



## Background

Sections 3102 and 5501 of the ACA describe several changes to the RBRVS system. Specifically, the ACA adjusts the Geographic Practice Cost Indices (GPCIs) and provides a bonus for furnishing primary care services. Specific changes include:

- Extending the Work GPCI floor of 1.000 through 2010. (The model assumes the floor will be further extended through 2011);
- Beginning in 2010, adjusting the Practice Expense GPCIs by  $\frac{1}{2}$  the difference between the employee wage and rents portion of each Medicare payment locality Practice Expense GPCI and the employee wage and rents portion of the national average Practice Expense GPCI. The same adjustment will be made beginning in 2011;
- Beginning in 2011, increasing the Practice Expense GPCI to 1.000 for Frontier states (Montana, North Dakota, South Dakota, Utah and Wyoming); and
- Beginning in 2011, providing a 10% bonus for primary care services (HCPCS codes 99201–99215, 99304–99340 and 99341–99350) furnished by a primary care practitioner (a physician who has a primary specialty of family medicine, internal medicine, geriatric medicine or pediatric medicine; a nurse practitioner; a clinical nurse specialist; or a physician assistant) if primary care services account for at least 60% of the Medicare allowed charges. (Note that preventive health services are not included.)

This policy brief presents the results of a model that calculates the effect of the ACA primary care payment changes for a prototypical primary care practice. The model assumes that the prototypical primary care practice will be eligible for the primary care bonus.<sup>1</sup> Other changes in the ACA, most importantly expansion of insurance coverage, a concomitant decrease in uncompensated care and previously unmet demand for services, are not modeled in this presentation. For more discussion of multiple factors affecting physician income, please see citations to previous RUPRI Center publications included in the appendix.

Since many of the final rules regarding ACA primary care payment have not yet been released, some variation between model calculations and final rule results is possible. Importantly, the practice model is *prototypical*; thus, it does not represent any one practice. Actual payment increases will vary by individual practice and physician. Nonetheless, analysis of a prototypical primary care practice provides policy makers and other stakeholders an important assessment of ACA impact. For each Medicare payment locality, the model calculates practice payment and physician personal income changes compared to a baseline as if the ACA were not enacted (Figure 6).

<sup>1</sup> The Health Professional Shortage Area (HPSA) bonus is not included in the model since it is not legislated by the ACA.

# Methodology

## ACA Provisions Modeling

The RBRVS is the system by which Medicare reimburses physicians for medical services. The RBRVS adds three relative values (physician work, practice expense and malpractice insurance expense) for each individual physician service, adjusts each of the relative values for geographic variation and then multiplies the sum by a conversion factor converting relative value units (RVUs) to dollars. The ACA adjusts two parts of the RBRVS (Work GPCI and Practice Expense GPCI) and adds a primary care bonus. For this policy brief, we have developed the following specific calculations to project ACA impact on primary care practice payment and physician personal income.

- Work GPCI Floor of 1.000  
For 2010 and 2011, all Medicare payment localities with GPCIs less than 1.000 are increased to 1.000.

- Practice Expense GPCI Adjustments  
The ACA mandates GPCI adjustments based on expenses attributable to the “employee wage and rent portion” of the GPCI. Therefore, the model uses the current cost share weights (Figure 1) to determine the proportion of practice expense attributable to employee wage and rent. Employee compensation (wages) and office rent (rents) equals 70.675% of all practice expenses  $[(18.654 + 12.209) / 43.669 = .70675]$ .

Expense Category	Current Cost Share Weight
Physician Work	52.466%
Practice Expense	43.669%
<i>Employee Compensation</i>	<i>18.654%</i>
<i>Office Rent</i>	<i>12.209%</i>
<i>Equipment, Supplies, Other</i>	<i>12.806%</i>
Malpractice Insurance	3.865%
Total	100%

