

**Senate Finance Committee  
Roundtable on CMS Hospital Value-based Purchasing Program  
March 6, 2008**

Written Statement of Meredith B. Rosenthal, Ph.D.

Chairman Baucus, Ranking Member Grassley, distinguished Committee members, I am Meredith Rosenthal, Associate Professor of Health Economics and Policy at the Harvard School of Public Health. I appreciate the opportunity to join you for this discussion of the Centers for Medicare and Medicaid (CMS) hospital value-based purchasing program. Below, I address the questions posed by the Committee staff and summarize my views on the program in the context of CMS' broader efforts to improve the value of services under the Medicare program.

**1. Should the purpose of a hospital value-based purchasing program be to provide incentives for quality improvement, to partially base payments on the value of care provided, or both?**

In my view, the purpose of a hospital value-based purchasing program should be to improve the value of care, holistically defined. As the Institute of Medicine has suggested, attention should be paid to clinical quality, patient-centered care, and efficiency.<sup>1</sup> I would add, however, that it may be desirable to address each of these domains through somewhat different means. For example, simply including efficiency measures in a pay-for-performance program may have limited effect – even if such measures are given substantial weight, the amount of any potential bonus is unlikely to offset the forgone profits that efficiency improvement will cost hospitals. Thus, targeting efficiency might better be accomplished through more basic reform of hospital payment, such as the recent change in the treatment of preventable complications. Options for future reform of hospital payment should focus on paying for more broadly defined episodes of care with explicit quality criteria; CMS might learn from examples of this approach that have begun to emerge in the commercial sector, including PROMETHEUS Payment, Inc.<sup>TM</sup> Evidence-informed Case Rates<sup>TM</sup> and Geisinger health system's ProvenCare<sup>TM</sup> model.<sup>2,3</sup>

Quality Measures

**2. What process should be followed to develop, test, refine, endorse, adopt, and retire quality measures used in the Medicare VBP program?**

Selection of quality measures to use in the Medicare VBP program will be critical, not only for the obvious reason that they will be the focus of hospital efforts, but also for the credibility of the program with hospitals and physicians. Therefore, measurement should be informed by the best available clinical evidence or expert consensus where evidence is lacking. Fortunately, as you know, there are a number of organizations that have been dedicated to developing hospital quality measures and/or achieving consensus on their suitability for deployment. These entities include but are not limited to the National Committee on Quality Assurance, the National Quality Forum, the Hospital Quality Alliance, and the Joint Commission (formerly the Joint Commission on the Accreditation of Healthcare Organizations.) The Agency for Healthcare Research and Quality (AHRQ) has also played a role in hospital quality measure development, testing, and dissemination. While these organizations are not likely to be in a position to identify the set of measures that should be used for payment, they should be relied on to define the set of endorsed measures from which CMS should select, where possible. There may be instances however when a priority area for CMS is not reflected in existing measure sets. For those cases, the CMS should convene an expert panel to propose and specify measures; the Agency

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<sup>1</sup> Institute of Medicine. *Rewarding Provider Performance: Aligning Incentives in Medicare* (Pathways to Quality Health Care Series). National Academies Press (Washington DC; 2007).

<sup>2</sup> Lee TH, Pay for Performance, Version 2.0?, *N Engl J Med* 357:531, August 9, 2007 *Perspective*.

<sup>3</sup> <http://www.prometheuspayment.org>

for Healthcare Research and Quality, might then be the ideal locus for the data analyses required to test and refine new measures.

Adoption and retirement of measures should be reviewed annually by CMS, based on program goals and ongoing review of the program's impact. When measures reach their effective ceiling, with little opportunity for additional gain, CMS should consider rotating them out of pay for performance.

**3. What types of measures should be employed (or phased-in) – process, structure, outcome, patient experience, efficiency, etc.?**

To the extent possible, the CMS should include a broad set of measures in its value-based purchasing program to address clinical quality, patient-centered care, and efficiency.<sup>4</sup> Selecting among structure, process, and outcome measures should be informed by both technical considerations (e.g., the availability of good data for risk adjustment) and provider capacity. Structural measures may be appropriate where providers have only rudimentary capacity to improve an area and there are proven structures that are prerequisites to good care. Information technology is the best example of this type of situation. Such measures however can only be a first step and should be combined with process and/or outcome measures – this is because structures (such as electronic health records) alone will not improve care unless they are used appropriately. Process measures, which are usually indicators of evidence-based care delivery (e.g., beta blockers being prescribed after a heart attack) are the most commonly used types of measure for value based purchasing efforts, including the current Medicare hospital quality reporting initiative. These measures should continue to be the focus of value-based purchasing for the same reasons they have been used to date: they are more closely related to patient outcomes than structural measures but unlike outcome measures they are actionable and, if well-defined, less subject to forces beyond the control of the hospital. While outcome measures have clear appeal in terms of their importance – who can argue with the desirability of reducing mortality? – they are only useful to the extent that measurement can disentangle the hospital's contribution to the outcome from other factors. In the absence of such methods, targeting outcomes will encourage hospitals to avoid high risk patients, among other negative consequences. Certain categories of complications (such as those recently identified for non-payment by CMS) may be more appropriate targets.

