June 12, 2006

Mark McClellan, Administrator
Centers for Medicare & Medicaid Services
Department of Health & Human Services
Attention: CMS-1488-P
Box 8011
Baltimore, Maryland 21244-1850

Re: file Codes CMS-1488-P and CMS 1488-P2

Dear Dr. McClellan:

The Medicare Payment Advisory Commission (MedPAC) is pleased to submit these comments on CMS's proposed rule entitled *Medicare Program: Proposed Changes to the Hospital Inpatient Prospective Payment System and Fiscal Year 2007 Rates*, Federal Register Vol. 71, No. 79, pages 23996-24472 (April 25, 2006) and its proposed rule entitled *Medicare Program: Hospital Inpatient Prospective Payment System Implementation of the Fiscal Year 2007 Occupation Mix Adjustment of the Wage Index*, Federal Register Vol. 71, No. 95, pages 28644-28653 (May 17, 2006). We appreciate your staff's ongoing efforts to administer and improve the payment system for acute inpatient services, particularly considering the agency's competing demands.

In this letter, we comment on changes to the DRG classification system and relative weights, payments for long-term care hospitals, adjustment for occupational mix in the hospital wage index, and outlier payments. In a letter dated June 2nd, we provided comments on two other issues: hospital quality data and value-based purchasing.

As we indicated in our letter dated April 19, 2006, we are pleased that CMS has proposed three of MedPAC's four recommended payment refinements to the inpatient PPS. The one change that CMS did not propose (outlier financing) would require legislation from the Congress. We have specific comments and suggestions on payment refinements:

- Refining the proposed method of calculating relative weights,
- Designing a transition policy to phase in the impact of case-mix refinements on hospitals' payments,
- Addressing the impact of changes in case-mix reporting, and
- Making future refinements to the consolidated, severity-adjusted DRGs.

We believe the concrete suggestions we offer will help CMS to resolve important short-term issues in time to adopt in fiscal year 2007 both the proposed changes in the relative weights and the consolidated, severity-adjusted DRGs (CDRGs). Adopting cost-based hospital-specific relative value (HSRV) weights and CDRGs together would result in substantial improvements in payment accuracy. The current payment system encourages community hospitals to allocate capital to profitable services such as cardiology and stimulates the formation of specialty hospitals that often focus on providing profitable services and tend to care for low-severity patients. In addition, the current system does not adequately compensate the community hospitals that focus on less profitable medical services and tend to care for high-severity patients.

As we have pointed out previously, concerns about giving hospitals time to adapt to the changes and perfecting all aspects of the CDRGs would be best managed by implementing all changes now with a transition period instead of implementing changes sequentially as CMS has proposed. A transition would allow all stakeholders ample opportunity to adapt to and further refine the proposed reforms and prevent hospitals from facing unnecessary shifts in their payments that would occur under sequential adoption of these payment reforms. Thus, we again urge you to move ahead immediately to begin to capture the benefits of these policy changes that can be accomplished through regulation.

HSRV weights, DRGs, and severity of illness
We commend CMS on its commitment to improve the accuracy of Medicare payments for hospital acute inpatient services. The CMS staff has made great strides toward achieving this goal with the proposal for calculating HSRV weights and the development of CDRGs.

While the fundamental framework CMS has proposed is innovative and will work, specific computations within that framework need technical refinement. Our refinements to the proposed CMS method for calculating relative weights would improve the accuracy of payments. Furthermore, our refinements to the CMS method would result in less dramatic changes to payment weights than the CMS proposed methodology.

In our March 2005 report to the Congress on physician-owned specialty hospitals, we described our detailed methods for computing cost-based relative weights for severity classes of all-patient refined diagnosis related groups (APR-DRGs). In the proposed rule, CMS outlined a simplified version of our method that is easier to compute and allows CMS to use the most recent available claims data. In the spring of 2006, CMS used 2003 cost reports and 2004 claims data to compute proposed payment weights. To evaluate the method proposed by CMS, we first used the data from our earlier study to test the degree to which the CMS proposed method produces different weights than our more detailed method. Second, we developed some refinements to the CMS method that would retain its timeliness while producing relative weights that are closer to the weights generated by the more detailed method we originally used.

In the discussion that follows, we describe and compare the three different weighting methods. For clarity, we call them:

- MedPAC original—the cost-based HSRV weights developed in our March 2005 report to Congress on physician-owned specialty hospitals;
- CMS proposed—the cost-based HSRV weights that CMS developed using ten revenue centers (groups of hospital departments in which hospitals charge patients for services) in the fiscal year 2007 proposed rule, and
- Refined CMS—cost-based HSRV weights that incorporate MedPAC's refinements to the CMS proposed method.

