American Hospital Association

Liberty Place, Suite 700
325 Seventh Street, NW
Washington, DC 20004-2802
(202) 638-1100 Phone
www.aha.org

June 8, 2006

Mark McClellan, M.D., Ph.D.
Administrator
Centers for Medicare & Medicaid Services
Attention: CMS-1488-P and P2
Room 445-G, Hubert H. Humphrey Building
200 Independence Avenue, S.W.
Washington, DC 20201

RE: CMS-1488-P and P2, Medicare Program; Proposed Changes to the Hospital Inpatient Prospective Payment Systems and Fiscal Year 2007 Rates; Proposed Rule.

Dear Dr. McClellan:

On behalf of the American Hospital Association's (AHA) 4,800 member hospitals, health care systems and other health care organizations, and our 35,000 individual members, we appreciate the opportunity to submit comments to the Centers for Medicare & Medicaid Services (CMS) on the fiscal year (FY) 2007 inpatient prospective payment system (PPS) and occupational mix adjustment proposed rules.

The rule proposes the most significant changes in the calculation of diagnosis-related group (DRG) relative weights since 1983 by creating a version of cost-based weights using the newly developed hospital-specific relative values cost center methodology (HSRVcc). It also proposes refining the DRGs to account for patient severity, with implementation likely in FY 2008. In addition, the rule would update the payment rates, outlier threshold, hospital wage index, quality reporting requirements, and payments for rural hospitals and medical education, among other policies.

While the AHA supports many of the proposed rule's provisions, we have serious concerns about the proposed changes to the DRG weights and classifications.

The hospital field supports meaningful improvements to Medicare's inpatient PPS. We believe the AHA and CMS share a common goal in refining the system to create an equal opportunity for return across DRGs, which will provide an equal incentive to treat all types of patients and conditions. However, more time is needed to understand the significant proposed policy changes, which redistribute from $1.4 to $1.7 billion within the inpatient system. Analysis shows

the impact of the proposed changes to be highly unstable, with small changes in method leading to large changes in hospital payment. And the validity of CMS' proposals versus potential alternatives to improve the DRG weights and classification system is uncertain. Moving forward requires thoughtful change.

Specifically, the AHA supports the following:

- **One-year Delay:** The AHA supports a one-year delay in the proposed DRG changes given the serious concerns with the HSRVcc and CS-DRG methodology. The AHA and the hospital field are committed to working with CMS over the next year to address these concerns.

- **Valid Cost-based Weights:** We support moving to a DRG-weighting methodology based on hospital costs rather than charges, but CMS' proposed HSRVcc method is flawed.

- **A New Classification System Only if the Need Can Be Demonstrated:** The AHA does not support a new classification system at this time, as the need for a new system is still unclear. Much more work understanding the variation within DRGs and the best classification system to address that variation is still needed before CS-DRGs or any other system should be selected or advanced.

- **Simultaneous Adoption of Any Changes to Weights and Classifications:** If the need for a new, more effective classification system is demonstrated and developed, it should be implemented simultaneously with the new weighting system to provide better predictability and smooth the volatility created by these two, generally off-setting changes.

- **Three-year Transition:** Any changes should be implemented with a three-year transition, given the magnitude of payment redistribution across DRGs and hospitals.

- **Collaborative Approach to Moving Forward**: The AHA commits to working with CMS to develop and evaluate alternatives for new weights and classifications.

We have enclosed detailed comments that further explain our concerns and recommendations on the proposed DRG weight and classification system changes, as well as our position on many other issues in the proposed rule.

The AHA appreciates the opportunity to submit these comments. If you have any questions about our remarks, please feel free to contact me or Danielle Lloyd, senior associate director for policy, at (202) 626-2340 or dlloyd@aha.org.

Sincerely,

Rick Pollack
Executive Vice President

American Hospital Association
Detailed Comments on the
FY 2007 Inpatient Prospective Payment System Proposed Rule

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PROPOSED CHANGES

DRG CHANGES

In response to payment recommendations from the Medicare Payment Advisory Commission (MedPAC) to address the proliferation of physician-owned, limited service hospitals, the Centers for Medicare & Medicaid Services (CMS) proposed the biggest changes to the calculation of diagnosis-related group (DRG) relative weights since the creation of the prospective payment system (PPS). These changes would significantly redistribute payments among the DRGs and among hospitals. Specifically, CMS proposes the use of hospital-specific relative values (HSRVs) and a modified version of cost-based weights rather than charge-based weights in fiscal year (FY) 2007. CMS also proposes an alternative patient classification system called consolidated severity adjusted DRGs (CS-DRGs), with implementation likely in FY 2008.

The hospital field supports meaningful improvements to Medicare's inpatient PPS. We believe the AHA and CMS share a common goal in refining the system to create an equal opportunity for return across DRGs which will provide an equal incentive to treat all types of patients and conditions. We also believe the system should be simple, predictable, and stable over time. One of the fundamental values of a *prospective* payment system is the ability of providers to reasonably estimate payments in advance to inform their budgeting, marketing, staffing and other key management decisions. Another core feature of the PPS is clinically cohesive and meaningful DRGs that are somewhat intuitive for providers and coders to follow, and that reflect similar resource use within DRGs. And, ultimately, the inpatient PPS should foster innovation and best practice in care delivery. The AHA believes that these are essential characteristics of a well-functioning PPS and it is within these policy goals that we evaluate CMS' proposal.

While we are providing CMS with comments under separate cover on its interim report to Congress regarding the development of a strategic implementation plan on physician-owned, limited service hospitals as required under the *Deficit Reduction Act of 2005* (DRA), we would like to emphasize here that payment changes alone will not remove the inappropriate incentives created by physician self-referral to limited-service hospitals. Physicians will still have the ability and incentive to steer financially attractive patients to facilities they own, avoid serving low-income patients, practice similar forms of selection for outpatient services and drive up utilization for services. We strongly urge CMS to rigorously examine the investment structures of physician-owned, limited-service hospitals and consider our comments on the interim report on the strategic plan. It is imperative that CMS continue the suspension of issuing new provider numbers to physician-owned, limited-service hospitals until the strategic plan developed has been fully implemented and Congress has had an opportunity to consider CMS' final report.

NEW DRG WEIGHTS: HSRVCC

CMS proposes an alternative to MedPAC's approach to HSRVs and cost-based weights that could be characterized as a short cut. CMS asserts that this combined methodology, known as the HSRV cost center methodology (HSRVcc), achieves similar results in a more administratively feasible manner. But that is not the case. Specifically, the CMS proposal involves two major steps.

1. Develop, on a charge-basis, hospital-specific relative weights for each DRG. CMS established 10 cost center categories based on broad hospital accounting definitions: routine day costs; intensive care day costs; and eight ancillary cost centers. CMS calculated DRG relative weights for each of the 10 cost centers by DRG for each hospital and then used those hospital-specific weights for calculating national DRG weights. CMS' current process aggregates charges for all hospitals at the DRG level to calculate weights. CMS believes the new approach removes the variation introduced by hospital characteristics such as teaching, disproportionate share, location and size, among others.

2. "Scale" the charge-based DRG weights to "costs" using the national cost center cost-to-charge ratios (CCRs) developed from the cost report data (as opposed to using hospital-specific CCRs at the claim level). CMS believes this approach will remove the effect of different CCRs across departments within hospitals. CMS chose this methodology because the use of national average rather than hospital-specific departmental CCRs is administratively easier.

The AHA supports the move to cost-based weights but believes CMS' proposed method is flawed. More work is needed to determine the best way to create cost-based weights. Hospitals are willing to work with CMS in a process to develop consensus around the right way to make this change. Below we discuss our detailed concerns and questions regarding the proposed HSRVcc methodology.

HSRVcc METHOD CONCERNS

The AHA believes that more time is needed to develop a sound methodological approach to create cost-based weights and to understand their potential impact.

1. **Errors:** While analyzing CMS' proposed rule, the AHA uncovered a series of data errors, inconsistencies across databases and questionable methodological choices. Further analyses commissioned by the AHA, the Association of American Medical Colleges and the Federation of American Hospitals and conducted by The Moran Company, Inc. to investigate these questions showed that small changes in method lead to large changes in DRG weights, signaling that the proposed changes are highly unstable (see attached technical appendix).

   For instance, the following, more minor, inconsistencies were identified:

   - CMS inadvertently included organ acquisition costs in the data used to set weights for DRGs. These costs should be excluded. This error has a material effect on the resulting weight calculation for transplants. For example, CMS publishes a weight of 5.5466 for DRG 302 (Kidney Transplant), but with this correction The Moran Company calculates a weight of 3.0102.

   - CMS was inconsistent in its treatment of certain categories of hospitals between their calculation of the FY 2007 HSRVcc weights and the proposed CS-DRG weights, making it hard to directly compare the results. For example, hospitals in Maryland were included in the FY 2007 MedPAR data used for the HSRVcc weight calculation and excluded from the CS-DRG calculation.

- The Moran Company used transfer-adjusted charges prior to calculating weights. It was CMS' policy to do this. However, it is unclear whether the weights published for CS-DRGs included this step.

- Data cleaning steps used were not always consistent with standard CMS practices (e.g., removal of cases with 0 charges, low volume DRGs, etc.).

- The cleaning steps applied to the cost report data were not consistent with the cleaning steps applied to the MedPAR claims data, which resulted in different hospitals being included in data sets used for the calculation of the weights and the calculation of the scalers to the weights. For example, hospitals in Maryland and hospitals without cost reports for FY 2003 were excluded from the cost report data used to calculate the scalers and included in the MedPAR file used to calculate the weights.

2. **Trimming:** CMS trimmed the cost center CCRs at 1.96 standard deviations from the geometric mean. We believe that this skews the CCRs, as the hospitals with high routine charge mark-ups are systematically removed from the calculation. This results in the exclusion of 198 hospitals' routine CCRs, accounting for over 26 percent of total routine charges. It also creates a mismatch between the CCRs used and the charges they are applied to, as the hospitals that are trimmed out of the CCRs are still included in the charges that are then reduced to costs and determine the cost shares.

3. **Weighting:** CMS also hospital-weighted rather than charge-weighted the calculation of the CCRs which in turn are used to calculate the scaling factors used to convert the charge-based relative weights to "cost." There are several issues with this approach:

   - This approach gives an equal weight to each hospital in the national cost-to-charge ratio calculation even though hospitals can range in size from fewer than 25 to more than 1,000 beds.
   - This method is inconsistent with the method of averaging used to develop the cost center-specific DRG weights to which the scaling factors are applied. For this part of the analysis, CMS calculated hospital-specific DRG relative weights, but then used a case-weighted average to develop the national value.

   - The hospital-weighted approach results in a 1 percent to 54 percent difference versus a charge-weighted approach in the resulting scaling factors used for the conversion to cost.

   The above errors in the calculations over-weight CMS' routine cost shares and under-weight the ancillary cost shares, creating erroneously large swings in DRG weights. Table 1 illustrates how these methodological problems affect the factors used to scale the cost center-specific relative weights. This table shows the impact of trimming the cost center CCRs at 3.0 rather than 1.96 standard deviations from the geometric mean and charge-weighting rather than hospital-weighting the calculation of the national average CCRs that are used in developing the scalers.

Table 1
Impact of Methodological Changes on "Scalers"
Published versus Revised with Methodological Changes

Scaler	CMS Published	Methodological Changes			Percent Change vs. Published
		Trimming Only	Weighting Only	Weighting/ Trimming	
Routine days	0.2881	0.2882	0.2646	0.2490	-14%
Intensive days	0.1919	0.1933	0.1668	0.1636	-15%
Drugs	0.0877	0.0884	0.0939	0.0970	11%
Supplies	0.1150	0.1142	0.1325	0.1383	20%
Therapeutic	0.0384	0.0381	0.0390	0.0388	1%
Operating room	0.0812	0.0838	0.0861	0.0888	9%
Cardiology	0.0241	0.0246	0.0351	0.0371	54%
Laboratory	0.0670	0.0659	0.0681	0.0687	3%
Radiology	0.0427	0.0437	0.0460	0.0474	11%
Other services	0.0639	0.0600	0.0677	0.0712	12%

Source: Moran Company analysis.

These methodological problems have a large impact on the relative weight calculations at the DRG level. Table 2 shows, for key DRGs, how these methodological problems affect the DRG weights and, therefore, hospital payments.

Table 2
DRG Weights with Current Methodology vs. HSRVcc with Various Corrections
High Volume DRGs with Largest Changes in Weights Due to Corrections

DRG (v24)	DRG Title	Number of discharges	Current Charged-based Weights w/v24 Grouper	New DRG Weights: Published vs. Corrected			Change vs. Old Weights		
				CMS Published HSRVcc Weight	HSRVcc w/ Technical Corrections Only	Corrected, Weighted and Trimmed CCRs	DRG Weight Change Current Method vs. Published	DRG Weight Change Current vs. Corrected, Weighted, and Trimmed	Published vs. Corrected, Weighted, and Trimmed
430	PSYCHOSES	74,871	0.6561	1.2316	1.2416	1.1110	87.7%	69.3%	-9.8%
12	DEGENERATIVE NERVOUS SYSTEM DISORDERS	56,042	0.8983	1.0105	1.0099	0.9635	12.5%	7.3%	-4.7%
475	RESPIRATORY SYSTEM DIAGNOSIS WITH VENTILATOR SUPPORT	119,513	3.4630	3.8279	3.8366	3.6573	10.5%	5.6%	-4.5%
277	CELLULITIS AGE >17 W CC	118,691	0.8676	1.0015	1.0026	0.9578	15.4%	10.4%	-4.4%
87	PULMONARY EDEMA & RESPIRATORY FAILURE	96,506	1.3854	1.5310	1.5324	1.4699	10.5%	6.1%	-4.0%
320	KIDNEY & URINARY TRACT INFECTIONS AGE >17 W CC	224,491	0.8611	0.9538	0.9544	0.9162	10.8%	6.4%	-3.9%
294	DIABETES AGE >35	97,122	0.7750	0.8642	0.8636	0.8307	11.5%	7.2%	-3.9%
296	NUTRITIONAL & MISC METABOLIC DISORDERS AGE >17 W CC	246,948	0.8213	0.9041	0.9042	0.8701	10.1%	5.9%	-3.8%
79	RESPIRATORY INFECTIONS & INFLAMMATIONS AGE >17 W CC	159,894	1.5939	1.7331	1.7359	1.6680	8.7%	4.6%	-3.8%
243	MEDICAL BACK PROBLEMS	100,498	0.7888	0.8680	0.8693	0.8363	10.0%	6.0%	-3.7%
554	OTHER VASCULAR PROCEDURES W CC W/O MAJOR CV DX	77,003	2.0890	1.9483	1.9560	2.0085	-6.7%	-3.9%	3.1%
110	MAJOR CARDIOVASCULAR PROCEDURES W CC	57,436	3.8616	3.6419	3.6558	3.7563	-5.7%	-2.7%	3.1%
124	CIRCULATORY DISORDERS EXCEPT AMI, W CARD CATH & COMPLEX DIAG	119,991	1.4508	1.1670	1.1732	1.2380	-19.6%	-14.7%	6.1%
544	MAJOR JOINT REPLACEMENT OR REATTACHMENT OF LOWER EXTREMITY	444,118	1.9514	1.8941	1.9047	2.0147	-2.9%	3.2%	6.4%
551	PERMANENT CARDIAC PACEMAKER IMPL W MAJ CV DX OR AICD LEAD OR GNRTR	53,717	3.0391	2.6339	2.6481	2.8453	-13.3%	-6.4%	8.0%
552	OTHER PERMANENT CARDIAC PACEMAKER IMPLANT W/O MAJOR CV DX	81,744	2.0837	1.7670	1.7771	1.9468	-15.2%	-6.6%	10.2%
125	CIRCULATORY DISORDERS EXCEPT AMI, W CARD CATH W/O COMPLEX DIAG	91,848	1.1117	0.7862	0.7913	0.8717	-29.3%	-21.6%	10.9%
557	PERCUTANEOUS CARDIOVASCULAR PROC W DRUG-ELUTING STENT W MAJOR CV DX	123,550	2.8755	2.1323	2.1499	2.4236	-25.8%	-15.7%	13.7%
515	CARDIAC DEFIBRILLATOR IMPLANT W/O CARDIAC CATH	58,009	5.2591	4.1471	4.1795	4.7999	-21.1%	-8.7%	15.7%
558	PERCUTANEOUS CARDIOVASCULAR PROC W DRUG-ELUTING STENT W/O MAJ CV DX	191,677	2.1920	1.4299	1.4456	1.7238	-34.8%	-21.4%	20.6%

Source: Moran Company analysis of FY 2007 proposed inpatient PPS rule. Uses FY 2005 MedPAR.
Notes: High volume DRGs defined as over 50,000 cases. Those included in the table were those with the greatest absolute change in weight moving from the CMS published DRG weight to the DRG weight calculated by trimming CCRs at 3.0 standard deviations, using weighted CCRs, and correcting for technical errors.

