHRG classification system "was not limited to statistical criteria for predictive accuracy, but also included qualitative criteria relating to policy objectives, incentives to provide good care, robustness against gaming, apparent item subjectivity, and administrative feasibility" (Goldberg et al. 1999). Goldberg's research suggested that the model predicted about 32 percent of resource use. Even though some additional OASIS items might have increased the predictive power of the system, the designers avoided items that clinicians felt were too subjective—such as cognitive impairment—and those with potential adverse policy implications—such as the presence of a caregiver. ■

beneficiaries who need part-time or intermittent skilled care to treat their illness or injury and who are homebound, that is, unable to leave their homes without considerable effort. Patients who need full-time skilled nursing care over an extended period of time generally would not qualify for Medicare home health benefits (CMS 2001), though there is no exclusion of coverage for beneficiaries with chronic illnesses. However, using these eligibility criteria to determine coverage leaves a great deal open to interpretation. Regional fiscal intermediaries make individual coverage decisions that contribute to variation across the country. Coverage interpretations have also varied over time. Initially, beneficiaries' need for care had to be part-time *and* intermittent to qualify; a subsequent judicial review interpreted the criteria as part-

time *or* intermittent, thus allowing a much larger number of beneficiaries to qualify.³

The lack of definition and clinical guidance for this benefit makes it difficult to interpret some of the indicators we use to assess payment adequacy, especially access and quality. How do we know whether beneficiaries have appropriate access when it is not clear who among them require the service? How do we know whether beneficiaries receive the right service without clinical guidelines? Establishing clear eligibility and coverage guidelines in statute (MedPAC 1999) and pursuing the research agenda to develop clinical guidelines (MedPAC 2000) are earlier Commission recommendations that still need to be addressed. In the interim, some ambiguities will continue in any assessment of this benefit.

Are Medicare payments adequate in 2004?

The base payment is adequate, though the system may require refinement to more accurately match payments and costs for some types of beneficiaries. This year, we find that access to care is good for most beneficiaries, although some types of beneficiaries may have better access than others.⁴ We also observe a slight increase in the number of home health agencies (HHAs), steady visit volume per episode, and a large, positive aggregate margin. This section analyzes all of these findings to determine whether the base payment is adequate.

Beneficiaries' access to care

We have three questions about access to care:

- Do communities have providers?
- Can beneficiaries obtain care?
- Can beneficiaries obtain appropriate care?

In this subsection we have indications of the answers to the first two questions. Because we do not have definitive clinical practice standards, we cannot determine whether beneficiaries received the right process of care. However, we can measure outcomes of care (e.g., Did patients' ability to walk improve? Did their pain decrease?). Good outcomes should indicate whether beneficiaries have obtained appropriate care. Our discussion of outcomes follows in the "Changes in the quality of care" subsection of this chapter.

Most communities have a Medicare-certified home health agency. Ninety-nine percent of all Medicare beneficiaries live in an area that was served by at least one home health agency in 2003. Ninety-seven percent of beneficiaries live in an area that was served by more than one agency; thus, most beneficiaries had a choice among multiple providers. This evidence suggests that there are no large, populated areas of the country that HHAs refuse to serve.⁵

Most beneficiaries can obtain care when they seek it. Nearly 90 percent of the beneficiaries surveyed about their experiences in 2000 reported that they had little or no problem with accessing home health services. That percentage remained essentially the same over the three most recent years (Table 3D-1).

**TABLE
3D-1**

Most beneficiaries had no problem accessing home health services, 2000–2002

	2000	2001	2002
Did you experience a problem?			
No problem	76%	74%	76%
A small problem	13	13	13
A big problem	11	12	12*

Note: Columns do not total 100 percent due to rounding.
*The difference between 2000 and 2002 is significant at the P<.05 level.

Source: 2003 Consumer Assessment of Health Plans Survey (CAHPS) data from CMS.

This measure is probably indicative of the access to care for beneficiaries, though it has strengths and weaknesses. It is a strong indicator because the survey includes all beneficiaries who sought care, including those who acquired it and those who did not. Also, the question is not restricted to only those beneficiaries who sought care following hospitalization. However, the survey cannot differentiate beneficiaries who are eligible for the home health benefit from those who are not, and who for that reason had trouble obtaining care. The question of eligibility of the respondents is a limitation of any beneficiary survey on the home health benefit.

What is the implication of these indicators?

At this stage in our analysis, we are focused on the adequacy of the aggregate payment to decide whether to change the base payment. The comprehensive geographic coverage and low rate of access problems indicate that access for most beneficiaries is good. Thus, we conclude that aggregate payments are at least adequate to induce providers to serve almost every community and most eligible beneficiaries who seek care.

In contrast to the good access that most beneficiaries experience, some types of beneficiaries may experience problems. Because these beneficiaries may be disadvantaged by the incentives of the system, raising the base payment is not likely to improve access. However, refinements to the payment system may improve payment accuracy and thus increase the willingness of agencies to serve those types of beneficiaries. We discuss this issue further in the section "Should the prospective payment system change?"

Changes in the supply of home health agencies

Over the past 10 years the number of home health agencies in the program has risen and fallen dramatically. Under the earlier cost-based payment system, hundreds of agencies entered the Medicare program; in 1996, agency entry outnumbered agency exit three to one. At the peak in 1997, more than 10,000 agencies were certified. The trend switched under the interim payment system (IPS, a precursor to the PPS) that began in 1997. In 1999, exiting agencies outnumbered those entering by eight to one. In the years since the implementation of the PPS in 2000, the number of agencies has remained basically steady at about 7,000. Between October 1, 2003 and October 1, 2004, there were about 3 entries for each exit, which would suggest an increase in the number of agencies over the past year (though some “entries” could be existing branch offices with new provider numbers).

The composition of the market has not changed recently. The proportion of freestanding and hospital-based agencies and agencies by type of control (proprietary, voluntary, or government) has remained about the same over the past five years (Table 3D-2). The proportion of agencies located in urban or rural areas has shifted only slightly. The fact that the number of agencies has been volatile but the composition has been stable suggests that

no one of these groups was particularly affected by developments over this period.

The number of HHAs is not an indicator of the capacity of the system. Agencies range in size from very small HHAs serving fewer than 100 beneficiaries annually to very large ones serving more than 5,000 beneficiaries in a year. Also, the flexible structure of a home health agency does not fit the typical concept of capacity. HHAs are not restricted by bed size or other physical plant considerations (e.g., number of exam rooms, operating rooms). Even the number of employees is not a capacity measure, because a home health agency need only provide one type of service to its patients using its own employees. Many HHAs can and do use contracted therapists, aides, or nurses to meet their patients’ additional needs.

Furthermore, the implications for payment adequacy of the current rate of exit and entry should not be overdrawn. Exits from the program seem strongly correlated to the implementation of the IPS, though some of those exits were involuntary and may be more closely related to efforts to remove fraudulent or abusive providers and less related to costs and payments. Comparing entry pre- and post-PPS may be misleading because the PPS may favor larger agencies with the ability to average profit and loss over a large and varied patient population. Some entries to the program may have been prevented or delayed by state regulations that limit the number of participating agencies, such as certificate of need regulations. Finally, starting a home health agency may be more expensive than it was in the past due to tighter financial standards and greater need for computerization to comply with the patient data collection requirements implemented in 1999.

**TABLE
3D-2**

The mix of home health agencies has not changed

	1998	2000	2002
Total agencies	9,284	7,317	6,888
Freestanding	70%	67%	71%
Facility-based	30	33	29
Urban	68	65	66
Rural	32	35	34
Proprietary	55	49	52
Voluntary	31	35	34
Government	14	16	15

Note: Subgroups do not total 100 percent due to rounding. Facility-based agencies include those based in a hospital, skilled nursing facility, or rehabilitation facility.

Source: 1998, 2000, and 2002 Provider of Services files from CMS.

Changes in the volume of services

The historically rapid changes in volume have slowed recently. Between calendar years 1997 and 2000, home health volume changed in response to program integrity activities, eligibility changes, and new payment systems (the IPS and PPS). But from 2001 through the first half of 2003, the volume began to stabilize; during that time, the number of episodes per beneficiary, visits per episode, average length of stay, and mix of visits remained fairly steady.

The changes in volume were indicative of the changing product of home health. Medicare home health after the IPS and PPS involved less of the maintenance of chronically ill or disabled people over time at low intensity and more recovery from an acute illness or injury over a

short period of time with a concentration on therapy. Because current payments are based on production costs that were measured before much of the change in the home health product occurred, current payments may no longer be in line with costs.

In 2001 and 2002, the average number of episodes per beneficiary remained at 1.5. Over the same period, the number of visits per episode declined 1 percent from 18.4 to 18.2. In the past, the number of visits per episode declined more rapidly. In 1997, home health users, on average, received 36 visits in 60 days. In 1999, that number dropped to 29 visits.

The average length of stay (LOS) of home health patients has also remained fairly steady, increasing slightly from 2001 to 2002. The LOS measures the number of days between the day beneficiaries receive their first home health visit and the day they are discharged from treatment.⁶ Unlike patients in other settings (e.g., acute care hospitals, skilled nursing facilities), home health patients rarely receive visits on every day during their stay; on some days patients may receive more than one visit. The home health LOS measures the duration of the observation, evaluation, and treatment of the patient's condition. In 1997, the average LOS was 106 days; by 1999, that number had fallen to 69 (McCall et al. 2001).

The mix of visit types changed substantially after the implementation of the PPS and changed only slightly since then (Table 3D-3). Home health under the PPS after October 2000 has a greater concentration of therapy compared with the payment systems that preceded the PPS. In 1997, the prevailing pattern was more typical of

maintaining consistently ill or disabled patients in their homes over a long period of time, with much of the service provided by home health aides.

One aspect of home health services that surprisingly has not changed since the beginning of the PPS is the provision of very short-duration care. In 1997, episodes with fewer than five visits accounted for about 15 percent of all episodes. In the first six months of 2003, episodes of care consisting of four or fewer visits (LUPA) were still 14 percent of all episodes. Because of strong incentives in the payment system to provide enough visits to avoid LUPA payments, CMS predicted that LUPAs would dwindle to 5 percent of all episodes under prospective payment. HHAs that make at least five visits qualify for an episode payment and avoid the LUPA; even the highest LUPA payments are much lower than the lowest episode payment.

This section has discussed three home health indicators that suggest that the volume of services and the nature of the home health product has begun to stabilize after a period of rapid change. The persistence of LUPA episodes suggests that one widely anticipated behavioral response to the PPS has not yet occurred. Otherwise, HHAs have responded predictably to the incentives of the new payment system.

Changes in the quality of care

Patients who obtained home care in 2002 seemed to receive the same quality of care—when measured in terms of their outcomes—as patients in 1999 did before the implementation of the PPS, even though the product has changed. CMS, the General Accounting Office (GAO), and others have stated that monitoring the outcomes of care would be especially important for this sector following the implementation of the PPS because of incentives in the payment system to alter the product (CMS 1999, GAO 2000). Also, because the site of care is patients' homes, Medicare can do very little to set standards for patients' environments.

All prospective payment systems have incentives for stinting on the amount of care delivered to beneficiaries because the payment is based largely upon patients' conditions rather than the amount of service they receive. However, the somewhat ambiguous definition of the benefit and the large bundle (60 days' time and a broad range of services) could provide greater opportunities for stinting in this setting than in others.

**TABLE
3D-3**

Mix of home health visits changed after the prospective payment system started

Type of visit	Pre-PPS			Post-PPS	
	1997	1998	1999	2001	2002
Therapy	9%	11%	15%	25%	26%
Home health aide	49	42	35	24	23
Skilled nurse	41	45	48	50	51

Note: The prospective payment system (PPS) began in October 2000. Columns do not sum to 100 percent because data were not available for all visit types.

Source: Pre-PPS CMS analysis of the National Claims History file; post-PPS MedPAC analysis of 5 percent Standard Analytic File.

MedPAC contracted with Outcome Concept Systems to use their single score of quality to develop a national picture of whether patients' health was generally improving, stabilizing, or declining. The measure combined several indicators of clinical and functional health, as well as adverse events such as an unplanned hospitalization. We chose this measure because it:

- is based on objective measures of changes in patients' status.
- measures outcomes that providers can realistically affect.
- meets criteria developed by the Agency for Healthcare Research and Quality (AHRQ) and CMS for quality measurement.
- is accepted by many providers as a meaningful measure.

Because of our concern about possible changes in the rates of adverse events, we included indicators for emergent care or unplanned hospitalizations when they followed one of four events: an injury caused by a fall or accident at home; a wound infection, deteriorating wound status, or a new ulcer; improper medication administration; or uncontrolled diabetes. We applied this method to all of the start-of-care and discharge patient assessments. The patients were predominantly Medicare; we included all patients that received care from Medicare-certified agencies, whether Medicare was the primary payer, the secondary payer, or whether Medicaid paid for the care. We included Medicaid-paid care because the patient was often a Medicare beneficiary as well and we wanted to capture the quality of the providers on the whole, in a way that was consistent with other measures.⁷ We compared the score for 1999 with the score for 2002 to assess the quality of care before and after the implementation of the PPS.⁸

Scoring outcomes for home health is very new; we do not have a context by which to judge what the "right" score is. However, these scores provide a baseline and allow comparisons over time. The median score for this quality index was 0.70 in both periods.⁹ The average outcome score for all patients in 1999 was 0.63; in 2002, the average score rose slightly to 0.68 as the standard deviation narrowed. The severity of patients' conditions at the start of care was higher in 2002 than in 1999, suggesting that stable quality was not achieved by excluding patients with severe illness or functional

limitations.¹⁰ Because we used all records for all patients to derive these scores, we conclude that the differences between years are not caused by sampling error.

We could conclude that quality has remained stable at a good level because in 2002, for every clinical and functional indicator (e.g., shortness of breath, ability to move around), at least twice as many patients improved as declined. We also see a trend of improvement between the two years: emergent care and unplanned hospitalizations declined from 1999 to 2002. However, room to improve remained on some measures. The number of patients who did improve as a percentage of those who could improve was less than 30 percent for 5 out of 20 measures in 2002.

The stability of this score has some implications for our assessment of payment adequacy. It addresses the concern that as agencies reduced the number of visits they provided, quality would decline. Instead, the decline in the number of visits per episode is concurrent with stable quality.

Nonetheless, a single, national score gives us only a broad picture and not a picture of the changes that may be occurring among certain patient populations or agencies. The score is sensitive to the severity of patients' illness or functional limitations but not sensitive to how difficult patients may be to improve. Providers may have admitted fewer hard-to-improve patients in 2002. Also, the national score could mask very different agency-by-agency trends. For example, the national score would remain the same if poor-quality agencies declined while high-quality ones improved.

Home health agencies' access to capital

Though access to capital may be a meaningful measure of payment adequacy for other health care sectors, it is not informative in the case of home health. Compared with other sectors, home health is not capital intensive. Few home health agencies access capital through publicly-traded shares or public debt. Capital seekers' access to capital appears to be largely determined by their size and the perception of regulatory risk for the industry. Total national health expenditures for home care in 2001 were \$33 billion—small compared with \$450 billion for hospital care or even \$100 billion for nursing homes. The largest publicly traded home care company has only a 2 or 3 percent market share (CMS 2003).

Furthermore, the home care industry's access to capital is not indicative of the adequacy of Medicare's payments

because, while Medicare is a substantial portion of the revenue for those providers who receive Medicare payments, there are many home care entities that receive little or no Medicare payments.¹¹ In fact, Medicare payments account for less than 30 percent of payments to the home care industry (defined as private-duty nursing, Medicaid home care providers, home infusion companies, and others). Medicaid's share of the total home care industry is nearly equal to Medicare's.

Investment analyst sentiment was generally positive for the publicly traded agencies; however, analysts regarded the sector as risky. CMS's industry report (CMS 2003) and those of four Wall Street firms (Raymond James, J.P.Morgan, Legg Mason, and Jeffries) that analyze the home health sector come to similar conclusions about the industry as a whole:

- Several reports note that Medicare is the highest margin payer in the industry.
- Most expect home health to outperform the Standard & Poor's 500 over the coming year.
- Several analysts cite the Congressional consideration of a patient copayment in Medicare as a significant risk for profitability in the sector.¹²
- Most also note the initiation of legal action (warrants and subpoenas) at several large companies as another source of risk.

A recent report on the largest publicly traded home health agency tends to confirm that the availability of capital and the adequacy of payments are not strongly related. Medicare is the largest payer—43 percent of revenues—at the agency. J.P. Morgan estimated that the company's Medicare margin was between 50 and 60 percent (Ripperger and Bao 2003). Yet, despite this finding of far more than adequate Medicare payments, J.P. Morgan gave the company only its second-highest rating out of a possible three.

Payments and costs for 2004

One method the Commission uses to evaluate the adequacy of current payments is to calculate the relationship between payments and costs. We project current costs and payments by modeling trends from the most recent available data. This year we are using a full set of fiscal year 2001 cost reports and extrapolating trends from 2001 and a partial set of 2002 data.

In modeling 2004 payments and costs, we incorporate policy changes that went into effect between the year of our most recent data—2002—and our target year—2004—as well as those scheduled to be in effect in 2005. For the home health sector, the 2004 estimate includes all the aspects of current law:

- the effect of the so-called “15 percent cut” implemented on October 1, 2002;
- the expiration of the 10 percent rural add-on for services provided to beneficiaries living outside metropolitan areas on April 1, 2003;
- the restart of the rural add-on at 5 percent on April 1, 2004;
- the full market basket increase in October 2003; and
- the decrease in the base rate of 0.8 in April 2004.

We did not include the January 2005 update of market basket minus 0.8 percent in the Medicare Prescription Drug, Improvement, and Modernization Act of 2003 (MMA) because that update is one of the questions at hand.

Hospital-based agencies are not included in our estimate of the aggregate margin for home health. In 2001, the aggregate margin for hospital-based agencies was 2.5 percent. The wide divergence of margins between hospital-based and freestanding HHAs cannot be accounted for by factors that could cause efficient providers' margins to differ.

- There are no payment differentials based on whether the agency is freestanding or hospital-based. Hospital-based agencies are about the same size, on average, as the freestanding ones and receive about the same amount of payment per agency on average.
- There is no evidence that hospital-based agencies produce a different product from freestanding agencies: The case mix is similar and the average number of visits per episode is essentially the same. When we compare the average number of visits per episode by visit type, the similarity persists.
- More hospital-based agencies are rural than freestanding agencies, 48 percent versus 35 percent respectively; however, we know that rural and urban margins are very close (Table 3D-4).

**TABLE
3D-4**

Freestanding home health Medicare margin, by type of agency, 2001 and estimated 2004

Type of agency	2001	2004
All agencies	16.2	16.8
Location of agency		
Urban	16.0	16.9
Rural	17.0	16.3
Caseload		
Urban	16.2	17.3
Mixed	15.3	15.1
Rural	18.7	17.8
Type of control		
Voluntary	15.0	15.6
Private	17.4	18.0
Government	10.7	11.3
Volume		
Very small (20 th percentile)	11.4	12.1
Small (20 th –40 th)	15.0	15.6
Medium (40 th –60 th)	14.8	15.4
Large (60 th –80 th)	17.9	18.5
Very large (80 th)	16.3	16.9

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

- Moreover, since care is delivered in the patient’s home, the location of the agency has no relation to the site of care.

Hospital cost allocation or differences in efficiency would seem to be likely explanations for the differences in margins.

Our model generates a current, aggregate margin of 16.8 in 2004, a slight improvement since the first full year of the PPS (Table 3D-4).¹³ This margin indicates that the payments are more than adequate to cover the costs of caring for Medicare beneficiaries. Few agencies are doing poorly in terms of their Medicare costs and payments: The distribution of margins from 2001 indicates that 80 percent of agencies had positive margins, and agencies with positive margins provided 82 percent of all episodes to beneficiaries.

Though the aggregate margin is high, some agencies will fare better than others in 2004. The similar margins of urban and rural agencies are, in part, the result of a

distributive policy already in the system—the additional payments for agencies serving rural beneficiaries. We see some variation in the margins when we look at agencies by type of control (voluntary, private, and government). There also appears to be a relation between the size of the agency and its financial performance. Though large and small agencies do well or poorly according to their own circumstances, larger ones have higher margins. The effect of size appears to diminish somewhat among very large agencies, as their margins are slightly lower than the margins of agencies that are slightly smaller.

The distribution of margins in 2001 (the year from which we are projecting 2004 margins) also leads us to the conclusion that some agencies are doing better than others. The median agency had a margin of 16.7 in 2001, while the agency at the 10th percentile of the distribution had a margin of –16.5. At the other end of the distribution, the agency at the 75th percentile had a margin of 28.9 and at the 90th percentile the margin was 40.2.

How should Medicare payments change in 2005?

Do we think that the adequacy of payments will change over the coming year? We examine the market basket, changes in the product, and productivity to determine how costs may change. We also examine scientific and technical advances that could diffuse over the coming year and determine whether an adjustment is needed.

The market basket increase for home health for 2005 is currently estimated at 3.1. The market basket reflects the increased prices of transportation, nursing wages, and other inputs that affect the cost of providing an episode of care.

Even though input prices have been rising over the past several years, the cost of producing an episode of care has fallen over the past several years because of product change and productivity. In 2000, the home health product changed because the unit of payment changed from visits to episodes. But more than the unit of payment changed: in 2003 the content of the home health product is different from that in 1997, 1999, or even 2000. It consists of fewer visits, shorter stays, and more therapy with less aide service. Although the product is changing, the outcomes are staying the same because the changes in the product have been accompanied by stable quality.

We cannot disentangle the separate impacts of changing product and productivity, but we have estimates of their combined effect. Costs per episode fell by 16 percent from 1999 to 2001 as the number of visits per episode was reduced by half. The rate of decline in the number of visits per episode continued at a much slower pace between 2001 and 2002, declining only by 1 percent. Our 2002 sample of cost reports indicates that costs per episode declined 1 percent between 2001 and 2002, even as input prices increased. Based on this evidence, we have projected that costs will remain the same between 2002 and 2004. If costs were to increase at the full rate suggested by the market basket, the estimated margin would still indicate that Medicare's payments more than cover the costs of providing services to Medicare beneficiaries.

In the future, product change and productivity growth could result from scientific and technological advances that lower costs as well as enhance quality. For example, nurses and therapists can increase their performance with more electronics in the home by:

- monitoring some patients with digital or audio signals rather than visits,
- performing some diagnostic procedures in the home,
- producing electronic records of patients' conditions and care notes at the point of care, and
- accessing patient data and sharing data with others on the Internet (Tweed 2003).

The increasing use of new therapies for wound care could also improve outcomes and enhance productivity. Vacuum pressure and heat can heal difficult wounds faster and more completely than previously available therapies. These therapies can also decrease the number of nursing visits necessary to treat the wound.

Additional payment is not necessary to promote the adoption of these advances because the home health PPS provides an incentive and reward for adopting technologies that reduce the number of visits necessary to deliver care. The PPS payment is based on the condition of the patient rather than the number of visits; thus, technology that reduces visits generates its own financial return. A few providers have already adopted these scientific and technological advances. We expect that computerization and new wound therapies will continue to proliferate, albeit slowly.

RECOMMENDATION 3D-1

The Congress should eliminate the update to payment rates for home health services for 2005.

RATIONALE 3D-1

Most beneficiaries have good access to care and our evidence suggests that quality has remained steady. Agencies are not leaving Medicare rapidly, nor has the number of agencies substantially increased. The aggregate margin for home health agencies continues to be very high, suggesting that there is more than enough money in the system to cover the costs of providing home health services to Medicare beneficiaries. The effects of product change and productivity will continue to offset increasing input prices; margins will remain high over the coming year without an increase to the base rate.

IMPLICATIONS 3D-1

Spending

- Because this recommendation provides no update to payments for home health services, whereas current law updates payments for these services by the market basket index minus 0.8, we expect this provision to reduce Medicare spending relative to current law by between \$200 million and \$600 million for 2005 and between \$1 billion and \$5 billion over 5 years.

Beneficiary and provider

- Because of the current and projected adequacy of payments, this recommendation should have no impact on beneficiaries or providers.

Should the prospective payment system change?

Despite the apparent adequacy of payments in the current year and in the coming year, some types of beneficiaries may have worse access today than in the recent past. The decline in use from 1996 to 2000 was the expected outcome of efforts to reduce fraud and abuse, changes in eligibility, and changes in the incentives of the payment system. Though expected, the decline remains a source of some concern for some policymakers. The disproportionate decline in use among beneficiaries with chronic conditions and beneficiaries without a caregiver in the years preceding the PPS could be a signal that some eligible beneficiaries have been excluded from the benefit.

While the PPS addressed many issues of the preceding payment system, we should carefully assess elements of this current payment system. Specifically, the factors used to determine the episode payment for a particular patient—the case-mix system—or the adjustment used to pay for particularly expensive patients may cause some agencies to prefer other patients whose care is more likely to be profitable. Payment system refinements could ameliorate any tendencies among providers to favor certain types of beneficiaries more than others.

What caused the decline in use between 1996 and 2000?

In 1996, 3.5 million beneficiaries used the home health benefit. In 2000, the number fell to 2.5 million users. Three substantial forces reduced the number of home health users:

- the interim payment system,
- changes in eligibility for the benefit, and
- enforcement of program integrity standards.

When the Congress changed the law in the BBA in 1997 and the Health Care Financing Administration implemented the interim system, the new structure favored short-term care over long-term, maintenance care. Under IPS, agencies were paid the lesser of three amounts: actual costs, aggregate costs per beneficiary subject to an agency-specific limit, or aggregate costs per visit subject to an agency-specific limit. This gave agencies an incentive to serve patients who needed few visits and to deliver the types of visits they could produce at costs below the limits. There were no outlier payments for high cost patients. Agencies reported that they tried to avoid less profitable patients under the IPS (Stoner et al. 1999).

Changing eligibility also had an impact on use. In 1997, the BBA clarified the acceptable frequency of visits and removed the drawing of blood as a qualifying service. Agencies reported that changing the eligibility criteria to exclude the drawing of blood decreased the number of users “significantly” in at least six high-use states (GAO 1999). By defining the term “part-time or intermittent,” the BBA narrowed its coverage of very frequent or nearly full-time care from 56 hours per week of nursing and home health aide service to 35 hours per week (Komisar and Feder 1998). Fifteen percent of the users in 1996 had more than 150 visits in the year; the decline in the average visits per user from 1997 to 2001 suggests that such heavy use is no longer common.

The enforcement of program integrity standards also changed the volume of visits and users. The Secretary initiated Operation Restore Trust, which scrutinized Medicare home health, prompted the involuntary closure of hundreds of agencies that were not in compliance with the program’s integrity standards, and established civil liabilities for physicians who knowingly falsely certified the eligibility of a beneficiary. The Secretary found that fraud and abuse was not uncommon during the period of peak use of the benefit. Program integrity activity continues: one of the entities that reviews home health claims for payment has consistently down coded or denied more than 20 percent of reviewed claims.

Did use decline more for some types of beneficiaries than others?

Researchers have examined the changes in home health from the peak year in 1996 until the implementation of the PPS in 2000 (McCall et al. 2001). Although the differences were not large, many found evidence that some groups of beneficiaries experienced greater declines than others, such as beneficiaries:

- in high-use states,
- with Medicaid buy-in,
- in rural areas, and
- without care givers.

MedPAC conducted two studies of this issue: the first to explore trends from 1996 to 2000 and the second to determine whether data from the first year following the implementation of the PPS showed similar trends.

We found mixed results in our first study.¹⁴ Two types of particularly vulnerable patients were not disproportionately excluded from the home health benefit during the period of declining use. Our comparison of surveys of home health agencies about their patients in 1996 and 2000 showed that both the average age and the functional disability of patients increased. These trends suggest that the older old, and the functionally limited were still using the benefit after the period of decline. On the other hand, we found that the proportion of users who did not have a caregiver fell over this period. The latter finding is consistent with a decline in the number of home health aide visits provided by home health agencies and may suggest that access to home health for such patients has lessened.

In our second study, we found declines in use among every type of beneficiary (e.g., hospitalized or nonhospitalized, chronic diagnosis or acute diagnosis) between 1996, the peak year of use of the benefit, and 2001, the first year of the PPS. However, the declines were not the same magnitude for every type of beneficiary. Those with the clearest need for the benefit (many or most of the beneficiaries of this type used home health) had the smallest decline. For example, beneficiaries who went to the hospital and had a cardiac catheterization used home health 38 percent of the time in 1996 and 31 percent in 2001. Those with a less clear need (some beneficiaries of this type used home health but most did not) had greater declines. For example, those hospitalized with chronic obstructive pulmonary disease used home health 25 percent of the time in 1996 and 12 percent in 2001. We will continue to monitor use to determine whether the pattern changes as agencies adjust to the PPS.

