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## **RUPRI Center for Rural Health Policy Analysis**

### **Medicare Physician Payment Policy and the Rural Perspective**

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Authors:

A. Clinton MacKinney, MD, MS

Keith J. Mueller, PhD

Timothy D. McBride, PhD



**Rural Health Research  
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The RUPRI Center is based at the University of Nebraska Medical Center, in the College of Public Health, Department of Health Services Research and Administration.

RUPRI Center for Rural Health Policy Analysis  
University of Nebraska Medical Center  
984350 Nebraska Medical Center  
Omaha, NE 68198-4350  
Phone: (402) 559-5260  
Fax: (402) 559-7259  
[www.unmc.edu/ruprihealth](http://www.unmc.edu/ruprihealth)

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## **Purpose**

Goals for Medicare payment policy changes pertinent to rural physician practice are not explicit. Yet, we believe that Medicare payment policy can potentially influence physician decisions regarding where to practice (e.g., rural v. urban), which patients to accept (e.g., Medicare v. non-Medicare), and what specialty to select (e.g., cognitive v. procedural). Thus, Medicare payment policies can potentially influence Medicare beneficiary access to physician services. During the past six years, the RUPRI Center for Rural Health Policy Analysis (RUPRI Center) has examined the effects of Medicare payment changes on rural physician practice revenue. Despite the apparently tenuous association between Medicare physician payment policy and physician practice decision making, we infer that changes to practice revenue potentially affect physician decisions regarding rural practice. This report presents the results of the RUPRI Center's work.

## **Medicare Physician Payment**

The Resource-Based Relative Value Scale (RBRVS) is the foundation for the Medicare physician payment system. Beginning in the late 1970s, the Harvard RBRVS Study (principal investigators William Hsiao, PhD, and Peter Braun, MD) provided the research to develop RBRVS. In 1989, President George H. W. Bush signed into law the Omnibus Budget Reconciliation Act of 1989, implementing the RBRVS physician payment system. Since the Centers for Medicare and Medicaid Services (CMS, and formerly the Health Care Finance Administration – HCFA) does not have funding appropriated for RBRVS updates, CMS has delegated this responsibility to the American Medical Association's RBRVS Update Committee (RUC). The RUC meets three times per year and regularly updates RBRVS. Although CMS is not required to follow the RUC's recommendations, CMS often does so under the proviso that *total* CMS payment for all physician services remains the same (other than via legislative change as described below), yet the payment *distribution* among physician specialties may change based on RUC decisions. For example, if the RUC determines that one physician service should be paid at a higher rate, consequently another service (or services) must be paid at a proportionally lower rate, each adjusted for service volume – a zero-sum game.<sup>1</sup>

Medicare payment policy is critically important to policy makers and physician practices. Medicare Part B represents a significant federal expenditure – only 25% of the total Part B cost is funded by Medicare beneficiary premiums; the remaining 75% is funded by general tax funds. Furthermore, the RBRVS payment system’s impact extends beyond Medicare. A survey cited in *Medicare RBRVS: The Physicians’ Guide* reported that 85% of private payors and 69% of Medicaid programs link their physician payment system to RBRVS.<sup>2</sup>

## **Relative Value Units**

Before describing the RBRVS update process, it’s best to outline how Medicare assigns a value to a particular physician service. Approximately 9,000 individual physician services (or procedures) are identified by unique Current Procedural Terminology (CPT) codes. Physician payment is determined with a multipart mathematical formula. First, for each physician service (or CPT code) a relative value unit (RVU) is assigned to each of three different physician service costs: physician work (work), practice expense (PE), and professional liability insurance (PLI). RVUs are a *relative* valuation of a physician service’s cost compared to the cost of other physician services. For example, a physician service with an RVU value of 2.0 represents twice as much cost as a physician service with an RVU value of 1.0. The RUC evaluates multiple inputs to determine new or updated RVUs assigned to individual medical care services. The RUC then makes RVU valuation recommendations to CMS for consideration. The RUC has 29 members, each with one vote. Twenty-six members represent individual medical specialties. Only 5 of those 26 specialties are considered primary care specialties by the American Academy of Family Physicians.<sup>3</sup> A two-thirds majority is required to approve RVU recommendations. Since the total Medicare expenditure is fixed, negotiation between the specialties can be “lively.” Yet, primary care providers (and consequently rural providers) are not proportionately represented on the RUC.

