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June 8, 2011

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Administrator  
Centers for Medicare & Medicaid Services  
Hubert H. Humphrey Building  
200 Independence Avenue, S.W., Room 445-G  
Washington, DC 20201

***RE: CMS-1518-P, Medicare Program; Proposed Changes to the Hospital Inpatient Prospective Payment Systems for Acute Care Hospitals and the Long-Term Care Hospital Prospective Payment System and Fiscal Year 2012 Rates; Proposed Rule (Vol. 76, No. 87), May 5, 2011***

Dear Dr. Berwick:

On behalf of our more than 5,000 member hospitals, health systems and other health care organizations, and our nearly 40,000 individual members, the American Hospital Association (AHA) appreciates the opportunity to comment on the Centers for Medicare & Medicaid Services' (CMS) hospital inpatient prospective payment system (PPS) proposed rule for fiscal year (FY) 2012. We will submit comments separately on CMS' proposed changes to the long-term care hospital PPS.

While we support a number of the proposed rule's provisions, including the rural floor budget neutrality adjustment, we have serious concerns about the documentation and coding adjustment and the readmissions proposal.

#### **MS-DRG DOCUMENTATION AND CODING ADJUSTMENT**

The proposed rule includes a continuation of FY 2011's 2.9 percent recoupment cut, as well as a 3.15 percent permanent cut to eliminate what CMS claims is the effect of documentation and coding changes the agency says do not reflect real changes in case-mix. This represents a total proposed coding cut of 6.05 percent, or \$6.3 billion, for FY 2012, and will create substantial volatility in inpatient PPS rates for the next two years. **The AHA conducted analyses that found that much smaller documentation and coding adjustments are necessary than what CMS has both implemented in the past and proposed for the future. These analyses indicate that much of the change CMS found is actually the continuation of historical increases in the case-mix index (CMI), not the effect of documentation and coding changes due to the implementation of the Medicare severity diagnosis-related groups (MS-DRGs). Thus, CMS' proposed cut is excessive in light of these historical trends in CMI change and *should not* be implemented.**

**The AHA believes there is a fundamental flaw in CMS' methodology for determining the effect of documentation and coding changes on the FYs 2008 and 2009 CMIs.** Specifically, in its analysis, CMS states that the increase in payments it found could not be due to "real" case mix



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change because its analysis looks at only one year of patient claims. **However, analyzing a single year of claims is not the correct methodology for determining whether there is a change in documentation and coding practices relative to prior years.**

The fact that CMS' methodology is fundamentally flawed is not our view alone – it is corroborated by a nationally recognized expert on health economics and payment policy. **Specifically, Joseph P. Newhouse, Ph.D.**, the John D. MacArthur Professor of Health Policy and Management at Harvard University and Faculty Research Associate of the National Bureau of Economic Research, **found that the methodology CMS has employed cannot separate documentation and coding effects from true case-mix change because it uses claims data alone.** He states that the best one can do with claims data alone is to calculate the upper and lower bounds of the *combined effect* of documentation and coding and true case-mix change. Dr. Newhouse goes on to say that he “cannot interpret what exactly is measured by what CMS terms the documentation and coding effect.” He also states that the ideal method for distinguishing documentation and coding from true case-mix change is to use medical records. **Accordingly, we strongly reiterate our prior request that CMS use medical records data to distinguish documentation and coding changes from real case-mix changes and reduce the documentation and coding offset appropriately.**

**At the very least, CMS should use a more appropriate methodology to estimate documentation and coding change, one that takes real case-mix changes into account.** Our analysis, which used multiple years of patient claims, clearly shows that a significant portion of the change CMS found is actually the continuation of historical trends, rather than the effect of documentation and coding changes due to implementation of MS-DRGs. This analysis found a cumulative documentation and coding effect of 3.6 percent for FYs 2008 and 2009, as opposed to the 5.4 percent that CMS found.

#### **HOSPITAL READMISSIONS REDUCTION PROGRAM**

The rule proposes measures to use in the readmissions reductions program that begins in FY 2013. Specifically, CMS would use the three currently reported 30-day readmission measures for heart attack, heart failure and pneumonia. The statute directs CMS to exclude from the measures readmissions that are unrelated to the prior discharge, such as planned readmissions and transfers; however, the measures exclude only a very limited set of planned readmissions. **This small set of existing exclusions does not meet the statutory requirement that unrelated readmissions be excluded from the measures. Accordingly, the AHA strongly disagrees with CMS' proposal and believes the agency has ignored Congress' intent that the measures be modified to explicitly exclude unrelated and planned readmissions. We urge the agency to instead conduct a study to thoroughly determine the common reasons for planned readmissions, as well as determine a subset of readmissions that are unrelated to the initial admission for the relevant conditions. In the interim, CMS should take steps to improve the existing measures, such as adjusting for patient characteristics beyond age, gender and medical diagnosis.**

Our detailed comments are attached. If you have any questions, please feel free to contact me or Joanna Hiatt Kim, senior associate director for policy, at (202) 626-2340 or [jkim@aha.org](mailto:jkim@aha.org).

Sincerely,

/s/

Rick Pollack  
Executive Vice President

**American Hospital Association  
Detailed Comments on the Inpatient Prospective Payment System  
Proposed Rule for FY 2012**

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## **CHANGES TO MS-DRG CLASSIFICATIONS AND RELATIVE WEIGHTS**

Several years ago, the Centers for Medicare & Medicaid Services (CMS) undertook significant efforts to reform the CMS diagnosis-related groups (CMS-DRGs) and the calculation of the corresponding relative weights. The agency began to transition to cost-based weights in fiscal year (FY) 2007, and to Medicare-severity DRGs (MS-DRGs) in FY 2008, and to overhaul the complications and comorbidities (CC) list in FY 2008. In FY 2009, these changes were fully implemented.

### **MS-DRG DOCUMENTATION AND CODING ADJUSTMENT**

*The TMA, Abstinence Education and QI Programs Extension Act of 2007* required CMS to apply a documentation and coding adjustment of negative 0.6 percent in FY 2008 and negative 0.9 percent in FY 2009. The law also specified that, to the extent that the required adjustments for FYs 2008 and 2009 resulted in overpayments or underpayments relative to the actual amount of documentation and coding-related change due to the introduction of the MS-DRGs, the Secretary of the Department of Health and Human Services (HHS) would correct the overpayments or underpayments going forward, as well as make additional adjustments during FYs 2010 through 2012 to offset the increase or decrease in aggregate payments that occurred during FYs 2008 and 2009.

In FY 2008, CMS applied a negative 0.6 percent documentation and coding adjustment, and in FY 2009 applied a further negative 0.9 percent adjustment, for a total adjustment of negative 1.5 percent. However, the agency calculated that documentation and coding changes actually increased payments by 2.5 percent in FY 2008, and by an additional 2.9 percent in FY 2009 – a total increase of 5.4 percent. Therefore, CMS has stated that it must cut payments by 1.9 percent to recoup overpayments made in FY 2008 and by 3.9 percent to recoup overpayments made in FY 2009 – or 5.8 percent total. In FY 2011, the agency applied half of this adjustment – or 2.9 percent.

Because the 2.9 percent cut was a recoupment, it was a one-time cut that will be restored in FY 2012. However, CMS also proposes a new 2.9 percent cut in FY 2012 to recoup the remaining half of the 5.8 percent. The FY 2012 cut is also a one-time cut that will be restored in FY 2013.

CMS also proposes to make a prospective documentation and coding cut to permanently remove increased payments from the system. The agency asserts that a total prospective cut of 5.4 percent is necessary. However, CMS previously applied cuts of 1.5 percent and, thus, a cut of 3.9 percent remains necessary. CMS proposes to apply most of this cut – 3.15 percent – in FY 2012.

For sole community hospitals (SCHs) and Medicare-dependent hospitals (MDHs), CMS also found that coding and classification changes that the agency says do not reflect real changes in case mix increased payments by 5.4 percent. In FY 2011, CMS applied part of this cut – 2.9 percent. It proposes to apply the remainder of the cut – 2.5 percent – in FY 2012.

For Puerto Rico hospitals, CMS found that documentation and coding changes that the agency says do not reflect real changes in case mix increased payments by 2.4 percent total in FY 2008 and 2009. In FY 2011, the agency applied the entire 2.4 percent cut.

CMS' Methodology. CMS used the same methodology to analyze changes due to documentation and coding in both FYs 2008 and 2009. Specifically, for FY 2008, the agency divided the case-mix index (CMI) obtained by running the FY 2008 claims data through the FY 2008 GROUPER by the CMI obtained by running these same FY 2008 claims data through the FY 2007 GROUPER, which yielded 1.028, or an increase of 2.8 percent. CMS states that this 2.8 percent is comprised of documentation and coding change, as well as a GROUPER change. CMS asserts that none of this 2.8 percent can be deemed "real" case mix because the analysis uses only one set of claims and, therefore, one set of patients.

To determine the effect of GROUPER changes, CMS divided the CMI obtained by running the FY 2007 claims data through the FY 2008 GROUPER by the CMI obtained by running these same FY 2007 claims data through the FY 2007 GROUPER, which yielded 1.003, or an increase of 0.3 percent. CMS then divided 1.028 by 1.003 to yield 1.025, or a documentation and coding-related increase of 2.5 percent in FY 2008. CMS used the same methodology to determine that there had been a cumulative documentation and coding-related increase of 5.4 percent in FY 2009.

Flaw in CMS' Methodology. **The AHA again asserts that there is a fundamental flaw in CMS' methodology for determining the effect of documentation and coding change on the FYs 2008 and 2009 CMIs. Specifically, CMS states that none of the increase it found can be deemed "real" case-mix change because its analysis looks at only one year of patient claims. However, we assert that, similarly, this increase cannot be deemed documentation and coding change either, because the analysis looks at only one year of patient claims, which by definition are coded identically. Analyzing a single year of claims is not the correct methodology for determining whether there is a change in documentation and coding practices relative to prior years.**

The fact that CMS' methodology is fundamentally flawed is not our view alone – it is corroborated by an independent assessment. This assessment was prepared by Joseph P. Newhouse, Ph.D., the John D. MacArthur Professor of Health Policy and Management at Harvard University and Faculty Research Associate of the National Bureau of Economic Research. Dr. Newhouse is a nationally recognized expert on health economics and payment policy and currently serves on the Congressional Budget Office Board of Health Advisors, co-chairs the 2010 Technical Review Panel on the Medicare Trustees Report, and has served as the vice-chair of the Medicare Payment Advisory Commission. A copy of his assessment, including the hospital associations' cover note, can be found in the Appendix.