These changes have a material impact on hospital payment. CMS' method for weighting and trimming redistributes $1.4 billion dollars among hospitals. Charge-weighting the CCRs and trimming them at three standard deviations would reduce the shift in dollars to $900 million – a reduction of ***half a billion dollars,*** or 33 percent. This highlights the need for more work to validate each methodological step to understand how it affects payment and ensure it adds to "accuracy."

4. **Failure to Calculate Costs at the Claim Level:** CMS chose to use *charges* to initially calculate the relative weights at the DRG level and then a national scaler to make the conversion to "cost-based" weights. The national scaler converts the 10 cost center charge-based weights to one national weight using the actual share of costs across departments. CMS maintains that this adjusts for differential mark-ups across hospital departments. In contrast, MedPAC estimated *costs* at the claim level to calculate relative weights. CMS provided no validation of the methodological shortcut they propose.

5. **Cost Centers:** CMS aggregates charges into 10 cost centers for each DRG, then applies a cost-center level CCR (derived from the cost reports) to charge figures (from claims data). But because hospitals often report charges on the cost reports differently than charges on the claims, the cost-center level CCRs are calculated based on a different set of charges than the charges to which the CCRs are later applied. We believe this may materially distort the DRG weights and needs to be thoughtfully considered and accounted for in any methodology. If CMS is going to move to cost-based weights, regardless of the methodology, hospitals will need time to align their mapping of cost centers into departments or cost categories for purposes of cost reporting with that of claims reporting.

6. **Validation:** As mentioned above, CMS provided no analysis to validate that the proposed changes result in better payment policy. While measuring improved payment accuracy is difficult, the large degree to which the weights fluctuate given methodological changes alone indicates the need for further analysis and study. CMS should construct a process to test the sensitivity of weights to various methodological assumptions and publicly share the result, including:

    - Compare CMS weights to MedPAC's HSRV-cost approach;
    - Compare CMS weights to an approach using standardized costs (as opposed to HSRV);
    - Compare CMS weights to weights calculated by estimating costs at the claims level using the 10 cost center approach;
    - Evaluate alternative methodologies for estimating costs (e.g., method used by New York state's Medicaid program);
    - Compare stability of weights over time; and
    - Determine whether payment policy is improved.

Assessment of "payment accuracy" conducted by The Moran Company as well as The Health Economics and Outcomes Research Institute (THEORI), a division of the Greater New York Hospital Association, finds the CMS HSRVcc approach to be not at all to marginally better than the current system. Fixing the major methodological flaws yields minimal improvement, according to THEORI. CMS' HSRVcc approach actually creates new areas of care where systematic incentives for specialization could occur. This analysis raises significant questions about CMS' approach and further analysis should be conducted before any changes to the current charge-based methodology are made. These analyses will help determine the most effective and administratively feasible approach for a shift to cost-based weights in FY 2008.

NEW PATIENT CLASSIFICATION: SEVERITY OF ILLNESS

CMS also proposes moving to an entirely new patient classification system beginning in FY 2008 *or earlier*. Currently, Medicare uses 526 DRGs to classify all Medicare patients. CMS considered use of 3M's all-patient refined DRGs (APR-DRGs) as an alternative to its current DRGs, which would increase the number of categories to 1,258. However, CMS ultimately proposed refining the APR-DRG system by consolidating APR-DRGs into fewer categories. This would result in a new DRG system with 861 consolidated severity-adjusted DRGs, or CS-DRGs.

The AHA believes that the need for and best approach to changing the patient classification system has not been concretely and objectively demonstrated. More careful analysis is needed, along with greater access to the specifics of CMS's methodology and the new GROUPER. Below we discuss our detailed concerns and questions about this proposal.

CS-DRG METHOD CONCERNS

1. **Validation:** It is unclear whether there is a need for a new patient classification system. More work is needed to assess the proposed system and others that might be considered. As with the HSRVcc proposal, CMS provided no analysis that shows that the proposed changes result in an improved hospital payment system compared to the existing DRG system or APR-DRGs.

   CMS must test the degree to which the variation in costs within cases at the DRG level is reduced under both CS-DRGs and APR-DRGs. Payment classifications that still exhibit a high degree of cost variation should be identified and potentially revised. We suggest comparing the distribution of the coefficient of variation at the DRG level for various grouping approaches.

   For instance, CMS chooses to collapse the tier-four cases within major diagnostic categories (MDCs). It is unclear whether all of the tier-four cases are clinically cohesive enough to be combined and whether consolidation adequately considers variations in resource requirements. CMS also aggressively collapses the DRGs with low Medicare volume such as obstetrics, psychiatric and substance use services without any discussion of the potential ramifications for other payment systems, such as other Medicare PPSs, Medicaid and the

private sector that often bases payment off the Medicare inpatient DRG system. CMS believes that a new patient classification system that distinguishes more-sick from less-sick patients will reduce the "cherry picking" of healthy patients, but there may be other, easier ways to accomplish this. For example, CMS embarked on a new way to differentiate patients last year based on the absence or existence of a major cardiovascular diagnosis but did not discuss the possibility of other similar, less disruptive changes to the system as an option in this year's rule.

Even more fundamentally, today's DRG system was created to distinguish the resource use required among patients. It has been modified over time to reflect changes in clinical practice and technology. The APR-DRG system is based on severity of illness, not necessarily the resource use required. The impact of a move to CS-DRGs – an APR-DRG hybrid – is unclear. But the implications of moving from a resource-based system to a severity-based payment system must be more fully explored and understood.

2. **Budget Neutrality Adjustment:** CMS suggests in the proposed rule that it would reduce payments to hospitals by instituting a budget neutrality adjustment to offset the fact that case mix may increase because of improved coding rather than actual changes in acuity. However, CMS did not propose an adjustment or even a methodology for determining an adjustment. CMS often institutes such adjustments that are based on assumptions but never checked or later corrected. We recommend that CMS hold off on such an adjustment until there is evidence that one is needed.

3. **Availability of the GROUPER:** The proprietary nature of the proposed CS-DRG GROUPER is of concern. The current DRG GROUPER logic has been in the public domain since the inception of the PPS. Without the new GROUPER logic, it is virtually impossible for AHA or anyone else to thoroughly analyze the system and comment – without access to the new GROUPER, we have no understanding of how and why patients fall into certain CS-DRGs and cannot evaluate whether it represents policy improvement. If CS-DRGs are adopted and the GROUPER remains proprietary, the AHA would be limited in our ability to educate and assist our member hospitals. Moreover, a single company's monopoly would be both more expensive and more difficult to integrate into our hospitals' existing systems. Maryland hospitals report a GROUPER price of $20,000 per hospital with the ultimate price varying based on criteria such as whether it is used on a mainframe or PC**.** We urge CMS to make any new classification system widely available to the public.

4. **Too Few Diagnoses and Procedures Considered:** We are concerned that CMS' GROUPER does not use all diagnoses and procedures that affect a patient's severity of illness and/or the resources utilized. The current DRG GROUPER only considers nine diagnoses and up to six procedures. Hospitals submit claims to CMS in an electronic format. The HIPAA compliant electronic transaction 837i standard allows up to 25 diagnoses and 25 procedures. Many fiscal intermediaries are ignoring or omitting the additional codes submitted by hospital providers since these additional diagnoses and procedures are not needed by the GROUPER to assign a DRG.

   Capturing all diagnoses and procedures meeting the definitions of reportable secondary diagnoses and procedures will provide a more complete picture of patient complexity. As

CMS considers methodologies for refining the patient classification system, the number of secondary diagnoses may be an important factor in determining differences in patient characteristics. This is particularly true of patients with many chronic illnesses that add to the complexity of treating them.

AHA RECOMMENDATIONS

The hospital field supports meaningful improvements to Medicare's inpatient PPS. We believe the AHA and CMS share a common goal in refining the system to create an equal opportunity for return across DRGs which will provide an equal incentive to treat all types of patients and conditions. However, more time is needed to understand the significant proposed policy changes, which redistribute from $1.4 to $1.7 billion within the inpatient system. Analysis shows the impact of the proposed changes to be highly unstable, with small changes in method leading to large changes in hospital payment. And the validity of CMS' proposals versus potential alternatives to improve the DRG weights and classification system is uncertain. Moving forward requires thoughtful change. Specifically, the AHA supports the following:

- **One-year Delay:** The AHA supports a one-year delay in the proposed DRG changes given the serious concerns with the HSRVcc and CS-DRG methodology. The AHA and the hospital field are committed to working with CMS over the next year to address these concerns.

- **Valid Cost-based Weights:** We support moving to a DRG-weighting methodology based on hospital costs rather than charges, but CMS' proposed HSRVcc method is flawed.

- **A New Classification System Only if the Need Can Be Demonstrated:** The AHA does not support a new classification system at this time, as the need for a new system is still unclear. Much more work understanding the variation within DRGs and the best classification system to address that variation is still needed before CS-DRGs or any other system should be selected or advanced.

- **Simultaneous Adoption of Any Changes to Weights and Classifications:** If the need for a new, more effective classification system is demonstrated and developed, it should be implemented simultaneously with the new weighting system to provide better predictability and smooth the volatility created by these two, generally off-setting changes. For example, of the 2,566 hospitals that would experience an increase in payment using the HSRVcc[1] methodology alone, 48 percent would experience a net loss when CS-DRGs and HSRVcc are done together. Of the 859 hospitals that have a decrease in payment under the HSRVcc methodology alone, 33.9 percent would become overall winners when CS-DRGs and HSRVcc are done together.

- **Three-year Transition:** Any changes should be implemented with a three-year transition, given the magnitude of payment redistribution across DRGs and hospitals. We recommend that CMS provide a three-year transition with a blend of the old DRG

[1] Source: Moran Company analysis of 2004 MedPAR under FY 2007 payment policies using weighted CCRs and trimming CCRs at 3.0 standard deviations.

weights and the new DRG weights. In the first year, hospitals would be paid based on an average of DRG weights: 75 percent of the old weights; 25 percent of the new weights. The second year would be 50 percent of each, and the third year would be 25 percent of the old weights and 75 percent of the new weights. Another method of transition is dampening the reduction for DRGs with significant decrease in relative weights similar to the dampening of APC weights in the outpatient PPS. Dampening could be more feasible – especially if a significant change to the classification system is made – because it does not require CMS to calculate payments using two different systems.

We further believe that a stop loss should be instituted as part of this transition. This would be similar to the approach currently used under the inpatient psychiatric PPS whereby no hospital can receive less than 70 percent of what they would otherwise have been paid under the old system. In combination with the DRG blend or dampening, this would result in less significant losses in the first year than in the last year of the transition. To avoid having to run all claims under both DRG weights, CMS could establish a payment-to-cost ratio for each hospital in FY 2006 and use that as a base against which to compare payments under the new system.

- **Collaborative Approach to Moving Forward**: The AHA commits to working with CMS to develop and evaluate alternatives for new weights and classifications.

DRG RECLASSIFICATIONS

DRGs: Pancreas Transplant. We agree with the proposed coding changes for DRG 513 (Pancreas Transplant), which removes the requirement that pancreas transplant patients also have kidney disease. This change is consistent with the newly approved National Coverage Determination (NCD) to cover pancreas transplants alone as reasonable and necessary under limited circumstances for patients with Type I diabetes.

DRGs: Dual Array Implantable Neurostimulators for Deep Brain Stimulation. We oppose CMS' recommendation to keep the implantation of dual array implantable neurostimulators for deep brain stimulation in DRG 1 (Craniotomy Age >17 with CC) and DRG 2 (Craniotomy Age >17 without CC). CMS should recognize the higher resources associated with this technology.

DRGs: Carotid Artery Stents. We oppose the proposed delay in making any changes to carotid artery stent cases. The higher costs associated with carotid stents should be recognized within the existing DRG system.

DRGs: Cardiac Resynchronization Therapy, Defibrillators (CRT-D). We agree with the proposal to add code 37.74 (Insertion or Replacement of Epicardial Lead [Electrode] into Atrium) to the DRG logic so that all types of defibrillator devices and lead combinations would be included in the following DRGs:

- DRG 515 (Cardiac Defibrillator Implant without Cardiac Catheter);

- DRG 535 (Cardiac Defibrillator Implant with Cardiac Catheter with AMI/Heart Failure/Shock); and

- DRG 536 (Cardiac Defibrillator Implant with Cardiac Catheter without AMI/Heart Failure/Shock).

This change would bring the DRGs into alignment with the change in coding advice to assign code 37.74 in conjunction with implantation of CRT-D defibrillators.

Application of Major Cardiovascular Diagnoses (MCVs) List to Defibrillator DRGs. We oppose the proposal to delay refining defibrillator DRGs based on MCVs. We believe it is appropriate for CMS to apply a clinical severity concept similar to the approach used in FY 2006 to refine cardiac DRGs to an expanded set of DRGs (e.g., defibrillator DRGs) based on the presence or absence of an MCV.

DRGs: Hip and Knee Replacements. For FY 2006, new codes were created to differentiate between new and revised hip and knee replacements. In addition, more specific codes were created to identify the joint components replaced. After publication of the FY 2006 inpatient PPS final rule, a number of commenters advised CMS that the DRG logic for DRG 471 (Bilateral or Multiple Major Joint Procedures of Lower Extremity) included knee and hip procedures that are not bilateral or do not involve multiple major joints. We agree with CMS' proposal to remove the codes from DRG 471 that do not capture bilateral and multiple joint revisions or replacements.

DRGs: Severe Sepsis. We agree that providers have found the coding of systemic inflammatory response syndrome (SIRS), sepsis and severe sepsis confusing in the last few years. The classification of these conditions has changed several times during this period. We concur that data have not been consistent and that a new DRG for severe sepsis would be inappropriate. However, we recommend that a change be made so patients with severe sepsis associated with respiratory failure requiring mechanical ventilation may be properly recognized. The ICD-9-CM classification instructions require that these patients be coded with the systemic infection as the principal diagnosis. The infection codes do not group to DRG 475 (Respiratory System Diagnosis with Ventilator Support) despite the use of resource-intensive mechanical ventilation (procedure code 96.7). This results in a significant loss of reimbursement for these patients.

Since the change in coding sequencing of these patients, the Coding Clinic Editorial Advisory Board has discussed this issue several times. In addition, several proposals have been submitted to the ICD-9-CM Coordination and Maintenance Committee to allow the sequencing of respiratory failure as the principal diagnosis. To date, no changes have been made. At this point, reverting the sequencing instructions would be confusing to coders and would once again disrupt trend data.

Instead, we recommend considering mechanical ventilation as a pre-MDC DRG on the basis of the procedure code. If this is not possible, we recommend that CMS add systemic infections (038.xx,) as acceptable principal diagnoses for DRG 475 when reported in conjunction with mechanical ventilation or tracheostomy.

DRGs: Complications/Comorbidities (CC) Categories 403-404. Effective October 1, changes have once again been made to the definition of the fifth-digits for categories 403 (Hypertensive Chronic Kidney Disease) and 404 (Hypertensive Heart and Chronic Kidney Disease). Prior to October 1, 2005, a fifth digit of "0" indicated "without chronic renal failure," while a fifth digit of "1" indicated "with chronic renal failure." While all patients in categories 403 and 404 had chronic kidney disease linked to hypertension, only those with a fifth digit of "1" had progressed to the point of kidney failure. Effective October 1, 2005, the definition of the fifth digits changed to "with or without chronic kidney disease." This was confusing since all patients in categories 403 and 404 by definition were supposed to have a chronic kidney condition. The change also blurred the distinction between the patients with more severe kidney failure and those with less kidney damage. The most recent change for this year once again changes the meaning of fifth digit "0" to identify patients "with chronic kidney disease stage I through stage IV or unspecified," while fifth digit "1" identifies patients "with chronic kidney disease stage V or end stage renal disease." As such, Table 6E of the proposed rule has identified codes 403.10, 403.90, 404.10 and 404.90 as non-CCs. The stages of chronic kidney disease are a fairly new concept introduced into the ICD-9-CM classification last year, which physicians do not routinely document in the medical record. Many physicians still document the older and more common term "chronic renal failure," which translates into "unspecified stage" in the ICD-9-CM. More importantly, physicians differ in their opinion of what constitutes renal failure – whether it starts in the middle of stage III, stage IV or stage V.

While we understand that CMS may not want to consider a code that would include patients in the early stages of hypertensive kidney disease as a CC, because of the potential inclusion of more serious chronic renal failure patients in codes 403.10, 403.90, 404.10 and 404.90, we recommend that CMS instead rely on the supplemental code from category 585 (Chronic Kidney Disease) to recognize the CC.