The RBRVS adjusts the three RVUs assigned to each CPT code for geographic variation in the cost of providing care. To do so, Medicare established Medicare Localities, each reflecting geographic differences in costs for physician work, practice expense, and professional liability insurance. Although there were 240 Medicare Localities prior to 1992, currently CMS identifies 89 distinct Medicare Localities. Thus, three Geographic Practice Cost Index (GPCI) modifiers (for

work, PE, and PLI) are established for each Medicare Locality. Based on the Medicare Locality of service, the work, PE, and PLI costs are multiplied by their respective GPCI. The resulting three products now represent three geographically adjusted relative values. The sum of geographically adjusted work, PE, and PLI RVUs becomes the total relative value for a physician service or procedure (generally designated by a CPT code).

Yet, relative values are not dollars. The next step in the RBRVS equation is to multiply the geographically adjusted total RVUs by the Conversion Factor (CF) to convert RVUs to dollars or payments. (More accurately, RBRVS determines an “allowed charge”; Medicare payment to physicians is actually the allowed charge minus co-payments and/or deductibles that are paid by the beneficiary.) CMS initially adjusted the CF each year based on three factors: the Medicare economic index, an expenditure target “performance adjustment,” and “budget neutrality” adjustments. Yearly CF updates have engendered significant debate and even formulaic change. In particular, the Balanced Budget Act (BBA) of 1997 established the Sustainable Growth Rate (SGR) to drive CF updates. The SGR is based on four factors: physician services fees (similar to the Medicare economic index), Medicare fee-for-service enrollment, gross domestic product change, and law/regulation-mandated spending. The Medicare Payment Advisory Commission (MedPAC) and others have been critical of the SGR methodology. Several SGR revisions were enacted in the Balanced Budget Reconciliation Act (BBRA) of 1999. However, due to ongoing concerns since 2002 about the SGR methodology and pressure from physician association lobby, Congress has overridden projected physician payment cuts (mandated by SGR) and instead enacted physician payment freezes or small increases. For 2002, Medicare reduced payments by 4.8%.<sup>4</sup> Congress’ most recent action in the Medicare, Medicaid, and SCHIP Extension Act of 2007 was particularly short term, specifying an updated payment for only six months. At this point (2008) if there is no further change, a cumulative payment rate reduction of 41% is projected through 2016 (9.9% on July 1, 2008 and approximately 5% annually thereafter).<sup>5</sup> The actual

<b>Year</b>	<b>Physician Update</b>
1992	1.9%
1993	1.4%
1994	7.0%
1995	7.5%
1996	0.8%
1997	0.6%
1998	2.3%
1999	2.3%
2000	5.5%
2001	5.0%
2002	-4.8%
2003	1.7%
2004	1.5%
2005	1.5%
2006	0.2%
2007	0.0%

*Source: Adapted from CMS document, Estimated Sustainable Growth Rate and Conversion Factor, for Medicare Payments to Physicians in 2008, Table 6.*

physician payment updates since RBRVS inception are depicted in the table above.<sup>6</sup>

With the previously described mathematical building blocks as a foundation, the RBRVS formula to calculate physician payment becomes:

$$RVU_{Total} = (RVU_{work} \times GPCI_{work}) + (RVU_{PE} \times GPCI_{PE}) + (RVU_{PLI} \times GPCI_{PLI})$$

$$Payment = RVU_{Total} \times CF$$

An example of physician payment calculation is illustrative. For an established patient, office, or other outpatient visit (CPT code 99213) provided in Iowa:

