

Primary Care Physician Supply, Physician Compensation, and Medicare Fees: What Is the Connection?

Laura A. Dummit, *Principal Policy Analyst*

OVERVIEW — *Primary care, a cornerstone of several health reform efforts, is believed by many to be in a crisis because of inadequate supply to meet future demand. This belief has focused attention on the adequacy of primary care physician supply and ways to boost access to primary care. One suggested approach is to raise Medicare fees for primary care services. Whether higher Medicare fees would increase physician interest in primary care specialties by reducing compensation disparities between primary care and other specialties has not been established. Further, many questions remain about the assumptions underlying these policy concerns. Is there really a primary care physician crisis? Why does compensation across physician specialties vary so widely? Can Medicare physician fee changes affect access to primary care? These questions defy simple answers. This issue brief lays out the latest information on physician workforce, compensation differences across physician specialties, and Medicare's physician fee-setting process.*

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Predictions of a looming shortage of primary care physicians—family practitioners, general internists, and pediatricians—forecast not only difficulty for patients in gaining access to basic health care services but also further fragmentation of health care delivery. However, evidence to back up these predictions is mixed. Although graduates of U.S. allopathic medical schools exhibit a growing preference for more lucrative specialties, graduates of foreign and osteopathic medical schools have ensured that primary care residencies are filled. Continued growth in the numbers of both medical school graduates and nonphysician primary care practitioners, particularly when future needs are not known, raises the question of whether primary care is really on the wane.

Expected compensation is one factor that affects choice of medical specialty, and primary care physicians typically make considerably less than other specialists, such as orthopedic surgeons and radiologists. These differences are due to a variety of factors. Many contend that physician fees for services provided by specialists, such as surgeries and diagnostic tests, are more profitable than those for office visits, which dominate primary care practices. Compensation differences are also affected by certain characteristics of the fragmented, fee-for-service health care environment that allow some specialty practices to create additional income through the volume and types of services they deliver and oversee.

Because Medicare is the largest single health care payer, its payment policies, including the level of its physician fees, may be used to influence other aspects of the health care system, such as workforce and physician specialty distribution. Consequently, even though scheduled changes should raise Medicare fees for office visits when they are fully implemented, some have suggested that Medicare explicitly increase its fees for primary care services to boost compensation for primary care physicians. Given the other factors that affect physician compensation and other influences on choice of specialty, it is not clear whether raising some fees would have the desired effect on the choice of physician specialty. Such a policy would be a departure from Medicare's intent to ensure that its physician fees reflect the relative differences in resource requirements across physician services. It could, however, be a way to address concerns about undervaluation of primary care services.

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202/872-1390
202/862-9837 [fax]
nhpf@gwu.edu [e-mail]
www.nhpf.org [web]

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A PRIMARY CARE WORKFORCE CRISIS?

Between 1995 and 2005, the number of primary care physicians per 100,000 population increased by 12 percent, compared to 5 percent for other physician specialties.¹ Over this same period, the supply of physician assistants and nurse practitioners, health care professionals who are licensed to perform some primary care activities, almost doubled. The number of physician assistants grew at an average annual rate of 4 percent from 1995 through 2007. Nurse practitioner supply rose an average of 9 percent a year from 1999 through 2005. Combined, these increases yielded an effective primary care workforce of 126 per 100,000 population in 2005, up from 101 per 100,000 a decade earlier.

The supply of physicians and primary care professionals is likely to continue to grow. Several states are adding or expanding medical schools.² Osteopathic schools have increased in number and capacity, which is particularly noteworthy because a higher share of their graduates enter primary care residencies. And, fueled by increases in nurse practitioner training programs, the number of nurse practitioners will probably continue to expand.

Even though fewer U.S. allopathic medical school graduates are entering primary care residencies, the number of primary care residents has risen in recent years, largely as a result of an influx of graduates of international medical and osteopathy schools into those residencies.³ The number of graduates of U.S. allopathic medical schools in primary care residencies declined by 1,655 between 1995 and 2005. These medical students, who may have more options for residencies than other graduates, increasingly choose non–primary care specialties. During the same period, graduates of international medical schools in primary care residencies rose by 2,540 and osteopathy graduates increased by 1,415. These figures, however, include the rising number of primary care residents who later extend their training to become subspecialists.

