Although the “usual, customary and reasonable” concept may have been reasonable and workable as a basis for [physicians] billing individual patients, it has been a failure as a basis for reimbursement from insurance funds. Because it contains none of the limits or standards that are applied to other services covered by insurance, the charges for medical services have escalated, with little or no restraint, to the point at which current fee levels in several medical and surgical specialties are simply indefensible and deserving of public censure. In effect, usual, customary, and reasonable (UCR) has become a boondoggle.

—Benson B. Roe, M.D., New England Journal of Medicine, July 2, 1981

Aside from being inequitable, confusing, and mysterious, however, the current system is alleged to have two major problems, which the RBRVS—it is hoped—will solve. First, expenditures for physicians’ services are growing too fast, growing faster than spending for other medical care . . . The second major problem is that fees in the current system are distorted.

—Jack Hadley, Health Economist, 1991

With Medicare spending on hospitals under control, policy makers soon turned their focus to the nation’s doctors.¹ Part of the political deal with the American Medical Association that helped create Medicare was to pay physicians based on physicians’ own charges, rather than on the basis of fixed indemnity payments—a fee schedule—in which insurers maintained control of the prices of the services for which they were paying. A few local Blue Shield plans, whose boards of directors tra-
ditionally were dominated by physicians, had adopted what in private insurance parlance was called “usual, customary, and reasonable” (UCR) reimbursement. Under this approach, insurance payments made to physicians for services rendered were based on the regular, “usual” charge of the physician, assuming the charge to be within the range of “customary” fees in that geographic area for the same service, or if precedent is lacking, to be “reasonable.” Because patients no longer had to pay most of the charge out of pocket, but rather relied on their Blue Shield plan to pay physicians directly, the UCR payment system was a boon for physicians who continually raised their usual charges. Because all physicians had incentives to raise their own charges, (thereby raising the customary fees in an area), the UCR payment approach assured that prices would rise continuously, seemingly without restraint.

Physician reimbursement based on UCR methods was actually rare until Medicare adopted this approach. It then spread rapidly through private insurance plans, beyond its initial limited use in Blue Shield plans. Medicare’s adoption of UCR produced some variations, both in terminology and in calculations. In its “customary, prevailing, and reasonable” (CPR) version, Medicare’s payment for a service was an amount equal to the least of three charges: (1) the actual, submitted charge, (2) the physician’s customary charge (that is, the median of the charges submitted by the physician for that same service in the preceding year), and (3) the prevailing charge, which was the seventy-fifth percentile of the distribution of the customary charges of all physicians in the area for the same service. The amount Medicare actually paid for the service was called the “reasonable charge.” It is not hard to see why analysts would regard this system as “inequitable, confusing, and mysterious.” From the point of view of policy makers, the bigger problem with the CPR system was that it rewarded physicians for continually jacking up their charges.

Congress in 1972 had attempted to limit the incentive for physicians to keep raising their charges by placing onto the CPR payment method a limitation on annual growth in prevailing charges known as the Medicare Economic Index (MEI). The MEI reflected the annual increase in physicians’ costs of doing business. The limit on permitted increases in prevailing rates did restrain increases in allowed charges and, in effect, created an extremely complicated fee schedule, with some services constrained by prevailing charge limits and others not so constrained. Congress attempted to reinforce the effect of the MEI limitation, first in 1984 by freezing charges and then, later in the decade, by making selective payment reductions in particular “overpriced” surgical procedures, such as cataract removal.

Attempts to moderate spending by limiting physician fees without addressing aggregate expenditures for physician services were unsuccessful, however, because increases in the number of services physicians provided per beneficiary (volume) and
the average complexity and costliness of those services (intensity) continued to increase total spending. Under the CPR reimbursement method, the annual growth rate of Medicare’s spending on physician care between 1978 and 1987 had risen to the unsustainable annual compound rate of 16 percent. In the late 1980s, Medicare’s physician expenditures were growing at more than double the rate of its hospital expenditures. This divergence in expenditure rates was partly driven by the hospital PPS’s new incentives, which pushed more and more medical services out of inpatient hospital settings and into ambulatory settings, including physician offices. By 1989, Medicare’s Part B spending—most of which was for physician services—had become the single largest domestic program financed from general federal revenues. The same kind of financial pressures that led to paying hospitals based on diagnosis-related groups drove the political imperative for policy makers to design and implement a new payment system for physicians.