	<b>RVUs</b>	<b>GPCIs (Iowa)</b>
Physician Work	0.92	1.000*
Practice Expense	0.71	0.869
Prof. Liability Ins.	0.03	0.579
2007 Conversion Factor	\$37.8975	

$$RVU_{Total} = (0.92 \times 1.000) + (0.71 \times 0.869) + (0.03 \times 0.579) = 1.554$$

$$Payment = 1.554 \times \$37.8975 = \$58.91$$

### **Resource Based Relative Value Scale**

The RBRVS' impact on rural areas is significant. First, rural areas are disproportionately elderly (15% in non-metropolitan areas versus 12% in metropolitan areas) and the proportion of the rural elderly population is growing. In one-quarter of all non-metropolitan counties, the percentage of rural elderly approaches 18%.<sup>7</sup> Due to this demography, a rural physician practice is likely to include a greater percentage of Medicare patients than is an urban practice. For example, 51% of rural physicians, compared to 44% of urban physicians, receive at least 38% of their payments from Medicare.<sup>8</sup> Thus, any adjustment in Medicare payment is likely to have a greater impact in rural than in urban areas. Secondly, the current RBRVS update process tends to disfavor primary care – the

predominant type of physician care delivered in rural areas. As noted, the SGR methodology utilizes historic service volumes (among other inputs) every year to establish an update rate (CF) that is the same for all types of physician services. However, volume changes vary markedly by type of service. For example, evaluation and management (E&M) services (e.g., “cognitive” or non-procedural services) are quite common but are increasing more slowly than (for example) imaging services (e.g., CT and MRI scans). From 1997 to 2006, although overall Medicare physician spending grew by 90%, Medicare expenditures for E&M services grew by 74% (from \$19.7 billion to \$34.4 billion) while non-E&M expenditures grew by 101% (from \$29.5 billion to \$59.3 billion). Thus, “because there is one CF for all services, primary care physicians are essentially penalized when large increases in expenditures for specialized services drive down the CF that is applied to E&M and non-E&M services alike.”<sup>9</sup> In summary, rural physician practices are significantly affected by both the original RBRVS methodology and by the RBRVS update process.

## **Payment Policy**

Several legislative changes have modified the RBRVS calculation or have added bonus payments evidently designed to support rural physician practices. These changes are described in the paragraphs that follow.

During implementation of the RBRVS payment system, deliberations considered the degree to which RBRVS should geographically adjust RVUs.<sup>10</sup> The final regulation required that PE and PLI costs would be fully adjusted based on geographic indexes of practice overhead costs and geographic differences in PLI costs. However, the issue of physician work was more vigorously debated. It can be argued, “work is work,” regardless of geographic location. Thus, physician payments for work should be the same across the country, or in other words, the GPCI for physician work should equal 1.000 in all Medicare Localities ( $GPCI_{work} = 1.000$ ). Alternately, work valuation should be based on regional (Medicare Locality) cost of living estimates. That is, if a particular area’s cost of living is less, then payment should be less to reflect a greater purchasing power per dollar of payment. Regulators compromised by adjusting the physician work GPCI by only 25% of the actual cost of living difference. For example, if cost of living is 10% lower than the average cost of living in a particular Medicare Locality, the physician work GPCI is set only 2.5% lower than the average physician work GPCI.

The Medicare Prescription Drug, Improvement, and Modernization Act (MMA) of 2003 further modified the RBRVS methodology for calculating physician work GPCIs. The MMA mandated that no Medicare Locality will have a work GPCI less than 1.000. Thus, work GPCIs are currently calculated for all Medicare Localities based on the original methodology, but the MMA requires that all Medicare Localities with calculated work GPCIs less than 1.000 will be increased to 1.000; a floor that primarily benefits rural areas, since most of these areas have relatively low costs of living.

In addition to changes to the RBRVS system, legislation has initiated two special payments that generally benefit rural practices. Bonus payments for Health Professional Shortage Areas (HPSAs) were presumably designed to help recruit and/or retain physicians to areas defined by the Public Health Service as experiencing a physician shortage. Congress set the bonus at 5% in 1989 and increased the rate to 10% in 1991.<sup>11</sup> Physician practices were required to identify on Medicare claim forms that a service was provided in a HPSA. The bonuses were paid quarterly. The MMA shifted responsibility from physician practices to CMS for ensuring that bonuses were appropriately claimed and paid. Thus, rather than requiring special claims for the bonuses, the bonuses would be paid automatically, based on matching location of the claim to a file containing HPSA identifiers (documented by ZIP code or county).

The MMA added another bonus payment – the Physician Scarcity Area (PSA). The PSA payment is an additional 5% bonus paid automatically to physicians delivering services in counties with particularly low physician to population ratios. The PSA bonus was scheduled to sunset on December 31, 2007, but was extended to June 2008 by the Medicare, Medicaid, and SCHIP Extension Act of 2007.

