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In Setting Doctors' Medicare Fees, CMS Almost Always Accepts The Relative Value Update Panel's Advice On Work Values

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Abstract

To calculate physicians' fees under Medicare—which in turn influence the physician fee schedules of other public and private payers—one of the essential decisions the Centers for Medicare and Medicaid Services (CMS) must make is how much physician time and effort, or work, is associated with various physician services. To make this determination, CMS relies on the recommendations of an advisory committee representing national physician organizations. Some experts on primary care who are concerned about the income gap between primary and specialty care providers have blamed the committee for increasing that gap. Our analysis of CMS's decisions on updating work values between 1994 and 2010 found that CMS agreed with 87.4 percent of the committee's recommendations, although CMS reduced recommended work values for a limited number of radiology and medical specialty services. If policy makers or physicians want to change the update process but keep the Medicare fee schedule in its current form, CMS's capacity to review changes in relative value units could be strengthened through long-term investment in the agency's ability to undertake research and analysis of issues such as how the effort and time associated with different physician services is determined, and which specialties—if any—receive higher payments than others as a result.

Every year the Centers for Medicare and Medicaid Services (CMS) makes changes to the Medicare fee schedule's resource-based relative value scale to ensure that the fee schedule reflects the introduction of new technology and changes in medical practice. To update the schedule, CMS must decide how much physician time and effort—the component called "physician work"—is involved in delivering a service. On average, physician work determines about half of the payments for Part B physician services. Part B covers medically necessary services such as doctors' services, outpatient care, durable medical equipment, and home health services.

To estimate the physician work involved in a service, CMS solicits advice from the American Medical Association's Relative Value Update Committee, a body established in 1991 whose members mainly represent national medical specialty societies. Previous studies

suggest that CMS agrees with the committee's recommendations more than 90 percent of the time.[1]

The review process has been subject to increasing scrutiny.[2–5] Experts on primary care who are concerned about the income gap between primary and specialty care providers have blamed the update committee for increasing that gap and have suggested that if more primary care societies were represented on the committee, the reimbursement levels for primary care physicians might be more favorable.[3] Likewise, the Medicare Payment Advisory Commission has argued that CMS puts too much weight on the committee's input and recommended that CMS should seek more advice from other sources.[6]

Key questions for policy makers include how the work of the update committee has influenced CMS and whether changes are needed in the update process, fee schedule, or both. What's more, if policy makers or physicians want to change the update process, it will be important to know what, if any, additional resources or research will be necessary.

A few studies have touched on the work of the update committee and its relationship to CMS,[7] but there is a lack of empirical work on the process. We analyzed a unique data set of changes to relative values for physician work from 1994 to 2010 and found that CMS largely agreed with the update committee's recommendations. However, CMS's changes to those recommendations varied across types of services. CMS was more likely to reduce the value recommended by the committee for radiological or medical specialty services, compared to other services.

Background

Medicare Part B pays physicians under the Medicare fee schedule. The schedule lists more than 7,000 different reimbursable services, and the level of reimbursement is influenced by the value of the service calculated under the resource-based relative value scale. This scale weights the values of services according to the cost of the inputs that are required to deliver a service.[8]

Inputs are measured in what are known as relative value units, which are categorized as physician work, practice expense, and professional liability insurance (malpractice) relative value units. The payment a physician receives is calculated by multiplying the dollar rate (the conversion factor) by the total relative value (the sum of work, practice expense, and malpractice units). Payments are also adjusted for geographical differences in costs based on the provider's location.

Our analysis focused on CMS's annual review of work relative values for new and updated services. The work value is based on the time a procedure takes; the technical skill, mental judgment, and physical effort it requires; and the stress that the physician experiences because of the patient's risk from the procedure.

The Current Procedural Terminology Editorial Panel, a seventeen-member panel run by the American Medical Association, develops five-digit codes for medical services and procedures. For example, the code for an office or other outpatient visit for the evaluation

and management of a new patient is 99201. When services need to be updated, or new services are revised, the panel defines each new and updated service and drafts a clinical description or application for each one with input from specialty societies. The panel sends its list of services and codes to the Relative Value Update Committee. Next the update committee provides a valuation of physician work for these codes.

The update committee has thirty-one members. Twenty-one seats on the committee are reserved for representatives of major specialty societies.[9,10] Four other seats rotate every two years, with two of those seats reserved for internal medicine subspecialties, one for primary care, and one for other subspecialties. In 2012 the internal medicine subspecialties are pulmonary medicine and rheumatology, and the other subspecialty is vascular surgery.[9] The committee chairperson holds one seat.

