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REPORT TO THE CONGRESS

Growth in the Volume of Physician Services

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Growth in the Volume of Physician Services

MEDPAC Medicare
Payment Advisory
Commission

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The Medicare Prescription Drug, Improvement, and Modernization Act of 2003 (MMA) requires MedPAC to report on the extent to which increases in the volume of physician services result in care that improves the health and well-being of Medicare beneficiaries (see appendix for statutory language). In doing so, the Commission is required to analyze certain factors that underlie growth in the volume of physician services and spending for those services. The factors listed in the MMA are:

- trends in spending for services paid for under the physician fee schedule, outpatient laboratory services, and Part B drugs;¹
- physician services furnished to Medicare beneficiaries relative to other populations;
- new technology, including coverage determinations by CMS;
- demographic changes; and
- shifts in site of service, the number and intensity of services furnished in physician offices, and changes in payment rates to other providers.

In addition, the MMA requires an evaluation of the extent to which CMS takes into account the effects of law and regulations when estimating the sustainable growth rate (SGR) for physician services. The SGR determines the spending target for physician services. It is composed of growth rates for: enrollment in Medicare fee-for-service; input prices for physician services; physician services spending due to law and regulations; and, as an allowance for volume increases, real gross domestic product per capita.

Our findings are, first, that it is very difficult to answer the question of whether growth in the volume of physician services is improving the health and well-being of Medicare beneficiaries and that we cannot answer the question definitively in the context of this report. There are two reasons for this. First, just from a technical standpoint, it is hard to discern empirically whether volume growth is improving beneficiary health and well-being. Volume growth can influence health, and, simultaneously, changes in health can influence volume. This makes it hard to discern empirically which side of the relationship dominates. Second, it is necessary to consider two streams of research on the relationship between volume and health. Some research has shown that volume growth is due to technological change and that such change contributes to better health outcomes (Cutler and McClellan 2001). Other research has shown that the volume of care received by Medicare beneficiaries is such that more volume does not necessarily lead to better health (Fisher et al 2003a, 2003b). Thus, it is necessary to consider not just whether volume growth is improving health, but also the companion issue of whether there is some waste that can be eliminated.

On the other issues we were asked to address in this report, our conclusion is that a general increase in spending for physician services and in the volume of those services has occurred, but

the factors listed in the MMA appear to explain little of that growth. Specifically, we have found that:

- Among the three components of spending for physician services—physician fee schedule, laboratory, and Part B drugs—all have increased since 1999, combining for a total increase in spending per beneficiary of 38.3 percent through 2003. Spending for Part B drugs grew the fastest.
- For reasons related to prevalence of coverage, protection from cost sharing, and technological innovation, we would expect the Medicare population to have higher volume growth than other populations. In addressing this topic, however, we found that the available data do not permit us to estimate the difference in volume growth between Medicare beneficiaries and other populations.
- The demographic composition of the beneficiary population—age, sex, and decedence—are changing from year to year because of the aging of the population and other factors, such as shifts in enrollment to and from managed care plans. These changes have virtually no effect on spending for physician services, however. From 1999 to 2002, changes in the composition of fee-for-service (FFS) enrollment—in terms of age, sex, and decedence—dampened slightly the growth in spending for physician services, making that growth 0.1 percentage point lower per year than it would have been otherwise.
- Movement of beneficiaries across state lines may also affect expenditure growth, because some areas of the country have been shown to have higher use patterns than others. Shifts in enrollment patterns among the states increased spending from 1999 to 2002, but that increase was only 0.2 percent per year.
- We were asked to estimate the impact of new technology on volume growth. We first measured the impact of new services and found that they account for a small share of spending during the year they are introduced. On average, 0.33 percent of total expenditures for physician services furnished each year—from 1999 to 2002—was associated with new billing codes. We also examined national coverage decisions and found that they generally do not introduce new services to the Medicare program. Rather, in general, national coverage decisions have formalized decisions made by local contractors, nullified local contractor coverage determinations, or specified that certain technologies be covered only if provided to patients meeting specific criteria.
- We were asked to estimate the impacts on volume of shifts in the site of care. We found that shifts in site of care had a small positive effect on growth in the overall volume and intensity of fee schedule services.

The effects of changes in spending due to law and regulation were examined as well. It appears that CMS tries to account for both direct and indirect effects, but a lack of data often hinders the effort to estimate the impact of a given change in law or regulation. To address this, staff in the Office of the Actuary (OACT) consult with both internal and external experts in order to overcome the limitations of the available information. Using outside information, however, brings up the concern of a bias toward higher estimates because the providers of outside information tend to have an interest in increasing the target. In any case, the fact that OACT revises its estimates and the SGR targets provides some assurance that adjustments to estimates can occur as better data become available and that CMS can account for overestimates (or underestimates) of the effects of law and regulation. Nonetheless, CMS could make the process for estimating these effects more transparent.

We note also that, in estimating the effects of law and regulation, OACT considers primary and secondary effects of a change in law or regulation. For instance, in the case of a new screening benefit, OACT estimates the primary effect, which is receipt of the screening service itself, and the secondary effect, which is associated tests and procedures. A difficulty arises, however, in the case of a preventive benefit that could have secondary effects that are offsetting—increasing use of some services and decreasing use of others. In such cases, OACT’s best estimate is that the net secondary effect is zero. Subsequently, if better information becomes available, OACT revises the estimate.

This report addresses some of the same issues addressed in a previous report for the Congress on the volume of physician services, published by the Agency for Healthcare Research and Quality (AHRQ 2003).² The AHRQ report addressed a number of factors that could affect volume, such as demographics, case mix, site of care, technology, and other factors. The main findings in the AHRQ report were:

- The per capita volume of physician services used by Medicare beneficiaries increased by more than 30 percent between 1993 and 1998. The study could not definitively explain this growth and concluded that the main drivers were technology and a general increase in the use of care, with only a few medical conditions having unusual effects on service use. The study reached no conclusion about whether the increases were appropriate.
- The effects of some factors affecting use of physician services are measurable, but they are small. For instance, the study considered the effects of beneficiary characteristics—age, place of residence, and health status—and found that, if anything, changes in these characteristics would have decreased, rather than increased, per beneficiary use of services.
- Technological change contributed to the increase between 1993 and 1998, but it is difficult to estimate technology’s effects from year to year. Doing so requires analysis of each of the many medical conditions experienced by Medicare beneficiaries and estimating for each condition whether technology will result in a net increase or decrease in service use.

Given the questions about the relationship between volume growth and beneficiary health, MedPAC is working on strategies that could make Medicare a more prudent purchaser. To explore tying some portion of payment to performance on quality metrics, the Commission is:

- interviewing quality measurement experts, researchers, and others who have measured physician quality to identify validity or reliability issues;
- cataloging the quality measures available for physician services and the purposes for which they are being used; and
- evaluating the feasibility of applying private sector strategies to assign accountability for quality in physician settings to the Medicare program.

To assess measuring provider resource use as a strategy that could improve the value of physician services for beneficiaries, the Commission is:

- reviewing the research literature and interviewing purchasers, consultants, and software vendors to understand the strengths and weaknesses of the technology available for this purpose;
- obtaining information from purchasers and consultants on the effectiveness of measuring provider resource use;
- assessing methods and how they are used for physician services generally and for imaging services in particular; and
- reviewing activities currently undertaken by CMS as part of program integrity and quality assurance responsibilities.

We plan to report to the Congress on these topics in the future.

Effects of volume growth on health and well-being

Growth in the volume of physician services has accelerated recently (MedPAC 2004). Across all services, volume growth rates have increased:

- 4.3 percent, from 1999 to 2000,
- 5.4 percent, from 2000 to 2001, and
- 5.6 percent, from 2001 to 2002.

Among broad categories of services—major procedures, evaluation and management, other procedures, imaging, tests, and other—imaging and tests have grown the most. For 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. For 2001 to 2002, we see the highest growth—approaching 20 percent—in the volume of nuclear medicine, computerized automated tomography, magnetic resonance imaging, laboratory tests, and in a minor procedures category that includes outpatient rehabilitation.