**As described in his assessment, Dr. Newhouse finds that the methodology CMS has employed cannot separate documentation and coding effects from true case-mix change because it uses claims data alone.** He states that the best one can do with claims data alone is to calculate the upper and lower bounds of the *combined effect* of documentation and coding and

true case-mix change. **Dr. Newhouse goes on to say that he “cannot interpret what exactly is measured by what CMS terms the documentation and coding effect.”**

**We strongly reiterate our prior request that CMS use medical records data to distinguish documentation and coding changes from real case-mix changes.** While we recognize that considerable resources might be required to undertake this work, after several years, it is clearly a reasonable request. First, whatever the investment, it will be minor relative to the size of the payments at risk to hospitals. In addition, the AHA, as well as others, has stated that such an analysis is the best way to distinguish documentation and coding from real case-mix change. Specifically, in his assessment, Dr. Newhouse states that the ideal method for distinguishing documentation and coding from true case-mix change involves pulling a random sample of hospital charts from different years and having coders blindly code them to the year of the chart. Since the coders are presumptively using one standard (the current standard) of coding, this method holds coding practices constant and indicates the amount of real case-mix change. This method was employed two decades ago in work at RAND that was sponsored by the Health Care Financing Administration and the Prospective Payment Assessment Commission (ProPAC), of which Dr. Newhouse was a part. The resulting estimate was subsequently used for several years by ProPAC to estimate documentation and coding effects. **We look forward to CMS’ response to Dr. Newhouse’s analysis, as well as to our request that it use medical records data to distinguish documentation and coding changes from real case-mix changes and lower the documentation and coding adjustment.**

**While we believe it is imperative that CMS conduct such an analysis, at the very least, it should use a more appropriate claims-based methodology to estimate documentation and coding, one that takes real case-mix changes into account, as outlined below.**

**If the agency is unwilling to do that, we ask that it use its policy discretion to significantly lower its proposed documentation and coding cut in order to avoid inappropriate volatility in inpatient PPS rates.** Specifically, the large cut CMS has proposed would lead to a negative net update for FY 2012. However, when the 2.9 percent FY 2012 recoupment cut is restored in FY 2013, this may lead to a large positive net update for FY 2013. One of the fundamental values of a PPS is the ability of providers to reasonably estimate payments in advance to inform their budgeting, marketing, staffing and other key management decisions. CMS’ proposal goes directly against this value and is a significant departure from the more transitioned approach it has used to phase in documentation and coding cuts to date.

AHA’s Analyses. If CMS is unwilling to use medical records data to distinguish documentation and coding changes from real case-mix changes, we urge the agency to instead use a trend-based analysis of claims data to determine the effect of documentation and coding. The AHA has conducted multiple analyses to this end. Specifically, in AHA’s comment letter on the FY 2011 inpatient PPS proposed rule, we presented our trend-based analysis that outlined a more appropriate methodology to calculate the effect of documentation and coding on hospital payments. This year we make several modifications to that trend-based analysis to respond to CMS’ critiques as enumerated in the FY 2011 inpatient PPS final rule. **Given that we have addressed the agency’s concerns, we are hopeful that it will give our methodology fresh**

**consideration. Under this methodology, much smaller documentation and coding adjustments are necessary than what CMS has both implemented in the past and proposed for the future. Thus, CMS' proposed cuts *should not* be implemented.**

First, in its FY 2011 inpatient PPS final rule, CMS stated that one issue with our analysis was the “determination of the appropriate time period on which to base the trend.” While AHA began with FY 2000, the Medicare Payment Advisory Commission (MedPAC), in its comment letter, began with FY 1997. CMS stated that if these three additional years are included, it significantly increases the estimate of documentation and coding. Although we clearly stated in last year’s comment letter that we began our analysis with FY 2000 data because that was the earliest year of data available to us, we have nonetheless obtained additional data and now extend our analysis back to FY 1997.

In addition, CMS stated that its second critical issue with our methodology was the “determination of the appropriate cohort of hospitals to include in the calculation.” Specifically, MedPAC excluded all hospitals that had converted to critical access hospital (CAH) status by the end of 2009. CMS stated that “CAHs tend to have lower than average case-mix values; therefore, including the data from one or more years before the conversion and then excluding the data after the conversion” decreases the estimate of documentation and coding. In response, we have revised our analysis to be consistent with MedPAC’s and exclude hospitals that converted to CAH status by the end of 2009 from all years of our analysis.

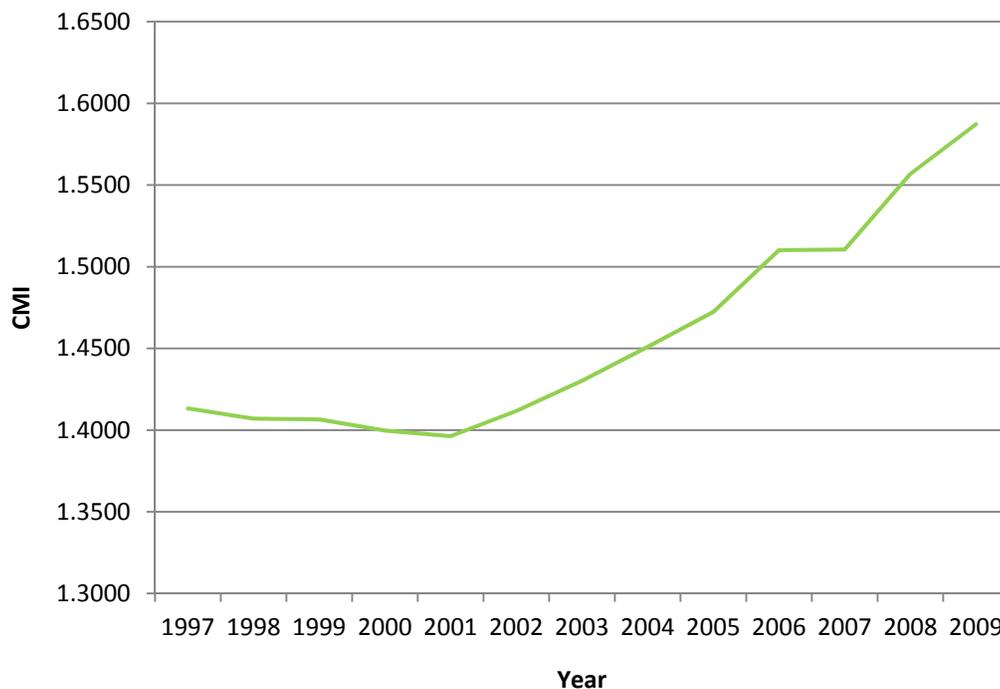
Finally, CMS stated that AHA “assumes that changes in case-mix increase at a linear, and therefore, consistent rate, when, in fact, changes in case-mix do not necessarily follow a consistent pattern over time.” We clearly stated in last year’s comment letter that we used a linear method because it was the most conservative approach and, in fact, encouraged the agency to test alternative regression methods. Although we continue to focus on the simple linear regression because it is the most conservative approach, in response to CMS, we also present the results of piecewise and quadratic regression models and again encourage the agency to test these alternatives.

**As we describe below, even after addressing CMS' three concerns with our methodology, we obtain a much lower estimate of documentation and coding than the agency. We look forward to CMS' response to our revised analysis.**

We included inpatient PPS claims from FYs 1997 through 2009 in our analysis, but excluded hospitals that converted to CAH status by the end of 2009 from all years of our analysis. We grouped each year of claims using the FY 2009 MS-DRG GROUPER (Version 26) and calculated the associated CMI, holding the weights constant. **Since CMS is attempting to assess the impact of documentation and coding changes relative to the new MS-DRG GROUPER, it is important that this one GROUPER be used to assess historical case mix change.** The FY 1997 through 2007 results reflect how claims would have been grouped under MS-DRGs had this system been in place at the time. In addition, these results reflect a combination of real case-mix growth and hospitals’ pre-MS-DRG documentation and coding practices. The FY 2008 and 2009 results reflect a combination of real case-mix growth and

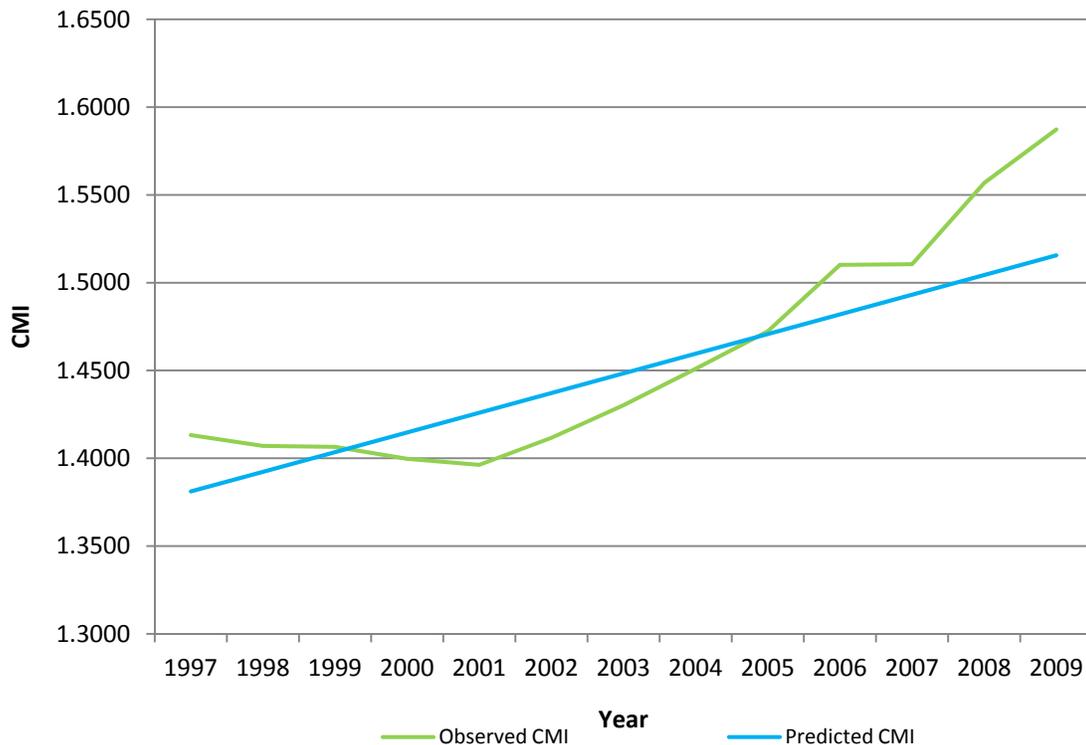
hospitals' post-MS-DRG documentation and coding practices. See Figure 1 for a graphic depiction of these CMI values from FY 1997 through 2009.

**Figure 1: CMI from FY 1997 through 2009 as Measured Using the Version 26 MS-DRG GROUPER**



Next, we used the FY 1997 through 2007 CMI values above to create “predicted” CMI values for all years, including FYs 2008 and 2009. These values represent what CMI would have been in FYs 2008 and 2009 had hospital case mix continued its historical trend. See Figure 2 for a graphic depiction of these predicted and observed CMI values from FY 1997 through 2009.