**4. How do we ensure that hospital measures (and measurement processes) and physician measures are complementary?**

The question of aligning hospital and physician measurement and payment is an important problem for CMS to address as it expands value-based purchasing to physicians, particularly in light of legal restrictions on hospital sharing of rewards with physicians. While there is no published evidence on this question, it seems likely that paying attending physicians for improving the same evidence-based processes or reducing inpatient complications would encourage productive collaboration of a kind that is unlikely to occur otherwise. For some conditions, the same measures could be applied to both physicians and hospitals; in other cases measures might be interlocking. For example, if CMS rewards hospitals for reducing readmission rates for CHF, then it might be ideal for physicians to be measured and rewarded on the provision of appropriate CHF care management.

Performance Standards

**5. How should the program balance rewards for achievement of (1) minimum thresholds of performance; (2) “high performance”; and (3) improvement?**

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<sup>4</sup> Institute of Medicine. Rewarding Provider Performance: Aligning Incentives in Medicare (Pathways to Quality Health Care Series). National Academies Press (Washington DC; 2007).

In my view, minimum thresholds for receiving a bonus are not the best way to improve the quality of care. Such minimums make a statement about expectations, but if they are set too high, they may actually discourage the poorest performing hospitals from engaging in quality improvement. These are the very hospitals that the program should seek to motivate. Paying for improvement alone of course might penalize the best-performing hospitals, for whom it may be very difficult or impossible to improve because of ceiling effects. A combination of incentives for improvement and high performance, such as has been proposed for the CMS program, is one way of reaching both low and high performers. An alternative formulation that I have advocated would be to prorate a fixed reward by the percentage achievement over the feasible range. For process measures for example, a hospital scoring 40% on a measure would earn half as much as a hospital scoring 80% and both hospitals could increase their reward by improving their scores by any increment. This approach rewards the best hospitals for being the best, and encourages all hospitals to improve, regardless of where they start. I would also add that because there is no threshold at which a hospital faces an all-or-nothing proposition (at 79% adherence I get no bonus; at 80% several hundred thousand dollars are paid) this method is less likely to encourage gaming or avoidance of high-risk patients.

**6. On what basis should thresholds and benchmarks be set and changed?**

As noted above, I would support a program without thresholds and benchmarks, which are inherently arbitrary. Assuming the program uses them however, like measures, they should be informed by data on achievable performance goals and expert consensus. Annual review of performance data should be part of this updating process. The CMS should also consider separate benchmarks by geographic region and type of hospital, if the distribution of performance varies widely across these domains for the selected measures.

**7. Should the program provide incentives for each measure/patient condition or base payments on a combined score – and how, if at all, should that differ from what is publicly reported?**

There are advantages and disadvantages of composite scores. Some consumer research has shown that people prefer global ratings to sets of individual measures for comparing hospital quality. Particularly, for process measures of quality, some of the individual measures are highly technical and unlikely to be salient to most patients. For payment purposes composites have the same incentive effects as paying measure by measure if the composite is simply a weighted or unweighted sum of the individual measures. There are some types of composites, however, that do have implications for hospital incentives. In particular “all-or-nothing” composite measures have been proposed and used for some types of care including diabetes management. In these types of measures, a hospital would only get a point for a combined measure if all of the component measures were achieved. All-or-nothing measures effectively “raise the bar” for performance and focus providers on all measured aspects of a patient’s care. They also encourage providers to focus improvement on cases that are “near perfect” rather than those that are mostly out of compliance with the standards. From my perspective, this approach makes sense only if there is a clinical reason to believe that there is little value to each measure at the margin, unless they are all accomplished together.

Structure of Incentives

**8. Should incentives be applied to services related to certain measures, all DRGs, or base payments?**

For condition-specific measures, it probably makes sense to apply incentives to the DRGs that make up the condition (as in the Premier demonstration). This approach means that rewards are roughly proportional to the size of the population impacted. It also may encourage some specialization in a hospital’s strengths as measured by the performance ratings. A hospital that

has systems in place to perform well on the heart surgery measures could profit from increasing the size of this service, which might be beneficial overall due to the effect of volume on outcomes (“practice makes perfect”).