Rationalizing Medicare’s Financial Relationship with Physicians

But in looking at designing a new system to address costs, policy makers also focused on other defects in the system used by Medicare to reimburse physicians. Under the CPR system, some services were reimbursed much more generously relative to the underlying costs of providing services than others. William Hsiao, a Harvard University researcher, had been studying physician competition under a Health Care Financing Administration contract in the late 1970s, when his research took a detour that proved hugely consequential. “Most of the physicians I interviewed,” Hsiao notes, “told me that the prices of physicians’ services were unfair.” He judged that the value of surgical procedures was overstated by much as four- to five-fold when compared to the value of a routine office visit. Procedures that had become routine or automated as a result of advances in technology were especially profitable, because the rates that had been previously established were never adjusted downward when the same procedures became less costly and easier to perform. Economists refer to these as “downward-sticky” prices. In a scathing critique of the payment system published in 1981 in the New England Journal of Medicine, Benson Roe, chair of the cardiothoracic surgery department at the University of California, San Francisco, described the impact of these downward-sticky prices for coronary artery bypass grafting (CABG):

Historically, of course, there was justification for extraordinary fees in cardiac surgery . . . The early cardiac surgeons participated in the diagnostic studies and preoperative preparation, planned and directed the technical details of the
cardiopulmonary bypass, conducted the entire long operation, and personally supervised every detail of postoperative care, often spending late nights at the bedside. The circumstances were comparable to the challenges of aviation during World War I. Three or four cases a week was an exhausting endeavor in those days, and if extraordinary fees were ever warranted, that would have been the time.

But times have changed. Today, cardiac surgery, like commercial aviation, is provided on a huge scale with automated routines; although it remains highly complicated and fraught with danger, experience and improved methods have replaced “blood, sweat, and tears” with safety and seeming simplicity. Two or three open-heart cases a day are now common for many cardiac surgeons, and some do even more.\(^{18}\)

Analysts calculated that with fees set high to reflect the initial difficulty of performing CABG surgery, thoracic surgeons could receive about $538,000 annually by performing just three bypass operations per week, or twelve hours of work weekly, based on the payment amounts allowed by Medicare in 1984.\(^ {19}\)

Hsiao and colleagues identified other factors that produced physician charges that were not consistent with those that would exist in a competitive market. They argued that because consumers differed in their sensitivity to prices, some services were priced much higher than others relative to their cost or value.\(^ {20}\) For example, patients might place a higher value on the work physicians provide in performing a minor surgical procedure than on the time spent in discussing with the patient management of a medical problem.

Variations in insurance coverage created distortions as well. Physician Mark Blumberg reviewed the available literature and found that insurance plans of the day typically covered hospitalizations and surgical procedures much better than outpatient visits and preventive services. That could lead to systematic distortion in what physicians charged for. “Some physician services had been systematically underpriced at times when physicians had considerable slack and there was little third party coverage,” writes Blumberg. “There was an attempt to encourage new patients through underpricing of initial office visits and complete physical examinations. In any event, the marginal cost to a physician for his time when he has slack is negligible and any marginal revenue is welcome.”\(^ {21}\)

Policy makers identified other important problems that had arisen under the CPR system. Prices across different geographic areas did not accurately reflect objective geographic differences in the cost of inputs such as rent and labor. In addition, varying implementation of the CPR system by different carriers (intermediaries for Medicare
Part A and administrators for Part B that receive and pay physician claims) over time resulted in different payments. That is, for surgical procedures, carriers paid a global surgical fee and had different rules for the extent of services the fee covered. Policy makers held that a national fee schedule was needed to standardize the determination of prices across the country.

In short, physician charges for services were distorted because of the unique characteristics of local markets for physician services. Over time, Medicare’s CPR reimbursement method—with the MEI limits providing a de facto fee schedule—effectively ratified these distortions. Hsiao’s original research for HCFA did not lead to immediate changes in physician payment policy, yet it did have an effect on a number of organized medicine’s senior leaders. As Hsiao points out, they were growing concerned that “the medical profession was being torn asunder by different training and professional interests, and especially by the growing differences in income between specialties.”