**Figure 2: Predicted and Observed CMIs from FY 1997 through 2009 as Measured Using the Version 26 MS-DRG GROUPE**



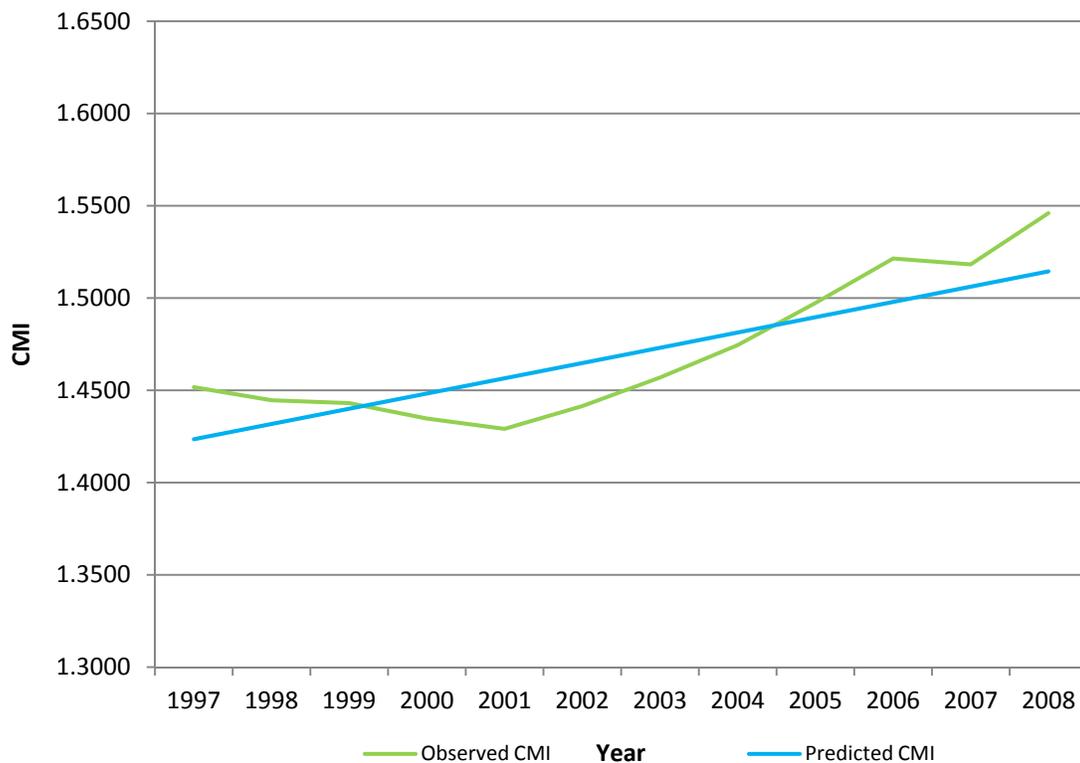
Finally, we compared the predicted growth rate to the observed growth rate in CMI from FYs 2007 to 2009. The predicted growth rate over these two years was 1.5 percent, which represents what the growth in CMI would have been had real case mix continued its historical trend and had hospitals maintained consistent documentation and coding practices. The observed growth rate was 5.1 percent. Because the observed rate is higher than the predicted, it indicates that hospitals did change their documentation and coding practices when MS-DRGs were implemented. In order to determine the amount by which this change in documentation and coding affected CMI, we subtracted the predicted growth rate from the observed growth rate, which yielded 0.036, or a cumulative documentation and coding-related increase of 3.6 percent for FY 2009.

Although, under this approach, there was a cumulative documentation and coding-related increase of 3.6 percent, CMS already cut hospital payments in FY 2009 by 1.5 percent. **Thus, an additional 2.1 percent cut is necessary to permanently decrease the standardized amount to what it would have been absent documentation and coding changes. Accordingly, the AHA urges CMS to decrease its proposed cut so that it is in line with this more appropriate estimate of documentation and coding change. CMS' proposed cut of 3.15 percent, which is based on its estimate of a remaining of 3.9 percent in documentation**

**and coding related increases, is excessive in light of historical trends in CMI changes and *should not* be implemented.**

In addition, to determine the documentation and coding-related increase in FY 2008, we conducted the same analysis as above using the FY 2008 GROUPER (Version 25), which is a 50/50 blend of the CMS-DRGs and MS-DRGs, and again holding the weights constant. We included inpatient PPS claims from FYs 1997 through 2008 in our analysis, but, consistent with MedPAC's prior methodology, excluded hospitals that had converted to CAH status by the end of 2009 from all years of the analysis. As in FY 2009, the observed growth rate in FY 2008 was higher than the predicted. To determine the amount by which hospitals' change in documentation and coding affected CMI, we subtracted the predicted growth rate from the observed growth rate, which yielded 0.013, or a documentation and coding-related increase of 1.3 percent for FY 2008. See Figure 3 for a graphic depiction of these predicted and observed CMI changes from FY 1997 through 2008.

**Figure 3: Predicted and Observed CMIs from FY 1997 through 2008 as Measured Using the Version 25 Blended GROUPER**



As described above, in FY 2009, there was a cumulative documentation and coding-related increase of 3.6 percent. However, CMS already cut hospital payments in FY 2009 by 1.5

percent, meaning an additional 2.1 percent cut is necessary to recoup overpayments made in FY 2009. In FY 2008, there was a documentation and coding-related increase of 1.3 percent. However, CMS already had cut hospital payments by 0.6 percent in FY 2008, meaning an additional 0.7 percent cut is necessary to recoup overpayments made in FY 2008. Thus, a total recoupment cut of 2.8 percent is necessary. However, in FY 2011, CMS implemented a 2.9 percent recoupment cut, and in FY 2012, it proposes a further 2.9 recoupment percent. **These recoupment cuts are excessive in light of historical trends. Therefore, the AHA urges CMS to correct FY 2011's over-recoupment, and to not implement its FY 2012 proposed recoupment.**

In the analyses outlined above, we applied simple linear regressions to fit the trendline, using the FY 1997 through 2007 CMIs to project values for FYs 2008 and 2009. We also tested using piecewise and quadratic regressions to fit the trendline. Although both the piecewise and quadratic regressions are a better fit, we presented the simple linear regression above because it was the most conservative approach in terms of the measured documentation and coding effect. However, in response to CMS' critique of our analysis that "changes in case-mix do not necessarily follow a consistent pattern over time," we include the results of all the regression models below in Tables 1 and 2. In fact, if one were to use these non-linear regressions, as CMS implies is appropriate, the estimates of documentation and coding are lower than what we have presented above, and much lower than what CMS has proposed currently and in the past. We encourage the agency to test a range of regression models.

**Table 1: Cumulative FY 2009 Documentation and Coding Estimates under Different Regression Models as Measured Using the Version 26 GROUPER**

<b>Regression Model</b>	<b>Adjusted R-squared</b>	<b>Percent change in observed CMI</b>	<b>Percent change in predicted CMI</b>	<b>Cumulative documentation and coding effect</b>
Simple linear	73%	5.1%	1.5%	3.6%
Piecewise	98%	5.1%	3.1%	2.0%
Quadratic	96%	5.1%	4.8%	0.3%

**Table 2: FY 2008 Documentation and Coding Estimates under Different Regression Models as Measured Using the Version 25 Blended GROUPER**

<b>Regression Model</b>	<b>Adjusted R-squared</b>	<b>Percent change in observed CMI</b>	<b>Percent change in predicted CMI</b>	<b>Documentation and coding effect</b>
Simple linear	65%	1.8%	0.5%	1.3%
Piecewise	97%	1.8%	1.1%	0.7%
Quadratic	92%	1.8%	1.8%	0.0%

Finally, for SCHs and MDHs as well as Puerto Rico hospitals, CMS has stated that total cuts of 5.4 percent and 2.4 percent, respectively, are necessary. These adjustments are applied on a prospective basis, which permanently removes the increased payments from the system.

**However, we urge CMS to reconsider its past and proposed cuts to SCHs, MDHs and Puerto Rico hospitals. The agency should use the methodology outlined above to re-estimate documentation and coding increases related to SCHs and MDHs and Puerto Rico hospitals and to correct the cuts it has already made, as well as the cuts it proposes to make, accordingly.**

#### **MS-DRG RECLASSIFICATIONS**

In general, the AHA has no objections to CMS' proposed changes to the MS-DRG classifications and the Medicare Code Editor, which seem reasonable given the data and information provided.

#### **RECALIBRATION OF MS-DRG RELATIVE WEIGHTS**

**We are pleased that CMS has not proposed any major refinements to its methodology for calculating the MS-DRG relative weights for FY 2012.** The hospital field continues to support meaningful improvements to Medicare's hospital inpatient PPS. The AHA and CMS share the common goal of refining the system to improve accuracy and reimburse hospitals appropriately for the services they provide. The system also should be simple, transparent and predictable over time. One of the fundamental values of a PPS is the ability of providers to reasonably estimate payments in advance to inform their budgeting, marketing, staffing and other key management decisions.

However, when comparing the data in the FY 2012 proposed rule impact file and the Medicare Provider Analysis and Review 2010 claims database (proposed rule version), we noticed that almost 27,000 managed care claims appear to have been inadvertently included in the case-mix and case-count impact file fee-for-service (FFS) statistics. These claims are not identified as managed care claims through the "HMO Paid Indicator" field, but have an amount reimbursed that is exactly equal to the amount of the indirect medical education (IME) payment. It is likely these are claims for managed care patients submitted by teaching hospitals in order to receive IME payments. The proposed rule indicates that they should be excluded from the FFS calculations. **We urge CMS to exclude these claims from all FFS statistics and calculations.**

#### **PROPOSED ADJUSTMENT IN LIGHT OF COURT DECISION IN CAPE COD V. SEBELIUS**

The rural floor budget-neutrality adjustment was the subject of a recent District of Columbia Court of Appeals decision in *Cape Cod Hospital, et al. v. Kathleen Sebelius, Secretary, United States Department of Health and Human Services*. In its ruling, the Court of Appeals remanded the matter to CMS. In response, in the rule, CMS proposed to increase the standardized amount by 1.1 percent and to increase the SCH and MDH hospital-specific rates by 0.9 percent.

**We are pleased that CMS has proposed to remedy this problem in accord with the Court of Appeals' ruling. In the interest of transparency, however, which CMS supports, the AHA urges the agency to identify and release the methodologies and data necessary for hospitals to verify the agency's calculation of the 1.1 and 0.9 percent corrections.** In remedying this past miscalculation, we want to ensure that no further miscalculations are made.

The proposed rule does not fully explain the methodology or data variables that CMS used to calculate the effect of the budget-neutrality error made in prior years. Hospitals need a more complete explanation of precisely how CMS performed that calculation as well as the data sources it used. For example, in the proposed rule, CMS suggests that some relevant data are not available for all years. The agency should explain which data are not available and describe the assumptions, extrapolations or other methods it used to assess the impact of the errors in prior rural floor budget-neutrality adjustments without these data.

In addition, CMS should provide a more complete description of the modeling it used to calculate the "revised recalibration/wage index budget neutrality adjustment" for FYs 1998 through 2006. Specifically, we urge CMS to:

- Address whether the calculation of a "revised recalibration/wage index budget neutrality factor" for FY 2000 used the DRG GROUPER for FY 1999 and the DRG GROUPER for FY 2000;
- Clarify what "wage data" were used, and what discharges were used to calculate that revised factor for each year; and
- Clarify the data and methodologies used to calculate the wage data with no rural floor applied for each year. Specifically, CMS should identify the source of the average hourly wage data considered for each area and the national average hourly wage that was used to determine each year's "wage data with no rural floor."

Finally, the proposed rule implies that CMS compared a "revised recalibration/wage index budget neutrality adjustment" to the actual budget neutrality adjustment that CMS previously applied for each year (i.e., the combined adjustment made for the effects of both DRG recalibrations, wage index changes, and the rural floor) for each year from FY 1998 through 2006. However, more clarity is needed on the details of that comparison.

## HOSPITAL READMISSIONS REDUCTION PROGRAM

*The Patient Protection and Affordable Care Act (ACA)* mandates that CMS implement a program beginning in FY 2013 under which hospitals with higher than expected readmission rates would see reductions in their Medicare payments. It also mandates that reductions be based on the number of "excess" readmissions at the hospital, with a cap that would limit penalties in the first year of the program to 1 percent of the hospital's base operating Medicare payments.

In the proposed rule, CMS puts forward the first of a planned two-part regulatory proposal for the readmissions reduction program. In the rule, CMS discusses the conditions and readmissions to which the program would apply in FY 2013, the measures and methodology used to calculate hospitals' readmission rates, and the public reporting of the readmissions data. CMS plans to propose specific information regarding the payment adjustment in next year's inpatient PPS rule.

