How Do the Hospital Prices Paid by Medicare Advantage Plans and Commercial Plans Compare With Medicare Fee-for-Service Prices?

Jared Lane K. Maeda, PhD, MPH[1] (iD) and Lyle Nelson, PhD[1]

Abstract

The prices that private insurers pay hospitals have received considerable attention in recent years, but most of that literature has focused on the commercially insured population. Although nearly one-third of Medicare beneficiaries are enrolled in a Medicare Advantage (MA) plan, little is known about the prices paid to hospitals by the private insurers that administer such plans. More information on the hospital prices paid by MA plans would provide additional insights into whether MA prices are more closely tied to Medicare fee-for-service (FFS) prices or commercial prices. Moreover, information on whether the hospital prices paid by MA plans vary with market characteristics or other factors would be useful for evaluating the performance of the MA program and analyzing proposals to modify it. In this study, we compared the hospital prices paid by MA plans and commercial plans with Medicare FFS prices using 2013 claims from the Health Care Cost Institute (HCCI) database. The HCCI claims were used to calculate hospital prices for private insurers, and Medicare's payment rules were used to estimate Medicare FFS prices. We focused on stays at acute care hospitals in metropolitan statistical areas (MSAs). We found MA prices to be roughly equal to Medicare FFS prices, on average, but commercial prices were 89% higher than FFS prices. In addition, commercial prices varied greatly across and within MSAs, but MA prices varied much less.

Keywords

Medicare Advantage, commercial payers, Medicare fee-for-service, hospital prices, geographic variation

What do we already know about this topic?
A few studies primarily based on interviews with industry sources have reported that the hospital prices paid by Medicare Advantage plans are similar to or slightly above Medicare fee-for-service prices.

How does your research contribute to the field?
We present new evidence on whether Medicare Advantage prices for hospital stays, when measured relative to Medicare fee-for-service prices, vary with market characteristics and other factors.

What are your research's implications toward theory, practice, or policy?
Our study provides information that may be useful for evaluating the performance of the Medicare Advantage program and analyzing proposals to modify it.

Introduction

The prices that private insurers pay hospitals have received considerable attention in recent years. However, most of that literature has focused on the commercially insured population.[1,2] Although nearly one-third of Medicare beneficiaries are enrolled in a Medicare Advantage (MA) plan, little is known about the prices paid to hospitals by the private insurers that administer such plans. It might be expected that the prices paid to hospitals by MA plans would be similar to Medicare fee-for-service (FFS) because the amount that MA plans receive from the federal government is tied to local Medicare FFS spending.

However, because those same private insurers also negotiate with hospitals over prices for their commercial enrollees, it is

[1]Congressional Budget Office, Washington, DC, USA

Corresponding Author:
Jared Lane K. Maeda, Health, Retirement, and Long-Term Analysis Division, Congressional Budget Office, Ford House Office Building, Second and D Street, SW, Washington, DC 20515-6925, USA.
Email: jared.maeda@cbo.gov

possible that market forces might, to some extent, affect the prices that MA plans pay hospitals.[3]

Only a few studies have examined the hospital prices paid by MA plans. Berenson et al[4] interviewed industry sources and found that MA plans most commonly pay hospitals Medicare FFS prices, and in most other cases pay hospitals between 1% and 5% more than FFS. Those findings are consistent with information obtained from industry sources by the Congressional Budget Office, which reported that the prices paid by MA plans are similar to or slightly above Medicare FFS prices.[5] However, there is limited empirical evidence regarding the prices that MA plans pay hospitals. A recent study by Baker et al used 2012 data from the Health Care Cost Institute (HCCI) and found that hospital payments by MA plans were 5.6% less than Medicare FFS prices after adjusting for the smaller network of providers in MA.[6] But, for reasons discussed below, the findings of our study differ somewhat from the findings of that article.

More information on the hospital prices paid by MA plans would provide additional insights into whether MA prices are more closely tied to Medicare FFS prices or commercial prices. Moreover, information on whether the hospital prices paid by MA plans vary with such factors as hospital and insurer market power, the share of beneficiaries enrolled in the MA program, and MA benchmark rates would be useful for evaluating the performance of the MA program and analyzing proposals to modify it.

In this study, we compare the prices that private insurers pay hospitals in their MA plans and commercial plans with Medicare FFS prices. We also present new evidence on whether MA prices vary with market characteristics and other factors.