The incentives of the current system

Although not as drastic as its predecessor system, the PPS still favors short-term recovery care over long-term, maintenance care. The PPS case-mix system may make beneficiaries with little or no need for therapy and beneficiaries without their own caregiver less financially attractive. The PPS case-mix system assigns higher weights, and thus higher payments, to patients with needs for therapy. This structure would make lower payments for care of beneficiaries who have chronic conditions, if those conditions preclude or do not require therapy. Whether the payments are lower but still adequate is not clear. When the payment system was implemented, the gap in payments between a therapy patient and a nontherapy patient—with precisely the same clinical and functional needs—was \$450. Increases in the base payment since that time have widened the payment gap.

The case-mix adjustment system is neutral toward the presence or absence of a caregiver in patients' homes and the adequacy of patients' environments. This neutrality was a conscious decision on the part of the Medicare program: it did not wish to differentiate the benefit available to beneficiaries based on their socioeconomic status. This very neutrality, however, may cause some agencies to be reluctant to admit some beneficiaries without caregivers or those with challenging home environments because these patients may require more services without a compensating higher payment.

Home health agencies may still be serving fewer beneficiaries under the PPS than they did in 1996 because

of eligibility criteria or program integrity activities. If so, then neither increasing the base payment nor restructuring the system would increase use. Alternatively, agencies may be avoiding some types of patients because they anticipate a substantial loss on those patients or may be selecting patients in more profitable case-mix groups. A study of the outlier policy that is intended to mitigate agency losses for particularly expensive patients may indicate that HHAs are avoiding high-cost patients. MedPAC will study the relative profitability by case-mix group to determine whether some types of patients are more profitable than others and could suggest refinements to the case-mix system.

Every prospective payment system is built on the assumption that some patients will be more profitable than others and that aggregate payments will cover aggregate costs. Otherwise we would have a cost-based system. The fact that both high and low volume agencies have high and low margins suggests that the principle of averaging patient costs is actually functioning rather well in this system. It is possible, though, that some agencies—regardless of size—are choosing profitable patients and avoiding less profitable ones.

MedPAC plans to examine the need for refinements to the payment system and other aspects of the home health benefit. We will:

- examine the relationship between case mix and financial performance,
- analyze demonstrations that broaden the definition of homebound and substitute adult day health center services for in-home home health,
- extend our analysis of the characteristics of home health users, and
- study the outlier policy.

We will be undertaking a study of case mix and financial performance as requested by the Congress. We will examine margins by HHAs to determine whether agencies are systematically avoiding chronic care cases or high cost patients.

We will also closely watch two upcoming home health demonstrations at CMS. These demonstrations test two changes to the homebound definition to determine whether they result in substantially better access for beneficiaries, higher spending in home health, or savings elsewhere in the system. One demonstration will allow severely

disabled, but not homebound, beneficiaries to use home health services. The other will allow beneficiaries to receive some home health services in an adult day care center.

By extending our analysis of the characteristics of the users of home health, we can continue to monitor the impact of the changes on the decline in the total number of users and the adequacy of the case-mix adjustment. Comparing characteristics of users and nonusers—such as their Medicaid status—may help us determine whether the decline in the use of home health services has led to the inappropriate use of other services. Other characteristics, such as cognitive impairment or mental illness, may be related to patients' needs for service; indicators for these conditions are included in the patient assessment but not included in the case-mix adjuster.

In addition to MedPAC's work, these steps are also necessary:

- The Office of Inspector General should continue to monitor access to care for beneficiaries following hospitalization.
- CMS should continue the Consumer Assessment of Health Plans Survey (CAHPS) as an important part of monitoring beneficiaries' ability to access services with little or no problem.
- The Secretary should continue efforts to identify similar patients across settings and compare their use of services.

RECOMMENDATION 3D-2

The Secretary should continue to monitor access to care, the impact of the payment system on patient selection, and the use of services across post-acute care settings.

RATIONALE 3D-2

Although access for most beneficiaries is good, some types of beneficiaries may be experiencing problems. Use by some types of beneficiaries may have declined because of efforts to reduce fraud and abuse or changes to eligibility; clearly, no increase to the base payment is necessary to address such declines. However, some other types of beneficiaries may be disadvantaged by the new payment system. Even for them, increasing the base payment will not address their problems. Refinements to the payment system may be needed to improve access.

IMPLICATIONS 3D-2

Spending

- This recommendation should not affect Medicare benefit spending.

Beneficiary and provider

- This recommendation will have no immediate impact on beneficiaries or providers. ■

Endnotes

- 1 Other home care services, such as personal care or meal preparation, may be covered in some cases by Medicaid or other payers but are not included as part of the Medicare benefit.
- 2 Operation Restore Trust began as a demonstration project in 1995 in California, Florida, Illinois, New York, and Texas, and was expanded to additional states in 1997. It included skilled nursing facilities and other sectors of Medicare in addition to home health. Activities were focused on providers with suspect patterns of utilization.
- 3 The case was *Duggan v. Bowen*, 1988.
- 4 For the purposes of home health payments, fiscal year 2004 began on October 1, 2003. On January 1, 2004, the MMA shifted the payment cycle from this fiscal cycle to a calendar year cycle. However, in this section, “year” refers to fiscal year unless otherwise noted.
- 5 Our analysis is based on a new database of agency service areas collected and maintained in CMS’s “Home Care Compare” database. The service areas are the postal ZIP codes where an agency provided care to at least one beneficiary in the last 12 months. We used a snapshot of this database as of May 1, 2003, to determine the geographic access area. This measure could differ from estimates that rely upon the licenses or certifications of agencies to determine served areas, because a license or certification does not guarantee that the agency ever actually served a beneficiary in the area (e.g. some states give HHAs state-wide licenses even though they only operate in several counties). Also, the licensure/certification measure relies upon counties as its base unit; the ZIP codes in this database are smaller than counties in most cases, but some are actually larger than counties. Using either ZIPs or counties to describe service areas will overstate the real service area of agencies that are willing to serve beneficiaries in only one part of a ZIP or county.
- 6 Under the PPS, a beneficiary may receive multiple 60-day episodes of home health services, as long as they remain eligible for the benefit. Thus, a single stay is the amount of time between the start-of-care and discharge; it may be one 60-day payment episode or several payment episodes.
- 7 Both AHRQ’s National Healthcare Quality Report and CMS’s Home Care Compare system use the Medicare and Medicaid populations to measure the quality of home health agencies.
- 8 Agencies were not required to collect OASIS until August 1, 1999. To ensure the comparability of our sample, we compared cases from August 1, 2002 through December 31, 2002 to our 1999 sample as well cases for all of calendar year 2002 and found the same result.
- 9 This system scores each full episode of care based upon the average points assigned for the episode. Points are assigned for each outcome that had the potential to improve or decline (e.g. shortness of breath, ability to walk, ability to manage oral medications). Two points are assigned to an improvement, 1 point to a stabilization, and –1 point to a decline. The score is the average of the points assigned for each outcome (e.g. improved breathing would receive a 2, decreased ability to walk a –1, stabilization in ability to manage oral medications a 1, for an average score of 0.66). The score is decreased by 1 point for each use of emergent care or unplanned hospitalization that fits the criteria discussed above. No points are assigned for those outcomes that did not have the potential to improve or decline (e.g. if patients had no injectable medications when they were admitted to home care, then their ability to manage injectable medications did not have the potential to improve or decline). The national score is the average of all episode scores for that year.
- 10 Patient severity may have been assessed inconsistently in 1999 and 2002. Because payments were linked to the severity score in the intervening year, less-severe patients may have been rated as more severe in 2002 than they were in 1999.
- 11 Medicare’s share of patients among those agencies that are Medicare certified is substantial. The caseload of the average Medicare-certified agency is 80 percent Medicare fee-for-service or Medicare+Choice (Outcome Concept Systems 2002). Medicaid recipients and persons with private pay sources each have about 10 percent of the remainder of the caseload of Medicare certified agencies.
- 12 The copayment was not implemented in the MMA.
- 13 The aggregate margin is the sum of all payments to all agencies, less the sum of all costs of all agencies, divided by the sum of all payments to all agencies.
- 14 MedPAC analysis of The National Home and Hospice Care Survey, a nationally representative sample of home care patients, conducted by the National Center for Health Statistics. This work extends the work of Murkofsky and colleagues (2003).

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3 E
SECTION

Outpatient dialysis services

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

3E-1 The Congress should maintain current law and update the composite rate by 1.6 percent for 2005.

COMMISSIONER VOTES: YES 16 • NO 0 • NOT VOTING 1 • ABSENT 0

.....
3E-2 The Congress should establish a quality incentive payment policy for physicians and facilities providing outpatient dialysis services.

COMMISSIONER VOTES: YES 17 • NO 0 • NOT VOTING 0 • ABSENT 0

SECTION 3E

Section 3E: Outpatient dialysis services

In this section:

- Are Medicare payments adequate in 2004?
- How should Medicare payments change in 2005?
- Updating payments for composite rate services in 2005
- Using payment incentives to improve dialysis quality

Current aggregate Medicare payments for outpatient dialysis services appear to be adequate. Our review of the evidence shows beneficiaries are not facing systematic problems in accessing care, the volume of services provided is increasing, providers have sufficient capacity to meet demand, quality is improving for some measures, and providers' access to capital is good. Our estimate of the Medicare margin for composite rate services and injectable drugs is 2.7 percent in 2004. To account for changes in providers' costs in 2005, the Congress should update the composite rate for outpatient dialysis services by 1.6 percent. Updating composite rate payments will maintain beneficiaries' access to care but additional steps need to be taken to ensure beneficiaries receive high-quality health care. Although quality has improved for some measures, current efforts have not uniformly improved care for all beneficiaries. Consequently, Medicare should provide payment incentives to physicians and facilities to improve the quality of dialysis care. By directly rewarding quality, the program would send the strong message that it values the care beneficiaries receive and encourages investments in quality.

End-stage renal disease (ESRD) is a chronic illness characterized by permanent kidney failure. Occurring at the last stage of progressive impairment of kidney function, the illness is caused by a number of conditions including diabetes, hypertension, glomerulonephritis, and cystic kidney disease. Persons with ESRD require either chronic dialysis or a kidney transplant to maintain life. Because of the limited number of organs available for transplantation, the majority of ESRD patients receive chronic dialysis. The 1972 amendments to the Social Security Act extended Medicare benefits to people with ESRD, and about 300,000 patients were enrolled in 2002.¹

Medicare spending for outpatient dialysis services furnished by freestanding dialysis facilities totaled \$5.6 billion in 2001.

- Medicare pays a prospective payment—the composite rate—for each dialysis treatment provided in dialysis facilities (in-center) or in patients' homes.² The average composite rate was about \$130 per dialysis treatment and payments for these services accounted for 59 percent of total Medicare payments to facilities in 2001.
- Facilities receive additional, separate payments for furnishing certain services during dialysis. Payments for injectable drugs represent the second largest component of spending. In 2001, Medicare's payments for injectable drugs averaged about \$80 per dialysis treatment and payments for these services accounted for 41 percent of total Medicare payments to facilities.
- The Congress has set the payment for erythropoietin, the costliest of these drugs (in terms of spending by Medicare and beneficiaries), at \$10 per 1,000 units whether it is administered in dialysis facilities or in patients' homes. Facilities receive 95 percent of the average wholesale price (AWP) for separately billable injectable drugs other than erythropoietin administered during in-center dialysis. Spending for other services for which facilities receive separate payments—primarily medical supplies, laboratory services, and blood products—accounted for less than 1 percent of their payments in 2001.

Medicare spending for outpatient dialysis services furnished by freestanding facilities increased by 9 percent per year between 1996 and 2001.³ Two factors that contribute to the growth in Medicare spending are the increasing size of the ESRD population and the diffusion of new technologies.

- Incident rates per million population have been increasing steadily since 1980 (USRDS 2003). For example, the number of new ESRD patients increased by about 6 percent annually between 1990 and 2001. Increasing incident rates have been linked to the aging of the U.S. population, as well as increases in the number of people with diabetes, which is a risk factor for ESRD.
- New technologies—particularly injectable drugs, such as erythropoietin, iron supplements, and vitamin D analogues, which were not available when the outpatient dialysis payment system was implemented in 1983—have also increased Medicare's spending for dialysis services. Between 1996 and 2001, spending increased by 12 percent per year for erythropoietin and 25 percent per year for other injectable drugs.

In response to concerns about how Medicare pays for outpatient dialysis services, the Medicare Prescription Drug, Improvement, and Modernization Act of 2003 (MMA) changes how Medicare pays for injectable drugs and dialysis treatments (see text box at right). Beginning in 2005, the composite rate payment will be augmented by the difference between Medicare's payments and providers' acquisition costs for injectable drugs (i.e., the "spread") and this augmented payment will be adjusted for patient case mix. In addition, facilities will be paid the acquisition cost for dialysis injectable drugs.⁴

These changes partly reflect concerns previously raised by MedPAC that Medicare's policies do not appropriately pay for outpatient dialysis services. We have shown that injectable drug spending has significantly increased since the mid-1990s and that the profitability of these services is offsetting the decreasing payment margins under the composite rate. These findings led the Commission to make a series of recommendations to modernize how Medicare pays for outpatient dialysis services. These recommendations included broadening the payment bundle to include widely used services currently excluded from it and adjusting for factors affecting providers' costs, including patient case mix, the frequency of dialysis, the dose of dialysis, and the dialysis method (MedPAC 2001). MedPAC has also called for efforts to measure and report on dialysis quality to ensure provider accountability. By modernizing the payment system for outpatient dialysis, Medicare can better achieve its objectives of controlling costs and promoting access to quality services.

Changes to the outpatient dialysis payment system by the Medicare Prescription Drug, Improvement, and Modernization Act of 2003

The Medicare Prescription Drug, Improvement, and Modernization Act of 2003 (MMA) makes substantial changes to how Medicare pays for renal dialysis services. The Act calls for the Secretary to: (1) case-mix adjust payments for certain services; (2) report to the Congress on the design and features of a bundled prospective payment for dialysis services; (3) conduct a demonstration study of a bundled payment system; and (4) make other changes, including updating the composite rate by 1.6 percent in 2005 and restoring the exemption to the composite rate for pediatric facilities.

Adjust payments for differences in case mix.

Beginning on January 1, 2005, the Secretary is required to enact a basic case-mix adjusted payment system for dialysis services, but not to create a broader payment bundle. That is, Medicare will still separately pay for injectable drugs that are excluded from the current payment bundle. Providers will be paid:

- a case-mix adjusted payment for composite rate services and the difference between payments for and the acquisition cost of injectable drugs and biologicals, and
- the acquisition cost of existing injectable drugs and biologicals.

Beginning in 2006, the Secretary will increase case-mix adjusted payments by the estimated growth in expenditures for injectable drugs and biologicals. The Act requires the Secretary to include new injectable drugs in the case-mix adjusted payment beginning in January 1, 2007.

The Secretary will obtain information about the acquisition cost of injectable drugs and the rate of growth in expenditures for these items from two studies conducted by the Office of Inspector General. The first study will include existing drugs and biologicals (for which a billing code existed prior to January 1, 2004) and is due to the Congress on April 1, 2004. The second study will include new drugs and biologicals (for which a billing code did not exist prior to January 1, 2004) and is due to the Congress on April 1, 2006.

The Secretary can enact a geographic index for the case-mix adjusted payment, but a new index must be phased in over a multiyear period. Currently, the composite rate is adjusted for differences in labor costs using two dated hospital wage indices. MedPAC recommended that the Secretary develop a wage index based on market wage rates for occupations typically used in furnishing dialysis (MedPAC 2001).

Finally, the MMA requires that the case-mix adjusted payment system result in the same aggregate amount of expenditures for such services as would have been made in 2005, 2006, and 2007 if payments were not case mix adjusted.

Design a bundled payment system. The Secretary is required to submit to the Congress by October 1, 2005 a report on broadening the outpatient dialysis payment system to include injectable drugs, laboratory tests, and other items currently excluded from it. The report will describe:

- the services included in the payment bundle,
- how the system will account for the relative resource use of different types of patients,
- how the system will account for geographic differences in wages,
- the appropriateness of adjusting payments to account for additional costs incurred by rural facilities,
- the methods to be used to establish payment rates, and
- the methods to be used for appropriate updates.

Conduct a demonstration. Beginning on January 1, 2006, the Secretary is required to conduct a three-year demonstration to test a broader payment bundle that includes injectable drugs and clinical laboratory tests that are currently excluded from it. The Secretary is required to ensure that a sufficient number of providers participate in the study, but that the number not exceed 500, and that an adequate number of different types of

(continued next page)

Changes to the outpatient dialysis payment system by the Medicare Prescription Drug, Improvement, and Modernization Act of 2003 (continued)

providers are included, such as those located in rural and urban areas. While facilities participate in the demonstration, their composite rate will be increased by 1.6 percent.

The MMA also requires the Secretary to establish an advisory panel that will include clinicians, economists, and researchers with expertise in dialysis services; and representatives from MedPAC, the National Institutes of Health, the Network organizations, Medicare's

quality improvement organizations, patient organizations, and provider groups.

Other changes. The MMA increases the composite rate by 1.6 percent beginning in January 1, 2005. It restores exceptions for the composite rate for pediatric facilities retroactive to October 1, 2002. Pediatric facilities are those with at least 50 percent of their patients under 18 years of age. ■

In this chapter, we assess the adequacy of outpatient dialysis payments and make an update recommendation for the composite rate payment in 2005. We then discuss reasons why Medicare should use quality incentives as another mechanism to promote access to quality dialysis care. By rewarding quality, the program would send the strong message that it values the care patients receive and encourages investments in quality.

Are Medicare payments adequate in 2004?

The first question in applying MedPAC's approach to updating payments is whether the current level of Medicare's payments for outpatient dialysis services is adequate. The Commission answers this question by assessing aggregate Medicare payments and costs for both dialysis services and injectable drugs for which facilities receive separate payment. Our assessment includes the payments and costs for injectable drugs because their use has increased substantially throughout the 1990s and their effect on the financial performance of dialysis providers is significant. Including payments and costs for separately billable drugs gives a more accurate picture of the financial performance of dialysis providers.

The findings from our analysis of beneficiary-focused and provider-focused measures suggest that aggregate payments for dialysis services and injectable drugs are adequate. We base this conclusion on the following evidence:

- Beneficiaries do not appear to have systematic problems accessing outpatient dialysis services.

- Providers have sufficient capacity to treat dialysis patients.
- The volume of services—dialysis treatments and separately billable drugs—is growing.
- Providers continue to improve the quality of care furnished to beneficiaries, as assessed by measures of dialysis adequacy and anemia management.
- The dialysis sector appears to have sufficient access to capital, as shown by the continued growth in the number of for-profit freestanding facilities.
- Current payments for composite rate services and injectable drugs cover efficient providers' costs. The aggregate Medicare margin for 2001 is 5.2 percent when the effect of CMS's most recent audit of facilities' cost reports is considered (see text box, p. 178). We estimate that the aggregate Medicare margin will be 2.7 percent in 2004, assuming that the share of revenues for injectable drugs relative to composite rate payments increases between 2001 and 2004 by the 1999–2001 trend in injectable drug spending.

Beneficiaries access to care

A review of the published literature shows no evidence of beneficiaries facing systematic problems in obtaining needed dialysis care in 2002 and 2003. Reports of facility closures tend to be linked to local issues, such as rising real estate prices in certain areas, shortages of technicians and nurses, and states' certificate-of-need regulations.

Access to specific types of dialysis—in-center hemodialysis, peritoneal dialysis, and home hemodialysis—shows little change over time. Between 1998 and 2002, at least 96 percent of all facilities offered in-center hemodialysis, about 40 percent offered continuous cycling peritoneal dialysis, and about 45 percent offered continuous ambulatory peritoneal dialysis.

Our analysis of the pattern of facility closures suggests that beneficiaries should not be having problems accessing care in rural areas, health professional shortage areas (HPSAs), lower-income areas, or areas where a higher proportion of minorities reside. Specifically, facilities that closed were as likely to be located in rural, health professional shortage, and lower income areas as those that remained in business between 1998 and 2002. For example:

- 26 percent of facilities that remained open were located in rural areas compared with 28 percent of facilities that closed;
- 10 percent of facilities that remained open and 10 percent of facilities that closed were located in HPSAs;
- 22 percent of all households were receiving public assistance in areas served by facilities that remained in business and facilities that closed; and
- 15 percent of the population were African American in areas served by facilities that remained in business and facilities that closed.

A disproportionate number of facilities that closed were small, nonprofit, and hospital based.⁵ However, beneficiaries' access to care does not appear to have been adversely affected as a result of these closures because these facilities were not disproportionately located in rural areas, HPSAs, or areas where minorities or lower income populations reside.

Our finding—that facilities that closed were more likely to be small, nonprofit, and hospital based than facilities that remained open—is consistent with the changes in the characteristics of dialysis providers in the 1990s and through 2002 (Table 3E-1). During this time, freestanding facilities increased from 70 percent to 83 percent of all facilities, while for-profit facilities increased from 61 percent to 80 percent of all facilities. Our finding that freestanding and for-profit facilities have steadily increased as a share of the total throughout the 1990s suggests that dialysis facilities are sufficiently profitable to stand on their own and that furnishing dialysis services to ESRD patients is financially attractive to for-profit providers.

In addition, quality of care does not appear to have been adversely affected by the closures of small, nonprofit, and hospital-based facilities. Providers continue to improve the quality of care furnished to beneficiaries, as assessed by measures of dialysis adequacy and anemia management (Table 3E-2, p. 164). Investigators assessing the relationship between facilities' profit status and quality of care report differing results. Recent studies by MedPAC,

**TABLE
3E-1**

Total number of dialysis facilities is growing; for-profit and freestanding are a higher share over time

	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
Total number of dialysis facilities	2,343	2,502	2,732	2,940	3,172	3,394	3,619	3,805	3,961	4,132
Percent of all facilities										
For profit	61	62	65	67	71	75	77	78	79	80
Nonprofit	33	32	30	28	25	22	20	19	18	17
Government	6	6	5	4	4	3	3	3	3	3
Freestanding	70	72	74	75	77	79	81	82	83	83
Hospital-based	30	28	26	25	23	21	19	18	17	17
Urban	77	77	77	76	76	75	75	75	75	75
Rural	23	23	23	24	24	25	25	25	25	25

Source: Data compiled by MedPAC from the 1993–2002 Facility Survey file from CMS.

**TABLE
3E-2**

The quality of dialysis care has improved for some measures

Outcome measure	1998	1999	2000	2001
Percent of in-center hemodialysis patients:				
Receiving inadequate dialysis	20	16	14	11
With low anemia levels	41	32	26	24
Who are malnourished	18	20	20	18
Percent of peritoneal patients:				
Receiving inadequate CAPD	45	32	31	32
Receiving inadequate CCPD	42	35	38	30
With low anemia levels	38	31	27	24
Who are malnourished	41	44	44	39

Note: CAPD (continuous ambulatory peritoneal dialysis). CCPD (continuousycler-assisted peritoneal dialysis). The two predominant types of peritoneal dialysis are CAPD and CCPD. The share of all dialysis patients treated with peritoneal dialysis has declined from 13 to 10 percent between 1998 and 2001; nearly all other dialysis patients were treated with in-center hemodialysis during this time. Comparing the outcomes between hemodialysis and peritoneal dialysis is complicated because the data presented above are not adjusted for differences in the demographic and clinical characteristics of these patient groups. See CMS 2002 for the definitions of dialysis adequacy, anemia status, and nutritional status.

Source: CMS 1999–2002.

CMS, and others have concluded that facilities’ profit status is not associated with patients’ outcomes (Frankenfield et al. 2000, Held et al. 2002, MedPAC 2003b, Port et al. 2001, Wolfe et al. 2002). By contrast, other investigators have found a positive correlation between facilities’ profit status and rates of mortality and transplantation (Devereaux et al. 2002, Ebben et al. 2000, Garg et al. 1999, McClellan et al. 1998).

Some providers contend that they are limiting their exposure to Medicare patients. Using data from CMS’s facility survey, our data show little correlation between the proportion of Medicare patients and facility closings during this time.

Finally, no data yet exist on how satisfied beneficiaries are with the care provided by outpatient dialysis facilities. In March 2000, MedPAC recommended that CMS should collect information on ESRD patients’ satisfaction with the quality of and access to care (MedPAC 2000). Accordingly, CMS and the Agency for Health Care Research and Quality are developing a consumer assessment survey for care delivered in facilities. This survey will be a part of the other surveys assessing

consumer satisfaction, some of which are used by MedPAC to assess access to care in other sectors, including home health.

Changes in the supply of dialysis facilities

The capacity of providers to furnish care has increased steadily between 1993 and 2002 as shown by the similar growth in the number of facilities, in-center hemodialysis stations, and patients:

- dialysis facilities grew 7 percent annually (Table 3E-1),
- in-center hemodialysis stations grew 8 percent annually, and
- in-center hemodialysis patients grew 6 percent annually.

We focus on in-center hemodialysis because most dialysis patients—about 90 percent—are treated with this dialysis method. Providers have kept up with the demand for dialysis by increasing the number of facilities rather than increasing capacity within facilities. We based this finding on our analysis of trends in the following:

- average hemodialysis stations per facility,
- average in-center hemodialysis treatments per facility,
- average in-center hemodialysis treatments per dialysis station, and
- average of in-center hemodialysis shifts per week.

The total number of in-center hemodialysis treatments provided by dialysis facilities has increased by about 9 percent per year between 1998 and 2002, but the average number of hemodialysis stations per facility has remained relatively constant at about 17 per facility. Average total dialysis treatments per facility also have remained relatively constant, ranging from 9,000 to 9,400 per year during this time period. The number of in-center hemodialysis shifts per week increased, from 9.5 per week in 1998 to 11.3 in 2002, but only one-fifth of all facilities offered treatments after 5 p.m. between 2000 and 2002.

Opening new facilities may improve access to care by reducing the time beneficiaries spend in traveling to obtain care. Researchers have noted that transportation to and from the dialysis facility can affect patients’ compliance with their prescribed treatment, with some patients

shortening their dialysis treatments or skipping treatments (Rocco and Burkart 1993, Sehgal et al. 1998, USRDS 1997). However, the sustained growth in the number of dialysis facilities raises questions about the optimal efficiencies of scale and the trade-off between opening new facilities and increasing the capacity of existing facilities.

Finally, the growth in the number of facilities has occurred at the same time that an increasing proportion of dialysis patients are treated with in-center hemodialysis instead of peritoneal dialysis (the predominant method used at home). In 2001, 90 percent of all dialysis patients received in-center hemodialysis, an increase from 81 percent in 1990. By contrast, use of peritoneal dialysis has declined during this time (USRDS 2003). This trend has occurred even though facilities' costs for peritoneal dialysis are lower than their costs for hemodialysis and Medicare pays the same rate for both dialysis methods. Several reasons may explain this trend:

- Certain patients may prefer the social interaction of in-center care, might not be sufficiently independent to perform home dialysis, or may have clinical characteristics that preclude the use of peritoneal dialysis.
- The rapid growth in the number of dialysis facilities throughout the 1990s has created an incentive to direct patients to treatment in-center so that facilities operate at capacity.
- The profitability of separately billable drugs may also provide an incentive for in-center care. Facilities can separately bill for all clinically necessary injectable drugs for in-center patients; by contrast, for home patients, they can only bill for erythropoietin. Beginning in 2006, however, clinically necessary injectable and oral dialysis drugs administered by patients in their homes will be covered under the Medicare Part D, voluntary prescription drug benefit.

Changes in the volume of services

Between 1993 and 2002, the growth in the number of in-center hemodialysis treatments generally kept pace with the growth in the number of dialysis patients. The number of dialysis treatments increased, on average, by 8 percent annually; in comparison, the number of dialysis patients increased, on average, by 6 percent during this time period.

The growth in payments for injectable drugs increased more rapidly than the growth in payments for dialysis

treatments in the 1990s.⁶ Between 1996 and 2001, total payments for erythropoietin furnished by freestanding dialysis facilities increased by 12 percent per year, and total payments for other injectable drugs increased by 25 percent per year. In contrast, payments for composite rate services increased by 6 percent per year during this same period.

Consequently, revenue from injectable drugs has become increasingly important relative to revenue for composite rate services during the past five years. For freestanding dialysis providers, revenue from injectable drugs relative to that from composite rate services has increased from about 30 percent of total payments in 1996 to 41 percent of total payments in 2001. Until the outpatient dialysis payment system is modernized and injectable drugs are included in the prospective payment bundle, little incentive will exist to manage the use of these drugs to optimize clinical results while being cost conscious.