**9. What degree of incentives is necessary to promote adherence to quality measures?**

Most hospital incentive programs offer a maximum reward of 1-2% of revenues and modest improvements have been demonstrated with this level of funding. The size of the reward required should have some relationship to the difficulty of improving the measures, however, so it is difficult to say how large incentives need to be to achieve an effect without first describing the types of measures and performance expectations.

**10. Should all participating hospitals have their payments affected, or should the incentives be "curved" so that a certain portion of hospitals do not receive a financial consequence?**

Ideally, the program would not ensure ex ante that a group of hospitals would not receive a reward – such as pay for performance programs that only reward the top quartile of providers. The greatest improvement in performance is likely to be achieved by designing rewards so that hospitals along the continuum of performance all have an opportunity to receive some level of reward that increases in size with their level of attainment.

Implementation

**11. What kinds of hospitals should not be included?**

All hospitals should be included in the value based purchasing program. There may, however, need to be some customization across subsets of hospitals. Not all hospitals perform open heart surgery, for example, so they cannot be measured for that condition. It may also be necessary to customize the program for small and safety net hospitals, where the resources for quality improvement may be limited (perhaps additional “structural” incentives or technical assistance, would be appropriate for such hospitals).

**12. What phase-in/data collection period will be necessary to establish performance benchmarks and allow hospitals to adapt their systems to participate?**

There has already been a phase-in/data collection period – the Hospital Voluntary Reporting Initiative was launched more than 5 years ago and since then the Hospital Quality Alliance (HQA) has facilitated reporting of hospital quality data for the vast majority of acute care hospitals in the U.S. If the CMS incentive program begins with the HQA measures and others that are in widespread use, there should be no need for a phase-in period. For new measures where hospitals do not have baseline data, a one year phase-in and testing period should be sufficient unless new codes are required (such as the new “Present on admission” codes).

**13. What resources do CMS and hospitals need to implement this program, including those needed to collect and analyze data in a timely manner?**

Clearly, the burden of data collection has been on hospitals for most hospital quality measures although CMS has direct access to mortality data and complications are typically coded in billing data. While I have not seen estimates of this burden, because most process measures of hospital quality require chart review, these costs are almost certainly substantial. To the extent that CMS relies on existing HQA measures, however, for most hospitals the incremental cost of participating is zero, because almost all hospitals report to HQA. The incremental cost to CMS of analyzing these data for payment purposes would be small as well. Auditing and appeals, however, would become more important once the reported measures are the basis for payment. Quality improvement of course is itself a costly undertaking; while most of that will be borne by

hospitals, CMS might invest in technical assistance for hospitals through the Quality Improvement Organizations (QIOs)

**14. What kind of auditing/verification process should be implemented and what appeals rights should participating hospitals have to challenge results?**

Because substantial monies will be at stake, CMS should conduct fairly rigorous auditing of all hospital-reported results. Legitimacy of the program will also be increased if hospitals can appeal CMS calculations (which should be transparent enough that hospitals can see all the inputs to the payment formula). Appeals would most likely be focused on claims-based measures rather than self-reported (process and structural) measures.

**15. How should the program be monitored on an ongoing basis?**

The CMS should conduct a rigorous review of program results each year, in part to assist with the evolution of measures and the structure of the program (e.g., weighting of measures, improvement vs. high performance, etc.) and in part to judge whether the incentive program is cost-effective overall. In addition to analyzing the hoped-for effects of the program (quality improvement), CMS will need to monitor, and try to minimize, unintended negative consequences. Two important negative effects to look for are patient selection and widening gaps in performance between hospitals.

*Patient Selection.* Hospitals may attempt to avoid sicker patients in the belief that risk adjustment is not adequate and that caring for such patients will reduce their measured performance. To detect and address this problem the CMS could examine changes in the characteristics of patients seeking care at high-performing vs. low-performing hospitals.

*Widening Gaps in Performance.* This may be particularly likely to occur if CMS chooses to emphasize high performance rather than improvement in its final reward formula. If P4P results in a substantial redistribution of resources then some providers may actually worsen with respect to quality of care. CMS should look for such disparities over time, particularly between safety net and other hospitals.

**Value-based Purchasing and Medicare**

During the past decade, CMS has made substantial investments in hospital value-based purchasing, including the collection and dissemination of quality information and changes in the treatment of preventable complications. The proposed hospital quality incentive program represents another important step towards achieving a more enlightened role for Medicare as an agent for delivery system improvement rather than just a payer. While the discussion that ensues around the questions raised by the Committee will no doubt highlight the uncertainties and challenges of value-based purchasing, it must also be recognized that the alternative – allowing payment and performance to remain unrelated – is no longer tenable. CMS should proceed with its new program based on sound principles and evidence as to what works -- both in clinical practice and policy – with the expectation that most program parameters will need to be altered over time as new priorities arise, dynamic processes take their course, and unintended consequences are identified.