The other five seats are occupied by representatives of committees or organizations associated with the update process: the American Medical Association; the Current Procedural Terminology Editorial Panel mentioned above; the American Osteopathic Association; the Practice Expense Review Committee, which reviews practice expense relative values; and the Health Care Professionals Advisory Committee, which represents nonphysician providers.[10]

Beyond this core update committee, representatives from 122 specialty societies seated in the American Medical Association's House of Delegates serve on its Advisory Committee. The update committee invites these specialty societies to participate in the review of codes. The societies can survey their members and present proposals for changes, but advisory committee members do not vote on recommendations.

Any of the specialty societies has the option of making recommendations on any service's work value. However, the members from societies representing more frequent providers of a given service typically lead this effort, sometimes in combination with members from other societies.

Societies send a survey to practicing physicians that asks respondents to estimate the time and complexity involved in providing a service, based on a typical patient scenario. After they gather this information, the societies then propose a work value to the update committee. In its deliberations, the committee considers survey data and a report written by a small review committee prior to the meeting of the full committee. Committee members then vote on the proposed work value.

The update committee gives CMS a list of recommended work values for the new and updated services. CMS decides whether to accept or modify the recommendations, typically making only minor changes. It publishes a list of new work values, which are open to public comment, in the *Federal Register* each year, usually in the fall. The new values are reflected in the Medicare fee schedule issued the following January. A separate comprehensive review is conducted every five years to assess potentially over- or undervalued codes.

Some analyses of the update process have raised concerns about it, especially the tendency for the number of service codes to increase over time.[7] Committee recommendations for

increases in work values of existing codes and the introduction of new service codes drive up the average cost of services used by Medicare enrollees[11] as well as those used by people with private insurance. Others have raised questions about the accuracy of the time estimates used by the committee. A study of surgeons' time logs showed that work values for some surgical services assumed that they required more time than surgeons actually spent on them in the operating room.[12]

Despite increasing interest in this process by policy makers and apart from some of the studies mentioned, there has been relatively limited empirical analysis of CMS's response to the update committee's recommendations. For example, it is not known whether CMS has increased or decreased the work values of some kinds of services more than others. Nor is it clear whether CMS gives newer services lower work values or is more likely to follow the committee's lead on these services, compared to older ones. These questions are the focus of this analysis.

Study Data And Methods

THE DATA SET

We collected update committee recommendations and CMS decisions on work values for the annual updates to the Medicare fee schedule for the period 1994–2010. We did not analyze data from CMS's "five-year refinement" reviews of the fee schedule that occurred in 1996, 2001, 2006, and 2011. As in the annual review process, in the five-year reviews the update committee makes recommendations on codes, and CMS makes the final decisions. However, during refinement reviews, the services are selected by CMS based on nominations through a public comment process. The process is designed to identify existing review codes that are over- or undervalued. In contrast, a service can be reviewed annually when there is a change in the service description or when a new service code is developed in the annual revision of the Current Procedural Terminology.

We collected data from the *Federal Register* and Lexis-Nexis Congressional, a proprietary database. We included all recommendations by the committee and all decisions made by CMS on work values that were published as final rules in the *Federal Register*.

We identified 3,070 work values that CMS published in the *Federal Register* during the study period. Our analysis included only the 2,768 cases for which there were both a committee and a CMS work value. Of the 302 cases that we excluded, 211 were missing a committee recommendation; 25 were missing a CMS work value; and 66 were missing both committee and CMS work values.

Each of the 2,768 cases in the data set represents a physician service that is identified by a Current Procedural Terminology code. The data set also indicates whether the service is a new or previously existing one, the work value recommended by the update committee, and the work value chosen by CMS.

ANALYSIS

We measured the difference between committee recommendations and CMS's decisions using the percentage change in the CMS work value compared to the value recommended by the committee. We used the percentage difference, rather than the absolute difference, to standardize the difference in change across categories because work values range from 0.00 to 78.47. Services with higher values are concentrated in specialties such as surgery. Without standardization, our analysis could overestimate the differences in decisions across specialties.

The Current Procedural Terminology codes allowed us to categorize physician services into the following five broad service areas: surgery, radiology, pathology and laboratory, medicine, and evaluation and management services.[13–17] Evaluation and management services include office visits and consultations in which a physician takes a medical history, performs a physical exam, and makes medical decisions.