The use of injectable drugs has grown for several reasons. First, many of the agents—including erythropoietin, iron supplements, and vitamin D analogues—were only approved by the Food and Drug Administration in the early 1990s. Following their approval, their use has been advocated in clinical guidelines set forth by the National Kidney Foundation (NKF). The use of many of these drugs has enhanced the quality of care furnished to dialysis beneficiaries and their quality of life. For example, the increased use of erythropoietin has reduced the proportion of dialysis patients suffering from anemia, which contributes to morbidity if not treated effectively. Medicare's coverage decisions will also affect use of these drugs. For example, CMS made a national coverage decision to cover injections of levocarnitine for patients with ESRD beginning on January 1, 2003.⁷

However, the profitability of certain injectable drugs has provided incentives in how they are used. For example, Medicare pays \$10 per 1,000 units for erythropoietin administered either intravenously or subcutaneously (under the skin). Paying on a per unit basis promotes the use of the intravenous form of this medication, which requires higher average doses (more units) to achieve target hematocrit levels. CMS data shows that the proportion of hemodialysis patients prescribed erythropoietin subcutaneously declined from 12 percent in 1998 to 10 percent in 2001 (CMS 2002). The predominant use of intravenous erythropoietin persists despite the publication of the NKF's Dialysis Outcome Quality

Initiative Clinical Practice Guideline for the treatment of anemia, which advocated subcutaneous administration.⁸

Data from the U.S. Renal Data System (USRDS) also raise questions about the efficiency of providers in furnishing injectable drugs. Using Medicare claims data, the USRDS found substantial variation in spending across the different providers. Specifically, per patient per month spending varied from \$421 to \$501 for erythropoietin, \$58 to \$86 for injectable iron, and \$95 to \$157 for vitamin D analogues across the four major for-profit chains and hospital-based facilities (USRDS 2003). As noted later in this section, some of this variation may be related to case-mix, as providers' costs vary based on patients' characteristics. Our previous finding—that beneficiaries' outcomes are poorer for facilities with higher than average costs—could suggest that the profitability of injectable drugs may be providing incentives for their overuse, to the extent possible, by certain providers (MedPAC 2003b).

Changes in the quality of care

Clinical performance indicators collected by CMS show continued improvements in the quality of dialysis care, as evidenced by the declining percentage of hemodialysis and peritoneal patients receiving inadequate dialysis and suffering from anemia (Table 3E-2). For example, the proportion of hemodialysis patients receiving inadequate dialysis declined from 20 percent in 1998 to 11 percent in 2001. However, no clinically important changes or improvements were found in the percentage of hemodialysis and peritoneal dialysis patients with adequate or optimal serum albumin levels in 2001 compared with those of previous years. Mean serum albumin levels below certain norms have been shown to be a marker for diminished patient survival. Some providers and researchers contend that increased use of certain types of medical interventions, particularly parenteral nutrition, would improve the outcomes of certain patients. Medicare's coverage policies limit the number of dialysis patients who qualify for these interventions.⁹

A recent report by the General Accounting Office (GAO) raised important issues about the quality of dialysis care in the U.S. (GAO 2003). GAO's analysis focused on quality assurance issues: how well facilities are meeting Medicare's baseline standards of care and conditions of coverage and how well CMS and the state survey agencies (under contract to CMS to perform onsite inspections) are targeting and conducting inspections. GAO concluded that

infrequent, poorly targeted, and inadequate inspections by state survey agencies allow quality problems to go undetected. MedPAC examined many of these issues in June 2000 and made three of the recommendations included by GAO: (1) to increase the frequency of inspections, (2) to implement intermediate sanctions, and (3) to publicly release the results of the survey and certification efforts on CMS's website that provides information about each dialysis facility.

Currently, Medicare uses three levers to maintain and improve dialysis quality:

- quality assurance efforts that aim to ensure that facilities meet minimum standards of care,
- quality improvement efforts that aim to improve the quality of care furnished by facilities, and
- public reporting of facility-specific information in CMS's Dialysis Facility Compare website to promote more active consumer participation in health decisions.

At least two other levers are available to improve quality in fee-for-service Medicare: linking payment to quality and using disease management and other care coordination services. Later in this section we discuss the use of incentives that reward high-quality care. MedPAC has endorsed linking payment to quality (MedPAC 2003b).

MedPAC plans to discuss the use of disease management, which may also offer opportunities to improve quality of care, in forthcoming work. In the case of ESRD, policymakers and clinicians are interested in the potential of disease management to improve quality because such management has the potential to coordinate and improve care for all of a beneficiary's comorbidities. ESRD beneficiaries require care for other chronic, high-cost conditions—in 2001, about 78 percent of dialysis patients had hypertension, 45 percent had diabetes, and 32 percent had congestive heart failure (USRDS 2003). Consequently, ESRD beneficiaries are costly; although representing less than 1 percent of all beneficiaries, they account for about 6 percent of all Medicare spending and their average spending was \$58,000 in 2001. Not surprisingly, a substantial portion of spending—36 percent—is for dialysis and injectable drugs.

Policymakers and clinicians are also interested in the potential of disease management because the current outpatient dialysis payment system fails to promote the optimal provision of coordinated dialysis care. These

deficiencies include the size of the prospective payment bundle—a single dialysis session—and the content of the bundle—which currently excludes commonly furnished services. It is noteworthy that inpatient care accounted for 36 percent of 2001 spending. Finally, disease management also offers opportunities to improve the care furnished to beneficiaries with chronic kidney disease before they develop permanent kidney damage by delaying the progression of the disease and by better preparing patients for dialysis and kidney transplantation.

Dialysis facilities' access to capital

Dialysis facilities need access to capital to improve their equipment and to open new facilities to accommodate growth in the number of patients requiring dialysis. In 2002, 83 percent of all dialysis facilities were freestanding, 80 percent were for profit, and the four largest for-profit chains accounted for about two-thirds of freestanding facilities. The four largest for-profit national chains appear to have adequate access to capital, as demonstrated by growth in the number of clinics, the number of patients they treat, and their earnings. In 2002, these national chains acquired 35 facilities and opened 104 facilities.

Data from industry sources show continued growth in revenues between 1998 and 2002 ranging from 10 to 25 percent for these chains. Information from analysts suggests that these providers have few problems with accessing capital; bond ratings for two of the largest chains, although below investment grade, are neutral going forward. Key operational ratios for 2002 for the four national chains suggests average or above-average performance:

- Return on total capital, a measure of how effectively a company uses capital, ranges from 5 to 30 percent.¹⁰
- Return on equity, a key measure of capital efficiency, ranges from 5 to 63 percent (before tax) and 3 to 31 percent (after tax).

Analysts also note that the sector benefits from stable dialysis treatment revenues (because patients require maintenance dialysis unless they undergo kidney transplantation) and attractive growth prospects fueled by the aging of the population and the increasing rate of diabetes and obesity. However, they also have noted that dialysis providers face potential pressures from private payers and Medicare. Although about three-quarters of the patients of these chains are insured by Medicare as the

primary payer, the proportion of revenues from Medicare ranges from 50 to about 65 percent across the chains.¹¹ Finally, the stocks of these for-profit chains have in large part enjoyed positive ratings by financial analysts in 2003.

Factors other than Medicare's payment rates may also influence access to the capital markets for these four chains because each chain operates other lines of business. All four chains operate clinical laboratories and, as noted later, the revenues derived from furnishing laboratory services for Medicare patients are not yet included in MedPAC's analysis of payments and costs.¹² Two chains also manufacture dialysis equipment and supplies.

Data from industry sources suggest that smaller chains also have adequate access to capital, as demonstrated by their ability to acquire existing facilities. Furthermore, new organizations are entering the dialysis sector, indicating that private investors have a positive outlook on this sector. For example, a newly formed organization was able to raise \$23 million in private equity to develop and acquire outpatient dialysis facilities. Another newly formed organization is focusing on providing care to patients with chronic kidney disease and furnishing home dialysis therapies.

Payments and costs for 2004

The Commission assesses current payments and costs for dialysis services by comparing Medicare's payments for composite rate services and injectable drugs with providers' Medicare-allowable costs. Cost reports provide data on the costs providers incur to furnish dialysis services and injectable drugs. Data from 2001 cost reports were used to estimate Medicare's payments for dialysis services and 2001 claims data were used to estimate Medicare's payments for separately billable injectable drugs. We would have preferred to use 2002 data but CMS's on-line database was lacking cost reports for more than half of all freestanding dialysis facilities. By contrast, the database contained cost reports for 91 percent of all freestanding facilities in 2001.

The lag between data collection and data access is frustrating to users of the data, especially considering that freestanding dialysis facilities are required to submit their cost reports to CMS's contractors—fiscal intermediaries (FIs)—within three months following the close of their cost reporting period and that failure to do so may result in suspension of payments (CMS 2004b). It is unclear whether the lag is due to delays by the fiscal intermediaries or CMS. Under prospective payment, the

information from cost reports is important for assessing payment adequacy, the result of which can affect beneficiaries' access to care.

Consequently, we encourage CMS to make a priority its responsibility for maintaining the timeliness and integrity of the data. We further note that the resources to carry out this responsibility must be provided by the Secretary and the Congress.

The Commission has traditionally expressed the relationship of aggregate payments to costs as a payment-to-cost ratio. For the first time, we provide facilities' payment margin—another way to assess the relationship of payments to costs. A margin is calculated as payments less costs divided by payments—conceptually, the amount of revenue a provider keeps. Finally, similar to last year's analysis, we assess providers' costs in two ways. First, we used the actual costs reported by providers that have not yet been audited by CMS. Second, we adjust the actual costs by the ratio of allowable costs to reported costs from the most recent (1996) complete audit of cost reports (see text box, p. 178).

For 2001, we estimate that the aggregate Medicare margin for composite rate services and injectable drugs is 5.2 percent (which translates into a payment-to-cost ratio of 1.05) when the effect of the audit is considered (Table 3E-3). Aggregate margins vary based on a facility's size, affiliation with a national chain, and profit status. This finding stems from differences in the cost per treatment, which is on average 8 percent lower for facilities that are large, affiliated with a national chain, and for profit compared with facilities that are small, not affiliated with a chain, and nonprofit.

Aggregate margins for composite rate services and injectable drugs declined from 10.5 percent in 1999 to 5.2 percent in 2001 even though the composite rate was increased twice during this period. Factors influencing this decline include the spike in providers' costs between 2000 and 2001 for composite rate services, which is discussed later in this section, and the increase in the acquisition cost of erythropoietin during this time.

We estimated 2004 payments and costs for composite rate services and injectable drugs administered during dialysis treatment using data from the 2001 cost reports and outpatient claims submitted by freestanding dialysis providers. Current law leaves the composite rate payment unchanged between 2002 and 2004. We estimated the increases in composite rate costs over the same period by

**TABLE
3E-3**

Aggregate margins for composite rate services and injectable drugs for freestanding dialysis facilities, 2001

Type of facility	As reported	Adjusted for audit
All facilities	2.4%	5.2%
Small	-6.8	-4.2
Medium	1.6	4.8
Large	5.7	8.2
Nonprofit	-5.7	-4.2
For profit	3.1	6.0
Nonchain	-1.4	-0.1
Chain	3.6	6.4
Urban	2.5	5.4
Rural	1.8	4.3

Note: Small facilities are defined as those reporting dialysis sessions less than or equal to the 25th percentile of all dialysis sessions, medium facilities are defined as those reporting dialysis sessions greater than the 25th percentile but less than the 75th percentile of all dialysis sessions, and large facilities are defined as having greater than or equal to the 75th percentile of all dialysis sessions.

Source: Data compiled by MedPAC from the 1996 and 2001 cost reports and the 2001 institutional outpatient file from CMS.

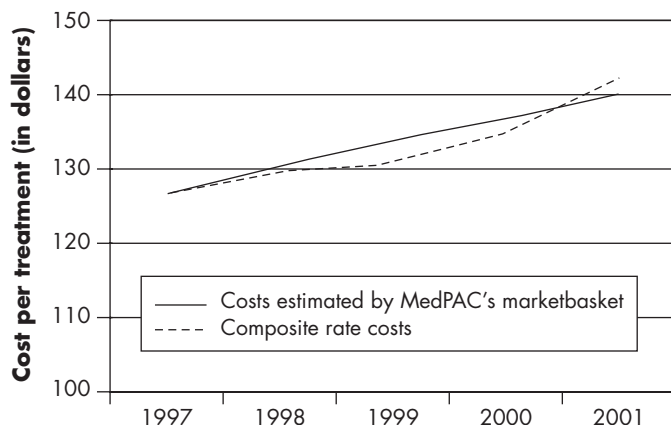
assuming that they will grow at the same rate predicted by MedPAC's dialysis market basket index. Average per unit costs increased at a rate lower than the increase in the dialysis market basket index between 1997 and 2000 but at a higher rate between 1997 and 2001 (Figure 3E-1). Using these assumptions, we estimated the 2004 aggregate margin for the following two scenarios:

- that payments from injectable drugs relative to composite rate payments would increase between 2001 and 2004 based on the past trend of injectable drug spending increasing from 37 to 41 percent of facilities' payments between 1999 and 2001; and
- that payments from injectable drugs relative to composite rate payments would not change between 2001 and 2004.

Under the first scenario (the share of revenues for injectable drugs relative to composite rate payments increases by the 1999–2001 trend in injectable drug spending), the aggregate margin is estimated to be 2.7 percent. Under the second scenario (assuming no change

FIGURE 3E-1

MedPAC's market basket index tracks actual growth in composite rate costs



Note: MedPAC's market basket index are historic values (not corrected for forecast error).

Source: CMS cost reports of dialysis facilities, 1997–2001.

in payments for injectable drugs relative to composite rate payments), the 2004 aggregate margin is estimated to be 2.1 percent.

Although the aggregate margin for composite rate services and injectable drugs is the most comprehensive measure we have to assess the financial performance of dialysis facilities, it does not account for the potential profitability of all services associated with outpatient dialysis.

Certain dialysis-related laboratory tests are paid outside the composite rate bundle. In this case, Medicare pays the clinical laboratory, not the dialysis facility, for these laboratory services. However, each of the national dialysis chains owns clinical laboratories and those entities receive Medicare payments for dialysis-related laboratory tests. These chains reported that dialysis-related laboratory services increased payment by about 4 percent per session. MedPAC recommended that the payment bundle for dialysis services include both injectable drugs and laboratory services that are currently excluded from it (MedPAC 2001, MedPAC 2003a).

Appropriateness of composite rate costs

Providers' costs for composite rate services increased by 5.4 percent between 2000 and 2001. This rate of increase exceeded the 3.6 percent increase predicted by MedPAC's dialysis market basket index (corrected for market basket forecast error) for this same time period. MedPAC's analysis shows that two categories of costs spiked in 2001:

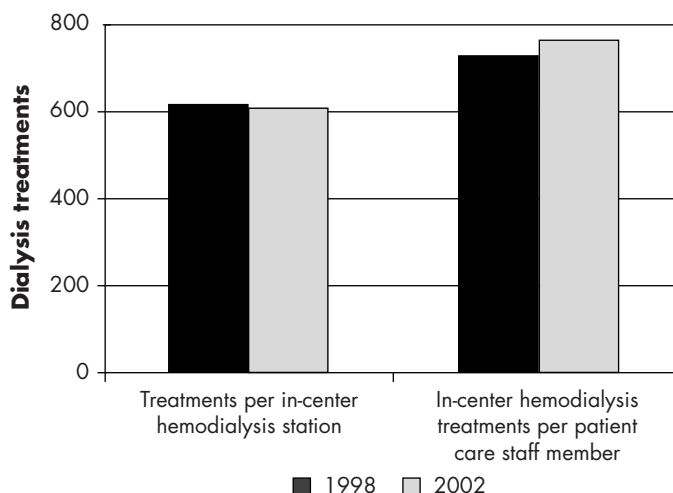
- Labor costs increased by 6 percent, compared with a 3 percent increase between 1997 and 2000; and
- General and administrative costs increased by about 7 percent, compared with a 2 percent increase between 1997 and 2000.

Historically, dialysis providers have adopted efficiencies in service delivery, enabling them to keep their costs at or below the dialysis market basket index. It is too soon to tell whether the growth in providers' labor and administrative costs between 2000 and 2001 is an anomaly. Like other health care providers, dialysis providers contend that their labor costs have increased because they face increased competition for recruiting registered nurses and technicians (driven by possible labor shortages). Unfortunately, the cost report data do not allow for an analysis of the specific components comprising the costs reported as general and administrative, the other category within which costs spiked between 2000 and 2001. Providers contend that since 2000 they have faced significant increases in the cost of utilities, liability, and health insurance. However, indicators from the Bureau of Labor Statistics suggest that the spike in labor costs may have reached its peak in 2002.

MedPAC also evaluates the appropriateness of current costs by examining selected measures to assess changes in the services furnished by facilities. Indicators of staff composition and productivity have improved for some measures (Figure 3E-2). Between 1998 and 2002:

FIGURE 3E-2

Productivity of dialysis facilities, 1998 and 2002



Source: CMS cost reports of dialysis facilities, 1998 and 2002.

- the proportion of technicians to patient care staff increased from 0.51 to 0.54, and
- the ratio of patients to technicians increased from 16.2 to 18.3.

Finally, the average duration of hemodialysis sessions slightly increased from 212 minutes in 1998 to 217 minutes in 2001 (CMS 1999, 2002).

Thus, it is too soon to draw conclusions about the appropriateness of the composite rate cost base. MedPAC will monitor future trends in providers' costs and also changes in the dialysis product, which we discuss in the following section.

Appropriateness of costs for injectable drugs

Based on MedPAC's previous findings, we expect that the costs of separately billable drugs have grown more rapidly than the costs of composite rate services. Costs for separately billable drugs increased by about 12 percent between 2000 and 2001. This change is consistent with the trends between 1998 and 2000. The payment method for separately billable drugs gives providers no incentives to improve efficiency. In contrast, prospective payment methods provide incentives to control costs because payment is based on a predetermined rate unaffected by incurred costs or posted charges.

Substituting new, more costly drugs for older, less expensive drugs may be another reason why providers' costs for injectable drugs per dialysis treatment increased during the 1997–2001 period. For example, the price of a vitamin D analogue (paricalcitol), newly approved in 1998, is twice that of the older agent it has displaced (calcitriol).¹³ Between 2000 and 2001, spending for paricalcitol increased from \$172 million to \$386 million; in contrast, spending for calcitriol decreased from \$127 million to \$67 million.

How should Medicare payments change in 2005?

As noted earlier, MedPAC accounts for expected cost changes in the coming year primarily through the forecast of input price inflation. In the early 1990s, the Commission developed an outpatient dialysis market basket index because none was available from CMS. The Commission's market basket consists of price proxies for hospitals, skilled nursing facilities, and home health

agencies, and uses four cost categories: labor, capital, other direct costs, and general and administrative. Each year, we update the share of each cost category using the most recent cost report available.

In 2003, CMS released its market basket index for dialysis composite rate services, as mandated by the Medicare, Medicaid, and SCHIP Benefits Improvement and Protection Act of 2000. The major difference between the two market baskets is the price indexes used to estimate the rate of price change (text box, p. 171). CMS's and MedPAC's market basket indexes, corrected for market basket forecast error, predicted cost growth of 2.8 percent and 2.9 percent, respectively, between 1997 and 2001. By comparison, average composite rate costs grew by 3.0 percent during this period.

We have two concerns about CMS's dialysis market basket, which we raised in our report on the Secretary's methods to expand the dialysis payment bundle (MedPAC 2003a). First, CMS does not indicate how frequently the base weights will be updated. For the inpatient hospital prospective payment system, for example, CMS updates the base weights every five years. Second, CMS does not specifically address whether it used audited cost report data to develop the weights. The share of total costs that each category represents (capital, labor, other direct, and general and administrative) could change as a result of auditing.

MedPAC's market basket index currently predicts that costs will increase by 2.3 percent between 2004 and 2005, whereas CMS's index predicts that costs will grow by 3.0 percent.

Another factor considered by MedPAC's update framework that may affect dialysis facilities' costs in the next payment year is scientific and technological advances. This factor is designed to include only those new technologies that are quality-enhancing and costly, and that have progressed beyond the initial stage of use but are not yet fully diffused into medical practice. Our review of the literature suggests that the costs of most medical advances will primarily be accounted for through the payments for separately billable drugs. These payments represent increased expenditures and do not need to be factored into the update.

Finally, MedPAC has adopted a policy standard or goal for the productivity growth of efficient providers. To

How MedPAC's and CMS's market baskets for dialysis services differ

The goal and overall structure of MedPAC's and CMS's market baskets are similar. Both market baskets are designed to assess how much it would cost, over time, to purchase the same mix of goods and services that were purchased in a base period. Both market baskets are constructed in three steps. The differences between the two market baskets are highlighted below.

In step one, cost weights are developed using data from the cost reports submitted by freestanding dialysis facilities and represent the proportion of total costs that each cost category represents. For MedPAC's market basket, the four cost categories and their share of total costs are capital (19 percent), labor (44 percent), other direct (15 percent), and general and administrative (22 percent). Each year, MedPAC uses the most current cost report data to update the cost weights. For the 2004 market basket, cost weights are based on 2001 cost report data.

For CMS's market basket, the eight categories and their share of total costs are capital (14 percent); wages and salaries (39 percent); employee benefits (7 percent); pharmaceuticals (1 percent); supplies (18 percent); lab services (0.4 percent); housekeeping and operations (4 percent); and general and administrative (17 percent). CMS does not update the cost weights each year; rather, the cost weights are based on 1997 report data.

In step two, price proxies are selected to estimate the rate of price change for each cost category. The main difference between MedPAC's and CMS's market baskets are the different price proxies used. MedPAC uses price proxies from the hospital prospective payment system (PPS), skilled nursing facility (SNF), and home health market baskets. CMS uses price proxies from the Producer Price Indexes, Consumer Price Indexes, and Employment Cost Indexes (ECI). Although different price proxies are used by each market basket, the price proxies are based on the same cost index. For example, MedPAC uses the labor compensation proxies for hospital PPS, SNF, and home health services to estimate the price change for labor costs. Each of these price proxies is based on the ECI. By contrast, CMS estimates the price change for labor costs using the ECI (wages and salaries) for health care workers (private), the ECI for employee benefits for health service workers (private), and the ECI for compensation of professional and technical workers (private).

In step three, the cost weight for each category is multiplied by the sum of the indexes of the respective price proxy to arrive at a weighted index for each cost category. The sum of the products for all cost categories yields the aggregate index of the market basket in a given year. This step is calculated in a similar fashion by MedPAC and CMS. ■

estimate productivity increases, MedPAC uses the 10-year moving average of multifactor productivity in the economy as a whole, which is 0.9 percent.

Updating payments for composite rate services in 2005

Based on our review of the adequacy of payments for outpatient dialysis services and expected cost changes in the coming year, the Commission recommends the following:

RECOMMENDATION 3E-1

The Congress should maintain current law and update the composite rate by 1.6 percent for 2005.

RATIONALE 3E-1

Medicare's aggregate payments for composite rate services and separately billable services are adequate. Quality of care continues to improve for some measures. Beneficiaries face no systematic problems in accessing care. Capacity and the number of providers continues to increase.

IMPLICATIONS 3E-1

Spending

- This recommendation has no impact relative to current law.

Beneficiary and provider

- This recommendation has no impact relative to current law.

Using payment incentives to improve dialysis quality

Like other providers, Medicare does not financially reward outpatient dialysis providers—physicians and facilities treating dialysis patients—to improve quality. In June 2003, MedPAC expressed an urgent need to improve quality in fee-for-service Medicare and in care furnished by private plans. Linking payment to quality could encourage broader use of best practices by first identifying the best way to treat patients and then rewarding providers that follow the guidelines. A Medicare program that rewarded quality would send the strong message that it values the care beneficiaries receive and encourages investments in improving care.

MedPAC finds that linking payment to the quality of care provided by physicians and facilities treating dialysis patients is needed as another lever to improve dialysis quality. Current efforts, though successful on some dimensions, have not uniformly improved dialysis adequacy and anemia status for all patients. Furthermore, other aspects of care have shown little improvement, raising continued concerns about quality. In its most recent report on dialysis quality, CMS recommended that additional efforts are needed to improve nutritional care and vascular access management. Despite some improvement in dialysis adequacy and anemia status, patients and policymakers remain concerned about the unchanged rates of hospitalization during the past 10 years and the poor long-term survival of dialysis patients:

- Rates of admission for hospitalizations for cardiovascular and infection-related causes, the two leading causes of morbidity among dialysis patients, increased by 16 and 30 percent, respectively, between 1991 and 2001; African American and Asian patients showed the greatest increases.
- Adjusted annual mortality rates have remained relatively constant at 167 and 165 per 1,000 patient-years at risk between 1991 and 2001, respectively. Mortality rates for females and African Americans increased during this time (USRDS 2003).

RECOMMENDATION 3 E - 2

The Congress should establish a quality incentive payment policy for physicians and facilities providing outpatient dialysis services.

The recommendation targets providers who treat dialysis patients—dialysis facilities and physicians who are paid a monthly capitated payment. Implementing a quality incentive payment policy could improve the quality of dialysis care. The outpatient dialysis sector is a ready environment for linking payment to quality. Credible measures are available that are broadly understood and accepted. All dialysis facilities and physicians should be able to improve upon the measures, which could include adequacy of dialysis. Obtaining information to measure quality will not pose an excessive burden on dialysis facilities and physicians. Measures can be adjusted for case mix so that dialysis facilities and physicians are not discouraged from taking riskier or more complex patients.

IMPLICATIONS 3 E - 2

Spending

- This recommendation should not affect Medicare benefit spending.

Beneficiary and provider

- Beneficiaries should see improvements in care.
- Some physicians and facilities could receive higher payments or lower payments. In addition, some physicians and facilities may need to shift resources to improvement efforts.

Medicare should implement quality incentives for both facilities and physicians treating dialysis patients to allow quality improvements to reach as many beneficiaries as possible. Both provider types collaborate to care for dialysis patients and only together can they improve quality in the long term. Medicare pays physicians a monthly capitated payment for furnishing ESRD-related services that include determining the dialysis prescription, providing outpatient evaluation and management, dialysis visits, telephone calls, and patient management during the month. This payment method is unique in the physician fee schedule and Medicare has used it since 1983. Recently, CMS modified the capitated amount by adjusting the monthly payment according to the number of face-to-face visits the physician has with the patient during the month. Before this change, CMS paid the same monthly amount per patient regardless of the number of times the physician saw the patient during the month.

As described later in this section, MedPAC believes that a system linking payments to quality should:

- reward facilities and physicians based on both improving the care they furnish and exceeding thresholds,
- be funded by setting aside a small proportion of total dialysis payments, and
- distribute all payments that are set aside for quality to facilities and physicians achieving the quality criteria.

Linking payment to quality holds providers accountable for the care they furnish. Capitated payments and prospective payment systems give providers an incentive to reduce their costs by minimizing the services they furnish to the extent possible. Measuring quality and financially rewarding providers furnishing quality care will help ensure that providers are not stinting on care. Measuring the quality of care and holding providers financially accountable will take on additional importance if Medicare broadens the dialysis payment bundle and reinforces the incentives of prospective payment. Another advantage in linking payment to quality is that financial rewards would accrue to providers investing in the processes that improve care. The financial rewards will help providers furnishing high-quality care defray the capital and labor costs associated with these improvements.

Medicare's quality assurance efforts alone do not go far enough in improving dialysis quality. Quality assurance and quality improvement represent two different approaches for influencing the quality of care. As noted previously, the goal of quality assurance is to ensure that minimal standards of care—conditions of coverage—are met by facilities. Currently, the dialysis conditions of coverage consist mainly of structural requirements designed to ensure the capacity of facilities to safely furnish quality health care. Medicare can exclude dialysis facilities not meeting its conditions of coverage, although the program has rarely done so. By contrast, quality improvement efforts encourage providers to assess their performance, implement changes, reassess based on outcomes, and strive for continuous improvements. Quality incentives, along with CMS's other quality improvement activities, will together be important tools for driving improvements in quality.

In addition, Medicare's efforts to indirectly reward certain dialysis facilities through its public disclosure of facility-specific outcome measures do not go far enough in improving quality. High-quality providers could benefit financially when demand shifts toward them, thus

increasing their revenue. In the case of public reporting and dialysis, however, no evidence exists that this mechanism has succeeded in shifting demand.

Although acting through different mechanisms, Medicare's quality levers—quality assurance, quality improvement, public reporting of quality data, and quality incentives—all work toward maintaining and improving the quality of care for most patients. However, patients are also an important part of the solution toward improving dialysis outcomes. Outcomes are adversely affected for patients who do not comply with their providers' treatment regimens—including showing up for dialysis treatment, remaining for the prescribed treatment, and adhering to medication and diet regimens. Noncompliance is much more common among U.S. patients than patients from other countries (Bleyer et al. 1999). In addition, certain characteristics, such as age, are associated with noncompliance, highlighting the need to case-mix adjust measures so that providers are not discouraged from taking riskier patients (Leggat et al. 1998).