Methods

Data Source

We used 2013 claims data from HCCI, which includes information from Aetna, Humana, and UnitedHealthcare on more than 50 million individuals in the group, nongroup, and MA markets. About 4.4 million people in the HCCI data were 65 years or older and were covered by an MA plan, and 2 of the HCCI data contributors were firms with the largest share of MA enrollees in 2013.[7] The HCCI data account for about one-third of all beneficiaries aged 65 years and older and enrolled in MA, and the data cover all 50 states and the District of Columbia.

Study Sample

We first identified approximately 3.5 million inpatient stays in the 2013 HCCI database and excluded skilled nursing facility, hospice, and other types of stays. We then restricted the sample to stays at acute care hospitals by linking the HCCI data with the American Hospital Association Annual Survey. The sample was also restricted to hospitals paid under Medicare's inpatient prospective payment system (IPPS). Applying those exclusions resulted in about 2.5 million stays.

The sample was further restricted to stays in metropolitan statistical areas (MSAs) so we could examine the variation in prices across and within MSAs. We excluded stays at hospitals in Maryland and West Virginia because those states regulate hospital prices. We also excluded stays in Puerto Rico, stays at hospitals with fewer than 50 discharges in the HCCI data, stays with more than 1 diagnosis-related group (DRG), and stays with an invalid national provider identifier. Those restrictions left about 2.3 million stays (see Online Appendix Table 1).

We then constructed a sample of stays for people 65 years and older enrolled in MA plans, and a separate sample of people 18 to 64 years enrolled in commercial plans, excluding stays associated with childbirth. The commercial sample was also restricted to people with employment-based coverage. Those restrictions yielded about 645 000 MA stays and 686 000 commercial stays (see Online Appendix Table 2). (Online Appendix Table 2 identifies a few additional restrictions that were applied to the study sample.)

Price Measures

We determined the total price for each discharge in the MA and commercial samples as the allowed amount on the claim, which is the amount paid to the hospital by the insurer plus patient cost sharing.

We excluded stays with zero or negative payment amounts and stays for which the payment amount was less than 50% of the MSA-level average Medicare FFS base rate for that DRG. We imposed the latter restriction to exclude claims for which the insurer in the HCCI data might have been a secondary payer. We also excluded stays with payment amounts or durations in the top 1% of the DRG-level distribution. The HCCI data do not include capitated claims. After applying all of those criteria, our final analytic sample contained about 593 000 MA stays and 621 000 commercial stays from 297 MSAs and about 1900 hospitals (see Online Appendix Table 2).

We next used the DRG on the claim and the 2013 IPPS payment rules to compute the amount that the Medicare FFS program would have paid for each stay in our sample (including the beneficiary cost sharing amount). With that approach, the mix of stays and hospitals is held constant in our comparison of private payment rates with Medicare FFS rates. We multiplied the Medicare operating and capital base rates by the DRG weight and adjusted for the area wage index. We also calculated hospital-specific payments per discharge for indirect medical education (IME) and disproportionate share hospital (DSH) for the comparison with commercial rates. However, we excluded IME payments from the FFS rates in our comparison with MA, because the Medicare program makes IME payments directly to hospitals for MA enrollees. Our estimates thus exclude IME payments from Medicare for both MA enrollees and FFS enrollees.

We reduced the Medicare FFS rate by 2% on stays that occurred on or after April 1, 2013, to account for the sequestration that took effect on that date. We also applied an adjustment factor to account for outlier payments in our national estimates of average Medicare FFS rates, which was computed separately for surgical and medical DRGs. However, because of data restrictions, we were unable to adjust the FFS rate for outlier payments in our analysis of specific MSAs or hospitals.

In contrast to the study by Baker et al,[6] our estimates of Medicare FFS rates do not include pass-through amounts, which are lump-sum payments that Medicare makes to many hospitals. Those payments are made primarily for the direct costs of graduate medical education, but they also include payment for other costs, such as Medicare beneficiaries' bad debt.

There is considerable evidence that diagnoses are coded more intensively on claims submitted to MA plans than on Medicare FFS claims.[8,9] That difference arises because the risk-adjustment system for setting federal payments to MA plans depends on enrollees' diagnoses, which gives plans an incentive to ensure that all diagnoses are coded on their enrollees' claims. In contrast, the Medicare FFS program pays many providers (such as physicians and hospital outpatient departments) on the basis of the services provided and not on the basis of the patient's diagnosis, so those providers do not have an incentive to ensure that all diagnoses are coded for Medicare FFS patients. We believe that such coding differences between MA and FFS are much less prevalent for hospital inpatient care, because hospitals have an incentive to code all appropriate diagnoses for their Medicare FFS patients to ensure that they are assigned to the highest possible DRG code. To the extent that such differences do occur and result in some MA patients being assigned to a higher DRG than they would have been assigned in the FFS system, the prices that hospitals receive for MA patients would be higher than the prices they receive for FFS patients, when measured relative to underlying health of the patients. For the reasons stated above, we do not believe that such coding differences are common in the inpatient setting. However, it is possible that an MA patient within a given DRG code might be sicker than an FFS patient in the same DRG code, which we would not be able to capture. MA plans may also make additional payments to hospitals, such as pay-for-performance, shared savings, and other payment incentives. However, we are not able to observe those supplemental payments, which may affect the payment difference between private insurers and FFS.

