



# understanding variation in Medicare inpatient payment

Medicare cost reports offer a means to assess whether Medicare payment variations are putting hospitals in some states at a disadvantage due to significant negative Medicare margins that hospitals in other states have been able to avoid.

Average Medicare payment to hospitals varies among hospital types as well as from state to state. The differences in payment levels are intended to account for differences in Medicare costs per discharge among the hospitals and states. But is the program's method for determining payment truly achieving the intended goal of fully equitable payment for all U.S. hospitals? Evidence exists in the submitted Medicare cost reports to suggest that it is not.

The Medicare inpatient prospective payment system (IPPS) for short-term acute care hospitals

(STACHs) has been in place for almost 30 years. One of its initial objectives was to establish the Medicare program as a prudent purchaser of inpatient hospital services by standardizing how much it would pay hospitals for certain classifications of patients and to encourage hospital efficiency in the provision of inpatient care to Medicare patients.

From the beginning of IPPS until recently, the classification of patients was based on diagnosis-related groups (DRGs). Starting Oct. 1, 2007, Medicare began using a revised classification system called Medicare severity-adjusted DRGs (MS-DRGs). There have been many other updates to IPPS over the years, but an underlying goal of IPPS has always been to correlate payments with the reasonable costs of efficiently run hospitals. Accomplishing this goal requires certain adjustments to the standard federal DRG and MS-DRG payments that take into account differences among hospitals in geographical location and in certain hospital-specific attributes. The latter include higher costs of carrying on an approved teaching program, higher costs of care associated with a payer mix that includes a higher percentage of low-income Medicare and Medicaid patient populations, and special

## AT A GLANCE

- > Average Medicare payments vary widely from state to state.
- > Average Medicare costs vary widely too but often not in concert with payment variation.
- > As a result, many states have negative Medicare margins, and some are surprising.

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pass-through payments for unusual capital and other costs. But many other adjustments to the DRG and MS-DRG payments also contribute to the wide variation in Medicare payments to individual hospitals.

Hospitals have long been aware that Medicare payments vary from one hospital to another for the same types of care, but many may be surprised at the extent of variation and its ramifications.

**Specific Hospital Comparisons**

Comparing the Medicare IPPS payments made to specific hospitals for the same services can illustrate the degree of variation in Medicare payments. STACHs all over the country commonly admit Medicare patients for heart failure and shock with major complications. These patients typically stay in the hospital for about seven days and incur gross charges of \$15,000 to \$25,000. In federal fiscal year (FFY) 2009, these patients

were classified under MS-DRG 291. But just how much did Medicare pay for these admissions in FY09? The answer depends on the hospital to which each patient was admitted.

For this analysis, the Medicare IPPS Pricer Program for FY09 was used to calculate and compare the payments that Medicare would have paid for this type of patient at six selected hospitals.

If the patient had been admitted to a 295-bed rural hospital in Paducah, Ky., Medicare would have paid \$7,525 for the admission. If the patient had been admitted to a 519-bed urban hospital in Louisville, Ky., just 224 miles to the northeast of Paducah, Medicare would have paid \$7,719, just 2.6 percent more. However, if the patient had been admitted to a 347-bed urban teaching hospital in Louisville, just six miles from the 519-bed nonteaching hospital, Medicare would have paid \$12,899, or 71 percent more than what it would have paid the Paducah hospital and 67 percent