For FY 2013, CMS proposes to use the three currently reported 30-day readmission measures for heart attack, heart failure and pneumonia patients. The statute mandates that CMS use measures that are endorsed by the NQF. The statute further directs CMS to exclude from the measures readmissions that are unrelated to the prior discharge, such as planned readmissions and transfers. In interpreting the statutory language, CMS concludes that the current specifications of the measures fulfill this criterion, and it proposes no further modifications to the measures. **The AHA strongly disagrees with CMS' proposal and believes the agency has ignored Congress' intent that the measures be modified to explicitly exclude unrelated and planned readmissions.**

As CMS discusses in the proposed rule, the heart attack readmissions measure excludes some planned readmissions for percutaneous transluminal coronary angioplasty and coronary artery bypass graft procedures. The heart failure and pneumonia measures contain no corresponding exceptions. The exclusions to which CMS refers were included in the measure specifications for the heart attack measures at the time the legislation was written. If Congress had intended that no further exclusions or adjustments be made to the measures, there would have been no need to direct CMS to exclude unrelated readmissions, as Congress clearly took the time to do. Congress intended that further refinements be made to these measures, and CMS has failed to comply with that direction. **Despite CMS' assertion, we do not believe this small set of existing exclusions meets Congress' intent that unrelated readmissions be excluded from the measures. Specifically, the current exclusions are for procedures which are related to the original heart attack admission.**

As hospitals have examined their own readmissions and engaged in efforts to reduce their readmission rates, they have informed us that there are far more reasons why a patient may return to the hospital for a planned admission and many reasons for readmissions that are unrelated to prior admissions. However, individual hospitals are limited in their ability to drill down into the data because they only have access to records for those patients who return to their own facilities for a readmission. They cannot examine data for patients who seek further care elsewhere. **As CMS has the data necessary to conduct a deep analysis of all Medicare readmissions, we strongly urge the agency to conduct a study to thoroughly determine the**

**common reasons for planned readmissions for heart attack, heart failure and pneumonia patients and determine a subset of readmissions that are unrelated to a patient's initial admission for the condition.**

We recognize that conducting a valid readmissions study to identify planned and unrelated readmissions may require several years of work and may not be finalized prior to FY 2013. **In light of this, we propose several steps that CMS may take in the interim that could improve on the measures:**

- 1) *Always exclude certain patients from the readmission measures.* Patients with diagnoses of cancer, trauma, burns, end-stage renal disease, psychiatric disorders and substance abuse issues, as well as rehabilitation patients, should always be excluded from the readmission measures. Such patients are highly likely to return to the hospital for a readmission due to the nature of their conditions.
- 2) *Adopt a coding modifier on hospital claims to identify planned readmissions.* CMS should implement a new modifier on the hospital claims form to identify planned readmissions. Hospitals would use the modifier to indicate whether a patient's readmission was a planned hospital stay.
- 3) *Look to existing classification schemes to identify related readmissions.* Several existing classification schemes could be used to identify related and unrelated readmissions while CMS undertakes a more systematic study. CMS could consider related readmissions to be any readmission for which the patient's primary diagnosis falls within the same MS-DRG or major diagnostic category as the diagnosis for the initial admission. Or, CMS could look to a classification system developed by the Agency for Healthcare Research and Quality, the clinical classification software, which groups diagnoses and procedure codes into clinically meaningful groups.

In addition, we are concerned about the risk-adjustment methodology currently used for the readmissions measures. Traditional risk-adjustment methodologies consider patients' diagnostic data (e.g., the severity of underlying medical conditions and co-morbidities) and demographic characteristics (e.g., age and gender). They do not consider patients' race or life circumstances, which can have just as great an impact on health outcomes. However, research from both the government and private sector shows that African-American patients in general have a higher risk of readmission, and that hospitals serving disproportionately large numbers of minorities have higher readmission rates across the board. Given these facts, a hospital may end up being penalized under this program simply for serving large numbers of minority patients, rather than for actually providing poor quality care. Stated differently, the readmissions reduction program may disproportionately affect hospitals serving a large number of minorities. By penalizing these hospitals, the program will in turn disproportionately harm minority patients. This is an unacceptable result on both legal and policy grounds.

Title VI of the *Civil Rights Act of 1964* provides that "[n]o person in the United States shall, on the ground of race, color, or national origin, be excluded from participation in, be denied the

benefits of, or be subjected to discrimination under any program or activity receiving Federal financial assistance." Although the Supreme Court has interpreted Title VI as prohibiting only intentional discrimination, the Court also has recognized that an agency may promulgate more expansive regulations that prohibit disparate-impact discrimination. One such regulation is 45 C.F.R. § 80.3, which prohibits discrimination in programs receiving federal assistance from HHS. Specifically, it provides: "No person in the United States shall, on the ground of race, color, or national origin be excluded from participation in, be denied the benefits of, or be otherwise subjected to discrimination under any program to which this part applies." 45 C.F.R. § 80.3(a). This regulation is broader than the statute and is most naturally read to prohibit both disparate-treatment discrimination and disparate-impact discrimination. And disparate-impact discrimination is the probable result of the implementation of a readmissions reduction program that fails to take into account the racial and ethnic composition of the participating hospitals' patient populations. It is therefore necessary to incorporate this factor into the program's risk-adjustment methodology. Otherwise the program may run afoul of both 45 C.F.R. § 80.3 and the congressional policy of non-discrimination in federal programs underlying Title VI.

**We urge CMS to recognize that patient characteristics beyond those of medical diagnosis, age and gender greatly affect health status. As it implements the readmission reduction program, the agency should incorporate these additional characteristics into its risk-adjustment methodology, both to comply with the law and to avoid penalizing the very providers who are trying to eliminate racial disparities in health care.**

Finally, CMS proposes to assess hospital performance on readmissions using a three-year measurement period of July 1, 2008 through June 30, 2011; however, the agency is still conducting an analysis to determine if a time period shorter than three years could yield reliable data. **The AHA urges CMS to shorten this timeframe and include only more recent data.** We believe it is unfair for the purposes of this program to assess hospitals on readmissions that occurred during 2008, which is long before this provision was passed in the ACA.

CMS proposes that hospitals with fewer than 25 discharges for each of the three conditions be excluded from the program. **The AHA agrees with this proposal as it is consistent with the current *Hospital Compare* reporting requirements.** CMS proposes to use a preview period and public reporting process for the readmissions reduction program that is similar to the one used for the inpatient quality reporting program. **The AHA agrees with this proposal.**

## **HOSPITAL QUALITY DATA**

*The Deficit Reduction Act of 2005* (DRA) expanded quality reporting requirements for hospitals to be eligible to receive a full market-basket update; it also provided the Secretary with the discretion to add quality measures that reflect consensus among affected parties and replace existing quality measures on the basis that they are no longer appropriate. In the proposed rule, CMS puts forward four new measures to be included for the FY 2014 annual payment determination and 17 measures to be included for the FY 2015 annual payment determination.

To receive a full market-basket update, hospitals would have to pledge to report data on these and all measures currently included in the hospital inpatient quality reporting (IQR) annual payment update program and pass the established data validation tests.

A Vision for the IQR Program. We appreciate that CMS has articulated its principles for selecting measures for the IQR and the hospital value-based purchasing (VBP) programs. These principles reflect very practical aspects of quality data reporting, such as attempting to reduce the data collection burden on providers and aligning measures across the Medicare and Medicaid programs. We note that the number of quality measures on which hospitals must report to CMS is growing rapidly, not only for the inpatient and outpatient quality reporting programs, but for the meaningful use requirements and the voluntary accountable care organization program. **We urge CMS to align the measures used for various Medicare programs whenever possible to reduce hospital reporting burden.** In the proposed rule, we had hoped to see more articulation by CMS on how the measures currently in use for the IQR and those proposed in this rule align with the goals of the recently released National Quality Strategy. **We encourage CMS to clearly link the selection of measures for the IQR with the framework put forward in the National Quality Strategy.**

CMS states that one of the principles for the selection of quality measures is to use, whenever possible, measures that have been endorsed by a multi-stakeholder organization. In this proposed rule, CMS seeks comment on options through which it may consider using multiple consensus-building entities to assist in the measure development process. We believe those entities should be the National Quality Forum (NQF), the Hospital Quality Alliance (HQA), and when it is fully ready to recommend measures, the Measure Application Partnership (MAP).

Through the NQF, interested health care stakeholders come together to choose measures that are useful for quality improvement and public reporting. NQF has developed a robust measurement evaluation system through which candidate quality measures are evaluated for their importance, scientific acceptability, feasibility and usability. NQF endorsement is the gold standard for quality measures, and CMS should select only NQF-endorsed measures for use in the IQR. In addition to NQF's scientific endorsement, CMS should look to measures recommended for implementation for hospital quality reporting by the HQA. Through the HQA, public and private partners come together to identify areas that are critical to hospitalized patients and warrant focus and, from among the NQF-endorsed measures, select those that best assess quality in those priority areas. Under the ACA, the MAP was created to recommend a coordinated set of measures for hospital, physician and long-term care quality reporting. It has just begun to meet and develop processes by which it will make these recommendations. We believe CMS should consider its recommendations as required by law. These three organizations are the primary consensus groups for hospital quality reporting, and CMS should select for the IQR only measures approved by these organizations.

Measure Retirement. For FY 2014, CMS proposes retiring eight measures from the IQR program. Seven of the measures are proposed for retirement because hospitals' scores on the measures are uniformly high, which CMS refers to as being "topped out." The remaining measure is proposed for retirement because current evidence suggests that there may be negative

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unintended consequences associated with its use. The AHA believes careful thought needs to be given to the issue of retiring measures from public reporting, and we urge CMS to proceed cautiously.

**We are concerned that CMS' proposal to retire just some of the measures within several long-standing measure sets may be disruptive to quality improvement efforts.** The AHA has long advocated for measures to be included in the IQR program within measure sets that focus on a particular condition or group of patients. Measure sets provide a more comprehensive picture of care and lessen the reporting burden on hospitals because each individual measure adds only a few unique data elements to the sum of information that must be collected by hospitals. Very little research has been done to determine conclusively how quality measurement impacts quality of care and patient outcomes, but the work that has been done to date has shown the importance of having multiple related metrics on which to assess quality of care.

CMS' proposal will not materially lessen the reporting burden to providers because hospitals will still be required to report on other measures in the measure sets containing those measures proposed for retirement. As mentioned above, each measure within a set has only a few unique data elements associated with it. Therefore, even with the retirement of some measures, the bulk of data collection will continue to be required for those topic areas.

The AHA also is concerned that some of the measures proposed for retirement have been determined to be accountability measures by The Joint Commission. The Joint Commission defines accountability measures as those for which there is a large volume of research linking the measure to improved outcomes; the measure accurately assesses the relevant clinical process; and implementation of the measure has minimal unintended adverse consequences. If these measures have been determined to be clinically meaningful, important for assessing hospital quality and useful for consumers, then they should continue to be used for public reporting. The fact that hospitals scores generally are very high on these measures does not make them less relevant.

We appreciate that CMS recognizes that quality measurement is a dynamic activity, and we agree that there are appropriate circumstances in which measures should be retired, such as when continued use of the measure may have unintended, negative consequences. However, we believe that universally high scores among providers on a particular measure is not by itself a valid justification to cease public reporting of a measure. **The AHA suggests that, as an intermediate step, CMS not use measures in the hospital VBP program that it determines to be topped out, but that those measures remain in use for the IQR program and continue to be reported on *Hospital Compare*.** In the future, CMS should assess what impact the retirement of a measure may have on care delivery, hospital reporting burden, and public use of quality information. We would welcome further discussion of this issue and suggest CMS propose and seek comment on several policy frameworks and options for measure retirement in future rules.

FY 2014 Proposals for IQR. CMS proposes to add four new measures for the FY 2014 annual payment update determination.