Figure 1

The model then uses the following process to determine the new Practice Expense GPCIs. If the Medicare payment locality’s Practice Expense GPCI is less than the national average Practice Expense GPCI, the Medicare payment locality Practice Expense GPCI is multiplied by 70.675% and then subtracted from the product of the national average Practice Expense GPCI multiplied by 70.675%. The result is then multiplied by ½. This value is added to the original Medicare payment locality Practice Expense GPCI to determine the new 2010 Medicare payment locality Practice Expense GPCI. The same calculation is performed to determine the 2011 Practice Expense GPCIs, except the current Medicare payment locality Practice Expense GPCI and the national average Practice Expense GPCI are based on 2010 values. Steps in the model include:

1. If Medicare payment locality GPCI < national average GPCI, then
  2.  $[(\text{National Average GPCI} * .70675) - (\text{Medicare payment locality GPCI} * .70675)] * 0.5$ , then
  3. Add above result to Medicare payment locality GPCI
  4. Equals new 2010 Medicare payment locality GPCI
- Frontier Bonus  
For 2011, the Practice Expense GPCI is increased to 1.000 for the Frontier states of Montana, North Dakota, South Dakota, Utah and Wyoming.
  - Primary Care Bonus  
For 2011, the Medicare allowable charges for primary care services in the prototypical practice are multiplied by 10% and then summed to determine the bonus. The prototypical practice furnishes at least 60% primary care services and is thus eligible for the bonus.

## Practice Assumptions and Validation

In order to examine potential changes to primary care physician personal income resulting from the ACA, provisions of the legislation are used to adjust income for a prototypical primary care practice. Defining the characteristics of the prototypical practice requires multiple assumptions, including a constant 2010 Medicare conversion factor of \$36.0846,<sup>2</sup> a third-party payer conversion factor of 130% of Medicare rates (adjusted to 125% to account for bad debt) and a compensation-to-collection ratio of 0.506.<sup>3</sup> The compensation-to-collection ratio suggests that physicians receive in personal income only about 50% of the practice payments collected from Medicare and other insurers. The other 50% covers practice expenses (e.g., office rent and staff salaries) and malpractice insurance premiums.

Additional prototypical practice assumptions are detailed in the tables below (Figures 2 – 4).<sup>4</sup> The prototypical practice is validated by similar encounter numbers and relative value units (RVUs) compared to 2009 Medical Group Management Association (MGMA) median practice data (Figure 5).<sup>5</sup> However, since the practice is *prototypical*, it does not represent any one practice. Individual practice income and physician personal income will vary from model outputs.

Prototypical Physician Production per Year			
CPT Code	CPT Description	Volume	% Medicare
11100	Biopsy, skin lesion	138	80%
11401	Exc tr-ext b9+marg 0.6-1 cm	138	60%
12002	Repair superficial wound(s)	92	20%
17110	Destruct b9 lesion, 1-14	276	60%
17261	Destruction of skin lesions	184	60%
20552	Inj trigger point, 1/2 muscl	184	40%
20605	Drain/inject, joint/bursa	46	20%
55200	Incision of sperm duct	23	0%
57420	Exam of vagina w/scope	46	0%
57460	Bx of cervix w/scope, leep	23	0%
93015	Cardiovascular stress test	46	60%
99201	Office/outpatient visit, new	8	20%
99202	Office/outpatient visit, new	31	20%
99203	Office/outpatient visit, new	54	40%
99204	Office/outpatient visit, new	23	60%
99205	Office/outpatient visit, new	8	60%
99211	Office/outpatient visit, est	118	40%
99212	Office/outpatient visit, est	374	40%
99213	Office/outpatient visit, est	1296	60%
99214	Office/outpatient visit, est	502	80%
99215	Office/outpatient visit, est	69	80%
99222	Initial hospital care	46	80%
99232	Subsequent hospital care	138	80%
99305	Nursing facility care, init	6	100%
99309	Nursing fac care, subseq	84	100%
99392	Prev visit, est, age 1-4	92	0%
99393	Prev visit, est, age 5-11	46	0%
99394	Prev visit, est, age 12-17	23	0%
99395	Prev visit, est, age 18-39	0	0%
99396	Prev visit, est, age 40-64	46	0%
99397	Per pm reeval est pat 65+ yr	23	100%
	TOTAL	4184	