These growth rates raise the question posed in the MMA requirements for this study: Is growth in the volume of physician services improving the health and well-being of beneficiaries? Previous research shows that this is a difficult question and one that cannot be answered definitively in the context of a study such as this one.

One reason for this is that, just from a technical standpoint, it is hard to discern empirically whether volume growth is improving beneficiary health and well-being. Volume growth can influence health, and, simultaneously, changes in health can influence volume. This makes it hard to discern empirically which side of the relationship dominates (Hadley 2003).

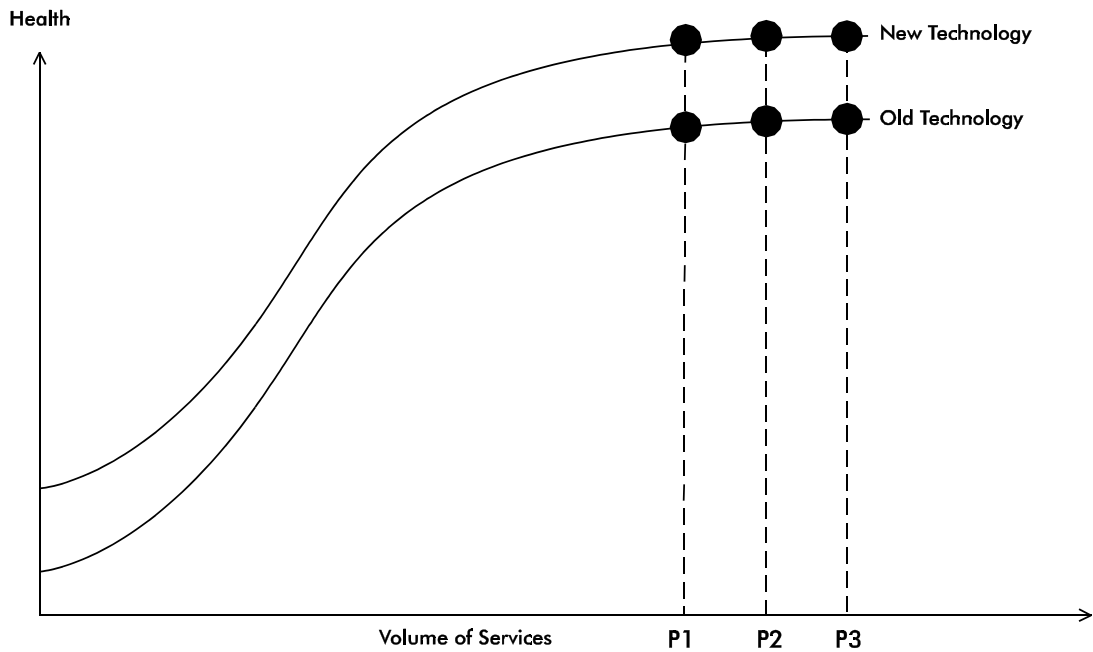
This point is illustrated by recent research on growth in health care spending and the prevalence of various medical conditions (Thorpe et al. 2004).³ For some conditions, such as heart disease and hypertension, increases in the cost of therapy per treated case—that is, higher prices and more intensive services that are usually associated with new technologies—explain most of the spending increases. New technologies, in turn, have been shown to have a beneficial effect on health outcomes in some cases (Cutler and McClellan 2001).

For other conditions, however, the dominant influence on spending appears to be an increase in the treated prevalence of the condition (Thorpe et al. 2004). Such an increase could be due to better access to care among those with a given disease. An increase in treated prevalence could also be due to an increase in epidemiological prevalence, and there is evidence that such an increase is occurring for conditions such as pulmonary disease and diabetes. In any case, to the extent that increases in epidemiological prevalence are leading to increases in spending, changes in health are driving changes in spending (and volume) instead of the other way around.

The other reason it is difficult to link volume growth and health is that the relationship between the two depends on where beneficiaries are on what is termed the production possibilities frontier for health (**Figure 1**). If volume growth represents a shift from old technology to new technology, volume growth can lead to better health. Indeed, the research by Cutler and McClellan cited earlier supports this view, at least for the selected conditions that have been studied. On the other hand, volume growth may represent increases in what has been described as “flat-of-the-curve” medicine (Fuchs 2004). Represented by growth in volume from point P1 to points P2 and P3 in Figure 1, such volume growth provides little or no health benefit.

Figure 1

Effect of technology in the relationship between health and the volume of services



Note: P1, P2, and P3 represent increasing levels in the volume of services.

Source: Dowd 2004, Fuchs 2004.

Are Medicare beneficiaries receiving care that is on the flat portion of the frontier? Research has shown that in many instances the answer to this question may be yes.

- After controlling for input prices and health status, it appears that the volume of physician services is driven partly by practice patterns, and physician supply and specialization, and that greater volume is often not associated with demonstrable improvement in outcomes (Fisher et al. 2003a, 2003b).
- Academic medical centers (AMCs) have been found to vary widely in the efficiency of care that they furnish to chronically ill Medicare beneficiaries (Fisher et al. 2004). Among beneficiaries with an initial hospitalization for acute myocardial infarction, colorectal cancer, or hip fracture who received most of their care from AMCs, the intensity of care received differed by up to 60 percent depending on the AMC where the care was furnished. The greatest variation was among services which the authors characterized as supply-sensitive: use of the hospital as the site of care, frequency of physician visits and

specialist consultations, and the use of diagnostic tests and minor procedures. Despite this variation, the authors could find no evidence that quality of care was better at high-intensity AMCs.

- The volume of physician services varies widely among the 50 largest metropolitan statistical areas (MSAs) (MedPAC 2003). In the case of tests and imaging, there is a three-fold difference between the MSAs with the minimum and maximum per beneficiary use of the services. These services—tests and imaging—are among the services that have been described as “supply sensitive” and “discretionary” (Fisher et al. 2003a, 2003b). By contrast, the MSA analysis showed that variation in the volume of less discretionary services—major procedures—was less than half the variation in use of tests and imaging.

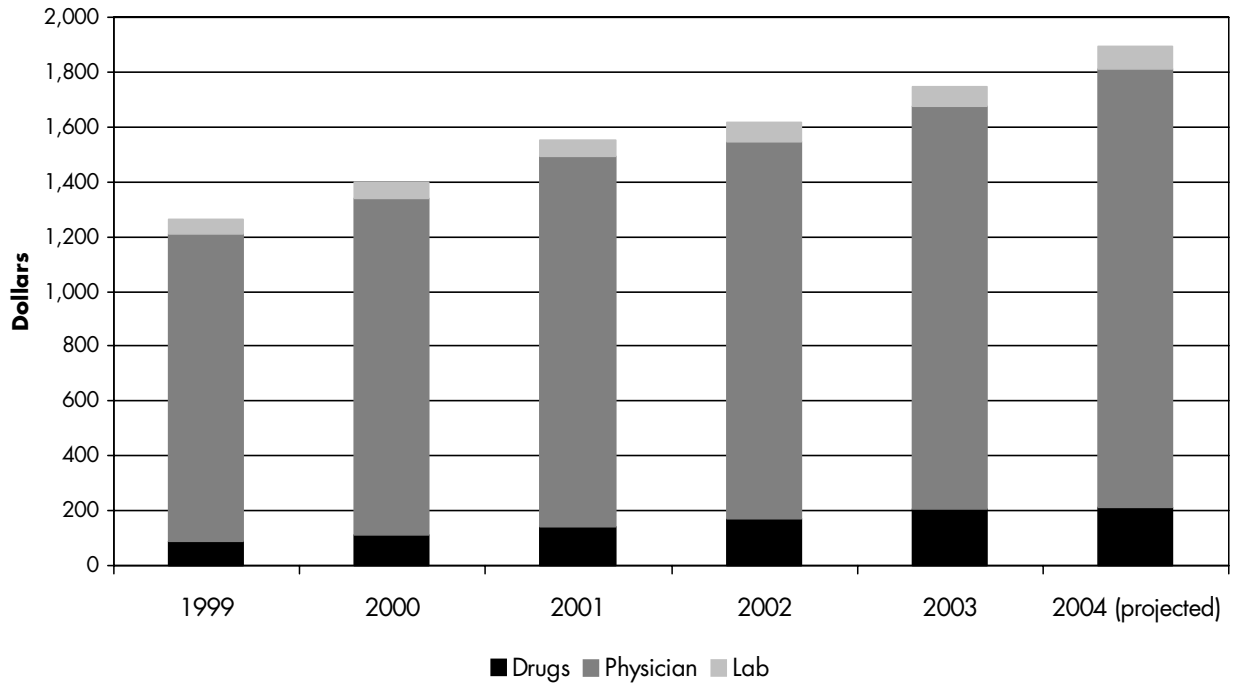
What are the trends in spending for physicians’ services, outpatient laboratory services, and Part B drugs?