Methods

To compare prices nationally, we computed the mean MA, commercial, and Medicare FFS price across all DRGs, medical DRGs, and surgical DRGs. To measure the amount of price variation across MSAs, we identified the 20 most common DRGs separately in the MA and commercial samples and constructed a weighted average of the prices for those DRGs in each MSA for each sample. The weighted average provides a measure of how prices vary across MSAs, holding constant the distribution of stays across DRGs.

Results

The average MA price per discharge across all hospital stays was $10 667 or nearly identical to the average Medicare FFS price for those stays of $10 716. The MA and FFS price per discharge were similar, on average, for both surgical and medical stays (Table 1). For those comparisons, we computed the FFS rate as the base rate plus any additional payments for DSH and an adjustment for outlier payments but excluded IME payments. As a sensitivity analysis, we included IME payments in the FFS rates and found that MA rates were, on average, 5% lower than FFS across all stays (see Online Appendix Table 3).

By contrast, the average commercial price per discharge across all hospital stays in our sample was $21 433, or 89% higher than the Medicare FFS price for those stays ($11 354; Table 2). That estimated FFS rate is slightly higher than the $10 716 reported above because the mix of hospitals and DRGs differed slightly between the commercial and MA samples, and we excluded IME payments for the comparison with MA rates. The difference between the commercial and Medicare FFS prices was similar for surgical and medical stays. For the above comparisons, the estimates of Medicare FFS rates include the base rate plus any additional payments for IME and DSH and an adjustment to account for outlier payments.

When measured relative to Medicare FFS prices, MA prices exhibited little variation across MSAs. (The Medicare FFS prices are adjusted to account for geographic variation in hospitals' input prices, so by measuring MA prices relative to Medicare FFS prices, we sought to factor out those geographic differences in input prices.) The average MA price for the top 20 DRGs was only 6% higher than the average FFS price in the MSA at the 90th percentile of the distribution and only 2% lower than the average FFS price in the MSA at the 10th percentile (Table 3). Because of data restrictions, the FFS prices in Table 3 were not adjusted to account for outlier payments.

The ratio of commercial to Medicare FFS prices exhibited much more variation across MSAs than the corresponding ratio for MA prices. On average, commercial prices were 148% higher than FFS prices in the MSA at the 90th percentile of the distribution and 44% higher than FFS prices in the MSA at the 10th percentile.

We also examined the variation of MA and commercial prices across hospitals within 10 MSAs with the most commercial discharges for a common surgical DRG (DRG 470, major joint replacement) and a common medical DRG (DRG 392, gastrointestinal disorders). To limit the influence of stays with very high or very low payment amounts, we

Table 1. Comparison of Mean Medicare Advantage and Medicare FFS Prices for All Stays, Medical Stays, and Surgical Stays, 2013.

	All MS-DRGs	Medical MS-DRGs	Surgical MS-DRGs
Medicare Advantage price	$10 667	$7281	$17 661
Medicare FFS base price plus DSH and outliers[a]	$10 716	$7236	$17 932
Ratio of Medicare Advantage to Medicare FFS price[a]	1.00	1.01	.98
Number of stays in analysis	593 044	399 597	193 447
Number of MSAs in analysis	297	296	296

Source. Authors' analysis of 2013 Health Care Cost Institute claims data.
Note. The Medicare Advantage sample was limited to adults 65 years or older. FFS = fee for service; MS-DRG = Medicare severity–diagnosis-related group; DSH = disproportionate share hospital payments; MSA = metropolitan statistical area; IME = indirect medical education payments.
[a]The estimates of Medicare FFS prices in this table include the base payment amount plus any additional payments for DSH and an adjustment to account for outlier payments. For our preferred estimate comparing Medicare Advantage prices with Medicare FFS prices, we excluded IME payments from the FFS prices because Medicare makes IME payments directly to hospitals for Medicare Advantage enrollees. Also, IME payments are excluded in the calculation of Medicare Advantage benchmarks. The Medicare payment rules were used to compute the amount that the Medicare FFS program would have paid for each stay in the Medicare Advantage sample, including the base price and payments for DSH (but not outlier payments). We estimated the average outlier payment for admissions in each major category of DRG from a separate analysis of Medicare claims.