With income disparities among the specialties increasing, primary care physicians such as general internists began to recognize that the CPR system worked against their interests. In 1981, the American Society of Internal Medicine (ASIM) published a white paper calling for the reduction of payment disparities between what they called “cognitive services” (e.g., nonprocedural physician services such as office visits and consultations) and surgical and other procedural services. Relying on Hsiao’s developing concepts, the ASIM called for Medicare payments based on the relative differences in physician service resource costs to produce each of the thousands of services physicians provide.

The American Medical Association ultimately lobbied against a Medicare fee schedule for physicians, but until then it supplied expert advice to Hsiao’s research team. Hsiao received funding from Massachusetts’ Medicaid program in 1984 to continue his research, which stimulated stronger interest in the medical and health policy communities, and he received substantial funding from HCFA in 1986 to develop an alternative physician reimbursement system that would make payments commensurate with the amount of effort involved in performing a medical procedure or service. Work, Hsiao decided, “was a function of time spent, mental effort and judgment, technical skill and physical effort, and stress,” explains Harvard surgeon and author Atul Gawande:

He put together a large team that interviewed and surveyed thousands of physicians from almost two dozen specialties. They analyzed what was involved in everything from forty-five minutes of psychotherapy for a patient with panic attacks to a hysterectomy for a woman with cervical cancer. They determined
that the hysterectomy takes about twice as much time as the session of psychotherapy, 3.8 times as much mental effort, 4.47 times as much technical skill and physical effort, and 4.24 times as much risk. The total calculation: 4.99 times as much work. Estimates and extrapolations were made in this way for thousands of services. Overhead and training costs were factored in. Eventually, Hsiao and his team arrived at a relative value for every single thing doctors do.\textsuperscript{29}

In the meantime, Congress tried to limit Medicare’s escalating physician spending by instituting a freeze in payment rates between 1984 and 1986.\textsuperscript{30} It only had a modest effect, though, because physicians compensated largely by increasing their volume of Medicare cases.\textsuperscript{31} Congress responded by creating the Physician Payment Review Commission (PPRC).\textsuperscript{32} Its mission was to provide technical advice for Congress on transforming Hsiao’s research into a new payment method that would be accepted by the medical profession—an undertaking comparable to the implementation of hospital DRGs—\textsuperscript{33} and to do so independently of the presidential administration and office (at that time, the Reagan administration).\textsuperscript{34} In this capacity, the PPRC went a step beyond the advisory model that ProPAC had successfully promulgated to crafting policy that Congress could pass and HCFA could implement.\textsuperscript{35}

In addition to laying the groundwork for an entirely new system of physician reimbursement, Congress also made some immediate decisions to alter CPR-based payments before a new fee schedule could be implemented. First, in the Omnibus Budget Reconciliation Act of 1987, based on recommendations from the PPRC, the Congress identified a number of “overvalued procedures,” and implemented modest reductions in prevailing charges for them. PPRC recommended specific, high-frequency procedures, for example, CABG and cataract extraction, for payment reductions to achieve immediate savings based upon its assessment of the likely impact that a resource-based fee schedule would have on the prices for these procedures once implemented.\textsuperscript{36}

Second, Congress replaced the payment freeze in 1987 with a new series of limits on how much physicians could increase their charges.\textsuperscript{37} Referred to as maximum allowable actual charges (MAACs), the new limits essentially prohibited physicians from charging Medicare beneficiaries personally (or “balance billing” them) more than 15 percent (subsequently changed a few times) above the prevailing fee for any service or procedure.\textsuperscript{38} The MAACs were only supposed to last until the end of 1990, but Congress extended them until 1992 for financial and political reasons.\textsuperscript{40} The MAACs were widely viewed—perhaps more in hindsight than at the time—as the physician equivalent of what the Tax Equity and Fiscal Responsibility Act had been to
the hospitals, notes David Smith, “a regulatory scheme that would ‘drive the doctors crazy,’ and that would ‘make life so difficult’ that they would ask for and accept a more reasonable compromise, for instance a fee schedule.”