The formula Medicare uses to determine the target rate of growth for expenditures for physicians’ services factors in not only changes in spending for physicians’ services but also changes in spending for outpatient laboratory services and certain Part B prescription drugs.⁴ CMS included these services in the SGR because their use is determined primarily by the physicians who order and prescribe them. Spending growth in these areas thus affects Medicare’s payments to physicians.⁵

Overall, Medicare expenditures per fee-for-service beneficiary for physician and laboratory services and Part B drugs combined have increased, on average, 8.4 percent per year since 1999, climbing from \$1,265 to \$1,749 in 2003 (**Figure 2**).⁶ Expenditure growth for physician and laboratory services has been fairly volatile, but has averaged about 7 percent per year since 1999. Part B drug spending has grown disproportionately over the period, averaging almost 23 percent each year. As a result, Part B drugs now account for 11.8 percent of the total expenditures considered by the SGR, up from 7.2 percent in 1999. In spite of this increase, however, the most important factor remains the rise in spending for physicians’ services. Recent changes in the payment method for Part B drugs are expected to reduce spending growth for drugs.

Figure 2

Medicare spending per FFS beneficiary, for physician services, Part B drugs, and outpatient lab services, 1999–2004



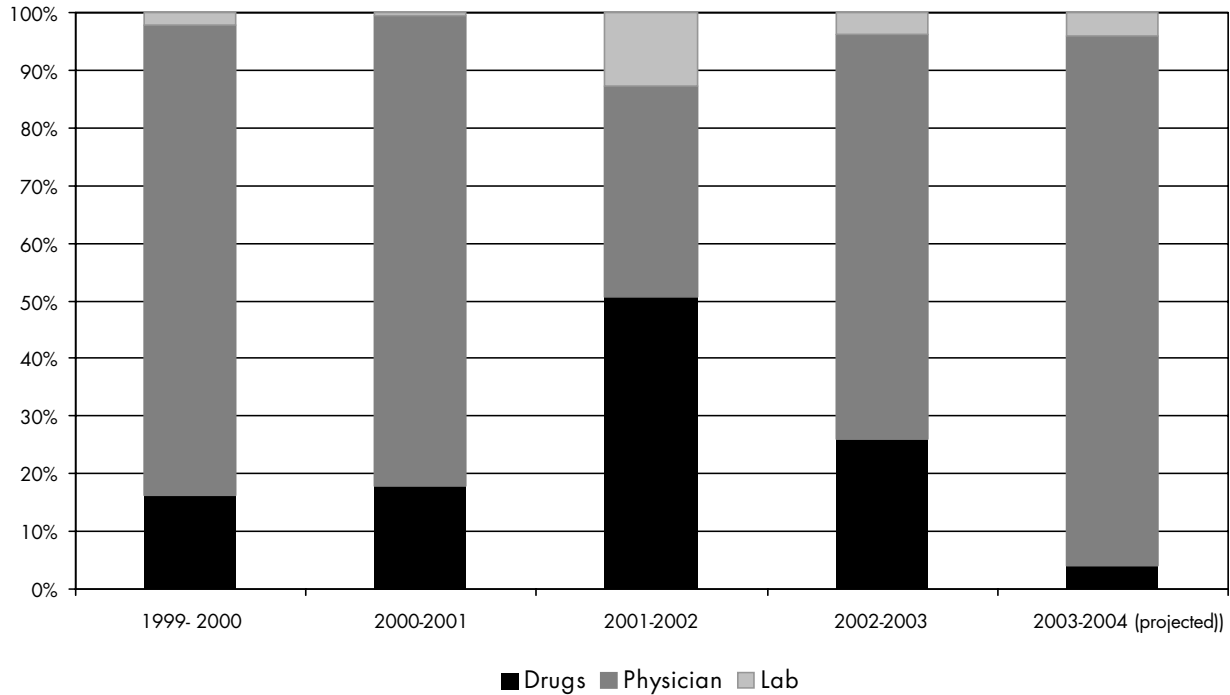
Note: FFS (fee-for-service). Years are calendar years. Dollars are Medicare spending only and do not include beneficiary coinsurance. Part B drug category excludes DME-associated drugs, vaccines, and immunosuppressives.

Source: CMS, Office of the Actuary.

Physician fee schedule services drive growth in spending

Growth in Medicare payments for physician services has been relatively volatile. On a per fee-for-service (FFS) beneficiary basis, spending for physician services grew 3.8 percent between 1998 and 1999, jumped to about 10 percent per year between 1999 and 2001, slowed to less than 2 percent between 2001 and 2002, then grew almost 7 percent between 2002 and 2003. Growth in per FFS-beneficiary spending for laboratory services has also been relatively volatile.

Payment rate changes and increases in the volume and intensity of services furnished to each beneficiary drive the growth in expenditures for physician services. Analysis of changes in physician expenditures suggests that volume and intensity growth—the provision of more services and more intensive services—have accounted for more than 81 percent of the growth between 1999 and 2002 (**Figure 3**). Since 1999, the only point at which growth in physician spending did not account for the lion’s share of spending growth for these SGR components was

Figure 3**Contribution to spending growth, by component, 1999–2004**

Note: Medicare spending only; does not include beneficiary coinsurance. Part B drug category excludes DME-associated drugs, vaccines, and immunosuppressives.

Source: CMS, Office of the Actuary.

between 2001 and 2002, a time period during which the update for physician services was negative and growth in drug spending was especially steep.

Growth in volume and intensity reflects changes in both the demand for and supply of services. Public education campaigns have increased both patient and physician demand for certain services like mammography and colonoscopy. The capacity to provide relatively complex procedures and technologies has expanded as more physicians are trained to perform or use them. At the same time, changes in medical protocols have resulted in more aggressive treatment of certain conditions and in diagnosis and treatment of more patients. The rise in prevalence of certain conditions, such as obesity and diabetes, also has resulted in the diagnosis and treatment of more patients. Finally, changes in medical technology have increased the number of patients being treated, the number of services being furnished to each patient, and the level of service intensity provided.

Some volume and intensity growth can lead to better outcomes for patients. But some of the growth may be due to “flat-of-the-curve” medicine, care that provides little or no health benefit (Fuchs 2004). MedPAC and other researchers have found, for example, that use of certain services—such as imaging services and diagnostic tests—varies widely across geographic areas, a finding that suggests these services are “supply-sensitive” and “discretionary” (Fisher et al. 2003a, 2003b; MedPAC 2001, 2003; Miller et al. 1995; Welch et al. 1993; Wennberg et al. 1999). The research suggests that beneficiaries are receiving too many of these supply-sensitive services and too few of the services considered necessary and effective in preventing or treating conditions prevalent in the Medicare population—such as breast cancer, diabetes, myocardial infarction, heart failure, pneumonia, and stroke.

Part B drug spending growing but projected to slow

Over the past decade, spending for Part B drugs has been among the fastest growing in the Medicare program.⁷ Since 1999, Part B drug spending has climbed, on average, 23 percent each year.

Some of this growth is due to increases in volume and intensity and to the development of new drugs. More drugs are being used by more patients, and more expensive medications are being substituted for older therapies. New methods of drug development also are driving up costs. An increasing number of drugs are produced through the use of biotechnology. Not only are these products expensive when initially marketed, but they face only limited competition over time because the Food and Drug Administration has no approval process for generic versions of biologicals.