**VARIABILITY IN IPPS PAYMENTS FOR A COMMON MEDICARE ADMISSION, MS-DRG 291\***

| State   | KENTUCKY          |                      |                      | CALIFORNIA                     |                          |                             |
|---|-------------------|----------------------|----------------------|--------------------------------|--------------------------|-----------------------------|
|   | Paducah Rural 295 | Louisville Urban 519 | Louisville Urban 347 | Grass Valley Rural-Reclass 121 | La Jolla Large Urban 307 | Los Angeles Large Urban 947 |
| MS-DRG 291 Relative Weight                    | 1.4601            | 1.4601               | 1.4601               | 1.4601                         | 1.4601                   | 1.4601                      |
| Wage Index                                    | 0.8271            | 0.921                | 0.921                | 1.2973                         | 1.1972                   | 1.2032                      |
| Adjusted Federal Rate (Operating and Capital) | \$7,229           | \$7,707              | \$7,707              | \$9,780                        | \$9,218                  | \$9,252                     |
| <b>Hospital-Specific Adjustments</b>          |                   |                      |                      |                                |                          |                             |
| Disproportionate Share Hospital (DSH)         | -                 | \$9                  | \$2,287              | -                              | \$8                      | \$1,700                     |
| Indirect Medical Education (IME)              | -                 | -                    | \$2,115              | -                              | -                        | \$1,263                     |
| Pass-Through Costs                            | \$7               | \$4                  | \$791                | -                              | -                        | \$1,227                     |
| Total Adjustments                             | \$295             | \$12                 | \$5,193              | -                              | \$8                      | \$4,190                     |
| <b>Total IPPS Payment (MS-DRG 291)</b>        | <b>\$7,525</b>    | <b>\$7,719</b>       | <b>\$12,899</b>      | <b>\$9,780</b>                 | <b>\$9,226</b>           | <b>\$13,442</b>             |
| <b>Average Medicare Cost per Discharge†</b>   | <b>\$8,938</b>    | <b>\$9,262</b>       | <b>\$15,438</b>      | <b>\$9,289</b>                 | <b>\$18,746</b>          | <b>\$27,217</b>             |

\* Payments calculated per Medicare IPPS Pricer Program for FY09.

† Average cost for all Medicare patients calculated from Medicare FY09 cost reports for each hospital.

more than it would have paid the 519-bed urban nonteaching hospital.

But what if this patient had been admitted in California, 2,000 miles west of Paducah? Medicare would have paid \$9,780 to a 121-bed rural hospital in Grass Valley, Calif.; \$9,226 to a 307-bed urban hospital in La Jolla, Calif.; and \$13,442 to a 947-bed urban teaching hospital in Los Angeles.

The wide variation in Medicare payments to each of these hospitals is surprising for a system that was intended to standardize payments as much as possible for the same types of services. To understand this variation, we need to examine the components of the Medicare payment to each hospital. The key components for this examination are the wage index, the adjustments (or “add-ons”) for disproportionate share hospital (DSH) and indirect medical education (IME) costs, and the special pass-through payments for capital and other costs.

The cost of labor in California is much higher than in Kentucky. The FY09 wage indexes indicate that Medicare calculated the labor cost in California to be 30 percent higher than in Kentucky in the urban areas examined (1.1972 in California versus 0.921 in Kentucky) and 57 percent higher in the rural areas examined (1.2973 in California versus 0.8271 in Kentucky). When Medicare used these various wage indexes to adjust the standard federal rate for each hospital, the resulting adjusted federal rates in California, which ranged from \$9,218 to \$9,780, were 20 to 35 percent higher than in Kentucky, whose rates ranged from \$7,229 to \$7,707.

The DSH, IME, and pass-through adjustments for the four nonteaching hospitals examined were not remarkable, but these adjustments were striking for the two teaching hospitals. They added \$5,193 to the Medicare payment for the

teaching hospital in Louisville and \$4,190 to the Medicare payment for the Los Angeles teaching hospital. The DSH and IME adjustments are intended to compensate for the higher costs of providing care to a disproportionate share of low-income Medicare and Medicaid patients and for the higher cost of approved teaching programs, respectively. The pass-through cost adjustments are intended to compensate for unusually high capital and other costs that have become exceptions to the standard IPPS payments.

The two teaching hospitals had much higher average Medicare costs per discharge than the other hospitals examined but the higher costs were only partially offset by the higher payments.

The average Medicare cost of the Louisville teaching hospital, at \$15,438, was 67 percent higher than the average cost of the Louisville nonteaching hospital, which was \$9,262. The total IPPS payment for the Louisville teaching hospital, at \$12,899, was also 67 percent higher than the total IPPS payment for the Louisville nonteaching hospital, which was \$7,719. In this case, much of the payment variability is easily explained.

Similarly, the average Medicare cost of the Los Angeles teaching hospital, at \$27,217, was 45 percent higher than the average cost of the La Jolla nonteaching hospital, at \$18,746, and the teaching hospital’s total IPPS payment, at \$13,442, was 46 percent higher than the nonteaching hospital’s total IPPS payment, at \$9,226. Again, the payment variability can be easily explained.

But the payment variability across state lines is not so easy to explain.