Figure 2

E&M CPT Code Distribution			
Est. Office Visit		New Office Visit	
99211	5%	99201	6%
99212	16%	99202	25%
99213	55%	99203	43%
99214	21%	99204	19%
99215	3%	99205	6%

Figure 3

Practice Assumptions	
Average total office visits per day	20.2
E&M clinic office visits per day	12.0
Preventive clinic visits per week	5.0
Hospital admissions per week	1.0
Hospital visits per week	3.0
Patient care days per week	4.5
Patient care weeks per year	46.0
% established patients	95%
Nursing home admissions per month	0.5
Nursing home visits per month	7.0

Figure 4

2008 MGMA Validation (FP, no OB)		
Category	MGMA Medians	Model Baseline
Ambulatory encounters	3,962	4,000
Hospital encounters	177	184
Total encounters	4,139	4,184
RVU work	4,735	4,619
RVU total	8,870	8,930

Figure 5

<sup>2</sup> The final 2010-2011 Medicare conversion factor remains uncertain due to ongoing Sustainable Growth Rate (SGR) discussions.

<sup>3</sup> Medical Group Management Association. *Cost Survey: 2009 Report Based on 2008 Data*.

<sup>4</sup> Thomson-Reuters data regarding national distribution of office-based evaluation and management services.

<sup>5</sup> Medical Group Management Association. *Physician Compensation and Production Survey: 2009 Report Based on 2008 Data*.