*Central Line Insertion Practice Adherence Percentage.* This measure would assess adherence to evidence-based practices during the insertion of a central line. The AHA very much supports the reduction of central line-associated bloodstream infections (CLABSI) as a national patient safety goal, as articulated first in the HHS Action Plan to Prevent Healthcare-Associated Infections, and more recently in the National Quality Strategy and Partnership for Patients initiative. Through the AHA's affiliated Healthcare Research and Educational Trust (HRET), we have partnered with state hospital associations on the *Comprehensive Unit-based Safety Program (CUSP): Stop Blood-Stream Infection (BSI) Initiative*. Through the CUSP program and other interventions like it, we have begun to see the incidence of central line-associated infections decrease in the United States. This is likely attributed in part to the education and training on correct central line insertion practices that are included in CUSP and similar programs. The importance of the use of evidence-based insertion processes should not be underestimated.

As CMS notes, its goal is to move as quickly as possible to the use of primarily outcome and patient experience measures. One of the frequent challenges to doing just this is that the science of developing valid outcomes measures frequently lags behind the development of valid process measures. In the case of CLABSI, there already is an excellent outcomes measure in use in the IQR program. Since January 2011, hospitals have been reporting on CLABSI rates for the IQR and through the National Healthcare Surveillance Network (NHSN) system for the FY 2013 annual payment determination. These measures will soon be reported on *Hospital Compare*. **In this particular instance, because we have a valid and well-constructed outcomes measure, we believe it is not necessary to introduce a process measure on central line insertion practices.** This would actually be a step backwards on measuring quality. CMS has acknowledged it is sensitive to the measurement burden placed on hospitals. We believe the limited resources available within hospitals for quality reporting activities would be better put to use through another measure.

Also, we note that CMS appears to have confused two different quality measures in its description of this measure. NQF measure #298 is a measure developed by the Institute for Healthcare Improvement (IHI). It is very similar, but not identical, to a measure assessing central line insertion practices that has been developed by the Centers for Disease Control and Prevention (CDC) for use through the NHSN. The CDC measure is not NQF-endorsed. The IHI measure cannot be collected through the NHSN system.

*Catheter-Associated Urinary Tract Infection.* This measure would assess rates of catheter-associated urinary tract infections (CAUTI). It would be collected through the NHSN system. **The AHA supports the use of this measure for implementation in the IQR for the FY 2014 annual payment update.** We note, however, that the primary process through which hospitals engaged in the new CUSP: CAUTI project are seeking to reduce CAUTI rates is the expedited removal of urinary catheters, which would decrease the overall number of patient days of catheter use. This measure, however, uses device days as the measure denominator. The use of device days may have the unintended consequence of potentially artificially inflating the urinary tract infection rate as hospitals appropriately remove catheters sooner from less sick patients who

no longer need them. The CUSP: CAUTI project is currently testing what effects this may have by collecting data for both device days and patient days. We will communicate to CMS what effects are observed in the CUSP: CAUTI data.

*Medicare Spending per Beneficiary.* This measure would assess, per hospital, per-beneficiary Medicare parts A and B spending from three days pre-discharge to 90 days post-discharge. Spending would be aggregated at the hospital level. Beneficiaries admitted to a particular hospital would be included in the measure population for that hospital. Spending for a beneficiary would be calculated for a 90-day window post-discharge. All Medicare part A and B payments, including those made by the beneficiary, such as coinsurance and deductibles, would be included in the spending calculations. CMS notes that transfers, readmissions and additional admissions would be included in the spending episode, but the agency provides no detail on how those costs would be attributed. CMS proposes to adjust the measure for beneficiary age and severity of illness, as calculated by the hierarchical condition categories (HCCs). CMS also proposes to exclude spending related to wage index differences, hospital-specific rates, indirect medical education (IME), and disproportionate share hospital payments in order to standardize for geographic payment and other structural differences. **We also suggest that CMS adjust for socioeconomic status, which substantially contributes to cost variation.**

We are unclear as to what CMS actually intends to measure with this proposed metric. If CMS is trying to capture hospital efficiency, then a 90-day time period is much too long. Hospitals have little influence over beneficiary spending on services long after a patient is discharged from the hospital. **We urge CMS to implement a shorter post-discharge time period, such as 15 days, which would be much more appropriate in assessing hospital efficiency.** This time period could include quickly occurring readmissions that may be attributed to less than optimal care given during the initial admission. This time period could also include any spending for physician visits after discharge. However, getting patients in to see their physician after discharge is a desirable outcome, so it is unclear how CMS would enlist hospitals to help ensure that these clinical encounters are realized while penalizing them for having higher spending measure in an efficiency measure. If CMS' intent is to measure general per-beneficiary spending, then a 90-day timeframe may be appropriate, but it should not be attributed to a particular hospital nor triggered by a beneficiary's inpatient stay.

We ask CMS to provide more clarity on how it plans to include transfers, readmissions and additional admissions into the measure. For example, would a patient who is transferred during an inpatient stay be assigned to the first hospital or the second hospital? If a patient was readmitted during the 90-day hospital to a different hospital, how would the spending for that readmission be assigned?

*Participation in a Systematic Clinical Database Registry for General Surgery.* The proposed structural measure of participation in a systematic clinical database registry for general surgery collects data solely on whether or not a hospital participates in a registry. **This measure should not be included in the IQR program because it is neither tightly linked to improving quality and patient care, nor has it been endorsed by the NQF nor adopted by the HQA.** For many of the pay-for-reporting measures, there is a great deal of scientific evidence that

providing that particular process of care can improve patient outcomes. The structural clinical registry participation measure fails to meet that standard. There is no established connection between whether a hospital answers “yes” or “no” to a registry participation measure and the quality of the care that hospital provides.

In addition, we ask CMS to clarify a discrepancy in the rule regarding the timeframe for the reporting of this measure. On page 25898, CMS states that hospitals would report on this measure in July 2012 for the FY 2014 payment update. Yet, on page 25919, CMS states that reporting on all structural measures for the FY 2014 update would occur between April 1, 2012 and May 15, 2012.

FY 2015 Proposals for IQR. CMS proposes to add 17 new measures for the FY 2015 annual payment update determination.

*Healthcare-Associated Infection Measures.* CMS proposes to add three measures of healthcare-associated infection, all collected through the NHSN system, to the IQR program for the FY 2015 annual payment update determination. These measures include methicillin-resistant staphylococcus aureus (MRSA) bacteremia rates, Clostridium difficile standardized infection ratio, and health care personnel influenza vaccination rates. **The AHA does not support the use of these measures for the FY 2015 annual payment update determination. We believe these measures need further refinement before they are included in the IQR.**

In particular, the calculation of C. difficile standardized infection ratios (SIRs) will be challenging because hospitals use different testing mechanisms with differing sensitivity to identify C. difficile cases. Many hospitals use enzyme immunoassay (EIA) testing to identify C. difficile cases because it is more cost-effective. However, some hospitals use polymerase chain reaction (PCR) testing, which is more sensitive and will detect more C. difficile cases, yet can be very expensive. Measuring C. difficile SIRs at this point in time may unfairly portray hospitals that choose to use the more sensitive testing technology as having more C. difficile cases.

With regards to promoting health care worker influenza vaccinations, evidence has emerged over the past few years clearly indicating that health care workers can unintentionally expose patients to seasonal influenza if they (the workers) have not been vaccinated, and such exposure can be dangerous to vulnerable patients. To protect the lives and welfare of patients and employees, the AHA supports mandatory patient safety policies that require either influenza vaccination or wearing a mask in the presence of patients across health care settings during flu season. **We support the public reporting of health care worker vaccination rates; however, we are concerned that requiring the collection of this information through NHSN is redundant and labor intensive.** The current specifications of the NHSN system require hospitals to submit detailed data on every employee, rather than aggregated data on vaccination rates. This is largely the reason why currently only a very few hospitals submit this information voluntarily through NHSN. The time and resources that would be required to collect the detailed information specified in NHSN would be enormously burdensome and labor intensive. To ensure that health care workers receive their vaccinations, most hospitals already have a database to record the vaccinations for tracking purposes. Requiring hospitals to repeat this data entry

into NHSN is redundant. We understand that CDC is looking to develop the ability for hospitals to submit summary data on health care worker immunization rates. While we fully support public reporting of this information, **we suggest that CMS postpone incorporation of this measure into the IQR until the CDC has completed and fully tested the summary data collection tool, or CMS identifies an alternative NQF-endorsed measure that may be used to collect this information.**

*Stroke Measure Set.* CMS proposes to add eight measures of stroke care. **The AHA supports inclusion of these measures into the IQR program for the FY 2015 annual payment update determination with some modifications to CMS' proposed data collection process.** These measures are NQF-endorsed and HQA-adopted and in use by The Joint Commission as a core measure set. They already are in use in an e-specified format for the Medicare electronic health record (EHR) incentives program meaningful use criteria. The AHA notes that CMS proposes to collect these measures through manual data abstraction for the IQR program and as EHR-generated data for the Medicare EHR incentives program. Requiring hospitals to submit data on the same measures twice, through two different data collection mechanisms, is duplicative and unduly burdensome for hospitals. Unfortunately, it has come to light that errors exist in the e-specifications of these measures. We urge CMS to correct the e-specifications. We further encourage CMS to conduct a comparison of data collected through manual abstraction and data derived through EHR-based reporting for the stroke measures. **Once these steps have been completed, we encourage CMS to determine an optional process whereby hospitals may use their meaningful use data submission towards the fulfillment of the IQR program requirements.**

*Venous Thromboembolism (VTE) Measure Set.* CMS proposes to add six measures of VTE prevention and care. These measures are NQF-endorsed and HQA-adopted and in use by The Joint Commission as a core measure set. Our comments on the VTE measures mirror our thoughts on the stroke measures. **That is, the AHA supports inclusion of these measures into the IQR program for the FY 2015 annual payment update determination with some modifications to CMS' proposed data collection process.** Specifically, CMS should correct the e-specifications and conduct a comparison of data collected through manual abstraction and data derived through EHR-based reporting for the VTE measures. Once these steps have been completed, the agency should determine an optional process whereby hospitals may use their meaningful use data submission towards the fulfillment of the IQR program requirements.

Timing of Transition to EHR-Based Data Collection for the IQR. In the proposed rule, CMS seeks comment on when hospitals will be ready to transition to EHR-based data collection and submission and suggests that 2015 may be an appropriate year. **However, we do not believe that enough progress will be made in this regard to expect universal data collection through EHRs by 2015 for the IQR program.** Hospitals share CMS' goal of ultimately collecting and submitting quality measures information through EHRs and such a transition should allow for more information to flow with less data collection burden. However, hospitals have informed us that the collection and submission of the clinical quality measures have been one of the most challenging aspects of meeting the stage I meaningful use criteria. EHR software vendors too have been challenged to build out the reporting software for the clinical

quality measures, particularly as this first version of the e-specifications of the measures has been fraught with errors.

Current EHR systems may be able to use the data they contain to calculate clinical quality measures, but they cannot pull in the clinically rich information that is needed to do the calculations in the first place – many of the data elements necessary for calculating the quality measures must still be manually abstracted from patients’ medical records into the EHR system data fields. As stated above, we support the goal of moving toward robust EHR-based data collection. However, we believe it is premature to set a deadline for that transition for all hospitals. We suggest CMS look to hospitals’ success at meeting the meaningful use criteria over the next several years to better gauge the field’s – and their vendors’ – ability to move toward universal EHR-based data collection. We look forward to commenting on future proposals for this transition.