The average Medicare cost of the Los Angeles teaching hospital, at \$27,217, was 76 percent higher than the Louisville teaching hospital’s average Medicare cost (\$15,438). Yet the total

IPPS payment to the Los Angeles teaching hospital, at \$13,442, was only 4 percent higher than the Louisville hospital's total IPPS payment (\$12,899). Similarly, the average Medicare cost of the La Jolla nonteaching hospital was twice as high as the cost of the Louisville nonteaching hospital, yet the total IPPS payment to the La Jolla hospital was only 20 percent higher than the payment to the Louisville hospital.

Differences in the wage indexes explain some of this variation, but the hospital-specific adjustments for the Los Angeles hospital were not as high as the adjustments for the Louisville hospital, in spite of the higher costs in Los Angeles.

Another odd situation arises when rural hospitals are "reclassified" into an urban area for purposes of the wage index calculation. The Grass Valley hospital in rural California was allowed to reclassify into a large urban area with a high wage index (1.2973). That is why its total IPPS payment of \$9,780 was 30 percent higher than the Paducah hospital's total IPPS payment (\$7,525), even though the Grass Valley hospital's average Medicare cost, at \$9,289, was only 4 percent higher than the Paducah hospital's average Medicare cost (\$8,938). The 57 percent difference in the wage indexes for these two hospitals does not appear to be supported by the minor differences in their costs.

Payment differences of this type have led to complaints that some hospitals are overpaid to the detriment of other hospitals that are underpaid—a situation that contradicts the intent that the IPPS standardize as much as possible the payment for similar groups of services. Yet wide variation in Medicare payments for the same services clearly exists across the country, as the example of these six hospitals demonstrates. To understand this situation better, it is helpful to examine the same variability in Medicare IPPS payment components and costs from state to state and on a national basis.

## National Comparisons

The exhibit on page 65 shows the national averages for the total IPPS payment per discharge, the total Medicare cost per discharge, and the Medicare IPPS margin per discharge for each year of the study period. The national average total Medicare IPPS payment per discharge is further broken into the same payment components as were discussed with the six specific hospitals, with the addition of the outlier payment component (a patient whose condition is classified under the example MS-DRG 291 typically is not an outlier).

In terms of the national averages, the DRG/MS-DRG payment was the largest component at about 72 percent of the total IPPS payment for the years studied. It increased by 4.0 percent per year, on average. The other components were much lower in dollars, but generally increased, on average, much more rapidly than the DRG/MS-DRG component. As a result, the national average total Medicare IPPS payment per discharge increased from \$9,639 in FY06 to \$10,608 in FY09, or an average increase of 4.4 percent per year during the study period.

During the same time, the national average total Medicare cost per discharge increased from \$9,720 to \$11,205, or an average increase of 5.1 percent per year. As a result, the national average Medicare IPPS margin percentage for the STACHs studied decreased from -0.8 percent in FY06 to -3.4 percent in FY08, but improved slightly in FY09 to -2.7 percent.

These slightly negative margins indicate that the national average Medicare payment per discharge was slightly less than the national average cost per discharge during the study period. That finding is what one would expect from a system designed to correlate payments with the reasonable costs of efficiently run hospitals. However, as with the

comparison of the six hospitals above, the national correlations began to break down when payment components and costs are compared on a state-to-state basis.

### Average Total DRG/MS-DRG Payment per Discharge

The variation in the DRG/MS-DRG payment component, as was seen in the comparison of specific hospitals, should largely be due to the variation in the wage index and/or case-mix index (or level of severity of illness of the Medicare patient population) for each hospital studied. To test this assumption, consider the average total DRG/MS-DRG payment per discharge for the top five and bottom five states (i.e., with the highest and lowest average total DRG/MS-DRG payment per discharge, respectively) for each FY studied as compared with the national average payment for the same period. The national average payment increased from \$7,010 in FY06 to \$7,852 in FY09, an average increase of 4.0 percent per year, as is shown in the exhibit on page 6.

Hospitals in the top five states (Alaska, Hawaii, California, District of Columbia, and Connecticut) generally had high wage indexes, while the hospitals in the bottom five states (Oklahoma, Alabama, Louisiana, Mississippi, and West Virginia) generally had lower wage indexes. It was not possible to measure each hospital's case mix index from the Medicare cost reports studied. Nonetheless, the variability in wage indexes and case mix indexes created a large difference in the average payment from the state with the highest average payment to the state with the lowest, and the difference increased with the shift from DRGs to MS-DRGs.

