Medicare Physician Fee Schedule (PFS):
Development of a Validation Model for Work Relative Value Units (RVUs)

The Centers for Medicare & Medicaid Services (CMS) have entered into two contracts with outside entities to develop validation models for RVUs.

RAND Corporation Contract

CMS has asked RAND to develop a validation model for the work component of the Medicare physician fee schedule and to test the model using a set of representative test codes.

Background: In 2012, an estimated $87 billion in allowed charges will be paid under the physician fee schedule for services furnished to fee-for-service Medicare beneficiaries by physicians and other practitioners who bill independently for their services. The physician fee schedule uses relative value units (RVUs), a conversion factor ($34.04 per RVU in 2012), and various adjustments to determine the reimbursement for a given service. The relative resources that go into determining the RVUs for a given service are broken down into physician work, practice expense and malpractice expense. The work component accounts for the practitioner's effort through measures of time and intensity (i.e., cognitive effort and judgment, technical skill and physical effort, and stress due to potential patient risk) associated with providing a service.

It is important that RVUs be accurately set under the physician fee schedule to assure access to medically appropriate services. If a procedure is overpriced, Medicare is wasting resources by paying more than it should and an incentive is created to provide unnecessary services. If a procedure is underpriced, it may be hard to obtain and lead to potential access problems. Moreover, systematic over- or underpricing of procedures furnished by particular specialties can distort overall compensation levels and affect the specialty choices made by new physicians.

Under the current process for updating the relative value units (RVUs) for physician work, CMS considers recommendations for the American Medical Association's Specialty Society Relative Value Update Committee (RUC), the Medicare Payment Advisory Commission (MedPAC) and others. Section 3134 of the Affordable Care Act requires that CMS establish a process to validate RVUs of physician fee schedule services and explicitly authorizes CMS to conduct the validation through surveys, other data collection activities, studies, or other analyses that would facilitate validation.

Study Approach: During this two-year project, RAND will use available data to build a validation model to predict work RVUs and the individual components of work RVUs, time and intensity. The model design will be informed by the statistical methodologies and approach used to develop the initial work RVUs and to identify potentially misvalued procedures under current RUC and CMS processes. RAND will use a representative set of CMS-provided codes to test the model. RAND will consult with a technical expert panel on model design issues and the test results.

Barbara Wynn will serve as Principal Investigator. Ateev Mehrotra, M.D. will join her as Co-Principal Investigator.

Urban Institute Contract

CMS has contracted with the Urban Institute (UI) and its subcontractors Social & Scientific Systems, Inc. (SSS) and RTI International to examine the work relative value units (RVUs) for approximately 120 services and develop a validation process for the RVUs used in the Medicare Physician Fee Schedule for both new and existing services. The project aims to provide CMS with a process for reviewing proposed work RVUs, assessing how reasonable they are relative to external data and assuring that the relativities within the overall RBRVS fee schedule are internally consistent within families of services and specialties as well as across families. Work RVUs reflect both the time it takes to provide a physician service and the intensity of the service (i.e., technical skill, physical effort, mental effort and judgment, and stress due to patient risk). Given the central role of time in establishing work RVUs and the concerns that have been raised about the current time values, a key focus of the project is developing objective time estimates for study services. The work validation process incorporates these time estimates in clinical panel process through which clinicians from a range of specialties will help review the implications of the time estimates for current work values. There are three key aspects to the project.

Objective Estimates of Time for Selected Services. The services to be studied (see list below) were selected by Urban because as a group they are predominately high volume and cover a broad range of work RVUs, types of service, physician specialties, and places of service. Development of objective time estimates for these services will use a variety of approaches, depending on the service. Time estimates will be developed from health systems' operating room logs, electronic health records, scheduling records, billing information, chart review, and direct observation of physician-patient interactions. This very resource-intensive part of the project is essential to addressing concerns that have been raised about current time values and resulting work values.

Data Analysis. Objective time estimates will be compared to the current time values used in the fee schedule. These comparisons will examine the relationship between the alternative measures and current values by type of service, place of service, and other exogenous characteristics. The project team will develop alternative models of the relationship between work and time to present to the clinical panels for their consideration.

Clinical Panels. The project will convene physician panels from a range of specialties to review the new time data and their potential implications for work and the ratio of work to time. The groups will discuss the families of services for which work values could be adjusted based on the studied services. For example, if they conclude that the work-to-time ratio was appropriate for a given studied service so that lower time estimates suggest that work should be lower, they will identify any similar services whose work values could be adjusted. The goal is to translate the time values to improved work values, as feasible, and to expand the services refined beyond those specifically included in the time measurement part of the study.

The project team includes national health policy experts whose research has helped shape Medicare physician payment policies for over two decades. Stephen Zuckerman, Ph.D., will serve as the Principal Investigator for this proposed project and Katie Merrell of SSS will be the Co-PI. Robert Berenson, M.D., will serve as Clinical Director for the project, providing clinical and policy expertise as well as recruiting and training the physicians who will lead the clinical panels – a critical element of the proposed project. He will work on these activities with project consultant Peter Braun, M.D., who was the Co-PI for the original Harvard RVU study.

