Medicare Program: Hospital Inpatient Value-Based Purchasing Program – Summary of Various Rules Issued in 2011
November 30, 2011

Three separate rules issued in 2011 finalized implementation of the Hospital Inpatient Value-Based Purchasing (VBP) Program, which begins in fiscal year (FY) 2013. The program, which was established by section 3001 of the Affordable Care Act (ACA), will reduce hospitals' base diagnosis-related group (DRG) payments annually by a specified percentage and use those funds to make value-based incentive payments to hospitals that meet designated performance standards.

This summary combines information from all three rules addressing the VBP Program, and three tables at the end summarize the measures and other features. Table 1 shows the final measures, thresholds, benchmarks and domain weights put in place for FY 2013. Table 2 provides parallel information for FY 2014. Table 3 displays the measures that were initially adopted for addition in FY 2014 but ultimately suspended.

The primary rule summarized here is the final rule published on May 6, 2011 by the Centers for Medicare & Medicaid Services (CMS) implementing the VBP Program beginning in FY 2013. On July 5, 2011, corrections to that rule were published. This summary reflects the corrections. Some of the measures adopted for the FY 2014 VBP Program were subsequently suspended in the later rules, as discussed further below.

The final rule for the FY 2012 hospital inpatient hospital prospective payment system (IPPS) for acute care hospitals, published on August 18, 2011, included adoption of a new measure, Medicare spending per beneficiary, for the FY 2014 VBP Program. However, as noted below, implementation of this measure was suspended during subsequent rulemaking. In addition, the IPPS rule responded to comments on application of the Hospital Consumer Assessment of Healthcare Providers and Systems (HCAHPS) to the VBP Program.

Finally, the calendar year (CY) 2012 Medicare hospital outpatient prospective payment system (OPPS) final rule published in the *Federal Register* on November 30th includes further changes to the VBP Program. Among these are the final set of measures and the domain weights for the FY 2014 VBP Program. In this rule CMS suspends implementation of the Medicare spending per beneficiary efficiency measure and several outcome measures that had been adopted to begin with the VBP Program in 2014. Also included in this rule is creation of a hospital review and correction process for VBP Program data.

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I. Impact in FY 2013

CMS estimates that applying the VBP Program to 1 percent of hospitals' base DRG payments in FY 2013, as required by the ACA, will redistribute about $850 million among hospitals. The results are presented in Table 1 below, in which the values reflect both the VBP Program incentive rate and the 1 percent contribution rate and are displayed as the percent change in base DRG payments. For all types of hospitals, the median percent change in base DRG payments is 0 percent, meaning that aggregate incentive payments of about 1 percent just offset the 1 percent contribution.

Table 1: Two-Domain Impact (Clinical Process and HCAHPS): Estimated Incentive Rates by Hospital Type* **(shown as percent change in base DRG payments)**

Hospital characteristic	**N = 3,092**	**Mean**	**Percentile**						
			5th	**10th**	**25th**	**50th**	**75th**	**90th**	**95th**
Region:									
New England	138	0.1%	-0.3%	-0.2%	-0.1%	0.1%	0.3%	0.4%	0.4%
Middle Atlantic	370	0.0%	-0.5%	-0.4%	-0.2%	0.0%	0.2%	0.3%	0.4%
South Atlantic	518	0.0%	-0.4%	-0.3%	-0.2%	0.0%	0.3%	0.4%	0.5%
East North Central	475	0.0%	-0.4%	-0.3%	-0.2%	0.0%	0.2%	0.4%	0.5%
East South Central	301	0.0%	-0.5%	-0.4%	-0.2%	0.0%	0.2%	0.4%	0.5%
West North Central	248	0.1%	-0.4%	-0.3%	-0.1%	0.1%	0.3%	0.5%	0.6%
West South Central	457	0.0%	-0.5%	-0.4%	-0.2%	0.0%	0.2%	0.4%	0.6%
Mountain	201	0.0%	-0.4%	-0.4%	-0.2%	0.0%	0.2%	0.3%	0.4%
Pacific	384	-0.1%	-0.6%	-0.4%	-0.2%	0.0%	0.1%	0.3%	0.4%
Urban/Rural:									
Large Urban	1,199	0.0%	-0.4%	-0.4%	-0.2%	0.0%	0.2%	0.4%	0.4%
Other Urban	1,010	0.0%	-0.4%	-0.4%	-0.2%	0.0%	0.2%	0.4%	0.5%
Rural	883	0.0%	-0.5%	-0.4%	-0.2%	0.0%	0.2%	0.4%	0.5%
Capacity (by # beds):									
1 to 99 beds	1,045	0.0%	-0.5%	-0.4%	-0.2%	0.0%	0.3%	0.5%	0.6%
100 to 199 beds	939	0.0%	-0.5%	-0.4%	-0.2%	0.0%	0.2%	0.4%	0.5%
200 to 299 beds	481	0.0%	-0.4%	-0.3%	-0.2%	0.0%	0.2%	0.3%	0.4%
300 to 399 beds	279	0.0%	-0.4%	-0.3%	-0.2%	0.0%	0.2%	0.3%	0.4%
400 to 499 beds	151	0.0%	-0.4%	-0.3%	-0.2%	0.0%	0.1%	0.3%	0.4%
500+ beds	197	0.0%	-0.4%	-0.3%	-0.2%	0.0%	0.1%	0.3%	0.3%
Medicare Utilization:									
0 to 25%	237	0.0%	-0.5%	-0.4%	-0.2%	0.0%	0.2%	0.4%	0.5%
>25% to 50%	1,508	0.0%	-0.5%	-0.4%	-0.2%	0.0%	0.2%	0.4%	0.5%
>50% to 65%	1,148	0.0%	-0.5%	-0.4%	-0.2%	0.0%	0.2%	0.4%	0.5%
> 65%	196	0.0%	-0.5%	-0.4%	-0.2%	0.0%	0.3%	0.4%	0.5%

***Note: Due to insufficient data, SCIP-Card-2 and SCIP-Inf-4 were not included in the calculation. CMS believes that no significant change in estimated incentive rates results from this omission.

II. Provisions of the VBP Program Final Rule (May 6, 2011)

A. Background on the VBP Program

CMS says that the VBP Program will be a fluid model, subject to change as knowledge, measures and tools evolve. It views the program as the next step in promoting higher quality care for Medicare beneficiaries and transforming Medicare into an active purchaser of quality health care for its beneficiaries. The new program builds on hospitals' reporting of quality measures under section 1886(b)(3)(B)(viii) of the Act, which provides that the annual percentage increase for FY 2007 and each subsequent fiscal year is reduced by 2.0 percentage points for a subsection (d) hospital (i.e., a hospital paid under the DRG prospective payment system) that does not submit quality data as required by the Secretary. The law also provides that any reduction in a hospital's annual percentage increase applies only with respect to the fiscal year involved, and is not taken into account for computing the applicable percentage increase for a subsequent fiscal year.

Under the statute, measures for the FY 2013 VBP must be selected from among those adopted under the hospital inpatient quality reporting program (IQR) for the FY 2011 payment determination, other than readmission measures. [Note: this program was formerly known as the Reporting Hospital Quality Data for the Annual Payment Update Program (RHQDAPU).] A total of 45 measures were adopted for the hospital IQR for the FY 2011 payment determination. These include 27 chart-abstracted process of care measures, which assess the quality of care furnished by hospitals in connection with four topics: Acute Myocardial Infarction (AMI); Heart Failure (HF); Pneumonia (PN); and Surgical Care Improvement (SCIP). Fifteen of the measures are claims-based measures, which assess the quality of care furnished by hospitals on the following topics: 30-day mortality and 30-day readmission rates for Medicare patients diagnosed with AMI, HF, or PN; Patient Safety Indicators/Inpatient Quality Indicators/Composite Measures; and Patient Safety Indicators/Nursing Sensitive Care. Three of the measures are structural measures that assess hospital participation in cardiac surgery, stroke care, and nursing sensitive care systemic databases. Finally, the Hospital Consumer Assessment of Healthcare Providers and Systems (HCAHPS) patient experience of care survey is included as a measure for the FY 2011 payment determination. Most hospital IQR program data is displayed on the *Hospital Compare* website, *http://www.hospitalcompare.hhs.gov*, after a 30-day hospital preview period.

