

# *HOSPITAL & PHYSICIAN COST SHIFT*

## *PAYMENT LEVEL COMPARISON OF MEDICARE, MEDICAID, AND COMMERCIAL PAYERS*

**Presented by:**  
**Will Fox, FSA, MAAA**  
**John Pickering, FSA, MAAA**

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At the request of America’s Health Insurance Plans, the American Hospital Association, the Blue Cross Blue Shield Association, and Premera Blue Cross, Milliman has prepared this comparison of hospital and physician payment levels among Medicare, Medicaid and commercial payers.

We understand that this report will be shared with health plans, hospitals, physicians, employer groups, legislators, and others to support a constructive dialogue among all stakeholders regarding the provider payment rates paid by public programs.

**SUMMARY OF FINDINGS**

Nationwide, attention is increasingly being focused on the provider payment levels of the Medicare and Medicaid programs relative to those of commercial payers. In many areas, public programs pay providers significantly lower rates than do commercial health plans. Nationwide, this discrepancy has widened in recent years, as Medicare and Medicaid hospital payments have not kept up with costs and Medicare physician payment levels have remained flat.

The payment rate differential can be thought of as a cost shift from the public programs to commercial payers. That is, if Medicare and Medicaid paid higher rates, commercial payers could pay lower rates with healthcare providers still achieving the same overall reimbursement. As it is, commercial payers subsidize the cost of Medicare and Medicaid, essentially through a hidden tax. The hidden nature of this subsidy makes it difficult to quantify and debate. With this study quantifying the cost shift, we hope to further the public discussion.

This report quantifies the cost shift for the most recent time periods with data available, 2006 for hospitals and 2007 for physicians.

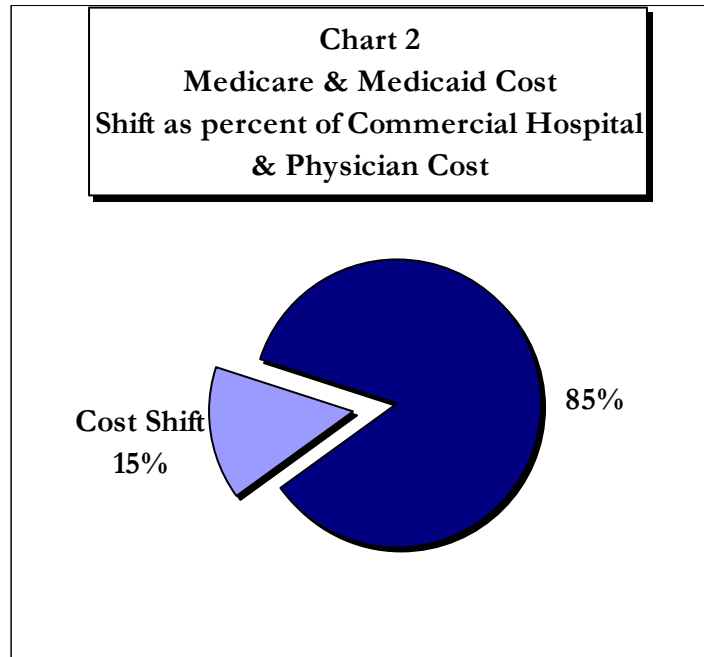
We define the cost shift for each payer as the difference between the actual payment and the payment amount that would have resulted in an equal margin by payer. We estimate the total annual cost shift in the United States from Medicare and Medicaid to commercial payers is approximately \$88.8 billion. Chart 1 presents our estimates.

<b>Chart 1</b>				
<b>Medicare &amp; Medicaid Cost Shift</b>				
<b>in billions</b>				
	<i>Medicare</i>	<i>Medicaid</i>	<i>Commercial</i>	<i>Total</i>
Hospital	(\$34.8)	(\$16.2)	\$51.0	\$0.0
Physician	(\$14.1)	(\$23.7)	\$37.8	\$0.0
<b>Total</b>	<b>(\$48.9)</b>	<b>(\$39.9)</b>	<b>\$88.8</b>	<b>\$0.0</b>

Chart 1 shows Medicare paid \$48.9 billion less and Medicaid paid \$39.9 billion less than they would have if all payers paid equivalent rates. Commercial payers paid \$88.8 billion more than they would have if all payers paid equivalent rates. That is, we calculate the cost shift by holding total provider reimbursement constant, but redistributing the source of payment.