These statistics provide a mixed picture of the future of primary care and beg the question of what is the right number of primary care professionals. Some analysts point to the swelling ranks of the baby boomers and their higher use of health care services, as well as to the baby boomer physicians reaching retirement age, as evidence of the need for more primary care physicians and geriatricians. They emphasize that the elderly are more likely to have multiple chronic conditions that require the continuity and coordination of care that can best be provided by these practitioners.⁴

Others point to the geographic maldistribution of physicians and question whether greater numbers necessarily mean broader access to primary care services.⁵ Many factors affect a physician's choice of where to practice medicine, including the availability of colleagues and nearby medical resources; indeed, new physicians often choose to practice in areas with higher per

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capita numbers of practicing physicians. Thus, even increasing physician supply may not maintain or improve access to primary care services for all segments of the population.

Assessing current and future workforce requirements is notoriously difficult, because the demand for health care services depends on the organization and delivery of care, the state of the economy and people's incomes, and the needs of the population.⁶ Projections based on historical experience implicitly assume that factors that have affected demand in the past will continue to shape it in the future. More dynamic projection approaches attempt to use changes in the health care environment to determine the likely future size and structure of the workforce; for example, such a projection led to the belief that the efficient systems of care associated with the managed care movement would constrain the need for physicians. Whatever the assessment methods, however, declining interest in primary care among some medical students and rising interest in subspecialization, combined with the uneven geographic distribution of health care providers, should serve to keep workforce issues on any health reform agenda.

PHYSICIAN COMPENSATION ACROSS SPECIALTIES

Primary care physicians typically make less than other physicians, which undoubtedly contributes to waning interest in these specialties by some medical students. According to a survey by the Medical Group Management Association (MGMA), median compensation for general orthopedic surgeons was \$454,016 in 2006, compared to \$158,378 for family practice physicians who did not provide obstetrical care.⁷ (See text box, at right, for information on the use of MGMA data in this paper; see Table 1, next page, for median compensation of physicians in selected specialties.) Accounting for the variation in the number of clinical hours worked reveals an approximate two-fold difference in compensation between physicians in primary care practices and the other specialties that are noted. While other data sources report different averages, the story is the same: incomes of primary care physicians are at the bottom of the scale.⁸ Another study found that, in 2003, the average income of surgical specialists was 29 percent higher than that of medical specialists and 86 percent higher than that of primary care physicians.⁹

These measures hide considerable income variability within specialties. A 2005 survey found that 35 percent

Medical Group Management Association

The Medical Group Management Association (MGMA) represents 21,500 administrators, chief executive officers,

physicians in management, board members, and office managers from more than 13,500 organizations in which almost 270,000 physicians practice. It annually surveys its members on revenues and expenses, provider compensation and production, management compensation, and group performance of medical and academic practices. At a May 2, 2008, National Health Policy Forum session on physician income and medical practice differences across specialties, David N. Gans, vice president, practice management resources, analyzed MGMA survey data to describe differences in income, revenues, and expenses of physician group practices for selected specialties.* These data are represented in this paper as medians to reduce the effects of outlier values. Although these data are not representative of all physician medical practices, they reasonably represent the experience of physicians in group practices. Further, comparisons across specialties reflect the magnitude of and the reasons for income differences.

* Laura A. Dummit, "Physician Income and Medical Practice Differences Across Specialties: Should Medicare Care?" National Health Policy Forum, Forum Session, May 2, 2008; available at www.nhpf.org/pdfs_fs/FS_05-02-08_PhysicianIncome.pdf. Mr. Gans' slides from his presentation are available at www.nhpf.org/handouts/Gans.slides_05-02-08.pdf.

of physician respondents were compensated less than \$150,000, while 6 percent were compensated more than \$500,000.¹⁰ Among invasive cardiologists, only 10 percent were compensated less than \$150,000, compared with 50 percent of family practice physicians. On the other end of the scale, 40 percent of invasive cardiologists received more than \$500,000, compared with less than 1 percent of family practice physicians (Figure 1).