MedPAC original relative weights
Over a year ago, to compute MedPAC original relative weights, we started with hospitals' latest available cost reports (primarily fiscal year 2002) and then obtained claims that precisely matched each hospital's cost report timeframe. We obtained charges by revenue code for each claim in the Standard Analytic File (SAF) and cost-to-charge ratios (CCRs) by revenue center from the hospital cost reports. We multiplied the charges for each revenue code on each claim by the hospital's CCR for the corresponding revenue center to obtain costs for specific services on each claim. Then we summed the costs of services provided in different revenue centers to get the total cost for each discharge. We compared the costs of different types of discharges within each hospital to its average cost per discharge for all Medicare claims to create hospital-specific relative values. We then applied the HSRV method to calculate a set of national relative weights for APR-DRG severity classes.

Adjusting hospitals' charges by their revenue centers' CCRs removes most of the distortions in relative costliness across types of discharges that occur because hospitals use different markups across services (and have different overall markup levels). Distortions in relative costliness remain, however, because certain types of cases tend to be treated predominately in high- or low-cost hospitals. This results in relative weights that are too high for some types of cases and too low for others. The advantage of the HSRV method is that it removes all differences in the level of costs across hospitals, thereby preventing the weight for any case type from being raised or lowered because of where patients in that category happen to be treated.

The less desirable alternative to the HSRV method is to standardize costs for regional differences in wage rates, medical education costs, and differences in the types of inputs used in different markets. These adjustments would be incomplete and introduce unnecessary error into the computation of payment weights.

CMS proposed relative weights
In the proposed rule, CMS obtained cost-to-charge ratios from the latest complete file of cost report data (for fiscal year 2003) and charge data from fiscal year 2004 MedPAR claims. The MedPAR claims provide an aggregated version of the detailed charges by revenue code in the Standard Analytic File (SAF) claims. Under the CMS proposal, DRG relative weights are computed in two stages. In the first stage, CMS produces

national relative values for each of ten revenue centers for each DRG. The ten revenue centers are broad groupings of hospital departments, such as routine days, supplies and equipment, or operating room. In the second stage, CMS calculates a national cost share for each of the ten revenue centers. Then they use the ten revenue center cost shares to weight the ten revenue center relative values within each DRG, which they sum to get a single national weight for each DRG.

In the first stage, CMS trimmed (excluded) MedPAR claims within each DRG to eliminate statistical outliers—claims with extremely high or low total charges. CMS used the charges on the remaining claims to compute hospital-specific relative values (within each revenue center) for each claim. Then CMS applied the HSRV method to the relative values for each revenue center on all claims. This step yielded 10 national relative values (by revenue center) for each DRG.

In the second stage, CMS used hospital cost reports to create ten consolidated revenue center CCRs. CMS trimmed these CCRs if they were more than two standard deviations from the national geometric mean CCR for the same revenue center. They used the remaining CCR values to recalculate the national geometric mean CCR for each revenue center. Then CMS computed national cost shares for the ten revenue centers based on the national total costs in each revenue center. CMS calculated national total costs by multiplying the national total charges for each revenue center (from the MedPAR claims) by the national geometric mean CCR for the same revenue center. To create a national relative weight for each DRG, CMS then multiplied the national revenue center relative values in each DRG by the revenue centers' corresponding national cost shares and summed the results. Finally, CMS recalibrated the DRG weights to maintain budget neutrality.

Developing refined CMS weights
We found that the proposed CMS method outlined above has some limitations that reduce the accuracy of the relative weights and payments. However, these limitations have fairly simple solutions, which we applied to develop the refined CMS weights. The issues and related refinements are summarized below:

1) *Issue:* CMS appears to have inadvertently included organ acquisition charges in calculating the revenue center relatives for transplant DRGs. However, organ acquisition costs are paid on a "pass through" basis, so the related charges should not be included in calculating the DRG weights.

   Correction: CMS should correct this error in the final rule.

2) *Issue:* CMS trimmed claims that were more than three standard deviations from the geometric mean of total charges within each DRG. In the past, CMS has adjusted total charges for differences in local wage rates and other factors, such as the indirect costs of operating medical education programs (IME). The failure to adjust for these factors here may result in trimming a disproportionate number of claims from urban

teaching hospitals located in high-wage areas and small rural hospitals located in low-wage areas.

Refinement: CMS should first standardize charges for the area wage index, IME, and DSH costs. Then they should trim claims that have standardized charges in excess of 3 standard deviations from the geometric mean in each patient category.

3) *Issue*: CMS consolidated some revenue centers that have significantly different CCRs.