The technical specifications for the hospital IQR program measures, or links to websites hosting technical specifications, are contained in the CMS/The Joint Commission Specifications Manual for National Hospital Inpatient Quality Measures (Specifications Manual). This Specifications Manual is posted on the CMS QualityNet website at *https://www.QualityNet.org/*. CMS maintains the technical specifications by updating the specifications manual semiannually, or more frequently in unusual cases, and includes detailed instructions and calculation algorithms for hospitals to use when collecting and submitting data on required measures.

As required by section 5001(b) of the Deficit Reduction Act (DRA), in November 2007 the Secretary submitted a report to Congress examining the options for a plan to implement a Medicare hospital VBP Program ("Report to Congress: Plan to Implement a Medicare Hospital Value-Based Purchasing Program;" a copy is available on the CMS website). To calculate a hospital's total performance score, CMS developed and analyzed a potential performance scoring model that incorporated measures from different quality "domains," including clinical process of care and patient experience of care. It examined ways to translate that score into an incentive payment by making a portion of the base diagnosis-related group (DRG) payment contingent on performance. The final rule generally follows, with modifications, the performance scoring model and options laid out in the 2007 report.

Section 3001(a) of the ACA added a new section 1886(o) to the Act requiring the Secretary to establish a hospital value-based purchasing program under which value-based incentive payments are made in FY 2013 and subsequent fiscal years to hospitals meeting performance standards established for the performance period applicable to the fiscal year. Both the performance standards and the performance period for a fiscal year are established by the Secretary. The incentive payments for FY 2013 are funded through a reduction to FY 2013 base operating DRG payments for each discharge of 1 percent, with the percentage increasing gradually to 2 percent in FY 2017 and subsequent fiscal years.

B. Performance Period

CMS finalizes its proposed performance period for the FY 2013 VBP Program. The statute requires the Secretary to establish a performance period for payment in a fiscal year that begins and ends prior to the beginning of that fiscal year. Given the tight timeframes for this initial year of the VBP Program, CMS proposed that the performance period for FY 2013 payment begin July 1, 2011 and end March 31, 2012, a duration of three calendar quarters rather than the year-long period which CMS would have preferred if not precluded by the timeframes.

Responding to comments regarding performance periods for the FY 2014 mortality measures, CMS modifies the performance period from 18 months to 12 months. For the three mortality outcome measures, (MORT-30-AMI, MORT-30-HF, MORT-30-PN) the performance period will be July 1, 2011 through June 30, 2012; the baseline period used for calculations will be July 1, 2009 through June 30, 2010. A number of commenters had suggested this change. CMS reports that it conducted additional reliability analyses on the hospital-level risk standardized mortality rates for the proposed 30-day mortality measures using 12 months, 18 months, and 24 months, and concluded that 12 months of data provides moderate to high reliability for the Heart Failure and Pneumonia 30-day mortality measures, and is sufficiently reliable for the AMI 30-day mortality measure.

CMS also finalizes measures for addition to the VBP Program in FY 2014, specifically for Agency for Healthcare Research and Quality (AHRQ) and Hospital-Acquired

Conditions (HAC) measures, as discussed in the following section on measures. The performance period for those measures was finalized to begin one year after hospital performance on them has been displayed on the *Hospital Compare* website, or March 3, 2012. Further details on the performance period appear in the calendar year (CY) 2012 Outpatient Prospective Payment System (OPPS) rule. [Note: in that rule, implementation of these measures for FY 2014 was suspended.]

C. Measures

CMS finalizes, with changes from the proposed rule, the measures for the VBP Program in FY 2013 and the addition of outcomes measures for FY 2014. Tables 2-4 at the end of this section list these finalized measures. (The table numbers used in this summary do not match those in the final rule.) CMS also finalizes its proposal not to adopt the current hospital IQR structural measures because it believes these measures require further development if they are to be used for the VBP Program.

Importantly, in this final rule CMS also indicates that other rulemaking will be used to adopt additional measures for the FY 2014 VBP Program, and this subsequently occurred.

- The FY 2012 IPPS final rule adopted a measure of Medicare spending per beneficiary for the FY 2014 IQR payment determination and the FY 2014 VBP Program, and finalized the method for scoring the measure for use in the VBP Program. Section III of this combined document discusses this, including CMS's response to comments on the measure that were submitted in response to the proposed rule on the VBP Program that was issued in January 13, 2011 when the measure was first proposed.
- In the CY 2012 OPPS rulemaking cycle, CMS proposed numerous changes for the FY 2014 VBP Program, some of which were finalized and others of which were not. These are detailed in section IV below.

The measures finalized as part of the May 6, 2011 final rule on VBP Program are categorized into three domains: clinical process of care measures, patient experience of care measures, and outcome measures. The clinical process of care and patient experience of care measures were finalized for the FY 2013 VBP Program, while the outcome measures were finalized to begin with the FY 2014 VBP Program.

<u>Clinical Process of Care Measures</u>

In this rule, CMS finalizes 12 of the 17 process of care measures proposed for FY 2013. Two measures, relating to pneumonia and influenza immunization, were not finalized because they will be retired as part of the hospital IQR. Three other proposed measures were dropped because, as suggested by commenters, CMS reviewed more recent data (validated data for the period July 1, 2009 through March 31, 2010) and determined they were "topped out". These measures are AMI-2: Aspirin Prescribed at Discharge; HF-2: Evaluation of LVS Function; and HF-3: ACEI or ARB for LVSD. Two criteria were

used to identify topped out measures: 1) the 75th and 90th percentiles are statistically indistinguishable and 2) the truncated coefficient of variation is less than 0.1.[1] In responding to comments regarding other measures that should be considered topped out, CMS noted that while hospital performance for other measures is high (e.g., SCIP-Inf-2 and PN-3b), hospital performance on these measures can still be meaningfully distinguished. In the final rule, CMS responds to numerous additional comments regarding specific clinical process of care measures.

Patient Experience of Care Measures

As required by the statute, the HCAHPS measure is adopted for use in the FY 2013 VBP Program. Specifically, while under the IQR, the 27 HCAHPS survey questions are reported across 10 separate dimensions, for the VBP Program, 8 HCAHPS dimensions will be used. The "do you recommend the hospital" question will be omitted, and one dimension will combine the separate items on the cleanliness and quietness of the hospital environment. The remaining dimensions are "overall rating of the hospital," and others (communication with nurses, communication with doctors, responsiveness of hospital staff, pain management, communication about medicines, discharge information) which are composites of the remaining survey questions. (Table 3 shows the 8 HCAHPS dimensions.)

Regarding comments opposing the combining of the items on cleanliness and quietness of the hospital environment, CMS responds that leaving them separate would put more weight on the environmental items compared to the rest of the HCAHPS items, all of which, other than the overall rating, are composite measures. For example, separating the items would give quietness of the hospital the same weight as nurse communication which includes 3 items from the HCAHPS survey. The cleanliness and quietness items will continue to be separately reported on Hospital Compare under the IQR, and the new combined dimension will also be reported there.

In response to comments regarding the reliability of the HCAHPS, CMS states that the HCAHPS survey has been thoroughly vetted, is endorsed by the National Qualify Forum (NQF), and its own analyses have shown that HCAHPS is satisfactorily reliable at 100 completed surveys using statistical measures of reliability. Moreover, CMS cites a journal article which found improvements in hospital performance on the HCAHPS measures since public reporting began. (MN Elliott and others, "Hospital Survey Shows Improvements in Patient Experience," *Health Affairs*, 29 (11): 2061-2067). CMS responds to other comments regarding the HCAHPS, including a discussion of the patient-mix adjustments.

Outcome Measures for FY 2014

In this rule CMS adds outcome measures to the FY 2014 VBP Program, with changes from the proposed rule. The final measures include three 30-day mortality rate

[1] The truncated CV is calculated by disregarding the five percent of hospitals with the highest scores and the five percent with the lowest scores used in calculating the CV.

measures (for heart attack, heart failure, and pneumonia), 8 hospital-acquired condition measures, and two composite AHRQ Patient Safety Indicator and Inpatient Quality Indicators measures. One composite relates to complication/patient safety and the other to mortality for selected medical conditions. CMS had proposed adopting 9 AHRQ measures, including the two composite measures. In response to comments that the composite measures were double-counting the individual measures, CMS finalizes only the composite measures.