We used multivariate ordinary least squares regression models to estimate the factors associated with greater or lesser agreement between the update committee and CMS (for the full regression output, see the online Appendix).[18]

We constructed two regression models. The first included all 2,741 update committee recommendations and CMS decisions in the period 1994–2009 (as explained below, we excluded data from 2010 in our regression models). The second included only the 265 cases in which CMS increased or decreased the committee's recommended values in the same period.

For both models, the dependent variable was the difference between the committee recommendation and the CMS decision, as a proportion of the committee recommendation. The coefficients are expressed as proportions between −1 and 1. Predictors used in both models included the type of service. "Evaluation and management services" was the reference category against which we compared the other four service types.

To control for differential changes in technology in various areas of medicine, we included a variable indicating whether a given service within one of those types was new. However, data for the variable "new code" were not available for 2010. Our regression models therefore excluded data from that year. The results section reports the effect of including data from 2010 without the "new code" variable.

Our models included the year of publication of the CMS decision, measured as a series of dummy variables. This allowed us to assess possible changes over time.

Study Results

CMS accepted 2,419 (87.4 percent) of the 2,768 work values proposed by the update committee. CMS decreased 298 work values (10.8 percent), and increased 51 work values (1.8 percent). The rate of agreement between the committee and CMS between 1994 and 2010 has fluctuated. Some of the largest year-to-year differences have occurred in more recent years, such as the high of 99.0 percent in 2006 and the low of 62.2 percent in 2007.

On average, the update committee proposed higher work values than CMS did, and this difference was significant (Exhibit 1). The average work value for new services was also higher in the committee's recommendations than in CMS's decisions—another significant difference (Exhibit 2). The difference between the committee and CMS was greatest for surgical services and smallest for pathology and laboratory services.

The multivariate analysis (Exhibit 3) shows the proportional change between the update committee's recommendations and CMS's decisions. When we looked at all 2,471 cases in the period 1994–2009, we found that CMS decreased the committee's recommended work values for radiology services by 2.7 percent and recommended values for medical specialty services by 4.7 percent. CMS was no more likely to reduce recommended work values for new services than it was for existing services. The agency made significant increases in recommended work values in 1997 and significant decreases in 1999 and 2007, compared to 1994.

When we looked at only the 265 cases where CMS increased or decreased the committee's recommended work values, rather than accepting the recommendations, the results were similar (Exhibit 3). However, the coefficients were larger.

As mentioned above, we omitted from our regression models the data from 2010 because these observations did not contain information on whether the services were new or existing. When we included the 2010 data, the overall results for changed decisions were comparable. CMS reduced recommended work values for surgical services relative to evaluation and management services by 11.13 percent (compared to the 12.9 percent reduction shown in Exhibit 3), for radiology services by 13.43 percent (compared to 20.4 percent), and for medical specialty services by 18.20 percent (compared to 28.7 percent). The result for pathology and laboratory services was not significant.

Discussion

In determining physician work values used to set Medicare fees, CMS has closely followed the recommendations made by a committee largely comprising representatives of national physician organizations. CMS agreed with 87.4 percent of the work values recommended by the committee—a figure slightly lower than a previously published estimate.[1]

When the agency did change the recommended values, on average it reduced the work values for surgical, radiology, and medical specialty services—but not pathology and laboratory services—relative to the reference category of evaluation and management services. The decrease for surgical services was the smallest. CMS was no more likely to change the recommended values for new services than it was for existing services.

Based on the available data, we were unable to determine why CMS agreed or disagreed with the recommendations made by the committee. Similarly, drawing definitive conclusions about the effects of the committee's recommendations on specific specialties would require additional data.

PENALIZING PRIMARY CARE PROVIDERS

One major question is whether primary care physicians are penalized in the process of updating physician work values. It is not easy to answer that question, given that the Medicare fee schedule includes services provided by many different kinds of physicians. However, evaluation and management services can be used as one proxy for primary care because they account for a larger percentage of primary care providers' income than of specialists' income.

Using that approach, multivariate models suggest that CMS's decisions are not more likely to penalize primary care providers than specialists. The agency is more likely to decrease recommended work values for medical specialty, surgical, and radiologic services than for evaluation and management services. This is encouraging for providers in primary care and other specialties that bill the greatest proportion of these services. However, it does not explain why there has been no reduction in the income gap between primary care providers and specialists.

The challenges of distinguishing primary care services in the update process may explain why the Affordable Care Act of 2010 increased only the Medicare dollar conversion factor for evaluation and management services provided by primary care providers instead of increasing the work values for those services. Because this change is relatively recent, we cannot tell whether it is having the intended effect.