Thus, four policy changes, arguably beneficial to rural physician practices, have modified the Medicare physician payment process since the 1992 RBRVS inception. In review, those changes include two modifications of RBRVS itself – limiting geographic adjustment of physician work to only 25% of cost of living differences and establishing a physician  $GPCI_{work}$  floor of 1.000. Two additional legislative changes have provided supplemental revenue to rural physician practices – the 10% HPSA and 5% PSA bonuses.

Despite these four objective changes, policy goals are not explicit. However, it seems likely that policy makers have recognized the persistent rural physician shortage (compared to metropolitan) and have responded with policies intended to



promote rural physician recruitment and retention through revenue increases to rural physician practices. Yet, despite these aforementioned policies, rural physician shortages persist, especially in comparison to suburban areas. The percentage of both non-metropolitan and metropolitan counties with either a whole or partial county primary care HPSA designation increased from 1987 to 2004. Non-metropolitan counties experienced an increase in counties designated as primary care shortage areas from 52% in 1987 to 76% in 2004.<sup>12</sup>

Changes to the CF impact all practices (rural and urban, primary care and specialty care) equally. On the other hand, changes to the GPCIs will have a differential geographic impact. Using a prototypical rural primary care practice (one physician) in an area where a new GPCI floor applied, analysis by the RUPRI Center found that changes to GPCIs between 2002 and 2004 resulted in less than a \$4,000 practice revenue increase. In contrast, direct bonus payments (HPSA and PSA) increased practice revenue more substantially. Again, in our prototypical practice, HPSA and PSA bonus payments resulted in approximately \$16,000 and \$8,000 revenue increases respectively.<sup>13</sup>

Interestingly, preliminary research by the RUPRI Center suggests that recent increases to primary care and cognitive service RVUs may have the greatest potential to impact rural practices positively. Rural practices predominantly deliver primary care and cognitive (non-surgical) services. Thus, depending on the degree of increase, increases to the RVU values of primary care and cognitive services may significantly impact rural practice revenue. In 2007, the RVUs for many cognitive services were increased. Once again using our prototypical rural primary care practice, we estimate increased revenue of approximately \$25,000 between 2004 and 2007 RVUs (not geographically adjusted and using a CF of \$37.8975).

## **IMPLICATIONS**

We postulate that three physician decisions could be affected by Medicare payment policy: where to practice (policy preference for rural location), which patients to accept (policy preference to accept Medicare), and what specialty to select (policy preference to select cognitive specialties). We have discussed four Medicare physician payment policy changes apparently intended to affect physician practice decisions: increasing the conversion factor (CF), increasing the GPCI<sub>work</sub> to a minimum (Floor), adding bonus and scarcity payments for services provided in physician shortage areas (Bonus), and increasing RVUs for cognitive services

(RVU). Potential relative impacts on physician decision-making by the four Medicare physician payment policies are depicted below.

<b>Payment Policy</b>	<b>Where to Practice</b>	<b>Which Patients to Accept</b>	<b>What Specialty to Select</b>
<b>CF</b>	---	++	---
<b>Floor</b>	++	+	---
<b>Bonus</b>	+++	+++	---
<b>RVU</b>	+	+	+++

Potential relative impact of four Medicare physician payment policies on physician practice decisions.

Importantly, the conclusions implied by the table and by the text below are *potential* impacts only. Although anecdotes and local situations suggest that Medicare payment policy directly influences physician practice decisions,<sup>14</sup> it is unclear at this time if current Medicare payment policy changes have significantly impacted physician practice decisions globally. However, in general we suggest the following conclusions.

- Increases to the CF affect all practices equally. The change may increase a physician’s willingness to accept Medicare patients, but it is unlikely to influence practice location or specialty selection decisions.
- Changes to the  $GPCI_{work}$  modestly increase revenue to rural physician practices (although many states have elected to serve as a single Medicare Locality, eliminating any geographic differential within that state). We believe the change may minimally influence a physician’s decision to accept Medicare patients but will not impact a decision to select cognitive versus procedural specialties.
- Current bonus payments targeting physicians practicing in physician shortage areas have the greatest potential to influence physician practice location and Medicare acceptance decisions. Since the bonus payments are

linked to all services a physician delivers, the change will not differentially influence a decision to select cognitive specialties.