CMS indicates that many commenters objected to the addition of HAC measures in FY 2014. In particular, commenters noted that these measures will also be used in penalties under the HAC policy required by section 3008 of the ACA and in the Medicaid program. CMS responds that these are related but separate efforts to reduce HACs. With respect to comments on the measures themselves, and the need for risk adjustment, CMS points out that 6 of the 8 measures are never events for which it says risk adjustment would not be appropriate. Despite the low incidence rates, CMS believes the HAC measures are important to report. More generally, CMS notes that the HAC measures were defined in prior rulemaking and the subject of listening sessions and public comment at that time. CMS will consider the comments it received regarding the present-on-admission (POA) diagnosis coding as part of the evaluation of POA that is currently underway, and will consider refinements to the HAC measures in future years. With respect to comments that the HAC measures do not capture more than 9 diagnoses, CMS reports that it is expanding its internal systems in order to process up to 25 diagnoses and 25 procedures. (This is part of the HIPAA ASC X12 Technical Reports Type 3 Version 005010 (Version 5010) standards system update.)

In response to comments objecting to the mortality measures because they are “all-cause” and do not exclude deaths that are not attributable to the hospital’s quality of care, CMS discusses the difficulties in making that distinction, and states that events completely unrelated to the admission should not be unevenly distributed among hospitals. In responding to additional queries and comments CMS notes that information on various exclusions, such as for beneficiaries electing hospice care, that are used in calculating the measure is available at the QualityNet.org website.

Subregulatory Process

Responding to stakeholder concerns, CMS does not finalize its proposal to implement a subregulatory process to expedite the timeline for adding and retiring measures to the VBP Program. Under the proposed subregulatory process, the agency would have been able to add any measure to the program if that measure is adopted under the hospital IQR program and has been included on the *Hospital Compare* website for at least one year, and could have retired a measure by posting its intention to do so on the CMS website with at least 60 days advance notice.

Instead, as part of the FY 2012 IPPS final rule, CMS adopted an alternative means of expediting the addition of measures to the VBP Program: simultaneously adopting one or more measures for both the hospital IQR and the VBP Program. Under that rule, the

simultaneous adoption approach was taken with respect to the Medicare spending per beneficiary measure, although in later rulemaking, addition of this measure to the program for FY 2014 was suspended. CMS believes that measures included on Hospital Compare may be selected for the IQR program measure set and, possibly simultaneously, for the VBP Program measure set provided the performance period for these measures begins at least one year after their initial Hospital Compare inclusion and other statutory requirements are met.

Table 2—Final Measures for FY 2013 Hospital VBP Program	
Clinical Process of Care Measures	
Acute myocardial infarction:	
AMI-7a	Fibrinolytic Therapy Received Within 30 Minutes of Hospital Arrival.
AMI-8a	Primary PCI Received Within 90 Minutes of Hospital Arrival.
Heart Failure:	
HF-1	Discharge Instructions.
Pneumonia:	
PN-3b	Blood Cultures Performed in the Emergency Department Prior to Initial Antibiotic Received in Hospital.
PN-6	Initial Antibiotic Selection for CAP in Immunocompetent Patient.
Healthcare-associated infections:	
SCIP-Inf-1	Prophylactic Antibiotic Received Within One Hour Prior to Surgical Incision.
SCIP-Inf-2	Prophylactic Antibiotic Selection for Surgical Patients.
SCIP-Inf-3	Prophylactic Antibiotics Discontinued Within 24 Hours After Surgery End Time.
SCIP-Inf-4	Cardiac Surgery Patients with Controlled 6AM Postoperative Serum Glucose.
Surgeries:	
SCIP-Card-2	Surgery Patients on a Beta Blocker Prior to Arrival That Received a Beta Blocker During the Perioperative Period.
SCIP-VTE-1	Surgery Patients with Recommended Venous Thromboembolism Prophylaxis Ordered.
SCIP-VTE-2	Surgery Patients Who Received Appropriate Venous Thromboembolism Prophylaxis Within 24 Hours Prior to Surgery to 24 Hours After Surgery.
Patient Experience of Care Measures	
HCAHPS	Hospital Consumer Assessment of Healthcare Providers and Systems Survey.

Table 3. Eight HCAHPS Dimensions for the FY 2013 VBP Program	
Dimension (Composite or Stand-alone Item)	**Constituent HCAHPS Survey Items**
1. Nurse communication	Nurse-Courtesy/Respect
(% "Always")	Nurse-Listen
	Nurse-Explain
2. Doctor communication	Doctor-Courtesy/Respect
(% "Always")	Doctor-Listen
	Doctor-Explain
3. Cleanliness and quietness	Cleanliness
(% "Always")	Quietness
4. Responsiveness of hospital staff	Bathroom Help
(% "Always")	Call Button
5. Pain management	Pain Control
(% Always")	Help with Pain
6. Communication about medications	New Medicine-Reason
(% "Always")	New Medicine-Side Effects
7. Discharge information	Discharge-Help
(% "Yes")	Discharge-Systems
8. Overall rating	Overall Rating

Table 4. Finalized Outcome Measures for the FY 2014 Hospital VBP Program [NOTE: All but the mortality measures were subsequently suspended for FY 2014]
Mortality Measures (Medicare Patients)
Acute Myocardial Infarction (AMI) 30-day mortality rate
Heart Failure (HF) 30-day mortality rate
Pneumonia (PN) 30-day mortality rate
AHRQ Patient Safety Indicators (PSIs), Inpatient Quality Indicators (IQIs) Composite Measures
Complication/patient safety for selected indicators (composite)
Mortality for selected medical conditions (composite)
Hospital Acquired Condition Measures
Foreign Object Retained After Surgery
Air Embolism
Blood Incompatibility
Pressure Ulcer Stages III & IV
Falls and Trauma: (Includes: Fracture Dislocation, Intracranial Injury, Crushing Injury, Burn, Electric Shock)
Vascular Catheter-Associated Infection
Catheter-Associated Urinary Tract Infection (UTI)
Manifestations of Poor Glycemic Control

D. Performance Standards

The statute requires the Secretary to establish performance standards for measures included in the VBP Program for a performance period for a fiscal year. Performance standards must include levels of achievement and improvement and be established and announced not later than 60 days prior to the beginning of the relevant performance period. In setting performance standards, the Secretary must take into account appropriate factors, such as: (1) practical experience with the measures, including whether a significant proportion of hospitals failed to meet the performance standard during previous performance periods; (2) historical performance standards; (3) improvement rates; and (4) the opportunity for continued improvement.

CMS finalizes performance standards for the finalized measures. Tables 5 and 6 show the levels published in the final rule for the achievement thresholds and benchmarks for each measure for the clinical process of care and HCAHPS measures. These are the specific amounts that will apply in computing hospital performance scores for FY 2013. The performance standards for FY 2013 payment were calculated using data from the baseline period from July 1, 2009 to March 31, 2010. This baseline period will be used to calculate an individual hospital's improvement score. Table 7 shows these amounts for the outcome of care measures that will be added for FY 2014.

- The achievement threshold for each measure is set at the median (50^{th} percentile) of hospital performance for the baseline period.
- The benchmark threshold for each measure is set to equal the mean of the top decile of hospital performance for the baseline period.

In a change from the proposed rule, the final rule establishes the mean of the top decile as the benchmark for all measures, including HCAHPS. The proposed rule would have established a benchmark for HCACHPS at the 95^{th} percentile. This step was taken in response to numerous comments opposing or questioning the use of different methodologies. In its response, CMS indicates that for the analyses it prepared for the 2007 report to Congress on VBP, only three-quarters of HCAHPS results were available for about 500 hospitals. Based on those results use of the mean of the top decile would have produced skewed results. Now that CMS has examined this issue using the larger file of more recent HCAHPS data it has determined that a percentile approach is not necessary.