In general, physician compensation is based on what is left from practice revenues after other expenses are paid. Although the categories of practice revenues and practice expenses are the same across specialties, different proportions of each affect the amount remaining for compensating the practice's physicians.

Practice Revenues

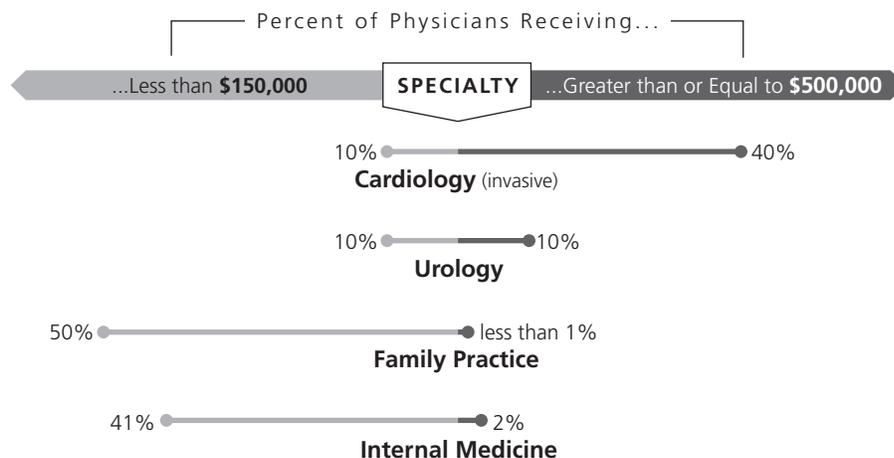
A physician practice's revenues depend on the number and mix of services it delivers. Medical services, which are primarily office visits as well as procedures such as electrocardiograms and audiology exams that are typically delivered in the physician's office, provide a large share of revenues for most specialties. According to MGMA, medical services comprised about 74 percent of mean gross charges in family practice and internal medicine practices in 2006. Although gross charges do not translate directly into collected revenues, they provide a reasonable

TABLE 1
Median Physician Compensation
by Specialty, 2006

SPECIALTY	MEDIAN PHYSICIAN INCOME (\$)	
	Per Year	Per Hour
Cardiology noninvasive	\$398,034	\$218
Family Practice without obstetrics	158,378	93
Internal Medicine general	167,400	98
Orthopedic Surgery general	454,016	226
Urology	361,784	196

Source: Medical Group Management Association (MGMA), *Physician Compensation and Production Survey: 2007 Report Based on 2006 Data* (Englewood, CO: MGMA, 2007).