PPRC Recommends a New Physician Fee Schedule

Building on Hsiao’s work, the PPRC ultimately submitted three recommendations to Congress in 1989 for overhauling Medicare’s physician payment system. First, it called for a relative-value scale that would raise reimbursement rates to some physicians and lower them to others by basing physician payments on the resources—work, time, and costs—required to provide services. This became known as the Resource-Based Relative-Value Scale (RBRVS). In brief, “The RBRVS was trying to mimic the competitive market, in which the cost of a product should come very close to the cost for producing that product,” explains Hsiao. Although the values of the RBRVS system were meant to simulate competitive market prices, it nevertheless was being adopted in Medicare as a complex and detailed set of administrative prices. In effect, the RBRVS was designed to replace a de facto fee schedule based on historically distorted physician charges with a new one that, arguably, better reflected actual production costs. Just as with hospital DRGs, the rhetoric of the market was invoked to create an improved administrative pricing system in Medicare.

The second major goal of the PPRC’s recommendations was to restrain the overall growth rate of Medicare’s physician expenditures. As a volume control to keep physicians from offsetting lower reimbursement rates by simply performing more Medicare services, the PPRC called for annual expenditure targets. If total Medicare spending on physician services exceeded this target in one year, payment rates would be adjusted downward the following year. Policy makers referred to this mechanism as the volume performance standard (VPS). The PPRC thought that the VPS, modeled after similar devices used in Germany and other countries to restrain spending, would not only constrain expenditures, but do so in a desirable way by providing “an opportunity for physicians to help the program achieve its cost containment objectives through actions to slow the increase in utilization of services. A collective incentive would be given to the medical community to reduce services of little or no benefit to patients . . . Such a policy would encourage the leadership of medicine to become more active in the support of activities to better inform physicians of the medical benefits and risks of procedures and to play a more active and constructive role in peer review activities.” Although initially recommending an expenditure target for all physicians’ services nationally, the PPRC expected the policy to evolve to incorporate a broader range of services and to include separate targets for regions and
categories of physicians’ services. As it turned out, the VPS did evolve, but not in the ways envisioned by the PPRC.

Finally, concerned that physicians might respond to the first two initiatives by trying to charge their Medicare beneficiaries more out of pocket, the PPRC called for limits on how much physicians could charge Medicare beneficiaries in excess of the standard Medicare fee that had been in place since 1984 (with the previously described MAAC limits). Four PPRC members called for a policy of requiring physicians to take mandatory assignment, that is, to accept Medicare allowed charges as their own charges and forgo the opportunity to balance bill the patient beyond the 20 percent share of the bill many Medicare beneficiaries face. Not ready to recommend a policy of mandatory assignment at that time, the PPRC nevertheless recommended a policy of strictly limiting how much—on top of the allowed charge—physicians could bill Medicare patients, a policy recommendation that was adopted and tightened over time.

Taken as a whole, the PPRC’s recommendations were a signal to the medical profession (especially to specialists) that Medicare policy objectives would now determine the structure of the physician payment system as well as payment rates. Several surgical specialties immediately opposed the PPRC’s recommendation because simulations of Hsiao’s new payment scale revealed that the average ophthalmologist could lose as much as 40 percent of current revenues, whereas the average family practitioner could receive more than a 60 percent increase in revenue (with all other specialties falling somewhere in between). Congress accepted the PPRC’s recommendations and incorporated them as part of its 1989 budget reconciliation bill.

The PPRC recommendation that most outraged organized medicine was the annual expenditure targets. The AMA likened them to “rationing.” Physicians were so opposed to the expenditure targets that their opposition threatened to derail the entire proposal, largely because the AMA had the support of most Republicans (particularly on the powerful House Ways and Means Committee). What almost tipped the balanced in organized medicine’s favor was that a leading Democrat, Representative Henry Waxman, supported their opposition to expenditure targets. His objections could not be easily disregarded for a number of reasons, not the least of which was that the original idea for the PPRC came from one of his chief aides.