The measurement of the cost shift throughout this report includes only the payment level differences among Medicare, Medicaid and commercial payers. It does not separately value costs that providers must bear stemming from bad debt and charity care provided to individuals without insurance coverage.

Chart 2 shows that the estimated cost shift from public to private payers of \$88.8 billion is estimated to be 15% of the current amount spent by commercial payers on hospital and physician services. Stated differently, if there were no cost shift, commercial hospital and physician costs would be 15% lower.



Charts 3a and 3b show that the cost shift figures more prominently in hospital payments than in physician payments, at 18% compared to 12%.

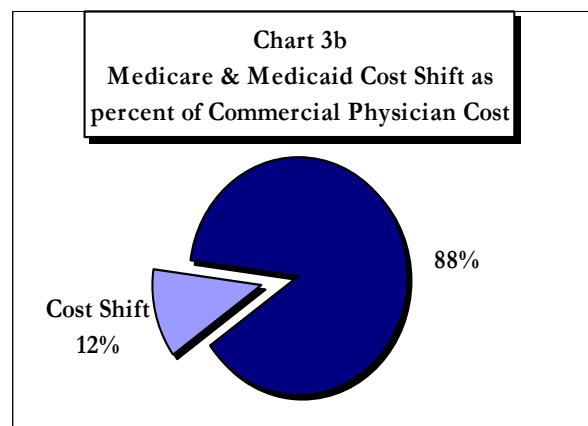
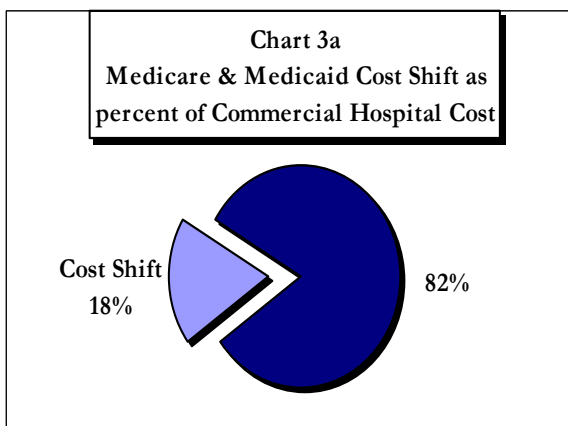


Chart 4 translates the cost shift into extra costs paid by employers and employees through premium and additional cost sharing amounts (deductibles, copays, and coinsurance). Chart 4 represents the annual cost shift burden borne by a typical family of four in a commercial PPO plan.

<b>Chart 4</b>						
<b>Annual Medicare &amp; Medicaid Cost Shift Burden for Typical Family of Four in a Commercial PPO Plan</b>						
	Total Annual Cost <sup>1</sup>			Portion Due to Cost Shift		
	<i>Cost</i>			<i>Cost</i>		
	<u>Premium</u>	<u>Sharing</u>	<u>Total</u>	<u>Premium</u>	<u>Sharing</u>	<u>Total</u>
Employer	\$10,481		\$10,481	\$1,115		\$1,115
Subscriber	\$3,731	\$2,420	\$6,151	\$397	\$276	\$673
Total	\$14,212	\$2,420	\$16,632	\$1,512	\$276	\$1,788
% of Total				10.6%	11.4%	10.7%
1) Based on the 2007 Milliman Medical Index, with an 85% loss ratio assumed.						

We estimate that the cost shift is responsible for 10.7% of total health care spending for the family, or an additional \$1,788 annually. Note that Chart 2 looks at the cost shift as a percent of only hospital and physician costs, whereas Chart 4 looks at the cost shift as a percent of all medical spending (prescription drugs and miscellaneous services) as well as health plan administration costs.

When broken down, we estimate the cost shift adds \$1,512 annually, or 10.6%, to the premium of a family of four. Of this cost shift amount, we estimate employers pay \$1,115 and subscribers \$397 annually. The cost shift also increases member cost sharing by approximately \$276 annually.