   Refinement: CMS should expand the number of revenue centers from 10 to 13.
   i) Make anesthesia a separate revenue center. Anesthesia has a lower CCR (0.16) than the CCR (0.32) for the other services consolidated in the operating room revenue center.
   ii) Make inhalation therapy a separate revenue center. It has a lower CCR (0.20) than other therapy services (0.44).
   iii) Make labor and delivery a separate revenue center from operating room. Labor and delivery has a higher CCR (0.47) than other services included in the operating room center (.32). [1]

4) *Issue:* CMS trimmed hospital CCRs in each revenue center using a criterion of 1.96 standard deviations from the national geometric mean for the revenue center. Given the extensive differences in markup policies among hospitals, this trim probably removes CCRs for too many hospitals and may be biased toward removing larger teaching hospitals with larger markups. Further, the national CCRs should be based on aggregate Medicare costs and charges because they are being multiplied by aggregate Medicare charges from all claims to calculate national cost shares for the revenue centers.

   Refinement: CMS should compute national revenue center cost shares based on national aggregate average Medicare CCRs by revenue center from the cost reports. The recommended steps are:
   i) Calculate all-payer CCRs for the 13 revenue centers at each hospital.
   ii) Trim the all-payer CCRs for each revenue center:
      (1) First normalize (divide) each CCR by the hospital's overall average CCR (cost report Worksheet C, line 101).
      (2) Then take logs and flag CCRs that are more than $\pm$ 3 standard deviations from the national mean of the log CCRs within each revenue center.
   iii) Compute hospital-specific Medicare costs using the all-payer revenue center CCR and the Medicare charges for the revenue center on the cost report.
   iv) Compute national aggregate average CCRs:
      (1) Sum Medicare charges and costs for each revenue center across all hospitals in the nation.
      (2) Divide total Medicare costs by total Medicare charges.

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[1] Labor and delivery charges include operating room charges and clinic visits for MedPAR claims in MDC 14.

v) Compute national cost shares and relative weights:
  (1) For all 13 revenue centers, use the national total charges from the trimmed MedPAR claims as discussed above, and the aggregate average CCRs to estimate the national share of costs for each revenue center.
  (2) Compute weights as CMS proposed, but using the refined national cost shares and the refined revenue center relative values for each patient category (DRG or CDRG).

Improved accuracy of payments

How do the CMS proposed weights and the refined CMS weights compare to the MedPAC original weights that we recommended in our March 2005 report to the Congress on physician-owned specialty hospitals? Neither alternative set of weights will exactly match the MedPAC original weights because the original weights are based on more detailed cost estimates. To see how the two alternatives differ from the MedPAC original weights, we used our fiscal year 2002 data set of matched claims and cost reports to estimate a set of weights for DRGs and another for CDRGs based on each of the three methods (CMS proposed, refined CMS, and MedPAC original). We then calculated the percentage differences between each substitute set of weights and the MedPAC original weights (separately for all DRGs and all CDRGs). We converted the percentage differences to absolute values and calculated the weighted average of the absolute values over all DRGs (CDRGs), weighting by the volume of cases in each category. The resulting weighted average absolute differences in Table 1 summarize the extent of the differences in the weights, comparing the CMS proposed and the refined CMS weights with the MedPAC original weights for DRGs and CDRGs.

Table 1. Weighted average absolute difference from MedPAC original weights

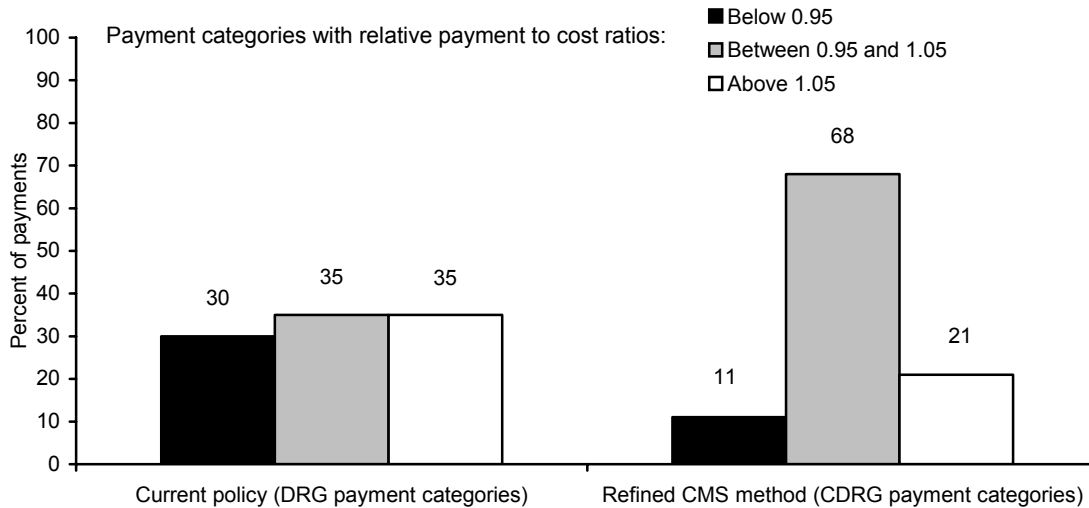| Method:	DRGs	CDRGs
CMS proposed	3.8%	4.8%
Refined CMS	2.6	2.9