But evidence suggests that Medicare’s payments for Part B drugs have far exceeded providers’ costs and that the difference between Medicare’s payments and provider’s costs has widened. (GAO 2001; OIG 2001, 1997, 1996). Until recently, Medicare set its payment rate for covered drugs at 95 percent of the average wholesale price (AWP). But AWP is neither an average nor the price usually paid by a provider; rather, it is a manufacturer’s suggested price. The actual price paid by a provider often reflects substantial discounts. In addition, Medicare’s payment methodology was inherently inflationary. A manufacturer could pursue market share by raising a drug’s AWP, thereby increasing the spread between Medicare’s payment and providers’ acquisition costs and ensuring higher profits for providers who chose that product. Recent payment policy changes are intended to rein in spending for Part B drugs and change the perverse incentives.

Spending for Part B drugs has also grown in part because Medicare’s coverage has expanded. The Congress has gradually increased the quantity, type, and duration of drugs covered by the program.

Examination of the volume growth of services furnished to Medicare beneficiaries relative to other populations

We would expect the Medicare population to have higher volume growth than other populations (Lubitz et al. 2001). First, Medicare beneficiaries have health insurance coverage while many of those under age 65 are uninsured. Second, certain Medicare beneficiaries have greater protection from cost sharing because they have supplemental coverage. By contrast, those with private insurance usually pay their cost sharing out of pocket. Third, more technological innovation is directed toward Medicare beneficiaries than other populations because beneficiaries have a greater burden of illness. We found, however, that the available data do not permit us to estimate whether volume growth is higher for Medicare beneficiaries than it is for other populations.

Utilization data confirm that, for some specific services, volume growth has been higher for those age 65 and over, almost all of whom are covered by Medicare, compared with other age groups. For instance, between 1990 and 1998, rates of use for coronary angioplasty, coronary artery bypass grafting, and carotid endarterectomy went up faster for those over age 65 than for other populations (Lubitz et al. 2001). Just to illustrate, in the case of coronary angioplasty, use of the procedure by those age 65 and over went up by 287 percent between 1990 and 1998 as the procedure diffused to the oldest age group (age 85 and over). The comparable growth rate for the under 65 population was 124 percent. Data on visits to physician offices provide another example. Between 1992 and 2002, visit rates rose by 24 percent for those age 65 to 74 compared to an increase of 14 percent for those age 45 to 64 (Schappert 1994, Woodwell and Cherry 2004).⁸

The analyses just described are limited by the available data and the specific services addressed by those data. It is possible that trends in volume growth differ, depending on the service, and that data inadequacies would cause us to miss these differences. In addition, service-specific analyses cannot be used to provide overall measures of volume growth or spending growth. That is, they cannot be combined to provide a measure of volume growth for all services or a measure of the effect of volume growth on total spending.

To address these issues, MedPAC contracted with Direct Research, LLC for an analysis of data from alternative sources that would allow all-services estimates of volume growth.⁹ Limitations of these data prevented us from reaching a definitive conclusion, however.

One analysis the contractor attempted included use of MedPAC's database of physician claims from private insurers to compare volume growth for the 65-and-under insured population and Medicare beneficiaries. The Commission used these data earlier to compare Medicare and private insurer payment rates for physician services as part of an assessment of the adequacy of Medicare's payments for physician services (MedPAC 2004).

Our goal for this volume study was to use the data for the first time to analyze trends in volume growth, but technical problems prevented us from providing a consistent time series. In the case of data from one of our sources, an insurer completely changed data reporting methods and enrollment procedures in 2002, resulting in a substantial, abrupt drop in apparent volume per capita between 2001 and 2002. The other data source showed evidence of substantial switching among product lines, resulting in a commingling of risk selection, benefit design, and similar factors, and any underlying trend in volume. These problems suggested that any estimates of volume based on the data would not be stable enough for us to draw conclusions.

The contractor also analyzed aggregate data on private insurers' spending for physician services. These included data from two sources: the National Health Expenditure (NHE) accounts and the Milliman USA Health Cost Index, as analyzed by the Center for Studying Health System Change. All of these data were deflated by the Producer Price Index to get measures of volume growth per person.

Like the analysis of claims data, the analysis of aggregate spending data was inconclusive. The analysis provided conflicting results on whether volume growth is higher for Medicare beneficiaries than it is for other populations. In addition, changes in private insurance coverage in recent years raise the question of whether it is possible to compare volume growth for Medicare beneficiaries with that of the insured population under age 65. Benefit structures and cost sharing have changed in ways that make it difficult to use private insurer data to make inferences about volume growth. Analysts have had this same problem when attempting to compare Medicare and private insurance spending (Antos and Goyburu 2003, Boccuti and Moon 2003).

How does new new technology, including CMS coverage determinations, affect volume growth?

Many believe that technology has been the biggest long-term driver of growth in health spending. New technologies can enter the Medicare system informally (such as when technology change occurs within existing payment codes) or formally through the review and approval processes of CMS and its claims-processing contractors (such as fiscal intermediaries and carriers). The task of measuring the impact of new technology on Medicare volume and expenditure growth is a challenging one. The most straightforward—and conservative—way to quantify technological change is to examine the direct effect of new service and procedure codes on volume growth. With the help of a contractor, MedPAC analyzed physician claims from 1999 and 2002 and found that 372 new codes were introduced during the time period. These new codes had only a small effect on overall volume growth. On average, 0.33 percent of total expenditures for physician services furnished each year was associated with newly introduced codes.

MedPAC also considered new technology introduced through formal national coverage determinations (NCDs). Between January 1, 1999 and December 31, 2002, CMS issued 18 NCDs related to coverage for physician and laboratory services and Part B drugs. We did not find that new technologies were introduced via these NCDs. In general, the NCDs formalized decisions made by local contractors, nullified local contractor coverage determinations, or specified that certain technologies would be covered only if provided to patients meeting specific criteria.

Introduction of new technologies to the Medicare system

Advances in science and medical technology are widely believed to have played an important role in the growth of Medicare expenditures over time. Advances in medical technology have added new services that have been extremely expensive, involving hospital stays that cost tens of thousands or even hundreds of thousands of dollars. In many cases, these new technologies have created new demands for physician office visits and other physician services and costly pharmaceuticals. Even where medical advances reduce per service spending, they may raise total spending by making it possible to treat more beneficiaries, including those who previously were too frail or ill to be suitable candidates.

New technologies often enter the Medicare system informally. Technological change can occur within an existing code, sometimes but not always increasing a physician's work (and therefore the relative value of the code). This type of change may allow an existing technology or procedure to diffuse to new populations, by expanding the number of beneficiaries who can safely and appropriately be treated.

New technologies also enter the Medicare system through formal channels. CMS and its claims-processing contractors (fiscal intermediaries and carriers) have routinely reviewed and approved requests for coverage of new technologies and procedures. Although some coverage determinations are made at the national level, most are made at the local level by Medicare's contractors (Strongin 2001).

The task of measuring the impact of new technology on Medicare volume and expenditure growth is a challenging one. Within-code technological change that does not alter the value of the work associated with it is extremely difficult to identify and quantify. It is also difficult to measure the indirect effects of technological advances. The total number of physician office visits may increase, for example, but it is hard to know whether that growth is due to the introduction of a new diagnostic test or to some other factor. At the same time, the new diagnostic test might cause a reduction in the volume of other types of tests or procedures.

Even identifying what constitutes a new technology can be a complex task. In one recent study, physician consultants were asked to review local contractor coverage policies and identify which ones introduced new technologies to the Medicare system (Foote et al. 2004). One consultant identified 8.4 percent of the policies as relating to new technology, while the other consultant identified 16.1 percent.

Newly introduced codes had only a small impact on physician volume growth

The most straightforward way to quantify technological change is to examine the direct effect of new service and procedure codes on volume growth. MedPAC contracted with the Urban Institute to analyze physician claims from 1999 and 2002 and determine the extent to which growth in physician service volume was due to claims for newly introduced CPT-4 codes representing new technologies and services (Maxwell et al. 2004). We found that 372 new codes were introduced during the time period. Overall, almost a third of the volume associated with the new codes was for oncology-related radiation therapy, while about 8 percent was for imaging services. But these new codes had only a small effect on overall volume growth. On average, 0.33 percent of total expenditures for physician services furnished each year was associated with newly introduced codes.