Implementing a Modern Clinical Classification System. We continue to agree with CMS' assessment in the May 9, 2002 hospital inpatient PPS notice of proposed rulemaking that ICD-10 is an improvement over ICD-9-CM and will provide greater specificity and detail. We believe that CMS should continue with plans to implement ICD-10. Implementing the significant DRG changes is a temporary fix, and a more refined DRG system can only be accomplished with more specific clinical classification systems, capable of painting a more complete picture of a patient's condition and the services provided to treat that condition – namely ICD-10-CM and ICD-10-PCS.

LONG-TERM CARE HOSPITAL (LTCH) DRGS

The AHA is very concerned about the proposed reweighting of the long-term care hospital (LTCH) DRGs for FY 2007. The projected payment cut resulting from the reweighting – 1.4 percent – in combination with the payment cut resulting from the recent LTCH PPS final rule for 2007 – 7.1 percent – will cause substantial volatility for LTCH providers, and ultimately restrict access for patients needing long-term acute care services. It would be extremely difficult for any provider group to withstand an 8.5 percent cut in one year. By pursuing these changes, CMS is misinterpreting MedPAC's estimate of 2006 Medicare margins for LTCHs and creating an extremely unstable regulatory environment for LTCHs. MedPAC projected a 7.8 percent Medicare margin for LTCHs in 2006 and recommended no market basket update for FY 2007.

However, this MedPAC projection does not include two major policy changes that also decrease Medicare margins for LTCHs: the projection excludes the impact of the "25% Rule" limiting payments to co-located LTCHs and the new reductions associated with the LTCH short-stay outlier policy. Therefore, CMS goes too far with this proposal to reduce Medicare payments even further.

Given these considerations, we urge the agency to forgo the proposed 1.4 percent cut and instead implement the reweighting in a budget-neutral manner.

This would appropriately redistribute allocated funds among the payment categories to reflect current costs and omit the inappropriate modification of total payments due to unrelated considerations. **It is irrational to treat the LTCH PPS differently than other Medicare payment systems by failing to reweight the LTCH PPS in a budget-neutral manner.**

At this time, CMS should focus on developing further patient and facility criteria for LTCHs to ensure that patients who are clinically suitable continue to have access to the LTCH setting. We strongly support CMS' pursuit of a scientific foundation for these expanded criteria and are eager to review the recommendations currently under development by CMS' contractor the Research Triangle Institute.

HOSPITAL QUALITY DATA

The Deficit Reduction Act of 2005 (DRA) expands quality reporting requirements for hospitals to be eligible to receive a full market basket update. The proposed rule states that to qualify for their full market basket update, hospitals would have to pledge to submit data on all 21 measures currently part of the Hospital Quality Alliance's (HQA) public reporting on www.HospitalCompare.hhs.gov for patients discharged on or after January 1. Hospitals failing to submit data for the first calendar quarter of 2006 by August 15 would receive an inpatient update equal to the market basket minus two percentage points. Hospitals that fail data validation tests for data submitted for the first three calendar quarters of 2005 would also lose the two percentage points from the market basket update.

As a partner in the HQA, the AHA and its member hospitals fully support the HQA's effort to make more information on hospital quality available to the public, and we join with CMS in wanting to make it happen quickly and accurately. However, as written, the proposed rule would require hospitals to reopen files from which data have already been abstracted, renegotiate agreements with the vendors that assist them in collecting and processing the required information, and resubmit information to the clinical data warehouse. Such retroactive alterations in the data files are difficult and costly, and open the door for the introduction of many new kinds of errors in the data. To require this reopening of the files makes no sense. **CMS should make the data collection prospective. This could be accomplished by requiring that hospitals that want a full market basket update pledge to submit the relevant data for all 21 measures for patients beginning on or after July 1.**

The DRA gave the Secretary of the Department of Health and Human Services (HHS) the authority to further expand the measures that must be reported to qualify for full market basket update in future years. **We strongly urge CMS to select measures only from those used by**

the HQA for public reporting. To choose different measures would thwart efforts to streamline quality reporting, add to the "babble" of quality measurement that currently exists in health care and dilute efforts to create a single source to share solid reliable information with the public. In addition, whenever the Secretary intends to expand the set of measures linked to payment, **CMS should consider publishing the proposal at least one full year prior to the start of the fiscal year.** This will enable hospitals and their vendors to put the needed data collection processes in place to be able to provide the requested data.

Further, we agree with CMS that it is critical that the collected data be validated. The process used to validate the HQA data was reviewed by the Government Accountability Office, which concluded that there was "a high overall baseline of accuracy," but recommended several changes to improve the validation process. CMS proposes to look at the validation results for data submitted on patients who were discharged during the first three calendar quarters of 2005. CMS has hired a contractor to randomly select five patient records per quarter. That contractor selects the patients, asks the hospital to send a copy of the medical record for the hospitalization of the patients that occurred during that period, and then reabstracts the same data that the hospital abstracted from the medical record. A comparison is made between the data the hospital submitted and the data the contractor abstracted, and if there is at least an 80 percent agreement, the hospital is said to have passed validation. In the proposed rule, the hospital would have to have at least 80 percent agreement across the 15 medical records that the contractor reabstracted. This methodology assumes that the contractor has correctly reabstracted the data and that discrepancies must mean erroneous data submission on the part of the hospital. However, that is not always the case. This validation process is still in its infancy and seems to be working to correctly validate the information submitted by many, but unfortunately not all, hospitals. Significant problems have occurred for some hospitals of which we are aware.

Some data validation problems have actually begun with the data submission process. Hospitals and their data collection vendors submit data to the Quality Improvement Organization (QIO) data warehouse in a good-faith effort to get the information submitted in the right format, with all of the right labels and coding. An "error report" is generated that is supposed to alert the hospital if it appears data were received in a way that is not consistent with the requirements. The hospital is supposed to receive this report in time to make any necessary corrections. However, the report can be hundreds of pages long with a multitude of meaningless notations. A significant problem in data transmission might have occurred, but the indications of it are buried in this voluminous report and may not be discovered until it is too late for the hospital to make a correction. In addition, the data collection vendors on whom the hospitals rely to format and submit the data correctly do not have access to these error reports, nor do they have any other mechanisms for checking to make sure that the data they sent was received correctly. This has inevitably led to errors not being caught in time. When these errors are then left in the database, the CMS contractors' reabstraction of the data does not match up with what is recorded for the hospital in the database, leading to the hospital failing validation.

Another common problem results when the contractor has asked for the medical record pertaining to a particular patient, but has not specified which admission it wanted. Since it is not uncommon for heart failure patients to be readmitted for care, the omission of the specifics on which admission was being reabstracted has inevitably led to the hospital copying and

submitting data on one admission, and the contractor trying to make that match up with the data for a different admission – and the data simply will not match up.

There also have been many reported instances in which the contractor conducting the reabstraction of the data failed to find information that was clearly in the medical record – a simple human error, but one that should not be used to penalize the hospital.

CMS was made aware of these problems with the validation process and it has begun to work to improve the process reliability so it can be used to support payment decisions. However, in the first three calendar quarters of 2005, the validation process did not have sufficient integrity to warrant hospital payments being withheld based on the validation results. At this juncture, we firmly believe that the problems with the validation process itself need to be resolved before any payment decisions are made solely on the basis of the contractor's work. **We strongly urge CMS to review, on a case-by-case basis, any incidence where a hospital's payment would be put in jeopardy as a result of the validation process. It should allow the hospital to submit information showing that it made a good-faith effort to supply the data warehouse with accurate information so that the public could be informed about the quality of its care. If the hospital has made a good-faith effort, it should receive full payment regardless of whether the data are deemed accurate enough for public display.** In addition, CMS should instruct its QIO data warehouse to accept any significant corrections so that the public can have a full and accurate picture of hospital quality.

OUTLIER PAYMENTS

The rule proposes establishing a fixed-loss cost outlier threshold equal to the inpatient PPS rate for the DRG, including indirect medical education (IME), disproportionate share hospital (DSH), and new technology payments, plus $25,530. While this is not a particularly sizable increase from the FY 2006 payment threshold of $23,600, we remain very concerned that the threshold is too high. According to our analyses, actual outlier payments for FY 2006 are estimated to be 0.47 percentage points lower than the 5.1 percent of funds withheld from hospitals to fund outlier payments. CMS spent only 3.8 percent, or $1.15 billion less than set aside in FY 2005, and only 3.5 percent, or $1.3 billion less than the funds withheld in 2004.

In the rule, CMS proposes to use a one-year average annual rate-of-change in charges per case from the last quarter of 2004, in combination with the first quarter of 2005, to the last quarter of 2005, in combination with the first quarter of 2006, to establish an average rate of increase in charges. This results in a 7.57 percent rate of change over one year, or 15.15 percent over two years.

The AHA appreciates that CMS is proposing this methodology in an effort to avoid using data from 2003 when charges may have been atypically high. **However, using the proposed charge inflation methodology will only result in an inappropriately high outlier threshold and a real payment cut to hospitals. The AHA strongly opposes using this methodology to estimate the outlier threshold.** The AHA conducted a series of analyses to identify a more appropriate methodology. Below we put forth for CMS' consideration a methodology that incorporates both *cost* inflation and *charge* inflation. We believe the use of more than one indicator will make the threshold calculation more accurate and reliable.

First, we inflated 2005 charges by 15.71 percent (the inflation factor used by CMS in the proposed rule) and then reduced the charges to costs. Instead of using the cost-to-charge ratios (CCRs) from the CMS Impact File, we used the CCRs from the March 31, 2006 HCRIS release. In addition, we accounted for the nine-month lag from the end of a cost-reporting period until the FI is able to update the CCR. We accomplished this by projecting forward from the most recent fiscal period in the March 31 HCRIS update to the fiscal period(s) expected to be used for the calculation of the CCR(s) determining federal FY 2007 outlier payments.

The cost inflation factor for projecting CCRs was determined from the cost reports of a cohort of 3,253 matched hospitals for periods beginning in federal FYs 2002, 2003 and 2004. All three cost reports were available for each hospital from the recent update of HCRIS. The 2002-2004 aggregate annual rate of increase in the cost per discharge for these hospitals was 5.69 percent[2]. This cost inflation factor and the CMS charge inflation factor of 7.57 percent were used to project CCRs over the time periods described above. The projected CCRs were applied to projected federal FY 2006 charges to simulate the determination of costs for FY 2007 outlier payments. **The estimated fixed-loss amount that would result in 5.1 percent outlier payments under this methodology is $24,000.**

The AHA strongly urges CMS to adopt this methodology, which is applicable regardless of what DRG changes are made or not made in FY 2007. We estimate that the fixed-loss threshold necessary to achieve 5.1 percent in FY 2006 should have been set at $21,275 as compared to the $23,600 actually utilized. We believe CMS underspent the funds set aside for outliers by an estimated $3 billion over FYs 2004, 2005 and 2006. **This is a real cut in payments to hospitals that cannot be recouped. If CMS leaves the threshold at $25,530, rather than dropping it to $24,000, we believe that CMS will again significantly underspend by over $300 million.** We urge CMS to adopt our recommended methodology to lower the outlier threshold. Attached is the full analysis, conducted by Vaida Health Data Consulting.

CORE-BASED STATISTICAL AREAS (CBSAS)

In adopting the Core-based Statistical Areas (CBSAs) in FY 2005, a small number of hospitals that were classified as urban in FY 2004 became classified as rural in FY 2005. Because moving from a Metropolitan Statistical Area (MSA) to the rural statewide average would have resulted in a significant decline in these hospitals' wage indexes, CMS implemented a three-year transition period (FYs 2005-2007). The AHA supports the continued transition for these hospitals to give them the opportunity and time to reclassify.

OCCUPATIONAL MIX ADJUSTMENT

The Medicare, Medicaid and SCHIP Benefits Improvement and Protection Act of 2000 requires CMS to collect data every three years on the occupational mix of employees from hospitals subject to the inpatient PPS in order to construct an occupational mix adjustment to the wage

[2] An audit adjustment was applied to costs from "as submitted" cost reports. The audit adjustment was determined by comparing 2,729 "as submitted" cost reports from the December 31, 2003 HCRIS database with the settled reports of the same hospitals in the March 31, 2006 HCRIS update.

index to control for the effect of hospitals' employment choices – such as greater use of registered nurses (RNs) versus licensed practical nurses or certified nurse aides – rather than geographic differences in the costs of labor.

CMS initially stated in the proposed rule that it would again limit the occupational mix adjustment to 10 percent because of concerns regarding the validity of the data and the potential financial impact on hospitals. However, as a result of the decision handed down by the U.S. Court of Appeals for the Second Circuit on April 3 in *Bellevue Hospital Center v. Leavitt,* CMS on May 12 released a proposed rule revising the occupational mix adjustment portion of the FY 2007 inpatient PPS proposed rule. Under the court ruling, CMS must collect new data on the occupational mix of hospital employees and fully adjust the area wage index (AWI) for FY 2007.

Hospitals are required to collect the hours and wages for employees from January 1 through June 30, 2006. Data initially was supposed to be collected by July 31; however, hospitals are required to submit data by June 1 for the first calendar quarter of the year and by August 31 for the second calendar quarter. Data from the first quarter will be used to adjust the FY 2007 AWI, while data for the full six months will be used to adjust the AWI for FYs 2008 and 2009.

Definitions and Covered Employees. In filling out the interim-survey, our members found that the placement of certain employees caused confusion. Examples include surgical technicians, paramedics who are employed by the hospital and usually work in the emergency department, and unit secretaries who are also known as ward clerks. CMS clarified after the proposed rule was released that these employees should be placed in the "all other" category for the interim-collection. Moving forward, CMS should re-evaluate where these employees belong. **However, such changes should not be made to the ongoing collection, as it would necessitate the resubmission of the first calendar quarter's data to ensure that both quarters could be used for FYs 2008 and 2009.** If CMS believes that such changes are warranted, then the hospitals will need notification prior to the release of the final inpatient PPS rule in order to meet the August 31 deadline for submissions.

Cost Centers. We agree with CMS' "bright line" clarification for this collection that only nursing personnel within the cost centers listed should be included in that category for the purposes of consistency. It is significantly less work for hospitals to focus on certain cost centers, and we continue to support this methodology. **We believe that the vast majority of nursing personnel within a hospital fall within these cost centers and do not believe that CMS should include every cost center that may have a few nursing personnel included in it.**

However, CMS should consider refining the list for future collections. Every hospital has a different method for attributing costs to the cost centers, thus there are probably a few cost centers that contain a significant number of nursing personnel for certain hospitals that were not captured for this collection. Given the shortened comment period in combination with the magnitude of the other changes proposed by CMS in the inpatient PPS rule this year, we were unable to extensively research which cost centers CMS should add. We suggest that CMS accept comments on any potential changes to the cost center list before making such changes. **In addition, we believe that additional cost centers should *not* be added to the ongoing collection as it would necessitate the resubmission on the first calendar quarter's data to ensure that both quarters could be used for FYs 2008 and 2009.** If CMS believes that such

changes are necessary for the current collection, then hospitals would need notification prior to the release of the final inpatient PPS rule in order to meet the August 31 deadline for submissions.

Non-responsive Hospitals. Because data from all hospitals is needed to construct an accurate national average hourly wage, full participation is critical. There is a general sentiment that hospitals that do not participate should not benefit from the participation of others. However, given the rushed collection and general confusion around the interim-collection, we believe that, to the extent possible, **CMS should substitute data from the previous survey for hospitals that did not turn in their data for the first calendar quarter of 2006.**

However, hospitals will have plenty of notice and time to submit data for the second calendar quarter in August. Thus, moving forward CMS should consider a methodology that penalizes hospitals that do not participate. We caution CMS not to simply substitute unfavorable data for these hospitals, as it also will impact other area hospitals that conscientiously reported data. CMS could alternatively substitute the national average hourly wage for non-responsive hospitals in calculating an area's wage index, and then require hospitals that did not turn in data to use something lower than their area's wage index. This would avoid CMS having to create an extensive hospital-specific wage index table and would minimize the effects on the other hospitals in the area. **We urge CMS to construct an application of the occupational mix adjustment that encourages hospitals to report but does not unfairly penalize neighboring hospitals.**

Corrections. **The AHA urges CMS to allow hospitals to turn in both calendar quarters of data in August whether for the first time or with corrections.** Again, as this collection has been rushed, the idea is to allow hospitals to improve the data for the FYs 2008 and 2009 adjustment. For hospitals that were previously non-responsive, the submission of the first calendar quarter would remove any penalty, while those that continue to be non-responsive will continue to incur a penalty.