Table 2. Comparison of Mean Commercial and Medicare FFS Prices for All Stays, Medical Stays, and Surgical Stays, 2013.

	All MS-DRGs	Medical MS-DRGs	Surgical MS-DRGs
Commercial price	$21 433	$13 469	$30 880
Medicare FFS base price plus IME, DSH, and outliers[a]	$11 354	$7 117	$16 454
Ratio of commercial to Medicare FFS price[a]	1.89	1.89	1.88
Number of stays in analysis	620 922	336 899	284 023
Number of MSAs in analysis	297	296	297

Source. Authors' analysis of 2013 Health Care Cost Institute claims data.
Note. The commercial sample excludes maternal stays associated with childbirth and was limited to adults 18 to 64 years. FFS = fee for service; MS-DRG = Medicare severity–diagnosis-related group; IME = indirect medical education payments; DSH = disproportionate share hospital payments; MSA=metropolitan statistical area.
[a]The estimates of Medicare FFS prices in this table include the base payment amount plus any additional payments for IME and DSH and an adjustment to account for outlier payments. The Medicare payment rules were used to compute the amount that the Medicare FFS program would have paid for each stay in the commercial sample, including the base price and payments for IME and DSH (but not outlier payments). We estimated the average outlier payment for admissions in each major category of DRG from a separate analysis of Medicare claims.

computed the median payment for each hospital and DRG rather than the mean.

MA prices exhibited little variation across hospitals in 8 of the 10 MSAs for DRG 470, with most hospitals in those 8 MSAs having rates close to FFS. But MA rates exhibited greater variation in Philadelphia and New York (Figure 1, left panel). In contrast, commercial prices varied greatly across hospitals within MSAs, and price variation was larger some in MSAs than in others. The commercial rate in 3 of the 10 MSAs (Houston, New York, and Philadelphia) ranged from below the FFS rate to more than 3 times that rate (Figure 1, right panel). We found similar patterns for DRG 392, although there was less commercial price variation across hospitals within most MSAs than for DRG 470 (Figure 2).

Next, we examined whether the prices paid by MA and commercial plans vary across plan type. The MA beneficiaries in our sample were about evenly split between being enrolled in a health maintenance organization (HMO) and preferred provider organization (PPO) plan (about 42% each), and the remainder were enrolled in point-of-service (POS)

(10%) and private FFS plans (5%). This compares with about 65% of the total MA population enrolled in an HMO plan and 29% enrolled in a PPO.[7] The commercial sample was predominantly enrolled in POS plans (74%) with a smaller share enrolled in PPO, HMO, and exclusive provider organization (EPO) plans (11%, 8%, and 7%, respectively).

We found that the average ratio of MA prices to FFS prices did not vary across plan types and was about 1.0. By contrast, the ratio of commercial prices to FFS prices for PPO (1.93) and POS plans (1.90) were about 10 percentage points higher than in HMO (1.83) and EPO (1.79) plans (see Online Appendix Table 4). This might suggest that there are out-of-network commercial claims in PPO and POS plans where commercial insurers pay hospitals a higher rate relative to their HMO and EPO plans. However, because there was no out-of-network indicator in the HCCI data, we are unable to determine the extent of such claims and hence cannot determine if price differences across product types reflect differences in use of out-of-network services or differences in in-network prices across products.

Table 3. Variation Across Metropolitan Areas in the Weighted Average Ratio of Commercial Prices and Medicare Advantage Prices to Medicare FFS Prices for Top 20 DRGs, 2013.

	Weighted average ratio of Medicare Advantage prices to Medicare FFS prices for top 20 DRGs	Weighted average ratio of commercial prices to Medicare FFS prices for top 20 DRGs
Percentiles		
10th	0.98	1.44
25th	1.00	1.65
50th	1.01	1.88
75th	1.03	2.16
90th	1.06	2.48
Ratios		
10th to median	0.97	0.77
90th to median	1.05	1.32
75th to 25th	1.03	1.31
90th to 10th	1.08	1.72
Number of MSAs in analysis	196	137