Paradoxically, this increase in Medicare reimbursement for primary care services has raised new questions about the fairness of the update process for non-primary care physicians. Some providers in other specialties also bill a high proportion of evaluation and management services, and they say that the real divide in the fee schedule update process is not between primary care practitioners and specialists. Instead, they argue that the divide is between less procedurally oriented physicians who earn the majority of their income from evaluation and management services, such as neurologists, and physicians who earn most of their income from procedures, such as surgeons and gastroenterologists.[19]

The findings reported here suggest that CMS is not reducing recommended work values for evaluation and management services. However, the agency has decreased values for medical specialty services—including the less procedurally oriented ones—more than those for other surgical or radiology services (Exhibit 3).

HIGH LEVELS OF AGREEMENT

A second area of concern relates to CMS's overall high levels of agreement with the update committee for almost two decades. As noted above, we found that rates of agreement have fluctuated from year to year. However, we cannot say whether CMS should be disagreeing more frequently.

Supporters of the update process could argue that CMS's general agreement with the committee's recommendations is evidence of the process's success and validity and indicates CMS's confidence in the recommendations. Opponents could argue that

demonstrated flaws in the recommendations' estimates of the time some services take[11] are proof that the rate of agreement masks problems with the process.

The high level of agreement shown in our analysis may inform ongoing discussions about whether CMS should seek additional advice from other sources. CMS could compare the committee's time estimates with data from electronic health records or independent evaluators, as the Medicare Payment Advisory Commission has suggested.[20]

If the committee data compared favorably to real-world estimates, CMS's high levels of agreement with the committee would gain credibility. However, one question that approach would not address is how to validate the most subjective part of the update process: how much physician effort a service involves.

POSSIBLE CHANGES TO THE PROCESS

Indicating recent congressional interest in this topic, a bill—called the Medicare Physician Payment Transparency and Assessment Act—was introduced in March 2011. The bill would have required CMS to compare data from independent contractors to those in the committee's recommendations.

The bill was endorsed by the American Academy of Family Physicians, which has a seat on the update committee, and by the Society for General and Internal Medicine. It was opposed by the American Medical Association and forty-six specialty organizations, including the American College of Surgeons and the Society of Thoracic Surgeons.[21] The bill never emerged from committee.

The Affordable Care Act made relatively few changes to CMS's update process. Section 3134 of the act requires CMS to increase its data collection and analytical activities, including adjusting incorrect values for services—especially services with the fastest growth in utilization, new technology, services billed together, and services that have not been reviewed since the payment system was implemented.

Further changes to the process seem likely. In August 2011 a group of primary care physicians filed a case against CMS in a federal court in Maryland.[22] In addition, as mentioned, some specialists are questioning the entire process and its valuation of procedural and nonprocedural work.[19]

POLICY IMPLICATIONS

A key question for policy makers and both critics and supporters of the update process is whether changes should be made to it. First, we need to distinguish between features of the update process and the larger payment policy framework. The update committee and CMS both operate within a resource-based payment system, in which differences in physical or mental effort or stress to the physician determine work values. Those values, in turn, rely on physicians' estimates of effort and stress. The larger policy framework explains CMS's reliance on the update committee: Unless some of the deeper assumptions of the fee schedule are changed, CMS will probably continue to need the committee's recommendations.

If policy makers or physicians want to change the update process, but keep the Medicare fee schedule in its current form, CMS's capacity to review changes in relative value units could be strengthened through long-term investment in the agency's ability to undertake research and analysis of issues such as how the effort and time associated with different physician services are determined, and which specialties—if any—receive higher payments than others as a result of the process. The Medicare Payment Advisory Commission plays a very important role in advising Congress on these issues. However, investing in improving the payment process might pay dividends throughout the health care system.

Supplementary Material

Refer to Web version on PubMed Central for supplementary material.

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Biographies

Miriam J. Laugesen is an assistant professor of health policy and management at Columbia University.

In this month's Health Affairs, Miriam Laugesen and coauthors examine the assertion that the Centers for Medicare and Medicaid Services (CMS) relies too much in its calculation of phys965ician fees under Medicare on an advisory committee that represents national physician organizations. Some experts have long asserted that the committee understates how much physician time and effort is associated with the provision of primary care services, and that doing so ascribes greater value to work performed by specialists.