Form, Manner and Timing of Quality Data Submission. CMS proposes reducing the data submission time period to allow for a to-be-determined data correction period. Rather than 135 days, the data submission period would be 104 days. Likewise, the time allotted for hospitals to submit their population and sample size information would be reduced from four months to three months, and the HCAHPS data submission time period would be reduced from about 14 weeks to about 13 weeks. The AHA appreciates CMS’ proposal to develop a data correction period. We have long advocated adding such a step to the IQR process. **We suggest as an intermediate step CMS shorten the data submission timeline by two weeks, instead of four.** This would build in time for a data correction period while ensuring that hospitals are not overwhelmed by a drastically shortened data collection period. In addition, this would align the IQR data submission timeline with The Joint Commission’s data submission timeline. If experience after several years of data collection at the new timeframe shows both that there is a need to shorten the timeframe further and that hospitals would be capable of submitting data in a further compressed time period, we would welcome an additional proposal by CMS.

Proposed Chart Validation Requirements for Chart-Abstracted Measures. CMS proposes to make several changes to the chart validation process. First, CMS proposes to require hospitals to submit an additional six charts per quarter for validation because of the increased number of measures in the IQR program that now require validation. CMS proposes a process through which it would validate hospitals’ data for the central line-associated blood stream infection rate measure. CMS proposes to add to the validation sampling pool any hospital that has not been randomly selected for validation within the past three years. This would ensure that all hospitals are selected for validation at least every four years. Finally, CMS proposes to change hospitals’ deadlines for submitting charts for the validation process from 45 days to 30 days from the date of the record request. CMS proposes this change to expedite the validation process and align the timeframe with timeframe required for the submission of charts requested for quality improvement organization (QIO) review. **The AHA has no objections to these proposed changes.**

Proposed Reconsideration and Appeal Procedures for the FY 2012 Payment Determination.

CMS proposes to shorten slightly the deadline for hospitals to file an appeal on an adverse annual payment update determination from November 1 of the fiscal year in question to 30 days after the hospital received notification of the annual payment update determination, which is generally in mid to late September. **The AHA agrees with this proposed change because it would shorten the reconsideration and appeals process, thereby allowing hospitals who successfully appeal CMS' decision to receive their full annual payment update in a more expedited manner.**

## **DRGs: HOSPITAL-ACQUIRED CONDITIONS**

The DRA required CMS to identify, by October 1, 2007, at least two preventable complications of care that could cause patients to be assigned to an MS-DRG with a CC or MCC. The conditions must be either high-cost or high-volume or both, result in the assignment of a case to an MS-DRG that has a higher payment when present as a secondary diagnosis, and be reasonably preventable through the application of evidence-based guidelines. The DRA mandated that for discharges occurring on or after October 1, 2008, the presence of one or more of these preventable conditions would not lead to the patient being assigned to a higher-paying DRG. In the FY 2008 inpatient PPS final rule, CMS adopted eight conditions for which it would no longer pay a higher MS-DRG rate if the conditions were not present on admission. In the FY 2009 rule, CMS selected two additional hospital-acquired conditions (HACs) and expanded one of the original categories.

In this proposed rule, CMS proposes to add one new condition, contrast-induced acute kidney injury, and five new ICD-9 codes to three of the current HAC categories. **The AHA agrees that the addition of the five new ICD-9 codes to the existing HAC categories is appropriate. However, we oppose CMS' proposal to add contrast-induced acute kidney injury as a HAC.**

CMS' definition would mean that any patient discharged under a code for acute kidney failure (584.9) who received any kind of kidney scan or other contrast will be assumed to have contrast-induced acute kidney injury. However, this cannot be determined simply from the presence of these codes on a claim. Just because a patient has had a procedure with contrast does not mean that there is an automatic linkage that the contrast is the cause of the kidney problem. For example, patients who develop acute renal failure due to pyelonephritis, sepsis or a renal infarct and who had a renal computed tomography (CT) scan would be included in the HAC population. CMS' assumption is that the scan caused the renal injury, when it may have been the other way around – the renal injury may have prompted the scan. Further, our understanding is that acute kidney injury may be a temporary condition, and could be due to many different causes including dehydration, urinary tract obstruction (including benign prostatic hypertrophy) and low blood volume, among other reasons.

We also have identified coding challenges that would limit the adoption of this HAC. Hospital coding procedures vary – there is no requirement that hospitals assign codes for minor

procedures. Some hospitals' internal coding policies instruct staff to assign codes for procedures that are considered minor, diagnostic or that don't affect the MS-DRG, while other hospitals' policies do not. In addition, some hospitals' policies will include coding for any procedures that require contrast or an injection, but others will code only those procedures that affect the MS-DRG. Procedures like arteriograms, phlebographies, CT scan of the kidney and pyelograms do not affect the DRG and would not be captured.

CMS alternatively considered using the E-code, but that also is not a good solution since the E-code the agency considers is not specific to contrast and does not indicate which condition was due to a problem with a drug.

## **HOSPITAL VALUE-BASED PURCHASING PROGRAM**

On April 29, 2011, CMS issued a final rule for implementation of the hospital value-based purchasing (VBP) program, which will begin in FY 2013. In that rule, CMS finalized the set of measures that would be used in FY 2013, as well as the initial measure set for FY 2014, established the FY 2013 performance standards, and outlined how hospitals' VBP scores would be calculated. In the FY 2012 inpatient PPS proposed rule, CMS proposes to add the total Medicare spending per beneficiary measure discussed in the quality reporting section above to the VBP program beginning in FY 2014. It proposes that this measure have a nine-month baseline period from May 15, 2010 through February 14, 2011 and a nine-month performance period from May 15, 2012 through February 14, 2013. CMS would score each hospital on its achievement and improvement on the measure much like it outlined in the VBP proposed rule for the clinical process measures. CMS proposes to include the spending measure in a separate "efficiency" domain when determining hospitals' overall VBP scores.

The ACA mandates that measures selected for the VBP program be included on the *Hospital Compare* website for at least one year prior to the beginning of the performance period for the fiscal year for which the measure is being added. CMS proposes that the FY 2014 performance period for the efficiency measure would begin on May 15, 2012. Therefore, in order to fulfill its statutory obligations, CMS would have to have posted hospitals' performance on this measure on *Hospital Compare* by May 15, 2011. We are unaware of any such posted information.

**Therefore, CMS cannot finalize its proposed performance period. We urge CMS to propose a new performance period that is consistent with statutory requirements.**

In its discussion of how it would score hospitals on the efficiency measure, we note that the formulas put forward by CMS in the rule are incorrect. For the efficiency measure, unlike other measures in the VBP program, lower scores indicate better performance. The equations that CMS has included in the rule are identical to those established for the clinical process measures, measures for which higher scores indicate better performance. We ask CMS to correct the equations to reflect this in the final rule. We note that the examples of the calculations included in the proposed rule are correct.

In addition, CMS puts forth a proposal that, in the future, it will generally add measures to the VBP program at the same time it adds them to the IQR program. Again, this is inconsistent with the statute. CMS cannot take this action while fulfilling its obligations under the ACA, which require it to only include measures in the VBP program that have also been included on the *Hospital Compare* website for at least one year prior to the beginning of the VBP performance period.

In addition, in the VBP final rule, CMS established that the performance period for the eight HAC measures will begin on March 3, 2012, which CMS states is one year after the measures were first displayed on *Hospital Compare*. However, the measures were not displayed on March 3, 2011. The HAC measures were first displayed on the CMS website ([www.cms.gov](http://www.cms.gov)) on March 31, 2011 and on *Hospital Compare* on April 21, 2011. **We urge CMS to correct this error in the inpatient PPS final rule or outpatient PPS proposed rule and change the start of the HAC performance period to April 21, 2012.**

## WAGE INDEX

Allowable Pension Cost for the Medicare Wage Index. CMS proposes to revise its policy for determining pension costs for Medicare wage-index purposes. Specifically, it proposes to generally maintain the current requirement that pension costs must be funded to be reportable and that all hospitals must report actual pension contributions funded during the reporting period on a cash basis. CMS also proposes to include in the wage index pension costs equal to the hospital's average actual cash contributions to the defined-benefit pension plan over a three-year period. This three-year average would then be utilized as the hospital's includable pension cost for purposes of determining the wage index in FY 2013 and beyond.

The hospital wage index is a relative, and not an absolute, measure of wages, making it critical that hospitals and Medicare use consistent definitions, methodologies, rules and interpretations for the acquisition and application of wage data. Yet, under CMS' proposal, hospitals would not be treated consistently. Certain hospitals may have overfunded or "pre-funded" pension plans as of the start of the three-year rolling average contribution methodology. However, the proposed methodology does not include such prefunded amounts in the wage index calculations. Thus, hospitals with pre-funded pension plans would have individual hospital wage indices that were, and would continue to be, understated over the life of the plan. In contrast, hospitals that have underfunded pension plans as of the start of the proposed methodology would have individual hospital wage indices that were, and would continue to be, overstated over the life of the plan. **Policies that systematically understate the wages of certain hospitals while overstating the wages of others are not appropriate.**

Because changes to the wage index are budget neutral, we believe that CMS can and should take the time to ensure that the policy changes it implements are appropriate and fair to all hospitals. There is not an urgent need to implement these changes immediately. **Therefore, we urge the agency to delay this proposed change and instead create a Medicare Technical Advisory Group (MTAG) charged with making recommendations on the most appropriate way to**

**determine the pension costs that should be included in the wage index.** Doing so would allow CMS to obtain input from the hospital field on a very technical issue, which we believe is extremely important. After consultation with the MTAG, the agency should propose a methodology that accurately reflects the total resources hospitals expend over the life of their defined-benefit pension plans and recognizes those costs fully in the wage index.

Lastly, if it ignores our request to delay the change and create an MTAG, CMS must consider the impact of having policies that vary from year to year. The agency should “true-up” costs so that any policy revisions result in hospital wages being accurately and consistently reflected on both an absolute and a relative basis.

Expiration of the Imputed Floor Policy. In FY 2005, CMS temporarily adopted an “imputed” rural floor measure by establishing a wage index floor for those states that did not have rural hospitals. CMS subsequently extended this policy through FY 2008 and again through FY 2011. However, CMS does not propose to extend this policy again. **Absent any new wage index policies that address the original need for the imputed rural floor, we ask CMS to extend the current policy.**

Waiving Lugar Redesignation for the Outmigration Adjustment. CMS proposes that, for FY 2012 and beyond, an eligible hospital that waives its Lugar county urban status in order to receive the out-migration adjustment has effectively waived its urban status and is rural for all purposes under the inpatient PPS. CMS also proposes that a Lugar hospital that accepts the out-migration adjustment automatically waives its Lugar status for all three years of the adjustment – it does not need to notify CMS in years two and three that it wishes to continue the waiver. **We strongly support both of CMS’ Lugar status-related proposals.** Unlike other redesignations, hospitals do not apply for Lugar status and, therefore, essentially have no choice as to whether they are considered Lugar hospitals. Mandating that hospitals physically located in rural areas have no choice but to be considered urban for Medicare purposes often has a negative impact, for example, by preventing otherwise eligible hospitals from qualifying as MDHs. CMS’ proposal would provide the flexibility necessary to allow hospitals to revert to their true rural status if they wish.

However, we do have a concern about the timing of the change *vis a vis* hospitals’ fiscal years. Specifically, a hospital that previously reclassified from urban to rural status under §412.103 (which is often done to become an SCH or MDH) will need to cancel that reclassification in order return to Lugar status. This will allow it to then waive its Lugar urban status, become rural under the Lugar waiver, retain its SCH or MDH status, and also receive the outmigration adjustment.