Due to data limitations, our estimate of the effect of new technology on expenditure growth is very conservative. It does not account for technology change within existing codes or diffusion of technologies to new populations that results in increased use of existing codes. It also does not account for the indirect effects of technological advances—changes in use of existing related services due to the introduction of a new technology. These factors would likely increase the estimate of technology's effect on spending growth. However, indirect effects of technological advances need not always increase spending. New technologies can prevent complications or deterioration in function, leading to a reduced need for services over time (Shapiro et al. 1999). At the same time, new technology can increase productivity.

New technologies generally not introduced via CMS's national coverage determinations

MedPAC was also charged with considering technology introduced through formal national coverage determinations (NCDs). Between January 1, 1999 and December 31, 2002, CMS issued 18 NCDs related to coverage for physician and laboratory services and Part B drugs.¹⁰ In general, NCDs do not introduce new technologies to the Medicare system, and the 18 NCDs we analyzed were no exception. Rather, they formalize or clarify decisions that have already been made by local contractors. Further, NCDs sometimes restrict coverage by nullifying local contractor coverage determinations or by specifying that certain technologies will be covered only if provided to patients meeting specific criteria. In these cases, NCDs may effect a reduction in total service volume.

How do demographic changes and geographic shifts in FFS enrollment affect physician volume and spending?

Demographic shifts in the beneficiary population—such as the aging of the population and changes in death rates—can affect spending growth, but our analysis shows that such changes had virtually no effect on physician spending between 1999 and 2002. In addition, movement of beneficiaries across state lines may affect expenditure growth, since some areas of the country have been shown to have higher use patterns than others. MedPAC found that physician spending per FFS beneficiary went up by about 0.2 percent per year between 1999 and 2002 because of geographic shifts.

Demographic changes would be expected to reduce volume and spending

Demographic changes in fee-for-service enrollment can lead to changes in spending for physicians' services. For example, a decrease in the percentage of beneficiaries in the 65-to-74 age group will increase overall spending because the average monthly payment for physicians' services for that age group are lower than that of other age groups (Table 1).¹¹ Drops in mortality rates, on the other hand, tend to lower per beneficiary expenditures in a given year.

Table 1

Average monthly payments for physician services differ by age, sex, and decedence, 1999 and 2002

	1999	2002
Age		
Under 65	\$136.12	\$168.37
65–74	127.33	163.56
75–84	157.89	202.35
85+	159.31	195.61
Sex		
Male	150.38	187.18
Female	135.69	174.97
Died		
No	119.18	156.27
Yes	551.15	628.94

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

The demographic characteristics of Medicare fee-for-service enrollment changed slightly over that four-year period (Table 2). Beneficiaries in the 65-to-74 age group decreased as a percentage of total fee-for-service enrollment, from 43.3 percent to 42.0 percent. At the same time, the proportion of older and disabled beneficiaries increased. Growth in the proportion of beneficiaries age 75 and older is due at least in part to increases in longevity. Despite the increase in the proportion of older beneficiaries, mortality rates showed a very small decline. Our analysis also showed a slight increase in the proportion of male beneficiaries.

Table 2
Age, sex, and death rates among fee-for-service beneficiaries changed little, 1999 and 2002

	1999	2002	Difference
Age			
Under 65	14.8%	15.7%	0.91
65-74	43.3	42.0	-1.34
75-84	31.2	31.5	0.29
85+	10.7	10.8	0.14
Sex			
Male	40.7	41.3	0.53
Female	59.3	58.8	-0.53
Died			
No	97.0	97.1	0.1
Yes	3.0	2.9	-0.1

Note: Percentages within beneficiary categories may not add to 100 due to rounding.

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

The net effect of these demographic changes is a decrease in spending on physician services, but the decrease is very small. Our analysis shows that the effect on spending per beneficiary was -0.1 percent per year, from 1999 to 2002.

Effect of geographic shifts in FFS enrollees quite small

In addition to the three demographic characteristics just discussed—age, sex, and death rates—we also considered the geographic distribution of beneficiaries. Geographic distribution is important for two reasons. First, some areas of the country have been shown to have higher use patterns than others. Second, Medicare's payment rates for physician services are adjusted to account for differences in input prices among geographic areas. Thus, changes in the distribution of FFS beneficiaries across states could affect expenditure growth.

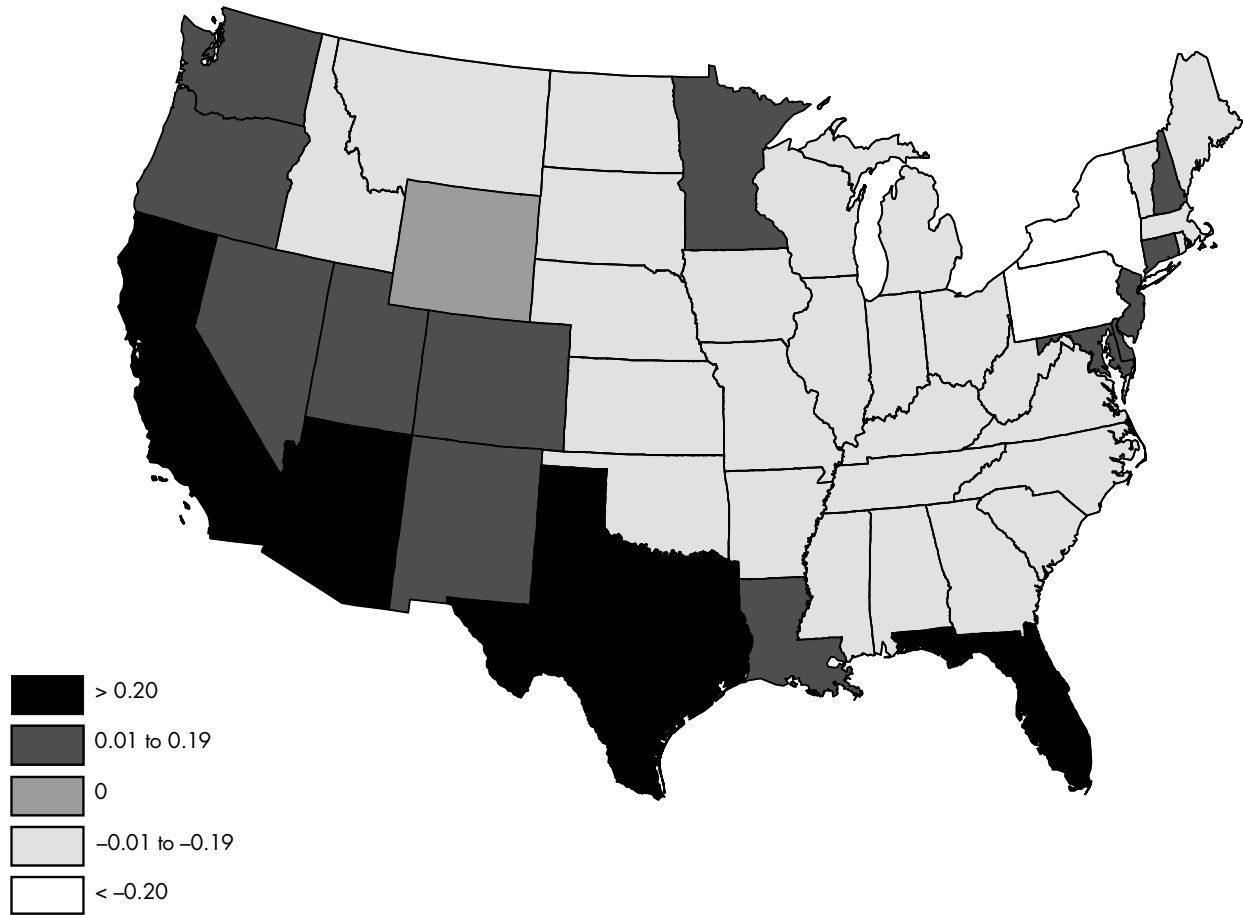
To assess the effect of changes in place of residence, we first analyzed enrollment data and found clear shifts in the geographic distribution of fee-for-service beneficiaries (Figure 4, p.18). For example, in 1999, 6.4 percent of all FFS beneficiaries lived in Florida. In 2002, 7 percent of all fee-for-service beneficiaries resided there. The four states experiencing the largest gains in the share of fee-for-service beneficiaries—Florida, California, Texas, and Arizona—collectively represented about 22 percent of all FFS beneficiaries in 2002, compared with 20 percent in 1999.