Source: MedPAC analysis of Medicare hospital inpatient claims and cost reports from CMS, primarily fiscal year 2002.

Whether we compared weights based on DRGs or CDRGs, we found that the weights based on the refined CMS method more closely matched the MedPAC original weights than did the weights based on CMS's proposed method.

As shown in Figure 1 below, we also used our study data and MedPAC's acute inpatient PPS payment model to compare accuracy of payments (how closely payments track relative costs) under a refined version of the Medicare acute inpatient PPS and current policy. In the refined CMS method, payments would be based on CDRGs.

Payment accuracy increased substantially when moving from the prior (DRG-based) current policy to the refined CDRG payment system. Under the DRG system only 35 percent of total payments fall in DRGs that have payments that are within 5 percent of the cost target. In the case of CDRGs with the refined CMS weights, 68 percent of payments fall in CDRGs that meet this standard (Figure 1). Accuracy would improve even further if the Congress were to change the way outlier payments are financed as the Commission has recommended. The outlier issue is discussed further on page 12.

**Figure 1. Improving the accuracy of payments**

Note: DRG (diagnosis-related group). Refined CMS method for CDRGs (MedPAC's proposed revisions to the CMS method for computing cost-based HSRV weights, applied to CDRGs). CDRGs (consolidated severity-adjusted diagnosis-related groups).

Source: MedPAC analysis of Medicare hospital inpatient claims and cost reports from CMS, primarily fiscal year 2002

Figure 1, however, overstates the accuracy of the current DRG system. Some DRGs appear to pay fairly for care only because they include low-severity cases for which we overpay offsetting high-severity cases for which we underpay. To separate out the high-severity and low-severity cases, Figure 2 uses the CDRG categories to compare current payment policies with the refined CMS method. We see that only 18 percent of total payments are in CDRG categories that are appropriately paid under the current system. Refining the payment system dramatically improves the accuracy of payments.

Figure 2.   The importance of severity adjustment

CDRG categories with relative payment to cost ratios:

- ■ Below 0.95
- ▨ Between 0.95 and 1.05
- □ Above 1.05
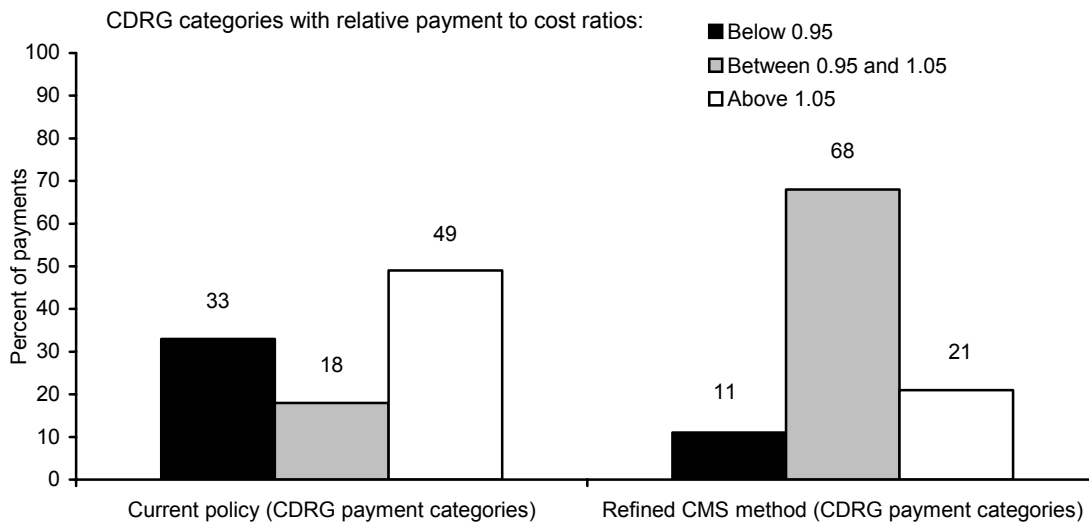
Note: The distribution labeled "current policy" compares the average charge-based DRG payments that would have been paid in 2002 for cases in each CDRG category to the cost of those cases. The distribution labeled "refined CMS" compares the refined cost-based HSRV payments for cases in each CDRG category to the cost of those cases. CDRGs (consolidated severity adjusted DRGs).