FIGURE 1
Range of Compensation by Specialty

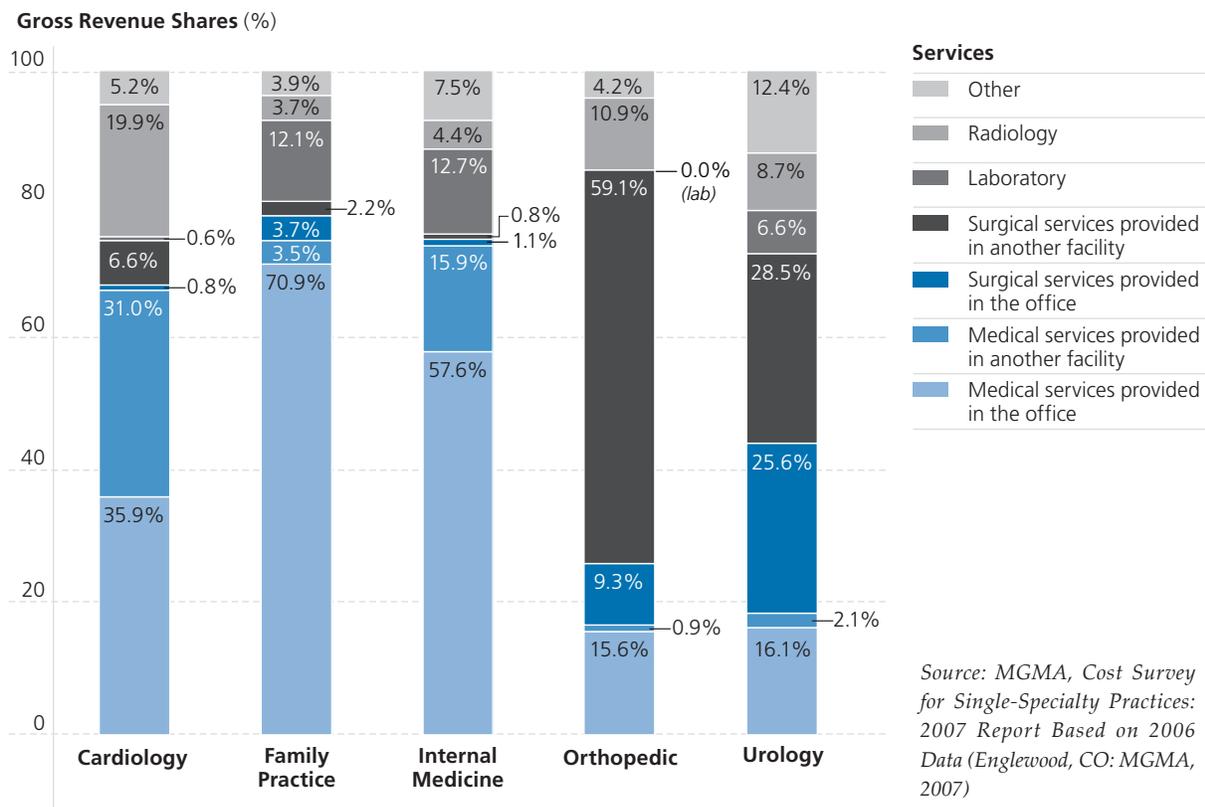


Source: Marcy Toloff, "Exclusive Earnings Survey: How Are You Doing?" Medical Economics, October 20, 2006.

estimate of the shares of practice revenues from different services. In cardiology practices, medical services generated about 67 percent of gross charges. Surgical services, which range from simple excisions to complex inpatient surgeries, vary by specialty. Orthopedic and urology practices generated 68 percent and 54 percent of their total charges, respectively, from surgical services.

Physician practices also generate revenues by providing ancillary and other services that do not necessarily involve a physician's time. Radiology services are among the most notable of these ancillary services; although a physician interprets an x-ray or scan, a technician or other clinical staff member often performs the test. Charges for other services contributed over 12 percent of gross total charges to urology practices and almost 4 percent to family practice groups. These services are primarily medications—chemotherapy drugs in the case of urologists and immunizations in the case of family practice physicians. (See Figure 2 for a breakdown of revenue shares for various services.)

FIGURE 2 Physician Services as a Share of the Practice's Gross Revenue, Comparison Across Specialties, 2006



Practice Expenses

A physician practice's expenses—the salaries and benefits of clinical and nonclinical personnel, such as nurses, technicians, and front office and other administrative staff, and other expenses, such as building, equipment, and supplies—vary across specialties. (See Table 2 for median practice expenses per physician in selected specialties.) In 2006, median expenses of internal medicine practices were almost \$290,802 per full-time equivalent (FTE) physician, according to MGMA. In urology practices, median expenses were close to twice as high, at \$536,792. Clinical and support staff salaries and benefits comprised roughly 50 percent of practice expenses across all specialties. The next largest expense category for most specialties was building expenses, ranging from about 10 percent to almost 13 percent.