In FY06, the gap from the highest to lowest state was \$3,528, or 59.8 percent. By FY09, the gap had grown to \$4,404, or 69.4 percent. The average payments for the top five states, in general, saw a greater percentage increase than did the national average. Meanwhile, the average payments for the bottom five states saw a smaller percentage increase than did the national average. This finding suggests that the variation between the

#### CORRELATION OF MEDICARE NATIONAL AVERAGE PAYMENT TO NATIONAL AVERAGE COST, DRG VERSUS MS-DRG CLASSIFICATION SYSTEMS—ALL STATES AND ALL HOSPITALS STUDIED

| FFY   | DRG            |                 | MS-DRG          |                 | Average Yearly % Change |
|---|----------------|-----------------|-----------------|-----------------|-------------------------|
|   | 2006           | 2007            | 2008            | 2009            |                         |
| <b>National Average IPPS Payment Components</b>                 |                |                 |                 |                 |                         |
| Total DRG or MS-DRG Payment per Discharge                       | \$7,010        | \$7,208         | \$7,467         | \$7,852         | 4.0%                    |
| Total Outlier Payment per Discharge                             | \$303          | \$329           | \$344           | \$389           | 9.5%                    |
| Total DSH Payment per Discharge                                 | \$808          | \$848           | \$898           | \$960           | 6.3%                    |
| Total IME-GME Payment per Discharge                             | \$698          | \$712           | \$755           | \$827           | 6.2%                    |
| Total Capital and Other Pass-Through Cost Payment per Discharge | \$820          | \$831           | \$851           | \$881           | 2.5%                    |
| <b>Total Medicare IPPS Payment per Discharge</b>                | <b>\$9,639</b> | <b>\$9,928</b>  | <b>\$10,315</b> | <b>\$10,908</b> | <b>4.4%</b>             |
| <b>National Average Total Medicare Cost per Discharge</b>       | <b>\$9,720</b> | <b>\$10,154</b> | <b>\$10,668</b> | <b>\$11,205</b> | <b>5.1%</b>             |
| <b>National Average Medicare IPPS Margin per Discharge</b>      | <b>-\$81</b>   | <b>-\$226</b>   | <b>-\$353</b>   | <b>-\$297</b>   | <b>-88.9%</b>           |
| <b>National Average Medicare IPPS Margin Percentage</b>         | <b>-0.8%</b>   | <b>-2.3%</b>    | <b>-3.4%</b>    | <b>-2.7%</b>    |                         |

**AVERAGE TOTAL DRG OR MS-DRG PAYMENT PER DISCHARGE, TOP FIVE AND BOTTOM FIVE STATES VERSUS NATIONAL AVERAGE (FFY09 RANKINGS)**

| FFY                              | DRG            |                | MS-DRG         |                | Average Yearly % Change |
|----------------------------------|----------------|----------------|----------------|----------------|-------------------------|
|                                  | 2006           | 2007           | 2008           | 2009           |                         |
| <b>Top Five States</b>           |                |                |                |                |                         |
| AK                               | \$9,425        | \$9,769        | \$10,134       | \$10,749       | 4.7%                    |
| HI                               | \$8,561        | \$8,659        | \$9,541        | \$9,856        | 5.0%                    |
| CA                               | \$7,972        | \$8,374        | \$8,804        | \$9,449        | 6.2%                    |
| DC                               | \$8,517        | \$8,744        | \$9,173        | \$9,164        | 2.5%                    |
| CT                               | \$8,019        | \$8,270        | \$8,650        | \$8,929        | 3.8%                    |
|                                  |                |                |                |                |                         |
| <b>National Average</b>          | <b>\$7,010</b> | <b>\$7,208</b> | <b>\$7,467</b> | <b>\$7,852</b> | <b>4.0%</b>             |
|                                  |                |                |                |                |                         |
| <b>Bottom Five States</b>        |                |                |                |                |                         |
| OK                               | \$6,154        | \$6,216        | \$6,361        | \$6,846        | 3.7%                    |
| AL                               | \$6,102        | \$6,240        | \$6,432        | \$6,772        | 3.7%                    |
| LA                               | \$6,153        | \$6,293        | \$6,521        | \$6,561        | 2.2%                    |
| MS                               | \$5,897        | \$6,018        | \$6,232        | \$6,478        | 3.3%                    |
| WV                               | \$6,083        | \$6,200        | \$6,179        | \$6,345        | 1.4%                    |
|                                  |                |                |                |                |                         |
| <b>Variations for All States</b> |                |                |                |                |                         |
| Highest                          | \$9,425        | \$9,769        | \$10,134       | \$10,749       | 4.7%                    |
| Lowest                           | \$5,897        | \$6,018        | \$6,179        | \$6,345        | 2.5%                    |
| High/Low Difference              | \$3,528        | \$3,750        | \$3,955        | \$4,404        | 8.3%                    |
| Percentage Difference            | 59.8%          | 62.3%          | 64.0%          | 69.4%          |                         |

highest and lowest wage indexes and case mix indexes widened significantly from DRGs to MS-DRGs.