This change means that for each of the 8 HCAHPS dimensions, the benchmark will be set as the mean of the top decile of hospital "top box" scores. The top box score is the percentage of time a patient reports the best possible response, which for these dimensions is generally "always", "yes" or an overall rating of 9 or 10.

CMS reports receiving many comments that the proposed benchmarks were too high, with one commenter proposing the 80^{th} percentile as a way to ensure that every hospital has a chance to exceed the benchmark. CMS responds that it considers the benchmark to be an empirically-observed level of excellent performance to which hospitals should

generally aspire. CMS acknowledges that the mean of the top decile produces a level that only about 5 percent of hospitals will have achieved during the baseline period, but goes on to say that any number of hospitals could score at or above the benchmark during the performance period. A benchmark of 100 percent would mean that at least 10 percent of hospitals achieved that score during the baseline period, suggesting to CMS that this score is not prohibitively difficult to achieve.

CMS acknowledges that in some instances (which CMS considers rare) a hospital may miss out on achieving 100 percent success because of a case that arguably could have been excluded for clinical reasons outside the hospital's control. However, CMS believes that the ongoing process of reviewing and revising specifications to take these cases into account when defining the measure is a better way of addressing this situation than setting the benchmark at an arbitrary low value such as the 80th percentile. Moreover, CMS emphasizes that the payment is based on the total performance score, not on an individual measure, so in its view, small differences in points on an individual measure will have little impact on the distribution of payments among hospitals.

Table 5. Achievement Thresholds and Benchmarks that apply to the FY 2013 Hospital VBP Measures – Clinical Process of Care Measures

Measure ID	Measure Description	Achievement Threshold	Benchmark
AMI-7a	Fibrinolytic Therapy Received Within 30 Minutes of Hospital Arrival	0.6548	0.9191
AMI-8a	Primary PCI Received Within 90 Minutes of Hospital Arrival	0.9186	1.0
HF-1	Discharge Instructions	0.9077	1.0
PN-3b	Blood Cultures Performed in the Emergency Department Prior to Initial Antibiotic Received in Hospital	0.9643	1.0
PN-6	Initial Antibiotic Selection for CAP in Immunocompetent Patient	0.9277	0.9958
SCIP-Inf-1	Prophylactic Antibiotic Received Within One Hour Prior to Surgical Incision	0.9735	0.9998
SCIP-Inf-2	Prophylactic Antibiotic Selection for Surgical Patients	0.9766	1.0
SCIP-Inf-3	Prophylactic Antibiotics Discontinued Within 24 Hours After Surgery End Time	0.9507	0.9968
SCIP-Inf-4	Cardiac Surgery Patients with Controlled 6AM Postoperative Serum Glucose	0.9428	0.9963
SCIP-VTE-1	Surgery Patients with Recommended Venous Thromboembolism Prophylaxis Ordered	0.9500	1.0
SCIP-VTE-2	Surgery Patients Who Received Appropriate Venous Thromboembolism Prophylaxis Within 24 Hours Prior to Surgery to 24 Hours After Surgery	0.9307	0.9985
SCIP–Card-2	Surgery Patients on a Beta Blocker Prior to Arrival That Received a Beta Blocker During the Perioperative Period	0.9399	1.0

Note: Combines information from VBP Program final rule tables 4 and 6.

Table 6. HCAHPS Floors, Achievement Thresholds and Benchmarks that apply to the FY 2013 Hospital VBP Measures (HCAHPS "top box" scores)			
Patient Experience of Care: HCAHPS dimensions	**Floor***	**Achievement Threshold**	**Benchmark**
Communication with Nurses	38.98%	75.18%	84.70%
Communication with Doctors	51.51%	79.42%	88.95%
Responsiveness of Hospital Staff	30.25%	61.82%	77.69%
Pain Management	34.76%	68.75%	77.90%
Communication About Medicines	29.27%	59.28%	70.42%
Cleanliness and Quietness of Hospital Environment	36.88%	62.80%	77.64%
Discharge Information	50.47%	81.93%	89.09%
Overall Rating of Hospital	29.32%	66.02%	82.52%

*The minimum to be used in calculating the consistency score.

Table 7. Final Achievement Thresholds and Benchmarks for the FY 2014 VBP Program Mortality Outcome Measures (Displayed as Survival Rates)			
Measure ID	**Measure Description**	**Achievement Threshold**	**Benchmark**
MORT-30-AMI	Acute Myocardial Infarction 30-day mortality rate	84.77%	86.73%
MORT-30-HF	Heart Failure 30-day mortality rate	88.61%	90.42%
MORT-30-PN	Pneumonia 30-day mortality rate	88.18%	90.21%

Note: Combines information from VBP Program final rule tables 5 and 7, as corrected in July 2011.

E. Methodology for Calculating the Total Performance Score

The statute requires that the scoring methodology result in an appropriate distribution of value-based incentive payments among hospitals receiving different levels of hospital performance scores, with the hospitals achieving the highest performance scores receiving the largest value-based incentive payments. A hospital's performance score also must be determined using the higher of its achievement or improvement score for each measure.

CMS finalizes its proposed scoring methodology, making changes only to reflect the change described earlier in calculating the HCAHPS performance score. That change calculates the benchmark for an HCAHPS dimension using the same methodology that applies to calculating the benchmark for the clinical process of care and outcomes measures. The final rule includes several examples to illustrate the scoring methodology.

Under the scoring methodology, measures are grouped into domains: clinical process of care (AMI, HF, PN, and SCIP), patient experience of care (HCAHPS), and outcomes of care. Under this Three-Domain Performance Scoring Model, only two domains will receive weight in FY 2013. The third domain, outcome measures, will be added for FY 2014.

A hospital's score is calculated for each domain by combining the measure scores within that domain, weighting each measure equally. The domain score reflects the percentage of points earned out of the total possible points for which a hospital is

eligible. A hospital's total performance score is determined by aggregating the scores across all domains. In aggregating the scores across domains, the domains are weighted as described below. The total performance score is then translated into the percentage of VBP incentive payment earned using an exchange function, described in Section G below.

Achievement Score

In determining the achievement score, hospitals will receive 0 to 10 points for each measure along an achievement range, which is defined as the scale between the achievement threshold (the minimum level of hospital performance required to receive achievement points) and the benchmark (the mean of the top decile of hospital performance during the baseline period). As noted, the achievement threshold equals the 50^{th} percentile (median) baseline performance for each measure. In determining the improvement score, hospitals will receive 0 to 10 points along an improvement range, which is defined as the scale between the hospital's score on the measure during the baseline period and the benchmark.

The formula for determining the achievement score for each of the clinical process and outcomes measures and the 8 HCAHPS dimensions is:

> [9 * ((Hospital's performance period score-achievement threshold)/(benchmark-achievement threshold))] + .5

where the hospital performance period score falls in the range from the achievement threshold to the benchmark. All achievement points are rounded to the nearest whole number (for example, an achievement score of 4.5 is rounded to 5). If a hospital's score is:

- Equal to or greater than the benchmark, the hospital receives 10 points for achievement.
- Equal to or greater than the achievement threshold (but below the benchmark), the hospital receives a score of 1-9 based on a linear scale established for the achievement range.
    - The linear scale distributes all points proportionately between the achievement threshold and the benchmark so that the interval in performance between the score needed to receive a given number of achievement points and one additional achievement point is the same throughout the range of performance from the achievement threshold to the benchmark.
- Less than the achievement threshold (that is, the lower bound of the achievement range), the hospital receives 0 points for achievement.

Improvement Score

Similarly, the formula for determining the improvement score for each of the clinical process and outcomes measures and the 8 HCAHPS dimensions is:

> [10 * ((Hospital performance period score-Hospital baseline period score)/(Benchmark-Hospital baseline period score))]-.5

where the hospital performance score falls in the range from the hospital's baseline period score to the benchmark. If a hospital's score on the measure during the performance period is:

- Greater than its baseline period score but below the benchmark (within the improvement range), the hospital receives a score of 0-9 based on the linear scale that defines the improvement range.
- Equal to or lower than its baseline period score on the measure, the hospital receives 0 points for improvement.