Hospitals that are not rural referral centers cancel their §412.103 reclassification under §412.103(g)(1), which is effective at the beginning of the next cost reporting period. However, waiving Lugar status is effective only on October 1. This will present a problem for all such hospitals, other than those with September 30 cost reporting period end dates. For example, if a hospital’s cost reporting period ends on June 30 and it cancels its §412.103 reclassification, that cancellation will be effective on July 1. However, that hospital will not be able to waive its

reacquired Lugar status and be considered rural again until October 1. Instead, it will be considered urban for 90 days and will lose its SCH or MDH status. Alternatively, that hospital would not be able to waive its Lugar status on October 1 without having first cancelled its §412.103 reclassification because it is not actually Lugar until it cancels its §412.103 reclassification. Thus, this policy creates an inequity between hospitals with different fiscal years. We do not believe this was CMS' intention and therefore urge the agency to create a process by which hospitals can simultaneously cancel their §412.103 waivers and waive their Lugar status.

In addition, CMS' proposal does not solve the Lugar redesignation problem for all hospitals. A minority of Lugar hospitals is not eligible for the outmigration adjustment, and thus, still would not have the ability to waive their Lugar urban status. It defies common sense that hospitals physically located in rural areas have no choice but to be considered urban for Medicare purposes. If a hospital that is physically located in a rural area would like to waive its Lugar urban status in order to be considered rural, which is its true geographic status, it only seems fair to allow that. **Thus, we respectfully request that CMS review the statutory language around Lugar redesignations and reconsider whether the agency has the authority to allow any and all Lugar hospitals to waive their Lugar status for all purposes under the inpatient PPS.**

Proposed FY 2012 Wage Index Adjustment Based on Commuting Patterns of Hospital Employees. CMS proposes that, for the FY 2012 wage index, it will calculate the outmigration adjustment using the same formula described in the FY 2005 inpatient PPS final rule, with the addition of using the post-reclassified wage indices. While we do not have concerns about this proposal, we have a concern about its application. Specifically, we have become aware of at least one example in Connecticut where CMS seems to be using the hospital's rural-floor wage index, rather than its post-reclassified wage index, to determine eligibility for the outmigration adjustment. Doing so causes a circular pattern where the hospital is eligible for the outmigration adjustment and accepts it, which then causes its wage index to set the rural floor for the state, which then causes it to not be eligible for the outmigration adjustment anymore. Thus, the hospital loses the outmigration adjustment because it accepted it in the first place. This is not appropriate and causes undue volatility in PPS rates. **We urge CMS to make a technical correction in the final rule so that it consistently uses the post-reclassified, and not rural-floor, wage indices to determine eligibility for the outmigration adjustment.**

## **REPORTING REQUIREMENTS FOR PENSION COSTS FOR MEDICARE COST-FINDING PURPOSES**

In addition to the proposed changes for wage-index purposes described above, CMS also proposes to revise its policy for determining pension costs for Medicare cost-finding purposes. Specifically, the agency proposes to continue to require pension costs to be funded in order to be reportable and to continue to limit the current period liability for pension costs (i.e., maximum annual allowable pension costs). In addition, for cost-reporting periods beginning on or after October 1, 2011, CMS proposes to change the methodology for calculating the limit on the

current period liability by setting the limit at 150 percent of the average of the three consecutive reporting periods out of the five most recent periods which produce the highest average. The agency also proposes to make certain exceptions to this policy available.

**Before changing its policies for determining pension costs for Medicare cost-finding purposes, we suggest that CMS do as requested above: convene an MTAG and set a policy on the most appropriate way to determine the pension costs that should be included in the wage index. After this policy has been set, CMS should propose a cost-finding methodology that compliments the wage-index methodology.** For example, it is possible that CMS will, after seeking input from an MTAG group, recommend that hospitals recognize Generally Accepted Accounting Principles (GAAP) as the appropriate methodology for determining pension costs for Medicare wage-index purposes. In that case, for cost-finding purposes, it might be more appropriate to include GAAP pension expenses if funded during the year, or within a 12-month period after year end, and consider any needed modifiers that might be caused by either underfunded or overfunded plans coming into the cost-finding policy.

## **CHANGES TO MS-DRGS SUBJECT TO THE POST-ACUTE CARE TRANSFER POLICY**

Although CMS does not always annually review the list of MS-DRGs subject to the post-acute care transfer policy, it did so this year because it is proposing changes to specific MS-DRGs. Accordingly, the agency proposes 5 additions and 5 deletions to the list. **However, we have identified 19 additional MS-DRGs that we believe should also be deleted from the list because they no longer meet CMS' criteria.** Specifically, the agency has set forth two criteria that must *both* be met for an MS-DRG to be subject to the post-acute transfer policy:

- The MS-DRG's total number of post-acute discharges must be greater than the 55<sup>th</sup> percentile for total post-acute discharges for all MS-DRGs; and
- The proportion of short-stay post-acute care transfers to total discharges for the MS-DRG is greater than the 55<sup>th</sup> percentile for all MS-DRGs.

Table 3 below details the 19 MS-DRGs we have identified that CMS does not propose to remove from the post-acute care transfer list, but which do not meet both of its criteria for inclusion. **We urge the agency to remove these MS-DRGs from the list.**

**Table 3: Listing of 19 MS-DRGs Subject to CMS' Transfer Policy That Do Not Currently Meet CMS' Criteria (55<sup>th</sup> Percentile for Total Discharges=1,595 and 55<sup>th</sup> Percentile for the Percent of Short Stay Post-acute Care Transfers to Total Discharges=7.4588%)**

<b>CMS MS-DRG, V. 29</b>	<b>CMS MS-DRG Title</b>	<b>CMS Base DRG, V. 29</b>	<b>Total Discharges</b>	<b>Total Post-acute Care Transfers</b>	<b>Total Short Stay Post-acute Care Transfers</b>	<b>% of Short Stay Post-acute Care Transfers to Total Discharges</b>
031	VENTRICULAR SHUNT PROCEDURES W MCC	031	1,209	768	242	20.02%
032	VENTRICULAR SHUNT PROCEDURES W CC	031	2,561	1,328	253	9.88%
033	VENTRICULAR SHUNT PROCEDURES W/O CC/MCC	031	3,148	1,348	264	8.39%
205	OTHER RESPIRATORY SYSTEM DIAGNOSES W MCC	205	6,984	3,191	517	7.40%
206	OTHER RESPIRATORY SYSTEM DIAGNOSES W/O MCC	205	19,598	7,331	859	4.38%
288	ACUTE & SUBACUTE ENDOCARDITIS W MCC	288	2,335	1,352	416	17.82%
289	ACUTE & SUBACUTE ENDOCARDITIS W CC	288	1,203	791	229	19.04%
290	ACUTE & SUBACUTE ENDOCARDITIS W/O CC/MCC	288	219	98	20	9.13%
377	G.I. HEMORRHAGE W MCC	377	50,088	21,647	3,662	7.31%
378	G.I. HEMORRHAGE W CC	377	138,697	43,290	5,980	4.31%
379	G.I. HEMORRHAGE W/O CC/MCC	377	44,829	8,138	690	1.54%
380	COMPLICATED PEPTIC ULCER W MCC	380	2,943	1,232	301	10.23%
381	COMPLICATED PEPTIC ULCER W CC	380	6,045	2,084	224	3.71%
382	COMPLICATED PEPTIC ULCER W/O CC/MCC	380	2,455	447	19	0.77%
483	MAJOR JOINT & LIMB REATTACHMENT PROC OF UPPER EXTREMITY W CC/MCC	483	12,056	6,977	313	2.60%
484	MAJOR JOINT & LIMB REATTACHMENT PROC OF UPPER EXTREMITY W/O CC/MCC	483	20,350	6,958	-	0.00%
682	RENAL FAILURE W MCC	682	99,378	45,338	7,390	7.44%
683	RENAL FAILURE W CC	682	107,621	48,762	5,609	5.21%
684	RENAL FAILURE W/O CC/MCC	682	27,193	8,806	677	2.49%

## **HOSPITAL SERVICES FURNISHED UNDER ARRANGEMENTS**

CMS proposes to modify the Provider Reimbursement Manual to clarify which inpatient services a hospital may provide under arrangements. CMS believes some providers have incorrectly interpreted the instructions to mean that even routine services consisting of bed and board, or nursing services and other related services, use of hospital facilities, and medical social services may be provided under arrangements. It proposes to consider routine services, if provided in the hospital, as being provided by the hospital – not under arrangement. If services are provided outside the hospital, they will be considered as being provided under arrangement and not by the hospital.

**The AHA is concerned about CMS’ proposal.** As the agency has implicitly and explicitly recognized, its proposal is not mandated by either statute or regulations. Rather, the entire basis for CMS’ proposal is that certain statutory language “suggests” that the hospital is required to exercise professional responsibility over the arranged-for services.

A change in long-standing agency policy should be based upon more than a “suggested” reading of statutory language; yet CMS offers no policy rationale to support the proposed change. The agency has not indicated that there has been any inappropriate behavior by hospitals furnishing inpatient services under arrangements, and CMS has, for years, had in place oversight and enforcement mechanisms to ensure that the under-arrangements model is not abused. The AHA does not disagree that the hospital arranging services must be required to exercise professional responsibility over the services, but CMS has given no reason to think that a hospital cannot exercise such responsibility when the services are provided in another hospital, especially when the hospitals are contiguous or are subject to the hospital-within-a-hospital rules.

Further, the proposed policy is contrary to the agency’s increasing emphasis on care coordination and service delivery models that reduce costs. It takes away an established mechanism for furnishing hospital services that ensures patients are receiving high-quality care, while at the same time maximizing efficiencies.

In sum, CMS has both implicitly and explicitly approved the under-arrangements model for furnishing inpatient hospital services for many years. Changing it now would be costly and disruptive to hospitals that operate under models that would be prohibited under the new policy. **Because the agency has not identified any compelling need to change its policy, the AHA urges it not to finalize its proposal.** If, however, CMS decides to adopt its proposal, it is imperative that the agency allow hospitals that have been using the under-arrangements model for furnishing inpatient hospital services to continue to do so.

## **NEW TECHNOLOGY**

Section 503 of the *Medicare Prescription Drug, Improvement, and Modernization Act of 2003* provided new funding for add-on payments for new medical services and technologies and relaxed the approval criteria under the inpatient PPS to ensure that it would better account for

Donald M. Berwick, M.D., M.P.P.

June 8, 2011

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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 did not propose to increase the marginal payment rate to 80 percent, rather than the current 50 percent, consistent with the outlier payment methodology, as we previously requested.**



*Transmitted electronically*

April 13, 2011

Donald Berwick, M.D.  
Administrator  
Centers for Medicare & Medicaid Services  
Hubert H. Humphrey Building  
200 Independence Avenue, S.W., Room 445-G  
Washington, DC 20201

Dear Dr. Berwick:

As the Centers for Medicare & Medicaid Services (CMS) considers the appropriate level of adjustment for documentation and coding to payments under the hospital inpatient prospective payment system (PPS) for fiscal year (FY) 2012 and beyond, we would like to present an independent assessment of the methodology that CMS has used in its calculations. This assessment was prepared by Joseph P. Newhouse, Ph.D., the John D. MacArthur Professor of Health Policy and Management at Harvard University and Faculty Research Associate of the National Bureau of Economic Research. Dr. Newhouse is a recognized expert on health economics and payment policy and serves on the Congressional Budget Office (CBO) Board of Health Advisors, co-chairs the 2010 Technical Review Panel on the Medicare Trustees Report, and has served as the vice-chair of the Medicare Payment Advisory Commission.