Source: MedPAC analysis of Medicare hospital inpatient claims and cost reports from CMS, primarily fiscal year 2002.

Grouping claims by CDRG

One objective of the DRG patient classification system was to group cases with similar resource use into a common DRG. We used MedPAC's case level cost estimates for cases from 2001 and 2002 to calculate the amount of variation in estimated costs among cases within the DRGs. We then assigned each case to the appropriate CDRG and recalculated the amount of cost variation among cases within CDRGs. The coefficient of variation (standard deviation divided by the mean cost) for the CDRGs was 12 percent lower than for the old DRGs. In other words, the CDRGs did a better job of grouping cases with similar costs into the same category. This was expected because the CDRGs separate the high severity (and high cost) cases into separate categories. While the CDRGs are not perfect, and may need to be revised over time to better account for the changing cost of technology (as discussed below), they represent a significant improvement over the DRGs.

Impact of all refinements

The refined CMS method discussed above would bring the CDRG weights closer to those that MedPAC estimated using more detailed charges and CCRs from precisely matched claims and cost reports. Table 2 below illustrates differences between the CMS proposed method of computing weights and our refined CMS method for four sets of CDRGs. For CDRG 232 (pacemaker implantation – SOI level 2), the MedPAC original method

generated a payment weight of 2.27. The CMS proposed method produced a weight of 1.99 (using 2002 data). The refined CMS method produces a weight of 2.26, which is much closer to weight generated by the MedPAC original method.

Table 2: Comparison of methods for computing weights

CDRG (severity level)	Current Policy	MedPAC Original (CDRG method)	CMS proposed method	Refined CMS method
Bypass with cardiac catheterization				
CDRG 216 (level 1)	5.37	3.55	3.27	3.53
CDRG 217 (level 2)	5.40	4.16	3.85	4.13
CDRG 218 (level 3)	5.53	5.48	5.24	5.55
CDRG 204 (level 4 cardiothoracic)	7.49	11.02	10.82	11.29
Cardiac pacemaker implantation w/o AMI				
CDRG 231 (level 1)	2.33	1.86	1.61	1.88
CDRG 232 (level 2)	2.34	2.27	1.99	2.26
CDRG 233 (level 3)	2.36	3.16	2.83	3.10
CDRG 206 (level 4 circulatory procedures)	3.48	5.26	4.90	5.17
Defibrillator or heart assist implant				
CDRG 207 (level 1)	6.30	4.69	3.93	4.84
CDRG 208 (level 2)	6.51	5.54	4.62	5.61
CDRG 209 (level 3)	6.53	6.86	5.92	6.91
CDRG 204 (level 4 cardiothoracic)	7.49	11.02	10.82	11.29
Major depressive, schizophrenia and bipolar disorders				
CDRG 769 (level 1)	0.74	0.92	1.13	1.00
CDRG 770 (level 2)	0.75	1.04	1.27	1.13
CDRG 771 (level 3)	0.76	1.45	1.60	1.45
CDRG 772 (level 4)	0.77	2.84	3.05	2.77
Diabetes				
CDRG 538 (level 1)	0.74	0.55	0.59	0.55
CDRG 539 (level 2)	0.75	0.71	0.75	0.71
CDRG 540 (level 3)	0.75	1.06	1.10	1.05
CDRG 537 (level 4 endocrine diagnoses)	0.95	2.41	2.22	2.15

Source: MedPAC analysis of Medicare hospital inpatient claims and cost report data from CMS, primarily fiscal year 2002.
Note: DRG weights may differ among CDRG severity classes due to each severity class having a different mix of DRGs (e.g. DRGs with or without complications) being grouped into each CDRG.

For CDRG 771 (Depression/schizophrenia – SOI level 3), the MedPAC original method produced a weight of 1.45. The CMS proposed method generated a weight of 1.60. The refined CMS method produced a weight that is equal to the MedPAC method. In general, the proposed CMS method resulted in too large of a reduction in the costs allocated to supplies and too big of an increase in costs allocated to routine services. The proposed CMS method made adjustments in the right direction, but the magnitude of the proposed adjustments was often too large.