## Revenue Change by Medicare Locality

Locality	2010			2011			
	Practice Payment Increase due to GPCI Changes	Total Physician Personal Income Increase (\$)	Total Physician Personal Income Increase (%)	Practice Payment Increase due to GPCI Changes	Practice Payment Increase due to PC Bonus	Total Physician Personal Income Increase (\$)	Total Physician Personal Income Increase (%)
Alabama	\$14,503	\$7,338	4.0%	\$23,236	\$11,833	\$17,745	9.7%
Alaska	\$0	\$0	0.0%	\$0	\$15,864	\$8,027	3.1%
Arizona	\$5,956	\$3,014	1.5%	\$9,880	\$12,183	\$11,164	5.7%
Arkansas	\$18,881	\$9,554	5.3%	\$27,938	\$11,799	\$20,107	11.2%
Anaheim/Santa Ana, CA	\$0	\$0	0.0%	\$0	\$13,904	\$7,035	3.0%
Los Angeles, CA	\$0	\$0	0.0%	\$0	\$13,705	\$6,935	3.0%
Marin/Napa/Solano, CA	\$0	\$0	0.0%	\$0	\$13,753	\$6,959	3.0%
Oakland/Berkley, CA	\$0	\$0	0.0%	\$0	\$13,988	\$7,078	3.0%
San Francisco, CA	\$0	\$0	0.0%	\$0	\$14,874	\$7,526	3.0%
San Mateo, CA	\$0	\$0	0.0%	\$0	\$14,907	\$7,543	3.0%
Santa Clara, CA	\$0	\$0	0.0%	\$0	\$14,208	\$7,189	3.0%
Ventura, CA	\$0	\$0	0.0%	\$0	\$13,821	\$6,994	3.0%
Rest of California*	\$0	\$0	0.0%	\$0	\$12,481	\$6,316	3.1%
Colorado	\$3,822	\$1,934	1.0%	\$6,128	\$12,201	\$9,274	4.7%
Connecticut	\$0	\$0	0.0%	\$0	\$13,526	\$6,844	3.0%
DC + MD/VA Suburbs	\$0	\$0	0.0%	\$0	\$13,783	\$6,974	3.0%
Delaware	\$0	\$0	0.0%	\$0	\$12,485	\$6,318	3.1%
Fort Lauderdale, FL	\$2,031	\$1,028	0.5%	\$2,914	\$12,821	\$7,962	3.8%
Miami, FL	\$0	\$0	0.0%	\$0	\$13,390	\$6,775	3.0%
Rest of Florida	\$10,014	\$5,067	2.6%	\$14,770	\$12,449	\$13,773	7.0%
Atlanta, GA	\$0	\$0	0.0%	\$1,169	\$12,382	\$6,857	3.4%
Rest of Georgia	\$12,911	\$6,533	3.5%	\$20,257	\$12,015	\$16,330	8.7%
Hawaii/Guam	\$369	\$187	0.1%	\$369	\$13,042	\$6,786	3.1%
Idaho	\$15,127	\$7,654	4.2%	\$22,473	\$11,919	\$17,402	9.4%
Chicago, IL	\$0	\$0	0.0%	\$0	\$13,193	\$6,675	3.1%
East St. Louis, IL	\$8,490	\$4,296	2.2%	\$14,171	\$12,427	\$13,458	6.8%
Suburban Chicago, IL	\$0	\$0	0.0%	\$0	\$12,969	\$6,562	3.1%
Rest of Illinois	\$13,864	\$7,015	3.7%	\$21,349	\$12,141	\$16,946	9.0%
Indiana	\$9,115	\$4,612	2.4%	\$14,843	\$12,017	\$13,591	7.2%
Iowa	\$16,426	\$8,311	4.6%	\$24,373	\$11,850	\$18,329	10.1%
Kansas	\$14,829	\$7,503	4.1%	\$22,221	\$11,920	\$17,276	9.4%
Kentucky	\$16,402	\$8,300	4.5%	\$24,812	\$11,902	\$18,577	10.2%
New Orleans, LA	\$2,585	\$1,308	0.6%	\$2,585	\$12,498	\$7,632	3.7%
Rest of Louisiana	\$14,930	\$7,555	4.1%	\$22,508	\$12,025	\$17,474	9.4%
Southern Maine	\$3,693	\$1,869	0.9%	\$4,075	\$12,246	\$8,259	4.1%
Rest of Maine	\$15,335	\$7,759	4.2%	\$22,218	\$11,923	\$17,276	9.4%
Baltimore/Surr. Cntys, MD	\$0	\$0	0.0%	\$0	\$12,691	\$6,422	3.1%
Rest of Maryland	\$3,060	\$1,549	0.8%	\$5,828	\$12,258	\$9,151	4.6%
Metropolitan Boston	\$0	\$0	0.0%	\$0	\$13,976	\$7,072	3.0%
Rest of Massachusetts	\$0	\$0	0.0%	\$0	\$12,818	\$6,486	3.1%
Detroit, MI	\$0	\$0	0.0%	\$0	\$13,032	\$6,594	3.1%
Rest of Michigan	\$6,542	\$3,310	1.7%	\$12,038	\$12,194	\$12,261	6.3%
Minnesota	\$3,358	\$1,699	0.9%	\$6,080	\$12,046	\$9,171	4.7%
Mississippi	\$18,678	\$9,451	5.2%	\$27,365	\$11,941	\$19,889	10.9%
Metropolitan Kansas City, MO	\$6,445	\$3,261	1.7%	\$10,924	\$12,280	\$11,741	6.0%

Figure 6

Figure 6 continues on the next page.