Similar variation was noted in this study among the states with the other payment components—specifically, average total outlier payment per discharge, average total DSH payment per discharge, average total IME-GME payment per discharge, and average total capital and other pass-through cost payment per discharge. Space

will not allow here discussions of each of these components, save to say that the variation was heavily influenced by hospital-specific factors. For discussions of each of these components as part of an expanded version of this article, visit [www.hfma.org/hfm](http://www.hfma.org/hfm).

#### **Average Total IPPS Payment per Discharge**

As one would expect, when there is variation in each of the IPPS payment components, the result ultimately is variation in the total IPPS payments.

**AVERAGE TOTAL IPPS PAYMENT PER DISCHARGE, TOP FIVE AND BOTTOM FIVE STATES VERSUS NATIONAL AVERAGE (FFY09 RANKINGS)**

| FFY                              | DRG            |                | MS-DRG          |                 | Average Yearly % Change |
|----------------------------------|----------------|----------------|-----------------|-----------------|-------------------------|
|                                  | 2006           | 2007           | 2008            | 2009            |                         |
| <b>Top Five States</b>           |                |                |                 |                 |                         |
| DC                               | \$14,437       | \$14,678       | \$15,437        | \$15,461        | 2.4%                    |
| NY                               | \$12,756       | \$12,984       | \$13,795        | \$14,580        | 4.8%                    |
| AK                               | \$12,661       | \$13,275       | \$13,781        | \$14,453        | 4.7%                    |
| CA                               | \$11,963       | \$12,592       | \$13,206        | \$14,196        | 6.2%                    |
| HI                               | \$11,766       | \$11,866       | \$13,198        | \$13,618        | 5.2%                    |
|                                  |                |                |                 |                 |                         |
| <b>National Average</b>          | <b>\$9,639</b> | <b>\$9,928</b> | <b>\$10,315</b> | <b>\$10,908</b> | <b>4.4%</b>             |
|                                  |                |                |                 |                 |                         |
| <b>Bottom Five States</b>        |                |                |                 |                 |                         |
| WY                               | \$8,266        | \$8,648        | \$8,986         | \$8,928         | 2.7%                    |
| AL                               | \$7,861        | \$8,050        | \$8,317         | \$8,882         | 4.3%                    |
| MT                               | \$8,518        | \$8,504        | \$8,716         | \$8,866         | 1.4%                    |
| MS                               | \$7,877        | \$8,031        | \$8,379         | \$8,834         | 4.0%                    |
| WV                               | \$7,981        | \$8,204        | \$8,264         | \$8,602         | 2.6%                    |
|                                  |                |                |                 |                 |                         |
| <b>Variations for All States</b> |                |                |                 |                 |                         |
| Highest                          | \$14,437       | \$14,678       | \$15,437        | \$15,461        | 2.4%                    |
| Lowest                           | \$7,861        | \$8,031        | \$8,264         | \$8,602         | 3.1%                    |
| High/Low Difference              | \$6,576        | \$6,647        | \$7,174         | \$6,859         | 1.4%                    |
| % Difference                     | 83.7%          | 82.8%          | 86.8%           | 79.7%           |                         |

Again, consider the average total IPPS payment per discharge for the top five and bottom five states in terms of average total payment amount per discharge as compared with the national average for each FY studied. The national average payment increased from \$9,639 in FY06 to \$10,908 in FY09, for an average increase of 4.4 percent per year.

The top five states in this case are District of Columbia, New York, Alaska, Hawaii, and California (see exhibit above). Note that four of

these states are also among the top five states in terms of average total DRG/MS-DRG payment per discharge, although the order is different. The bottom five states with respect to total IPPS payment per discharge are Wyoming, Alabama, Montana, Mississippi, and West Virginia. This, too, is a similar list to the bottom five with respect to total DRG/MS-DRG payment—the differences are only that Wyoming and Montana replace Oklahoma and Louisiana, and the order is not the same.