Finally, CMS is using quality incentives in the agency's new ESRD disease management demonstration (see text box, p. 174). Medicare will pay program participants—dialysis facilities and private health plans—an incentive if they improve quality and if they demonstrate high levels of care compared with the national average. We applaud CMS for linking payment to quality in the demonstration. Quality incentives should not, however, be limited to demonstration efforts, but rather should apply to all fee-for-service dialysis providers so they can improve care for as many patients as possible. A drawback in using quality incentives in a demonstration only is that the bidders may primarily consist of high-quality facilities and not be representative of all facilities. By contrast, incentives that are made a part of the outpatient dialysis payment system will affect both low- and high-quality providers.

Quality incentives are feasible for outpatient dialysis services

The outpatient dialysis sector is a ready environment for tying quality measures to payment:

- Measures are available that are evidence based, developed by third parties, and agreed-upon by the majority of providers.
- CMS can collect provider-specific information without excessive burden on providers.

How CMS's ESRD demonstration will work

This demonstration tests the effectiveness of disease management services to end-stage renal disease (ESRD) beneficiaries and different approaches to paying for their care in traditional Medicare and under capitated arrangements. CMS is reviewing proposals from would-be participants and is anticipating initiating the demonstration in 2004.

- Participating fee-for-service providers and private plans will coordinate patients' care.
- For traditional Medicare, the demonstration will pay for an expanded bundle that includes commonly used drugs and laboratory tests not currently included in the composite rate bundle. The Medicare add-on payment for the expanded bundle is \$71.63 per session (not including vascular access services) and \$86.63 (with vascular access services).
- Capitated providers will be paid using the new risk-adjusted ESRD payment method developed by CMS.
- Traditional Medicare providers will be at partial risk for all services furnished to participating patients. Capitated providers may propose risk sharing arrangements.

CMS is linking payment to quality for both fee-for-service and capitated providers. Five percent of the payment rate will be reserved for incentive payments related to quality improvement activities. CMS is using five indicators—dialysis adequacy, anemia management, nutritional management, bone disease, and vascular access. Providers will be paid an incentive payment if they improve quality of care and/or if they demonstrate high levels of care compared with a national average. By linking payment to both improving care and exceeding national targets, providers at both ends of the quality spectrum will be able to earn incentive payments. Specifically, for each of the five measures, providers will be paid one-half of one percent for:

- improving care within their facility. CMS will set improvement targets using a method that bases the target on improvements in the "quality deficit." The quality deficit would be defined as 100 percent minus the providers' actual rate for assigned beneficiaries in the previous year. Improvement targets will be set at 10 percent over the deficit from 100 percent.
- exceeding a national target for quality. CMS will set national targets at 20 percent above the nationwide percentage deficit from 100 percent. ■

- Measures can be adjusted for case mix so that providers are not discouraged from taking riskier or more complex patients.
- Many providers can still improve upon some of the measures.

Evidence-based measures are available

For dialysis care, measures are available that are evidence based and broadly understood and accepted. Nephrology organizations are continually publishing clinical guidelines about the care of patients with ESRD and chronic kidney disease. From these guidelines, CMS has developed a series of performance measures. Since 1993, CMS has monitored key aspects of the dialysis process, including anemia and nutrition levels, dialysis adequacy, and most recently, vascular access management, in the agency's

annual survey of dialysis patients. CMS Dialysis Facility Compare publishes facility-specific measures about dialysis adequacy, anemia management, and survival.

Collecting data will not be burdensome

CMS already has in place a mechanism to collect dialysis adequacy information from the claims submitted by providers. The recently implemented Standardized Information Management System, a national information infrastructure that electronically links all 18 ESRD network organizations—CMS's contractors for improving dialysis quality and collecting and disseminating data—with the agency, is expected to help the development of consistent quality improvement efforts and the collection and analysis of information on processes and outcomes of care.

Measures can be adjusted for differences in case mix

A major issue in developing financial incentives is to ensure that providers do not “cherry-pick” patients, i.e., refuse to care for patients who are sicker or more complex on average than other patients. MedPAC’s analysis of the association between quality and providers’ costs showed that beneficiaries’ outcomes are poorer for facilities with higher than average costs for composite rate services and injectable drugs, which may suggest that higher-cost facilities may be furnishing care to more medically complex beneficiaries (MedPAC 2003b). In addition, MedPAC’s analysis also showed that certain patient characteristics are associated with poorer outcomes, a finding confirmed by Hirth and others (2003).

What data sources can CMS use to risk adjust quality measures? Providers are required to collect clinical information on all patients when they first enter Medicare’s ESRD program.¹⁴ This rich source of information provides a measure of the total disease burden of ESRD patients and is unmatched for any other patient group in Medicare. Some researchers contend that facilities could improve the validity of the data reported. A recent study suggested that comorbid conditions were significantly underreported, but diagnoses were not falsely attributed to patients (Longenecker et al. 2000). Clearly, facilities will have every incentive to improve reporting when this information is used for payment purposes.

CMS can supplement information from the medical evidence report with the diagnoses reported on patients’ Part A and B claims. CMS’s new risk adjuster for paying for ESRD patients enrolled in private plans uses claims data.

Providers can improve upon these measures

Although dialysis adequacy and anemia status have improved significantly during the past decade, the improvement has not occurred at all facilities. The GAO noted that in 2000: (1) about 15 percent of facilities furnished inadequate dialysis to one-fifth or more of their patients; and (2) nearly half of all facilities did not meet the guideline for anemia management for one-fifth or more of their patients (GAO 2003). Research has shown that variation in patient outcomes is attributable to facility- and patient-specific causes.

New opportunities exist to improve upon other aspects of dialysis quality, particularly nutritional management (as

noted previously), vascular access care, and bone disease management. CMS data show the need for improvements in vascular access care.¹⁵ Recent survey data from the Dialysis Outcomes and Practice Patterns Study also show that additional efforts are needed to educate providers and their staff to improve vascular access care. Only 79 percent of medical directors and 59 percent of nurse managers in the U.S. prefer arteriovenous (AV) fistulas over synthetic grafts. By contrast, all medical directors and nurse managers in Europe and Japan preferred AV fistulas for patients starting hemodialysis in their units.

New opportunities also exist to use quality incentives for vitamin D analogues, which are injectable drugs used to treat bone disease. The National Kidney Foundation recently released a clinical guideline on this topic. Providers furnish injectable vitamin D analogues to help manage patients’ bone metabolism, and Medicare spending for this drug class has increased steadily, from \$126 million in 1996 to \$454 million in 2001. Using incentives will promote the appropriate use of vitamin D analogues. CMS has not yet included bone disease as a clinical performance measure, but, as noted previously, the agency’s ESRD demonstration links payment to quality for this clinical area.

What are the key implementation issues?

Measure sets and data collection tools are credible and broadly used in the outpatient dialysis setting. Nonetheless, designing a system to distribute the incentive payments will be a complex undertaking. The key issues in implementation include:

- How should providers be rewarded?
- Will additional funding be required?
- Which quality measures should be used?

In assessing different ways to design quality incentives for outpatient dialysis services, MedPAC sought alternatives that would:

- improve the quality of dialysis care for as many patients as possible, and
- minimize unintended consequences, such as cherry picking of patients or distorting resource allocation to the measured areas from the unmeasured areas.

How should providers be rewarded?

Should providers be rewarded based on improving the care they furnish, exceeding national averages, or some combination of both?

MedPAC concludes that a fair and balanced approach will reward providers based on some combination of both methods. By using both methods, providers at both ends of the quality spectrum will be able to achieve financial incentives. Reaching a large share of providers will result in improving the quality of dialysis for many patients. CMS's new ESRD demonstration uses a mixed strategy when linking payments to quality. For each measure used, the agency awards one-half of one percent of payments for improving quality and one-half of one percent for exceeding national targets.

Using a mixed strategy minimizes the negative aspects of each reward method. Linking payments to quality based only on improvements could reward providers who achieve significant improvement but remain at a relatively low level of quality. By contrast, establishing a target goal alone could encourage all providers to improve. However, setting goals too high might discourage providers at the low end from trying to improve. And, in the case of certain dialysis measures (adequacy and anemia), setting target goals too low might motivate high-quality providers to relax their efforts to improve outcomes.

Even with accurate risk adjustment, both methods individually run the risk of providers cherry-picking patients. Providers would have an incentive to select patients with lower outcome scores if the payment were linked solely to showing improvement. By contrast, providers would have an incentive to select patients with higher outcome scores if payment were linked solely to exceeding target goals.

Will additional funding be necessary?

Linking quality to payment should not require additional funding by Medicare. Previous MedPAC analysis demonstrated that better dialysis adequacy and anemia management are not related to providers' costs for composite rate services and are worse for providers with higher costs for composite rate services and injectable drugs. As mentioned earlier, data from the USRDS show that per beneficiary spending for injectable drugs varies across different provider types. Thus, it does not appear that additional funding is necessary to pay for better care. Some providers are concerned that the changes by the MMA in paying for composite rate services and injectable

drugs will reduce aggregate dialysis spending. The Congressional Budget Office, however, estimated that these changes are budget neutral.

MedPAC has concluded that all payments that are set aside for quality should be awarded to facilities and physicians who meet the quality criteria. Doing so will result in payments being redistributed based on how facilities and physicians perform but should not result in lower aggregate dialysis payments. This task is administratively feasible for CMS, although it will increase the workload for both the agency and its contractors—carriers, fiscal intermediaries, and ESRD networks. CMS has already faced some of these tasks when designing the ESRD disease management demonstration and implementing a program that pays private plans more for meeting two quality criteria for treating patients with congestive heart failure.

Initially, MedPAC supports setting aside a small proportion of physicians' and facilities' payments as a means to motivate investment in better care. For facilities, a 1-percent set-aside would equal about \$70 million assuming total Medicare payments of \$7 billion for dialysis and injectable drugs in 2001. For physicians, a 1-percent set-aside would equal about \$15 million assuming total Medicare payments of \$1.5 billion for dialysis capitation services in 2001 (USRDS 2003).

Beginning with a small set-aside has several advantages. It minimizes the adverse effect on providers who initially are not able to meet the quality criteria. It also discourages providers from de-emphasizing improvements in areas outside the incentive program, such as infection control programs. As providers become more accustomed to being rewarded for quality, Medicare should consider expanding both the proportion of payments that are set aside and the measures that are used.

Which quality measures should be used?

Clinical areas that both facilities and physicians can improve include dialysis adequacy and management of anemia, vascular access, nutrition, and bone disease. CMS is linking payment to these five measures in its new demonstration project (text box, p. 174). When assessing issues with implementing quality incentives, we considered: (1) past trends in improving care; and (2) whether other factors, such as Medicare's coverage and payment policies, inhibit facilities and physicians from improving quality.

Dialysis adequacy and anemia management are two clinical areas for which quality has substantially improved in the past decade, although not uniformly across all providers. Payment can be easily linked to quality since CMS has already developed clinical performance measures. The past improvements show that facilities and physicians can improve care.

Vascular access is a clinical area in which substantial improvements in quality are needed.¹⁶ Medicare could link payment to quality for one aspect of vascular access care—monitoring for stenosis. Both dialysis facilities and physicians treating dialysis patients are responsible for regularly checking the access for the presence of stenosis. CMS developed clinical performance measures to assess vascular access care in 2000.

Medicare may face challenges in linking payment to quality for another aspect of vascular access management—increasing the use of AV fistulas—because:

- Other providers, particularly vascular surgeons who perform the access procedure, play an important role in the type of vascular access that is selected.
- Medicare’s payment policies may encourage the use of grafts instead of AV fistulas.¹⁷
- Medicare coverage starts the fourth month after the onset of ESRD for patients eligible for Medicare solely because they have ESRD (i.e. they are not age-entitled). During the first three months following ESRD onset, providers may choose the least costly alternative for patients with no health insurance or insured by Medicaid.
- The care patients receive before they need dialysis may affect the type of access selected. AV fistulas require more time for placement and maturity than the other types of vascular access. Consequently, renal care must be initiated at least three to six months prior to the start of dialysis for successful placement of an AV fistula. Researchers have shown that a substantial proportion of patients with chronic kidney disease do not see a nephrologist in the one year prior to starting dialysis. For example, Kinchen and colleagues (2002) reported that only 48 percent of dialysis patients were treated by a nephrologist in the one-year period before initiation of dialysis.

CMS has recently initiated a quality improvement effort to increase the use of AV fistulas. This effort should increase AV fistula use.

Nutritional management is another clinical area in need of substantial quality improvement. CMS has measured one aspect of nutritional management—serum albumin levels—since 1993. However, linking payment to improvements in patients’ nutritional status faces an important obstacle. Medicare’s coverage policies limit the number of dialysis patients who qualify for certain nutritional interventions administered during the dialysis session. Moreover, the Health Insurance Portability and Accountability Act of 1996 does not permit providers to furnish items or services for free or for a cost other than fair market value.

Despite these policies, both facilities and physicians can conduct outreach efforts to educate patients about the importance of complying with their diet regimen. For example, hemodialysis patients need to watch how much they drink because fluid can build up between dialysis treatments, causing swelling and affecting patients’ blood pressure and risk for adverse cardiovascular events.

Finally, bone disease management is another clinical area for which Medicare could link payment to quality. Drug therapies used to manage bone disease include injectable drugs (vitamin D therapies) and oral agents (phosphate binders). Medicare already pays for injectable drugs and, with the passage of the MMA, oral drugs will be a covered benefit. Although CMS has not yet developed performance measures for this clinical area, the agency is linking payment to this aspect of care in the demonstration project, so measures should be available soon.

What other issues exist?

Other issues that Medicare should consider when linking payment to quality include:

- continuing other quality improvement efforts,
- collaborating with provider and patient groups,
- keeping the measures current with medical knowledge,
- verifying the data, and
- excluding pediatric patients.

Implementing quality incentives should not displace other quality improvement efforts conducted by CMS. Rather, they should complement current efforts to monitor, report on, and improve the quality of dialysis care. Continuing other quality improvement efforts will be important to ensure that providers do not de-emphasize the quality in areas not measured in the incentive program.

To successfully implement quality incentives, CMS will first need to collaborate with patient and provider groups. The agency has a good track record for doing so. Most recently, CMS created an expert panel for patient and provider groups to collaborate on the agency's research effort to expand the dialysis payment bundle. During 1999–2000, CMS worked with patient and provider groups when implementing its Dialysis Facility Compare website.

The measures used to link payment to quality must be kept current as medical knowledge grows and new clinical guidelines are released. In 2000, the agency updated its effort by including measures of vascular access care. We strongly urge the agency to include bone disease measures in its performance measure data set. As mentioned previously, the NKF recently released a clinical guideline on this topic. It will also be important for CMS to develop uniform methods for providers to measure indicators. For

example, the timing of the blood urea nitrogen sample collection can affect the measurement of dialysis adequacy. Finally, whichever measures are used, it may be necessary to use different targets for each dialysis method.

CMS will need to verify the data linking payment to quality for at least a sample of providers. The agency already has developed a sampling methodology of dialysis facilities for its clinical performance measurement project.

Finally, when implementing financial incentives, Medicare might want to consider excluding pediatric patients. The population of pediatric patients is quite small; in 2000, there were only about 675 pediatric dialysis patients. In addition, pediatric cases are generally more complex to treat than older patients. The physician fee schedule pays more for treating younger patients. Furthermore, nephrology groups have developed different clinical performance guidelines for pediatric cases. ■

Using audited cost data to determine Medicare-allowable costs

MedPAC's analysis of current costs uses only Medicare-allowable costs. CMS's contractors—fiscal intermediaries (FIs)—audit cost reports submitted by certain institutional providers to ensure that the costs reported by providers are Medicare allowable. The Balanced Budget Act of 1997 required the Secretary to audit cost reports of each dialysis provider at least once every three years beginning in 1996. The most recent year for which the FIs audited a majority (62 percent) of cost reports from freestanding facilities was 1996. By comparison, 1 percent of 2001 cost reports have been audited.

MedPAC compared the audited cost report data for 1996 with the 1996 data as submitted.¹⁸ Our analysis showed that the allowable cost per treatment for composite rate services and injectable drugs for freestanding facilities was about 96 percent of the reported cost of treatment. All types of facilities were affected by the audit (MedPAC 2003c). For example, allowable costs as a percentage of reported costs were 96 percent for medium-sized facilities and 97 percent for small and large facilities. But variation did exist depending on the facilities' audit status. Allowable costs of facilities whose cost reports were reopened were 81 percent of their reported costs. By contrast, for all other facilities, allowable costs ranged from 97 to 100 percent of their reported costs. The audit resulted

in the greatest proportional decline in general and administrative costs compared with labor, capital, and other direct costs. Our finding that allowable costs are less than reported costs is consistent with an audit performed by CMS in 1988, which determined that the allowable cost per treatment for freestanding facilities was 88 percent of the reported cost per treatment (Prospective Payment Assessment Commission 1993).

If history is any guide, a portion of the reported costs for services furnished between 1997 and 2001 will most likely be found nonallowable when these reports are audited by CMS. Considering the effect of the difference between reported and allowable costs is important in assessing the relationship between current payments and costs. Consequently, we assessed providers' costs for services furnished between 1997 and 2001 in two ways. First, we used the actual costs reported by providers that have not yet been audited by CMS. Second, we adjusted the actual costs reported by providers by the ratio of allowable costs to reported costs derived from the analysis of the 1996 cost reports. We calculated the ratio of allowable costs to reported costs in 1996 by each type of facility and applied this adjustment to the 1997 to 2001 costs of the corresponding facility type. Our approach assumes that the ratio of allowable costs to reported costs for 1997 to 2001 will be the same as in 1996. ■

Endnotes

- 1 To qualify for the end-stage renal disease program, individuals must be insured under the Social Security or Railroad Retirement program, entitled to monthly benefits under the Social Security or Railroad Retirement programs, or the spouse or dependent child of an eligible beneficiary.
- 2 The composite rate was designed in 1983 to include all nursing services, supplies, equipment, clinical laboratory services, and drugs associated with a single dialysis session.
- 3 Medicare spending includes program outlays and beneficiary cost sharing.
- 4 Dialysis injectable drugs were excluded from the average wholesale price reforms included in the MMA.
- 5 The size of the facility is defined in each year based on the 25th and 75th percentile of dialysis sessions. Small facilities are defined as those reporting dialysis sessions less than or equal to the 25th percentile of all dialysis sessions, medium facilities are defined as those reporting dialysis sessions greater than the 25th percentile but less than the 75th percentile of all dialysis sessions, and large facilities are defined as having greater than or equal to the 75th percentile of all dialysis sessions.
- 6 Medicare pays for many different injectable drugs furnished by freestanding dialysis providers. Each injectable drug has its own unit of measurement. Because of the difficulty in aggregating different units of measurement, we express volume in terms of total Medicare payments.
- 7 Levocarnitine supplements the loss of carnitine, a naturally occurring body substance that helps transport long-chain fatty acids for energy production by the body. Patients on hemodialysis can suffer carnitine deficiencies from dialytic loss, reduced renal synthesis, and reduced dietary intake. Patients must show improvement from the levocarnitine treatment within six months of initiation of treatment for Medicare to continue to pay for the treatment.
- 8 Some providers contend that erythropoietin is predominately furnished intravenously because patients experience less discomfort than when it is furnished subcutaneously.
- 9 Daily parenteral nutrition is limited to patients “with severe pathology of the alimentary tract which does not allow absorption of sufficient nutrients to maintain weight and strength commensurate with the patient’s general condition” (CMS 2004a).
- 10 Return on invested capital is calculated by dividing earnings before interest and taxes for 2002 by the sum of long-term debt and shareholders’ equity at the end of 2001. Return on equity (before tax) is calculated by dividing earnings before income taxes for 2002 by shareholders’ equity at the end of 2001. Return on equity (after tax) is calculated by dividing net income for 2002 by shareholders’ equity at the end of 2001.
- 11 The extension of Medicare secondary payment provisions from 18 to 30 months by the Balanced Budget Act of 1997 increased the number of dialysis patients with a private payer as their primary source of insurance.
- 12 We have not yet included laboratory payments in our analysis of current payments because of the difficulty in distinguishing dialysis-related tests from those tests ordered for other comorbidities.
- 13 The National Kidney Foundation’s clinical guideline recommends use of vitamin D therapy—calcitriol, alfacalcidol, paricalcitol, or doxercalciferol—to reduce the parathyroid hormone levels in hemodialysis and peritoneal dialysis patients meeting specific clinical criteria. The clinical guideline also recommends trials to compare the effectiveness of each of these agents among dialysis patients.
- 14 The medical evidence report (Form 2728) used for this purpose collects information on patients’ weight, ability to ambulate and transfer, current smoking status, and the prevalence of 17 conditions including hypertension, diabetes, peripheral vascular disease, HIV positive status, chronic obstructive pulmonary disease, and congestive heart failure.
- 15 The three types of vascular access are arteriovenous (AV) fistula, an AV graft, and a venous catheter. The AV fistula is considered the best long-term vascular access for hemodialysis because it provides adequate blood flow for dialysis, lasts a long time, and has a complication rate lower than the other access types.
- 16 Services related to vascular access care include: (1) surgically placing the vascular access, the site on a patient’s body where blood is removed and returned during hemodialysis; (2) ongoing monitoring of the site to minimize the risk of complications, such as stenosis (narrowing of graft and blood vessel) and infection; and (3) treating and managing complications.
- 17 The Medicare allowable payment rate for surgically placing AV fistulas is less than the payment rate for grafts. Payment for catheters are similar to those for creating AV fistulas.
- 18 The audit status of freestanding dialysis cost reports is classified into one of four categories: as submitted, settled, settled with an audit, or reopened.

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SECTION
3 F

**Ambulatory surgical
center services**

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

3F-1 There should be no update to payment rates for ASC services for fiscal year 2005.

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

3F-2 The Secretary should revise the ASC payment system so that its relative weights and procedure groups are aligned with those in the outpatient prospective payment system. In addition:

- ▶ The Congress should require the Secretary to periodically collect ASC cost data at the procedure level to monitor the adequacy of ASC rates, refine the relative weights, and develop a conversion factor that reflects the cost of ASC services.
- ▶ The Congress should ensure that payment rates for ASC procedures do not exceed hospital outpatient PPS rates for the same procedures, accounting for differences in the bundle of services.

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

3F-3 After the ASC payment system is revised, the Congress should direct the Secretary to replace the current list of approved ASC procedures with a list of procedures that are excluded from payment based on clinical safety standards and whether the service requires an overnight stay.

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

SECTION 3F

Section 3F: Ambulatory surgical center services

Current Medicare payments for ambulatory surgical center (ASC) services are at least adequate to cover the projected increase in ASCs' per service costs in the coming year, less an adjustment for productivity growth. Beneficiaries have good access to ambulatory surgical services. The supply of ASCs and the volume of ASC services received by Medicare beneficiaries have increased significantly over the last several years. In addition, ASCs have sufficient access to capital.

Recent legislation requires the Secretary to revise the ASC payment system. The Secretary should align the ASC payment system with the outpatient prospective payment system and base the conversion factor on recent ASC cost data. If necessary, the Secretary should use such data to refine the relative weights for ASC services. Medicare should pay no more for the same service in an ASC than an outpatient department (accounting for differences in the bundle of services). Physicians and beneficiaries should have more choice over where to provide and receive an ambulatory surgical procedure. However, Medicare should only pay for ambulatory surgical procedures in an ASC when they are clinically appropriate for that setting.

In this section

- Are Medicare payments adequate in 2004?
- How should Medicare payments change in 2005?
- Update recommendation
- How should the payment system be revised?
- What procedures should Medicare pay for in ambulatory surgical centers?

Background

Since 1982, Medicare has paid a facility fee for certain surgical procedures provided in ASCs. An ASC is a distinct entity that exclusively furnishes outpatient surgical services not requiring an overnight stay; it can be either freestanding or hospital owned and operated. Beneficiaries can also receive surgical services in inpatient and outpatient hospital settings, and sometimes in physician offices.

To receive payments from Medicare, ASCs must meet Medicare's conditions of coverage for ASCs, which specify minimum standards for: administration of anesthesia, quality evaluation, operating and recovery rooms, medical staff, nursing services, and other areas. ASCs are deemed to be in compliance with the conditions of coverage if they are licensed by a state agency or accredited by an approved private accreditation body.¹

Medicare uses a fee schedule to pay for a bundle of facility services provided in an ASC, such as nursing, recovery care, anesthetics, and supplies. The fee schedule divides procedures into nine payment groups. As of April 1, 2004, the rates for these groups will range from \$333 to \$1,339. The Medicare Prescription Drug, Improvement, and Modernization Act of 2003 (MMA) eliminated future increases to ASC rates and made other changes to the payment system (see text box below).

CMS implemented the current ASC payment system in 1990. Payment rates are based on data from a 1986 survey of ASCs' costs and charges, updated periodically using the consumer price index for all urban consumers (CPI-U).² Because they are based on old cost data, these rates are probably no longer consistent with ASCs' costs.

In addition, most of the ASC payment groups include at least 100 services, which are often clinically unrelated. The use of such broad groups makes it difficult for CMS to classify new services and increases the likelihood that many services are over- or underpaid. Due in part to delays in revising the ASC payment system, there are significant disparities between ASC and hospital outpatient department rates for many services. For example, the ASC rate exceeds the outpatient department rate for 4 of the 10 highest-volume ASC procedures.

In 2002, ASCs furnished almost 3.5 million surgical procedures to Medicare beneficiaries and received about \$1.9 billion in related payments (less than 1 percent of total Medicare spending). Medicare payments to ASCs (including program spending and beneficiary cost sharing) increased by almost 17 percent in 2002 and more than tripled between 1992 and 2002 (Figure 3F-1).

In addition to the adequacy of Medicare's payments for ASC services (discussed in the next section), many factors could have influenced this rapid spending growth. For example:

Changes to the ambulatory surgical center payment system in the Medicare Prescription Drug, Improvement, and Modernization Act of 2003

The Medicare Prescription Drug, Improvement, and Modernization Act of 2003 (MMA) eliminated the payment update for ambulatory surgical center (ASC) services for fiscal year 2005, changed the update cycle to a calendar year, and eliminated the updates for calendar years 2006 through 2009. CMS had implemented a 2-percent increase to ASC payment rates for fiscal year 2004. The MMA eliminated this increase for the second half of 2004, thereby returning rates to their 2003 levels.

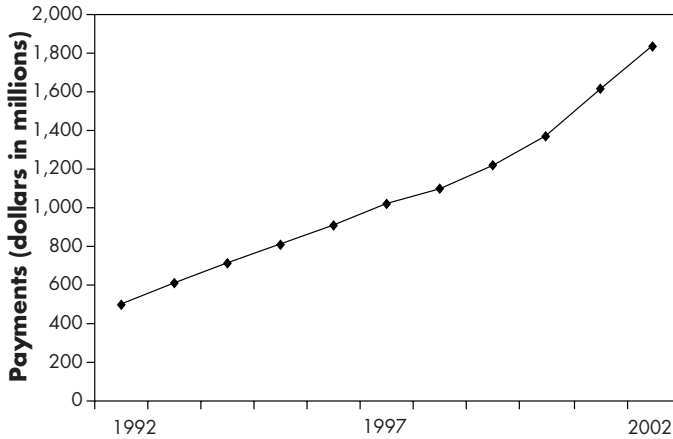
The MMA eliminated the provision that CMS survey ASCs' costs and charges every five years. It required the General Accounting Office (GAO) to study the relative costs of services in ASCs and hospital

outpatient departments and whether the outpatient prospective payment system's (PPS's) procedure groups reflect ASC procedures. In examining these questions, the GAO should consider data submitted by ASCs. Based on its study, the GAO should recommend whether to use the outpatient PPS's procedure groups and relative weights as the basis for the ASC payment system.

The Secretary is required to implement a revised ASC payment system no earlier than January 2006 and no later than January 2008, taking into account the GAO's recommendations. Total payments under the new system should be equal to the total projected payments under the old system. ■

**FIGURE
3F-1**

Medicare payments to ASCs more than tripled, 1992–2002



Note: ASC (ambulatory surgical center). Medicare payments include program spending and beneficiary cost sharing. Average annual growth of payments (1992–2002) equals 14 percent.

Source: CMS, Office of the Actuary.

- Changes in clinical practice and health care technology have expanded the provision of surgical procedures in ambulatory settings (MedPAC 2000).
- Medicare began covering colonoscopy for colorectal cancer screening in 1998.