Comment Timeframe. While we understand that CMS is under severe time pressure due to the timing of the court's decision, we do not believe that the 30-day comment period was sufficient, as hospitals were busy during this time trying to meet the new survey deadline and answering requests for information from the FIs. In addition, we believe it would be appropriate for CMS to take comments on the calculation after the initial results of the survey are tabulated and posted. The results of the survey could be material. For instance, if the segregation of RNs who are management versus RNs who are staff does not produce a reliable result, CMS might consider consolidating the two for the purposes of the calculation. While CMS might not have time to make such changes for FY 2007, it could entertain comments on the implementation for FYs 2008 and 2009. **Thus, we urge CMS to publish the occupational mix adjustment changes as an interim-final rule in August with an associated comment period.**

HOSPITAL REDESIGNATIONS AND CLASSIFICATIONS

Section 508 Reclassifications. Section 508 of the *Medicare Modernization Act* (MMA) provided $900 million over three years for a one-time geographic reclassification opportunity, which expires March 31, 2007. Because the 508 reclassifications expire mid-year and hospitals may

not receive Section 508 funding at the same time as any other form of reclassification, CMS has proposed special provisions for accepting or denying partial-year reclassifications for FY 2007.

In FY 2006, CMS stated that individual hospitals reclassified under Section 508 would be allowed to request regular reclassification for the portion of the three-year period that the hospital is not receiving Section 508 funding, or to turn down the Section 508 reclassification for the first half of FY 2007 and receive regular individual reclassification for the full three years.

CMS also stated that Section 508 hospitals that would like to be part of a group reclassification could turn down their 508 reclassification for the first half of FY 2007 and join a group for the full three-year period. Or the hospitals could maintain Section 508 reclassification while the rest of the group gets their "home wage index" for the first half of the year. The entire group then could reclassify together for the rest of the three-year period.

In the proposed rule, CMS clarifies that "home wage index" means that hospitals could receive the wage index they otherwise would have, absent the group reclassification. For some hospitals, this might literally be the wage index for the area in which they are located. For others, this may mean an individual reclassification to another area.

Section 508 hospitals, and those involved in a group reclassification with a Section 508 hospital, would normally have been required to accept or reject reclassification within 45 days of the publication of the proposed rule; however, the complications with the occupational mix adjustment will prevent this. **We appreciate and support CMS' flexibility around the expiration of Section 508 and the reclassification deadlines given the unusual circumstances this year.**

GEOGRAPHIC RECLASSIFICATIONS

Multi-campus Hospitals. Payment is determined using the wage index value for the MSA in which a campus is located, even though the organization may have other campuses located in different labor market areas. Because multi-campus hospitals submit a single cost report that does not break down wage data by campus, an individual campus historically has been unable to seek reclassification. For FYs 2006-2008, CMS authorized individual campuses to use the average hourly wage data of the entire multi-campus hospital system to seek geographic reclassification to the labor market area in which the other campus(es) are located. CMS also stated in the FY 2006 rule that, in the future, it would continue to consider mechanisms to collect the data necessary for geographic reclassifications that are not unduly burdensome for providers. However, CMS now proposes rescinding this option, as there was only one hospital in the country that was affected by this situation and, after the change in labor market areas in FY 2005, it has subsequently joined an urban county group that is reclassified to the area in which it was previously reclassified using the multi-campus hospital rule.

The AHA opposes CMS' proposal to remove this option. While CMS may know of only one hospital at this point, there may be others, and additional hospitals may be affected after the next census collection and subsequent changes in labor market definitions. In addition, the need for this provision has not subsided as CMS suggests. This hospital will need to use either campus-

specific or hospital-wide data for its next reclassification, whether group or individual, and lack a method to do so.

CMS suggests that each campus should disaggregate and receive its own provider number. A multi-campus hospital with a single provider number provides certain health and treatment benefits to patients, such as the ability to move among campuses for various aspects of treatment. Each campus may specialize in a particular service (oncology, cardiology, etc.) and patients can move among the campuses with one medical records system, one billing system and a unified medical staff. Economies of scale reduce costs for the whole system. **Thus, we do not believe it is a realistic or appropriate option to force these campuses to apply for individual provider numbers.**

We recommend that CMS continue to allow multi-campus hospital systems to use the data from all campuses as a proxy for individual campuses to reclassify to an area where another one of the campuses is located given how few hospitals are expected to use this option. This is a reasonable request as most multi-campus hospital systems likely pay equal or similar wages at each campus. If CMS finds that the situation becomes more prevalent, it could require the manual completion of the campus-specific Schedule S-3 for those hospitals that do not have the appropriate individual campus data. However, if CMS moves to a campus-specific S-3, CMS still needs to extend the current special rule for five years until the new campus-specific data is useable for an application.

Urban Group Reclassifications. The AHA supports CMS' proposal to allow hospitals located in counties that are in the same CBSA as the county in which they seek redesignation to be considered to have met the proximity requirement. By failing to include CBSAs in the proximity criteria, CMS has excluded one group of hospitals, those located in Palm Beach County, FL, from being able to reclassify to the Fort Lauderdale-Pompano Beach-Deerfield Beach division of the Miami CBSA. **Given that CBSAs are actually more refined classifications than Combined-statistical Areas, we believe that the inclusion of CBSAs in the proximity criteria would be consistent with CMS' policy goals and protect hospitals from unintended consequences.**

Critical Access Hospitals in Lugar Counties. As a result of changes in the labor market area definitions made in response to the results of the 2000 census, counties in which a number of Critical Access Hospitals (CAHs) are located became "treated" as urban instead of rural under the inpatient PPS because of a statutory provision modifying the status of rural counties with certain commuting patterns to metropolitan areas. In its FY 2005 final rule, CMS interpreted this provision as applying to CAHs located in these counties (known as "Lugar counties" after the Senate sponsor of the provision) and allowed these facilities a grace period to seek reclassification as rural in order to retain their CAH status.

While accommodating CAHs in this manner, the agency also took the position that any CAH being reclassified would no longer be eligible for pass-through payments for the services of certified registered nurse anesthetists (CRNAs). Its reasoning was that the facility was no longer "located in a rural area (as defined for purposes of section 1886(d) of the Social Security Act)" as the pass-through statute requires, but were only reclassified as rural.

In response to comments received on the FY 2006 proposed rule, CMS announced a policy change in the final rule for FY 2006 stating that Lugar county designation would not affect a CAH's rural status because the statutory provision creating such counties only applies to hospitals paid under the inpatient PPS (CAHs are paid under a separate, cost-based system). This policy change had the effect of eliminating the need for these CAHs to seek either geographic reclassification or a waiver of the Lugar statute (which CMS has maintained it has no authority to do). **In effect, under this new reading of the law, the provision creating Lugar counties does not apply *at all* for purposes of CAH eligibility.**

Despite this policy change, CMS continues to maintain that a CAH located in a newly-designated Lugar county cannot qualify for CRNA pass-through payments. This position is at odds with the agency's view that *it is geographic reclassification that renders a CAH ineligible for such payments* – since, under CMS' revised policy, a CAH located in such a county need not seek geographic reclassification to be a CAH. Apparently, it is CMS' view that these CAHs can never qualify for CRNA pass-through payments, whether they have sought reclassification (under the old policy) or not (under the new policy). **We believe that all CAHs located in a newly-designated Lugar county should receive pass-through payments, regardless of whether they sought reclassification, and urge CMS to revise its regulations accordingly.**

WAGE INDEX BUDGET NEUTRALITY

CMS eliminates the CAH data from the wage index file it uses to compute the national average hourly wage (NAHW). For FY 2007, 1,191 CAHs representing approximately 24 percent of all inpatient PPS hospitals (as of FY 2000) – 55 percent of all rural hospitals in FY 2000 – have been eliminated from the file. Because CAHs have lower average hourly wages (AHWs) than the average PPS hospital, the elimination of this data results in an overstated NAHW. While the NAHW has been increasing, the systematic withdrawal of low-wage hospitals has artificially inflated the NAHW to some extent. This artificial increase is included in the negative budget neutrality adjustment that consequently reduces payment, resulting in the national inpatient PPS operating payments being understated by an estimated $1.52 billion over five years (2003-2007). **Thus, we believe that CMS should apply a positive budget neutrality adjustment in FY 2007 to compensate for the underpayments.** The understatement increases each year as more hospitals become CAHs and more data are eliminated from the wage index data. However, we believe that this could be a one-time adjustment as we expect very few hospitals to convert to CAH status now that the necessary provider designation is no longer an option.

LOW-VOLUME HOSPITAL PAYMENT ADJUSTMENT

Section 406 of the MMA created a payment adjustment under the inpatient PPS to account for the higher costs per case of low-volume hospitals. The law defined eligible hospitals as those located more than 25 miles from another facility with fewer than 800 total discharges annually. The rule proposes to maintain a 25 percent increase, the maximum allowable, in payments to hospitals with fewer than 200 discharges. For those hospitals that have between 200 and 800 discharges, CMS proposes to maintain its current policy, applying no payment increase. Only two hospitals will receive this adjustment in FY 2007 according to CMS estimates. **The AHA is concerned that CMS is ignoring congressional intent and denying a group of hospitals –**

those with more than 200 discharges but fewer than 800 discharges – access to this necessary payment increase.

SCH/MDH Changes in Qualification Status

The proposed rule would require an approved sole community hospital (SCH) or Medicare dependent hospital (MDH) to notify the appropriate CMS Regional Office of any change affecting its classification as such. To date, it has been the FIs responsibility to evaluate hospitals' continuing qualification for SCH or MDH status. CMS expects the hospital to now self-disclose any material changes in circumstances or potentially face a retroactive cancellation of their designation once an FI discovers its ineligibility.

This appears to be an inappropriate shift of the burden from the FIs to hospitals. For instance, hospitals are neither involved in, nor have any control over, the building of new roads or new hospitals and thus should not be accountable to report such changes. It also would be very difficult for hospitals to know when and for how long there were prolonged severe weather conditions that closed area roads, or to note changes to posted speed limits and traffic patterns. In addition, some of the qualifying criteria, such as inpatient admissions at other regional hospitals, would be hard to monitor as the hospitals do not have this sort of data on their competitors. Requiring hospitals to constantly monitor whether they continue to meet these requirements would impose a tremendous and unreasonable administrative burden on hospitals. **The AHA recommends that this function remain a responsibility of the FIs, who are in a better position to monitor these circumstances. If CMS requires hospitals to report changes in circumstances, then the specific types of situations should be noted and should only include aspects of their operation that are within their control (e.g., number of beds).**

CMS' proposal to retroactively withdraw SCH or MDH status if a hospital does not appropriately self-report a change in circumstances could be financially devastating. CMS should at minimum give consideration to whether the hospital had knowledge of the disqualifying circumstance. Hospitals should not have to repay CMS based on the difference between the inpatient PPS or outpatient PPS payment and the SCH or MDH payment when they did not know that they no longer qualified for the program. Instead CMS should develop a prospective process for withdrawing the hospitals' SCH or MDH status. We believe that a 30-day timetable for losing SCH/MDH status is unrealistic given the financial implications of such a change and the inability for a hospital to plan for this outcome. **CMS should re-evaluate the proposed timetable for canceling SCH/MDH status when a hospital is found to be disqualified or self-reports disqualification and consider revoking the hospitals' status as of the following cost-reporting period.**

SCH/MDH Volume Decrease Adjustment

An SCH or MDH may apply for special payments if it experiences a decrease of 5 percent or more in its total number of inpatient discharges that was out of its control from one cost-reporting period to another. If the hospital qualifies, it must demonstrate that it took measures to scale back its nursing force commensurately. The adjustment is intended to cover the fixed costs that the hospital is unable to reduce in the year following the volume decrease. CMS believes

that only "core staff and services" should be covered by these special payments. To date, CMS has used the AHA's HAS/Monitrend Data Book to compare the hospital's staffing to other similar hospitals in the area to determine if the hospital is staffing its routine and intensive care units appropriately. However, the Data Book has not been updated since 1993. CMS has been using the 1989 publication. Thus, CMS proposes using the occupational mix adjustment data currently being collected for wage index purposes to calculate nursing hours per inpatient day for a hospital in question and local peer hospitals.

The occupational mix adjustment was only partially implemented in its first three years, primarily due to the questionable data and results. The current collection, which is occurring again under rushed circumstances, may also result in questionable data. **We do not believe that it is wise to assume that the occupational mix adjustment data will be appropriate for this use. The AHA believes that the data within the AHA annual survey should be sufficient for CMS to determine the nursing levels per patient day.**

RURAL REFERRAL CENTERS

If a hospital wants to become a Rural Referral Center (RRC) but does not have 275 or more beds, it must meet two mandatory alternative criteria plus one of three additional criteria. The proposed rule would update the alternative criteria for RRC designation in FY 2007.

Until recently, the median case-mix index values were very stable. The chart below illustrates the volatility over the past few years in the values for two regions:

Region 7 West South Central	
FY 2005	1.1371
FY 2006	1.3532
FY 2007	1.2445
Region 6 West North Central	
FY 2005	1.0855
FY 2006	1.2252
FY 2007	1.2856

While it is not clear why this is occurring, it does suggest a possible methodological problem. **Thus, we recommend that CMS undertake additional analyses to determine the cause of the recent fluctuations.** This is particularly important given the possible disruption to case-mix patterns as a result of a new patient classification system such as the CS-DRG proposal.

CRITICAL ACCESS HOSPITALS (CAHS)

On November 14, 2005, CMS issued interpretive guidelines on the relocation of CAHs as a follow-up to the FY 2006 inpatient PPS final rule that established the "75% test" – serving 75 percent of the same population, providing 75 percent of the same services and employing 75 percent of the same staff – for necessary provider CAHs. The guidelines not only extended the 75% test to *all* CAHs, but it also altered the definitions of "mountainous terrain" and "secondary road."

We believe that these guidelines go well beyond the regulations included in the FY 2006 rule that provoked numerous critical responses from individual CAHs, associations and congressional representatives. The "mountainous terrain" and "secondary road" definitions are overly prescriptive and the 75% test does not provide reasonable flexibility based on natural variation in demographics, patient needs distribution patterns, normal employee and board attrition, and necessary changes in services to meet community needs. **Rural hospitals that move a few miles are clearly the same providers serving the same communities.**

Many CAHs are planning to rebuild in the near future to improve site safety and quality of care by adding fire and smoke barriers, upgrading infrastructure to support utilities and air handling, modernizing telecommunications to support health information technology, or making other essential upgrades. Facilities expect to relocate when they rebuild for a multitude of reasons: to be closer to a highway, to connect to municipal water and sewer, because of seismic safety concerns, or other similar concerns. **Such improvements will undoubtedly result in higher quality care, better patient outcomes and more efficient service, yet CMS' guidelines discourage these improvements.**

CMS' guidelines will not only impose an unnecessary burden on CAHs, but will preclude many of them from securing financing for needed capital improvements. The hospitals themselves, their hospital districts and their lenders cannot risk investing in a hospital that will be unsure of its status until a year after moving. **CMS should create a preliminary approval process to give assurances to those involved in the project that the CAH relocation will be approved if it meets the assertions made in the attestation submitted to CMS.**

Again this year, almost 60 congressional representatives signed a letter to CMS showing their support for their CAHs and urging changes to these guidelines. We agree with their recommendations and reiterate our suggestion from last year that a safe harbor be established for hospitals relocating within five miles of their existing locations. These providers are not only clearly serving the same communities, but trying to improve the quality of and access to needed health care services. A safe harbor will reduce the administrative burden on not only the hospitals, but CMS and the state survey agencies as well. **We urge CMS to create a safe harbor for CAHs moving a short distance and to make significant changes to these guidelines based on the feedback from CAHs around the nation as detailed in our letter under separate cover to Thomas Hamilton, director of the survey and certification group.**

GRADUATE MEDICAL EDUCATION (GME) PAYMENTS

Exclusion of Didactic Training. The proposed rule states that resident training that occurs at non-hospital sites must be related to patient care if a hospital wishes to count that time for direct medical education (DGME) and indirect medical education (IME) payment purposes. Resident time spent in didactic activities that often occur in associated medical schools – such as educational conferences, journal clubs and seminars – would specifically be excluded. CMS noted that its statement in a previous letter on this topic "implying that didactic time spent in non-hospital settings could be counted for direct GME and IME ... was inaccurate." CMS also noted that time spent in these activities could be counted for DGME purposes if they occur in a

hospital; however, the counting prohibition applies for IME payments regardless of where the educational activity occurs.

We strongly urge CMS to rescind the purported "clarification" in the proposed rule that excludes medical resident time spent in didactic activities in the calculation of Medicare DGME and IME payments. The stated rationale for the exclusion of this time is that it not "related to patient care." This position is in stark contrast to CMS' position as recently as 1999, at which time the Director of Acute Care wrote in correspondence that patient care activities should be interpreted broadly to include "scholarly activities, such as educational seminars, classroom lectures . . . and presentation of papers and research results to fellow residents, medical students, and faculty."[3]

We strongly agree with CMS' 1999 position. The activities cited are an integral component of the patient care activities engaged in by residents during their residency programs. In addition, it would be very difficult to separate out time spent at these activities. **We urge CMS to withdraw this change in the proposed rule relating to the counting of didactic time for purposes of DGME and IME payments and recognize the integral nature of these activities to the patient care experiences of residents during their residency programs.**

EMERGENCY MEDICAL TREATMENT AND ACTIVE LABOR ACT (EMTALA)

Definition of "Labor." **The AHA supports CMS' proposal to modify the definition of "labor" at 489.24(b) to allow a certified nurse-midwife or other qualified medical personnel operating under their scope of practice, as defined in hospital medical staff bylaws and in state law, to certify that a woman is in false labor.** This change recognizes that licensure and scope of practice should remain under the purview of state law and regulation. Further, this change provides hospitals with the staffing flexibility needed to maintain access to and the efficiency of vital obstetrical services, particularly in hospitals located in areas of the country that may find it difficult to attract and retain physicians, such as rural areas.