## Revenue Change by Medicare Locality (continued)

Locality	2010			2011			
	Practice Payment Increase due to GPCI Changes	Total Physician Personal Income Increase (\$)	Total Physician Personal Income Increase (%)	Practice Payment Increase due to GPCI Changes	Practice Payment Increase due to PC Bonus	Total Physician Personal Income Increase (\$)	Total Physician Personal Income Increase (%)
Metropolitan St Louis, MO	\$6,893	\$3,488	1.8%	\$12,019	\$12,209	\$12,259	6.3%
Rest of Missouri*	\$22,885	\$11,580	6.5%	\$33,098	\$11,930	\$22,784	12.7%
Montana	\$20,841	\$10,545	5.9%	\$40,199	\$12,160	\$26,494	14.7%
Nebraska	\$16,103	\$8,148	4.5%	\$23,126	\$11,832	\$17,689	9.7%
Nevada	\$0	\$0	0.0%	\$311	\$12,464	\$6,464	3.1%
New Hampshire	\$3,324	\$1,682	0.8%	\$3,324	\$12,302	\$7,907	3.9%
Northern NJ	\$0	\$0	0.0%	\$0	\$13,931	\$7,049	3.0%
Rest of New Jersey	\$0	\$0	0.0%	\$0	\$13,274	\$6,716	3.1%
New Mexico	\$13,518	\$6,840	3.6%	\$20,541	\$12,122	\$16,527	8.8%
Manhattan, NY	\$0	\$0	0.0%	\$0	\$14,324	\$7,248	3.0%
NYC Suburbs/Long I., NY	\$0	\$0	0.0%	\$0	\$14,268	\$7,219	3.0%
Poughkpsie/N NYC Suburbs, NY	\$0	\$0	0.0%	\$0	\$12,724	\$6,438	3.1%
Queens, NY	\$0	\$0	0.0%	\$0	\$13,866	\$7,016	3.0%
Rest of New York	\$6,869	\$3,476	1.8%	\$12,458	\$11,965	\$12,358	6.5%
North Carolina	\$11,200	\$5,667	3.0%	\$16,603	\$12,045	\$14,496	7.7%
North Dakota	\$21,609	\$10,934	6.2%	\$41,360	\$12,062	\$27,032	15.2%
Ohio	\$7,179	\$3,632	1.9%	\$12,490	\$12,254	\$12,520	6.4%
Oklahoma	\$18,041	\$9,129	5.0%	\$26,913	\$11,870	\$19,625	10.8%
Portland, OR	\$0	\$0	0.0%	\$1,097	\$12,217	\$6,737	3.4%
Rest of Oregon	\$11,795	\$5,968	3.2%	\$17,106	\$11,994	\$14,725	7.8%
Metropolitan Philadelphia, PA	\$0	\$0	0.0%	\$0	\$13,118	\$6,638	3.1%
Rest of Pennsylvania	\$7,322	\$3,705	1.9%	\$12,726	\$12,198	\$12,611	6.5%
Puerto Rico	\$40,278	\$20,380	13.0%	\$56,364	\$11,383	\$34,280	21.8%
Rhode Island	\$0	\$0	0.0%	\$0	\$12,837	\$6,496	3.1%
South Carolina	\$12,005	\$6,074	3.3%	\$18,287	\$11,937	\$15,293	8.2%
South Dakota	\$21,102	\$10,678	6.0%	\$38,236	\$12,074	\$25,457	14.2%
Tennessee	\$12,666	\$6,409	3.4%	\$19,735	\$11,953	\$16,034	8.6%
Austin, TX	\$3,287	\$1,663	0.8%	\$5,962	\$12,295	\$9,238	4.6%
Beaumont, TX	\$12,560	\$6,355	3.3%	\$20,276	\$12,173	\$16,419	8.6%
Brazoria, TX	\$6,244	\$3,159	1.6%	\$11,786	\$12,361	\$12,219	6.2%
Dallas, TX	\$594	\$300	0.1%	\$2,483	\$12,440	\$7,551	3.7%
Fort Worth, TX	\$4,396	\$2,224	1.1%	\$8,505	\$12,272	\$10,513	5.3%
Galveston, TX	\$5,259	\$2,661	1.3%	\$9,091	\$12,324	\$10,836	5.5%
Houston, TX	\$1,666	\$843	0.4%	\$4,249	\$12,531	\$8,491	4.2%
Rest of Texas	\$15,228	\$7,705	4.1%	\$22,759	\$12,086	\$17,632	9.4%
Utah	\$11,564	\$5,851	3.1%	\$23,070	\$12,280	\$17,887	9.4%
Vermont	\$7,790	\$3,942	2.0%	\$10,511	\$12,129	\$11,456	5.9%
Virginia	\$8,137	\$4,117	2.1%	\$12,755	\$12,092	\$12,572	6.5%
Virgin Islands	\$2,793	\$1,413	0.7%	\$5,745	\$12,295	\$9,128	4.6%
Seattle (King Cnty), WA	\$0	\$0	0.0%	\$0	\$12,728	\$6,441	3.1%
Rest of Washington	\$4,925	\$2,492	1.3%	\$8,063	\$12,178	\$10,242	5.2%
West Virginia	\$18,024	\$9,120	5.0%	\$27,960	\$12,065	\$20,253	11.0%
Wisconsin	\$8,531	\$4,317	2.3%	\$14,120	\$11,959	\$13,196	7.0%
Wyoming	\$20,090	\$10,166	5.6%	\$31,978	\$11,951	\$22,228	12.3%
<b>MEAN</b>	<b>\$6,990</b>	<b>\$3,537</b>	<b>1.9%</b>	<b>\$11,122</b>	<b>\$12,620</b>	<b>\$12,013</b>	<b>6.2%</b>
<b>MEDIAN</b>	<b>\$4,109</b>	<b>\$2,079</b>	<b>1.1%</b>	<b>\$7,095</b>	<b>\$12,280</b>	<b>\$9,758</b>	<b>5.2%</b>