The percentage of total cost stemming from the cost shift varies between the premium and cost sharing components of total cost for two reasons. First, commercial premium includes health plan administration costs as well as health care costs, and the cost shift is measured only on health care costs. Second, typical benefit plan designs have higher cost sharing on prescription drugs, and lower cost sharing on hospital and physician services, in proportion to the total cost of the services. These two effects combine to produce the estimates in Chart 4.

In this report, we have estimated the difference in payment rates among Medicare, Medicaid, and commercial payers. The existence of the payment differential is established and well-known throughout the healthcare industry, although quantification of its magnitude has been lacking. Other studies have reported large payment differentials, mainly for hospitals and to a lesser extent for physicians. However, this study is the first that we are aware of that encompasses the payment differential in both hospital and physician costs throughout the United States.

## HOSPITAL

Our hospital findings are based on analysis of the 2006 American Hospital Association (AHA) Survey data. The survey includes data on the 4,927 short-term, community hospitals in the United States. The data represents each hospital's fiscal year 2006 results.

Please refer to the methodology section for details on the methodology behind the findings presented in this section.

Chart 5 presents hospital operating margins by payer.

	(A)	(B)	(C)=A+B	(D)	(E)=C+D	(F)=E/C
	<i>Patient Revenue</i>	<i>Other Operating Revenue</i>	<i>Total Revenue</i>	<i>Operating Expense</i>	<i>Gain</i>	<i>Operating Margin</i>
Medicare	\$195.7	\$10.0	\$205.7	(\$225.1)	(\$19.4)	-9.4%
Medicaid	\$67.8	\$4.8	\$72.6	(\$83.3)	(\$10.7)	-14.7%
Commercial	\$276.4	\$10.7	\$287.1	(\$220.6)	\$66.5	23.1%
Subtotal	\$539.9	\$25.6	\$565.5	(\$529.1)	\$36.4	6.4%
Other Gov't & Self Pay	\$43.7	\$6.7	\$50.5	(\$63.2)	(\$12.7)	-25.1%
Operating Total	\$583.6	\$32.3	\$616.0	(\$592.3)	\$23.7	3.8%

Chart 5 shows that hospitals experienced significant losses on Medicare and Medicaid business in 2006 and significant gains on commercial payers. This study primarily focuses on these three types of payers, but in order to present the overall operating performance, Chart 5 also includes Other Government & Self Pay, on which hospitals experienced a significant loss.

Chart 5 shows that while hospitals posted a 3.8% overall operating margin in 2006, it was composed of a 23.1% margin on commercial payers offsetting large losses on public payers and self pay.

This discrepancy is of concern not just to commercial payers, but also to hospitals that primarily serve Medicare and Medicaid populations. These hospitals may not be able to offset low public payments with higher commercial payments.

The Medicare and Medicaid values in Chart 5 include both the traditional programs and managed care plans. The Other Government category includes military, workers compensation, Native American, indigent, and other public programs.

Chart 6 presents hospital operating margins over the last 12 years. It shows the divergence of operating margins beginning in 2000. In 1999, there was approximately an 11.3 percentage point gap in operating margin between Medicare and commercial payers, and a 16.0 point gap between Medicaid and commercial. By 2006, this had widened to a 32.5 percentage point gap between Medicare and commercial, and 37.8 points between Medicaid and commercial.