Hospitals without Dedicated Emergency Departments (ED). Under the proposed rule, a hospital with "specialized capability" is required to accept appropriate transfers under EMTALA regardless of whether it has a dedicated ED. **Guidance is still needed on the definition of specialized capability.** The EMTALA technical advisory group (TAG) has the ability to make recommendations for clarifying guidance, and we look forward to working with its members on this topic. In addition to questions related to the availability of on-call physicians and inpatient psychiatric resources, this proposed regulation calls into question application to inpatient rehabilitation facilities and long-term acute care hospitals.

The AHA agrees that a physician-owned, limited-service hospital should be treated as a hospital "with specialized capability or facilities" under EMTALA without regard to whether it has an ED. However, in the DRA-mandated HHS interim report to Congress on its development of a strategic plan regarding physician investment in specialty hospitals, the Secretary suggested that this interpretation of EMTALA "may result in an increase in the number of specialty hospitals accepting transfers of emergency patients on nights and weekends." (CMS

[3] September 24, 1999 Letter from Tzvi Hefter, Director, Division of Acute Care to Scott McBride, Vinson & Elkins.

uses "specialty" to mean the hospitals covered under Congress's moratorium, i.e., physician-owned, limited-service hospitals providing primarily cardiac, surgical or orthopedic services.) **As presented in our statement to the EMTALA TAG when this question was considered, we believe it is unlikely this will result in improved access for patients to the specialty care they need.**

It is important to separate the capabilities of the practicing physicians from the capabilities of the facility in which they are practicing. While the physician expertise housed in the physician-owned, limited-service facility could be capable of meeting the needs of community hospital patients, the facility is seldom designed or operated in a manner to support this level of practice. Although physician-owned, limited-service hospitals hold themselves out as "hospitals," many of these facilities actually have a range of capabilities more similar to a hospital department or ambulatory surgical center. These hospitals often do not have emergency capabilities, as they are geared toward elective cases of minor severity. Their capabilities are typically limited to a single major diagnostic category, and they staff for minimal inpatient capacity. Many of these facilities minimize resource consumption by being almost a Monday through Friday operation. For these reasons, it generally would not be in the best interests of community hospital patients to be transferred to these facilities.

At the same time, many physician-owned, limited-service hospitals have withdrawn specialist services from the community at-large. As their physicians maintain an increasing amount of their practice at these hospitals or other sites outside the community hospital (e.g., ambulatory surgical centers), they are much less willing to accept on-call responsibility for the broader community's emergency needs. While withdrawing specialist services from on-call coverage, these same physician-owned, limited-service hospitals presume to rely on the community hospital for back-up in the event of complications requiring around-the-clock access to emergency care and inpatient admission to the community hospital. With the change in physician practice patterns and the increased number of physicians requesting only courtesy admitting privileges at community hospitals, relying only on the professional obligations attached to admitting privileges is not sufficient to assure appropriate transfer arrangements and the availability of physicians to provide emergency specialty capacity. **Every physician-owned, limited-service hospital that relies on the community's emergency services capacity should be obligated to support it.**

In addition, this policy does not address the problem of patients at physician-owned, limited service hospitals who suffer from complications appearing in a hospital ED with no warning call, no medical history, no operative report, no information on the anesthesia used and, often, no ability to reach the treating surgeon for consultation. **Physician-owned, limited-service hospitals should be required to have agreements with the community hospitals they plan to rely on in the event that they do not have the capacity to treat a particular patient.**

Specifically, the AHA recommends the following:

- **A physician-owned, limited-service hospital should be required to have a pre-existing agreement with the community hospital(s) it intends to rely on for emergency back-up services.**

- **The Secretary should establish the terms that must be addressed by an agreement, including:**

  - **Procedures for an appropriate transfer for patients not covered under EMTALA** (e.g., inpatient or outpatient whose condition develops into an emergency beyond the capability of the limited-service hospital and consequently needs to be transferred to a full-service hospital);
  - **Continuity of care** (e.g., telephone consultation with the receiving hospital and physician, sending the patient's medical records along when transferred, etc.); and
  - **Support for maintaining full-time emergency capacity at the community hospital, including on-call coverage** (e.g., physician-owned, limited-service hospital physicians serve in on-call panels at the community hospital, or the physician-owned, limited-service hospital provides financial support to the community hospital to maintain on-call coverage).

NEW TECHNOLOGY

Section 503 of the MMA provided new funding for add-on payments for new medical services and technologies and relaxed the approval criteria under the inpatient PPS. This important provision was enacted to ensure that the inpatient PPS would better account for expensive new drugs, devices and services. However, CMS continues to resist approval of new technologies and considers only a few technologies a year for add-on payments. **The AHA also is disappointed that CMS has not increased the marginal payment rate to 80 percent rather than 50 percent, consistent with the outlier payment methodology, as previously requested by the AHA.**

Moreover, we are concerned about CMS' ability to implement add-on payments for new services and technologies in the near future. Recognizing new technology in a payment system requires that a unique procedure code be created and assigned to recognize this technology. The ICD-9-CM classification system is close to exhausting codes to identify new health technology and is in critical need of upgrading.

Since the early 1990s, there have been many discussions regarding the inadequacy of ICD-9-CM diagnoses and inpatient procedure classification systems. ICD-10-CM and ICD-10-PCS (collectively referred to as ICD-10) were developed as replacement classification systems.

The National Committee on Vital and Health Statistics (NCVHS) and Congress, in committee language for the MMA, recommended that the Secretary undertake the regulatory process to upgrade ICD-9-CM to ICD-10-CM and ICD-10-PCS. Congress' call for action recognized that procedure classification codes serve to identify and support research and potential reimbursement policies for inpatient services, including new health technology, as required under the *Medicare, Medicaid and SCHIP Benefits Improvement and Protection Act of 2000.*

To date, despite these recommendations, as well as the recommendations of several federal health care agencies and offices and health care trade and professional associations, HHS has not yet moved forward to adopt the ICD-10 classification upgrades. We believe that absent a switch

to ICD-10 soon, there will be a significant data crisis in the U.S. This coding crisis will affect the efficiency of the current coding process, adding significant operational costs. In addition, failure to recognize this looming problem will only impede the efforts to achieve President Bush's goal for an electronic health record by 2014.

At the April 2005 ICD-9-CM Coordination and Maintenance (C&M) committee meeting, there were many impassioned discussions on the need to start limiting the creation of new procedure codes in order to allow the classification system to last at least two more years. ICD-9-CM procedure code categories 00 and 17 were created to capture a diverse group of procedures and interventions affecting all body systems. The establishment of these code categories represented a deviation from the normal structure of ICD-9-CM and a stopgap measure to accommodate new technology when no other slots in the corresponding body system chapters (e.g. musculosketal system, circulatory system, etc.) were available. The plan was to use codes in chapter 00 first and then begin populating chapter 17.

Category 00 is now full, and the C&M committee is entertaining proposals for codes in category 17. At the April C&M meeting a proposal was presented that would in effect leave only 80 codes available in this category. Many of the specific body system chapters are already filled (e.g., cardiac and orthopedic procedures). In recent years, as many as 50 new procedure codes have been created in a single year. This means that it is possible for ICD-9-CM to completely run out of space in one-and-a-half years. We concur with the NCVHS recommendation to issue a proposed rule for adoption of ICD-10. We also would support an implementation period of at least two years following issuance of a final rule.

The AHA strongly recommends that the Secretary undertake the regulatory process to replace ICD-9-CM with ICD-10-CM and ICD-10-PCS expeditiously. HHS should take the necessary steps to avert this crisis and avoid being unable to create new diagnosis or procedure codes to reflect evolving medical practice and new technology. It is easier to plan for this migration than respond to a crisis that will likely result in unreasonable implementation timeframes. It is imperative that the rulemaking process start immediately.

OTHER FUTURE CONCEPTS

TRANSPARENCY OF HEALTH CARE INFORMATION

The proposed rule includes the introduction of a proposed initiative to expand the public availability of consumer information on health care quality and pricing. HHS intends to identify several regions in the United States with high health care costs where there is significant interest in reducing those costs and improving health care quality.

Significant progress has been made in making quality information more transparent. The AHA, the Federation of American Hospitals and the Association of American Medical Colleges partnered with CMS and others to form the Hospital Quality Alliance (HQA). The work of the HQA has led to the voluntary reporting and sharing with the public of 21 quality measures on the *Hospital Compare* Web site, and more measures of hospital quality and patient satisfaction are planned for the future. This effort has been tremendously successful, with nearly all inpatient

PPS hospitals voluntarily reporting quality information. **Efforts to further expand public availability of hospital quality information must continue to be pursued through the HQA.**

While progress has been made regarding quality transparency, similar information on hospital pricing is less accessible. In the proposed rule, CMS details four options for providing pricing information to health care consumers, including:

- Publishing a list of hospital charges, either for every region of the country or selected regions of the country;

- Publishing the rates that Medicare actually pays to a particular hospital for every DRG, or for selected DRGs, which could be adjusted to account for the hospital's labor market area, teaching hospital status and DSH status;

- Establishing conditions of participation for hospitals that relate to the posting of prices and/or the posting of their policies regarding discounts or other assistance for uninsured patients; and

- Posting total Medicare payments for an episode of care. Under this proposal, CMS could include the costs for an inpatient hospital stay, physician payments (including the surgeon and the anesthesiologist), and payments for post-acute care services such as those provided in an inpatient rehabilitation facility, skilled nursing facility or LTCH for a certain service (such as hip replacement).

People deserve meaningful information about the price of their hospital care. Hospitals are committed to sharing information that will help people make important decisions about their health care. Sharing pricing information, however, is more challenging because hospital care is unique. Hospital prices can vary based on patient needs and the services they use; prices reflect the added costs of hospitals' public service role – like fire houses and police stations – serving the essential health care needs of a community 24 hours a day, seven days a week; and most hospitals cannot yet provide prices that reflect important information from other key players like the price of physician care while in the hospital or how much of the bill a patient's insurance company may cover. But more can, and should, be done to share hospital pricing information with consumers.

Providing *meaningful* information to consumers about the price of their hospital care is the most significant challenge hospitals, and CMS, face in increasing transparency of hospital pricing information. Objectives for improving pricing transparency should include:

- Presenting information in a way that is easy for consumers to understand and use;

- Making information easy for consumers to access;

- Using common definitions and language to describe pricing information for consumers;

- Explaining to consumers how and why the price of their care can vary; and

- Encouraging consumers to include price information as just one of several considerations in making health care decisions.

The AHA recently released a position statement on hospital pricing transparency outlining steps to be taken to improve the pricing information available to health care consumers. The following four steps represent the AHA's roadmap for pricing transparency.

1) A federal requirement for states, working with state hospital associations, to expand existing efforts to make hospital charge information available to consumers.

- Thirty-two states already have statutes requiring hospitals to report pricing information that is made available to the public either by posting to a hospital, hospital association or government Web site, issued in a government or hospital association report, or made available to consumers upon request; five additional states voluntarily do so.

- State efforts on price transparency vary, from making individual hospitals' master list of charges available to the public (e.g., California), to making pricing information on frequent hospital services available to the public (e.g., Missouri, Florida, Nevada, North Carolina), to making information on all inpatient services available to the public (e.g., Colorado, Kentucky, Oregon, Pennsylvania, Wisconsin).

2) A federal requirement for states, working with insurers, to make available in advance of medical visits, information about an enrollee's expected out-of-pocket costs.

- This information is especially important to the majority of consumers who already have some type of health insurance coverage. Their likely interest is in knowing the amount for which they personally are financially responsible. This information is provided today to consumers by their insurance company – it is called an "explanation of benefits, or EOB – but is only given after care is provided. To help inform consumers in advance of their out-of-pocket obligations, insurers could provide an "advance EOB." This information could be shared with an insured individual by phone or electronically through an insurer's Web site. Aetna is currently piloting a project like this for physician services in Cincinnati.

3) A federal-led research effort to better understand what type of pricing information consumers want and would use in their health care decision-making.

We have learned much based on research about what kind of information consumers want about the quality of their health care. But we know less about what consumers may want to know about pricing information. Consumers need different types of price information, depending on whether and how they are insured. The following illustrates different consumer needs:

- **Traditional Insurance.** Because traditional insurance typically covers nearly all of the cost of hospital care, people with this type of coverage are likely to want information

about what their personal out-of-pocket cost would be if they receive care at one hospital versus another.

- **Health Maintenance Organization (HMO) Insurance.** People who have HMO coverage will have even more specific price information needs. They have agreed, in advance, to adhere to certain limits on their choice of physician or hospital in exchange for broad-based coverage of their health care needs. A person with HMO coverage typically faces no additional cost for care beyond their premium and applicable deductibles and copayments, but must agree to use physicians and hospitals that are participating in that HMO plan. These individuals likely have little, if any need for specific price information.

- **High-Deductible or Health Savings Account (HSA) Insurance.** People with HSAs have more interest than a typically insured person in price information. These types of plans are designed to make consumers more price-sensitive and to encourage consumers to be prudent "shoppers" for the care they need. A typical plan of this type has a deductible of $2,500. But consumers with HSA coverage are likely to be more interested in price information for physician and ambulatory care than for inpatient hospital care for several reasons:

    - Many patients admitted to the hospital were first seen on an emergency basis in the hospital emergency department. These are not price-shopping patients, but patients who found themselves in need of emergent care and either came or were brought to the nearest hospital emergency department.
    - For patients admitted to the hospital for a scheduled or elective procedure, inpatient hospital price information may be less important because most, if not all, hospital admissions result in a cost that exceeds the typical HSA deductible of $2,500, and therefore, are covered by most HSA plans.
    - People with HSA coverage may be most interested in comparing prices and shopping for care to be delivered that leads up to meeting their deductible (typically $2,500). People with this type of coverage may be most interested in prices for physician office visits and other ambulatory care for which they are likely to be responsible for paying the full cost.

- **Uninsured Individuals of Limited Means.** People without insurance who have limited means for paying for the health care services they have received need to know how much of their hospital or physician bill they may be responsible for. In the case of hospital care, the information they need must be provided directly by the hospital, after the hospital can ascertain whether a patient may qualify for state insurance programs of which they were unaware, free care provided by the hospital, or other financial assistance.

4) A hospital-led effort to create consumer-friendly pricing "language" – common terms, definitions and explanations to help consumers better understand the information provided.

More can be done to explain pricing information to consumers clearly and consistently. Hospitals will lead an effort to create common terms, definitions and explanations of complex pricing information. This will include sharing innovative and understandable ways for displaying pricing information for use by consumers.

The four points of this roadmap include an appropriate role for HHS, which should provide incentives to the states to improve transparency at the state and local level. HHS, through the Agency for Healthcare Research and Quality (AHRQ), is in the best position to complete research on what consumers want and would use in purchasing health care services.

HOSPITAL VALUE-BASED PURCHASING

The DRA required CMS to develop a plan to implement hospital value-based purchasing (pay for performance) beginning in FY 2009. The plan must consider the following issues:

- Measure development – the ongoing development, selection and modification process for measures of quality and efficiency in hospital inpatient settings;
- Data infrastructure and refinement – reporting, collecting and validating of quality data;
- Public reporting – disclosure of information on hospital performance; and
- Incentives – the structure of payment adjustments, including the determination of thresholds for quality improvements that would substantiate a payment adjustment, the size of such payments, and the sources of funding for the payments.

Hospitals remain committed to providing safe, effective, patient-centered, timely, efficient and equitable care to all patients, and the AHA is committed to working with CMS on the development of a value-based purchasing system for Medicare. It is critically important that the system be well thought out.

The HQA is not only accomplishing its goal of making standardized, easy-to-understand information available to the public, but also is reducing the measurement "babble" that had been generated by a large variety of separate organizations asking hospitals to produce quality information. These disparate data requests impede rather than support quality improvement. Conversely, the HQA has brought focus to hospitals' improvement efforts.