Figure 6 (continued)

## DISCUSSION

Based on model outputs detailed in the tables above (Figure 6), the ACA primary care payment changes improve primary care payment in most Medicare payment localities in 2010 and in all Medicare payment localities in 2011. Average primary care physician personal income increases due to the ACA are minimal in 2010 (\$3,537 or 1.9%), but increase in 2011 (\$12,013 or 6.2%). ACA adjustments to the GPCIs tend to increase physician personal income more in entire-state Medicare payment localities than in states with multiple Medicare payment localities, thus generally benefitting rural practices. Entire-state Medicare localities tend to be more rural. However, the primary care bonus requirement that practices furnish at least 60% primary care services may make some rural practices ineligible for the bonus. Any given primary care practice provides both cognitive (including ACA-defined primary care services) and procedural services (such as wound repairs). In many rural places, the primary care practice, as the only source of care, may provide a substantial set of procedures in order to assure comprehensive care to rural residents. Since rural practices may tend to offer more procedures (and thus proportionally less primary care services) than urban/suburban practices, the ACA's impact on rural primary care practices may not meet expectations. Further study is needed to assess the likelihood that a rural practice will benefit from the primary care bonus payment.

When assessing rural physician reimbursement under Medicare, reviewers should consider legislative payment improvements in total, not simply the ACA's physician payment provisions. For example, a 10% bonus for Medicare services furnished in a Health Professional Shortage Area (HPSA) continues; 68% of HPSAs are located in rural areas. The 2010 Physician Fee Schedule final rule changes certain relative values that increase reimbursement for primary care services. In addition, Title V of the ACA includes provisions to attract students to medical careers, incentives to train in primary care and program enhancements to increase the likelihood of practice in rural and underserved areas. Therefore, "tweaking" primary care payment should be considered as one of many efforts to enhance the attractiveness of rural primary care practice. This policy brief isolates the impact of only one policy choice, payment for primary care services.

**Appendix**  
**Selected Previous RUPRI Center Policy Briefs and Papers**  
(click on a title to access a pdf of a document)

***Related to Physician Payment***

[Rural Primary Care Physician Payment 2006-2009: What a Difference Three Years \*Doesn't\* Make](#)

[Medicare Physician Payment Policy and the Rural Perspective. Final Report](#)

[Medicare Physician Payment: Impacts of Changes on Rural Physicians](#)

[Medicare Physician Payment: Practice Expense](#)

[Medicare Physician Payment](#)

***Related to Health Care Reform***

[The Patient Protection and Affordable Care Act, A Summary of Provisions Important to Rural Health Care Delivery](#)

[Impact of the Recession on Rural America: Rising Unemployment Leading to More Uninsured in 2009](#)

[A Rural-Urban Comparison of a Building Blocks Approach to Covering the Uninsured](#)

Case Studies of Developments in Rural Health: Profiles of three rural counties in difficult economic times:

[Leake County, Mississippi](#)

[Walthall County, Mississippi](#)

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***Related to Medicare Advantage Plans***

[March 2010 Medicare Advantage National and State Enrollment Tables and Maps](#)

[February 2010: A Dramatic Shift Away from Private Fee-for-Service Plans in Rural Medicare Advantage Enrollment](#)

[December 2009: Rural Medicare Advantage Enrollment Grows 15% in 2009](#)

[July 2009: Rural Enrollment in Medicare Advantage Continues to Grow](#)