Calculation of the Overall Clinical Process of Care and Outcome Measure Domain Scores

Both a hospital's overall clinical performance score and outcome performance score will be based on all measures that apply to the hospital using the higher of its achievement and improvement scores for each measure. A particular clinical process of care measure will be used for a hospital if, during the performance period, the hospital treats a minimum number of 10 cases meeting the technical specifications for reporting the measure. In addition, at least 4 measures within a domain must apply to the hospital for it to receive a performance score on that domain. For HCAHPS, a hospital must report a minimum of 100 HCAHPS surveys during the performance period for inclusion of the measure in the VBP Program. Hospitals that have 5 or fewer HCAHPS-eligible discharges in a month are given the option to not submit HCAHPS surveys for that month as part of their quarterly data submission. However, in contrast to the proposed clinical process of care measure scoring methodology, under which different numbers of measures might apply to different hospitals, all hospitals that report HCAHPS data must report the complete survey.

The number and type of measures that apply to each hospital will vary depending on the services the hospital provides and its patient population. Because the clinical process of care and outcome measure performance scores will be based only on the measures that apply to the hospital, the domain scores would be normalized across hospitals by converting the points earned for each domain to a percentage of total possible points. The points earned for each measure applicable to a hospital would be summed (weighted equally) to determine the *total earned points* for the domain:

> Total earned points for domain = Sum of points earned for all applicable domain measures

The *total possible points* for each of the clinical process and outcome domains would be calculated similarly:

> Total possible points for domain = Total number of domain measures that apply to the hospital multiplied by 10 points

Each hospital's final domain scores for the clinical process of care and outcome domains would be calculated as a percentage:

> Domain score = Total earned points divided by Total possible points multiplied by 100%

Scoring the HCAHPS Measure

The HCAHPS measure will be scored using points for achievement, improvement and consistency. Consistency points measure whether a hospital is meeting the achievement thresholds across the eight proposed HCAHPS dimensions. For each HCAHPS dimension, the same formulas used for the process of care and outcome measures are used to calculate achievement and improvement scores, and the hospital receives the higher of the two scores. For achievement/improvement, a minimum score of 0 corresponds to all eight dimensions being below the baseline median with no improvement and a maximum score of 80 corresponds to all eight dimensions being at or greater than the benchmark from the baseline period.

Hospitals earn consistency points ranging from 0-20 based on the single lowest of a hospital's 8 HCAHPS dimension achievement scores during the performance period compared to the achievement threshold (median baseline performance score) for that specific HCAHPS dimension. If a hospital's achievement scores for all 8 dimensions during the performance period were at or above the achievement threshold for the baseline period, then that hospital would earn all 20 consistency points. That is, if the lowest of a hospital's 8 HCAHPS achievement scores was at or above the median hospital performance on that dimension during the baseline period, then that hospital would earn the maximum of 20 consistency points.

The formula for calculating consistency points is modified from the proposed rule to reflect the change from a percentile-based to a percentage-based scoring system. Consistency points are awarded proportionately based on the single lowest HCAHPS dimension score compared with the achievement threshold.

The lowest dimension score is the lowest achievement value across the 8 dimensions under the following formula, where the floor is the minimum performance for any hospital on the dimension during the baseline period:

((Hospital's performance period achievement score – floor) / (achievement threshold - floor)).

The final formula for calculating the consistency score is:

> (20 * (lowest dimension score) - 0.5), rounded to the nearest whole number, with a minimum of zero and a maximum of 20 consistency points.

In summary, the following steps will determine a hospital's HCAHPS performance score:

1. For each of the eight dimensions, determine the larger of the 0-10 achievement score and the 0-9 improvement score.
2. Sum these eight values to get a 0-80 HCAHPS base score.
3. Calculate the 0-20 HCAHPS consistency score.
4. Sum the HCAHPS base score and the consistency score to get the HCAHPS total earned points, or HCAHPS overall score.

Weighting of Hospital Performance Domains and Calculation of the Hospital VBP Total Performance Score

CMS finalizes its proposal to calculate a total VBP performance score for FY 2013 by summing the scores for the clinical process of care and patient experience of care domains using a weight of 70 percent for the clinical process of care domain and a weight of 30 percent for the patient experience of care (HCAHPS) domain.
CMS reports receiving many comments opposing the weighting of the HCAHPS at 30 percent, generally proposing a lower weight. CMS responds that in determining the appropriate domain weights it considered many factors, which are detailed in the proposed rule. These include the number of measures in each domain, the reliability of individual measure data, and systematic effects of alternative weighting schemes on hospitals by location and characteristics.

Alternative Hospital Performance Scoring Models Considered. In the proposed rule, CMS sought comments on alternative scoring methodologies it considered, including the Three-Domain Performance Scoring Model, which it is proposed and is finalizing; the Six-Domain Performance Scoring Model; and the Appropriate Care Model (ACM). In the final rule, CMS responds to one comment envisioning a hybrid model in which a portion of the total score is determined by the ACM or other patient-centered method of assessing hospital performance. CMS indicates that it will continue to analyze alternatives for future rulemaking including the ACM and will consider hybrid models.

F. Applicability of the Value-Based Purchasing Program to Hospitals

The law specifies that the VBP Program will apply to "subsection (d) hospitals" as defined in section 1886(d)(1)(B) of the Act, a reference that includes inpatient, acute care hospitals in all 50 states and the District of Columbia, but does not include Puerto Rico hospitals or hospitals and hospital units excluded from the IPPS under section 1886(d)(1)(B) (such as psychiatric, rehabilitation, long term care, children's, and cancer hospitals). CMS clarifies in the final rule that critical access hospitals, which are

designated under another section of the Act, are not eligible to participate in the VBP Program. However, the VBP Program will apply to subsection (d) hospitals participating in the Rural Community Hospital Demonstration Project. CMS notes that it will evaluate potential overlap of other demonstration projects with the VBP Program.

Although hospitals in the state of Maryland are paid under a waiver and not under the inpatient prospective payment system (IPPS), they are included in the VBP Program unless the Secretary exercises discretion under 1886(o)(1)(C)(iv) of the Social Security Act to exempt such hospitals from the VBP Program. CMS will decide whether to exempt Maryland hospitals from the VBP Program for FY 2013 in future rulemaking and requires that, to qualify for that exemption, the State must submit a report by October 1, 2011 that describes with specificity how its program for participating hospitals achieves or surpasses the measured results in terms of patient health outcomes and cost savings under the VBP Program.

CMS finalizes its proposals to identify hospitals by provider number in hospital cost reports (which is the CMS Certification Number (CCN) of the main provider and also referred to as OSCAR number), and to calculate and make payment adjustments for hospitals based on that provider number.

The statute also excludes certain hospitals from the VBP Program as follows:

1) A hospital that is subject to a payment reduction for failure to report quality data satisfactorily under the hospital IQR program.

CMS is concerned about the possibility of hospitals deciding to “opt out” of the VBP Program by choosing to not submit data under the hospital IQR program, although it notes that these hospitals would still be subject to the hospital IQR program reduction to their annual payment increase for the fiscal year. CMS intends to track hospital participation in the hospital IQR program.

For hospitals with measure data from the performance period but no measure data from the baseline period (perhaps because these hospitals were either not open during the baseline period or otherwise did not participate in the hospital IQR program during that period), CMS will include these hospitals in the VBP Program and they will be scored based only on achievement. In response to comments, CMS clarifies that the VBP Program does apply to new hospitals because the statute does not include in the list of excludable hospitals those hospitals lacking baseline performance measure data. Hospitals with fewer than the minimum number of cases for a given measure in the baseline period will be treated as having “no measure data from the baseline period” and would not be scored on improvement for that measure but may still score up to 10 achievement points on the measure.

2) A hospital for which, during the performance period for the fiscal year, the Secretary cited deficiencies that pose immediate jeopardy to the health and safety of patients.

CMS finalizes its proposal to exclude from the FY 2013 VBP Program any hospital that is cited by CMS through the Medicare State Survey and Certification process for deficiencies during the proposed performance period (for purposes of the FY 2013 VBP Program, July 1, 2011 to March 31, 2012) that pose immediate jeopardy to patients. CMS will use the definition of the term "immediate jeopardy" in 42 CFR 489.3, and intends to further evaluate its application in the context of the VBP Program and may make additional proposals in future rulemaking.