The variation in total IPPS payment from the highest to lowest states remained relatively stable under DRGs and MS-DRGs, from 83.7 percent in FY06 to 79.7 percent in FY09, despite the wide variation of the payment components. This finding correlates with the relatively stable variation in the largest payment component (DRG/MS-DRGs).

As was the case with the six specific hospitals discussed previously, it is necessary to compare the variation in average total Medicare IPPS payments with the variation in average total Medicare costs to test how closely payments correlate to costs, which is a main goal of IPPS.

#### **Average Total Medicare Cost per Discharge**

The national average total Medicare cost per discharge increased from \$9,720 in FY06 to \$11,205 in FY09, an average increase of 5.1 percent per year (see exhibit on page 69). There are some notable similarities and differences in top and bottom five states in this case. The top five are Alaska, District of Columbia, California, Hawaii, and Vermont—again, four out of five of these states are also in the top five with respect to total IPPS payment per discharge. The bottom five in terms of total Medicare cost (Tennessee, Oklahoma, Mississippi, Arkansas, and Alabama) likewise include some of the same states as with the areas discussed previously. Overall, the variation in cost improved somewhat from DRGs to MS-DRGs, ranging from 116.9 percent in FY06 to 113.8 percent in FY09.

However, the variation in cost is also much higher than the variation in total IPPS payment, with costs increasing at a greater rate than the total payments. The national average annual increase of total Medicare costs during the study period was 5.1 percent compared with the national average annual increase in total IPPS payments of 4.4 percent. These factors resulted in wide fluctuations in overall Medicare inpatient margin percentages.

The critical message is clear: Hospitals need to follow Medicare reporting directives closely and ensure that all information is reported accurately on their Medicare cost reports.

#### **Average Medicare IPPS Margin Percentage**

The relationship between the variability in payments versus costs can be effectively expressed as a “margin percentage” computed by dividing the difference between the average Medicare IPPS payment per discharge and the average Medicare cost per discharge by the average Medicare IPPS payment per discharge. The exhibit on page 70 shows the average total Medicare IPPS margin percentage for all states and the national average for each fiscal year studied.

The national average margin percentages ranged from -0.8 percent in FY06 to -2.7 percent in FY09. As was discussed previously, these relatively minor negative margins indicate that the national average Medicare payment per discharge was only slightly less than the national average cost per discharge during the study period, and, again, that finding is what one would expect from a system whose intent is to correlate payments with the reasonable costs of efficiently run hospitals. However, with the six specific hospitals discussed previously, the extreme variation in

average margin percentages among states suggests that IPPS very often does not closely correlate payments with costs on a state level.

Some of the mismatches of payments, costs, and margin percentages reflected in the exhibit on page 70 are noteworthy. For example, the preceding analysis showed that Alaska had the third highest level of total IPPS payments but also had the highest level of Medicare costs. As a result, the state had some of the worst levels of negative

margin percentages. Conversely, Alabama was shown to have the fourth lowest total IPPS payment level but also the lowest level of Medicare costs, and as a result, it had the second highest levels of positive margin percentages.

Only 14 states had positive margin percentages in FY09, and most of those were modestly below 5 percent. The highest margin percentages were in New York at 10.2 percent in FY09. The number and range of negative margin percentages was