- ASCs may offer patients more convenient locations, the ability to schedule surgery more quickly, and shorter waiting times than hospital outpatient departments.
- Medicare beneficiaries' coinsurance is generally lower in ASCs than in outpatient departments (Table 3F-1).
- Physicians may be able to perform surgeries more efficiently in ASCs because they often have customized surgical environments and specialized staffing.
- Physicians who invest in ASCs can increase their practice revenue by receiving ASC facility payments. The federal anti-referral law does not apply to surgery services provided in ASCs, making it possible for physicians to own and provide care in these facilities (see text box, p. 200).

Are Medicare payments adequate in 2004?

We find that current Medicare payments for ASC services are at least adequate for 2004. Although we lack recent data on the cost of ASC services, we used various factors to assess the adequacy of payments: beneficiaries' access

**TABLE
3F-1**

ASCs have lower coinsurance than hospital outpatient departments for high-volume ambulatory surgical services, 2004

Procedure code	Description	Share of Medicare payments to ASCs, 2002	Hospital outpatient coinsurance	ASC coinsurance	Percent difference
66984	Cataract removal and lens insertion	46%	\$496	\$195	-61%
66821	After-cataract laser surgery	6	104	89	-15
45378	Colonoscopy, diagnostic	6	186	89	-52
43239	Upper gastrointestinal endoscopy, biopsy	5	143	89	-38
45385	Colonoscopy with removal of lesion by snare	4	186	89	-52
62311	Epidural injection, lumbar or sacral	3	76	67	-11
45380	Colonoscopy with biopsy	3	186	89	-52
45384	Colonoscopy with removal of lesion by forceps	2	186	89	-52
52000	Cystoscopy	1	105	67	-36
G0121	Colonoscopy, cancer screening	1	101	89	-12

Note: ASC (ambulatory surgical center). Procedures are arranged by share of Medicare payments to ASCs in 2002, from highest to lowest. Hospital outpatient coinsurance amounts shown here range from 25% to 41% of total payment rates under the outpatient prospective payment system; coinsurance will decline slowly over time until reaching 20% of total outpatient rates. ASC coinsurance amounts equal 20% of national average ASC rates, as of April 1, 2004. Beginning April 1, ASC rates will be reduced to fiscal year 2003 levels, as required by the Medicare Prescription Drug, Improvement, and Modernization Act of 2003.

Source: CMS 2003a, CMS 2003b.

to care, changes in the supply of facilities, changes in the volume of services, and ASCs' access to capital. Medicare accounts for a relatively high share of overall volume for services in which many ASCs specialize (such as eye procedures and colonoscopy), and the volume of these services provided to beneficiaries has grown rapidly.

Beneficiaries' access to care

Beneficiaries have adequate access to ambulatory surgical services—whether in an ASC, hospital outpatient department, or physician office. Although we lack direct measures of beneficiaries' access to ASCs, indirect indicators, such as an increase in the number of facilities and the volume of services they provide, suggest that access to ASCs is growing. The number of ASCs has significantly expanded over the last several years (Figure 3F-2). In addition, the number of beneficiaries receiving ASC services increased by 14.5 percent per year, on average, between 1998 and 2002 (Table 3F-2). Despite this strong growth, ASCs tend to be concentrated in specific states and are not available in all areas (see discussion below). Beneficiaries who do not have access to an ASC may receive ambulatory surgical services in a hospital outpatient department and, in some cases, a physician office. Thus, even though some beneficiaries do not have access to surgical services in an ASC, they can obtain these services in other settings.

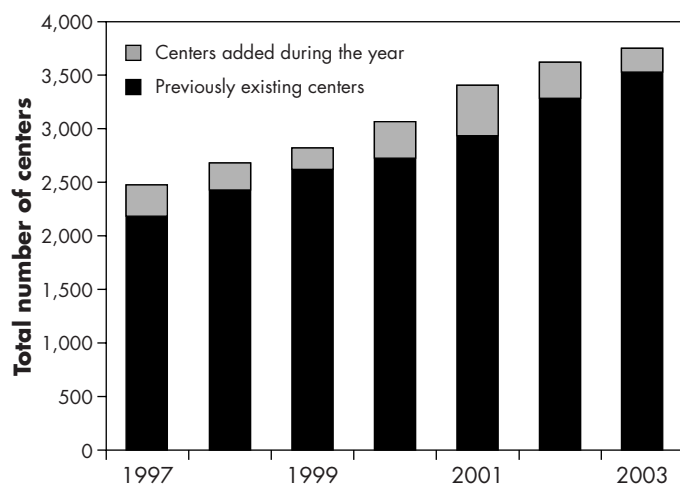
Changes in the supply of ASCs

The supply of ASCs has increased significantly over the last several years: Although the number of operating rooms per ASC stayed constant at 2.5 between 1997 and 2002, the number of ASCs grew rapidly. Rapid growth in the number of providers may indicate that Medicare's payment rates are at least adequate. However, Medicare is not the dominant payer for ASC services; according to a recent industry survey, Medicare payments account for 25 to 30 percent of revenue for the typical ASC (Federated Ambulatory Surgery Association 2003). On the other hand, Medicare accounts for a high share of overall volume for ASCs that specialize in ophthalmology services.

As of June 2003, 3,735 ASCs met Medicare's conditions of coverage.³ The number of ASCs grew at an average annual rate of 8 percent from 1997 through the first half of 2003. Each year from 1997 through 2002, an average of 279 new Medicare-certified facilities entered the market, while an average of 58 closed or merged with other facilities. As of 2002, over 40 percent of ASCs were concentrated in five states—California, Maryland, Florida, Texas, and Washington—that accounted for 26 percent of beneficiaries.⁴ Five states had fewer than 10 ASCs: Alaska, Hawaii, Rhode Island, Vermont, and West Virginia.

FIGURE 3F-2

Number of Medicare-certified ASCs increased over 50 percent, 1997–2003



Note: ASC (ambulatory surgical center). For 2003, data are through June. For all other years, data are through December.

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

TABLE 3F-2

The volume of surgical services grew faster in ASCs than in hospital outpatient departments

Measure	Average annual change, 1998–2002	
	ASCs	Outpatient departments
Number of services provided to Medicare beneficiaries	15.0%	1.7%
Number of beneficiaries served	14.5	4.8
Services per beneficiary	0.4	–3.0

Note: ASC (ambulatory surgical center). To ensure comparability, we analyzed the volume of the same set of ambulatory surgical services in each setting by selecting only those services that are payable by Medicare when provided in an ASC. Services per beneficiary is the change in the total number of ambulatory surgical services provided in each setting divided by the number of beneficiaries who received surgical services in each setting.

Source: MedPAC analysis of the 5 percent Standard Analytic files of ASC and hospital outpatient department claims from CMS.

TABLE 3F-3**Most ASCs are for profit, freestanding, and urban**

ASC type	1998	2000	2002
For profit	94%	94%	95%
Nonprofit	6	6	5
Freestanding	99	99	99
Hospital owned and operated	1	1	1
Urban	89	88	87
Rural	11	12	13

Note: ASC (ambulatory surgical center).

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

The composition of the ASC market has not changed over the last five years (Table 3F-3). Most Medicare-certified ASCs are for profit, freestanding (as opposed to hospital-owned and -operated) facilities and are located in urban areas.

Over half of high-volume, Medicare-certified ASCs specialized in a narrow range of procedures in 2002: About one-third specialized in ophthalmology services and almost 20 percent focused on gastroenterology services (Table 3F-4).⁵ We lack data on changes in the number of single-specialty ASCs over time.

Does Medicare's share of overall facility volume vary by type of ASC? CMS's 1994 survey of ASCs' costs and charges is the most recent source of volume data at the procedure level for a representative sample of the market. Unfortunately, these data are old; but they indicate that Medicare accounted for a large share of the volume for several services in which ASCs specialize. Medicare accounted for about 75 percent of the overall volume of ophthalmology procedures, 45 percent of colonoscopy volume, and 40 percent of upper gastrointestinal endoscopy volume, compared to 40 percent of volume for all services payable by Medicare in an ASC.⁶

Changes in the volume of services

The volume of ASC services received by Medicare beneficiaries has grown rapidly over the last several years, which could indicate that payment rates are at least adequate. From 1998 to 2002, the number of procedures provided by ASCs increased by 75 percent (15 percent per year, on average), largely driven by growth in the number

TABLE 3F-4**Over half of Medicare-certified high-volume ASCs specialize in ophthalmology or gastroenterology procedures, 2002**

Specialty type	Number of high-volume ASCs	Percent of high-volume ASCs	Percent of 2002 Medicare payments to all ASCs
Single-specialty			
Ophthalmology	393	34%	31%
Gastroenterology	212	18	9
Urology	23	2	1
Pain management	22	2	1
General	499	43	27
Total	1,149	100	68

Note: ASC (ambulatory surgical center). To select high-volume ASCs, we arrayed facilities by the number of claims they submitted in 2002. High-volume facilities are those in the top quartile of this distribution (submitted at least 1,000 claims). Except for pain management and general, specialty type is the specialty of the physicians who performed procedures accounting for at least 90 percent of Medicare payments to the ASC. For pain management ASCs, at least 90 percent of Medicare payments were for an interventional pain management procedure, such as epidural injection or facet joint block. General ASCs are all other high-volume ASCs.

Source: MedPAC analysis of the 5 percent Standard Analytic file of ASC and physician claims from CMS.

of beneficiaries served (Table 3F-2). This growth occurred despite increases to ASC rates of less than 1 percent per year during this period. The volume of ASC services grew by 18.2 percent from 2001 to 2002, with the following types of procedures experiencing the fastest growth: minor musculoskeletal procedures (28.9 percent), colonoscopy (27.8 percent), and upper gastrointestinal endoscopy (20.1 percent) (Table 3F-5, p. 190).⁷

Ambulatory surgical procedures have grown at a faster rate in ASCs than in outpatient departments. The number of surgical services provided by outpatient departments grew at an average annual rate of 1.7 percent from 1998 to 2002, while these services increased by 15.0 percent per year in ASCs over the same period (Table 3F-2).⁸ As will be discussed later, there are significant disparities between ASC and outpatient department payment rates for many services.

ASCs' access to capital

Several indicators suggest that ASCs have sufficient access to capital. Owners of ASCs require capital to

**TABLE
3F-5****Ophthalmology and gastroenterology procedures accounted for over two-thirds of ASC services provided to Medicare beneficiaries, 2002**

Type of procedure	Medicare volume (as percent of total volume)	Medicare payments (as percent of total)	Medicare payments (millions)	Percent volume growth, 2001-2002
Cataract removal and lens insertion	27.4%	47.5%	\$904	11.5%
Colonoscopy	19.5	14.8	282	27.8
Other eye procedures	11.3	9.3	176	10.9
Minor procedures—musculoskeletal	11.0	5.8	111	28.9
Upper gastrointestinal endoscopy	10.3	6.7	128	20.1
Other ambulatory procedures	4.5	3.0	56	17.9
Ambulatory procedures—musculoskeletal	3.5	2.6	50	18.8
Cystoscopy	2.8	1.9	36	9.6
Ambulatory procedures—skin	1.6	1.2	24	9.7
Arthroscopy	1.6	1.5	29	-0.2
Other services	6.5	5.6	106	29.0
Total	100.0	100.0	1,902	18.2

Note: ASC (ambulatory surgical center). Medicare payments include program spending and beneficiary cost sharing. Other eye procedures includes after-cataract laser surgery. Minor procedures—musculoskeletal includes interventional pain management procedures (such as epidural injection and facet joint block), soft tissue biopsy, and tumor excision. Other ambulatory procedures includes breast biopsy, nasal polyp excision, abscess drainage, nerve graft, and ear surgery. Ambulatory procedures—musculoskeletal includes hammertoe operation, arthrotomy, tenotomy, and tendon repair. Ambulatory procedures—skin includes skin debridement, excision of lesion, wound repair, and skin graft.

Source: MedPAC analysis of the 5 percent Standard Analytic file of ASC claims from CMS, 2001 and 2002, and the Berenson-Eggers Type of Service classification scheme from CMS.

establish and upgrade their facilities. Because Medicare is not the dominant payer for ASC services, however, access to capital might not be a strong indicator of the adequacy of Medicare payments.

The best evidence of ASCs' access to capital is the rapid growth in the number of Medicare-certified centers over the last five years (Figure 3F-2). The ASC market is fragmented; according to an industry survey, about 12 percent of ASCs are owned or co-owned by the four largest companies (SMG Marketing Group, Inc. 2002). Most ASCs are independently owned by local investors who obtain capital through bank loans or by forming joint ventures with local physicians or hospitals. Some ASCs acquire capital and management expertise by partnering with larger, for-profit corporations. Although most corporations that own shares of ASCs also invest in hospitals and other health care facilities, some companies invest primarily in ASCs.

The financial performance of companies that own many ASCs provides additional evidence of ASCs' access to capital. Revenues for one of the large, publicly traded firms that specialize in ASCs grew by 24 percent during

2002 and were projected to grow 20 percent during 2003 (Standard & Poor's 2003). Medicare payments accounted for 40 percent of this company's revenue. This firm's stock price increased by over 90 percent during 2003, compared with 22 percent growth in the Standard & Poor's index of the 500 largest U.S. companies. Another large, investor-owned ASC chain experienced revenue growth of 40 percent during 2002; Medicare payments accounted for 10 percent of this firm's U.S. revenues (Standard & Poor's 2003). This firm's stock price increased by 120 percent during 2003.

How should Medicare payments change in 2005?

Given the information about the adequacy of the current level of Medicare payments, the next step in determining payment updates is to ask how much providers' costs per unit of service (unit costs) will change in the coming year. The Commission concludes that Medicare payment rates for ASC services should stay the same for fiscal year 2005.

Factors for the update decision

Several factors could affect the change in the unit cost of ASC services:

- inflation in input prices,
- technological advances that enhance the quality of care and raise costs, and
- productivity growth.

Medicare's payment system for ASCs uses the CPI-U to estimate expected changes in input prices per unit of service that ASCs face. The CPI-U is currently projected to increase by 2.4 percent in fiscal year 2005.⁹

ASCs' costs also may increase if they adopt scientific and technological advances that enhance the quality of care but also raise costs. The ASC payment system, unlike the hospital outpatient prospective payment system (PPS), has no pass-through payment mechanism to explicitly cover the costs of new technologies (Section 3A provides more information on this feature of the outpatient PPS). However, the ASC payment system provides separate payments for some new devices:

- Medicare pays an additional amount to ASCs—currently \$50—for new types of intraocular lenses that meet certain criteria. These lenses are used in cataract removal and lens insertion surgeries.
- ASCs can bill Medicare separately for the cost of some prosthetic devices—including some new devices—implanted during surgery.¹⁰

The volume of many procedures that are likely to incorporate new technologies (such as colonoscopy and cataract surgery) grew rapidly between 2001 and 2002 (Table 3F-5). This growth suggests that the ASC payment system does not inhibit the diffusion of new technologies. Thus, we do not make an allowance for cost increases due to technological advances when estimating ASC cost changes in the coming year.

The Commission believes that Medicare's payment systems should encourage efficiency and that providers should be able to reduce the quantity of inputs required to produce a unit of service by at least a modest amount each year while maintaining service quality. MedPAC encourages efficiency primarily by including an adjustment for productivity when accounting for providers' cost changes in the coming year. MedPAC's productivity factor is a 10-year rolling average of the

Bureau of Labor Statistics' estimate of economy-wide, multifactor productivity growth, which is currently estimated at 0.9 percent. Subtracting productivity growth from projected input price inflation results in a projected increase of 1.5 percent in the unit cost of ASC services during the coming year.

Update recommendation

RECOMMENDATION 3F-1

There should be no update to payment rates for ASC services for fiscal year 2005.

RATIONALE 3F-1

Based on the following evidence, we believe that current payments for ASC services are at least adequate to cover the projected 1.5 percent increase in ASCs' costs in 2005:

- Beneficiaries have good access to ambulatory surgical services.
- The number of ASCs has grown rapidly over the last five years.
- The volume of services provided by ASCs to beneficiaries increased by 75 percent from 1998 to 2002, despite annual payment rate updates of less than 1 percent during that period.
- ASCs have sufficient access to capital.

IMPLICATIONS 3F-1

Spending

Because this recommendation is consistent with current law, it would have no spending implications.

Beneficiary and provider

Because we conclude that current Medicare payments for ASC services are at least adequate to cover next year's projected increase in ASCs' costs, we do not expect that this recommendation would reduce ASCs' ability to provide services to beneficiaries.

How should the payment system be revised?

The Secretary should revise the current ASC payment system so that its relative weights and procedure groups

are aligned with those in the outpatient prospective payment system. The current ASC payment system has three major problems:

- It classifies procedures into only nine payment groups, which are not clinically coherent.
- It is not based on recent cost data.
- It produces payment rates that are not aligned with rates for ambulatory surgical services provided in other settings.

Create more payment groups

The ASC payment system categorizes services within nine payment groups based only on their cost similarity. By contrast, the outpatient PPS classifies services into about 700 payment groups based on both cost and clinical similarity. The number of services in each ASC group varies widely: 2 groups have 3 or fewer services, while 2 groups have more than 600 (the median group has 172). The payment rate for each ASC group is based on the median cost of the services in the group.

Using broad payment groups for most procedures means that many procedures are likely over- or underpaid, depending on the variation between their actual costs and the rate assigned to their group. Using more payment groups could minimize these variations between cost and payment. In addition, grouping services based on their clinical as well as cost similarity would improve the cohesiveness of the classification system.

Use more recent cost data

Current ASC payment rates are based on a 1986 cost survey and have been updated periodically using the CPI-U. Because they are based on old cost data, these rates probably no longer reflect ASCs' costs. Although the statute required CMS to conduct a survey of ASCs' costs and charges every five years, the agency has not collected data on the costs of ASC services since 1994.¹¹ The MMA eliminated this survey requirement (see text box, p. 186). Policymakers need timely data to adjust both the relative payment weights for different services and the average payment amount, as well as to assess the adequacy of overall Medicare payments. There are two alternatives for collecting cost data. CMS can:

- survey a sample of ASCs, or
- require all ASCs to submit cost reports.

CMS could supplement either approach by asking panels of experts to estimate the level of resources used for different services.

Survey a sample of facilities

Using the survey approach raises three issues: administrative burdens on ASCs and CMS, the representativeness of the sample, and the frequency of the survey. Collecting cost data from a sample of ASCs limits the burden of reporting data to those ASCs in the sample and limits the amount of data that CMS has to process and audit. However, CMS would have to obtain Executive Branch approval of the survey instrument and hire additional staff to oversee the survey process. If the survey is done periodically, as was the case until 1994, CMS would have to revise the instrument every few years and ASCs would have to learn how to respond to a new instrument.

A survey based on a sample of ASCs, moreover, might not provide adequate data on all the procedures they perform. For example, because of sample size limitations, CMS's 1994 survey did not provide reliable data to set relative weights for most of the payment groups that it proposed creating in 1998 (Health Care Financing Administration 1998). As with any sampling methodology, a sample of ASCs might not reflect the cost structure of all ASCs.

Under the previous survey requirement, CMS had to collect cost data every five years. Given the rapid pace of change in technology and clinical practice, however, data may need to be collected more frequently to accurately reflect changes in costs.

Collect cost reports

A requirement that each ASC must annually submit cost and charge data on procedures would have some advantages and disadvantages. Compared with a survey, annual cost reports would provide data on a broader set of ASCs and procedures. However, obtaining sufficient detail on the cost of individual procedures would require careful design and consideration of ASCs' accounting systems. Cost reports could also provide more timely data that better reflected the impact of clinical and technological changes on costs.

Annual cost reports would be more predictable and routine for ASCs than a periodic survey. On the other hand, a cost report requirement would apply to all ASCs, rather than a subset, and would require annual compliance. Many ASCs are small facilities with perhaps limited capacity to track

costs. However, CMS requires other small providers to submit cost reports, including home health agencies, hospices, and outpatient dialysis facilities. The forms used by these small providers could serve as a model for a limited ASC cost report.

Collecting annual cost reports would probably impose a larger administrative burden on CMS than conducting a survey:

- CMS would need to audit and analyze data from more facilities.
- CMS would have to develop a mechanism to process and audit the data. The CMS contractors who review ASC claims—carriers—do not currently handle cost reports. Perhaps ASC cost reports could be processed by fiscal intermediaries (FIs), which handle cost reports submitted by hospitals, skilled nursing facilities, and other providers. However, FIs would need added resources to carry out this new responsibility.

Estimate the level of resources used

In combination with either data collection option, CMS could convene panels of experts (such as physicians, nurses, and ASC administrators) to estimate the level of

resources used for different procedures in ASCs. Such resources could include the type and mix of ASC staff, surgical supplies, equipment, and operating room and recovery time. CMS could use this information to review relative weights that are developed using cost report or survey data.

Align ASC rates with rates for services in other settings

CMS sets different payment rates for ambulatory surgical services based on the setting in which they are provided. A facility payment covers the overhead costs of surgical services when they are provided in an ASC or hospital outpatient department; the practice expense portion of the physician payment covers the overhead costs of services provided in a physician office.

The rate for a service in each setting usually differs. For example, the 2004 ASC facility rate for upper gastrointestinal endoscopy with biopsy is \$446, compared with the outpatient PPS rate of \$427 and the physician practice expense rate of \$208 for an office procedure (Table 3F-6).¹²

Payment differences may reflect variations in the cost structure among settings, such as levels of staffing or the mix of patients, or they may be due to the historical

**TABLE
3F-6**

Hospital outpatient, ASC, and physician practice expense payment rates vary for high-volume ambulatory surgical services, 2004

Procedure code	Description	Share of Medicare payments to ASCs, 2002	2004 payment rates		
			Hospital outpatient	ASC	Physician practice expense
66984	Cataract removal and lens insertion	46%	\$1,254	\$973	\$285
66821	After-cataract laser surgery	6	270	446	149
45378	Colonoscopy, diagnostic	6	453	446	226
43239	Upper gastrointestinal endoscopy, biopsy	5	427	446	208
45385	Colonoscopy with removal of lesion by snare	4	453	446	287
62311	Epidural injection, lumbar or sacral	3	288	333	183
45380	Colonoscopy with biopsy	3	453	446	264
45384	Colonoscopy with removal of lesion by forceps	2	453	446	250
52000	Cystoscopy	1	375	333	126
G0121	Colonoscopy, cancer screening	1	405	446	226

Note: ASC (ambulatory surgical center). Procedures are arranged by share of Medicare payments to ASCs in 2002, from highest to lowest. Payment rates shown here are the national average for each procedure. Physician practice expense rates are for services provided in the office setting. ASC rates are as of April 1, 2004, when rates will be reduced to fiscal year 2003 levels, as required by the Medicare Prescription Drug, Improvement, and Modernization Act of 2003 (MMA). Physician practice expense rates reflect the 1.5% increase for 2004 required by the MMA.

Source: CMS 2004, CMS 2003a, CMS 2003b.

development of each payment system. If payment variations are unrelated to differences in underlying costs, there could be financial incentives to shift services to the most profitable setting, which would likely increase costs to the program and beneficiaries. The Commission has previously expressed its view that providers' decisions about site of care should be based on clinical, not financial, factors (MedPAC 2001).

How should Medicare better align ASC rates with rates for ambulatory surgical services offered in alternative settings? The options are to align ASC rates with outpatient department facility rates or with practice expense rates for physician office procedures. Although each of these settings has different capabilities and cost structures, ASCs are more like outpatient departments than physician offices. ASCs and outpatient departments are subject to more regulatory requirements (such as Medicare's conditions for participation) than physician offices and generally maintain additional infrastructure to support surgical procedures. In addition, outpatient departments are the dominant setting for ambulatory surgeries: They accounted for over half of the most common ambulatory surgical procedures in 2001 (Table 3F-7).

In 2004, the ASC payment rate exceeds the outpatient department rate for 13 percent of the surgical procedures that Medicare pays for in an ASC (315 codes out of 2,451), including 4 of the 10 highest-volume ASC services.¹³ Table 3F-6 illustrates the variations in rates by setting for the 10 highest-volume ASC services. Procedures for which the ASC rate exceeds the outpatient department rate in 2004 accounted for 19 percent of Medicare payments to ASCs and 26 percent of ASC volume in 2002. ASC rates exceed outpatient rates for fewer services in 2004 than 2003 because outpatient rates increased faster than ASC rates in 2004 due to a higher outpatient update and changes to the outpatient weights.¹⁴

Although ASCs receive higher payment rates than outpatient departments for certain procedures, it does not appear that ASCs incur higher costs, on average, than outpatient departments for these procedures. Because we lack data that would allow direct comparisons of costs between settings, we used indirect measures to compare costs.¹⁵ In a previous report we considered two such indirect measures of relative costliness: regulatory burden and the mix of patients (MedPAC 2003). We found that outpatient departments are subject to additional regulatory

**TABLE
3F-7**

Over half of the most common ambulatory surgical procedures were performed in hospital outpatient departments, 2001

Procedure category	Share of ambulatory surgical volume, all settings	Share of volume, by setting		
		Outpatient departments	Physician offices	ASCs
Colonoscopy	16.0%	70.8%	4.3%	24.9%
Cataract removal and lens insertion	12.5	47.7	0.5	51.8
Minor procedures—musculoskeletal	10.7	48.1	31.1	20.8
Upper gastrointestinal endoscopy	9.5	72.0	4.5	23.5
Cystoscopy	9.0	28.7	63.8	7.5
Ambulatory procedures—skin	7.9	42.4	52.6	5.0
Other ambulatory procedures	7.3	69.8	16.5	13.8
Other eye procedures	6.9	27.5	33.6	39.0
Other minor procedures	5.0	30.1	63.3	6.5
Ambulatory procedures—musculoskeletal	3.4	59.8	17.4	22.9
Total	88.1	53.1	24.1	22.8

Note: ASC (ambulatory surgical center). Table only includes ambulatory surgical procedures that are on the list of services payable by Medicare when performed in an ASC. Procedure categories are arranged by their share of ambulatory surgical procedure volume across all settings, from highest to lowest. Minor procedures—musculoskeletal includes interventional pain management procedures (such as epidural injection and facet joint block), soft tissue biopsy, and tumor excision. Ambulatory procedures—skin includes skin debridement, excision of lesion, wound repair, and skin graft. Other ambulatory procedures includes breast biopsy, nasal polyp excision, abscess drainage, and nerve graft. Other eye procedures includes after-cataract laser surgery. Other minor procedures includes nasal, oral, urological, and nerve procedures. Ambulatory procedures—musculoskeletal includes hammertoe operation, arthrotomy, tenotomy, and tendon repair.

Source: MedPAC and RAND analysis of the 5 percent Standard Analytic files of physician, outpatient department, and ASC claims from CMS, and the Berenson-Eggers Type of Service classification scheme from CMS.

requirements, which are likely to increase their overhead costs, and treat patients who are more medically complex.¹⁶ Thus, outpatient departments probably incur higher costs than ASCs for similar procedures.

Unlike ASCs, hospitals are subject to the Emergency Medical Treatment and Active Labor Act, which requires outpatient departments that provide emergency services to screen, stabilize, and transfer patients who believe they are experiencing a medical emergency, regardless of their ability to pay. In addition, Medicare's conditions of participation for hospitals require them to safeguard patients' rights by establishing a patient complaint process and to have quality improvement programs (CMS 2003d). Medicare's conditions of coverage for ASCs, which have not been updated since 1982, do not contain these requirements.

We used Medicare beneficiaries' risk scores to compare the medical complexity of patients in ASCs and outpatient departments. The risk scores represent beneficiaries' expected costliness based on their age, sex, and diagnoses from hospital inpatient, outpatient, and physician visits during the previous year. We calculated average risk scores for patients who received similar types of procedures, such as cataract surgery or colonoscopy, in ASCs or outpatient departments.

For the 10 procedure categories that accounted for almost all Medicare payments to ASCs in 1999, patients who were treated in outpatient departments had higher average risk scores than ASC patients. These results indicate that outpatient departments provide care to beneficiaries who, on average, have somewhat higher medical complexity than patients who receive similar procedures in ASCs. It is probably more costly to treat surgical patients with more health problems. For example, patients with comorbidities could require additional time in the operating and recovery rooms and more sophisticated monitoring during surgery.

Because higher payment rates for certain procedures performed in ASCs do not appear to be related to higher costs in the ASC setting, these payment variations could create financial incentives to inappropriately shift services from outpatient departments to ASCs. Last year, the Commission recommended that, until the Secretary implements a revised ASC payment system, the Congress should ensure that payment rates for ASC services do not exceed hospital outpatient PPS rates for the same services, accounting for differences in the bundle of services

covered by the base rate in each payment system (MedPAC 2003).