TABLE 2
Median Practice Expenses Per Full-Time Equivalent (FTE) Physician,
by Practice Specialty, 2006

PRACTICE EXPENSES	SPECIALTY				
	Cardiology	Family Practice	Internal Medicine	Orthopedic	Urology
Support and Clinical Staff	\$ 278,670	\$ 159,844	\$ 144,421	\$ 259,392	\$ 230,009
Total General Operating Expenses	\$ 260,940	\$ 168,000	\$ 134,601	\$ 259,621	\$ 296,971
Information Technology	17,413	6,945	6,634	15,966	13,265
Drug Supply	21,649	13,755	7,771	19,772	62,549
Medical & Surgical Supply	10,301	7,667	5,426	15,802	29,679
Building	55,082	37,074	31,025	63,776	67,911
Furniture & Equipment	10,666	3,784	4,472	9,473	10,702
Administrative	12,797	10,877	10,936	19,739	20,905
Physician Liability Insurance	18,312	9,370	7,552	35,111	21,000
Clinical Laboratory	2,553	12,232	7,564	265	8,123
Radiology	65,669	2,453	3,236	14,477	17,755
Miscellaneous	46,500	63,842	49,986	65,240	45,084
Total per FTE Physician	\$ 538,135	\$ 315,782	\$ 290,802	\$ 517,302	\$ 536,792

Note: All categories of expenses were computed separately, so "totals" are not necessarily sums of the shown dollar amounts.

Source: MGMA, Cost Survey: 2007 Report.

Providing ancillary and other services requires resources, such as drugs and supplies. Drug expenses comprised almost 12 percent of total expenses in urology practices, or \$62,549 per FTE physician. This was the highest dollar amount across all of these specialties, consistent with urology practices' furnishing chemotherapy drugs to patients. Medical and surgical supplies as a share of total expenses were highest in orthopedic and urology practices, at 3 percent and 5.6 percent, respectively. Clinical laboratory constituted 3.7 percent of expenses for family practice groups and 2.7 percent for internal medicine practices. Urology practices incurred higher median laboratory expenses than internal medicine practices; however, because urology practices have much higher total expenses, their laboratory expenses were a lower share of their total expenses. Radiology expenses were the highest share of the total for cardiology practices, at 12.2 percent; urology and orthopedic practices had the next highest shares for radiology.

Premiums for professional liability, or malpractice, insurance ranged from 2.7 percent of expenses in internal medicine practices to almost 6.8 percent in orthopedic practices. Orthopedic practices spent a median of \$35,111 on malpractice insurance per FTE physician, and urology practices spent \$21,000, compared to \$7,552 in internal medicine. The expense shares devoted to health information technology ranged from 3.2 percent for cardiology practices to 2.1 percent for family practices. Even though information technology was a relatively low share of expenses in urology practices, in absolute dollars they spent about two times as much as family practice and internal medicine practices.

MEDICARE'S ROLE

As the largest single payer, Medicare affects physician practice revenues directly through its payments and indirectly through its fee schedule, which many private payers use. Medicare's fees are intended to reflect the resource use of each service. That is, a service that requires 20 percent more resources has a fee that is 20 percent higher than the average Medicare fee. Medicare relies on the advice of the American Medical Association/Specialty Society Relative Value Scale Update Committee (RUC), which evaluates data on physician time and other resources, in determining the resources used to provide each service. For each service, three categories of resources or inputs—physician work, practice expenses (clinical staff, supplies, equipment, and overhead), and professional liability insurance (PLI)—are examined and assigned relative value units (RVUs). The RVUs for any service account for the relative costliness of the inputs used to provide the service. Added together and multiplied by a dollar conversion factor, these RVUs are converted into Medicare's fee for the service. (See text box, next page, for more information on the RUC process for establishing RVUs.)

The services provided by specialty practices require more resources, as measured by RVUs per hour, than those provided by primary care

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Medicare's Physician Fees

Medicare's fee for each physician service is intended to represent the resource requirements of providing that service to the typical patient, relative to the average resource requirements of providing a physician service. That is, if the inputs to provide an extensive office visit to a new patient are 20 percent more than the inputs used to provide an intermediate office visit, then its Medicare fee would be 20 percent more.