The refined CMS system would have a modest impact on total Medicare inpatient payments to most classes of hospitals. Physician-owned specialty hospitals are the only major category that would see more than a 3 percent decrease in payments. They tend to have a less severe case mix of patients and would see a reduction of between 7 percent and 8 percent of payments, assuming their current case mix. Within each category of hospitals, there would be some winners and some losers. In particular, our simulations show that hospitals that currently have an unfavorable selection of patients (e.g. high severity patients) would experience an increase in payments, while hospitals that have a favorable selection of patients (e.g. low severity patients) would face a decline in payments under the proposed system. Because some hospitals would face a significant shift in payments after the payment system is refined, MedPAC recommended in its 2005 specialty hospital report that the payment refinements be implemented over a transition period.

The transition
The Commission suggests that CMS phase in the financial effect of the refinements to the payment system over a transition period of two to four years. To avoid subjecting hospitals to unnecessary shifts in payments, the CDRGs and the refined CMS weights should be adopted at the same time. Otherwise, if CDRGs were implemented after cost-based weights, some hospitals would see a large increase (or decrease) in payments in the first year only to see some of those gains (or losses) reversed in the next year if the cost-based weights were implemented in 2007 and CDRGs in 2008. We urge you to implement both policies simultaneously in fiscal year 2007, and provide a smooth transition.

We suggest that CMS blend the old and new weights during the transition period to limit the magnitude of payment changes faced by hospitals. Because each CDRG would have a single blended weight, it would not be necessary to run two payment systems simultaneously. For example, under a two year transition the relative weight for cases in a CDRG would be set equal to 50 percent of the refined CMS weight we described earlier and 50 percent of the average weight for cases in that category under current policy (in which charge-based weights are set for DRGs). That is, one-half of the weight for each CDRG would be based on the average DRG weight under current (FY 2006) policy for the cases grouped in that category. These average weights would be known in advance because they would be calculated using the same cases CMS uses to calculate the refined weight for each CDRG. Therefore, the CDRG weights in the first year would only partially reflect the impact of implementing both cost-based weights and CDRGs. If CMS implements a two year transition, roughly half of the effect of the transition would

occur in the first year and roughly half in the second. If CMS implements a three year transition, roughly one third of the effect would occur in the first year.

Table 3 shows the average aggregate effect of the refined CMS method on payments to different types of hospitals. The refined CMS payment system has similar impacts to MedPAC's three payment policy recommendations (HSRV, cost-based weights, and severity adjustment). The impacts in Table 3 differ slightly from the impacts in our April 19th letter we sent to you because our April 19th letter referred to the effect of implementing all four policy recommendations, including how CMS finances outliers. CMS cannot implement the outlier recommendation without new legislation. Outlier reform tends to benefit small hospitals (both urban and rural) that currently receive very little in outlier payments. The outlier issue is discussed on page 12.

Table 3: The distributional effects of the refined CDRG payment system

Category of hospital	Average percent change in payments	Percent of hospitals losing 5% or more	Percent of hospitals gaining 5% or more
All hospitals	0%	9%	15%
Urban hospitals	0	7	18
Rural hospitals	0	12	11
Teaching status			
Major teaching hospitals	-1	13	12
Other teaching hospitals	0	6	15
Non-teaching hospitals	+1	10	16
Physician-owned hospitals			
Heart hospitals	-8	75	0
Orthopedic hospitals	-7	77	0

Source: MedPAC analysis of Medicare hospital inpatient claims and cost reports from CMS, primarily fiscal year 2002. The impacts assume no change in casemix or coding from FY 2002.   The average percent change represents the aggregate change in payments for the category of hospitals.

Anticipating changes in hospital coding
CMS also asked for comments regarding the need to make a prospective adjustment that would account for expected changes in diagnosis documentation and coding practices among hospitals. In the past, hospitals have changed their case-mix documentation and coding practices in response to major changes in the case-mix classification systems. The shift from DRGs to APR-DRGs in Maryland is probably the most recent classification change that is similar to the adoption of CDRGs in Medicare.

The state of Maryland sets payment rates for all payers and is exempt from Medicare's inpatient and outpatient PPSs. In 2002 Maryland started to adopt severity adjusted APR-DRGs, beginning with major teaching hospitals. In 2005, Maryland adopted APR-DRGs for all hospitals, allowing hospitals to obtain higher revenues for higher case mix indexes

based on APR-DRGs. Following the change in case-mix measurement methods, Maryland's increase in reported patient severity resulted in roughly a 4 percent increase in payments for hospitals paid based on APRDRGs. The Health Services Cost Review Commission attributed most of the change to more complete documentation of patients' medical records resulting in more reported diagnoses per patient, rather than an underlying increase in patient severity.