Base the payment system on the outpatient prospective payment system

Ideally, CMS would design a unique payment system for ASCs that classifies procedures into more payment groups, sets rates based on recent cost data that are aligned with rates in other settings, and is updated regularly. Due to competing priorities and congressional action, however, CMS has not implemented revisions to the ASC payment system since creating the current payment groups in 1990.¹⁷ Given this experience, and the small size of the ASC sector compared with other provider types, it is probably more practical to link the ASC payment system to a system such as the outpatient PPS that sets rates for ambulatory surgical services, has many payment groups, and is revised regularly using recent data.

Basing the ASC payment system on the outpatient PPS would offer several advantages:

- Using a greater number of payment groups could enhance the accuracy of payments for individual ASC services.
- Linking the two payment systems would make it administratively easier for CMS to update ASC procedure groups and relative weights.
- Aligning the ASC and outpatient payment systems could reduce financial incentives to shift services between settings.

However, CMS would need to collect data on the cost of ASC services at the procedure level to monitor the adequacy of ASC rates, refine the ASC relative weights, and set a conversion factor that reflects the cost of ASC services. Policymakers would also need to address other differences in the payment systems that might cause payments to diverge.

As discussed earlier, the use of broad payment groups for most ASC procedures means that many of them are likely over- or underpaid, depending on the variation between their actual costs and the payment rate assigned to their group. Replacing the nine current ASC payment groups with the larger number of outpatient PPS groups could minimize these variations between cost and payment.

If the payment groups and relative weights used by the ASC payment system were based on those used by the outpatient PPS, CMS could update the ASC groups and

weights each year along with its annual revisions to the outpatient PPS. Easing the administrative burden for CMS should reduce or eliminate long delays in revising the ASC payment system.

Using similar procedure groups and relative weights in the ASC and outpatient payment systems would make it easier to align rates for the same services across settings. Although the actual rates might not be the same in each setting, the relative payment difference between a colonoscopy and upper gastrointestinal endoscopy, for example, would be similar in each site of care.

The ASC payment system should use a conversion factor, or average payment amount, to convert the relative weight for a service into a payment rate. The conversion factor should reflect the costs of efficient ASCs in providing care, unless ASCs incur higher costs than outpatient departments for similar services and patients (see discussion below). Thus, CMS would need to collect data on the cost of ASC services to develop a conversion factor. Such data would also be used to monitor the adequacy of Medicare payments to ASCs. As discussed earlier, there are two options for collecting these data.

Our analysis of indirect measures affecting the relative costliness of ASCs and outpatient departments suggests that ASCs are the lower-cost setting (see page 194). We expect that when ASC cost data are collected, they will confirm this assumption.

If, however, a direct comparison of ASC and outpatient department costs shows that ASCs incur higher average costs for surgical services, we would want to investigate whether this result is related to variations in patient severity, quality of care, and efficiency; the allocation of costs across different hospital service lines; or other factors. Medicare might want to base its rate for a service provided in multiple settings on the costs of the most efficient setting (the lowest-cost setting, controlling for patient mix and quality). This approach would produce a single rate for a service, regardless of where it is provided. It would encourage services to shift to the most efficient setting, while encouraging providers in other settings to become more efficient.

If ASC costs continue to exceed outpatient department costs after adjusting for these factors, should Medicare pay ASCs more than outpatient departments for similar services? Paying ASCs more might encourage the shift of surgical procedures from outpatient departments to ASCs. This migration would raise several issues, most notably

the effect on the financial viability of general hospitals and the incentive for ASCs to build additional capacity when hospitals' current capacity for ambulatory surgical procedures may be sufficient. Thus, policymakers might want to pay no more for the same service in an ASC than an outpatient department.

It is possible that the outpatient PPS covers outpatient departments' costs for a broad mix of services even if the relative weights do not accurately reflect the relative costs of individual services. If true, this phenomenon would have less of an impact on outpatient departments, which can spread financial losses and gains from individual services across a broad service line, than ASCs, which often specialize in specific procedures. When applying the outpatient PPS weights to ASC services, CMS should periodically use data on the cost of specific ASC procedures to ensure that the weights reflect the relative costs of individual ASC services. If they do not, CMS should refine the weights to ensure that they cover the costs of specific ASC services.

Even if CMS were to align base payment rates for ASC and outpatient department services, other differences between the payment systems might cause payments to diverge. For example:

- The labor portion of the ASC rate, which is adjusted for geographic wage differences based on the location of the ASC, is currently 34.45 percent, compared with the hospital outpatient labor share of 60 percent. Variations in the labor share can affect payment rates for providers in locations with above- or below-average wages. In an area with below-average wages, for example, the share of the payment related to labor is reduced. If the labor share is higher, the payment reduction will be greater. The General Accounting Office's report on the ASC payment system will examine whether the current labor share of ASC payments is appropriate (see text box, p. 186).
- Each setting has different rules for whether the cost of drugs or devices used in a procedure is included in the base payment rate. Outpatient departments are eligible to receive pass-through payments for certain new technology items, such as drugs and devices, that are used in the delivery of services.¹⁸ Pass-through payments are made in addition to the outpatient base payment. ASCs, however, do not receive pass-through payments; the cost of most new technology items used with procedures provided in ASCs is included in the

ASC base payment. On the other hand, ASCs may receive separate payments for some prosthetic devices that are implanted during surgical procedures, whereas payments for prosthetic devices are folded into outpatient PPS base rates.

- Outpatient departments are eligible to receive outlier payments; ASCs do not receive such payments (Section 3A provides more detail about outpatient PPS outlier payments).
- Outpatient departments are allowed to bill separately for radiology and imaging services that are ancillary to surgical procedures; ASCs are not. For example, if a procedure does not normally require a radiology or imaging service, the procedure's payment rate in each setting does not reflect the cost of this additional service. In some cases, however, the physician performing the procedure may decide that it is clinically important to use an imaging service (such as using fluoroscopy to enhance the surgeon's field of vision). Although an outpatient department could receive payment for both the surgical procedure and imaging service, an ASC could only receive payment for the surgical procedure.
- Under current law, annual updates to ASC rates are based on the increase in the CPI-U (with the exception of 2005 through 2009, when the update is eliminated); outpatient rates are updated using the hospital market basket.

Policymakers should address these differences if they decide to revise the ASC payment system based on the outpatient PPS.

RECOMMENDATION 3F-2

The Secretary should revise the ASC payment system so that its relative weights and procedure groups are aligned with those in the outpatient prospective payment system. In addition:

- **The Congress should require the Secretary to periodically collect ASC cost data at the procedure level to monitor the adequacy of ASC rates, refine the relative weights, and develop a conversion factor that reflects the cost of ASC services.**
- **The Congress should ensure that payment rates for ASC procedures do not exceed hospital outpatient PPS rates for the same procedures, accounting for differences in the bundle of services.**

RATIONALE 3F-2

The Secretary should base the ASC payment system on the outpatient PPS for the following reasons:

- Using a greater number of payment groups could enhance the accuracy of payments for individual ASC services.
- Linking the two payment systems would make it administratively easier for CMS to update ASC procedure groups and relative weights.
- Aligning the ASC and outpatient payment systems could minimize financial incentives to shift services between settings.

CMS should use data on the cost of ASC services at the procedure level to ensure that ASC weights cover the relative costs of individual services and to set the conversion factor. Even if cost data show that ASCs incur higher costs than outpatient departments, Medicare should pay no more for the same service in an ASC than an outpatient department (accounting for differences in the bundle of services covered by the base payment rates).

IMPLICATIONS 3F-2

Spending

- We are unable to estimate the spending implications of this recommendation. According to current law, total payments under the revised ASC payment system must be equal to the total projected payments under the old system; the conversion factor would be set at a level that maintains budget neutrality between the old and new payment systems. Under this recommendation, the conversion factor for the revised system would be based on recent ASC cost data. Thus, depending on the size of the conversion factor, total payments under the revised system could be higher or lower than total payments under the old system. Whether or not total payments rise or fall, some payment rates would probably increase while others would decline.

Beneficiary and provider

- This recommendation should not affect beneficiaries' access to care. As long as the payment rates cover ASCs' costs, ASCs should provide services to beneficiaries. This recommendation's effect on beneficiaries' cost sharing is unclear because we cannot project the magnitude of rate changes.

ASCs that specialize in services that are currently paid higher base rates in ASCs than outpatient departments, such as some endoscopy procedures, might experience payment reductions. However, ASCs that provide services now paid at much lower levels, such as some orthopedic procedures, might be paid more.

What procedures should Medicare pay for in ambulatory surgical centers?

After the ASC payment system is revised, CMS should eliminate its current list of procedures that Medicare will pay for in an ASC. Instead, it should pay for all ambulatory surgical procedures provided by ASCs that meet clinical safety standards and do not require an overnight stay. CMS is required by law to establish and update a list of procedures that are appropriately performed in inpatient hospital settings but may also be safely performed on an ambulatory basis in ASCs.¹⁹ Only those procedures on the list are eligible for Medicare payment when performed in ASCs. CMS uses specific criteria for determining what procedures to include on this list. The current approach for deciding what ASC procedures are eligible for Medicare payment has the following problems:

- Long gaps between updates to the list of ASC procedures make it difficult for the list to keep up with changes in technology and clinical practice.
- Some of the criteria for adding procedures to the list may no longer be appropriate.

Problems with the current approach

CMS is required to update the list of approved ASC procedures every two years. Between 1995 and 2003, however, with the exception of updates due to coding changes, the list was not modified.²⁰ After 1995, changes in technology and clinical practice led to the development of additional procedures that could be safely performed in ASCs. Until the list was updated, however, ASCs could not receive payment for these procedures.

Surgical procedures must meet several criteria to be added to the list of services that Medicare will pay for in an ASC:

- **Site-of-service volume.** Procedures performed in hospital inpatient settings at least 20 percent of the time that can also be safely performed in outpatient facilities are eligible for the list; procedures performed

in physician offices at least 50 percent of the time are excluded from the list.

- **Time needed to perform procedures.** A procedure must not generally exceed 90 minutes of surgery or 4 hours of recovery time; anesthesia for a covered procedure must last no longer than 90 minutes.
- **Clinical criteria.** A procedure is excluded from the ASC list if it: (1) generally results in extensive blood loss, (2) requires major or prolonged invasion of body cavities, (3) directly involves major blood vessels, or (4) is emergent or life-threatening in nature.

In 1998, CMS proposed revising its criteria for determining which procedures are eligible for payment, as well as expanding the list of services. The agency considered eliminating the surgery, anesthesia, and recovery time limits but retaining clinical standards for deciding whether a procedure could safely be performed in an ASC. CMS also proposed reducing the importance of site-of-service volume in the approval process.

In March 2003, CMS issued a final rule that updated the list of procedures, but it did not revise the criteria for determining eligibility for the list. The rule added almost 300 procedures to the list and deleted 140 procedures, bringing the total number of services on the list to about 2,400 (CMS 2003c).

Some of the criteria for adding procedures to the list, such as site-of-service volume and time limits, are probably no longer relevant for determining what services are clinically appropriate to perform in an ASC.

Site-of-service volume criteria

The Congress required that surgical procedures approved for payment in an ASC must also be performed in inpatient settings in order to encourage the migration of surgical services to ambulatory settings. Procedures such as cataract surgery were introduced in inpatient settings before shifting to ambulatory settings as technology and clinical practice developed.

This pattern has changed, however, and it no longer makes sense to consider inpatient volume when updating the ASC list. Today, new types of endoscopy and eye surgery are initially performed in ambulatory sites of care, bypassing the inpatient setting. In addition, many procedures, such as cataract removal and lens insertion, no longer meet the 20 percent inpatient volume requirement because of changes in site of care. CMS has created a

second set of standards to keep these procedures on the list.²¹

CMS should also consider dropping the requirement that procedures be performed less than 50 percent of the time in physician offices to be added to the list. This criterion was created to prevent the shift of procedures that are safely and routinely performed in physician offices to the more elaborate and costly ASC setting.²² Even though physicians can safely perform many surgical procedures on healthy beneficiaries in the office setting, sicker beneficiaries may require the additional infrastructure and safeguards of an ASC or outpatient department. Physicians should have the discretion to decide which setting is most clinically appropriate for individual patients.

ASC payment rates usually exceed physician practice expense rates when the service is provided in an office (Table 3F-6, p. 193). The Commission is concerned that eliminating the physician office volume criterion might encourage the migration of procedures from physician offices to ASCs due to financial, rather than clinical, reasons. Thus, the Secretary should monitor ASC and physician office rates to ensure that they reflect the costs of efficient providers in each setting. The Secretary should also evaluate whether shifts of surgical services among ambulatory settings are related to clinical reasons, financial incentives, patient preferences, or other factors.

Time limit requirements

The time limit requirements for surgery, recovery, and anesthesia are unnecessarily rigid. CMS developed these criteria to ensure that only ambulatory procedures not requiring an overnight stay would be added to the list. CMS believed that procedures exceeding 90 minutes of surgery plus 4 hours of recovery, allowing time for potential delays and for patients to arrive at least 1 hour before the procedure begins, could not be completed at an ASC during an 8-hour day (HCFA 1995). Although the Commission agrees that procedures requiring an overnight stay should be performed only in an inpatient setting, CMS could accomplish this goal through less restrictive criteria. For example, CMS could exclude those procedures from payment that generally require an overnight stay, rather than specifying time limits for each portion of the procedure.

Use more reasonable criteria

When determining which services to reimburse in an ASC, CMS should focus primarily on whether it is clinically

appropriate to provide a surgical procedure in an ASC. Procedures to exclude are those that usually require an inpatient admission or the additional resources of a hospital outpatient department, such as the availability of emergency backup and on-site specialists. Thus, CMS should continue to exclude those procedures that generally result in extensive blood loss, require major or prolonged invasion of body cavities, directly involve major blood vessels, or are life-threatening in nature. CMS also should exclude procedures that Medicare does not pay for in hospital outpatient departments because they require inpatient care.²³

Create exclusionary list

Instead of requiring CMS to maintain a list of services that are eligible for payment when provided by an ASC, the Congress should consider authorizing CMS to create a list of services that are specifically excluded from payment. CMS would pay for any ambulatory surgical service not on such a list, as long as it is medically necessary.

An exclusionary list would make it easier for beneficiaries to receive new surgical procedures in ASCs. Under the current approach, a new procedure that is appropriate to provide in an ASC will not be reimbursed by Medicare until the ASC list is updated and the procedure is included. If the current list were replaced by an exclusionary list, Medicare could begin paying ASCs for the procedure at the same time it started paying for the procedure in other settings. Physicians would have greater discretion over where to provide a service. The burden would be on CMS to demonstrate that the ASC is an inappropriate setting for a given surgical procedure.

An exclusionary list carries certain risks, however. If CMS does not keep this list up to date, ASCs could begin performing services that are unsafe in that setting. Medical ethics principles and professional standards should reduce this risk. For example, the American Gastroenterological Association (AGA) recommends that physicians should not perform endoscopy on severely ill patients in an ASC or office setting (AGA 2001). In addition, ASCs have to meet minimal safety and quality standards to obtain Medicare certification and accreditation by private organizations. At least one accreditation group requires that an ASC's governing body determine what procedures are appropriate to perform in that facility and ensure that only qualified physicians are allowed to perform them (Accreditation Association for Ambulatory Health Care, Inc. 2003).

The Congress may wish to wait until CMS aligns the ASC payment system with the outpatient PPS before changing the process for approving ASC procedures. Otherwise, unwarranted disparities between ASC and outpatient rates could cause procedures to migrate to ASCs for financial, rather than clinical, reasons. In addition, CMS has had difficulty assigning newly eligible procedures to one of the nine current ASC payment groups due to the:

- absence of recent ASC cost data,
- lack of clinically homogeneous payment groups, and
- concern that some eligible procedures would have been reimbursed at much higher rates in an ASC than in an outpatient department (CMS 2003c).²⁴

RECOMMENDATION 3F-3

After the ASC payment system is revised, the Congress should direct the Secretary to replace the current list of approved ASC procedures with a list of procedures that are excluded from payment based on clinical safety standards and whether the service requires an overnight stay.

RATIONALE 3F-3

Physicians and beneficiaries should have greater discretion over where to provide and receive an ambulatory surgical procedure. Thus, CMS should eliminate the use of rigid site-of-service volume standards and procedure time limits when deciding what procedures are eligible for payment in an ASC. Replacing the current list would make it easier for

beneficiaries to receive new surgical procedures in ASCs. Medicare should only pay for ambulatory surgical procedures in an ASC when they are clinically safe for that setting. Thus, CMS should evaluate whether procedures meet clinical safety standards and require an overnight stay.

IMPLICATIONS 3F-3

Spending

- The spending implications of this recommendation are unknown. Expanding the number of ambulatory surgical procedures that may be performed in ASCs will probably lead to the migration of some services from outpatient departments and physician offices to ASCs. The increase in Medicare payments for services that shift from physician offices to ASCs (where rates are generally higher) might offset the decline in payments for services that move from outpatient departments to ASCs (where rates are generally lower). Medicare spending would increase if this recommendation increases the total volume of surgical procedures.

Beneficiary and provider

- ASCs would likely be able to provide a broader range of surgical services, offering beneficiaries an additional choice of setting. ASCs are now unlikely to provide procedures not payable by Medicare in an ASC. Beneficiaries who could receive services in an ASC instead of an outpatient department would likely have lower cost sharing (Table 3F-5, p. 190). ■

Legal context for physician ownership of ambulatory surgical centers

Section 1877 of the Social Security Act (the Stark self-referral law) prohibits physicians from making referrals for certain types of services to entities with which they have financial relationships. It also prohibits those entities from submitting claims to Medicare or Medicaid for those services. The law applies to several types of services, such as: clinical laboratory, radiology, physical therapy, and home health (HCFA 2001). However, it does not apply to surgical procedures provided in an ASC.

The anti-kickback statute prohibits health care providers from receiving or paying anything of value to influence the referral of services covered by federal

health programs. The Office of Inspector General has published safe harbor regulations that protect physicians who invest in ASCs from prosecution under the anti-kickback statute, if certain conditions are met. Among other requirements, the safe harbor regulations generally protect physician investors for whom the ASC is an extension of their office practice (Office of Inspector General 1999). In other words, the physician investors must be in a position to refer patients directly to the ASC and to perform the procedures themselves. The share of an ASC's profits received by physician investors must be related to their portion of the overall investment rather than their volume of referrals. ■

Endnotes

- 1 If an ambulatory surgical center (ASC) is deemed to be in compliance with the conditions of coverage through private accreditation, it must still comply with state licensure requirements.
- 2 The Balanced Budget Act of 1997 reduced annual updates to ASC rates by 2 percentage points between 1998 and 2002.
- 3 Most ASCs are certified by Medicare (SMG Marketing Group, Inc. 2002).
- 4 The following states experienced the greatest net growth in the number of ASCs between January 2002 and June 2003: Florida, California, Georgia, Texas, and New Jersey.
- 5 To select high-volume ASCs, we arrayed facilities by the number of Medicare claims they submitted in 2002. High-volume ASCs are those in the top quartile of this distribution (submitted at least 1,000 claims). These facilities accounted for 68 percent of total Medicare payments to ASCs and 66 percent of Medicare volume. We classified ASCs by specialty type based on the specialty of the physicians who performed procedures accounting for at least 90 percent of Medicare payments to the ASC.
- 6 Most of the volume data reported in the survey were from 1993. The survey sample included 295 ASCs, about 20 percent of all Medicare-certified ASCs in 1992.
- 7 Minor musculoskeletal procedures include interventional pain management procedures (such as epidural injection and facet joint block), soft tissue biopsy, and tumor excision.
- 8 To ensure comparability, we analyzed changes in the volume of the same set of ambulatory surgical services in each setting by selecting only those services that are payable by Medicare when provided in an ASC. Thus, the data exclude surgical services provided in hospital outpatient departments that are not payable by Medicare when furnished by an ASC.
- 9 This projection is based on data from the fourth quarter of 2003 and is subject to change as more recent consumer price index data become available (Global Insight 2003).
- 10 Medicare pays for some prosthetic devices used in ASC procedures based on the durable medical equipment fee schedule. Such devices include implantable pain pumps and ocular implants.
- 11 In 1998, CMS proposed revising the ASC payment system based on data from a 1994 cost survey (Health Care Financing Administration 1998). However, the Congress required CMS to delay the new payment system and to base new payment rates on ASC cost survey data from 1999 or later (Medicare, Medicaid, and SCHIP Benefits Improvement and Protection Act of 2000). In March 2003, CMS announced that it had developed a new cost survey instrument but had not yet fielded the survey (CMS 2003c).
- 12 The ASC rate will be effective April 1, 2004 (see text box, p. 186).
- 13 We compared calendar year 2004 outpatient department rates with the ASC rates that will be paid beginning April 1, 2004.
- 14 In 2003, the ASC payment rate exceeded the outpatient department rate for 15 percent of the procedures payable by Medicare when performed in an ASC (370 codes out of 2,451), including 9 of the 10 highest-volume ASC services. Procedures for which the ASC rate exceeded the outpatient department rate in 2003 accounted for 36 percent of Medicare payments to ASCs and 52 percent of ASC volume in 2002.
- 15 The upcoming General Accounting Office report on the ASC payment system may address whether outpatient departments have higher costs than ASCs (see text box, p. 186).
- 16 This issue is also discussed by A. Winter in Health Affairs (Winter 2003).
- 17 In 1998, CMS proposed revising the ASC payment system by creating 105 payment groups that were based on those included in the outpatient payment system proposed in the same year (Health Care Financing Administration 1998). However, this proposal was delayed by congressional action.
- 18 Most of the payments for pass-through items were incorporated into the outpatient PPS base rates in 2003.
- 19 Section 1833(i) (1) of the Social Security Act (42 U.S.C. 1395).
- 20 In 1998, CMS proposed expanding the list of approved ASC procedures (Health Care Financing Administration 1998). However, this proposal was delayed by congressional action.
- 21 To remain on the ASC list, procedures must have combined inpatient, hospital outpatient, and ASC volume greater than 46 percent of volume across all settings and either physician office volume of less than 50 percent or inpatient hospital volume of greater than 10 percent (Health Care Financing Administration 1998).
- 22 CMS requires ASCs, unlike physician offices, to adhere to certain health and safety standards, such as maintaining designated operating and recovery rooms, that raise their overhead costs.
- 23 See CMS 2003a, p. 63465–63467.
- 24 To avoid encouraging the shift of procedures to ASCs for financial reasons, CMS decided to not add procedures to the list that would have been paid more in the lowest ASC group than in an outpatient department, even if the procedures met the eligibility criteria.

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CHAPTER

4

**Medicare+Choice payment
and eligibility policy**

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

4A CMS should continue to risk-adjust payments with the new CMS hierarchical condition category system, but should not continue to offset the impact of risk adjustment on overall payments in 2005 and subsequent years.

COMMISSIONER VOTES: YES 16 • NO 0 • NOT VOTING 1 • ABSENT 0

.....
4B The Congress should allow all beneficiaries with end-stage renal disease to enroll in private plans.

COMMISSIONER VOTES: YES 16 • NO 0 • NOT VOTING 1 • ABSENT 0

.....
4C The Congress should establish a quality incentive payment policy for all Medicare Advantage plans.

COMMISSIONER VOTES: YES 17 • NO 0 • NOT VOTING 0 • ABSENT 0

Medicare+Choice payment and eligibility policy

MedPAC has a history of supporting private plans in the Medicare program. The Commission strongly believes that beneficiaries should be given the choice of delivery systems that private plans can provide and that payment mechanisms should promote financial neutrality between private plans and the traditional program. Many of the same issues the Commission has raised about the M+C program will continue to pertain to the recently enacted Medicare Advantage program that will replace it. MedPAC identifies three improvements that could be made to the current and future programs: implementing risk adjustment so that it captures differences in health status between Medicare beneficiaries who enroll in private plans and those who stay in the fee-for-service program; allowing all beneficiaries with end-stage renal disease the choice of enrolling in private plans; and providing financial incentives to improve quality.

In this chapter

- Plan payments, availability, and enrollment
- Risk adjustment system and payments to M+C plans
- Using payment incentives to improve the quality of care in private plans

MedPAC has a history of supporting private plans in the Medicare program. The Commission strongly believes that beneficiaries should be given the choice of delivery systems that private plans can provide. On some dimensions, private plans have a greater flexibility to innovate than the traditional Medicare fee-for-service (FFS) program as it currently operates. This ability to innovate, through financial incentives, care coordination, and other management techniques, gives private plans tools to improve the efficiency and quality of health care services delivered to Medicare beneficiaries. Currently, private plans participate in Medicare through the Medicare+Choice (M+C) program. The M+C program has provided the majority of Medicare beneficiaries a choice of delivery systems, and MedPAC has supported that choice.

The Medicare Prescription Drug, Improvement, and Modernization Act of 2003 (MMA) establishes a new program for private plans called Medicare Advantage (MA). The Congress created the MA program to expand the role of private plans in Medicare. Much of that new program will be based on the rules and payment structure in the M+C program. M+C plans will become known as local MA plans and will operate similarly as under the M+C program. (The MMA also authorizes regional MA plans.) Many of the same issues the Commission has raised about M+C will continue to pertain to MA.

This chapter focuses on short-run issues that are important for the current program and will also be important in the long run. Specifically, this chapter discusses the current status of the M+C program, M+C payment compared with Medicare FFS spending, recommendations arising from CMS's implementation of a new risk adjustment system, and a recommendation on introducing payment incentives tied to the quality of services delivered by private plans. These discussions address the current M+C program rather than some of the broader payment issues in the MA program. The MMA has also mandated future MedPAC studies of payment and benefit design issues for MA plans. These studies will contain MedPAC analyses of features of the new program.

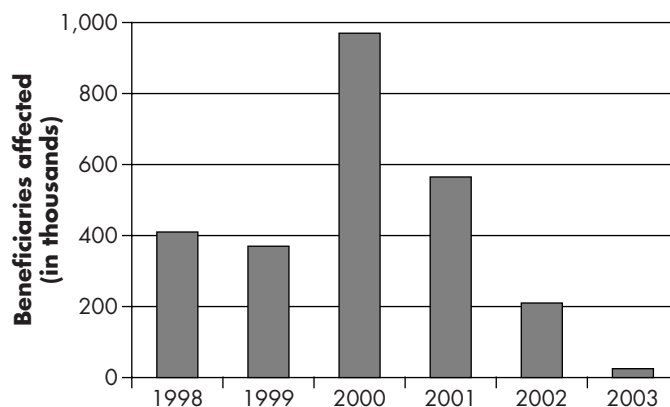
Plan payments, availability, and enrollment

Most Medicare beneficiaries enrolled in private plans that provide Medicare's Part A and Part B benefits are enrolled in M+C plans.¹ Under the M+C program, Medicare

beneficiaries have the option of joining a private coordinated care plan (CCP), which receives payment from Medicare for providing all Medicare-covered services. Generally, members of M+C CCPs must use plan providers to get coverage for their care. These private plans are allowed to provide additional benefits and to charge beneficiaries an additional premium for them. However, if a plan's projected costs for Medicare benefits are lower than its Medicare payments, the plan is required by law to either return the difference to enrollees in the form of additional benefits (or lower premiums) or to contribute the money to a reserve fund for future use (few plans choose the latter option). In practice, beneficiaries have often been able to join these plans and have lower cost sharing and/or receive extra benefits at no additional premium.

After several years of declining enrollment and plan participation, the M+C program may have stabilized, although at lower levels than when the program peaked in 1999 to 2000. Plan withdrawals from the M+C program for 2004 are the least extensive of any year in the program's history and withdrawals have slowed considerably over the past few years (see Figure 4-1). Less than 1 percent (41,000) of M+C enrollees will lose their plan at the end of the year. Of those enrollees who will lose their M+C CCP, only about 1,000 are in areas where there are no other CCPs. Also, since the start of 2003, new plans have entered the program and other plans have expanded their service areas. As of December 2003, CMS listed 7 plan sponsors with pending applications into the

FIGURE 4-1 Beneficiaries affected by plan withdrawals, 1998-2003



Note: Data is based on year-end reporting.

Source: CMS fact sheet on Medicare+Choice, September 1, 2003, on cms.hhs.gov/media.

program and another 17 plan sponsors seeking service area expansions.

Access to CCPs

More Medicare beneficiaries will have access to an M+C CCP in 2004 than in 2003. At least 60 percent of beneficiaries will have access to an M+C CCP in 2004, up from 58 percent at the beginning of 2003. Enrollment in M+C CCPs increased by 1.5 percent between January 2003 and December 2003. About 12 percent of Medicare beneficiaries are currently enrolled in M+C CCP plans.