Although no state experienced a drop in the absolute number of fee-for-service beneficiaries, many states experienced a decline in their share of total FFS enrollment, with the biggest declines experienced by New York and Pennsylvania. New York, for example, had 6.7 percent of all fee-for-service beneficiaries in 1999, but only 6.4 percent in 2002.

Overall, states with gains in fee-for-service enrollment shares had higher average expenditures per beneficiary than states with losses in enrollment shares. As a result, geographic shifts in enrollment—whether caused by movement of beneficiaries across state lines or by changes in Medicare+Choice enrollment—could increase Medicare spending. But spending per beneficiary was higher than average in the two states with the largest losses in enrollment shares—New York and Pennsylvania. The net effect of the geographic shifts was thus quite small. MedPAC's analysis shows that spending per beneficiary went up by about 0.2 percent per year, from 1999 to 2002, because of these shifts.

Figure 4

Change in the share of fee-for-service beneficiaries residing in each state, 1999 and 2002



Change in percentage of enrollment

Source: MedPAC analysis of 5 percent denominator file from CMS.

Shifts in site of care

We found that there was a slight increase in the share of nonimaging physician fee schedule services provided in nonfacility settings, such as physician offices. We also found that shifts in site of care had a small positive effect on growth in the overall volume and intensity of nonimaging fee schedule services. The proportion of imaging procedures performed in physician offices also grew slightly, which accounts for almost one-fifth of the overall increase in volume and intensity for these services.¹² However, the shift in site of care for imaging procedures had only a minimal effect on the volume growth of *all* fee schedule services. That is because the increase in imaging accounts for only about one-fifth of the growth of all fee schedule services. Because we use different methodologies to estimate shifts in setting and their impact on volume growth for nonimaging and imaging services, we discuss each set of services separately.

Shifts in site of care: nonimaging services

Physicians can provide services in multiple settings. Just over half of nonimaging physician services (weighted by volume and intensity) were provided in nonfacility settings in 2002 (Table 3, p. 20). Nonfacility settings are usually physician offices but also include nonskilled nursing facilities, dialysis centers, independent laboratories, and patient homes. Facility settings include hospitals (inpatient and outpatient), ambulatory surgical centers, and skilled nursing facilities.

Many factors can affect choice of setting, such as:

- the patient's medical conditions,
- type of procedure,
- the patient's preferences,
- geographic location,
- technological changes that make it easier to provide a service in ambulatory settings,
- payment rates for physician services and other providers, and
- incentives for physicians to provide services in settings in which they have a financial stake.

We are unable to isolate the impact of each of these factors on the movement of services among settings.

Table 3**The proportion of nonimaging physician services provided in nonfacility settings increased slightly, 1999–2002**

	Percent of RVUs in nonfacility settings		Change, 1999–2002	Share of all non-imaging RVUs, 2002
	1999	2002		
Evaluation and management	59%	59%	0	58%
Other procedures	57	60	3	25
Major procedures	3	4	1	11
Tests	73	75	2	4
Other services	98	99	1	1
All services except imaging	53	54	1	100

Note: RVUs (relative value units). RVUs are a measure of the volume and intensity of services. Nonfacility settings include physician offices, independent laboratories, and patient homes. The figures are based on the place of service code on the physician claim. Evaluation and management includes visits in the office, hospital, home, or nursing home and specialist visits and consultations. Other procedures includes eye, skin, musculoskeletal, and other procedures; oncology; endoscopy; and dialysis. Major procedures includes breast, cardiovascular, orthopedic, and other major procedures. Tests includes lab tests, electrocardiograms, stress tests, and other tests. Other services includes supplies and durable medical equipment.

Source: Urban Institute analysis of 100 percent physician/supplier procedure summary file from CMS and relative value unit files from the American Medical Association. Service categories are from the Berenson-Eggers Type of Service classification scheme from CMS.

Practice expense payment rates may vary by setting

Medicare's payment rates for physician services are divided into three components that cover the costs of different inputs. These components are:

- work, which covers the physician's time and expertise associated with delivering the service,
- practice expense, which covers overhead costs such as the equipment, supplies, and clinical staff, and
- professional liability insurance.

Each component has a different weight that is used to determine the actual payment amount. These weights are known as relative value units (RVUs). We use the sum of RVUs to measure changes in the volume and intensity of physician services over time.

Until 1999, practice expense payments were based on physicians' historical charges for the service. In 1999, CMS began phasing in a resource-based method for determining practice expense payments. Under the new system, the practice expense payment for a given service is sometimes lower if it is provided in a facility setting and higher if it is furnished in a nonfacility setting. Medicare makes a higher practice expense payment when a service is provided in a physician office to recognize that the physician incurs the direct costs associated with the service (such as the equipment, supplies, and clinical staff). Because the physician does not incur these costs when the service is delivered in a facility, the practice expense payment is lower. In this case, the facility receives a Medicare payment to cover the direct nonphysician costs associated with the service. About 16 percent of the codes in the physician fee schedule include lower practice expense payments if the service is provided in a facility (Maxwell et al. 2004). These codes accounted for 44 percent of total fee schedule RVUs in 2002. The setting in which a service is provided is indicated on the place of service variable on the physician claim.

Did nonimaging services shift between settings?

We expected that there would be a shift of services from facility to nonfacility settings because some technological advances have made it more feasible to deliver procedures in physician offices. Indeed, the RVU-weighted share of all nonimaging physician services provided in nonfacility settings increased by 1 percentage point between 1999 and 2002 (Maxwell et al. 2004) (Table 3).¹³

Did shifts between settings affect growth in volume and intensity of nonimaging services?

The migration of services with higher practice expense rates in the nonfacility setting to this setting could have caused an increase in overall RVUs for nonimaging services. To examine whether this effect occurred, we first measured total growth in RVUs between 1999 and 2002. We then calculated the share of growth due to increased practice expense payments resulting from care that shifted from facilities to nonfacilities. To do this, we compared the actual RVU total in 2002 to what the RVU total *would have been* had the distribution of services by setting remained the same between 1999 and 2002. To avoid measuring a change in prices, we applied the 2002 RVU values to both 2002 and 1999 services. Because we were measuring the change in site of care between 1999 and 2002, rather than a change in technology (which was addressed previously), we limited our analysis to services that were in the fee schedule in both years. Thus, our estimate of RVU growth is relatively conservative.

Total RVUs for fee schedule services, excluding imaging, increased by 19 percent between 1999 and 2002; practice expense RVUs also grew by 19 percent (Maxwell et al. 2004). Four percent of the growth in practice expense RVUs and 2 percent of the growth in total RVUs for these services appears to be related to shifts in setting, as measured by higher practice expense payments that result when care migrates from facility to nonfacility sites of care.

Among the various categories of services, major procedures had the largest share of total RVU growth related to shifts in setting (8 percent). This RVU growth was primarily attributable to two

urological procedures in this category that have much higher practice expense values when performed in a nonfacility setting.¹⁴ The share of these procedures provided in nonfacility settings grew from under 10 percent in 1999 to over 80 percent in 2002.

Shifts in site of care: imaging services

We treated diagnostic imaging services differently from other services because their nonprofessional costs are reimbursed differently. Almost all imaging services have two distinct parts: the performance of a diagnostic test and the interpretation of the results by a physician. If the test is performed in a facility, such as a hospital outpatient department, the cost of the equipment, supplies, and technician time is covered by a facility payment. If the study is performed in a nonfacility setting, such as a physician office, these costs are covered by a fee schedule payment known as the technical component. The interpretation of an imaging study by a physician is called the professional component and is reimbursed under the physician fee schedule whether or not the study is actually performed in a facility. If the study is performed and interpreted by the same physician provider, the physician submits a global claim that includes both the technical and professional components.