- Changes to RVUs that increase cognitive services value may only modestly impact a practice location decision and a decision to accept Medicare patients. However, this payment change has greater potential to influence a decision to select cognitive specialties.

In addition, there may be an as yet undetermined financial threshold for change due to any one of the current payment policies. Additional practice revenue of \$4,000 from the floor payment may reinforce a decision to stay in a rural practice but seems unlikely to influence a decision about where to practice. Larger increases, such as the bonus payment impact of \$18,000 or the RVU change impact of \$25,000, seem to have a better chance to influence decision making. Obviously, many more factors than practice revenue enter into decisions about practice location, Medicare acceptance, and specialty choice. Yet hypothetically, we wonder what would be the effect on rural physician recruitment and retention if federal mandate reversed the Medicare revenue for rural primary care physicians and suburban proceduralists (for example, a rural primary care physician would generate the same revenue as a suburban gastroenterologist does currently – and vice versa).

Our analysis suggests that Medicare policy changes have the potential to influence practice location, Medicare acceptance, and specialty choice. Yet, the revenue change provided by current policies may be too small to impact physician decision making detectable at a national level. Furthermore, small physician revenue increases if applied to many or all practices nationally may have a greater budgetary impact and result in less physician change than individual large increases targeted directly to those areas in greatest need. Thus, to be more effective, policy makers should explicitly select a policy objective and then match a policy to the objective. Furthermore, multiple policy objectives are likely to require different payment policies. Research should evaluate policy effectiveness. That is, did the policy achieve the explicit policy objective? If policy makers' intent is to serve equitably (not necessarily equally) all Americans with physician services regardless of geographic location, further research regarding the levers of Medicare physician payment policy are needed.

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<sup>1</sup> Smith, SL, Fischhoff R, eds. *Medicare RBRVS: The Physicians' Guide 2007*. Chicago: American Medical Association; 2007.

<sup>2</sup> *Ibid.*

<sup>3</sup> Moore, K, et al. The RUC. *Family Practice Management*. February 2008.

<sup>4</sup> Adapted from CMS document, Estimated Sustainable Growth Rate and Conversion Factor, for Medicare Payments to Physicians in 2008, Table 6. Found at <http://www.cms.hhs.gov/SustainableGRatesConFact/Downloads/sgr2008f.pdf>.

<sup>5</sup> Ginsberg, PA. Bitter Medicine: Prescription To Fix SGR Requires A Commitment To Major Medicare Reform. Health Affairs blog. <http://healthaffairs.org/blog/2008/02/12/bitter-medicine-prescription-to-fix-sgr-requires-a-commitment-to-major-medicare-reform/>. February 12, 2008.

<sup>6</sup> Adapted from CMS document. *Op. Cit.*

<sup>7</sup> Jones, C.A., Kandel, W. & Parker, T. (April 2007). Population Dynamics Are Changing the Profile of Rural America. *Amber Waves*. Vol. 5, Issue 2. Washington, D.C.: U.S. Department of Agriculture, Economic Research Service.

<sup>8</sup> Data from the 2000/2001 Community Tracking Study Physician Survey of the Center for Studying Health System Change, available through the Inter-University Consortium for Political and Social Research.

<sup>9</sup> Matin M, et al. Splitting The Sustainable Growth Rate: A Proposal To Strengthen Medicare And Primary Care. *Health Affairs* blog. <http://healthaffairs.org/blog/2008/02/14/splitting-the-sustainable-growth-rate-a-proposal-to-strengthen-medicare-and-primary-care/>. February 14, 2008.

<sup>10</sup> Smith. *Op. Cit.*

<sup>11</sup> *Ibid.*

<sup>12</sup> North Carolina Rural Health Research & Policy Analysis Center calculations, Cited in *2008 Report to the Secretary: Rural health and Human Services Issues*. National Advisory Committee on Rural Health and Human Services. (To be released).

<sup>13</sup> Mueller, KJ, MacKinney, AC, McBride, TD. "Medicare Physician Payment: Impacts of Changes on Rural Physicians." RUPRI Center for Health Policy Analysis. August 2006.

<sup>14</sup> Unpublished RUPRI Center for Health Policy Analysis interviews.