



THE BASICS

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Relative Value Units (RVUs)

Medicare uses a physician fee schedule to determine payments for over 7,000 physician services. The fee for each service depends on its relative value units (RVUs), which rank on a common scale the resources used to provide each service. These resources include the physician's work, the expenses of the physician's practice, and professional liability insurance. To determine the Medicare fee, a service's RVUs are multiplied by a dollar conversion factor.¹ Estimating and updating the RVUs is a labor-intensive process because there are no readily available, up-to-date data on the resource requirements of each service.

Physician services, which are described by Current Procedural Terminology (CPT) codes and Healthcare Common Procedure Coding System (HCPCS) codes, range from those that require considerable amounts of physician time and effort, clinical staff, and specialized equipment, to those that require little if any physician time and minimal other resources. For each service, Medicare determines RVUs for three types of resources.² **Physician work RVUs** account for the time, technical skill and effort, mental effort and judgment, and stress to provide a service. **Practice expense RVUs** account for the nonphysician clinical and nonclinical labor of the practice, as well as expenses for building space, equipment, and office supplies. **Professional liability insurance RVUs** account for the cost of malpractice insurance premiums. Although the actual percentages vary from service to service, physician work and practice expenses comprise 52 and 44 percent of total Medicare expenditures on physician services, respectively.

PHYSICIAN WORK RVUs

The work RVUs for a diagnostic colonoscopy are more than twice the work RVUs for an intermediate office visit because the

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colonoscopy requires more physician time and effort than the visit. A diagnostic colonoscopy is estimated to require 75 minutes of physician time, which includes 30 minutes to prepare for the procedure and 15 minutes after the procedure. The time actually performing the colonoscopy—termed the intra-service time—is estimated to be 30 minutes. In contrast, an intermediate office visit is estimated to take about 40 minutes of physician time. This is comprised of 5 minutes before and 10 minutes after seeing the patient, and 25 minutes of intra-service time. The intra-service time for the colonoscopy is weighted more heavily than the intra-service time for the office visit to reflect the higher skill and effort and associated stress of providing the procedure.

PRACTICE EXPENSE RVUs

The practice expense RVUs associated with the diagnostic colonoscopy are also higher than the practice expense RVUs for the intermediate office visit. The RVUs for the office visit include clinical staff time and the equipment and supplies typically used during a visit, as well as a share of the indirect expenses of a physician practice. The clinical staff, medical supplies, and equipment used to perform the colonoscopy are

Relative Value Units for Selected Services, 2008

Service (HCPCS code)	Total	Physician Work	Practice Expense	Professional Liability Insurance
Intermediate Office Visit (99214)	2.53	1.42	1.06	0.05
Diagnostic Colonoscopy (45378)	5.64	3.69	1.65	0.30
Total Hip Replacement (27130)	37.66	21.61	12.54	3.51

Source: CMS Web site. www.cms.hhs.gov/PhysicianFeeSched/PFSFRN/itemdetail.asp?filterType=none&filterByDID=-99&sortByDID=4&sortOrder=ascending&itemID=CMS1204957&intNumPerPage=10.

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incurred by the facility in which the procedure is performed, so they are not included in the practice expense RVUs. For the colonoscopy, the practice expense RVUs are primarily indirect expenses, like administrative staff, building, and office supplies. Indirect expenses are allocated to individual procedures based in part on physician time. Because the colonoscopy involves more physician time than the office visit, it is allocated a correspondingly higher proportion of the indirect practice expenses.

Some physician services may be provided either in the physician office or in a facility, such as a hospital or outpatient clinic. When a service is provided in a facility, the costs of the clinical personnel, equipment, and supplies are incurred by the facility, not the physician practice. The practice expense RVUs for any particular service typically are lower when that service is provided in a facility than when it is provided in the physician office. For example, when chemotherapy administration by infusion is provided in the physician office, its practice expense RVUs are 3.06. This reflects the costs of 89 minutes of clinical staff time; use of equipment such as a stretcher, intravenous infusion pump, and ECG (electrocardiogram); and supplies like gowns, gloves, and syringes. When chemotherapy administration is provided in a facility, the physician practice does not incur these costs, so the practice expense RVUs are only 0.24.