Laugesen and coauthors did find that CMS agreed with 87.4 percent of the committee's recommendations in calculating physician work values between 1994 and 2010. However, they write that CMS and its partners should continue to address some of the problems identified in the process. How this "update" process works is a key focus of Laugesen's research.

Laugesen is an assistant professor of health policy and management at Columbia University's Mailman School of Public Health. She received a Robert Wood Johnson Foundation Investigator Award in Health Policy Research in 2009 and serves on the editorial boards of the journals *Health Economics, Policy and Law* and *World Medical and Health Policy*.

Laugesen holds a doctorate in political science from the University of Melbourne, in Australia, and a master's degree in political science from Washington University in St. Louis.

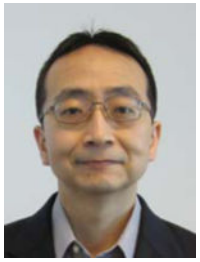

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Exhibit 1

Physician Work Values Recommended For Medicare Fee Schedule By AMA Relative Value Update Committee And CMS Final Values, 1994–2010

	Number of cases in which work value was:			Average work value	
Year	**Decreased**	**Unchanged**	**Increased**	**CMS**	**Update committee**
1994	44	252	22	16.46	16.81***
1995	15	120	4	9.34	9.39
1996	11	65	2	10.25	10.29
1997	8	185	13	4.94	4.94
1998	7	61	0	6.80	6.93**
1999	20	45	0	8.07	8.34**
2000	12	107	0	9.31	9.36***
2001	8	277	4	7.03	7.06
2002	10	217	0	8.24	8.26
2003	6	124	0	9.35	9.47
2004	2	127	0	7.04	7.08
2005	4	159	0	6.79	6.80
2006	1	102	0	14.90	14.91
2007	62	102	0	9.30	9.90****
2008	6	115	0	6.86	7.01
2009	3	154	1	10.19	10.19
2010	79	207	5	6.46	6.92****
Total	298	2,419	51	9.02	9.18****

Source Authors' analysis.

Notes "Decreased" means that the Centers for Medicare and Medicaid Services (CMS) lowered the update committee's recommended work value. "Unchanged" means that CMS accepted the committee's recommendation. "Increased" means that CMS raised the committee's recommended work value. AMA is American Medical Association.

** $p < 0:05$

*** $p < 0:01$

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***** $p < 0:001$

Exhibit 2

Average Physician Work Values Of AMA Relative Value Update Committee And CMS, By Type Of Service, 1994–2010

Type of service	Number of services	Average work value	
		Update committee	CMS
All	2,768	9.18	9.02****
New	1,414	8.75	8.69****
Existing	1,063	10.37	10.16****
All, by general category			
Surgery	1,910	12.47	12.27****
Radiology	236	1.44	1.40
Pathology and laboratory	46	0.95	0.94
Medicine	446	1.93	1.86****
Evaluation and management	130	2.55	2.52

Source Authors' analysis.

Notes In 2010, 291 observations lacked information on whether they were new or existing services. AMA is American Medical Association. CMS is Centers for Medicare and Medicaid Services.

**** $p < 0:001$

Exhibit 3

Percent Change Between Average Recommended And Adopted Physician Work Values By Type Of Service, 1994–2009

Type/year	All CMS decisions (*n* = 2,471)	Changed decisions (*n* = 265)
New[a]	−0.000	0.017
GENERAL CATEGORY OF SERVICE[b]		
Surgery	−0.014	−0.129***
Radiology	−0.027**	−0.204***
Pathology and laboratory	−0.019	−0.194
Medicine	−0.047****	−0.287****
YEAR OF DECISION[c]		
1995	−0.001	0.008
1996	−0.021	−0.103
1997	0.026***	0.042
1998	−0.007	−0.130
1999	−0.069****	−0.177***
2000	−0.008	−0.156**
2001	−0.007	−0.476****
2002	0.002	−0.216***
2003	−0.007	−0.417****
2004	0.019	−0.155
2005	0.010	−0.135
2006	0.017	0.049
2007	−0.032****	0.045
2008	0.013	−0.105
2009	0.015	0.087

SOURCE Authors' analysis. **NOTES** Based on multivariate regression. "Changed decisions" means that the Centers for Medicare and Medicaid Services (CMS) increased or decreased the work value recommended by the American Medical Association (AMA) Relative Value Update Committee. Change is measured as percentage change from the recommendation.

[a]Reference category is existing services.

[b]Reference category is evaluation and management services.

[c]Reference category is 1994.

** $p < 0:05$

*** $p < 0:01$

**** $p < 0:001$