Nancy McCall of RTI will direct the collection of new time data that will be used as part of the validation model to be developed in this study.

HCPCS	Short Descriptor	HCPCS	Short Descriptor
11042	Deb subq tissue 20 sq cm/<	52000	Cystoscopy
11056	Trim skin lesions 2 to 4	52224	Cystoscopy and treatment
11057	Trim skin lesions over 4	52281	Cystoscopy and treatment
11100	Biopsy skin lesion	52601	Prostatectomy (TURP)
11101	Biopsy skin add-on	55700	Biopsy of prostate
17000	Destruct premalg lesion	55866	Laparo radical prostatectomy
17003	Destruct premalg les 2-14	63047	Remove spine lamina 1 lmbr
17004	Destroy premal lesions 15/>	64483	Inj foramen epidural l/s
17110	Destruct b9 lesion 1-14	66821	After cataract laser surgery
17262	Destruction of skin lesions	66982	Cataract surgery complex
17281	Destruction of skin lesions	66984	Cataract surg w/iol 1 stage
17282	Destruction of skin lesions	67028	Injection eye drug
20550	Inj tendon sheath/ligament	67210	Treatment of retinal lesion
20605	Drain/inject joint/bursa	67228	Treatment of retinal lesion
20610	Drain/inject joint/bursa	70450	Ct head/brain w/o dye
22551	Neck spine fuse&remov bel c2	70486	Ct maxillofacial w/o dye
22612	Lumbar spine fusion	70551	Mri brain stem w/o dye
22614	Spine fusion extra segment	70553	Mri brain stem w/o & w/dye
22633	Lumbar spine fusion combined	71010	Chest x-ray 1 view frontal
22840	Insert spine fixation device	71020	Chest x-ray 2vw frontal&latl
22842	Insert spine fixation device	71250	Ct thorax w/o dye
22845	Insert spine fixation device	71260	Ct thorax w/dye
22851	Apply spine prosth device	71275	Ct angiography chest
23412	Repair rotator cuff chronic	72125	Ct neck spine w/o dye
23472	Reconstruct shoulder joint	72141	Mri neck spine w/o dye
27130	Total hip arthroplasty	72148	Mri lumbar spine w/o dye
27134	Revise hip joint replacement	72158	Mri lumbar spine w/o & w/dye
27236	Treat thigh fracture	74176	Ct abd & pelvis
27244	Treat thigh fracture	74177	Ct abd & pelv w/contrast
27245	Treat thigh fracture	74178	Ct abd & pelv 1/> regns
27447	Total knee arthroplasty	77080	Dxa bone density axial
29827	Arthroscop rotator cuff repr	78452	Ht muscle image spect mult
33208	Insrt heart pm atrial & vent	88305	Tissue exam by pathologist
33249	Nsert pace-defib w/lead	88307	Tissue exam by pathologist
33405	Replacement of aortic valve	88309	Tissue exam by pathologist
33430	Replacement of mitral valve	88312	Special stains group 1
33518	Cabg artery-vein two	88331	Path consult intraop 1 bloc
33519	Cabg artery-vein three	88342	Immunohistochemistry
33533	Cabg arterial single	92133	Cmptr ophth img optic nerve
33536	Cabg arterial four or more	92134	Cptr ophth dx img post segmt
35301	Rechanneling of artery	92557	Comprehensive hearing test
43235	Uppr gi endoscopy diagnosis	92920	Prq cardiac angioplast 1 art
43239	Upper gi endoscopy biopsy	92928	Prq card stent w/angio 1 vsl
44120	Removal of small intestine	92941	Prq card revasc mi 1 vsl

44140	Partial removal of colon		93000	Electrocardiogram complete
44143	Partial removal of colon		93010	Electrocardiogram report
44145	Partial removal of colon		93015	Cardiovascular stress test
44160	Removal of colon		93016	Cardiovascular stress test
44204	Laparo partial colectomy		93018	Cardiovascular stress test
44205	Lap colectomy part w/ileum		93306	Tte w/doppler complete
44207	L colectomy/coloproctostomy		93458	L hrt artery/ventricle angio
45378	Diagnostic colonoscopy		93459	L hrt art/grft angio
45380	Colonoscopy and biopsy		93460	R&l hrt art/ventricle angio
45384	Lesion remove colonoscopy		93880	Extracranial bilat study
45385	Lesion removal colonoscopy		96372	Ther/proph/diag inj sc/im
47562	Laparoscopic cholecystectomy		G0105	Colorectal scrn; hi risk ind
47563	Laparo cholecystectomy/graph		G0202	Screeningmammographydigital
49505	Prp i/hern init reduc >5 yr		G0204	Diagnosticmammographydigital
50590	Fragmenting of kidney stone		G0206	Diagnosticmammographydigital

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