Significant resources already have been invested in the HQA effort and the *Hospital Compare* Web site by all of the participants. Nearly 4,200 hospitals – representing more than 99 percent of all eligible Medicare PPS hospitals and over 600 CAHs – have committed to this process, leading the way by sharing data with their communities and the public. **This is a solid foundation on which we must continue to build, and it should be the foundation for any pay-for-performance program included in legislation. To base the pay-for-performance initiative on the work of a group other than the HQA would be duplicative, wasting significant knowledge and expertise.**

Smaller hospitals will face challenges, regardless of the measures chosen for use in a pay-for-performance system. The limited number of patients in small hospitals means that their performance rates can be volatile. In designing a system that rewards excellence, this type of volatility can lead to inappropriate conclusions about the quality of care at these hospitals and affect whether they qualify for a reward under an incentive program. At the same time, omitting small hospitals from a program may suggest to some patients that they do not provide care that is comparable in quality to that of larger organizations. The implications of this volatility in their data must be carefully considered so that hospitals with small sample sizes can participate and receive appropriate recognition for the excellence they achieve.

Payment rewards should be based on evidence-based measures of adherence to quality improving "processes." By using evidence-based *process* measures (e.g., aspirin provided at arrival to patients with acute myocardial infarction; antibiotics provided one hour prior to surgery), *every* provider has the opportunity to succeed, thereby improving the overall quality of the system. Incentive approaches should incorporate rewards for both attainment of a certain threshold of performance and improvement in performance.

We are concerned about premature efforts to tie payments to issues that could change incentives, such as efficiency. We believe that, for now, pay-for-performance initiatives should focus solely on quality improvement. There is no common definition of efficiency of care for hospitals. Efficient over what period of time: the course of a hospitalization or a stated period? Also, efficient for whom: the hospital … the patient … the government … other payers? Each answer would lead to the development of different measures of efficiency and very different conclusions about whether care was efficient.

In addition, measuring and rewarding performance based on a particular definition of efficiency may have considerable consequences for patients. For example, just a few years ago, HMOs developed criteria for efficient care that their physicians and other providers were told to follow. But the resulting headlines referencing denials of tests and treatments, and the accompanying public outcry, led to a fall out in traditional, staff-model HMOs.

Much more work needs to be done to define what should be encouraged in terms of efficient care before it is incorporated into payment policy.

Incentive approaches to payment should use a system of rewards to increase payments or reduce regulatory burden for successful providers. Because the Medicare inpatient PPS already pays less than the cost of care for more than one-third of hospitals, incentives involving penalties should not be used. Additionally, rewards should be sizeable enough to cover the costs of implementing process changes and allow for reinvestment in quality improvement efforts.

To be effective, incentive approaches must align hospital and physician incentives, encouraging all to work toward the same goal of improving quality and providing effective, appropriate care. This is imperative. Incentive approaches rewarding improvement can be successful only if physician and hospital performance can be successfully aligned, in terms of both performance and finances.

HEALTH INFORMATION TECHNOLOGY (IT)

The proposed rule states that it "supports the adoption of health IT as a normal cost of doing business to ensure patients receive high quality care." It also notes that the quality and efficiency benefits of health IT may provide a policy rationale for promoting the use of health IT through the Medicare program. Consequently, CMS asks for comments on:

- Its statutory authority to encourage adoption and use of IT;
- The appropriate role of IT in any value-based purchasing program; and
- The desirability of including use of certified health IT in hospital conditions of participation.

The AHA strongly believes that health IT is a very important tool for improving the safety and quality of health care, and our members are committed to adopting IT as part of their quality improvement strategies. They also view IT as a public good that requires a shared investment between the providers and purchasers of care.

Health IT is a very costly tool, requiring both upfront and ongoing spending. A 2005 AHA survey of hospitals and health systems found that the median amount hospitals invested on health IT in one year was more than $700,000, 15 percent of total capital expenses. Hospitals spent even greater amounts – a median of $1.7 million or 2 percent of all operating expenses – on operating costs. Survey respondents identified the upfront and ongoing costs of IT as the greatest barriers to further adoption. The survey also found that hospitals with negative margins and those with lower revenues use less IT. [4]

The proposed rule highlights the anticipated benefits of health IT as laid out by the RAND Corporation. However, it overlooks another of the study's major findings – that the financial benefits of IT investments accrue more to the payers and purchasers of care than the hospitals and health systems that pay for them.[5]

Simply put, our members have not seen financial returns greater than the costs of implementing clinical IT systems, particularly in the short term. They adopt clinical IT because it is the right thing to do for improving patient safety and quality of care, not because it saves them money. Thus, while IT may be a "normal cost of doing business," it systematically raises those costs. **Given that they reap many of the financial benefits of IT, the AHA believes that the payers and purchasers of care should share in the costs of IT.**

Finally, we learned through the HIPAA process that efficient health information exchange requires all parties to upgrade their systems and work from a common set of standards. As we

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[4] "Forward Momentum: Hospital Use of Information Technology." Washington, DC: AHA (2005).
[5] R. Hillestad, J. Bigelow, A. Bower, F. Girosi, R. Meili, R. Scoville, and R. Taylor. "Can Electronic Medical Record Systems Transform Health Care? Potential Health Benefits, Savings, and Costs," *Health Affairs*, September 1, 2005; 24(5): 1103 - 1117.

moved toward implementation of health IT in hospitals, payers – including the federal government – must modify their own systems to accept electronic data.

Statutory Authority. The broad question of whether CMS has statutory authority to encourage adoption and use of health IT will depend on the specific mechanisms it selects. For example, CMS has some authority to pursue demonstration projects. However, more systematic approaches, such as value-based purchasing or payment adjustments, would require legislative action.

Value-based Purchasing. As noted elsewhere in this comment letter, the AHA believes that any value-based purchasing program should not be punitive. **With regard to IT, only programs that add funds to the inpatient PPS should be pursued because IT is costly, requiring both upfront and ongoing expenditures.** Decreasing payments to those that have not been able to afford IT further limits their ability to invest. A budget-neutral approach also ignores the reality that health IT systematically increases hospitals' costs.

The AHA also believes that value-based purchasing programs should build off the consensus measures endorsed by the broad spectrum of organizations – including CMS – that participate in the HQA. In general, the HQA favors measures that address quality outcomes, rather than the tools used to get there.

Health IT can play a role in reducing the burden of quality reporting. Presently, electronic health records (EHRs) and other clinical IT systems do not automatically generate quality measures. Most hospitals still require special calculations – including expensive manual chart abstraction and use of third-party contractors – to submit quality data. CMS could advance the quality agenda by investing in the development of algorithms for the calculation of the quality measures it wants reported from EHRs and encouraging vendors to include them in their products.

Rather than including health IT in a value-based purchasing program, **CMS could support adoption of health IT through a payment adjustment funded with new money.** For example, it could increase payments to hospitals that use health IT that improves the safety and quality of care by 1 percent. This kind of payment adjustment represents Medicare's share of the necessary investment to achieve this goal and would recognize the greater costs of a "wired" health care system. The AHA will pursue legislation authorizing such a payment adjustment. Other mechanisms, such as loan guarantees and grant funds, are needed to help hospitals finance the upfront costs of implementing health IT.

Conditions of Participation. The AHA firmly believes that **CMS should not include health IT in the Medicare conditions of participation (COP) for hospitals.** The COPs address the basic, essential infrastructure needed to ensure patient safety and must be clearly understood. Successful implementation of quality-enhancing IT requires careful planning and changes to work processes. The hospital field is still developing its understanding of how to implement these systems correctly. In addition, the commercial health IT applications available do not always meet hospitals' needs. The evidence on health IT does not yet support this level of requirement and would amount to an unfunded mandate. A recent report supported by the AHRQ found that the existing research on the quality benefits of health IT is limited to a handful of leadership institutions that generally developed their own systems. And, while promising, the

results are not yet generalizable to the average community hospital using the vendor systems currently on the market.[6]

While the AHA appreciates the efforts of the Certification Commission on Health Information Technology (CCHIT) to provide the market with better confidence in vendor product, we do not believe those efforts are sufficiently advanced to warrant inclusion in any adoption incentives CMS might pursue. CCHIT is only at the beginning stages of looking into certification of hospital inpatient products. CCHIT's work on ambulatory products is more advanced but, while it shows promise, has not yet proven itself in the marketplace.

HOSPITAL-ACQUIRED INFECTIONS

In the proposed rule, CMS has asked for ideas about how to effectively implement the DRA provision requiring the agency to identify instances in which the reliable application of science and appropriate processes of care should prevent infections, and to ensure that Medicare does not pay more for the hospital care of patients who becomes infected as a result of their care than it does for patients who are infection free.

It is difficult to identify the confluence of known science and effective care processes to prevent infections. **We believe that until a broad array of expertise is brought together to consider what conditions, procedures and circumstances should be targeted for this change, it is impossible to know how to most effectively implement the provision.** As the representative of America's hospitals and health systems, the AHA would be pleased to be part of those discussions.

We believe that the right starting point for this work is to build off CMS' substantial investment in the Surgical Care Improvement Project (SCIP). Surgical wound infections are among the most common and hazardous hospital-acquired infections. There is a readily available community of expertise among the broad group of organizations involved in SCIP, including the American College of Surgeons, the American Society of Anesthesiologists, the Association of periOperative Registered Nurses and the Centers for Disease Control and Prevention, among others. The existing SCIP partners' expertise can help identify a few surgical procedures that might be most appropriate for the change Congress envisioned. We believe these are likely to be relatively "clean" surgeries, meaning surgeries on patients whose conditions or wounds have not already put them at higher risk for infection, and patients who do not already have a variety of complicating conditions that would place them in higher paying DRGs. Additional expertise on coding and the DRG GROUPER also is needed for these discussions to help address questions of what data are helpful and readily available to determine which infections were acquired in the hospital versus the community, and which codes actually lead to enhanced payments.

In addition, there is good evidence to suggest that even when reliable science and appropriate care processes are applied in the treatment of patients, not all infections can be prevented. Therefore, we suggest that by utilizing the SCIP program as the basis for responding to the

[6] "Costs and Benefits of Health Information Technology." Agency for Healthcare Research and Quality Publication No. 06-E006 (April 2006).

congressional mandate, CMS could choose not to penalize a hospital if, despite their best efforts, an infection occurs. For example, if a hospital's performance on the SCIP surgical wound infection prevention measures show that it reliably performs the necessary infection prevention steps all or nearly all of the time, CMS might not make any change to the current payment system for that hospital.

Inpatient Prospective Payment System (IPPS) Analysis for FY2007

Technical Appendix

Date: June 6, 2006

THE MORAN COMPANY

Table of Contents

Inpatient Prospective Payment System (IPPS) Analysis for FY2007
Technical Appendix

Date: June 6, 2006

I. Introduction

For the Federation of American Hospitals (FAH), American Hospital Association (AHA), and Association of American Medical Colleges (AAMC), The Moran Company (TMC) analyzed alternative methodologies to those proposed by CMS in the FY 2007 Proposed Rule for the Inpatient Prospective Payment System (IPPS). This involved first replicating the proposed methodology and then applying alternative methodological choices at various points and comparing how the weights changed. The weights we calculated from our replication of the proposed rule were within 0.5% of the published weights for 90% of the DRGs and for the CS-DRG weights our calculated weights were within 3% for 90% of the CS-DRGs.

This document provides a brief overview of the data sources, methodology, and alternative methodology models. In the following section, we give a brief background to the proposed rule and the aims of this modeling project. Next we provide detail on the methodology we used in calculating weights. First we provide detail on the methods used to replicate the CMS weights. After that we describe technical corrections to how the weights were calculated that we made uniformly for our alternative models, the calculation of the current (FY2006) weights and steps vary in the different alternative models.

II. Background

In the FY 2007 Proposed Rule, CMS proposed the "first significant revision of the inpatient PPS since its implementation in 1983."[1] CMS has proposed a revision of the methodology used to calculate the weights assigned to Diagnosis Related Groups (DRG) for FY 2007 as well as a potential alternative DRG system to be used – an alternative known as "Consolidated Severity-adjusted DRGs" (CS-DRGs) for FY 2008 "or earlier".

The proposed methodology, known as Hospital Specific Relative Value with Cost Centers (HSRVcc) is a departure from the current methodology of charge-based weights. This proposed methodology attempts to account for variations in charges among hospitals through calculation of relative charges. In comparison, the current system uses Indirect Medical Education (IME), Disproportionate Share Hospital (DSH), and wage index adjustments to "standardize" hospital charges.

CMS calculated proposed FY 2007 weights using the FY 2005 MedPAR data and the CS-DRG weights using the FY 2004 data. In order to compare the results of our alternative models, we

[1] CMS, Medicare Proposes Payment and Policy Changes for Acute Care Hospital Services to Inpatients, April 12, 2006, http://www.cms.hhs.gov/apps/media/press/release.asp?Counter=1833.

calculated many of the alternatives on both data sets, to eliminate differences due solely to the data year.

In our analysis of alternatives to the proposed methodology we:

- Replicated the proposed methodology and weights for FY 2007,
- Replicated the CS-DRG weights,
- Calculated weights using the "current" FY 2006 weight calculation methodology, and
- Calculated weights using combinations of alternative methodological choices.

In our analyses, we calculated weights using various combinations of methodology, DRG grouper (version 24 and CS-DRG), and data year. We performed a set of technical corrections which we explain in Section IV which we applied uniformly to all of the alternative simulations. The alternative methodology choices that we modeled were:

- Weighting the cost-to-charge ratios for hospital costs and charges,
- Trimming the cost-to-charge ratios at 3.00 standard deviations rather than 1.96, and
- Calculating costs at the claim level by multiplying charges by hospital specific and department specific cost-to-charge ratios.

See table 1 below for an overview of the models and the data and methodology and grouper used for each. Two of these models replicate the CMS weights (Base, rule replication and Base, 2004, CS-DRG). The full list of separate sets of weights modeled by TMC is as follows:

Table 1: Methodology Combinations for Calculation of Weights

Short description	Long description	Year of data used	Methodology system	DRG system
Base, rule replication	Replicate HSRVcc methodology proposed by CMS	2005	HSRVcc	Grouper 24
Base, rule replication with corrections	Replicate HSRVcc methodology proposed by CMS with technical corrections	2005	HSRVcc	Grouper 24
Base but with 2004, with corrections	Take replication logic and apply it to 2004 MedPAR data (Grouper 23) for comparison to the CS-DRG analysis that can only be run on the 2004 data. Include technical corrections.	2004	HSRVcc	Grouper 23
Base, 2004, CS-DRG	Replicate HSRVcc with 2004 MedPAR data, but using CS-DRG.	2004	HSRVcc	CS-DRG
Base, 2004, CS-DRG, with corrections	Replicate HSRVcc with 2004 MedPAR data, but using CS-DRG. Include technical corrections.	2004	HSRVcc	CS-DRG
Base, corrected CCR, weighted	Replicate HSRVcc but adjusting how the cost to charge ratio and the scaling factor is computed. We weight the CCR for volume.	2005	HSRVcc	Grouper 24

Short description	Long description	Year of data used	Methodology system	DRG system
Base, corrected CCR, weighted, and trimming.	Replicate HSRVcc but adjusting how the cost to charge ratio and the scaling factor is computed. We weight the CCR for volume, and trim CCRs at 3.00 standard deviations instead of 1.96.	2005	HSRVcc	Grouper 24
Base, corrected CCR, trimming, not weighted	Replicate HSRVcc but adjusting how the cost to charge ratio and the scaling factor is computed. We trim CCRs at 3.00 standard deviations instead of 1.96.	2005	HSRVcc	Grouper 24
HSRV, departmental level CCRs for costs	Use hospital specific, departmental specific cost to charge ratios that were calculated using 2003 data for the prior project and apply those to the charges at the claim level, then use the HSRV calculation on the costs. This does not use cost centers.	2005	HSRVcc, but departments instead of cost centers.	Grouper 24
Charge based methodology, 2005	Replicate the "current" charge based methodology including standardized charges.	2005	Relative weights -- Existing system	Grouper 24
Charge based methodology, 2004	Replicate the "current" charge based methodology applied to 2004 data, including standardized charges using the CMS grouper 23 DRGs.	2004	Relative weights -- Existing system	Grouper 23
Charge based methodology, CS-DRGs	Replicate the "current" charge based methodology applied to 2004 data, including standardized charges, but using the CS-DRG.	2004	Relative weights -- Existing system	CS-DRG
HSRV without cost centers.	Use HSRV charge based methodology alone (no cost scaler)	2005	HSRV	Grouper 24
Weighted CCRs/HSRVcc/ CS-DRG	This model takes the logic in 3a, but uses weighted CCRs.	2004	HSRVcc	CS-DRG
Weighted and Trimmed CCRs/HSRVcc/ CS-DRGs	This model takes the logic in 3a, but uses weighted and trimmed CCRs	2004	HSRVcc	CS-DRG
Trimmed only/HSRVcc/CS -DRG	This model takes the logic in 3a, but uses trimmed CCRs	2004	HSRVcc	CS-DRG
Weighted CCRs/HSRVcc	This model take the logic in 3a, but uses trimmed CCRs.	2004	HSRVcc	Grouper 23
Weighted and Trimmed CCRs/HSRVcc	This model takes the logic in 3a, but uses trimmed CCRs.	2004	HSRVcc	Grouper 23
Trimmed only/HSRVcc	This model takes the logic in 3a but uses trimmed CCRs.	2004	HSRVcc	Grouper 23

III. CMS Methodology Replication

This section discusses some of the technical details on how we replicated the CMS weights. In order to completely replicate the weight calculation a very high level of detail is needed. In just a few areas CMS did not include sufficient detail in the proposed rule. We are very grateful to CMS staff who clarified many fine points of detail.