Medicare determines relative values for physician work, practice expenses, and professional liability insurance.* Physician work, which averages 52 percent of aggregate Medicare physician payments, accounts for the time, technical skill and effort, mental effort and judgment, and stress to provide a service. Practice expenses, averaging 44 percent of payments, include the nonphysician clinical and nonclinical labor in the office, as well as building expense, equipment, and office supplies. Professional liability insurance comprises four percent of payments.

The Centers for Medicare & Medicaid Services (CMS) is responsible for maintaining the fee schedule. The Congress requires CMS to review all of the work values every five years. The American Medical Association/Specialty Society Relative Value Scale Update Committee (RUC) advises CMS on updating the fee schedule and recommends values for new or revised services.

Every service has a relative value unit (RVU) for each of the three types of resources to reflect how the resources required for that service compare to the average resources required across all services. The three RVUs are summed and then multiplied by a dollar amount, called a conversion factor, to equal the fee. For example, the Medicare fee for a diagnostic colonoscopy (coded as 45378) is about twice that for an intermediate office visit (coded as 99214), because the inputs for the colonoscopy are about twice what they are for the office visit. The work RVUs for diagnostic colonoscopy are based on the 75 minutes of physician time required to provide this service. A physician typically spends 30 minutes before the procedure, 30 minutes to perform the procedure, and 15 minutes after the procedure. The office visit work

RVUs are based on 40 minutes of physician time, of which 5 minutes is spent preparing for the visit and 10 minutes is spent after the visit. The physician time actually performing the colonoscopy is weighted more heavily than is the time providing the office visit to reflect the higher skill and effort and associated stress of providing the procedure.

Resource Use, as Measured by Relative Value Units, for Diagnostic Colonoscopy and Intermediate Office Visit, 2008

	Diagnostic Colonoscopy	Office Visit
TOTAL RVUs	5.64	2.53
Work	3.69	1.42
Practice Expense	1.65	1.06
Professional Liability	0.30	0.05

Source: CMS, 2008 National Physician Fee Schedule Relative Value File, file name RVU08AB; available at www.cms.hhs.gov/PhysicianFeeSched/PFSRVF/list.asp?listpage=3.

Because diagnostic colonoscopies are typically not provided in a physician's office, direct practice expense inputs incurred by the practice are valued at just over \$8. The medical supplies and equipment inputs are the responsibility of the facility in which the procedure is performed (such as a hospital outpatient department or ambulatory clinic). The physician's office still incurs indirect expenses (for administrative staff and building and other expenses in running an office), which are valued at \$54.70. The direct practice expenses associated with the office visit include clinical staff, medical supplies, and a small amount for medical equipment. Professional liability insurance inputs are six times higher for the colonoscopy than for the office visit, reflecting the procedure's higher risk. The resources for an intermediate office translate into a Medicare fee of almost \$90. The diagnostic colonoscopy that is not provided in the physician's office has a Medicare fee of about \$198.

* AMA/Specialty Society, *RVS Update Process*, American Medical Association, 2006.

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practices (Table 3). Each hour of physician clinical time in cardiology, orthopedic, and urology practices requires from 7.2 to 8.7 RVUs, or about 75 percent more than primary care practices. The primary care practices require 4.0 to 4.5 RVUs. Higher physician work RVUs in specialty practices account for some of the difference. For every hour of physician clinical time, the mix of services provided in a specialty practice requires more physician work, that is, technical skill or mental effort,¹¹ than the mix of services provided in primary care practices. The RVUs associated with higher skill or effort translate directly into higher net revenues.

The difference in work RVUs, however, does not fully account for the two-fold discrepancy in compensation per hour between primary care and specialty practices. The higher compensation in specialty practices must come from one of two sources, either net revenues generated on the practice expense portion of their payments or the provision of ancillary services, but the importance of each source will differ across specialties. Some specialties are more likely to provide ancillary services, such as radiology or laboratory, in their practices. Because they have lower practice expenses, specialties that provide many of their services (notably surgical services) in other settings will have less ability to generate additional revenues on the practice expense portion of their payments. Higher compensation for these specialties, therefore, would tend to be generated through providing ancillary services.