Source. Authors' analysis of 2013 Health Care Cost Institute claims data.
Note. The Medicare Advantage sample was limited to adults 65 years or older, and the commercial sample excludes maternal stays associated with childbirth and was limited to adults 18-64 years. The analysis of variation in Medicare Advantage prices across MSAs was restricted to the MSAs with at least one discharge in each of the top 20 DRGs in the Medicare Advantage sample. The analogous restriction was imposed for the analysis of variation in commercial prices across MSAs. The 20 most common DRGs were determined separately for the Medicare Advantage and commercial samples. For each MSA, we first computed the mean ratio of Medicare Advantage prices to Medicare FFS prices for each DRG. For each MSA, we then computed the weighted average ratio of Medicare Advantage prices to Medicare FFS prices for the 20 DRGs, where each DRG was weighted by the share of discharges in our national sample of Medicare Advantage discharges that were assigned to that DRG. We used the same approach to compute the weighted average ratio of commercial prices to Medicare FFS prices for each MSA. Each MSA received an equal weight in the analysis. The Medicare payment rules were used to compute the amount that the Medicare FFS program would have paid for each stay in the Medicare Advantage sample and the commercial sample. For the comparison with commercial prices, the estimates of Medicare FFS prices include the base payment amount plus any additional payments for IME and DSH. For the comparison with Medicare Advantage prices, Medicare FFS prices were estimated in the same manner except that payments for IME were excluded. Because of data restrictions, the FFS prices were not adjusted to account for outlier payments. FFS = fee for service; DRG = diagnosis-related group; MSA = metropolitan statistical area; IME = indirect medical education payments; DSH=disproportionate share hospital payments.

We next examined whether the ratio of MA prices to FFS prices varied across DRGs to assess whether there are certain DRGs for which MA plans tend to pay more or less than FFS. We ranked the ratio of MA prices to FFS prices and adjusted for outlier payments. We found that there were some DRGs where the average MA price was much higher than FFS and there were some DRGs where the average MA price was a bit lower than FFS. For example, on average, MA plans paid 129% more than FFS for rehabilitation stays (DRG 945), 33% more for depressive neuroses (DRG 881), and 27% more for stays related to psychoses (DRG 885). But MA plans paid an average of 9% less than FFS for stays related to pathological fractures (DRG 542) and wound debridement and skin graft (DRG 464) (see Online Appendix Table 5). These results suggest that there may be certain services where MA plans pay more than FFS possibly because the FFS rate for those services are too low, but there may be other services where MA plans pay less than FFS possibly because the FFS rate for those DRGs are too high.

We also examined whether the prices paid by MA and commercial plans vary with hospital market concentration, as measured by the Herfindahl-Hirschman index (HHI). We found that the ratio of MA prices to Medicare FFS prices was not correlated with hospital market concentration (correlation = −.04; P = .06), but the ratio of commercial prices to Medicare FFS prices had a small positive and highly significant correlation with hospital market concentration (correlation = 0.19; P < .001) (see Online Appendix Figures 1 and 2). Thus, although an increase in the concentration of the hospital industry is associated with higher commercial prices for hospital care, no such association exists for MA prices. However, we acknowledge that MSAs may not be the best measure to define a hospital market. Because the objective of our study was to present new descriptive information on the hospital prices paid by MA plans, we did not use a more sophisticated measure to construct hospital markets.