3) A hospital for which there is not a minimum number of applicable measures for the performance period for the fiscal year involved, or for which there is not a minimum number of cases for the applicable measures for the performance period for such fiscal year (as determined by the Secretary).

CMS commissioned Brandeis University to conduct an independent analysis of what minimum numbers would be appropriate. Based on that analysis and consideration of comments, CMS finalizes its proposal to establish the minimum number of cases required for each measure under the Three Domain Performance Scoring Model at 10 and to exclude from the VBP Program any hospital to which less than 4 of the measures apply. CMS notes that the independent analysis looked only at clinical process of care measures and that its minimum number of cases and measures apply only with respect to clinical process of care measures. CMS intends to make a separate proposal on specific minimum number of cases and measures for the outcome domain in future rulemaking. CMS indicates it may make additional information on the independent analysis used to set minimum numbers of cases and measures, subject to privilege.

CMS also finalizes its proposal that hospitals must report a minimum of 100 HCAHPS surveys during the performance period to be included in the VBP Program for FY 2013. The reliability of HCAHPS scores was determined through statistical analyses conducted by RAND, the statistical consultant for HCAHPS. Based on these analyses, CMS believes that a reliability rate of 85 percent or higher is desired for HCAHPS to ensure that true hospital performance, rather than random "noise," is measured. RAND's analysis indicates that HCAHPS data do not achieve an 85 percent reliability level across all eight HCAHPS dimensions with a sample of less than 100 completed surveys. In response to comments, CMS also clarifies that the 100 survey requirement applies in both 9-month and 12-month performance periods; CMS also explains that the exclusion from the survey of patients discharged to nursing homes is based on poor response rates noted by CMS and HCAHPS survey vendors and self-administering hospitals.

Hospitals reporting insufficient data to receive a score on either the clinical process of care or HCAHPS domains will not receive a total performance score for the FY 2013 HVPB program. Hospitals excluded from the VBP Program will be exempt from the base operating DRG payment reduction required under section 1886(o)(7) and will not be eligible for value-based incentive payments.

G. The Exchange Function

CMS finalizes its proposal to adopt a linear exchange function to calculate the percentage of the value-based incentive payment earned by each hospital under the VBP Program in FY 2013.

The statute requires the Secretary to increase the base operating DRG payment amount by the value-based incentive payment amount for each discharge occurring in the fiscal year for hospitals that meet or exceed the performance standards. The value-based incentive payment amount for each discharge in a fiscal year is defined as the product of (1) the base operating DRG payment amount for the discharge for the hospital for such fiscal year, and (2) the value-based incentive payment percentage for the hospital for such fiscal year. The law also requires the Secretary to ensure (1) that the percentage is based on the hospital's performance score, and (2) that the total amount of value-based incentive payments to all hospitals in a fiscal year is equal to the total amount available for value-based incentive payments for such fiscal year. The amount available for value-based incentive payments is equal to the total amount of reduced payments for all hospitals, as estimated by the Secretary. The Secretary is required to adjust the base operating DRG payment amount for each hospital for each discharge in a fiscal year by an amount equal to the applicable percent of the base operating DRG payment amount for the discharge for the hospital for such fiscal year, as specified in the statute. The Secretary must make these reductions for all hospitals in the fiscal year involved, regardless of whether or not the hospital has been determined to have earned a value-based incentive payment for the fiscal year. For FY 2013, the term "applicable percent" is defined as 1.0 percent; the amount gradually rises to 2 percent by FY 2017.

CMS uses the exchange function, first introduced in the 2007 Report to Congress, to translate a hospital's total performance score into the percentage of the value-based incentive payment earned by the hospital. The form and slope of the exchange function determines how the incentive payments reward performance and how they encourage hospitals to improve the quality of care they provide. CMS evaluated four mathematical exchange function options: Straight line (linear); concave curve (cube root function); convex curve (cube function); and S-shape (logistic function) by examining how they would distribute value-based incentive payments among hospitals, how narrow or wide the distribution would be between low-performing and high-performing hospitals, the marginal incentives to improve quality performance, and simplicity.

In finalizing its proposal to adopt a linear exchange function to calculate the percentage of the value-based incentive payment earned by each hospital under the VBP Program in FY 2013, CMS notes that the linear function is the simplest and most straightforward of the alternatives and provides all hospitals the same marginal incentive to continually improve. The linear function also more aggressively rewards higher performing hospitals than the cube root function, but not as aggressively as the logistic and cube functions. CMS notes it may revisit the issue of the most appropriate exchange function

in future rulemaking. CMS disagrees with commenters who felt greater incentives were needed for lower performing hospitals in the VBP Program initial implementation.

CMS also finalizes its proposal to set the function's intercept at zero, which means that hospitals with scores of zero will not receive any incentive payment. Payment for each hospital with a score above zero is determined by the slope of the linear exchange function, which CMS will set so that the VBP Program is budget neutral. For FY 2013, CMS will provide the final exchange function slope once its actuaries have the requisite data from the performance period for the estimated aggregate value-based incentive payments for FY 2013 to be equal to 1 percent of the estimated aggregate base operating DRG payment amounts for FY 2013. CMS will also provide additional operational detail in future rulemaking on the manner in which hospitals will receive valued-based incentive payments.

The law specifies that the VBP Program applies to base operating DRG payments, a definition which excludes outlier payments, indirect medical education payments, disproportionate share hospital payments, and low-volume hospital adjustment payments. CMS will propose a definition of the term "base operating DRG payment amount" under section 1886(o)(7)(D), as well as how it would implement the special rules for certain hospitals described in section 1886(o)(7)(D)(ii), in future rulemaking.

H. Hospital Notification and Review Procedures

CMS finalizes its policies for notification and review provisions of the VBP Program contained in the proposed rule as follows.

To comply with statutory requirements regarding hospital notification, CMS will notify hospitals of the 1 percent reduction to their FY 2013 base operating DRG payments for each discharge in the FY 2013 IPPS rule, which will be finalized at least 60 days prior to the beginning of the 2013 fiscal year. CMS plans to incorporate this reduction into its claims processing system in January 2013, which will allow the 1 percent reduction to be applied to the FY 2013 discharges, including those that have occurred beginning on October 1, 2012. The agency will address the operational aspects of the reduction as part of the FY 2013 IPPS rule.

With the performance period ending only six months prior to the beginning of FY 2013, CMS will not know each hospital's exact total performance score or final value-based incentive payment adjustment 60 days prior to the start of the 2013 fiscal year. Therefore, it will inform each hospital through its QualityNet account at least 60 days prior to October 1, 2012 of the estimated amount of its value-based incentive payment for FY 2013 discharges based on estimated performance scoring and value-based incentive payment amounts. Each hospital participating in the VBP Program should have a QualityNet account. CMS will notify each hospital of the exact amount of its value-based incentive payment adjustment for FY 2013 discharges on November 1, 2012.

To make information available to the public as required by law, CMS will publish individual hospital scores with respect to each measure, each hospital's condition-specific score (that is, the performance score with respect to each condition or procedure, such as AMI, HF, PN, SCIP, HAI), each hospital's domain-specific score, and each hospital's total performance score on the *Hospital Compare* website. As also required, CMS will make each hospital's VBP performance measure score, condition-specific score, domain-specific score, and total performance score available on the hospital's QualityNet account on November 1, 2012. CMS will remind each hospital via the hospital's secure QualityNet account of the availability of its performance information under the VBP Program on this date. Hospitals will have 30 calendar days to review and submit corrections following the same procedures they use to review and submit corrections related to the hospital IQR program.

Finally, as also required by law, CMS will post aggregate information on the VBP Program on the *Hospital Compare* website, including: (1) the number of hospitals receiving value-based incentive payments under the program and the range and total amount of such value-based incentive payments, and (2) the number of hospitals receiving less than the maximum value-based incentive payment available for the fiscal year involved and the range and amount of such payments. Details are to be provided in the future.