Did imaging services shift between settings?

If the performance of an imaging procedure moves from facility to nonfacility settings, we would expect to see an increase in technical component claims. The number of professional component claims would remain the same because they are submitted regardless of the setting in which the study was performed; however, they would decline as a share of all imaging claims as additional technical component claims were submitted. Thus, an increase in imaging claims with a technical component (either by itself or as part of a global claim) as a share of all imaging claims (technical, professional, and global) would reflect a shift of imaging procedures from facility to nonfacility settings. The proportion of RVU-weighted imaging services that included the technical component grew slightly between 1999 and 2002, from 63 to 66 percent (Maxwell et al. 2004). Nuclear medicine experienced the largest growth, from 75 to 81 percent.

Did shifts between settings affect growth in volume and intensity of imaging services?

If imaging claims with a technical component grow relative to professional claims, there will be an increase in practice expense RVUs, which cover the costs of equipment, supplies, and technician time. This is because the practice expense values are higher for the technical component of any given imaging procedure than the professional component. Thus, we calculated the portion of the increase in practice expense and total RVUs associated with the growth in technical component and global claims, relative to all types of imaging claims, between 1999 and 2002. We estimate that 25 percent of the growth in practice expense RVUs and 18 percent of the increase in total RVUs was related to the relative increase in technical component and global claims, which resulted from the migration of imaging services from facility to nonfacility settings (Maxwell et al. 2004).

Combining impact of shifts in setting for imaging and nonimaging services

We found that there was a slight increase in the share of fee schedule services provided in nonfacility settings for both imaging and nonimaging procedures. This shift in site of care had a much smaller effect on the growth of total RVUs for nonimaging than for imaging services. Combining the effects of shifts in setting for nonimaging and imaging services shows that 5 percent of the growth in total RVUs (and 10 percent of the increase in practice expense RVUs) is related to the movement of services to nonfacility settings (Maxwell et al. 2004). The shift in site of care for imaging procedures has a relatively small impact on the RVU growth of *all* fee schedule services because the increase in imaging accounts for only about one-fifth of the growth of all fee schedule services.

Changes in spending due to law and regulation

The MMA also required MedPAC to evaluate the extent to which CMS takes into account the impact of law and regulations on the SGR. To fulfill this requirement, we reviewed CMS's process for estimating the effects of law and regulation.¹⁵ This review leads us to make some suggestions for improving the process.

Background and process

Growth in spending due to law and regulations is one element of the SGR. It is an allowance that changes the spending target for physician services to account for new benefits enacted by the Congress and regulatory decisions by CMS that affect spending for physician services. The SGR also includes the change in input prices for physician services and the change in enrollment in Medicare fee-for-service. Finally, the SGR makes an allowance for volume growth equal to growth in real gross domestic product (GDP) per capita. Growth in real GDP per capita is similar to the law and regulations factor in the sense that it is an allowance for spending growth.

The law and regulations factor in the SGR is estimated by CMS's Office of the Actuary (OACT). To make the estimates, OACT staff use data from Medicare claims files, the Medicare Current Beneficiary Survey, and the National Health Accounts. OACT staff also consult with staff elsewhere in CMS (including CMS physicians) and physicians outside CMS, and review research literature. OACT also receives comments from groups outside CMS, such as physician organizations. For example, based on comments from the American Medical Association, CMS increased the estimate of the law and regulations factor in the 2000 SGR because of a change in payment policy for physical therapy services.

In estimating the effects of law and regulation, OACT reviews changes in both law and regulation. The new "welcome to Medicare" physical in the MMA is an example of a change in law that was included in the law and regulations factor in the SGR. A change in regulation is illustrated by CMS's decision to include screening mammography in the definition of physician services and to raise the 2002 SGR accordingly.

The law and regulations factor in the SGR is usually positive, raising the spending target for physician services, but it can be negative, too (**Figure 5**). When positive, the estimates have ranged from 0.1 percent to 1.6 percent. The high was in 2004 and included the effects of provisions in the MMA—floors on geographic adjustments of payment rates for physician services and special payments for chemotherapy administration. The growth rate was negative once, in 1999, primarily because of savings associated with provisions in the Balanced Budget Act of 1997.

In estimating this factor, OACT considers both primary and secondary effects of a change in law or regulation. For instance, in the case of a new screening benefit, the primary effect is receipt of the screening service itself, and the secondary effect is associated tests and procedures. A difficulty arises, however, in the case of a preventive benefit that could have secondary effects that are offsetting—increasing use of some services and decreasing use of others. In such cases, OACT’s best estimate is that the net secondary effect is zero. Subsequently, if better information becomes available, OACT revises the estimate, as discussed below.

All other things being equal, the law and regulations factor, if consistent with actual utilization, should have no effect on spending. That is, the change in the target due to this factor will conform to the change in actual spending that occurs because of the change in law and regulation. Thus, the factor serves as a pass-through mechanism to ensure that the payment update is not influenced, either up or down, by a change in spending due to law and regulation.

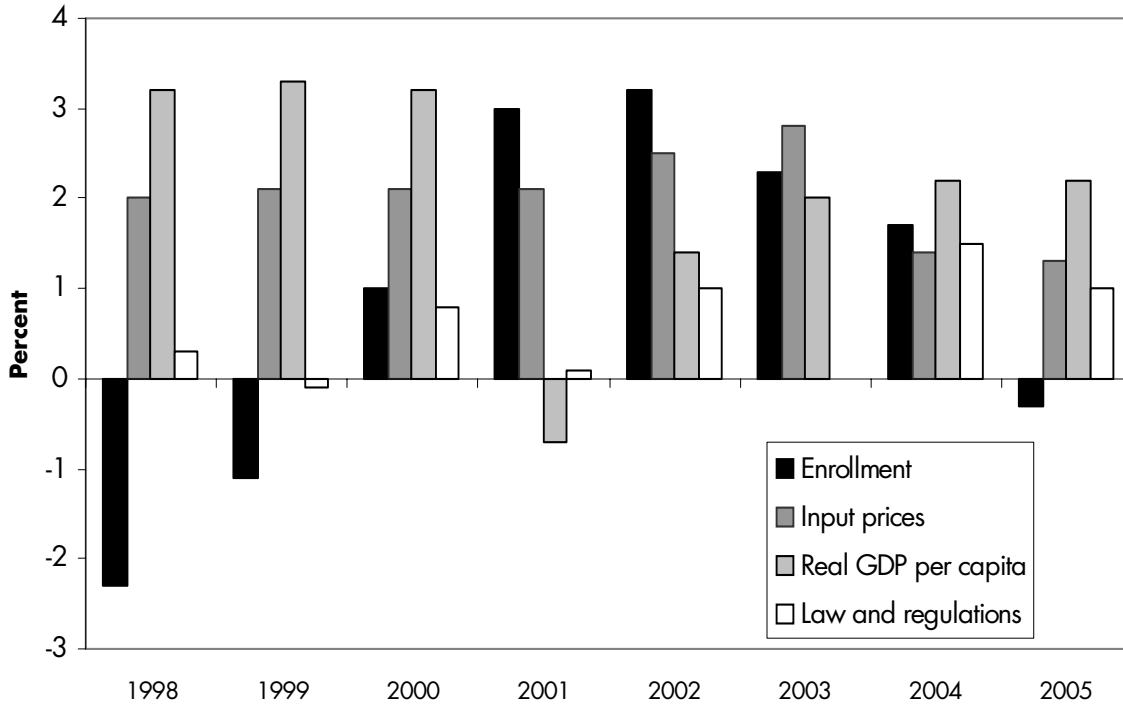
Differences between projections and actual spending could work to either penalize physicians or reward them, making the spending target too high or too low. Thus, the payment update could go up or it could go down, depending on whether any difference lowers or raises the target relative to actual spending.