In addition, we examined whether the prices paid by MA plans vary with the HCCI insurers' combined market share. We found a small and negative correlation between the ratio of MA prices to FFS prices and the HCCI insurers' combined market share for MA enrollees (−0.16; P = .025) (see Online Appendix Figure 3). This suggests that insurer market share may be associated with slightly lower MA prices for hospital services.
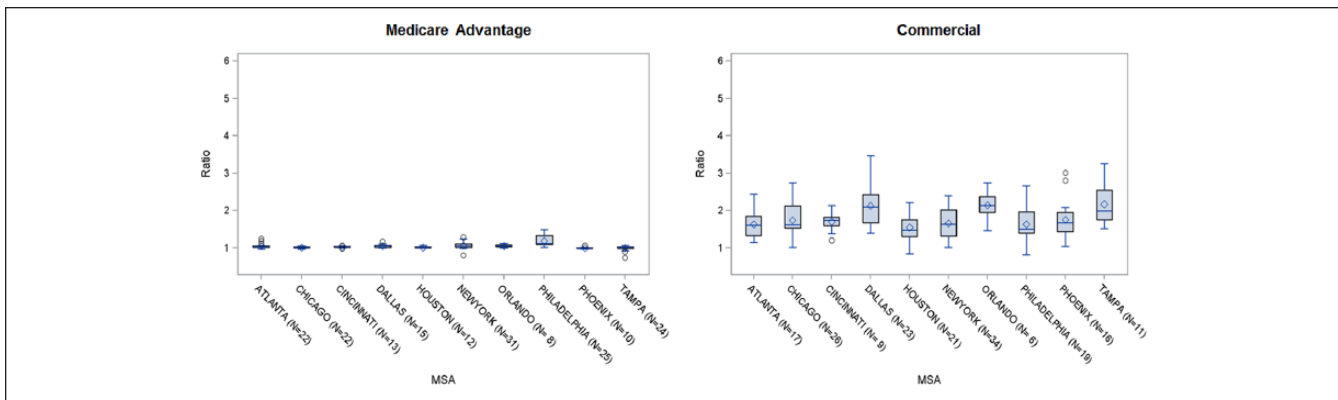
We also found that the ratio of MA prices to Medicare FFS prices was not correlated with the share of beneficiaries enrolled in the MA program (see Online Appendix Figure 4). Information on that relationship is important for evaluating policies that would substantially increase the share of beneficiaries enrolled in MA plans.
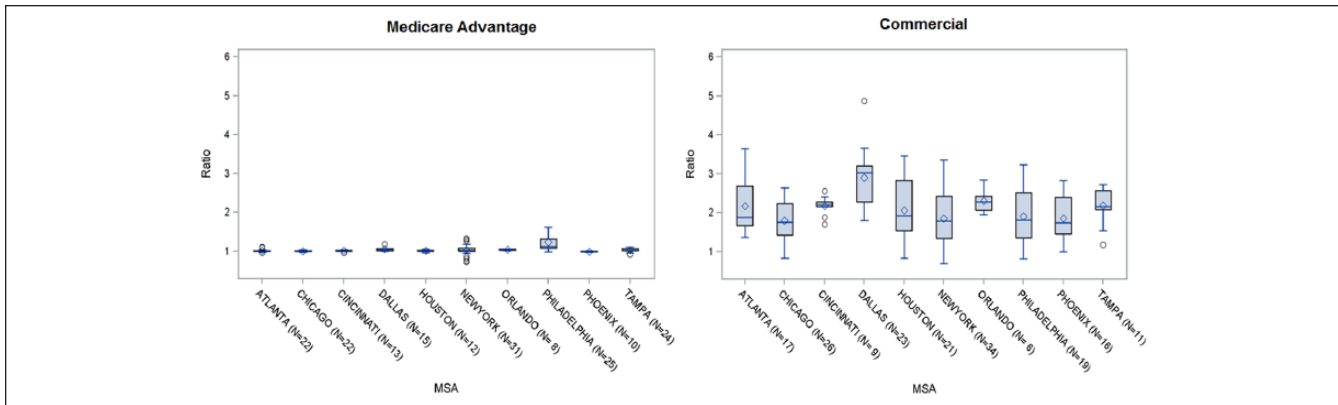
Figure 1. Variation in the ratio of Medicare Advantage prices to Medicare FFS prices and the ratio of commercial prices to Medicare FFS prices within metropolitan areas for DRG 470 (major joint replacement or reattachment of lower extremity without major complications and comorbidities), 2013.

Source. Authors' analysis of 2013 Health Care Cost Institute claims data.

Note. For each MSA, we computed the median ratio of the Medicare Advantage price to the Medicare FFS price for each hospital, and we computed the analogous ratio for commercial prices. We restricted the analysis to hospitals that had at least 5 stays in 2013 in the DRG being analyzed (we applied that criterion separately for the analysis of Medicare Advantage prices and commercial prices). The bottom and top edges of the box for each MSA represent the 25th and 75th percentiles of the price ratio, the horizontal line inside the box represents the median, the marker inside the box represents the mean, and the "whiskers" (ie, the endpoints of the lines extending outside the box) represent the minimum and maximum values—except in cases when some values are classified as "outliers," which are shown as circles beyond the whiskers. Outliers are defined as values that are above the 75th percentile or below the 25th percentile by at least 1.5 times the "interquartile range" (which is the difference between the 75th percentile and the 25th percentile). The Medicare Advantage sample was limited to those 65 years and older, and the commercial sample excludes maternal stays associated with childbirth and was limited to adults 18 to 64 years. The Medicare payment rules were used to compute the amount that the Medicare FFS program would have paid for each stay in the Medicare Advantage sample and the commercial sample. For the comparison with commercial prices, the estimates of Medicare FFS prices include the base payment amount plus any additional payments for IME and DSH. For the comparison with Medicare Advantage prices, Medicare FFS prices were estimated in the same manner except that payments for IME were excluded. Because of data restrictions, the FFS prices were not adjusted to account for outlier payments. FFS = fee for service; DRG = diagnosis-related group; MSA = metropolitan statistical area; IME = indirect medical education payments; DSH = disproportionate share hospital payments.