**As described in the attached memo, Dr. Newhouse finds that the methodology CMS has employed cannot separate documentation and coding effects from true case mix change because it uses claims data alone.** He uses index number methods to examine the specific elements of the CMS calculation, finding that the best one can do with claims data alone is to calculate the upper and lower bounds of the *combined effect* of documentation and coding and true case mix change. **The CMS estimate of documentation and coding change is significantly higher than what Dr. Newhouse calculates as the upper bound of this combined effect. CMS also does not consider the fact that there is a wide range for the combined effect (i.e., as shown by the lower bound calculated by Dr. Newhouse) and ends up with an artificially high number.** He goes on to say:

“The values that I interpret as upper and lower bounds of documentation and coding change and true case mix change are not, however, what CMS has calculated. Moreover, I cannot interpret what exactly is measured by what CMS terms the documentation and coding effect.”

## Appendix

Donald Berwick, M.D.

April 13, 2011

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Dr. Newhouse instead recommends a method based on the random sampling of hospital charts from different years coded based on current practices. This method holds coding practices constant and indicates the amount of true case mix change.

**If CMS is not willing to use a methodology that adequately separates true case mix change from documentation and coding, then it should use its policy discretion to account for real case mix change in its calculations by decreasing its estimate of documentation and coding change.**

We appreciate the opportunity to share this information and look forward to working together to ensure that CMS' documentation and coding policy is appropriate and workable. If you have any questions, please contact Caroline Steinberg at AHA at (202) 626-2329 or [csteinberg@aha.org](mailto:csteinberg@aha.org).

Sincerely,

American Hospital Association  
Association of American Medical Colleges  
Federation of American Hospitals

cc: Ms. Marilyn Tavenner, Principal Deputy Administrator  
Mr. Jonathan Blum, Deputy Administrator and Director, Center for Medicare  
Mr. Richard S. Foster, Chief Actuary, CMS Office of the Actuary  
Dr. Mark Miller, Executive Director, Medicare Payment Advisory Commission

Enclosure

HARVARD UNIVERSITY

DIVISION OF HEALTH POLICY RESEARCH AND EDUCATION

HARVARD MEDICAL SCHOOL  
JOHN F. KENNEDY SCHOOL OF GOVERNMENT  
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April 11, 2011

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Dear Caroline, Karen and Steve,

I have reviewed the materials the American Hospital Association (AHA) sent me pertaining to the CMS estimates of documentation and coding effects and true case mix change.<sup>1</sup> I have three principal reactions:

1. Use of claims data, which CMS employs in its calculations, inherently combines both true case mix change and documentation and coding change. The pure or “true” case mix change cannot be determined from claims data alone.
2. What can be determined from claims data alone is an estimate of the *combined* effect of documentation and coding and true change, but the size of the estimated combined effect is

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<sup>1</sup> These materials include: the relevant pages from the May 4, 2010 Inpatient Prospective Payment System (IPPS) Proposed Rule on these estimates; the relevant pages from the August 16, 2010 Final Rule; the relevant pages of the June 11, 2010 comment letter by AHA on the Proposed Rule; the May 27, 2010 comment letter by MedPAC on the Proposed Rule; the July 20, 2010 letter from the AHA, the FAH and the AAMC to Donald M. Berwick, M.D. which referenced two independent studies, one by The Moran Company and one by Partha Deb, Ph.D.; the August 6, 2010 letter from Donald Berwick, M.D. to Rich Umbdenstock in response to the letter sent to him; and a table produced by the Moran Company that provides CMIs for various combinations of the FY 2007 and 2009 claims and groupers.

## Appendix

sensitive to whether one uses initial or final year groupers in the calculation. There is an exact correspondence between this problem and standard price or quantity index calculations that are done by the Bureau of Labor Statistics and the Bureau of Economic Analysis. I believe looking at the problem as one of calculating index numbers allows one to calculate values that one can interpret as upper and lower bounds on the sum of the documentation and coding and true case mix change. I describe this in a Technical Appendix to this letter. I show there the upper and lower bounds on the sum of true case mix change and documentation and coding that the data supplied me yield.

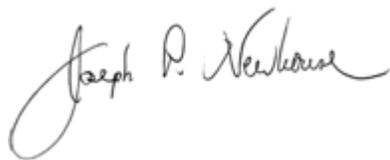
3. The values that I interpret as upper and lower bounds on the sum of documentation and coding change and true case mix change are not, however, what CMS has calculated. Moreover, I cannot interpret what exactly is measured by what CMS terms the documentation and coding effect.

I briefly elaborate on these points in the remaining body of this letter.

The ideal method for distinguishing documentation and coding effects from true case mix change effects is as follows. One pulls a random sample of hospital charts from different years and has coders code them blind to the year of the chart. Since the coders are presumptively using one standard (the current standard) of coding, this method holds coding practices constant and indicates the amount of true case mix change. This method was employed two decades ago in work at RAND that was sponsored by the Health Care Financing Administration (HCFA) and the Prospective Payment Assessment Commission (ProPAC). I was part of this work, which was documented in Carter, et al., "How Much Change in the Case Mix Index is DRG Creep?" *Journal of Health Economics*, 9:4, 1990, 411-28. The resulting estimate was subsequently used for several years by ProPAC to estimate documentation and coding effects. This sketch of the ideal method should clarify that the problem with the method that CMS has used is that one cannot get an estimate of case mix change that is not combined with documentation and coding change from claims data alone. They are inherently confounded in claims data.

There is an exact analogy between this problem and the calculation of standard price and quantity indices by the Bureau of Labor Statistics and the Bureau of Economic Analysis as described in the Technical Appendix. Using index number theory, one can show that claims data can yield upper and lower bounds on the sum of true case mix change and documentation and coding change. These bounds, however, are not what CMS has calculated. Moreover, using the index number framework I cannot interpret the value CMS has calculated for documentation and coding change.

Regards,

A handwritten signature in cursive script that reads "Joseph P. Newhouse". The signature is written in dark ink and is positioned below the "Regards," text.

Joseph P. Newhouse

## Technical Appendix

Because consumers substitute away from goods whose relative price has risen, it is well known in the economics literature that the use of initial period quantity weights, a Laspeyres index, leads to higher values of price index changes than use of final period quantity weights, a Paasche index. For the same reason quantity indices (e.g., real GDP growth) are biased up using initial period price weights and biased down using final period price weights. The classic description of these biases is Ragnar Frisch, "Annual Survey of General Economic Theory: The Problem of Index Numbers," *Econometrica*, 4, January 1936, pp. 1-38, but a more accessible modern reference is Jack E. Triplett, "Economic Theory and BEA's Alternative Price and Quantity Indices," *Survey of Current Business*, April 1992, pp. 49-52, which is available at [http://fraser.stlouisfed.org/publications/SCB/1992/download/17281/SCB\\_041992.pdf](http://fraser.stlouisfed.org/publications/SCB/1992/download/17281/SCB_041992.pdf). Index number theory is also covered in any textbook dealing with economic measurement.

In the present problem the relative case weights in a given grouper are like relative prices in a price index calculation (in fact they *are* relative prices for the different MS-DRGs) and the quantities of discharges in various MS-DRGs are like the quantities of goods in the price index calculation. Unlike consumers, whose behavioral response to a rise in relative prices is to buy *less* of those goods whose relative prices have risen, hospitals are assumed to be *more* likely to enter codes whose weights (relative prices) have risen. This results in a sign change in the bias from the price index case, meaning that the use of the weights in the initial period grouper (analogous to initial period price weights) leads to an understatement of – meaning it is a lower bound on – the amount of documentation and coding plus true case mix change and use of weights from the final period grouper leads to an overstatement, meaning it is an upper bound on the amount of documentation and coding plus true case mix change.

If one looks at this problem in index number terms, both  $p$  (the weights in the grouper) and  $q$  (documentation and coding + true CMI change) have changed from 2007 to 2009. A traditional index number method to calculate a change in  $q$  (documentation and coding + true CMI) is to hold  $p$  constant using each of the groupers in turn. Because of the behavioral change (coding change), the result is sensitive to which grouper one uses. In the data that the AHA supplied me (Table 1), the value of the CMI obtained by running the 2009 claims through the 2007 grouper is 1.5046 (call this A). The CMI obtained by running the 2007 claims through the same 2007 grouper is 1.5149 (call this B), that obtained by running the 2009 claims through the 2009 grouper is 1.5871 (call this C) and the CMI obtained by running the 2007 claims through the same 2009 grouper is 1.5187 (call this D). Since I do not have the individual CMIs used by CMS in its calculations, I am using these as estimates of the values CMS used. The change in the value of the CMI using the 2007 grouper on the 2009 and 2007 claims, a Laspeyres quantity index, is  $A/B = 1.5046/1.5149 = 0.993$ , meaning that the lower bound on true CMI change plus any documentation and coding is -0.7 percent. If, instead of the 2007 grouper, one uses the 2009 grouper on the 2009 and 2007 claims, the value is  $C/D = 1.5871/1.5187 = 1.045$ , a Paasche quantity index which gives an upper bound on the sum of the two effects. (I reiterate that the biases are reversed from the standard index number context.)

CMS appears to have used the four numbers I used in the previous paragraph, but has used them in a different way to reach values I cannot interpret. CMS appears to have calculated  $C/A$ , for which it got a value of 1.056, which in index number terms is a price index using final period quantities (i.e., a Paasche price index). CMS calls this the sum of documentation and coding and a measurement effect. Using the Paasche price index interpretation, I interpret the resulting value for  $C/A$  as an upper bound on a grouper effect or measurement effect. CMS then calculates  $D/B$ , for which it obtains a value of 1.0019. In index number terms this is a price index using initial period quantities (i.e., a Laspeyres price index). Moreover, CMS seems to have gone on to calculate  $[(C/A)/(D/B)]$ , for which it obtains a value of 1.054, and calls this a documentation and coding effect.

In index number terms, CMS has divided a Paasche price index by a Laspeyres price index and called the result a documentation and coding effect. I simply cannot interpret the ratio of a Paasche and Laspeyres price index.

**Table 1**  
**Calculation of the Upper and Lower Bounds of Documentation and Coding Plus True Case Mix Change**

	CMIs from Hospital Groups <sup>2</sup>	Interpretation
<b>A</b> CMI: FY 2009 Claims with FY 2007 Grouper	1.5046	
<b>B</b> CMI: FY 2007 Claims with FY 2007 Grouper	1.5149	
<b>A/B</b>	.993	Lower bound on documentation and coding plus true case mix change – Laspeyres quantity index
<b>C</b> CMI: FY 2009 Claims with FY 2009 Grouper	1.5871	
<b>D</b> CMI: FY 2007 Claims with FY 2009 Grouper	1.5187	
<b>C/D</b>	1.045	Upper bound on documentation and coding plus true case mix change – Paasche quantity index

**Table 2**  
**CMS Calculations and Interpretation**

	CMS Calculations	Interpretation
<b>C</b> CMI: FY 2009 Claims with FY 2009 Grouper		
<b>A</b> CMI: FY 2009 Claims with FY 2007 Grouper		
<b>C/A</b>	1.056	Upper bound on grouper effect or measurement effect – Paasche price index
<b>D</b> CMI: FY 2007 Claims with FY 2009 Grouper		
<b>B</b> CMI: FY 2007 Claims with FY 2007 Grouper		
<b>D/B</b>	1.0019	Lower bound on grouper effect or measurement effect – Laspeyres price index
<b>(C/A)/(D/B)</b>	1.054	Not interpretable under index number theory

<sup>2</sup> The CMIs provided to me by the hospital groups were produced by The Moran Company and attempt to replicate CMS' CMI calculations as closely as possible based on the proposed and final FY 2011 inpatient PPS rules and associated data.