CMS received a number of comments on public reporting. It will make every effort to make the publicly reported information usable and clear for public use but does not plan at this time to make public hospital-specific incentive payment percentages or amounts. With respect to reporting information for multi-campus hospitals, CMS notes that it currently receives and displays data by CCN number but intends to explore the best method to display hospital-specific information for each campus of multi-campus hospitals. With respect to hospital scores for the same measures reported under the hospital IQR program and the VBP Program, CMS acknowledges that the scores may differ based on the date range used for each program and will explain the difference to the public. CMS also believes that updates of VBP performance information and calculation of Total Performance Scores done on an annual basis provide the best and most reliable information. CMS also notes that it has not proposed to provide rankings of hospitals based on their Total Performance Scores but may consider the suggestion to do so in the future.

I. Reconsideration and Appeal Procedures

The law requires the Secretary to establish a process for hospitals to appeal the calculation of a hospital's performance assessment with respect to the performance standards and the hospital's performance score. CMS intends future rulemaking concerning this requirement and invites public comment in advance on the structure and procedure of an appropriate appeals process. Comments received encouraged the expeditious development of the process, or at least before FY 2012, and also suggested a QIO-style peer review process or informal dispute resolution process similar to the process under the CMS State Operations Manual, 7212.

The final rule notes that the law precludes administrative or judicial review under section 1869, section 1878, or otherwise of the following: (1) the methodology used to determine the amount of the value-based incentive payment under section 1886(o)(6) and the determination of such amount; (2) the determination of the amount of funding available for the value-based incentive payments under section 1886(o)(7)(A) and payment reduction under section 1886(o)(7)(B)(i); (3) the establishment of the performance standards under section 1886(o)(3) and the performance period under section 1886(o)(4); (4) the measures specified under section 1886(b)(3)(B)(viii) and the measures selected under section 1886(o)(2); (5) the methodology developed under section 1886(o)(5) that is used to calculate hospital performance scores and the calculation of such scores; or (6) the validation methodology specified in section 1886(b)(3)(B)(viii)(XI).

J. FY 2013 Validation Requirements for Hospital Value-Based Purchasing

For the FY 2013 VBP Program, CMS will use the same validation process that was adopted for the FY 2013 hospital IQR program in the FY 2011 IPPS final rule (75 FR 50227 through 50229). This approach avoids placing an additional burden on hospitals to separately return requested medical records for the VBP Program. CMS believes that it can ensure that the VBP Program measure data are accurate through the hospital IQR program validation process since the measure data used for the VBP Program are the same as the data collected for the hospital IQR program; data validation for the proposed baseline period was completed at the end of January 2011. CMS explains that it validated the hospital IQR data for the 3rd calendar quarter 2009 discharges using the validation process adopted in the FY 2010 IPPS final rule for the FY 2011 payment determination, and that it used the validation process adopted in the FY 2011 IPPS final rule for the FY 2012 payment determination for 1st calendar quarter 2010 discharges and for the 4th calendar quarter of 2009 since that quarter was not among the quarters of data that were used for validation of the FY 2011 or FY 2012 payment determinations.

In response to comments, CMS indicates it believes that targeting validation on the subset of hospitals that achieve high performance scores and highest performance score changes from previous performance periods would improve data accuracy under the VBP Program and will consider it for future rulemaking. CMS also agrees that the implementation of ICD-10/CM/PCS on VBP Program measures may impact VBP Program measure achievement and improvement, and the agency will monitor that impact over time.

K. Additional Information

Monitoring and Evaluation. CMS will monitor and evaluate the new VBP Program, focusing on any changes in beneficiary access or to the quality of care furnished to beneficiaries, especially within vulnerable populations, following implementation of the VBP Program.

Electronic Health Records (EHRs). The Health Information Technology for Economic and Clinical Health (HITECH) Act (Title IV of Division B of The American Recovery and Reinvestment Act of 2009 (ARRA), together with Title XIII of Division A of the ARRA) authorizes payment incentives under Medicare for the adoption and use of certified EHR technology beginning in FY 2011. Hospitals are eligible for these payment incentives if they meet requirements for meaningful use of certified EHR technology, which include reporting on quality measures using certified EHR technology. The Secretary is required to select measures, including clinical quality measures, that hospitals must provide to CMS in order to be eligible for the EHR incentive payments. The law requires the Secretary to give preference to clinical quality measures that have been selected for the hospital IQR program or that have been endorsed by the entity with a contract with the Secretary under section 1890(a) of the Act (i.e., the NQF). Any clinical quality measures selected for the HITECH incentive program for eligible hospitals must be proposed for public comment prior to their selection, except in the case of measures previously selected for the hospital IQR program.

CMS believes the financial incentives under HITECH for adoption and meaningful use of certified EHR technology by hospitals will encourage the adoption and use of certified EHRs to report clinical quality measures under the hospital IQR program which are subsequently used for the VBP Program. It notes that the provisions in the VBP rule do not implicate or implement any HITECH statutory provisions, which are the subject of separate rulemaking and public comment. In response to comments on the proposed rule, CMS plans to synchronize the various reporting programs to "ensure harmony amongst measures across various settings" and hopes to have all measure data submitted via EHRs in the future. CMS agrees that the goal is to collect data from certified EHR technology whenever possible, and it will engage the Office of the National Coordinator for Health IT in addressing alignment of the value-based purchasing and meaningful use programs, as well as issues relating to patient privacy.

L. QIO Quality Data Access

CMS contracts with QIOs to promote the effectiveness, efficiency, economy, and quality of services delivered to Medicare beneficiaries. Contracts are made with one organization in each state, as well as the District of Columbia, Puerto Rico, and the U.S. Virgin Islands, to serve as that state/jurisdiction's QIO. QIOs are private, usually not-for-profit organizations, which are staffed mostly by doctors and other health care professionals.

QIOs collect survey, administrative, and medical records data in order to monitor and assess provider performance. These data represent an important tool for CMS in its efforts to improve quality, but use of these data is currently subject to disclosure restrictions. Current law provides that "any data or information acquired by [a QIO] in the exercise of its duties and functions shall be held in confidence and shall not be disclosed to any person." The law also authorizes certain exceptions that allow disclosures, including the authority of the Secretary to prescribe additional exceptions

"in such cases and under such circumstances as the Secretary shall by regulations provide...." A key aspect of the implementing regulations issued in 1985 is the significant restriction placed on a QIO's ability to disclose QIO information, in particular information related to a Quality Review Study (QRS). A QRS is defined in § 480.101(b) as "an assessment, conducted by or for a QIO, of a patient care problem for the purpose of improving patient care through peer analysis, intervention, resolution of the problem and follow-up." Although QIOs are instrumental in collecting, maintaining, and processing data associated with the hospital IQR program, such data are considered to be QRS data and are subject to the increased restrictions placed on disclosures of QRS information.

In the final rule, CMS finalizes the following proposed changes to the QIO regulations.

1) The agency amends the definition of the QIO review system in § 480.101(b) to include CMS.
2) The agency modifies § 480.130 to clarify the Department's general right to access non-QRS confidential information; CMS makes it clear that this provision applies to Departmental components, including CMS as well as the Center for Disease Control and Prevention, including those matters related to data exchanges associated with the National Health Care Safety Network.
3) The agency modifies § 480.139(a) to remove limitations on CMS' access to information regarding the QIO's internal deliberations (as defined in § 480.101(b)); current regulation authorizes CMS' access to information in "deliberations," but limits that access to onsite "at the QIO office or at a subcontracted organization".
4) The agency modifies § 480.140 to eliminate the onsite restriction to CMS' access to QRS data.
5) The agency makes corresponding changes in § 422.153 (Medicare Advantage program) to ensure consistency between the two provisions.

Commenters expressed concerns that the proposed changes would eliminate many confidentiality safeguards and contravene original congressional intent. Commenters argued that making CMS part of the review system (with access to confidential QIO deliberations and QRS information) would subject the information to Freedom of Information Act (FOIA) requests; violate the Health Insurance Portability and Accountability Act and other laws; and might result in the release of patient, physician, and provider information on a greater scale than intended by Congress, including during discovery in civil proceedings.