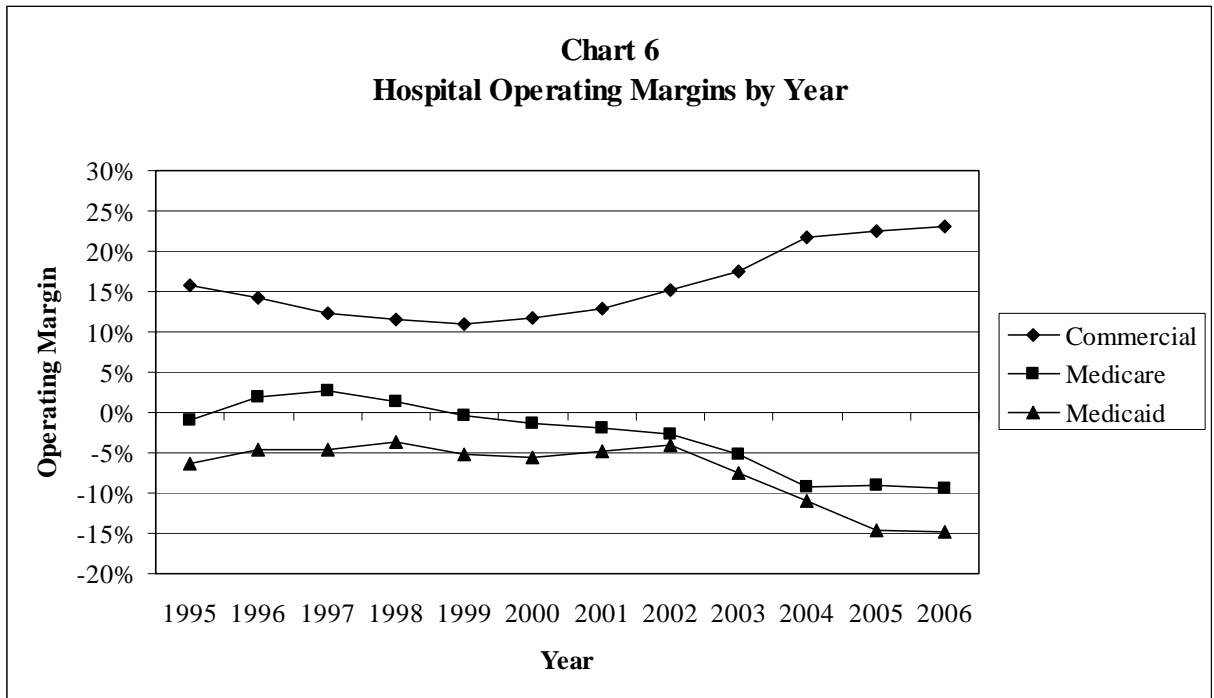


Chart 7 translates the operating margin gap in 2006 to the hospital cost shift by payer type. For the cost shift calculation, we focus only on the three largest payer segments: Medicare, Medicaid and commercial. If the cost shift were eliminated, hospitals would achieve the same operating margin from each payer.

**Chart 7**  
**2006 Medicare & Medicaid Hospital Cost Shift**  
**in billions**

	(A)	(B)	(C)	(D)=C/A	(E)=A-C	(F)
	Actual, with Cost Shift			Percent of	With Cost Shift Removed	
	<i>Patient Revenue</i>	<i>Margin</i>	<i>Cost Shift</i>	<i>Patient Revenue</i>	<i>Patient Revenue</i>	<i>Margin</i>
Medicare	\$195.7	-9.4%	(\$34.8)	-17.8%	\$230.5	6.4%
Medicaid	\$67.8	-14.7%	(\$16.2)	-23.9%	\$84.0	6.2%
Commercial	\$276.4	23.1%	\$51.0	18.4%	\$225.4	6.6%
<b>Total</b>	<b>\$539.9</b>	<b>6.4%</b>	<b>\$0.0</b>	<b>0.0%</b>	<b>\$539.9</b>	<b>6.4%</b>

Chart 7 shows that in 2006, if Medicare, Medicaid and commercial payers had each supplied revenue in the same proportion to their expense, Medicare would have supplied an additional \$34.8 billion in revenue and Medicaid an additional \$16.2 billion in revenue. The commercial segment would have needed to supply \$51.0 billion less in revenue.

Column F in Chart 7 shows margins that vary somewhat by payer. This is due to differences in the mix of Medicare, Medicaid, and commercial business by hospital. For each hospital, the margin would be the same among these three payer types with the cost shift removed.

**PHYSICIAN**

Our physician findings are based on 2007 fee schedule levels for Medicare, Medicaid, and commercial payers.

Chart 8 compares physician payment levels.