CMS used two sources of data for calculation of weights, hospital inpatient claims and hospital cost reports. We used the same sources. They are:

- *Hospital Inpatient Claims* - Data from the FY2004 MedPAR and the FY2005 MedPAR files were used. CS-DRGs existed only on the FY2004 MedPAR data so all analyses conducted with CS-DRGs were with that data.

- *Hospital Cost Report Data* - Hospital Cost report data were from the Hospital Cost Report Information System (HCRIS), from their data release of December 31, 2005.

We describe below five steps to calculating the HSRVcc weights:

- Data cleaning,
- Calculating CCRs,
- Calculating hospital specific relative value (HSRV) weights using charges,
- Creation and application of the scalers, and
- Normalizing the weights.

A. Data cleaning

In the Proposed Rule, CMS used slightly different data cleaning approaches for their analyses that were conducted with 2004 data versus the analyses conducted with 2005 data. The data cleaning steps for the 2004 data are more comparable to the MedPAC analysis. This discussion will focus on the 2005 data cleaning since we used that in most of our models. There will be a brief section highlighting some of the differences on the 2004 analysis.

1. Cleaning of Hospital Inpatient Claims

We followed what CMS described starting at P. 184 of the display copy of the Proposed Rule. These are the steps in cleaning the data file that CMS applied to the FY 2005 data for calculation of the proposed FY 2007 weights. CMS used slightly different cleaning rules for the FY 2004 data with the CS-DRG weights. To be able to compare between the replication and alternative policy models, we used the data cleaning that CMS applied to the FY 2005 data to all of our simulation models even those using the FY 2004 data, with the exception of the one model in which we are replicating the CS-DRG weights to compare to the published weights (Base, 2004, CS-DRG).

We excluded discharges that:

- Were not from PPS hospitals – third digit of provider code was not equal to 0 or special unit characteristic code was not blank.
- Had total charges equal to 0.
- Had length of stay equal to 0.
- Had an "ungroupable" DRG assignment: DRG 470 in Grouper versions 23 or 24, CS-DRG 999. Note: This exclusion is not explicitly in the rule, but verified with CMS during a phone call.
- Were for Medicare Beneficiaries enrolled in a Medicare+Choice (Medicare Advantage) plan.
- Had total charges that differed by more than $10 from the sum of the component charges.
- Were from hospitals that were Critical Access Hospitals (CAH) or later became CAHs. The list of CAHs was downloaded from the CMS website. (http://www.cms.hhs.gov/AcuteInpatientPPS/FFD/itemdetail.asp?filterType=none&filterByDID=-99&sortByDID=2&sortOrder=ascending&itemID=CMS063084, which as of 6/2/06 has a note saying that the list will be updated in the Final Rule).
- Were for heart and heart-lung, liver and/or intestinal, or lung transplants (DRGs 103, 480, and 495) performed at hospitals not approved by Medicare for transplants.
- Were at providers not included on the provider specific file list provided by CMS. (http://www.cms.hhs.gov/AcuteInpatientPPS/FFD/itemdetail.asp?filterType=none&filterByDID=-99&sortByDID=2&sortOrder=ascending&itemID=CMS061281). As a by-product of this restriction, Cancer and Indian Health Service hospitals were removed.
- Were at providers where there were no charges in at least 8 of the 10 cost centers.
- Had total charges and total charges per day greater than three (3) standard deviations from their respective geometric means.[2]

[2] We verified that CMS used the logical "and" in applying this outlier exclusion criteria. That is, if an observation meets on only one condition, total charges or charges per day are outliers, the record is retained for calculating weights.

The following are the major differences between the cleaning steps used with the 2005 and the steps CMS used with the 2004 data for the CS-DRG replication.

- In 2004, hospitals from Maryland were excluded, but they were included in 2005.
- Providers were excluded if they did not have charges in the two accommodation cost centers and at least one ancillary cost center. This is in contrast to requiring 8 cost centers in the 2005 analysis.

When preparing the data, we did the following:

- We assumed that professional fees – MedPAR Service Charge category 22 should be counted under "Other". We verified this assignment during a phone call with CMS.
- Transfer DRGs identification.
    - For Grouper 23 and 24, we followed the identification of whether or not a DRG was considered a transfer DRG as reported by CMS.
    - For CS-DRGs, we determined what could be a transfer DRG based on logic published on August 12, 2005 in the Federal Register on P. 47484. The language reads:

> "(A) The total number of discharges to post acute care in the DRG must equal or exceed the 55th percentile for all DRGs;
> (B) The proportion of short-stay discharges to post acute care to total discharges in the DRG exceeds the 55th percentile for all DRGs; and
> (C) The DRG is paired with a DRG based on the presence or absence of a comorbidity or a complication or major cardiovascular condition that meets the criteria specified under paragraph (d)(3)(ii)(A) and (d)(3)(ii)(B) of this section."

2. Cleaning of Hospital Cost Report data

For cleaning of the hospital cost report data, we followed the logic starting on P. 190 of the display copy of the Proposed Rule.

We removed hospitals if they met any of the following criteria:

- Critical access hospitals (CAHs)
- Located in Maryland
- Indian Health Service
- Cancer hospitals
- All-inclusive rate hospitals. Based on guidance from CMS during a phone call, these were identified by having a "Y" in cost report location S2_1_32.
- Was not a full year (365 days) cost report.
- Cost report did not start during Federal FY2003 (October 1, 2002 through September 30, 2003).

We discovered that the calculation of CCRs is very sensitive to which hospitals are included or excluded. Using the same list of CAHs is particularly important.

All cost reports are used whether or not the cost report is settled or merely submitted. The cleaning of the cost report data and the cleaning of the MedPAR data are independent of each other. Hospitals can be excluded from the cost report file for not having a full year cost report or an available cost report for FY 2003, but claims from these hospitals would be kept in the MedPAR claims.

B. Calculate CCRs

We created 10 cost centers based on the mapping starting on P. 186 of the display copy of the Proposed Rule. CMS used an internal file in a different format, though derived, from the file that is publicly available. When we attempted to match the scalers CMS posted on the web site, our results came closest if we did not include the sublines in the cardiology cost center. Our replication of the scalers was within 0.5% for all of the cost centers except cardiology, other services and laboratory, with cardiology being the furthest away from the CMS released number. For cardiology when we included appropriate sublines we were 7.4% lower than CMS's number. When we excluded the sublines, we were 2.1% lower than CMS's number.

We trim the individual cost center cost to charge ratio (CCR) to remove outliers. An individual cost center CCR is not used in calculations if one of the following is true:

- CCR is greater than 10.
- CCR is less than 0.01.
- CCR is more than 1.96*standard deviations different from the geometric mean.

The trimming of the CCRs is done in this order so that the geometric mean is computed <u>after</u> the cost center CCRs with the unreasonable values were removed from the calculations.

When trimming, we only removed the CCR for that individual cost center, the other CCRs for that provider are still present. Therefore, slightly different pools of hospitals are used for every calculation of cost center CCRs.

After the trimming, we compute the geometric mean of the CCR for every cost center. CMS computed an unweighted geometric mean.

C. Calculating hospital specific relative value (HSRV) weights using charges

In order to replicate the methodology for HSRVcc, we followed the basic logic laid out starting on P. 186 of the display copy of the Proposed Rule. This methodology is applied at the cost center level.

The basic logic of the HSRVcc is summarized as follows:

1. Calculate each hospital's average charge per discharge for all discharges for each of the 10 cost center groupings. This is calculated as the sum of the charges divided by the transfer adjusted case count.

2. Calculate the relative charge per discharge for each of the 10 cost center groupings. Divide the total charges for each individual discharge by the average charge per discharge for all that hospital's discharges (from step 1).

3. Initialize the Case Mix Index (CMI) as 1.0.

4. Calculate the CMI adjusted relative charge. Multiply the relative charge per discharge (from step 2) by CMI (from step 3).

5. Calculate the mean CMI adjusted relative charge for each DRG, for each cost center grouping. This is calculated as the sum of the CMI relative adjusted relative charge (from step 4) divided by the sum of the transfer adjusted case count (from step 4) for each DRG.

6. Calculate the mean CMI adjusted relative charge at the national level. This is calculated as the sum of the CMI adjusted relative charge (from step 4) divided by the sum of the transfer adjusted case count (from step 4) at the national level.

7. Calculate the first set of weights. Divide the mean CMI adjusted relative charge at the DRG level for each cost center grouping (step 5) by the mean CMI adjusted relative charge at the national level (step 6). This is computed for each DRG.

8. Assign these weights to all the cases for each hospital.

9. Calculate each hospital's case mix index (CMI) using these new weights (Step 8).

10. Calculate a new CMI adjusted relative charge. This is computed by multiplying the relative charges by the new computed CMI.

11. Calculate a new mean CMI adjusted relative charge at the DRG level.

12. Calculate a new mean CMI adjusted relative charge at the national level.

13. Calculate a new weight by dividing the results of step 11 by step 12.

14. Repeat back to step 8 until the maximum change in national case mix index from the current iteration compared to the previous iteration is less than 0.000001.

15. At this step, we have 10 weights (one for each cost center) for every DRG.

D. Creation and application of the scalers

16. Using the national average CCR for each cost center, multiply the total unadjusted charges for that cost center by the national average CCR for that cost center to compute a "cost" for that cost center.

17. Sum the 10 cost center costs (computed in step 16) to create a single "total cost" for the discharge.

18. For each cost center, divide the "cost for the cost center" (step 16) by the "total cost" (step 2). The result is a "scaling factor" for each cost center.

19. Apply the scaling factor for each cost center (step 18) to the cost center weights for each DRG.

20. Sum the results of step 19, to create a single weight for each DRG.

E. Normalizing the weights

21. Apply the normalization factor to the weights by multiplying the weight (step 20) by the normalization factor. We used the normalization factor published in the Proposed Rule.

22. For low-volume DRGs (DRGs with less than 10 cases), on models using Grouper 23 or 24, we replaced weights following the mapping starting on P. 192 of the display copy of the Proposed Rule. For models using CS-DRGs, we did not make any adjustments.

IV. Corrections from the CMS Methodology

There were a few "corrections" made to our model from the replication to our corrected models. These were either mistakes that had been made by CMS or inconsistencies between the treatment of 2004 data and 2005 data that we wished to be consistent in our modeling. Below we list those corrections applied to all of our alternative models.

- *Organ acquisition costs in 2005.* In our replication, we discovered that organ acquisition costs appeared to have been incorrectly included in the total charges. We verified this with CMS. CMS noted that they will make this correction in the final rule. We do not believe that they made this mistake when using the 2004 data.

- *Transfer adjustment.* When replicating the 2005 results, we used transfer adjusted weights. However, when attempting to replicate the 2004 results with CS-DRGs, our results were closest when we did not use transfer adjustments. We believe though that there should be transfer adjustment when using CS-DRGs and so in our corrections, that is done.

- *Differences between CMS's analysis using 2004 and 2005 data.* There are several differences between CMS's analysis using 2004 data and their analysis using 2005 data. The major differences are:
    - Exclusion in 2004/Inclusion in 2005 of discharges from Maryland hospitals. In the 2004 analysis, CMS excluded the Maryland hospitals but they included them in 2005. As noted above, this was intentional in order to have CS-DRG weights that used the 2004 data more comparable to MedPAC's analysis. Because we wanted consistency between our models in general in our "corrected" models, we followed 2005.
    - Cleaning of MedPAR file based on cost centers. In 2004, CMS required charges in the two accommodation cost centers as well as one ancillary cost center. In contrast, in 2005, CMS required presence of data in at least 8 cost centers. For our general "corrected" models, we followed the 2005 approach.
    - Use of transfer adjusted case counts versus non-transfer adjusted cases while computing Case Mix Index (CMI) during the iterations. CMS used transfer adjusted counts of cases to calculate the CMI used during the HSRV weight calculation iterations in the 2004 data used for CS-DRG weights. In the proposed FY 2007 weight calculation (HSRVcc DRG) using 2005 data, CMS calculated the CMI without adjusting for transfer cases. For our corrected models, we followed the logic for the FY 2007 proposed weights. (See P. 190 of the display copy of the Proposed Rule for details.)

V. Overview of Current Methodology Replication

In this section we provide a summary of how CMS calculated the DRG weights in 2006 – the "current methodology". We used these steps to calculate what the weights would have been using the 2005 and 2004 data (Charge based methodology, 2005 and Charge based methodology, 2004) to be able to compare what effect the change in the calculations had on the weights separate from the changes due to using a different dataset.

Total charges for each discharge are adjusted by the hospital's wage index, IME, DSH, and COLA factors according to the following formula:

Operating portion

(a) std_labor_operating=((total_charges*labor_share)/wage_index)

(b) standardized_operating=std_labor_operating
/(1+ime_adjustment_operating+dsh_adjustment_operating)

Capital portion

(c) std_labor_capital=((total_charges*(1-labor_share))/cola_adjustment)

(d) standardized_capital=std_labor_capital
/(1+ime_adjustment_capital+dsh_adjustment_capital)

Combined – final standardized charge

(e) standardized_charge=standardized_operating
+ standardized_capital

The weights are then calculated using these standardized charges using the following steps:

1. Calculate mean for each DRG of the standardized charges.

2. Calculate mean standardized charge of all discharges.

3. Divide the mean standardized charges for the DRG by the mean of all discharges.

4. Multiply each weight by the normalization factor. We used the normalization factor published in the Proposed Rule.

VI. Methodology Variations

For our different models, we adjusted certain aspects of the cleaning and methodology. The list here presents variations. Our models are combinations of these changes, the CMS methodology, different years of data and different DRG groupers.

Inpatient claims cleaning – organ acquisition cost correction

Applies to:	All 2005 Models except Base, rule replication
Change:	CMS incorrectly included the organ acquisition costs with 2005 data. This change removed the charges related to organ acquisition.

Inpatient claims cleaning – cost centers

Applies to:	Base, 2004, CS-DRG, with corrections
Change:	We removed providers who did not have information in at least 8 of the 10 cost centers, following how CMS analyzed the FY2005 data. This is in contrast to their analysis of 2004 data where they removed providers if the provider did not have charges in: routine days, intensive days, and at least one other cost center.

Weighted CCRs

Applies to:	Base, corrected, CCR, weighted; Weighted CCRs/HSRVcc; Weighted CCRs/CS-DRGs.
Change:	We computed a weighted national CCR as opposed to a geometric mean CCR.

Weighted and trimmed CCRs

Applies to:	Base, corrected CCR, weighted and trimmed; Weighted and trimmed CCRs/HSRVcc/CS-DRGs; Weighted and trimmed CCRs/HSRVcc.
Change:	We computed a weighted national CCR as opposed to a geometric mean CCR. In addition, we trimmed outliers that were at least 3.00*standard deviation away from geometric mean as opposed to 1.96*standard deviation away from the geometric mean.

Trimmed CCRs

Applies to:	Base corrected CCR, trimming, not weighted; Trimmed only/HSRVcc; Trimmed only/HSRVcc/CS-DRGs
Change:	We trimmed outliers that were at least 3.00*standard deviation away from geometric mean as opposed to 1.96*standard deviation away from the geometric mean.

Single cost center

Applies to:	HSRV without cost centers
Change:	This model uses a single cost center as opposed to the 10 cost centers.

Costs

Applies to:	HSRV, departmental level CCRs for costs
Change:	This model uses total costs as opposed to the 10 cost centers using charges. Total costs are calculated at the claim level by multiplying the charges for each of the 30 costs centers in MedPAR by the relevant

departmental CCR for that hospital and summing the costs across the 30 cost centers.

CMS DRGs V. 23 and HSRVcc

Applies to:	Base, but with 2004, with corrections
Change:	This model followed P. 65 of the display copy using the transfer adjusted case mix as opposed to the non-transfer adjusted case mix.

MODELING FFY 2007 OUTLIER PAYMENTS

VAIDA HEALTH DATA CONSULTANTS

3209 Curlew Street Davis, California 95616-7517 (530) 758-0493

E-mail: vaida@dcn.davis.ca.us

DATA SOURCES:

1. The MEDPAR 2005 computer file obtained from CMS. The file contains 13,715,186 records, each corresponding to a Medicare hospital discharge occurring in FFY 2005.

2. CMS FFY 2007 Impact File (Proposed Rule Version). This file produced by CMS shows the estimated level of FFY 2007 outlier payments by hospital (as percentages). It also shows the hospital-specific parameters used for calculating PPS payments, such as DSH and IME adjustment factors, cost to charge ratios (CCRs), wage indexes, etc.