Figure 2. Variation in the ratio of Medicare Advantage prices to Medicare FFS prices and the ratio of commercial prices to Medicare FFS prices within metropolitan areas for DRG 392 (esophagitis, gastroenteritis, and miscellaneous digestive disorders without major complications and comorbidities), 2013.

Source. Authors' analysis of 2013 Health Care Cost Institute claims data.

Note. For each MSA, we computed the median ratio of the Medicare Advantage price to the Medicare FFS price for each hospital, and we computed the analogous ratio for commercial prices. We restricted the analysis to hospitals that had at least 5 stays in 2013 in the DRG being analyzed (we applied that criterion separately for the analysis of Medicare Advantage prices and commercial prices). The bottom and top edges of the box for each MSA represent the 25th and 75th percentiles of the price ratio, the horizontal line inside the box represents the median, the marker inside the box represents the mean, and the "whiskers" (ie, the endpoints of the lines extending outside the box) represent the minimum and maximum values—except in cases when some values are classified as "outliers," which are shown as circles beyond the whiskers. Outliers are defined as values that are above the 75th percentile or below the 25th percentile by at least 1.5 times the "interquartile range" (which is the difference between the 75th percentile and the 25th percentile). The the Medicare Advantage sample was limited to those 65 years and older, and the commercial sample excludes maternal stays associated with childbirth and was limited to adults 18 to 64 years. The Medicare payment rules were used to compute the amount that the Medicare FFS program would have paid for each stay in the Medicare Advantage sample and the commercial sample. For the comparison with commercial prices, the estimates of Medicare FFS prices include the base payment amount plus any additional payments for IME and DSH. For the comparison with Medicare Advantage prices, Medicare FFS prices were estimated in the same manner except that payments for IME were excluded. Because of data restrictions, the FFS prices were not adjusted to account for outlier payments. FFS = fee for service; DRG = diagnosis-related group; MSA = metropolitan statistical area; DSH = disproportionate share hospital payments; IME = indirect medical education payments.

Last, we examined whether the hospital prices of MA plans (measured relative to Medicare FFS prices) are correlated with MA benchmarks. Industry sources report that one reason hospitals are willing to accept payment rates near FFS rates from MA plans is that those plans are under a budget constraint determined in large part by the payments they receive from the Medicare program.[4] That information suggests hospitals might try to obtain higher prices in areas where MA benchmarks are high relative to local per capita FFS spending. We examined the correlation between the MSA-level index of the average ratio of MA prices to FFS prices for the top 20 DRGs and the ratio of the average MA benchmark to local per capita FFS spending and found the correlation was near zero (Online Appendix Figure 5). This finding suggests that variation in payments from the Medicare program to MA plans bears little relationship to the differences in the amounts that MA plans pay hospitals.

Discussion

Our finding that MA prices for hospital stays are similar to Medicare FFS prices is generally consistent with reports from industry sources. The small difference between our results and those reports (which indicated that MA prices for hospital services are equal to or slightly higher than Medicare FFS prices) might be due to differences in how the industry sources calculated FFS prices for such comparisons. In addition, the hospital prices paid by the MA plans offered by the 3 large insurers included in our analysis might differ slightly from the prices paid by other insurers. Our results are generally consistent with a recent study by Baker et al who used 2012 claims data from HCCI and found that hospital payments by MA plans were much more similar to Medicare FFS levels than they were to commercial payment levels, although we used slightly different methods to calculate FFS prices.[6]

Three reasons cited by industry sources may explain why hospitals are willing to accept substantially lower payments for MA plans than for commercial plans.[4] The first reason is a provision of federal law (Section 1866 of the Social Security Act and implementing regulation 42 CFR 422.214) that requires providers to accept Medicare FFS rates as payment in full for out-of-network services received by MA enrollees. In contrast, hospitals that are not in a commercial plan's network typically charge much higher prices when they treat the plan's patients—this gives hospitals considerable negotiating leverage with commercial insurers. For example, "must-have" hospitals (such as large academic medical centers and other hospitals with excellent reputations) can threaten commercial insurers that they will not join their networks unless they receive a sufficiently high price. But those same hospitals have much less leverage with MA plans (because their alternative price is the Medicare FFS price). This is a possible reason why we observe a higher ratio of commercial prices to FFS prices in PPO and POS plans relative to HMO and EPO plans, but we do not observe that same pattern across plan types in MA.