The lower work RVUs per hour for office visits are assigned in the process Medicare uses to value physician services. Office visits may be undervalued not only, as many believe, because of these lower work RVUs, but also because of other characteristics of office visits.¹² Office visits do not lend themselves to efficiency gains because of their reliance on physician time. While other services may be delivered more efficiently as practitioners gain expertise, this is not the case for office visits. Further, nonphysician clinical staff or equipment may be used to lower the expenses to provide other services. This is particularly the case with respect to ancillary services that the practice manages, which may not involve the physician's time at all.

In a payment system dominated by fee-for-service, raising volume may have a greater effect on revenues than higher fees.¹³ In fact, evidence indicates that Medicare spending for physician services has been driven by volume, not fees, for the last several years.¹⁴

The Medicare Payment Advisory Commission (MedPAC) and others have recommended that Medicare adjust its physician fees to better reflect relative

TABLE 3
Valuation of Physician Work and Practice Expenses by Relative Value Units per Hour

SPECIALTY	Total RVUs	Physician Work RVUs	Practice Expense RVUs*
Cardiology			
invasive	7.2	3.9	3.3
noninvasive	8.7	3.5	5.3
Family Practice			
with obstetrics	4.5	2.2	2.3
without obstetrics	4.2	2.2	2.0
Internal Medicine	4.0	2.1	1.9
Orthopedics	7.5	3.7	3.8
Urology	7.7	3.5	4.3

* Includes professional liability insurance RVUs

Source: Author's calculation using data contained in MGMA, Cost Survey: 2007 Report.

resource use across all services.¹⁵ It is believed that this would lower fees for certain services typically provided by specialists. At the same time, MedPAC has recommended that Medicare directly increase payments to primary care providers by raising fees for primary care services for clinicians who focus on delivering primary care.¹⁶ Adjustments to the fee schedule are typically implemented in a budget-neutral manner, so that any fee reductions would be redistributed across all fees. Conversely, any fee increases would be offset by reductions to all of the fees to ensure that total Medicare expenditures are not affected. This process results in winners and losers across physician specialties, depending on which fees are changed.

CONCLUSION

Every year, Congress considers Medicare physician fees and spending on physician services. Increasingly, this annual rite prompts discussions about the national supply of primary care physicians. Although the primary care workforce has grown faster than the specialty physician workforce, concerns persist that the number of primary care practitioners will not be adequate to meet the complex needs of an aging population. Allopathic medical graduates are more often passing over primary care residencies for higher-paid specialties. Lower compensation for primary care physicians is one of the reasons that these specialties are less desirable. The higher compensation for other specialties is due in part to the higher valuation of the services they provide and the greater opportunities that specialty practices have to manage the delivery of ancillary services, which may generate additional revenues for their practices.

Many have urged the Congress to raise Medicare fees for primary care services. The ultimate objective of the higher fees is to increase access to primary care services, which some advocate as a way to reform this country's expensive and often inefficient health care system. While support for this objective may be widespread, the path to achieving increased access and reform is less apparent. It is not clear whether higher fees for primary care services would reduce the differential between primary care and specialty physician compensation or whether this, in turn, would help ensure access to needed services. Adjusting physician fees to reflect the value of the services may be desirable, but the impact on compensation alone would probably not be sufficient to increase physician interest in practicing primary care or broaden access to those services.

ENDNOTES

1. Government Accountability Office (GAO), "Primary Care Professionals: Recent Supply Trends, Projections, and Valuation of Services," GAO-08-472T, February 12, 2008; available at www.gao.gov/new.items/d08472t.pdf. GAO figures for nurse practitioners are from 1999, rather than 1995.