<b>Chart 8</b>	
<b>2007 Physician Payment Levels</b>	
	<i>Relative Payment Level</i>
Medicare	89%
Medicaid	60%
<u>Commercial</u>	<u>114%</u>
<u>Total</u>	<u>100%</u>

Chart 8 shows that Medicare payment rates are approximately 89% of the overall average rate for these three payer types. Medicaid rates are approximately 60% of the overall average, and commercial rates are approximately 114% of the average. For the same service, then, Medicare would pay 11% less than average, Medicaid would pay 40% less than average, and commercial payers would pay 14% more than average. The cost shift is estimated as the difference between each payer’s actual payment level and the average.

Commercial payment levels vary by payer and further may vary by geographic area, physician specialty or other factors. Our estimate is intended as an average commercial payment level across all payers, areas, and services. Similarly, Medicare and Medicaid payment levels vary by geographic area and other factors. The estimates represent nationwide averages.

Chart 9 quantifies the physician cost shift.

<b>Chart 9</b>						
<b>2007 Medicare &amp; Medicaid Physician Cost Shift</b>						
<b>in billions</b>						
	(A)	(B)	(C)	(D)=C/A	(E)=A-C	(F)
	<u>Actual, with Cost Shift</u>				<u>With Cost Shift Removed</u>	
	<i>Relative</i>		<i>Cost</i>	<i>% of</i>	<i>Relative</i>	
	<u>Allowed</u>	<u>Payment Level</u>	<u>Shift</u>	<u>Allowed</u>	<u>Allowed</u>	<u>Payment Level</u>
Medicare	\$111.2	89%	(\$14.1)	-13%	\$125.3	100%
Medicaid	35.9	60%	(\$23.7)	-66%	59.6	100%
<u>Commercial</u>	<u>311.0</u>	<u>114%</u>	<u>\$37.8</u>	<u>12%</u>	<u>273.2</u>	<u>100%</u>
<u>Total</u>	<u>\$458.2</u>	<u>100%</u>	<u>\$0.0</u>	<u>0%</u>	<u>\$458.2</u>	<u>100%</u>

Chart 9 shows that the estimated cost shift resulted in Medicare paying \$14.1 billion less and Medicaid paying \$23.7 billion less than they otherwise would have. In the absence of the cost shift, commercial payers would have paid \$37.8 billion less.

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The physician results are based purely on payment rate differences between payers, whereas the hospital results are based on hospital operating margins, which take into account hospital costs as well as payment rates. The reason for this difference in approach is that reliable information about physician practice costs at a detailed level was not available.

## **METHODOLOGY**

All values in this report are presented as best estimates. While we present point estimates to ease interpretation, the reader should realize that, in reality, the values are not precise and should be thought of as center points of ranges of likely values. Different approaches would lead to different results.

### *Hospital*

The hospital estimates are based on 2006 AHA Survey data. The data includes values for 4,927 short-term, community hospitals in the United States. The data includes survey responses from approximately 71% of these hospitals. The data for the remaining 29% were imputed by an algorithm developed by the AHA. Of the responses, approximately 58% were stated to be based on audited financial statements.

In performing our analysis, we relied on the AHA survey data. We reviewed the data for reasonableness and compared it to other available data points. However, we have not audited the data. If the underlying data is inaccurate or incomplete, the results of our analysis may likewise be inaccurate or incomplete.

We excluded results for 310 hospitals with unusable survey data. We adjusted our subsequent results (based on the remaining hospitals) upward to account for the exclusion of these hospitals.

The commercial category in this report includes the survey categories “third-party payers” and “other non-government” payers. The majority of this category is commercial PPO, HMO, and other types of health plans.

We applied the following methodology to calculate the financial values in this report:

- **Net Patient Revenue:** Net patient revenue is reported in the survey by payer. Net patient revenue is gross of bad debt (which is treated as an expense) but net of charity care (which is treated as a deduction from revenue). Net patient revenue includes disproportionate share payments.
- **Other Operating Revenue:** Other operating revenue is reported in total in the survey data. We allocated it by payer in proportion to billed charges. We include tax appropriations in this category. We allocated tax appropriations primarily to the self-pay line of business.