The second reason cited by industry sources is that hospitals recognize that they are constrained in how much they can charge MA plans if those plans are to remain competitive with the FFS program. The benchmarks for determining federal payments to MA plans are tied to local per capita FFS spending. In 2013, those benchmarks were an average of 10% higher than per capita FFS spending in MA plans' service areas, although the ratio of benchmarks to FFS spending varied geographically.[10] Third, hospitals and insurers may regard the MA program as part of the larger Medicare program and therefore view Medicare FFS rates as establishing pricing norms for MA.

Our findings have important implications for proposals to convert Medicare to a "premium support" system. Under such a system, beneficiaries would obtain their Medicare coverage from one of a number of competing plans, and the amount that the federal government contributed toward each beneficiary's coverage would be determined in advance and would not depend on the plan chosen. Beneficiaries would face a strong financial incentive to choose a lower cost plan, because their premium would depend on the difference between the amount of the federal contribution and the premium charged by their plan. Our findings suggest that if the Medicare FFS program was not kept as a competing plan in such a system, the hospital prices paid by the participating private plans under a premium support system would probably be much higher than the prices that would have been paid by Medicare FFS. Such an outcome would also be likely if the Medicare FFS program was retained as a competing plan in the premium support system but the new system did not include the provision of current federal law that limits the amount out-of-network hospitals can charge private plans when treating their Medicare enrollees. In either case, if the federal contribution was determined from the bids of competing plans, those higher hospital prices could substantially reduce the federal savings from such a system (and perhaps even increase federal spending). Our finding that the hospital prices paid by MA plans (when measured relative to Medicare FFS prices) are not correlated with the share of beneficiaries enrolled in the MA program will be useful for future analyses of premium support proposals. In a 2013 analysis of such proposals—and with no data on MA plans' provider payment rates—the Congressional Budget Office expected that a significant reduction in the share of beneficiaries enrolled in the FFS program would weaken the relationship between the provider prices of the Medicare FFS program and the provider prices of private plans, causing the latter to rise and thus raising the costs of those plans.[5] Our analysis suggests that such an effect is not likely.

Consistent with previous studies, we found hospital prices for commercial plans to be substantially higher than Medicare FFS prices. When measured relative to Medicare FFS prices, commercial prices varied greatly across MSAs and across

hospitals within MSAs, whereas MA prices varied much less. However, because we are unable to identify out-of-network claims in our data, this might overstate the level and extent of variation of commercial prices relative to MA prices.

Authors' Note

Declaration of Conflicting Interests

Funding

ORCID iD

Jared Lane K. Maeda [iD] https://orcid.org/0000-0001-9613-7623

References

1. Cooper Z, Craig SV, Gaynor M, Van Reenen J. The price ain't right? hospital prices and health spending on the privately insured. http://www.nber.org/papers/w21815. NBER Working Paper No. 21815. Published 2015. Accessed October 30, 2017.

2. White C, Bond A, Reschovsky J. *High and Varying Prices for Privately Insured Patients Underscore Hospital Market Power*. Research Brief No. 27. Washington, DC: Center for Studying Health System Change. http://www.hschange.org/CONTENT/1375/1375.pdf. Published 2013. Accessed October 30, 2017.

3. Trish E, Ginsburg P, Gascue L, Joyce G. Physician reimbursement in Medicare Advantage compared with traditional Medicare and commercial health insurance. *JAMA Intern Med*. 2017;177(9):1287-1295.

4. Berenson RA, Sunshine JH, Helms D, Lawton E. Why Medicare Advantage plans pay hospitals traditional Medicare prices. *Health Aff (Millwood)*. 2015;34(8):1289-1295.

5. Congressional Budget Office. *A Premium Support System for Medicare: Analysis of Illustrative Options*. Washington, DC: Congress of the United States Congressional Budget Office; 2013.

6. Baker LC, Bundorf MK, Devlin AM, Kessler DP. Medicare Advantage plans pay less than traditional Medicare pays. *Health Aff (Millwood)*. 2016;35(8):1444-1451.

7. Gold M, Jacobson G, Damico A, Neuman T. *Medicare Advantage 2013 Spotlight: Enrollment Market Update*. Issue brief. Menlo Park, CA: Kaiser Family Foundation; 2013.

8. Medicare Payment Advisory Commission. *Report to the Congress: Medicare Payment Policy*. Washington, DC: Medicare Payment Advisory Commission; 2017.

9. Kronick R, Welch WP. Measuring coding intensity in the Medicare Advantage program. *Medicare Medicaid Res Rev*. 2014;4(2):E1-E19.

10. Medicare Payment Advisory Commission. *Report to the Congress: Medicare Payment Policy* Washington, DC: Medicare Payment Advisory Commission; 2013.