High-ranking Bush administration officials desperately wanted tighter expenditure targets to help constrain the government’s ever-increasing annual budget deficits. So it fell to Leon Panetta and Dan Rostenkowski (chairmen of the House Budget and Ways and Means Committees, respectively) to devise a plan for passing the legislation. What they pulled off, recalls Tom Scully, “was the most amazing legislative moment in my life and I’ve been doing this a long time.” Panetta and Ros-
tenkowski’s chiefs of staff created a “diversionary bill” that distracted Waxman and his staffers by allowing them to mark it up the way they wanted to in the House Commerce Committee. The trick was that select leaders of the House agreed in advance that the Commerce Committee bill would then be discarded for the “real” bill marked up by the Budget Committee, in which tighter expenditure targets were traded by Ros- tenkowski for increased funding from the Bush administration for teaching hospitals.62 It was not, as Waxman noted later, a “procedure to be proud of.”63 But it worked. Congress passed the new physician fee schedule—together with annual expenditure targets—as the Omnibus Reconciliation Act of 1989, which became effective on January 1, 1992.64

Under the Medicare fee schedule that was fully phased in over ten years, beginning in 1992, a single fee is paid for each of the more than seven thousand services—such as hospital and office visits, surgical procedures, x-rays, and tests—delivered by physicians and certain other health professionals, regardless of the medical specialty providing the service. The fee was based on a relative-value scale, with each service’s value determined according to three different types of resources required to provide each service. The physician work component of the scale provides payment for the physician’s time, skill, and effort. The work value component was estimated by physicians, originally as part of the Hsiao research that HCFA commissioned and subsequently by members of physician specialty societies under the aegis of the AMA / Specialty Society’s Relative-Value Scale Update Committee (RUC).65 The second component, practice expense, provides payment for the expenses incurred in operating a practice, such as staff salaries, space, and equipment. Third, the professional liability component provides payment for the expenses physicians incur purchasing professional liability insurance. The values given to these three types of resources are adjusted by variations in the input prices in different markets, and then the total relative value is multiplied by a standard dollar amount—called the fee schedule’s conversion factor—to arrive at the final payment amount.66

Transforming Medicare’s financial relationships with hundreds of thousands of physicians was unprecedented. The RBRVS and related expenditure targets were extremely difficult to implement, according to HCFA’s administrator Gail Wilensky, requiring an enormous mobilization of HCFA staff.67 But when the new system finally began operation in 1992,68 it triggered another seismic shift in American medicine. Just as DRGs had done less than a decade before with hospitals, Medicare’s new fee schedule and expenditure targets shifted the balance of power between providers and the government, power that physicians had assiduously developed and solidified over decades.69

With the implementation of the RBRVS-based Medicare fee schedule, for the first
time ever, the government was able to regulate both the price and the volume of Medicare's spending on physician services.\(^70\) The new expenditure targets went into effect immediately and had a noticeable impact (figure 5.1). In the five years after Medicare's fee schedule and expenditure targets went into effect, Part B spending rose at an average annual rate of just 4.4 percent (less than half the rate from the five-year period before the change).\(^71\) Once the relative-value scale was fully in place, family and general practice physicians saw their Medicare fees increase by 36 percent, while ophthalmologists saw theirs decrease by 18 percent.\(^72\)

Throughout most of the 1990s, Medicare’s RBRVS-based fee schedule was viewed as a significant success by most observers. A sign of its acceptance is the fact that much more than with DRGs, the RBRVS system maintained by Medicare also became adopted by most private payers.\(^73\) Before the RBRVS system, the private insurers that abandoned the inflationary UCR payment approach often used relative-value scales that had been based on historic charges, thereby perpetuating the alleged distortions among the various categories of services.\(^74\) Private payers now typically rely on the RBRVS relativities, even if they often use different conversion factors to reflect local market factors that dictate their ability to negotiate fees with physicians.\(^75\) Perhaps because organized medicine was given a major role in maintaining and updating the RBRVS system through the RUC,\(^76\) physicians initially accepted the resultant shift in

---

**Figure 5.1. Growth in Volume and Intensity of Medicare Physician Services per Beneficiary, 1985–93**

relativities of different services, even if they continued to strenuously object to expenditure limits.