Endnotes / continued ►

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2. John K. Iglehart, "Grassroots Activism and the Pursuit of an Expanded Physician Supply," *New England Journal of Medicine*, 358, no. 16 (April 17, 2008): pp. 1741–1749; available at <http://content.nejm.org/cgi/content/full/358/16/1741>.
3. National Resident Matching Program, "Results and Data: 2007 Main Residency Match," April 2007; available at www.nrmp.org/data/resultsanddata2007.pdf.
4. Robert A. Berenson *et al.*, "A House Is Not a Home: Keeping Patients at the Center of Practice Redesign," *Health Affairs*, 27, no. 5 (2008): pp. 1219–1230; available with subscription at <http://content.healthaffairs.org/cgi/content/full/27/5/1219>.
5. David Goodman, "Twenty-Year Trends in Regional Variations in the U.S. Physician Workforce," *Health Affairs*, Web Exclusive (October 7, 2004): pp. VAR90–97; available at <http://content.healthaffairs.org/cgi/content/full/hlthaff.var.90/DC2>.
6. David Blumenthal, "New Steam from an Old Cauldron—The Physician-Supply Debate," *New England Journal of Medicine*, 350, no. 17, (April 22, 2004): pp. 1780–1787.
7. David N. Gans, Medical Group Management Association (MGMA), presentation at the National Health Policy Forum session on "Physician Income and Medical Practice Differences Across Specialties: Should Medicare Care?" May 2, 2008. MGMA analyzed revenue and expense data for five physician specialties to illustrate specialty differences for the NHPF meeting. More information about MGMA, its surveys, and its members can be found at www.mgma.com.
8. A survey conducted by the American Medical Group Association (AMGA) reported that cardiologists were compensated \$379,975 in 2008, compared to \$199,886 for internal medicine physicians. See AMGA, "2008 Medical Group Compensation and Financial Survey," Alexandria, VA, 2008; available at www.cejkasearch.com/compensation/amga_physician_compensation_survey.htm.
9. Ha T. Tu and Paul B. Ginsburg, "Losing Ground: Physician Income, 1995–2003," Center for Studying Health System Change, Tracking Report No. 15, June 2006; available at www.hschange.com/CONTENT/851/.
10. Marcy Tolkoff, "Exclusive Earnings Survey: How Are You Doing?" *Medical Economics*, 86, no. 20 (October 20, 2006): pp. 74–6, 78–80, 82–3.
11. According to the American Medical Association (AMA), "The factors used to determine physician work include the time it takes to perform the service; the technical skill and physical effort; the required mental effort and judgment; and stress due to potential risk to the patient." AMA, "RVS Update Process," 2007, p. 1; available at www.ama-assn.org/ama1/pub/upload/mm/380/rvs_booklet_07.pdf.
12. Medicare Payment Advisory Commission (MedPAC), *Report to the Congress: Reforming the Delivery System*, June 2008; available at www.medpac.gov/documents/Jun08_EntireReport.pdf.
13. MedPAC, *Report to the Congress: Medicare Payment Policy*, March 2006, p. 99; available at www.medpac.gov/publications/congressional_reports/Mar05_EntireReport.pdf.
14. Congressional Budget Office, "Factors Underlying the Growth in Medicare's Spending for Physicians' Services," Background Paper, June 2007; available at www.cbo.gov/ftpdocs/81xx/doc8193/06-06-MedicareSpending.pdf.
15. MedPAC, *Medicare Payment Policy*, chap. 2; Paul B. Ginsburg and Joy M. Grossman, "When the Price Isn't Right: How Inadvertent Payment Incentives Drive Medical Care," *Health Affairs*, Web Exclusive (August 9, 2005): pp. W5-376–384, available at <http://content.healthaffairs.org/cgi/reprint/hlthaff.w5.376v1>; Paul B. Ginsburg and Robert A. Berenson, "Revising Medicare's Physician Fee Schedule—Much Activity, Little Change," *New England Journal of Medicine*, 356, no. 12 (March 22, 2007): pp. 1201–1203.

Endnotes / continued ►

Endnotes / continued

16. Primary care services are “office medical services, emergency department services, home medical services, skilled nursing, intermediate care, and long-term care medical services, or nursing home, boarding home, domiciliary, or custodial care medical services” and “intermediate and comprehensive office visits for eye examinations and treatments for new patients.” *Federal Register*, 61, no. 227 (November 22, 1996): p. 59720.



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