**AVERAGE TOTAL MEDICARE COST PER DISCHARGE, TOP FIVE AND BOTTOM FIVE STATES VERSUS NATIONAL AVERAGE (FFY09 RANKINGS)**

| FFY                              | DRG            |                 | MS-DRG          |                 | Average Yearly % Change |
|----------------------------------|----------------|-----------------|-----------------|-----------------|-------------------------|
|                                  | 2006           | 2007            | 2008            | 2009            |                         |
| <b>Top Five States</b>           |                |                 |                 |                 |                         |
| AK                               | \$15,726       | \$16,615        | \$16,911        | \$17,425        | 3.6%                    |
| DC                               | \$13,946       | \$14,582        | \$15,857        | \$15,675        | 4.1%                    |
| CA                               | \$12,420       | \$13,483        | \$14,270        | \$15,237        | 7.6%                    |
| HI                               | \$12,853       | \$13,932        | \$14,700        | \$14,559        | 4.4%                    |
| VT                               | \$11,985       | \$12,472        | \$13,124        | \$13,892        | 5.3%                    |
|                                  |                |                 |                 |                 |                         |
| <b>National Average</b>          | <b>\$9,720</b> | <b>\$10,154</b> | <b>\$10,668</b> | <b>\$11,205</b> | <b>5.1%</b>             |
|                                  |                |                 |                 |                 |                         |
| <b>Bottom Five States</b>        |                |                 |                 |                 |                         |
| TN                               | \$8,359        | \$8,529         | \$8,867         | \$9,026         | 2.7%                    |
| OK                               | \$7,539        | \$7,912         | \$8,369         | \$8,926         | 6.1%                    |
| MS                               | \$7,691        | \$8,165         | \$8,348         | \$8,778         | 4.7%                    |
| AR                               | \$7,600        | \$7,830         | \$8,159         | \$8,368         | 3.4%                    |
| AL                               | \$7,249        | \$7,468         | \$7,725         | \$8,152         | 4.2%                    |
|                                  |                |                 |                 |                 |                         |
| <b>Variations for All States</b> |                |                 |                 |                 |                         |
| Highest                          | \$15,726       | \$16,615        | \$16,911        | \$17,425        | 3.6%                    |
| Lowest                           | \$7,249        | \$7,468         | \$7,725         | \$8,152         | 4.2%                    |
| High/Low Difference              | \$8,477        | \$9,147         | \$9,186         | \$9,273         | 3.1%                    |
| % Difference                     | 116.9%         | 122.5%          | 118.9%          | 113.8%          |                         |

| AVERAGE MEDICARE IPPS MARGIN PERCENTAGE (FFY09 RANKINGS) |        |       |        |       |           |        |        |        |        |
|--|--------|-------|--------|-------|-----------|--------|--------|--------|--------|
| State  | DRG    |       | MS-DRG |       | State     | DRG    |        | MS-DRG |        |
|  | 2006   | 2007  | 2008   | 2009  |           | 2006   | 2007   | 2008   | 2009   |
| NY   | 13.4%  | 11.6% | 11.2%  | 10.2% | SD        | -3.7%  | -3.6%  | -5.2%  | -6.4%  |
| AL   | 7.8%   | 7.2%  | 7.1%   | 8.2%  | MO        | -5.5%  | -6.6%  | -7.9%  | -6.4%  |
| AR   | 5.4%   | 8.3%  | 7.2%   | 7.8%  | KS        | -2.6%  | -6.8%  | -8.4%  | -6.6%  |
| CT   | 1.9%   | 2.7%  | 0.2%   | 4.7%  | HI        | -9.2%  | -17.4% | -11.4% | -6.9%  |
| PA   | 5.6%   | 5.8%  | 4.0%   | 4.5%  | CA        | -3.8%  | -7.1%  | -8.1%  | -7.3%  |
| MA   | 2.8%   | 1.7%  | 0.8%   | 2.7%  | UT        | -3.7%  | -4.8%  | -7.1%  | -8.0%  |
| MI   | 3.6%   | 2.6%  | 1.5%   | 2.7%  | IL        | -5.2%  | -8.4%  | -8.8%  | -8.1%  |
| TN   | 3.8%   | 3.6%  | 2.8%   | 2.7%  | VT        | -4.6%  | -5.2%  | -7.2%  | -8.8%  |
| OK   | 6.7%   | 2.7%  | -0.6%  | 1.8%  | WV        | -3.1%  | -4.7%  | -8.4%  | -9.0%  |
| RI   | 4.0%   | 0.2%  | 2.7%   | 1.8%  | MT        | -1.2%  | -5.4%  | -9.7%  | -9.0%  |
| MS   | 2.4%   | -1.7% | 0.4%   | 0.6%  | NM        | -1.9%  | -5.8%  | -7.7%  | -9.1%  |
| NC   | -0.5%  | -0.9% | -0.7%  | 0.5%  | VA        | -8.2%  | -9.6%  | -10.8% | -10.2% |
| LA   | 1.0%   | -1.9% | -1.8%  | 0.2%  | MN        | -3.7%  | -10.4% | -11.6% | -10.5% |
| KY   | 1.6%   | -0.8% | -0.9%  | 0.1%  | ME        | -11.5% | -11.6% | -15.0% | -10.7% |
| GA   | -1.9%  | -4.9% | -5.0%  | 0.0%  | SC        | -8.8%  | -12.6% | -11.8% | -11.2% |
| DC   | 3.4%   | 0.7%  | -2.7%  | -1.4% | ID        | -14.6% | -16.6% | -17.2% | -11.7% |
| OH   | -0.5%  | -0.3% | -0.9%  | -1.8% | WI        | -14.1% | -13.2% | -11.6% | -13.1% |
| ND   | 1.9%   | -1.6% | -2.9%  | -2.0% | OR        | -8.4%  | -13.2% | -14.5% | -13.3% |
| NJ   | -5.6%  | -3.2% | -2.2%  | -3.1% | CO        | -8.0%  | -9.3%  | -13.8% | -14.8% |
| TX   | 0.6%   | 0.3%  | -3.0%  | -4.0% | IN        | -9.6%  | -12.8% | -15.0% | -15.7% |
| FL   | -3.4%  | -6.1% | -6.9%  | -4.0% | NH        | -12.5% | -10.3% | -15.4% | -16.1% |
| NV   | -6.2%  | -5.7% | -8.2%  | -4.9% | DE        | -17.6% | -16.8% | -18.1% | -17.0% |
| IA   | -1.2%  | -1.5% | -3.5%  | -5.0% | AK        | -24.2% | -25.2% | -22.7% | -20.6% |
| AZ   | -10.7% | -4.8% | -7.0%  | -5.0% | NE        | -16.0% | -19.4% | -22.5% | -24.2% |
| MD   | -5.9%  | -4.7% | -10.3% | -5.3% | WY        | -20.3% | -23.5% | -25.4% | -28.0% |
| WA   | -1.2%  | -5.1% | -5.9%  | -5.4% | Nat'l Avg | -0.8%  | -2.3%  | -3.4%  | -2.7%  |