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- **Operating Expense:** Operating expense is reported in total in the survey data. We allocated operating expense, net of bad debt, by payer in proportion to billed charges. We used a single hospital specific cost-to-charge ratio to allocate expenses. If actual hospital charges represented a consistent percentage mark-up over costs for all services, the use of a single cost-to-charge factor by hospital would accurately allocate expenses. In reality, hospital mark-ups vary by type of service, and payer service mixes vary. However, payer specific billed charges by service type are not available. We think the use of the single cost-to-charge ratio by hospital is a reasonable substitute, and allocates expenses reasonably well.

We separately allocated bad debt, since the self-pay line of business experiences much higher bad debt than do other lines. We allocated bad debt as a percentage of net patient revenue by payer, with the self-pay target percentage much higher than the target percentage for the other payers.

### Physician

In order to estimate the physician cost shift, we needed to estimate both the payment level differences for physician services among Medicare, Medicaid, and commercial payers, as well as the overall magnitude of payments from each payer.

To estimate the first component, the relative reimbursement levels, we estimated both the Medicaid fee schedules and typical commercial fee schedules as a percent of Medicare. For Medicaid, we gathered the fee schedule from each state that was in effect as of July 1, 2007. In some instances, the July 1, 2007 fee schedule was not available, in which case we used the available fee schedule closest to July 1, 2007. We were able to gather the Medicaid fee schedules for all states except Tennessee.

We based our comparison on approximately 100 high volume procedure codes, based on a Medicaid utilization distribution, which account for approximately 55% of total medical charges. For each procedure code, we assigned the Medicaid and Medicare allowable fees, and summarized results weighted on a Medicaid utilization distribution, expressing results as the Medicaid fee divided by the Medicare fee. The Medicare fees assigned take into account Medicare GPCI area adjustments, as well as the Medicare site-of-service adjustment.

To estimate typical commercial physician fee levels relative to Medicare, we relied on three proprietary databases which contain commercial physician claims, nationwide. Physician fee levels vary among commercial payers. Our values are intended to reflect an average reimbursement level in 2007, across all professional services and across all commercial payers. Our databases enabled us to develop estimates of physician fee levels at the three digit zip code level.

Similar to the Medicaid approach, we based our comparison on a sample of approximately 150 high volume procedure codes, based on a commercial utilization distribution, which account for approximately 67% of total RBRVS RVUs. By three-digit zip code, we assigned the commercial allowed fee, as well as the Medicare allowed fee. We rolled these up to the state level based on commercial membership by zip code. We report results as the ratio of the commercial fee to the Medicare fee.

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The second component required to estimate the cost shift is the overall magnitude of physician payments by payer. We used information from CMS' State Health Care Expenditure Data in order to estimate professional payments by Medicare, Medicaid and commercial payers.

#### *Premium and Cost Sharing Impact*

Chart 4 presents estimates of the magnitude of the Medicare and Medicaid cost shift in relation to premium and cost sharing amounts for a typical commercial PPO plan for a family of four. The underlying premium and cost sharing estimates are based on the 2007 Milliman Medical Index. The Milliman Medical Index examines the total cost to deliver healthcare and how the cost is allocated between the employer and the employee. To the underlying medical cost, we added 15% administration costs in order to estimate the typical premium level.

The Milliman Medical Index provides estimates of the premium split between employer and employee, as well as cost sharing amounts by type of service (hospital, physician, prescription drugs, and other). These distributions were used to estimate the impact of the cost shift separately on premium and on cost sharing amounts. The premium and cost sharing estimates in this report represent nationwide averages. Healthcare costs and premiums vary by geographic area.

#### **CAVEATS AND LIMITATIONS**

Milliman is an independent consulting firm that was engaged by AHIP, AHA, BCBSA, and Premera Blue Cross to develop a best estimate of the cost shift in United States. Using the methodology presented in this report, we have objectively estimated the cost shift.

Milliman makes no representations or warranties regarding the contents of this report to third parties. Likewise, third parties are instructed that they are to place no reliance upon this report that would result in the creation of any duty or liability under any theory of law by Milliman or its employees to third parties. The estimates included in this report cannot and do not consider every variation from the key assumptions and the effect of variations on the results.