Although there are signs that the M+C program is stabilizing, availability and enrollment are considerably lower than levels just after the implementation of the M+C program, and extra benefits offered by the plans have eroded (Gold and Achman 2003). In 1998, 74 percent of beneficiaries had M+C CCPs available, and in 1999, about 16 percent of Medicare beneficiaries were enrolled in M+C plans. Trends in participation, enrollment, and benefits may change in response to higher payments under the MMA.

Access to private fee-for-service and preferred provider organization demonstration plans

Because many beneficiaries do not have access to M+C CCP plans, CMS has tried to expand choices in the M+C program by approving several private fee-for-service (PFFS) plans and preferred provider organization (PPO) demonstration plans, and by taking a number of actions to lessen the administrative burden on plans.

The PFFS option under the M+C program allows plans to offer Medicare benefits to enrollees without restriction to a network of providers. The PFFS plans reimburse providers on a fee-for-service basis using the same payment rates that apply in the traditional Medicare program. Other reimbursement strategies are permitted, but no plans have chosen to use them.

Insurers continue to show interest in the PFFS option, but enrollment has been low and plan participation has not been sustained. Although a fourth PFFS plan joined the M+C program this year, the largest plan is reducing its service area for the third consecutive year and is withdrawing from over 500 counties. Because enrollment is small in each county, this action affects only about 2,400 enrollees. As a result, only 31 percent of beneficiaries will have access to a PFFS in 2004, compared with 36 percent in 2003. However, CMS lists

two PFFS plans as having new applications pending, so access to this type of plan may increase.

Another new option for some Medicare beneficiaries is enrollment in PPO demonstration plans. CMS initiated a demonstration of PPOs for Medicare beneficiaries in 2003. Although PPOs now represent the predominant form of insurance for the under-65 population, only three M+C organizations offered PPO plans in 2002. The demonstration is intended to attract PPOs to the M+C program by increasing payment and reducing some administrative requirements. Many PPOs signed up in response; organizations in the Medicare PPO demonstration offer 31 plans in 19 states. Approximately 11 million (more than 25 percent) Medicare-eligible residents live in the 206 counties in which PPO demonstration plans are available.

Plan entry was encouraged under the demonstration by modifying payment rates in two ways that have since been adopted to encourage entry into the MA program. In 2003, the payment rates for demonstration plans were set to the greater of the M+C rate or 99 percent of the county FFS spending. Another way of encouraging plan entry is to limit the risk for demonstration plans: CMS allowed plans to negotiate risk-sharing arrangements. All but five of the demonstration plans chose to enter into negotiated risk-sharing arrangements.

The PPO demonstration was intended to expand M+C options and stimulate new enrollment. However, while the PPO demonstration has offered many beneficiaries a new choice, for the most part, it has not provided an option to beneficiaries who do not already have other alternatives to Medicare FFS. Of the more than 11 million beneficiaries who have a PPO available, only about a half million do not already have a CCP available. Generally, demonstration plans are going into urban areas, but a couple of the plans are targeted to rural areas. As a result, about 600,000 rural beneficiaries will have access to PPOs, although 450,000 of them already have a CCP available.

MedPAC examined the prior managed care enrollment experience of beneficiaries enrolled in PPO demonstration plans, and found that very few were joining a Medicare managed care plan for the first time. In September 2003, 75,500 beneficiaries were enrolled in PPO demonstration plans. Only 13 percent of these enrollees had switched from FFS Medicare and had no prior experience in Medicare managed care plans. The other 87 percent (approximately 65,700) had been enrolled in M+C plans

before they enrolled in a PPO demonstration plan. Of these, 51,000 had been enrolled in plans operated by the same managed care organization that controlled the PPO plan in which they subsequently enrolled.

Plan availability varies by geographic area

Recent efforts have not yet resulted in substantial new enrollment in M+C plans (Table 4-1). Medicare legislation in 1997 established M+C payment rates which included a floor—a minimum amount below which no county rates could go. By design, the floor rate was above the FFS spending in many counties. It was established to attract plans to areas (mostly rural) that had lower-than-average FFS spending. Legislation in 2000 established a second, higher floor which applied only to counties in metropolitan areas which had more than 250,000 residents (“large-urban” areas). Despite the support of these floor-payment rates, no plans exist in some areas (particularly rural areas) of the country.

Beneficiaries living in floor counties (for this section we consider the determination of floor status to have been made before the MMA changed payment rules) are much less likely to have a coordinated care plan available than those beneficiaries living in nonfloor counties (Table 4-2). They are, however, more likely to have access to a private

FFS plan. Those availability differences have narrowed, although a large portion of the changes is attributable to relatively high-payment counties shifting from nonfloor to floor status between 2003 and 2004, thereby decreasing the difference in average payment rates between the floor and nonfloor counties.

A similar pattern is evident for rural beneficiaries (most of whom live in counties with floor payment rates). Despite the overall increase in coordinated care plan availability, only 16 percent of rural beneficiaries have a plan available. Also, even though rural beneficiaries are more likely than beneficiaries in urban areas to have access to PFFS plans, virtually all of the loss in PFFS plan availability has occurred in rural areas.

Plan payments are higher than fee-for-service spending

MedPAC has used the concept of “financial neutrality” as a guiding principle for setting payment rates in the M+C program. Financial neutrality means that the Medicare program should be financially neutral as to whether a beneficiary chooses its FFS program or a private plan to provide coverage for the same benefits. A private plan may accrue higher administrative expenses or earn a reasonable profit, as long as it reduces spending on care to recoup those additional costs. If the program pays more

TABLE 4-1

Medicare+Choice plans and enrollment, by type of plan, 1997–2003

Type of plan	Plans						
	1997	1998	1999	2000	2001	2002	2003
CCP	307	346	309	266	179	155	151
PPO demonstrations	N/A	N/A	N/A	N/A	N/A	N/A	33
PFFS	N/A	N/A	0	1	1	2	4
Total	307	346	309	267	180	157	188
Type of plan	Enrollment						
	1997	1998	1999	2000	2001	2002	2003
CCP	5,211,339	6,055,546	6,347,434	6,260,549	5,480,899	4,929,690	4,622,031
PPO demonstrations	N/A	N/A	N/A	N/A	N/A	N/A	79,223
PFFS	N/A	N/A	0	1,178	19,835	24,536	25,897
Total	5,211,339	6,055,546	6,347,434	6,261,727	5,500,734	4,954,226	4,727,151

Note: CCP (coordinated care plan), N/A (not applicable), PPO (preferred provider organization), PFFS (private fee-for-service). Plans are defined as contracts either under Medicare+Choice or its predecessor program.

Source: Medicare Managed Care Contract Plans Monthly Summary Report, December of each year, from CMS.

**TABLE
4-2**

Availability of Medicare+Choice coordinated care or private fee-for-service plans

County characteristics	Percent of beneficiaries with plans available					
	Percent of beneficiaries in Medicare		M+C coordinated care plan		M+C private fee-for-service	
	2003	2004	2003	2004	2003	2004
National	100%	100%	58%	60%	36%	31%
Payment rate						
Floor	55	63	40	46	50	37
Large urban floor	31	36	61	67	43	36
Other floor	23	27	12	17	58	39
Nonfloor	45	37	80	84	20	19
Rural	23	23	16	16	56	40
Urban	77	77	74	77	30	28

Note: M+C (Medicare+Choice). Totals may not sum due to rounding. 2004 numbers are before the Medicare Prescription Drug, Improvement, and Modernization Act of 2003.

Source: MedPAC analysis of Geographic Service Area Report, September 2002 and November 2003, from CMS.

than FFS costs to plans, they will have less financial pressure to improve the delivery of care. Paying plans more than FFS cost to perform the same as FFS Medicare simply raises spending for the program. MedPAC has been steadfast in its position that financial pressure on FFS providers and plans is important in motivating them to improve productivity and efficiency.

Payment policy 1998–2004

Before the Balanced Budget Act of 1997 (BBA), payment rates for private plans were set at 95 percent of a county’s per beneficiary spending under the traditional FFS program. The BBA instituted a new method for calculating payment rates for the M+C program that broke the direct link to county-level FFS spending. Under the BBA and two subsequent acts, rates were the highest of three formula prongs: fixed dollar amounts or “floors,” a minimum guaranteed increase (2 percent) from prior year county rates, or a blend of local and national rates. The floor rates and the blended rates were updated using the rate of increase in national FFS spending.

As discussed, the two floor rates vary with the characteristics of a county. One floor rate is for counties in large urban areas, such as Portland, OR, and Minneapolis-St. Paul, MN. The other floor rate applies to all other

counties. The floor rates for 2004 (pre-MMA) were \$592 per month for large urban areas and \$536 for all other areas. Most floor counties would have seen an increase of about 5 percent from 2003 to 2004.

Before the MMA changed the payment rules, updates for 2004 would have been low for nonfloor counties. For the fourth year in a row, and for the sixth time in the seven years since the BBA, all counties with payment rates above the floors (e.g. Los Angeles, New York, and Miami) would have gotten the minimum guaranteed increase for 2004. The minimum guaranteed increase would have been 2.2 percent for 2004, based on the legislated 2 percent, plus 0.2 percent to account for increased coverage responsibilities of plans because of national coverage determinations.

Note that as the floor rates increase faster than the 2 percent minimum increase, the floor component of the payment formula has determined the rate for more counties over time. For 2004 (pre-MMA), about 8 percent of Medicare beneficiaries were living in counties where the floor would have applied for the first time (Montgomery County, MD, and Denver, CO, are examples). Approximately 63 percent of Medicare beneficiaries and 40 percent of M+C CCP enrollees would have been in floor counties. In 1998, when there

**TABLE
4-3**

Plan payments are higher than fee-for-service spending, 2004

Payment rate for county	Pre-MMA		Under MMA	
	Average ratio in counties	Percent of enrollees	Average ratio in counties	Percent of enrollees
Total	103	100	107	100
Large urban floor	110	37	116	26
Other floor	113	3	123	3
Fee-for-service	N/A	N/A	102	40
Blend rate or minimum update	100	60	107	31

Note: MMA (Medicare Prescription Drug, Improvement, and Modernization Act of 2003), N/A (not applicable). Ratio is plan payment to fee-for-service spending. Includes all Medicare+Choice plans. Ratio is calculated based on demographic differences without regard to other health risk differences.

Source: MedPAC analysis of 2004 rate book from CMS.

was one national floor, only 12 percent of beneficiaries lived in floor counties. As recently as 2001, after the introduction of the large urban floor, 46 percent of Medicare beneficiaries lived in floor counties.

While the increases in M+C rates have been below growth in spending in the FFS Medicare program over the last several years, we estimate that for 2004 M+C plans would still have been paid, on average, at rates higher than per capita spending in the traditional FFS program, for a demographically comparable population. For 2004—again, before MMA—we estimate that across all counties, Medicare would have paid M+C plans an average of 103 percent of what it would cost to cover the current demographic mix of M+C enrollees under the traditional FFS Medicare program (Table 4-3). The payments above FFS spending were concentrated in the floor counties; Medicare would have paid 100 percent of average FFS spending in nonfloor counties, where 60 percent of enrollees live. By contrast, Medicare would have paid 110 percent of FFS spending for enrollees in floor counties in large urban areas and 113 percent of FFS spending in floor counties in other areas. These estimates assume that the average health risks of the M+C and traditional enrollees are the same, other than those differences accounted for by demographic characteristics. (The health risk differences will be described later in the section on risk adjustment.)

Payment policy 2004–2005

Congressional desire to increase the availability of and enrollment in Medicare private plans led to an increase in payment rates for plans in the MMA for at least 2004 and

2005. The MMA, effective March 2004, has altered the formula in several ways. The minimum update for 2004 is 6.3 percent, because it was set at the rate of projected national FFS spending growth for 2004 (now higher because of increased payments to FFS providers under MMA). The floor rates also increase, because of higher projected FFS spending growth, to \$614 in large urban areas, and \$555 in other areas. In addition there are more blended rates for 2004. Finally, beginning in March 2004, a fourth prong is added to the formula—100 percent of the county’s per capita FFS spending. For the purposes of the fourth prong, FFS spending includes spending for indirect medical education (IME), even though the Medicare program will continue to pay IME to hospitals directly on behalf of M+C patients.

As a result of the MMA payment formula changes, many counties move from one payment category to another. Before MMA, 40 percent of M+C enrollees lived in floor counties, but only 29 percent live in counties that remain in the floor category. Some counties, such as Montgomery County, MD, had their rates in 2004 determined by a floor rate before the MMA, but now have their rates determined by the “100 percent of FFS” prong of the formula. Under the MMA, 40 percent of enrollees live in counties where the rates are determined by the “100 percent of FFS” prong and 31 percent are determined by either the blended rate prong or the minimum update prong.

For 2004 under the new MMA rates, we estimate that across all counties, Medicare is paying M+C plans an average of 107 percent of what it would cost to cover the current demographic mix of M+C enrollees under the

traditional fee-for-service Medicare program. That is, Medicare pays 116 percent of FFS spending for enrollees in floor counties in large urban areas, 123 percent of FFS spending in floor counties in other areas, and in nonfloor counties (counties where the blended rate, the minimum update rate, or the “100 percent of FFS” rate is higher than the floor rate) Medicare pays 104 percent of average FFS spending. Because of the additional payments made on behalf of M+C patients by the Medicare program directly to hospitals for IME, payments to plans in “100 percent of FFS” counties average 102 percent of the cost of covering demographically similar beneficiaries. As with the earlier estimates, these assume that the average health risks of the M+C and traditional enrollees are the same, other than those differences accounted for by demographic characteristics.

Risk adjustment system and payments to M+C plans

From the time plans were first paid based on capitation, the program has adjusted the capitation rates to reflect expected health care spending differences among plans based on the characteristics of their enrollees. This “risk adjustment” has been intended to pay plans appropriately for the health status of enrollees. Without accurate adjustments, two imbalances occur in the Medicare payment system:

- Payments are inequitable among competing plans. Plans that enroll healthier beneficiaries are paid the same as those that enroll sicker ones.
- Payments are inequitable between the FFS and private plan programs in the aggregate. If plans in general attract healthier-than-average beneficiaries, the Medicare program pays more than these same beneficiaries would cost in the FFS program.

The early form of risk adjustment (“demographic”) was based on administrative data: enrollees’ age, sex, and other demographic features, along with certain program features, such as whether beneficiaries were enrolled in Medicaid. Evaluation and other studies in the past found that this demographic risk adjustment system did not reflect expected spending differences among enrollees very well. As a result, Medicare paid inaccurately across plans, and paid more for plan enrollees than for similar enrollees in the FFS program.

In 1997, the Congress required the Secretary to improve the risk adjustment system. The improved system, based on health conditions and demographic features of enrollees, is to be phased in over time to allow plans to adjust to the expected change in payments. Based on the findings from the earlier studies, CMS and other analysts estimated that—on average—private plan enrollees are healthier than FFS beneficiaries. Thus with more accurate risk adjustment, aggregate payments to plans are expected to decrease. However, payments to individual plans might be higher or lower, depending on the health status of their enrollees. Further, as the payment system becomes more accurate, the financial penalties for enrolling sicker beneficiaries would lessen, so one might expect enrollment differences among plans and the FFS program to decrease. More accurate coding of diagnoses by plans would also narrow measured differences.

An issue with implementing the new risk adjustment system

In 2004, the Secretary is introducing a risk adjustment system to more accurately reflect expected differences in health spending than either the earlier demographic system or the current interim system, each described in the text box on page 212. According to the statutory transition schedule, 30 percent of the payment is to be adjusted using the new system and the remainder of the payment is to be adjusted using the current demographic system. Although this phase-in cushions plans from the risk adjustment’s effects, it also allows for 70 percent of payments to be higher than they would be if the more accurate risk adjustment system were fully implemented. Following the phase-in schedule in the law, the new system would be fully implemented in 2007.

Even though the new system is phased in to prevent dramatic changes in payments, the Secretary further cushioned plans against the expected effect of risk adjustment. To prevent aggregate plan payments from decreasing as a result of the more sensitive risk adjustment system, CMS estimated the impact of the new system on aggregate plan payments and has restored the difference (CMS 2004). Some argue that authority for the increase derives from Congressional conference report language for the Balanced Budget Refinement Act of 1999 (U.S. House 1999). CMS has not yet indicated whether its policy of maintaining the aggregate amount of plan payment will continue in 2005 and beyond. The Commission is concerned that if it does, risk selection between the M+C program and the FFS program will not be addressed, and

Details of the new risk adjustment system

When CMS developed its new risk adjustment system based on hierarchical condition categories (HCCs), the agency found that the costliness of specific groups of beneficiaries differs substantially. In response, CMS developed distinct versions of the CMS-HCC for beneficiaries who

- live in the community and do not have end-stage renal disease (the “standard” population);
- have lived in institutions over the long term (at least 90 days);
- have end-stage renal disease (ESRD); or
- are frail and participate in special managed care programs for frail beneficiaries. These programs include the Program for All-Inclusive Care for the Elderly (PACE), social HMOs, the Minnesota disability health option, the Minnesota senior health option, and the Wisconsin partnership program.

CMS first developed the standard model and then created the models for the other populations, basing them on the standard model. The characteristics common to all of these models include:

- They use a beneficiary’s demographic characteristics and diagnoses from hospital inpatient, hospital outpatient, and physician

encounters to determine the beneficiary’s expected costliness the next year.

- They organize beneficiaries’ diagnoses into disease groups based on clinical attributes and treatment costs.
- CMS estimates the costliness associated with each demographic characteristic and each disease group. The agency determines expected costliness by summing the costliness associated with the beneficiary’s demographics and disease groups.
- They are additive. Adding a diagnosis from a disease group to a beneficiary generally increases the beneficiary’s expected costliness. However, the CMS-HCC has a few hierarchical sets of disease groups. If an enrollee has more than one disease group in one of these hierarchical sets, CMS will use only the most costly disease group to determine the enrollee’s expected costliness.

CMS will determine an enrollee’s risk score by dividing the enrollee’s expected costliness by the costliness of the national average beneficiary in FFS Medicare. A risk score below 1.0 indicates that the enrollee’s expected costs are lower than average. A score above 1.0 indicates that the enrollee’s expected costs are higher than average. ■

payments for M+C enrollees will be systematically higher than if those same beneficiaries remained in the traditional Medicare program. Plans with adverse selection get paid accurately for their risk (relative to competitor plans) plus an extra amount that results from other plans’ favorable selection.

A second-order issue is that MedPAC fears the adjustment may be higher than the true selection difference. This is expected both because plans are likely to code more accurately once their payments are based on diagnoses and because the plans will have less or no incentive to avoid beneficiaries with more costly conditions which, if these beneficiaries join plans, will raise plans’ relative risk scores. If the estimated difference indeed proves too high (because M+C enrollees are more similar to those in the

FFS population than projected), plans will continue to receive the higher rate adjustments, at least for that year. In sum, even if the estimate of the difference were perfect, plans would continue to benefit from the additional payment under CMS’s current policy.

The Commission has recommended in the past that program payments for beneficiaries should be equal whether they are enrolled in private health plans or in traditional Medicare (MedPAC 2001). MedPAC and its predecessor Commissions have strongly supported adoption of more accurate risk adjustment as an important step towards achieving this goal of payment equity. Increasing plan payments (as CMS has done) to offset the effect of more accurate risk adjustment is inconsistent with the Commission’s views on payment equity.

Looking toward a reformed Medicare system of competing plans that are at risk for health care service costs—both those that cover drugs only and those that cover all Medicare benefits—it is important for the program to employ tools like risk adjustment that accurately reflect differences in the expected health care spending of enrollees. This both protects the Medicare program and sets a level playing field among all types of plans.

RECOMMENDATION 4A

CMS should continue to risk-adjust payments with the new CMS hierarchical condition category system, but should not continue to offset the impact of risk adjustment on overall payments in 2005 and subsequent years.

RATIONALE 4A

MedPAC and its predecessor Commissions have strongly supported adoption of more accurate risk adjustment as an important step towards achieving the goal of payment equity between the Medicare FFS program and private plans in Medicare. Increasing plan payments to offset the effect of more accurate risk adjustment is inconsistent with the Commission's views on payment equity. CMS has not yet indicated whether its policy of maintaining the aggregate amount of plan payment will continue in 2005 and beyond. The Commission is concerned that if it does, risk selection between the M+C program and the FFS program will not be addressed, and payments for M+C enrollees will be systematically higher than if those same beneficiaries remained in the traditional Medicare program.

IMPLICATIONS 4A

Spending

- This recommendation should not affect Medicare benefit spending because current baseline spending does not assume the increase will occur after 2004.

Beneficiary and plan

- This recommendation should not affect beneficiaries or plans because current law does not assume the increase will occur after 2004.

Risk adjustment and end-stage renal disease patients on dialysis

Current law prohibits end-stage renal disease (ESRD) beneficiaries who are treated with dialysis from enrolling in M+C. However, beneficiaries who start in plans and later develop ESRD are allowed to remain in their plans.² The Congress based its decision in part on concerns that the payment method for ESRD does not effectively adjust

payments for conditions that affect costliness (MedPAC 2000). Currently, Medicare pays M+C plans 95 percent of statewide per capita costs of caring for ESRD beneficiaries.

ESRD beneficiaries are, on average, very costly to treat compared with non-ESRD beneficiaries; moreover, the cost can vary widely. Plans therefore would take a large risk in covering ESRD beneficiaries unless the payment system is accurate. In 2005, however, CMS will replace the current payment system for dialysis patients, which is the statewide ESRD average cost adjusted only for age and sex, with a version of the new risk adjustment system that is designed specifically for ESRD beneficiaries receiving dialysis. The system is virtually the same for ESRD (those on dialysis) and non-ESRD beneficiaries, but the calculations are done separately, thereby increasing the accuracy for both groups of beneficiaries. Thus, for ESRD beneficiaries on dialysis, this model should perform much better than the current demographic system and payments to plans will more accurately reflect the costs of treating them.

All beneficiaries should be allowed the voluntary choice of plans so long as payment is accurate, so MedPAC has recommended that ESRD beneficiaries be allowed to enroll in plans once CMS has implemented adequate risk adjustment.³ The evidence from a recent demonstration was that quality of care in M+C plans was good. In 2001, Medicare completed a three-year demonstration project testing the use of integrated acute and chronic care services and case management for ESRD beneficiaries enrolled in two M+C plans. The study evaluating the effectiveness of this demonstration showed that the quality of care and outcomes of most participants were equal to or better than those for ESRD patients enrolled in traditional Medicare. Many private plans offer care coordination and disease management services that may benefit ESRD beneficiaries, as they often have multiple chronic comorbidities such as diabetes, congestive heart failure, and hypertension.

RECOMMENDATION 4B

The Congress should allow all beneficiaries with end-stage renal disease to enroll in private plans.

RATIONALE 4B

All beneficiaries should be allowed the voluntary choice of plans so long as payment is accurate. In 2005, CMS will replace the current payment system for ESRD enrollees with a version of the new risk adjustment system

that should perform much better than the current demographic system and payments to plans will more accurately reflect the costs of treating them. A study evaluating a Medicare ESRD demonstration showed that the quality of care and outcomes of most plan participants were equal to or better than those for ESRD patients enrolled in traditional Medicare.

IMPLICATIONS 4B

Spending

- This recommendation should not affect Medicare benefit spending.

Beneficiary and plan

- ESRD beneficiaries will have the choice of private plans.
- There should be no significant impact on plans.

Using payment incentives to improve the quality of care in private plans

One of Medicare's most important goals is to ensure that beneficiaries have access to high-quality health care. Generally, the current payment system is neutral or negative toward quality and fails to financially reward plans or providers that improve quality. MedPAC has recommended that Medicare pursue provider or plan payment differentials to improve quality (MedPAC 2003). We are examining FFS providers (see Section 3E on dialysis) and expect to expand to other sectors as measurement sets improve.

The Commission recognizes that the ability to choose, collect data on, and make payments based on measures of quality varies in different settings. Private Medicare plans already report to CMS on a host of well-accepted quality measures. Plans vary in performance on the reported quality measures and room for improvement exists on almost all measures (see Chapter 2). Because plans are responsible for the whole spectrum of Medicare benefits, they have unique incentives to coordinate care among providers. To the extent that these incentives are successful, providers treating beneficiaries in both Medicare private plans and in the FFS program may learn practices that improve the quality of care for FFS beneficiaries as well. Also, measuring quality at the plan level may help identify effective mechanisms for better coordination, imparting lessons that may be useful in the FFS program.

This is not to say that private plans are the only groups able to innovate and improve their performance. FFS providers are sometimes organized so that they coordinate care across settings and improve quality. Under the current FFS payment system, however, it is difficult to recognize and financially reward these types of non-plan provider organizations. The Commission expects to identify these arrangements and consider payment and other approaches to stimulate innovative delivery systems in future work.

RECOMMENDATION 4C

The Congress should establish a quality incentive payment policy for all Medicare Advantage plans.

RATIONALE 4C

One of Medicare's most important goals is to ensure that beneficiaries have access to high-quality health care. Generally, the current payment system is neutral or negative toward quality and fails to financially reward plans or providers that improve quality. Private Medicare plans already report to CMS on a host of well-accepted quality measures. Payment incentives have the ability to improve the care of beneficiaries in MA plans.

IMPLICATIONS 4C

Spending

- This recommendation should not affect Medicare benefit spending because the Commission envisions that an incentive program would be implemented in a budget-neutral manner.

Beneficiary and plan

- Quality of care for enrollees in private plans would improve.
- Some plans could receive higher or lower payments based on their performance on quality measures. We believe this recommendation represents a minimal burden to plans because measures are already being reported.

It is feasible to implement quality incentive payments for Medicare managed care plans

The Commission prefers to apply quality payment incentives to all groups of providers and plans in Medicare, but many sectors lack the data structure necessary to support an effort immediately. Based on our analysis of private sector efforts, several criteria need to be met for incentive efforts to be effective:

- Well-accepted quality measures must be available.
- A standardized data collection method must exist.
- If risk adjustment is necessary, acceptable methods must be available.
- Plans or providers whose performance is measured must be able to improve.

The Medicare Advantage program (as well as facilities and physicians that care for beneficiaries on dialysis—see Section 3E) is an excellent sector for applying payment incentives to provide high-quality care because it meets, in whole or in part, all the criteria for successful implementation. Standardized, credible performance measures are collected on all M+C plans. Each year M+C plans collect data on specific clinical process measures (e.g., immunization and screening rates) and data that reflect health plan members’ satisfaction with the plan’s service provision (e.g., enrollees’ perceived ability to obtain care in a timely manner). Together, these data constitute a widely accepted, broad cross section of plan quality. Most of the process measures in these data sets do not require risk adjustment, and CMS has developed risk adjusters for the satisfaction measures. Plans have developed a variety of strategies to improve their scores on these measures by working with providers in their networks.

Applying incentives at the health-plan level serves a dual purpose. First, the health plan can use purchasing leverage and data analysis capability to encourage improvement by the providers with which it contracts. Second, because they are responsible for all Medicare services, health plans can also address the problem of the lack of coordination and appropriate management of chronic conditions across settings. Measuring care at the health plan level may make it possible to identify effective mechanisms for better coordination not often possible through provider-specific efforts. For example, one group of M+C plans, the Alliance of Community Health Plans (ACHP), has proposed a mechanism for using payment incentives to improve quality.

What performance measures could be used?

MedPAC uses the quality goals outlined by the Institute of Medicine (IOM) to determine the level of quality care provided in any setting—effectiveness, safety, patient-centeredness, and timeliness. M+C plans already collect data on several of these aspects of quality. Therefore, if

CMS bases its incentive program on those data, it would not place any added burden on plans. Plans annually report audited Health Plan Employer Data and Information Set (HEDIS) data on process measures, such as whether patients received certain preventive screenings and tests. Also, in the annual Consumer Assessment of Health Plans Survey (CAHPS), plans report data that reflect health plan members’ assessments of the care they receive, their personal doctors and specialists, the plan’s customer service, and whether they get the care they need in a timely manner (see Chapter 2 for more detail on HEDIS and CAHPS data). More measures are becoming available as HEDIS requirements for M+C plans are being expanded and as Medicare’s Quality Improvement Organizations require data collection from Medicare providers.

These measures could be used in different ways to create payment incentives. Several individual measures might be used to focus on particular problem areas. The specific measures could change over time to refocus plan efforts. Other possibilities include combining individual measures to create more comprehensive, or “composite” measures. For example, CMS has calculated CAHPS composite measures from time to time to simplify plan comparisons on its website. In another instance a group of researchers found that they could group measures into four summary scores representing 1) care at the doctor’s office, 2) customer service and access, 3) vaccinations, and 4) clinical quality measures (Zaslavsky et al. 2002).