much more dramatic. Thirty-six states had negative margin percentages in FY09. All but seven of those states had negative margin percentages well below -5 percent. In fact, 14 of those states had double-digit negative percentages, with Wyoming being the worst at -28.0 percent in FY09.

Given the wide variation in payments and costs from state-to-state as reflected in the margin percentages, one has to wonder whether IPPS payments are properly designed to correlate payments with the reasonable costs of efficiently run hospitals, or whether hospitals in some states are more efficiently run than in other states, or perhaps both.

## About the Study

To facilitate national comparisons of Medicare payment levels, this study examined the components of the Medicare inpatient prospective payment system (IPPS) payment per discharge and average cost per discharge calculated from over 13,500 Medicare cost reports of over 3,300 short-term acute care hospitals (STACHs) for the last two years of DRGs (FY06-07) and the first two years of MS-DRGs (FY08-09).

Medicare cost report data were obtained from the Centers for Medicare & Medicaid Services (CMS). The Healthcare Cost Report Information System (HCRIS) dataset contains the most recent version (i.e., as submitted, settled, reopened) of each cost report filed with CMS since federal FY96. The most recent

HCRIS dataset available at the time of this study was for the cutoff at March 31, 2010. Data were assigned to each federal fiscal year based on the cost report end date.

The Medicare IPPS payment components were developed from each hospital's Medicare inpatient payment settlement summarized from the various lines on Worksheet E, Part A of the cost report and examined on a per discharge basis. Medicare discharges were determined from Worksheet S-3, Part I. Medicare costs were determined primarily from Worksheet D-1, Part II. Other cost components, such as direct graduate medical education costs, were determined from other worksheets.

## How Does Your Hospital Compare?

Hospitals should analyze their own Medicare IPPS payment components and correlate them with their own Medicare inpatient costs to determine Medicare inpatient margin percentages. Ideally, this analysis should be performed annually and tracked over time. This is a straightforward test of how a hospital compares with others in its area, with those within its state, and with broader national statistics.

Hospitals with positive margin percentages may be reassured, but those with negative margin percentages may not be. In any event, all hospitals need to ascertain their margin percentages to know whether Medicare IPPS payment policies are helping or harming them and, more important, to know whether they are operating as effectively and efficiently as their peers. This knowledge can put hospitals in a better position to make operational changes to bring costs more in line with payments and achieve greater operational efficiencies under IPPS.

One final message bears emphasizing. Some hospitals may believe their Medicare costs reports are no longer important under IPPS. Yet these reports remain as important as ever, because they are used in the development of Medicare payment policies—for example, setting standard payment rates, calculating local wage indexes, and calculating adjustment for outliers, DSH payments, and IME payments. The critical message is clear: Hospitals need to follow Medicare reporting directives closely and ensure that all information is reported accurately on their Medicare cost reports. ●

## About the author



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