GLOBAL FEES

The fee for major surgeries, such as a total hip replacement, encompasses the estimated physician inputs used during what is termed the global period. The global period is a specified amount of time that encompasses the day of the surgery and post-surgical physician follow up. For a hip replacement, the global period is 90 days. The physician work RVUs for the hip replacement include physician time and effort in performing the procedure as well as four expected post-operative follow-up office visits. The practice expenses for this service include the practice's estimated expenses for clinical staff, equipment, and supplies during the global period, including indirect expenses, but not the resources used in providing the procedure that are incurred by the facility.

UPDATING THE RVUs

The data for developing the original work RVUs came from a Harvard University study completed in the late 1980s. Physicians were asked to review patient vignettes and estimate the work involved in the vignettes, compared to the work of particular reference services. These estimates were refined with multiple iterations to establish the work RVUs. The original practice expense RVUs were based on specialty-specific information on hours worked and total practice expense spending from the American Medical Association's Socioeconomic Monitoring System (SMS) and estimates of nonphysician resources required for individual services made by Clinical Practice Expert Panels. The professional liability insurance RVUs were based on reported premiums by specialty.

The Centers for Medicare & Medicaid Services (CMS), which is responsible for maintaining the fee schedule, has continued to modify and refine the original methodology for estimating RVUs and developed new sources of information. CMS's methodology relies on ensuring that each component of providing a service (such as taking a patient history, administering an injection) is valued the same across services. Some of the SMS data have been updated by physician specialty societies through member surveys that met certain specifications, as allowed by law.

CMS also relies on advice and recommendations from the American Medical Association/Specialty Society Relative Value Scale Update Committee (RUC). The 29 RUC members, most of whom are appointed by a major physician specialty society, and others who provide input to CMS understand that increasing the RVUs for any service will result in a commensurate decrease in fees for other physician services, which is widely believed to help ensure that a specialty does not try to inappropriately boost the resources associated with the services it tends to provide.

Congress requires CMS to review the RVUs no less than every five years and it must develop RVUs for new services. Outside of the five-year reviews, CMS may examine the RVUs for services that it or physician specialty societies identify as possibly needing modification. For services selected for review, relevant specialty societies field surveys of their members to gather data on physician time and effort and the practice expenses required to provide the service. The RUC reviews these data and makes

comparisons with similar services to develop its recommendations. CMS reviews the RUC recommendations and the underlying data. In the vast majority of cases, CMS accepts the RUC recommendations on revisions to the RVUs. The proposed RVUs are then published in the Federal Register for public comment before a final change is made to the physician fee schedule.

ENDNOTES

1. In 2008 the conversion factor was \$34.0682. The fee, which is the same regardless of the specialty of the physician, is adjusted to account for geographic differences in costs and other factors before the payment is made to a particular provider. For more information on the conversion factor, see Laura A. Dummit, "Updating Medicare's Physician Fees: The Sustainable Growth Rate Methodology," National Health Policy Forum, Issue Brief No. 818, November 10, 2006; available at www.nhpf.org/library/details.cfm/2536. For more on the calculation of the payment amount, see MedPAC, "Physician Services Payment System," *paymentbasics*, revised October 2008, available at www.medpac.gov/documents/MedPAC_Payment_Basics_08_Physician.pdf.
2. For more information, see AMA/Specialty Society, "RVS Update Process," American Medical Association, 2006, available at www.ama-assn.org/ama1/pub/upload/mm/380/rvs_booklet_07.pdf, and Medicare Payment Advisory Commission (MedPAC), *Report to the Congress: Promoting Greater Efficiency in Medicare*, ch. 9, June 2007, available at www.medpac.gov/documents/jun07_EntireReport.pdf.

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