3. The March 31, 2006 update of the HCRIS database. This database consists of Medicare cost reports beginning in Federal Fiscal Years (FFYs) 1996 through 2005.

REPLICATION OF THE CMS ESTIMATED 2007 OUTLIER PAYMENT LEVELS (IPPS 2007 PROPOSED RULE).

The regular and outlier FFY 2007 payments were estimated for 11,447,430 discharges in the MEDPAR database subject to IPPS. These are the same discharges used by CMS to generate the 2007 Proposed Rule Impact File[i]. Regular payments were calculated based on the proposed DRG weight, the patient discharge destination (for identifying transfers), the applicable proposed standardized amounts and the other hospital-specific parameters determining PPS payments. The latter are the wage index, the non-labor cost of living adjustment, and the DSH and IME adjustment factors. Each of these parameters has different values applicable to operating and capital payments. The parameters were obtained from the CMS Impact File.

Outlier payments were calculated inflating 2005 charges by 15.71 percent (the inflation factor used by CMS[ii]), reducing charges to costs using the cost to charge ratios from the CMS Impact File and comparing costs to the proposed FFY 2007 fixed loss amount of $25,530. The latter was adjusted as appropriate on a hospital-specific basis. It should be noted that the Impact File cost to charge ratios are mostly from fiscal periods beginning in FFY 2004. Also, no allowance was made for the anticipated continued decrease in the CCRs.

With these assumptions, the FFY 2007 operating and capital outlier payments were estimated at 5.1 and 4.81 percent of the respective total payments, net of DSH and IME amounts. These estimates are in good agreement with the CMS figures of 5.1 and 4.87 percent, respectively. The dollar amount of FFY 2007 outlier payments was estimated at $4,774B.

ESTIMATE OF THE FFY 2007 FIXED LOSS AMOUNT USING THE MOST RECENT COST TO CHARGE RATIOS.

More recent cost to charge ratios were calculated from the latest cost reports available in the HCRIS database. Medicare inpatient operating costs were obtained from Worksheet D-1, Part II, Medicare inpatient capital costs from Worksheet D, Parts I and II and Medicare inpatient charges from Worksheet D-4. A comparison with the dates of the CCRs in the Impact File, presumably used to establish the proposed FFY 2007 fixed loss threshold, is shown in the table below.

Beginning in FFY	Number of Cost Reports Used for the Impact File CCRs	Percent of Cost Reports Used for the Impact File CCRs	Number of HCRIS Most Recent Cost Reports for Impact File Hospitals	Percent of HCRIS Most Recent Cost Reports for Impact File Hospitals
	(a)	(b)	(c)	(d)
2001	5	0.2%	3	0.1%
2002	39	1.4%	13	0.4%
2003	739	27.0%	92	2.6%
2004	1,949	71.1%	2,948	84.0%
2005	10	0.4%	453	12.9%
Unknown/Not Matching	780		13	
Total	3,522		3,522	

Table Notes: Column (a) numbers are based on matching Impact File CCRs with HCRIS CCRs for fiscal periods beginning between 2001 and 2005. If both operating and capital HCRIS CCRs were within 0.001 of their respective Impact File counterparts, the HCRIS cost report was considered to be the source for the Impact File CCRs. Percentages in columns (b) and (d) are based on the total of FFYs 2001-2005, i.e., unkown/not matching hospitals were not included.

Using the more recent HCRIS CCRs and the CMS assumptions listed above, the estimate of the fixed loss threshold is **$24,990**.

ESTIMATE OF THE FFY 2007 FIXED LOSS AMOUNT PROJECTING BOTH CHARGE AND COST INFLATION.

Outlier payments are calculated from costs. Costs are determined by applying a cost to charge ratio to actual charges. It follows that accurate outlier estimates require projecting **both** costs and charges. An additional complication is the inevitable lag between CCRs that can only be determined retrospectively at the end of an elapsed cost reporting period and the current charges to which they are applied. Historically, CMS has projected outlier payments by projecting only costs or only charges and ignored the time lag problem. This approach works well in periods when cost and charges move more or less in tandem. When costs and charges change at significantly different rates, relying on only one measure of inflation can result in either outlier over- or underpayments[iii]. An alternative methodology that overcomes these shortcomings is described below.

In order to account for the time lag problem, cost to charge ratios were projected from the most recent fiscal period in the March 31, 2006 HCRIS update to the fiscal period(s) expected to be used for the calculation of the CCR(s) determining FFY 2007 outlier payments. The CMS Program Memorandum A-03-058 dated July 3, 2003 instructs Fiscal Intermediaries to update the CCRs "not later than 45 days after the date of the tentative settlement or final settlement used in calculating the CCRs". Combining this deadline with the maximum of eight months between the end of the cost reporting period and tentative settlement, it is reasonable to expect CCRs to be updated no later than nine months after the end of the cost reporting periods. Assuming a nine-month lag in updating CCRs, FFY 2007 outlier payments will be based partly on 2005 and partly on 2006 ratios, depending on the fiscal period ending date (FPE). Hospitals with a January FPE will have their CCR updated to the FPE January 2006 value by October 31, 2006. Their FFY 2007 outlier payments will be based on the FPE January 2005 CCR for one month (October 2006) and on the FPE January 2006 CCR for the remaining eleven months. Similarly, FFY 2007 outlier payments for hospitals with a February FPE will be based on the 2005 CCR for two months and the 2006 CCR for ten months, and so on. Hospitals with a December FPE would have their FFY 2007 outlier payments based entirely on the FPE December 2005 CCR.

The cost inflation factor for projecting CCRs was determined from the costs reports of a cohort of 3,253 matched hospitals for periods beginning in FFYs 2002, 2003 and 2004. All three costs reports were available for each hospital from the recent update of HCRIS and covered a full twelve months. The 2002-2004 aggregate annual rate of increase in the cost per discharge for these hospitals was 5.69 percent[iv]. This cost inflation factor and the CMS charge inflation factor of 7.57 percent were used to project cost to charge ratios over the time periods described above. The projected CCRs were applied to projected FFY 2007 charges to simulate the determination of costs for FFY 2007 outlier payments. The estimated fixed loss amount that would result in 5.1 percent outlier payments in this scenario is **$24,000**. It should be noted that this model (as well as all the

ones discussed here) does not take into account the potential impact of outlier reconciliation. The model assumes FFY 2007 outlier payments based on costs determined using pre-2007 CCRs. If outlier payments were adjusted retrospectively based on FFY 2007 "true" costs determined using 2007 CCRs, final outlier payments would be lower (assuming a continuing trend of decreasing cost to charge ratios).

ESTIMATE OF THE FFY 2007 FIXED LOSS AMOUNT PROJECTINGONLY COST INFLATION.

This is the methodology CMS used for the FFYs 1994-2002. For projecting FFY 2007 outlier payments it consists of applying historical CCRs to FFY 2005 charges to determine FFY 2005 costs. These costs are projected forward to FFY 2007 using a cost inflation factor. However, the "cost inflation only" approach ignores the time lag problem. This may result in underestimating FFY 2007 costs for outlier payment determination and, therefore, underestimating the FFY 2007 fixed loss threshold. The underestimate results from using historical CCRs generally more recent than the CCRs actually available in 2004[v].

The cost inflation approach using an annual cost inflation factor of 5.69 percent and the Impact File CCRs resulted in a FFY 2007 estimated fixed loss amount of **$23,055**. If the most recent CCRs from the HCRIS database were used instead, the estimated FFY 2007 fixed loss amount was **$22,645**.

ESTIMATE OF THE FFY 2006 OUTLIER PAYMENTS

The 2007 IPPS Proposed Rule states that FFY 2006 outlier payments are now estimated at 4.71 percent of total DRG payments. Using the "charge inflation only" model and the Impact File cost to charge ratios, the outlier payment level was estimated at 4.64 percent, essentially replicating the CMS finding. Using the same model, the 2006 fixed loss amount that would result in a payment level of 5.1 percent was estimated at **$21,530**.

The FFY 2006 fixed loss amount was estimated using all the other models described above. Still using the "charge inflation only" but substituting the most recent HCRIS CCRs for the Impact File ratios, the fixed loss threshold was estimated at **$21,160**. It should be noted that the most recent CCRs used in these model were selected by taking into account their applicability to FFY 2006. For example, assuming a nine-month lag in updating CCRs, hospitals with fiscal periods ending in June 2006 had their first six months of FFY 2006 outlier payments based on the June 2004 FPE cost to charge ratio, and the last six months based on the June 2005 FPE ratio. Even if the June 2005 FPE ratio was available from the HCRIS database, the CCR used in this model was an average of the 2004 and 2005 ratios weighted by the number of months of usage in FFY 2006.

If both cost and charge inflation are taken into account, and assuming a nine-month lag in updating CCRs, the FFY 2006 fixed loss threshold amount was estimated at **$21,275**.

Using the "cost inflation only" models the fixed loss amounts were estimated at **$20,460**

and **$20,095**, based on Impact File and most recent HCRIS cost to charge ratios, respectively. Because of the problems with the "cost inflation only" model noted for the FFY 2007 estimates, i.e. not taking into account the lag in updating CCRs, it is quite likely these amounts are underestimated.

Both FFY 2006 and 2007 results and underlying assumptions are summarized in the tables on the following pages.

CALCULATION OF THE FFY 2005 FIXED LOSS AMOUNT THAT WOULD HAVE RESULTED IN OUTLIER PAYMENTS OF 5.1 PERCENT

The level of outlier payments actually made in 2005 can be determined from the 2005 MEDPAR data. The operating outlier payment, if any, is explicitly shown for each Medicare discharge. The regular DRG operating payment can be easily determined from data in the file. Specifically, the operating payment net of indirect medical and disproportionate share adjustments is the DRG PRICE less CAPITAL, DSH and IME payments. The amounts shown in capitals are all fields in the MEDPAR records. The total outlier payments made in 2005 amounted to 3.051B[vi]. This represents 3.8 percent of total Medicare IPPS payments net of indirect medical and disproportionate share adjustments. The result is significantly different from the CMS estimate of 4.1 percent. The 3.8 percent level of outlier payment translates into a shortfall of $1.1B.

The outlier amounts that should have been paid could be calculated from the MEDPAR data if the cost to charge ratios actually used were available. To my knowledge there is no public data source for them. An alternative would be to estimate the CCRs from other data sources, e.g., HCRIS. However, this would involve assumptions about the rates of cost and charge inflation. In order to avoid dependence on such assumptions the CCRs were estimated from the MEDPAR file itself. The comparison of any two outlier payments *calculated using the same CCRs* allows the determination of the CCR:

$O_1 = 0.8 \times (OPCCR \times C_1 - D_1 - AFL)$

$O_2 = 0.8 \times (OPCCR \times C_2 - D_2 - AFL)$

where O = outlier payment, C = charges, D = DRG payment, AFL = adjusted fixed loss amount and OPCCR = operating cost to charge ratio. Note that AFL is actually dependent of the cost to charge ratios, but since it cancels out of the final equation, this fact can be ignored

Subtracting the second equation from the first and solving for OPCCR:

$$OPCCR = [(O_2 - O_1) / 0.8 + (D_2 - D_1)] / (C_2 - C_1)$$

A similar calculation can be carried out for the capital cost to charge ratio. This method was used to determine the CCRs by arraying all outlier payments made to a hospital during a given quarter in increasing order of the covered charges. The calculation shown

above was performed by comparing each outlier payment in the array to the outlier payment with the highest covered charges and, again,
to the outlier payment with the lowest charges. The median of the CCRs thus obtained was considered to have been the CCR used to determine outlier payments for the quarter and hospital under consideration. If the actual CCR remained the same during the entire quarter, the method above should in principle determine it exactly. If the CCR did change during the quarter, the calculation yields an approximate "effective" CCR. (The date of discharge shown in the public version of MEDPAR is limited to the quarter of discharge). The approach outlined above can be applied only when a hospital had at least two outliers in a given quarter. For hospitals with less than two outliers in a quarter, the CCR ratios were taken from the CMS Impact File for FFY 2005 (the Final Rule version).

In order to validate the CCRs obtained as described above, they were used to calculate "simulated" 2005 outlier payments based on the fixed loss amount of $25,800 effective in FFY 2005. The total amount of "simulated" payments was $3,036B compared with the actual amount of $3,051B[vii]. The CCRs were then used to calculate the 2005 fixed loss amount that would have resulted in a 5.1 percent outlier payment level. The result was **$19,790**.

FFY 2007 ESTIMATED FIXED LOSS AMOUNTS AND UNDERLYING ASSUMPTIONS

METHODOLOGY	Data Source for Cost to Charge Ratios	Charge Inflation (Proposed Rule, Rate of Change from Jul-Dec 2004 to Jul-Dec 2005) (Per Year)	Cost Inflation (Per Year)	Change in Cost to Charge Ratios (Per Year)	Assumed Lag Between the Fiscal Period End and Effective Date of the CCRs	ESTIMATED FFY 2007 FIXED LOSS AMOUNT ($)
Charges Projected From FFY 2005 to FFY 2007	CMS Impact File-Proposed FY 2007	7.57%	None	None	None	25,530
Charges Projected From FFY 2005 to FFY 2007	HCRIS 03/31/2006 Update	7.57%	None	None	None	24,990
Charges Projected From FFY 2005 to FFY 2007; Cost to Charge Ratios Projected to Simulate Effective CCRs for FFY 2007 Outlier Payments	HCRIS 03/31/2006 Update	7.57%	5.69% (From HCRIS Cost Reports 2002-2004)	-1.75%	Nine Months	24,000
Costs Projected From FFY 2005 to FFY 2007	CMS Impact File-Proposed FY 2007	None	5.69% (From HCRIS Cost Reports 2002-2004)	None	None	23,055
Costs Projected From FFY 2005 to FFY 2007	HCRIS 03/31/2006 Update	None	5.69% (From HCRIS Cost Reports 2002-2004)	None	None	22,645

FFY 2006 ESTIMATED FIXED LOSS AMOUNTS AND UNDERLYING ASSUMPTIONS

METHODOLOGY	Data Source for Cost to Charge Ratios	Charge Inflation (Proposed Rule, Rate of Change from Jul-Dec 2004 to Jul-Dec 2005)	Cost Inflation	Change in Cost to Charge Ratios	Assumed Lag Between the Fiscal Period End and Effective Date of the CCRs	ESTIMATED FFY 2006 FIXED LOSS AMOUNT ($)
		(Per Year)	(Per Year)	(Per Year)		
Charges Projected From FFY 2005 to FFY 2006	CMS Impact File-Proposed FY 2007	7.57%	None	None	None	21,530
Charges Projected From FFY 2005 to FFY 2006	HCRIS 03/31/2006 Update	7.57%	None	None	None	21,160
Charges Projected From FFY 2005 to FFY 2006; Cost to Charge Ratios Projected to Simulate Effective CCRs for FFY 2006 Outlier Payments	HCRIS 03/31/2006 Update	7.57%	5.69% (From HCRIS Cost Reports 2002-2004)	-1.91%	Nine Months	21,275
Costs Projected From FFY 2005 to FFY 2006	CMS Impact File-Proposed FY 2007	None	5.69% (From HCRIS Cost Reports 2002-2004)	None	None	20,460
Costs Projected From FFY 2005 to FFY 2006	HCRIS 03/31/2006 Update	None	5.69% (From HCRIS Cost Reports 2002-2004)	None	None	20,095

[i] These are discharges subject to IPPS and with non-zero covered days and charges. The number of these discharges is the same as the number of "Bills" for all the hospitals in the Impact File.

[ii] The two-year inflation factor in the Proposed Rule is stated to be 15.15 percent. This is not consistent with the annual inflation ratio of 7.57 percent stated in the same Proposed Rule. The annual inflation rate of 7.57 percent translates into a 15.71 percent two-year rate.

[iii] Of course, regardless of methodology, over- or under estimates of outlier payments may result from cost and/or charge inflation projections -usually based on the assumption that historical values are a reasonable indicator of future trends- that turn out to be inaccurate.

[iv] An audit adjustment was applied to costs from "as submitted" cost reports. The audit adjustment was determined by comparing 2,791 "as submitted" cost reports from the December 31, 2003 HCRIS database with the settled reports of the same hospitals in the March 31, 2006 HCRIS update.

[v] This discussion assumes charges increasing at a faster pace than costs. In that case, because FFY 2007 "costs for outlier payment determination" are obtained by applying CCRs from earlier periods to FFY 2007 charges, 2005 "costs" should be determined with similarly lagged CCRs.

[vi] The aggregated amount of outlier payments for the 11,447,430 discharges in the 2005 MEDPAR selected as described on Page 1.

[vii] The comparison was limited to cases when outlier payments were actually made. Simulated payments for all cases are slightly higher ($3,132B). This may reflect situations when outlier payments were denied for not being submitted in accordance with Medicare laws and regulations.