In order to recapture payment increases from changes in coding, CMS will have to reduce payments prospectively. The reduction may have to be as high as 2 to 4 percent to account for similar increases in documentation related to the use of CDRGs. The increase in case-mix and payments during the transition, however, is likely to be less than the full change that might ultimately occur for two reasons. First, hospitals will not instantaneously adapt their practices to the change in policy; many hospitals will require two or more years to fully adapt. Second, the use of blended weights will tend to dampen the impact of changes in coding. The blended weights rest partially on the average DRG weight under current policy; thus the effects of changes in CDRG assignments will not be as large as they will be when the refined CMS weights are fully implemented. Consequently, CMS may not need to immediately offset the full documentation and coding effects.

After the new CDRG payment system is in effect, CMS can also estimate the actual changes that have occurred by reviewing records to see if more complete coding has resulted in an increase in reported case mix. CMS could use information from the Clinical Data Abstraction Centers (CDACs) which collect medical records, reabstract these records, and independently assign diagnosis and procedure codes. CMS already uses this data to estimate coding errors by state.

Future Refinements
As we stated in our March 2005 report, there is a need to reform the financing of outlier payments. Currently, variation in the prevalence of high-cost outlier cases contributes to disparities in relative profitability across and within DRGs. These disparities can penalize hospitals (usually small hospitals) that treat patients in DRGs with a low prevalence of outliers. To level the playing field, Congress should amend the law to give the Secretary authority to adjust the DRG relative weights to account for differences by DRG in the prevalence of high-cost outlier cases.

Another problem that needs to be addressed in the future is the problem of "charge compression." This problem exists under the current charge based system and will continue to persist under the system of cost-based weights. From MedPAC's studies of charging practices, we have learned that hospitals tend to have higher percentage markups on lower cost items and lower percentage markups on higher cost items. These systematic differences in markups within a department lead to compressed estimates of the cost of supplies and devices. It is important to note that charge compression results from hospital mark-up practices. If each hospital would use a single markup for all supplies and devices charged to patients this problem would disappear. Improvements in price transparency may encourage hospitals to move toward more uniform markups, but

as long as they continue their historical charging practices, the use of a single departmental cost-to-charge ratio will result in inaccurate cost estimates, understating the costs of high cost items and overstating costs for low cost items.

Over the short term, the transition we proposed will limit the impact of payment changes associated with charge compression. During the transition phase, CMS could investigate two interim solutions. CMS could obtain survey information on the transaction prices of high-cost devices and determine if a temporary adjustment to the payment weights is needed. An alternative is to investigate the possibility of using the more detailed charge information on the SAF file (which divides charges for supplies into subcategories) to split the supplies revenue center into two or more subcategories. One of the two interim solutions could remain in place until the cost reports and the MedPAR files are revised to have more than one revenue center for supplies.

In addition, CMS may need to continually refine the CDRG categories (as it has DRGs) when new technologies become available. In the past, CMS has separated DRGs with significantly different device costs such as replacements of pacemakers versus replacements of defibrillators. Another example was CMS' decision to pay one rate for hip replacement and a higher rate for revisions of hip and knee replacement procedures due to their higher resource use. During the transition phase, CMS should consider splitting procedures with significantly different device costs into separate CDRGs.

Long-term care hospitals
We comment on two issues related to long-term care hospitals (LTCHs):
- The use of consolidated severity-adjusted DRGs for the LTCH PPS and
- How CMS recalibrates weights for that PPS.

In the proposed rule, CMS discussed using consolidated severity-adjusted DRGs developed for acute care hospitals for LTCHs if this classification system was found to be appropriate. In a preliminary analysis, we found that consolidated severity-adjusted DRGs may be useful for the LTCH PPS. For this analysis, we used both standardized charges and standardized hospital-specific costs (removing the effect of local wages) for LTCH cases for fiscal year 2004. We grouped the cases by a crosswalk from version 23 of the APR-DRG severity of illness categories to the new consolidated DRGs. We found that coefficients of variation for these groups generally were less than one (a criterion used for the original LTC DRGs), which suggests on a preliminary basis that consolidated DRGs are relatively homogeneous in resource use for the kinds of cases treated by LTCHs. We conclude that the case-mix system proposed for acute care hospitals may also be promising for LTCHs.

CMS recalibrates weights for the acute care PPS and LTCH PPS differently. For the acute care PPS, CMS uses a budget neutral process in recalibrating the weights for the year, so that recalibration will not affect aggregate payments. For the LTCH PPS, CMS does not currently use a budget neutral process and this method of recalibrating the weights has resulted in an estimated decrease in payments of 1.4 percent for fiscal year 2007. CMS should recalibrate the LTCH PPS weights in a budget neutral manner. This

would ensure that only changes in the mix of patients among patient categories would affect aggregate payments.