CMS’s assumptions about a volume response to payment reductions apply to the law and regulations factor. In other words, if the law and regulations factor includes a reduction in spending due to reduction in payment rates, the resulting reduction is only 70 percent of the reduction in payment rates. The other 30 percent is an offset expected to occur due to a volume response. The assumption about volume responses is asymmetric in that it only applies to law and regulations changes that reduce spending. No offset is applied to changes that increase spending.

By law, CMS can retrospectively revise estimates in an SGR after better information becomes available. That is, an SGR remains subject to change for two years after it is initially estimated. In the case of the law and regulations factor, OACT does this by comparing the initial SGR estimate of the change in spending due to law and regulation with the actual change (to the extent it can be measured). It then revises the SGR if necessary.

Figure 5

Growth rates in the sustainable growth rate, 1998–2005



Note: GDP (gross domestic product). For 2003, the allowance for the growth in spending due to law and regulations was zero. Sustainable growth rates for 1998 and 1999 are for fiscal years. All others are for calendar years.

Source: MedPAC analysis of sustainable growth rates for CMS.

Issues

One difficulty with estimating the effects of law and regulation is that, almost by definition, the effects are unknown. In the case of the coverage for physical examinations established under the MMA, for instance, Medicare has no experience. Nonetheless, CMS must estimate the increase in aggregate spending for physician services that will occur as a result of such a change in coverage. The need to estimate both primary and secondary effects compounds the problem.

CMS's process tries to account for these difficulties through the actions noted above. OACT staff appear open to ways of overcoming the limitations of the available information. An issue arises, however. Outside information would tend to guide the process toward estimates that are

higher than they would be otherwise. Providers of outside information (whose interest is to increase the target) are likely to be more organized than those who might have evidence to lower the target. In any case, revision of SGRs provides some assurance that adjustments to estimates can occur as better data become available and that CMS can account for overestimates (or underestimates) of the effects of law and regulation.

Estimates could be more transparent

A potential improvement we found in reviewing CMS's process is that it could be more transparent. Given the limited information available, more information on the estimates is better than less, perhaps in the context of the proposed rule on the physician fee schedule that is issued usually in June of every year.

In addition, CMS has made decisions about the definition of a regulatory change. Two notable exceptions from the definition are national coverage decisions and administrative actions, such as including new billing codes in the physician fee schedule. The rationale for these exclusions is that they are part of the natural evolution of physician services and that they are accounted for by the real GDP per capita factor in the SGR, which is the allowance for volume growth. CMS has already explained the rationale for excluding national coverage decisions (CMS 2002). It would be useful to also have some discussion of the reasoning behind excluding administrative actions.

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Endnotes

1. The Secretary considers these services in the statutory formula for calculating the annual payment update for physician fee schedule services. That formula is designed to control spending for physician services. If actual spending for physician services differs from a target defined in law, the payment update is adjusted accordingly.
2. The AHRQ report was required by the Balanced Budget Refinement Act of 1999.
3. The research is based on data for the U.S. civilian noninstitutionalized population, so it is not specific to Medicare beneficiaries.
4. The SGR excludes vaccines, immunosuppressive drugs, and drugs used in concert with durable medical equipment.
5. Although the SGR factors in the volume of laboratory services and Part B drugs, it affects only the update to physician payments.
6. Between 1999 and 2003, the total Medicare population grew at a rate of about 1.2 percent per year. During the time period, managed care enrollment among Medicare beneficiaries fell from 17 percent of all beneficiaries to 13 percent. As a result, fee-for-service (FFS) enrollment grew about twice as fast as overall enrollment, increasing, on average, about 2.4 percent per year. To control for this change, we examined Medicare expenditures on a per-FFS-beneficiary basis.
7. Spending for these drugs is highly concentrated. A previous MedPAC analysis of the roughly 450 drugs covered by Medicare under Part B in 2001 found that 35 of those drugs accounted for 88 percent of Medicare's total drug spending and 95 percent of drug claims volume (MedPAC 2003). Three specialties—hematology oncology, medical oncology, and urology—accounted for more than half of total billing. For some specialties, payments for Part B drugs represent a large portion of their total Medicare payments. In 2001, 72 percent of all Medicare payments to hematology oncologists and medical oncologists were for Part B drugs.
8. With the help of a contractor, MedPAC attempted to take such analyses further and test for the statistical significance of differences in volume trends between the 65-and-over and under-65 populations. We found, however, that the standard errors of the estimates we calculated with the available survey data from the National Center for Health Statistics were too large to allow us to detect potentially small differences in trends between the two populations.
9. In addition to the analyses discussed here, the contractor also analyzed data from the Medical Expenditures Panel Survey (MEPS) conducted by the Agency for Healthcare

Research and Quality. The results are not presented here because they only address outpatient physician services. Thus, MEPS excludes many types of services, such as major surgical procedures furnished in the inpatient hospital setting.

10. NCDs related to coverage for other types of services may indirectly affect spending for physician and laboratory services and Part B drugs.
11. The average monthly payment for physicians' services masks wide variation in spending for individual beneficiaries within each group. For example, among the under-65 (that is, disabled) Medicare population, beneficiaries with dementia have Medicare costs per year that are three times higher than those for beneficiaries with mental retardation (Foote and Hogan, 2001). Newly enrolled disabled beneficiaries, many of whom have recently suffered a medical event that prompted Medicare eligibility, might have higher health care costs than disabled beneficiaries who have been enrolled for longer periods (although this effect would be tempered at least somewhat by the 24-month waiting period before Medicare disability coverage begins). To the extent that this is true, the average monthly payment might understate the costliness of the under-65 age group, given the disproportionate rise in the number of newly disabled beneficiaries. A weighted average payment might therefore be a more accurate indicator of the relative costliness of this group.
12. Because we found only a slight shift of nonimaging fee schedule services between settings, we did not examine the impact of changes in payment rates to other providers on site of care changes. In any case, it is very difficult to disentangle the effect of changes in payment systems from other factors that affect movement between settings, such as technological advances, patient preferences, and physicians' financial incentives.
13. We used 1999 as our baseline because in that year CMS began phasing in site-specific practice expense rates; this policy provides an incentive for physicians to accurately code the place of service for procedures that receive different practice expense payments depending on the setting. The policy also gives an incentive to the contractors who process physician claims (carriers) to verify the accuracy of the place of service code. Nevertheless, it appears that some providers did not accurately indicate the place of service on the claim. For example, claims data show that 1 percent of hip fractures and hip replacements in 1999 were treated in settings other than hospitals, which is highly unlikely.
14. These procedures are prostatic microwave thermotherapy (code 53850) and prostatic radiofrequency thermotherapy (code 53852).
15. We are not able to assess the magnitude of CMS's estimates, however. Given MedPAC's resources, we are not able to assess specific estimates of the budgetary effects of proposals that affect spending. Those responsibilities lie with the Congressional Budget Office and CMS's Office of the Actuary.

A P P E N D I X

Mandate for report

Mandate for report

Medicare Prescription Drug, Improvement, and Modernization Act, Section 606 (b)

SEC. 606. MEDPAC REPORT ON PAYMENT FOR PHYSICIANS' SERVICES

- (b) VOLUME OF PHYSICIANS' SERVICES.—Not later than 1 year after the date of the enactment of this Act, the Medicare Payment Advisory Commission shall submit to Congress a report on the extent to which increases in the volume of physicians' services under part B of the medicare program are a result of care that improves the health and well-being of medicare beneficiaries. The study shall include the following:
- (1) An analysis of recent and historic growth in the components that the Secretary includes under the sustainable growth rate (under section 1848(f) of the Social Security Act (42 U.S.C. 1395w-4(f))).
 - (2) An examination of the relative growth of volume in physicians' services between medicare beneficiaries and other populations.
 - (3) An analysis of the degree to which new technology, including coverage determinations of the Centers for Medicare & Medicaid Services, has affected the volume of physicians' services.
 - (4) An examination of the impact on volume of demographic changes.
 - (5) An examination of shifts in the site of service or services that influence the number and intensity of services furnished in physicians' offices and the extent to which changes in reimbursement rates to other providers have effected these changes.
 - (6) An evaluation of the extent to which the Centers for Medicare & Medicaid Services takes into account the impact of law and regulations on the sustainable growth rate.

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