The Commission recognizes that there is much work to be done on devising the most appropriate individual or composite measures. For use in payment incentive programs, however, MedPAC favors relying more heavily on the clinical measures of quality collected in HEDIS than on the consumer satisfaction measures in CAHPS. The Medicare payment system does not currently reward strong plan performance on the clinical measures, and although they are publicly reported, the HEDIS measures do not tend to influence enrollment decisions (Harris et al. 2002, Scanlon and Chernew 1999). Payment incentives tied to clinical quality measures, however, do have the ability to reward strong plan performance on those measures.

We recognize the value in consumer satisfaction data because it is a good way to measure progress toward the IOM quality goal of patient-centeredness. However, it is not as important to reward strong performance on those measures through payment incentives. By their nature, satisfaction measures derive from beneficiary perceptions,

and beneficiaries are generally free to act on their perceptions by staying in plans they like and leaving those they do not like. Although in some instances beneficiaries do not have alternative choices, in many cases the market already rewards plans for strong consumer satisfaction performance through increased enrollment.

Including all managed care plans in the incentive system maintains a level playing field between plan types and rewards those plans that invest in improving quality. Incentive programs should thus use performance measures that all plans can collect. Some, but not all, of the clinical quality measures are most accurately collected by abstracting medical records. Abstracting records is a resource-intensive process for all types of plans, but closed-panel managed care plans generally have better access to medical records than plans with wide or no networks (such as PPOs and PFFS plans) and those that allow beneficiaries to go out-of-network to receive covered services. In fact, CMS exempts PPOs and PFFS plans from reporting a small group of HEDIS measures that are collected only through record abstraction (Table 4-4). Therefore, it may be important, at least initially, to base incentives on quality measures currently collected on all types of plans.

TABLE 4-4

HEDIS measures for Medicare PFFS/PPO plans, 2004

HEDIS measures	Whether measures are required		
	All	Some	None
Breast cancer screening	X		
Controlling high blood pressure			X
Beta blocker treatment after heart attack			X
Cholesterol management after acute cardiovascular event		X	
Comprehensive diabetes care		X	
Follow-up after hospitalization for mental illness	X		
Antidepressant medication management		X	
Medicare health outcomes survey	X		
Management of urinary incontinence in older adults	X		

Note: HEDIS (Health Plan Employer Data and Information Set), PFFS (private fee-for-service), PPO (preferred provider organization). PPO plans include Medicare+Choice, PPOs and PPO demonstration programs.

Source: CMS Medicare Managed Care Manual, 2003.

What types of payment incentives could be used?

The goal of an incentives program should be to improve care for as many beneficiaries as possible. This goal provides guidance on how to distribute incentive payments.

Medicare could reward plans that meet a certain threshold on the relevant performance measure, plans that improve their scores, or some combination thereof. A combination would likely reach the most beneficiaries. Some issues to consider in the design of specific incentives include:

- **Threshold level**—If a threshold is set too high, some plans may decide that it is not reachable and not expend any effort to improve. If a threshold is set too low, plans may expect to reach it without any additional effort.
- **Improvement measure**—All plans have the potential to improve their scores, but if the improvement measure is not carefully designed, low-performing plans may have a better chance of showing greater improvement.
- **Number of plan awards**—Awards made to only a few plans would result in most plans getting lower base payments with less of a chance to get an award.
- **Size of awards**—The larger the awards, the more competition there is likely to be for them and the greater the improvement effort is likely to be. If awards are too small, plans may decide not to make the investment to improve quality.
- **Multiple dimensions**—Awards could be based on one score or be divided up so that plan eligibility would be based on different aspects of care. For example, a plan might receive an award for improving diabetic care, but might not qualify for an award for heart care.

An illustration

MedPAC is not recommending any specific implementation strategy for an incentive program and acknowledges that CMS would have work to do before it would be ready to administer any incentive program. MedPAC suggests creating a reward pool from a small percentage of current plan payments and redistributing it based on plans' performance attainment and improvement on quality indicators. The program should be budget neutral to the Medicare program, and CMS would need to

create a mechanism that ensures budget neutrality. For illustrative purposes (and mathematical simplification), assume an award fund equal to 1 percent of Medicare plan payments. If the incentives are to be reachable and the awards still be substantial enough for plans to compete, perhaps between one-fourth and one-half of plans would get awards. If one-fourth of plans got an award, the awards would be for an additional 4 percent of Medicare payments; if one-half got an award, they would be for a 2 percent bonus. In both cases, a plan that did not receive an incentive payment award would receive 1 percent lower Medicare payments than if there were no incentive

program. It is the Commission's intention that all funds would be spent from the incentive fund promptly, and we believe that administrative mechanisms will make this feasible.

To motivate most plans to improve or maintain high quality, some awards could be based on the plan's attainment on performance measure scores, and other awards could go to plans with the greatest improvement over their prior year's score. The award pool would be split in some predetermined manner and a plan could win only one award. ■

Endnotes

- 1 For Medicare beneficiaries enrolled in private plans as active workers, Medicare acts as a secondary payer. Many other beneficiaries are enrolled in private plans that supplement Medicare (e.g., Medigap).
- 2 Effective June 2000, CMS permits ESRD beneficiaries with functioning kidney transplants to enroll in M+C if they meet all other eligibility criteria.
- 3 MedPAC also recommended that CMS establish a system for monitoring quality for ESRD services before allowing ESRD beneficiaries to join M+C plans. CMS already monitors the care of dialysis patients in its Clinical Performance Measures Project. This effort could be modified to provide quality information separately for patients in FFS and private plans.

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A P P E N D I X

A

**Commissioners' voting
on recommendations**



Commissioners' voting on recommendations

In the Medicare, Medicaid and SCHIP Benefits Improvement and Protection Act of 2000, the Congress required MedPAC to call for individual Commissioner votes on each recommendation, and to document the voting record in its report. The information below satisfies that mandate.

Chapter 1: Setting a context for Medicare spending

No recommendations

Chapter 2: Quality of care for Medicare beneficiaries

No recommendations

Chapter 3: Assessing payment adequacy and updating payments in fee-for-service Medicare

Section 3A: Hospital inpatient and outpatient services

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

Yes: DeBusk, DeParle, Durenberger, Feezor, Hackbarth, Newhouse, Raphael, Reischauer, Rosenblatt, Rowe, Smith, Stowers, Wakefield, Wolter

Not voting: Nelson

Absent: Burke, Muller

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

Yes: DeBusk, DeParle, Durenberger, Feezor, Hackbarth, Nelson, Newhouse, Raphael, Reischauer, Rosenblatt, Rowe, Smith, Stowers, Wakefield, Wolter

Absent: Burke, Muller

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

Yes: DeBusk, DeParle, Durenberger, Feezor, Hackbarth, Nelson, Newhouse, Raphael, Reischauer, Rosenblatt, Rowe, Smith, Stowers, Wakefield, Wolter

Absent: Burke, Muller

Section 3B: Physician services

3B The Congress should update payments for physician services by the projected change in input prices, less an adjustment for productivity growth of 0.9 percent, in 2005.

Yes: Burke, DeBusk, DeParle, Durenberger, Feezor, Hackbarth, Muller, Nelson, Newhouse, Raphael, Reischauer, Rosenblatt, Rowe, Smith, Stowers, Wakefield, Wolter

Section 3C: Skilled nursing facility services

3C-1 The Congress should eliminate the update to payment rates for skilled nursing facility services for fiscal year 2005.

Yes: Burke, DeParle, Durenberger, Feezor, Hackbarth, Muller, Nelson, Newhouse, Raphael, Reischauer, Rosenblatt, Rowe, Smith, Stowers, Wakefield, Wolter

No: DeBusk

3C-2 The Secretary should develop a new classification system for care in skilled nursing facilities. Until this happens, the Congress should authorize the Secretary to:

- remove some or all of the 6.7 percent payment add-on currently applied to the rehabilitation RUG–III groups.
- reallocate the money to the nonrehabilitation RUG–III groups to achieve a better balance of resources among all of the RUG–III groups.

Yes: Burke, DeBusk, DeParle, Durenberger, Feezor, Hackbarth, Muller, Nelson, Newhouse, Raphael, Reischauer, Rosenblatt, Rowe, Smith, Stowers, Wakefield, Wolter

3C-3 The Secretary should direct skilled nursing facilities to report nursing costs separately from routine costs.

Yes: Burke, DeBusk, DeParle, Durenberger, Feezor, Hackbarth, Muller, Nelson, Newhouse, Raphael, Reischauer, Rosenblatt, Rowe, Smith, Stowers, Wakefield, Wolter

Section 3D: Home health services

3D-1 The Congress should eliminate the update to payment rates for home health services for 2005.

Yes: Burke, DeBusk, DeParle, Durenberger, Feezor, Hackbarth, Muller, Nelson, Newhouse, Reischauer, Rosenblatt, Rowe, Smith, Stowers, Wakefield, Wolter

Not voting: Raphael

3D-2 The Secretary should continue to monitor access to care, the impact of the payment system on patient selection, and the use of services across post-acute care settings.

Yes: Burke, DeBusk, DeParle, Durenberger, Feezor, Hackbarth, Muller, Nelson, Newhouse, Raphael, Reischauer, Rosenblatt, Rowe, Smith, Stowers, Wakefield, Wolter

Section 3E: Outpatient dialysis services

3E-1 The Congress should maintain current law and update the composite rate by 1.6 percent for 2005.

Yes: Burke, DeBusk, DeParle, Durenberger, Hackbarth, Muller, Nelson, Newhouse, Raphael, Reischauer, Rosenblatt, Rowe, Smith, Stowers, Wakefield, Wolter

Not voting: Feezor

3E-2 The Congress should establish a quality incentive payment policy for physicians and facilities providing outpatient dialysis services.

Yes: Burke, DeBusk, DeParle, Durenberger, Feezor, Hackbarth, Muller, Nelson, Newhouse, Raphael, Reischauer, Rosenblatt, Rowe, Smith, Stowers, Wakefield, Wolter

Section 3F: Ambulatory surgical center services

3F-1 There should be no update to payment rates for ASC services for fiscal year 2005.

Yes: DeBusk, DeParle, Durenberger, Feezor, Hackbarth, Nelson, Newhouse, Raphael, Reischauer, Rosenblatt, Rowe, Smith, Stowers, Wakefield, Wolter

Absent: Burke, Muller

3F-2 The Secretary should revise the ASC payment system so that its relative weights and procedure groups are aligned with those in the outpatient prospective payment system. In addition:

- The Congress should require the Secretary to periodically collect ASC cost data at the procedure level to monitor the adequacy of ASC rates, refine the relative weights, and develop a conversion factor that reflects the cost of ASC services.
- The Congress should ensure that payment rates for ASC procedures do not exceed hospital outpatient PPS rates for the same procedures, accounting for differences in the bundle of services.

Yes: DeBusk, DeParle, Durenberger, Feezor, Hackbarth, Nelson, Newhouse, Raphael, Reischauer, Rosenblatt, Rowe, Smith, Stowers, Wakefield, Wolter

Absent: Burke, Muller

3F-3 After the ASC payment system is revised, the Congress should direct the Secretary to replace the current list of approved ASC procedures with a list of procedures that are excluded from payment based on clinical safety standards and whether the service requires an overnight stay.

Yes: DeBusk, DeParle, Durenberger, Feezor, Hackbarth, Nelson, Newhouse, Raphael, Reischauer, Rosenblatt, Rowe, Smith, Stowers, Wakefield, Wolter

Absent: Burke, Muller

Chapter 4: Medicare+Choice payment and eligibility policy

4A CMS should continue to risk-adjust payments with the new CMS hierarchical condition category system, but should not continue to offset the impact of risk adjustment on overall payments in 2005 and subsequent years.

Yes: Burke, DeBusk, DeParle, Durenberger, Feezor, Hackbarth, Muller, Nelson, Newhouse, Raphael, Reischauer, Rowe, Smith, Stowers, Wakefield, Wolter

Not voting: Rosenblatt

4B The Congress should allow all beneficiaries with end-stage renal disease to enroll in private plans.

Yes: Burke, DeBusk, DeParle, Durenberger, Feezor, Hackbarth, Muller, Nelson, Newhouse, Raphael, Reischauer, Rowe, Smith, Stowers, Wakefield, Wolter

Not voting: Rosenblatt

4C The Congress should establish a quality incentive payment policy for all Medicare Advantage plans.

Yes: Burke, DeBusk, DeParle, Durenberger, Feezor, Hackbarth, Muller, Nelson, Newhouse, Raphael, Reischauer, Rosenblatt, Rowe, Smith, Stowers, Wakefield, Wolter

Acronyms

Acronyms

AAA	abdominal aortic aneurysm	ESRD	end-stage renal disease
ACHP	Alliance of Community Health Plans	FEHBP	Federal Employees Health Benefits Program
ACSC	ambulatory care sensitive conditions	FFS	fee-for-service
ADL	activity of daily living	FI	fiscal intermediary
AGA	American Gastroenterological Association	GAO	General Accounting Office
AHRQ	Agency for Healthcare Research and Quality	GDP	gross domestic product
AMA	American Medical Association	GI	gastrointestinal
AMI	Acute myocardial infarction	GPCI	geographic practice cost index
APC	ambulatory payment classification	HCC	hierarchical condition category
APR-DRG	all patient refined diagnosis related group	HCFA	Health Care Financing Administration
ASC	ambulatory surgical center	HCPCS	Healthcare Common Procedure Coding System
AV	arteriovenous	HCUP	Healthcare Cost and Utilization Project
AWP	average wholesale price	HEDIS	Health Plan Employer Data and Information Set
BB	beta blocker	HgbA1c	hemoglobin A1c
BBA	Balanced Budget Act of 1997	HHA	home health agency
BBRA	Balanced Budget Refinement Act of 1999	HHRG	home health resource group
BIPA	Medicare, Medicaid, and SCHIP Benefits Improvement & Protection Act of 2000	HHS	Department of Health and Human Services
BP	blood pressure	HI	Hospital Insurance (Medicare Part A)
CABG	coronary artery bypass graft	HMO	health maintenance organization
CAH	critical access hospital	HPSA	health professional shortage area
CAHPS	Consumer Assessment of Health Plans Survey	HSA	hospital service area
CalPERS	California Public Employees' Retirement System	HSC	Center for Studying Health System Change
CAPD	continuous ambulatory peritoneal dialysis	ICD-9-CM	International Classification of Diseases, Ninth Revision, Clinical Modification
CAT	computed automated tomography	IME	indirect medical education
CBO	Congressional Budget Office	IOM	Institute of Medicine
CCP	coordinated care plan	IPS	interim payment system
CCPD	continuous cycler-assisted peritoneal dialysis	JCAHO	Joint Commission on Accreditation of Healthcare Organizations
CCR	cost-to-charge ratio	LOS	length of stay
CHF	congestive heart failure	LUPA	low utilization payment adjustment
CMHC	community mental health center	MA	Medicare Advantage
CMS	Centers for Medicare & Medicaid Services	M+C	Medicare+Choice
COPD	chronic obstructive pulmonary disease	MCBS	Medicare Current Beneficiary Survey
CPI	consumer price index	MDS	Minimum Data Set
CPI-U	consumer price index for all urban consumers	MedPAC	Medicare Payment Advisory Commission
CPS	Current Population Survey	MedPAR	Medicare Provider Analysis and Review file
CT	computed tomography	MEI	Medicare Economic Index
DRG	diagnosis related group	MMA	Medicare Prescription Drug, Improvement, and Modernization Act of 2003
DSH	disproportionate share	MOOP	medical out-of-pocket
DVT	deep vein thrombosis		
ECI	employment cost index		
ESI	employer-sponsored insurance		

MRI	magnetic resonance imaging	PLI	professional liability insurance
MSA	metropolitan statistical area	PPI	producer price index
NAMCS	National Ambulatory Medical Care Survey	PPO	preferred provider organization
NCQA	National Committee for Quality Assurance	PPS	prospective payment system
NHIS	National Health Interview Survey	ProPAC	Prospective Payment Assessment Commission
NKF	National Kidney Foundation	PSI	patient safety indicator
NQF	National Quality Forum	QIO	quality improvement organization
OACT	Office of the Actuary	REIT	Real Estate Investments Trust
OASIS	Outcome and Assessment Information Set	RUG-III	resource utilization group, version III
OECD	Organization for Economic Cooperation and Development	RVU	relative value unit
OIG	Office of Inspector General	SCHIP	State Children’s Health Insurance Program
OSCAR	Online Survey, Certification, and Reporting system	SGR	sustainable growth rate
PACE	Program of All-Inclusive Care for the Elderly	SMI	Supplementary Medical Insurance (Medicare Part B)
PE	pulmonary embolism	SNF	skilled nursing facility
PFFS	private fee-for-service	USRDS	U.S. Renal Data System
PHCE	personal health care expenditures	VAC	vacuum assisted closure
PHI	private health insurance		

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Autry O.V. "Pete" DeBusk is chairman, chief executive officer and founder of DeRoyal, a global supplier of medical products and services in the acute care, patient care, wound care, and original equipment manufacturing markets. Mr. DeBusk formed his first company in 1970 with a patent he received on an orthopedic product. In 1976 he consolidated his many product lines into one company, DeRoyal Industries. A member of several community organizations, Mr. DeBusk is also chairman of the Board of Trustees at Lincoln Memorial University in Harrogate, TN, as well as a founder of the Autry O.V. DeBusk facility, Boys and Girls Club, Powell, TN. As an innovative leader in the medical industry, he received a prestigious award from Duke University in 2000 recognizing his original contributions to orthopedic surgery. He received his B.S. degree from Lincoln Memorial University and attended graduate school at the University of Georgia.

Nancy-Ann DeParle, J.D., is a senior advisor to JPMorgan Partners, LLC, and adjunct professor of health care systems at the Wharton School of the University of Pennsylvania. From 1997 to 2000, she served as administrator of the Health Care Financing Administration (HCFA), which is now the Centers for Medicare & Medicaid Services. Before joining HCFA, Ms. DeParle was associate director for health and personnel at the White House Office of Management and Budget. From 1987 to 1989 she served as the Tennessee Commissioner of Human Services. She has also worked as a lawyer in private practice in Nashville, TN, and Washington, DC. She currently serves as a trustee of the Robert Wood Johnson Foundation and a board member of Accredo Health, Cerner Corporation, DaVita, Guidant Corporation, Specialty Laboratories, and Triad Hospitals. She is also a member of the Strategic Advisory Council of the National Quality Forum. Ms. DeParle received a B.A. degree from the

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David F. Durenberger, J.D., is president of Policy Insight, LLC; senior health policy fellow at the University of St. Thomas in Minneapolis, MN; and chairman of the National Institute of Health Policy. He is also chairman of Citizens for Long Term Care, president of the Medical Technology Leadership Forum, a member of the Kaiser Foundation Commission on Medicaid and the Uninsured, and of the Board of the National Commission on Quality Assurance. From 1978 to 1995, he served as the senior U.S. Senator from Minnesota, as a member of the Senate Finance Committee and chair of its Health Subcommittee. He was a member of the Senate Environment Committee, Government Affairs Committee, and the committee now known as the Health, Education, Labor and Pensions Committee. He also chaired the Senate Select Committee on Intelligence. Senator Durenberger is a graduate of St. John's University, received his J.D. degree from the University of Minnesota, and served as an officer in the U.S. Army.

Allen D. Feezor, M.A., is vice president and chief planning officer for University Health Systems of Eastern Carolina. Previously, he was assistant executive officer, Health Benefit Services, California Public Employees' Retirement System (CalPERS) and CalPERS long-term care program. Before CalPERS, Mr. Feezor was vice president for planning, marketing, and managed care for University Health Systems of Eastern Carolina. From 1985 to 1995, he was chief deputy commissioner for the North Carolina Department of Insurance, where he chaired two national task forces that pioneered state health insurance and small group reform. He has headed the North Carolina Teachers', State Employees' and Retirees' Health Plan and has served as senior Washington representative for the Blue Cross/Blue Shield Association. He was a founding faculty member of the National Academy for State Health Policy and a contributor to two Institute of Medicine studies. He currently serves on the boards of the North Carolina Center for Public Policy Research and the North Carolina Institute of Medicine. Mr. Feezor earned his B.A. and M.A. degrees in political science from Duke University.

Glenn M. Hackbarth, J.D., is chairman of the Commission and an independent consultant living in Bend, OR. He has experience as a healthcare executive, government official, and policy analyst. He was chief executive officer and one of the founders of Harvard Vanguard Medical Associates, a multispecialty group practice in Boston that serves as a major teaching affiliate of Harvard Medical School. Harvard Vanguard was created from the staff-model delivery system that was the original core of Harvard Community Health Plan. Mr. Hackbarth previously served as senior vice president of Harvard Community Health Plan. From 1981 to 1988, he held positions at the U.S.

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Ralph W. Muller is chief executive officer of the University of Pennsylvania Health System, one of the largest academic health systems in the country. Most recently he served as managing director of Stockamp & Associates, a hospital consulting firm, and as a visiting fellow at the King's Fund in London. From 1985 to 2001, he was president and chief executive officer of the University of Chicago Hospitals and Health Systems (UCHHS). Before joining the hospital, he held senior positions with the Commonwealth of Massachusetts, including deputy commissioner of the Department of Public Welfare. Mr. Muller is past chairman of the Association of American Medical Colleges, past chairman of the Council of Teaching Hospitals and Health Systems, and past vice-chairman of the University Health System Consortium. He is past chairman of the National Opinion Research Center, a social service research organization. Mr. Muller received his B.A. in economics from Syracuse University and his M.A. in government from Harvard University.

Alan R. Nelson, M.D., is an internist-endocrinologist who was in private practice in Salt Lake City until becoming chief executive officer of the American Society of Internal Medicine (ASIM) in 1992. Following the merger of ASIM with the American College of Physicians (ACP) in 1998, Dr. Nelson headed the Washington office of ACP-ASIM until his semi-retirement in January 2000 and now serves as special advisor to the executive vice president and chief executive officer of ACP. He was president of the American Medical Association from 1989 to 1990. Dr. Nelson also serves on the Board of Trustees of Intermountain HealthCare, a large integrated health system headquartered in Salt Lake City. A member of the prestigious Institute of Medicine of the National Academy of Sciences (IOM), he serves on the IOM Roundtable on Environmental Health Sciences Research and Medicine and was chair of the study committee on Racial and Ethnic Disparities in Health Care. Dr. Nelson received his M.D. from Northwestern University.

Joseph P. Newhouse, Ph.D., is the John D. MacArthur Professor of Health Policy and Management at Harvard University and director of Harvard's Division of Health Policy Research and Education. At Harvard since 1988, Dr. Newhouse was previously a senior corporate fellow and head of the economics department at RAND Corp. He has conducted research in health care financing, economics, and policy, and was the principal investigator for the RAND Health Insurance Experiment. Recipient of several professional awards, he is a member of the Institute of Medicine, a former chair of the Prospective Payment Assessment Commission, and a former member of the Physician Payment Review Commission. He is the inaugural president of the American Society of Health Economics, a past president of the Association for Health Services Research and the International Health Economics

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Carol Raphael is president and chief executive officer of the Visiting Nurse Service (VNS) of New York, the country's largest voluntary home health care organization. VNS programs include post-acute and long-term care, rehabilitation, hospice, mental health services, and a managed care plan for dually eligible Medicare and Medicaid beneficiaries. Ms. Raphael developed the Center for Home Care Policy and Research, which studies the management, cost, quality, and outcomes of home- and community-based services. Previously, Ms. Raphael served as the executive deputy commissioner of the Human Resources Administration in charge of the Medicaid and public assistance programs in New York City. Ms. Raphael has served on several Robert Wood Johnson Foundation advisory committees and New York State panels, including the New York State Hospital Review and Planning Council, for which she chairs the Fiscal Policy Committee. She is on the boards of Lifetime Healthcare Company and the American Foundation for the Blind, and is a member of the Pfizer Hispanic Advisory Board and the Kaiser Permanente Planning Group for Geriatric Care. She has an M.P.A. from Harvard University's Kennedy School of Government.

Robert D. Reischauer, Ph.D., is vice chairman of the Commission and president of The Urban Institute. Previously, he was a senior fellow with the Brookings Institution and from 1989 to 1995 was the director of the Congressional Budget Office. Dr. Reischauer currently serves on the boards of the Academy of Political Sciences, the Center on Budget and Policy Priorities, and the Committee for a Responsible Federal Budget. He also chairs the National Academy of Social Insurance's project on Restructuring Medicare for the Long-Term, and is a member of the Institute of Medicine and the National Academy of Public Administration. Dr. Reischauer received his A.B. degree from Harvard College and his M.I.A. and Ph.D. from Columbia University.

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Ways and Means and the Committee on Commerce of the U.S. House of Representatives. She has a B.S. and an M.A. in mathematics from City College of New York and the City University of New York, respectively.

John W. Rowe, M.D., is chairman and chief executive officer of Aetna Inc., one of the nation's largest healthcare insurers. Prior to joining Aetna, Dr. Rowe served as president and chief executive officer of Mount Sinai NYU Health. Previously, Dr. Rowe was president of The Mount Sinai Hospital and the Mount Sinai School of Medicine in New York City, where he currently is a professor of medicine. Before joining Mount Sinai in 1988, Dr. Rowe was a professor of medicine and the founding director of the Division on Aging at Harvard Medical School and chief of gerontology at Boston's Beth Israel Hospital. He is a specialist in geriatric medicine and nephrology and has authored over 200 scientific publications, mostly on the physiology of the aging process, as well as a leading textbook of geriatric medicine. Dr. Rowe was director of the MacArthur Foundation Research Network on Successful Aging and is co-author, with Robert Kahn, Ph.D., of *Successful Aging* (Pantheon, 1998). He served on the Board of Governors of the American Board of Internal Medicine and as president of the Gerontological Society of America. He is a member of the Institute of Medicine of the National Academy of Sciences and chairman of the Board of Trustees of the University of Connecticut. He earned his B.A. degree from Canisius College and his M.D. from the University of Rochester.

David A. Smith is a senior fellow at Demos, a New York based public policy research center. He previously served as director of the Public Policy Department of the AFL-CIO. Prior to joining the AFL-CIO, he served as senior deputy budget director and as Commissioner of Economic Development for the City of New York. Mr. Smith spent most of the 1980s in Washington as an aide to Senator Edward M. Kennedy and as a senior economist at the Joint Economic Committee. Mr. Smith has taught economics and public policy at the University of Massachusetts and the New School for Social Research, and is a senior fellow at the Century Foundation. He is a member of the Board of Directors of Public Campaign and of the National Bureau of Economic Research, and a fellow of the National Academy of Social Insurance. Mr. Smith attended Tufts University and received an M.Ed. from Harvard University.

Ray E. Stowers, D.O., is director of the Oklahoma Rural Health Policy and Research Center as well as director of rural health in the Department of Family Medicine at Oklahoma State University College of Osteopathic Medicine. He was in private rural practice for 25 years at Family Medicine Clinics, Inc. in Medford, OK, and serves on the Policy Board of the National Rural Health Association. Dr. Stowers is a member of the Board of Trustees of the American Osteopathic Association and has served that organization in many capacities, including several related to physician coding and reimbursement issues. He has been on the Physician Payment Review Commission and was a founding member of the American Medical Association's Relative Value Update Committee. Dr. Stowers received his B.S. and B.A. degrees from Phillips University in Oklahoma and his D.O. degree from the University of Health Sciences College of Osteopathic Medicine in Kansas City, MO.

Mary K. Wakefield, Ph.D., R.N., F.A.A.N., is director and professor, Center for Rural Health at the University of North Dakota. Dr. Wakefield has held administrative and legislative staff positions in the U.S. Senate and served on many public and private health-related advisory boards. From 1997 through 1998, she was on President Clinton's Advisory Commission on Consumer Protection and Quality in the Health Care Industry. Dr. Wakefield was a member of the Institute of Medicine's Committee on Quality Health Care in America and is a fellow of the American Academy of Nursing. In 2000, she was appointed to the National Advisory Committee on Rural Health, Office of Rural Health Policy, Health Resources and Services Administration. Dr. Wakefield received her B.S. in nursing from the University of Mary, Bismarck, ND, and her M.S. and Ph.D. from the University of Texas at Austin.

Nicholas J. Wolter, M.D., is a pulmonary and critical care physician who serves as chief executive officer for Deaconess Billings Clinic (DBC), Billings, Montana. DBC is a regional, not-for-profit medical foundation consisting of a multispecialty group practice, hospital, health maintenance organization, research division, and long-term care facility serving a vast rural area in the northern Rockies. Dr. Wolter began his Billings Clinic practice in 1982 and served as medical director of the hospital's intensive care unit from 1987 to 1993. He began his leadership role with the successful merger of the clinic and hospital in 1993. Dr. Wolter is a diplomate of the American Board of Internal Medicine and serves on the boards of many regional and national health care organizations. He has a B.A. degree from Carleton College, an M.A. degree from the University of Michigan and an M.D. degree from the University of Michigan Medical School.

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