Occupational mix adjustment to the wage index
The wage index is intended to reflect geographic differences in the cost of labor. Adjusting wage index values for occupational mix in hospitals is meant to control for the effect of hospitals' employment choices on the wage index. CMS has proposed a method for doing so using information gathered in a survey of hospitals' hours and wages for the first three months of 2006. This represents a change from their earlier plan to use six months of data. The change was due to a recent court decision that requires CMS to apply the occupational mix adjustment in full beginning October 1, 2006.

Hospitals must report the survey data and CMS and its fiscal intermediaries have to process that data, with time for hospitals to review of the accuracy of CMS's processing for their facilities, before the new fiscal year begins. The schedule CMS proposes will result in the final wage index values being available sometime after the final rule is published in August but before the fiscal year starts in October.

You have asked for comments on how to calculate the occupational mix adjustment for non-responsive hospitals. We would agree with your fourth option: "Assign the hospital the average occupational mix factor for similar hospitals, based on factors such as geographic location, bed size, teaching status and case mix." This approach is most likely to produce a value that approximates the one the non-reporting hospital should have reported. Assuming a regression analysis approach is used for the imputation, you might add other variables to the specifications—such as share of ICU days and types of services offered—to increase the explanatory power.

In addition, the regulations governing geographic reclassification should be revised so that in the future the occupational mix adjusted average wage is used as the point of comparison for eligibility. This will make reclassification decisions consistent with the new basis for the wage index. Hospitals that do not provide complete occupational mix data should not be allowed to apply for reclassification, because they would not be able to demonstrate eligibility.

We also have a technical comment on the method used for calculating each hospital's occupational mix adjustment. In step 7 in the proposed rule, hours are used to allocate total wage-related costs between nursing and all other personnel. For example, if 30 percent of the hospital's hours come from nursing, then 30 percent of its wage-related costs (as reported on its Medicare cost report) will be subject to the occupational mix adjustment. That approach essentially assumes that wage rates are equal between nursing and other categories. We propose that "nursing paid salaries" and "all other occupations paid salaries" from the survey be used for this allocation. This would result in a more accurate determination of the costs that should be adjusted for occupational mix and those that should not.

Outlier payments

Each year CMS conducts a simulation to determine the fixed loss threshold it believes will result in outlier payments equaling 5.1 percent of base operating payments in the coming year. Because forecasting is involved, however, actual outlier payments are likely to come out somewhat above or below 5.1 percent of base payments in any given year. We would like to suggest an easily implemented change to CMS's policies for administering outlier payments that should increase the probability of outlier payments reaching the 5.1 percent target level.

CMS's method begins with projecting the charge for each Medicare case out to the policy year. Then the projected charges are converted to costs by applying each hospital's most recent cost-to-charge ratio (CCR). The cost for each case is compared to a modeled payment to estimate a gain or loss, and then through an iterative process, the loss threshold is identified that produces the desired outlier spending.

Generally the CCR data used in this simulation are somewhat older than the charge data, which can bias the results. If charges are rising faster than costs (which has been the case for many years), hospitals' CCRs will fall over time such that old CCRs will be too high relative to the charges to which they are applied. Using CCRs that are too high will overstate costs, resulting in a fixed-loss threshold that is too high. CMS minimizes the potential bias by repeating the simulation and updating its determination of the appropriate fixed-loss threshold between the draft and final rules, employing more recent CCRs that had become available for many hospitals. While the lag between the charge and CCR data has thus been reduced, at least a modest underpayment of outlier payments is still likely to occur.
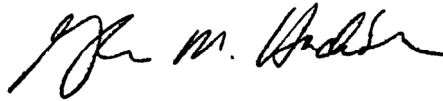
CMS can improve the accuracy of its simulation by forecasting hospitals' CCRs to the policy year so that these data will match its forecasted charge data. This is best accomplished by separately forecasting each hospital's average charge per case and average cost per case, then recomputing the ratio of the two. CMS already projects average charge per case, and the results of that projection can be used here. The hospital market basket is intended to measure growth in the costs of the goods and services hospitals purchase to provide patient care, and CMS already publishes a forecast of the market basket which can be used for projecting average cost per case.

Conclusion

MedPAC appreciates the opportunity to comment on the important policy proposals crafted by the Secretary and CMS. The Commission also values the ongoing cooperation and collaboration between CMS and MedPAC staff on technical policy issues. We look forward to continuing this productive relationship.

If you have any questions, or require clarification of our comments, please feel free to contact Mark Miller, MedPAC's Executive Director.

Sincerely,

Glenn M. Hackbarth, J.D.
Chairman