An added benefit of the expenditure limitation mechanism was that it was formula-driven. Congress merely needed to tinker with some parts of the formula, based on recommendations from PPRC, and HCFA could make the necessary changes in the payment systems the contractors administered without any disruption in the flow of dollars to physicians for services rendered. With control over budgetary expenditures for Medicare’s Part B (physician services), Congress did not concern itself much with “winners and losers” among the medical profession. Congress and HCFA were more than happy to let the AMA preside over inevitable “food fights” within the profession after they cut the pie of physician expenditures. Having successfully limited physician expenditures, Congress did not need to include physician payment as a target of savings in the Balanced Budget Act of 1997 (see chapter 6), although, as we will see, the BBA made an important change in how the expenditure target was calculated.

That success obscured some of the inherent limitations of the RBRVS-based payment system. Many of these limitations had been observed before implementation of the new fee schedule but were mostly ignored in the near universal desire to do away with the difficult and fiscally unconstrained CPR payment system. A main difficulty with fee schedules is that they do not permit variation among physicians in absolute and relative fees. For example, it is hard to incorporate adjustments to the Medicare fee schedule to recognize higher quality and more efficiently produced services. In the face of that limitation, policy makers and purchasers today have coined a new term, “pay for performance,” for a potential approach to rewarding physicians and other providers for quality of care provided.

More generally, paying on the basis of input costs ignores whether the services provide value for patients. Prior to the implementation of the RBRVS payment method, the assumption had been that what professionals decide to do with their professional time is the best determinant of value. Yet even in the mid-1980s some had argued that Medicare should set the relative values not just on how physicians combine inputs to produce services, but also on the value the fee schedule promotes in terms of benefit to beneficiaries and the program. Relative values should reflect relative value, not merely resource costs. Today, with more than two decades of evidence that physician practice patterns and costs vary significantly without important differences in quality or patient satisfaction, there is increasing recognition that purchasers, including Medicare, may not be getting their money’s worth for their major investment in physician services.

Additionally, the initial redistribution of dollars away from procedures and toward evaluation and management services, a primary objective of the RBRVS system, has
been frozen in place. Because of the continued introduction of new procedural ser-

vices that are free to receive relative values unconstrained by the original values de-
termined by the Harvard study, and because volume is increasing dramatically for ra-
diology and other tests, the percentage of Medicare physician spending supporting
evaluation and management services—for example, office and hospital visits and consul-
tations—has essentially not changed over the first ten years of the fee sched-

ule.83

The introduction of Medicare’s physician payment reform also further compli-
cated the doctor-hospital relationship. Many specialist surgeons petitioned their hos-
pitals to help them make up their lost Medicare income,84 while hospital administra-
tors pursued joint ventures with physicians for outpatient services in order to increase
their institutions’ revenues, which they needed to offset the declining generosity of
Medicare’s hospital payments.85

Ultimately, though, the main problem with the Medicare physician fee schedule
lies in the coupling of fixed budgets with fee-for-service reimbursements. The appro-
priate amount to be budgeted for physician services may be difficult to determine.86
Using historic costs ignores the reality that technology changes, the population’s bur-
den of illness changes, and other factors may significantly alter how much should be
allocated to any particular provider sector, such as physician services. The Balanced
Budget Act altered the calculation of the volume performance standard by tying
spending per beneficiary on physician services to the rate of growth in the national
economy, as reflected in growth in the real gross domestic product, creating a new ex-
penditure limitation called the sustainable growth rate.87 Whatever the theoretical
merits of tying Medicare beneficiary needs for physician services to how the national
economy is doing, as we will examine in the Conclusion, the new SGR approach has
proved unworkable and is currently subject to intense attention by Congress and its
advisory bodies.

Second, in a fixed, national budget arrangement, all physicians have an incentive
to overprovide, because gains from overprovision would typically exceed the losses
from the pro rata reductions that the application of the expenditure limitation pro-
duces.88 Under this system, prudent physicians are penalized financially, while profl-
ligate ones are rewarded. The PPRC had hoped that organized medicine would step
up to the challenge of national expenditure limits by taking responsibility for ratio-

eralizing the volume of services through the establishment of clinical practice guide-
lines, enhanced peer review, and other professionally grounded approaches to reduc-
ing excessive volume and intensity of services.89 This never happened.