CMS responds that, on balance, the benefits to CMS outweigh the perceived risks especially given the need to modernize regulations for the QIOs to perform their duties. The changes reflect the increased focus on medical errors and patient safety as well the larger role CMS plays in quality improvement. CMS also notes that FOIA provides some protections on further disclosure of confidential information. CMS further notes that access to the information will improve its understanding of payment related problems, including the use of QIO data to determine new methods to reduce or deny payments

under other initiatives, such as recovery audits. CMS believes that the current state of technology and the need of the agency to carry out its quality improvement policies warrant the elimination of the onsite requirement for all federal and state agencies; CMS will establish policies and procedures to ensure appropriate protections.

Commenters were also concerned about the impact of the changes on the QIO program, including having a chilling effect on open and frank communication; using the QIO process to determine whether to pursue litigation; subjecting QIO staff to lawsuit should a jury's decision differ from that of the QIO; and lessening the likelihood of successful mediation or dispute resolution in lieu of court proceedings. CMS disagrees with these concerns noting that the Department already has access to a great deal of QIO information; that its goal is not to serve as a repository of all QIO data; that it will publish CMS Privacy Act System of Record notices when it collects information retrieved by personal identifiers; that it does not disclose patient identifiable data to third party FOIA requesters; and that the statute currently protects QIOs and QIO staff from criminal and civil liability when performing duties using due care. CMS further notes that additional internal controls governing access by more federal agencies and departments can be developed through instructions and policy statements.

Finally, CMS establishes new regulations governing a researcher's ability to request access to QIO confidential information under which CMS has the discretion to approve such a request that is not already authorized under another provision of law. Some commenters were concerned that this access might discourage hospitals from continuing to participate in QIO activities, or absent well-defined parameters, that the process could be mismanaged. Others counseled CMS to provide access only to aggregate level of de-identified data under appropriate safeguards for patient privacy. CMS recognizes that any such request must be evaluated carefully and information released only under well-defined criteria. It notes that the CMS Privacy Board currently reviews researchers' requests for CMS claims data, and believes the CMS Privacy Board should be used to process requests for access to QIO data. CMS notes that any release of data is subject to a data use agreement which carefully states standards and criteria for use. Noting that full access to QIO data should be given when the CMS Privacy Board deems it warranted, CMS intends to develop sub-regulatory requirements to carry out the policy. CMS does not believe that QIOs should evaluate these requests citing concerns for QIO workload, the possibility of different decisions on similar requests, and the potential for forum shopping.

III. VBP Program Provisions in the FY 2012 IPPS Final Rule (August 18, 2011)

In the FY 2012 IPPS final rule, a new measure, Medicare spending per beneficiary, was adopted for both the hospital inpatient quality reporting (IQR) program and the FY 2014 VBP Program. The measure was to be included in a new VBP efficiency domain, and the IPPS final rule addressed calculation of the Medicare spending per beneficiary measure and the calculation of VBP scoring for the measure.

However, the addition of the Medicare spending per beneficiary measure to the VBP Program in FY 2014 was subsequently suspended in the CY 2012 OPPS final rule, discussed further in section IV below. Despite that change, the measure is retained for the IQR program beginning with the FY 2014 payment determination.

Calculation of Medicare Spending per Beneficiary

In finalizing the new claims-based measure of Medicare spending per beneficiary episode, CMS made changes from the proposed rule regarding the length of the episode (3 days prior to an index admission through 30-days post discharge instead of 90 days as proposed) and in the treatment of transfer cases, statistical outliers and other adjustments. A description of the finalized Medicare spending per beneficiary measure calculation methodology follows.

- The Medicare spending per beneficiary episode will span from 3 days prior to a hospitalization through 30-days post discharge. Only discharges that occur within 30 days before the end of the performance period will be counted as index admissions. This change reflects the views of a majority of commenters that the proposed 90 days post discharge was too long to represent factors within hospitals' control. However, CMS notes that this change is for the initial implementation of the measure, and in the future as hospitals gain experience in coordinating care in the post-discharge period, it will strongly consider lengthening the episode.
- For the FY 2014 payment determination, episodes will be calculated using claims data for hospital discharges occurring between May 15, 2012 and February 14, 2013.
- All Medicare Part A and Part B payments for services provided to the beneficiary during the episode will be included, with the exception of statistical outliers. The exclusion for statistical outliers is a change from the proposed rule which CMS says will protect low-volume hospitals from being disadvantaged by one or two anomalous high-cost outliers, but the final rule does not explain how the exclusion calculation will work. Payments made by beneficiaries (e.g., deductibles and coinsurance) that can be identified using the claims data will be included in these amounts. CMS will consider whether to add Medicare payments made under the Part D drug payment system in the future.
- Transfers from acute to subacute care (i.e., skilled nursing facilities, inpatient rehabilitation facilities or long term care hospitals) and readmissions to any facility will be attributed to the index admission, as proposed. Responding to comments, CMS states that inclusion of all readmissions will not disadvantage any individual hospital since all hospitals will be subject to the same method of calculation.
- In a change from the proposed rule in response to numerous comments, cases involving transfers from one acute care (subsection (d)) hospital to another will not be counted as an index admission and therefore will not generate a new Medicare spending per beneficiary episode for either the transferring or receiving hospital. However, if a patient is readmitted during the post-discharge window and then transferred to another acute care hospital, those expenditures will be applied to the hospital where the index admission occurred. Likewise, if a patient is readmitted to

any hospital and then transferred during that subsequent admission, those expenses will count in the episode for the hospital where the index admission occurred. CMS intends to further analyze hospital impacts and the potential unintended consequences of attributing expenses for the excluded transfer cases to either hospital.

- Episodes during which a beneficiary was enrolled in a Medicare Advantage plan, otherwise not enrolled in both Medicare Parts A and B, or covered by the Railroad Retirement Board will be excluded because full payment data are not available for these episodes. In addition, in the case of beneficiaries who exhaust Medicare Part A benefits and become eligible for Medicaid and in the case of dual eligibles, only Medicare payments (i.e., no Medicaid payments) will be included. CMS intends to analyze the impact of this and consider future refinements.
- Medicare spending per beneficiary amounts will be adjusted for age and severity of illness based on the hierarchical condition categories (HCCs) for the period 90 days prior to the episode and based on the MS-DRGs during the index admission. CMS clarifies that the HCCs will not be applied in a hierarchical manner, but that the primary and secondary diagnosis codes from the 90 days preceding the episode will be used to risk-adjust the payments during the episode. CMS disagrees with comments proposing further adjustment for socioeconomic factors, consistent with its understanding of the NQF position strongly discouraging measure adjustments based on sex, race or socioeconomic factors. CMS intends to further analyze the implications of risk adjustment for additional factors. Moreover, CMS will consider stratification of beneficiaries according to disability and Medicaid eligibility status in future refinements to the risk adjustment methodology.
- The spending amount will also be adjusted for geographic payment rate differences (e.g., wage index and geographic practice cost index) and will be further standardized to remove payment differences associated with hospital-specific rates, indirect medical education and disproportionate share hospital adjustments and for Medicare payment incentives, including the VBP Program, meaningful use under the EHR Incentive Program and the Physician Quality Reporting System. CMS disagrees with commenters suggesting that adjustments be made for differences in physician services rendered in rural health centers, federally qualified health centers and outpatient hospital departments, noting that adjusting for site of service would reduce the meaning of differences in the measure, and that the adjustment would make little difference in the calculation especially given the change to a 30-day post-discharge measure. CMS will address comments regarding the new-technology add-on payments in future rulemaking prior to implementation of the 2014 hospital VBP Program payment adjustment.
- A hospital's Medicare spending per beneficiary amount will be calculated as an average of all the Medicare beneficiary episodes (i.e., all the adjusted Medicare Part A and Part B payments for all beneficiary episodes divided by the total number of beneficiary episodes).
- Finally, a Hospital Medicare spending per beneficiary ratio will be calculated by dividing the hospital's per beneficiary spending amount by the median Medicare spending per beneficiary amount across all hospitals. Statistical outliers will be excluded from the median as well as from the individual hospital amounts.

CMS intends to make a public use file available "...so that hospitals can determine their own historical Medicare spending per beneficiary amounts and identify the drivers of those amounts."

CMS indicates that the measure will continue to be analyzed and refined as experience is gained, but it believes that convening a panel to consider the best risk adjustment strategy at this time would delay implementation of this measure, which CMS considers to be important to emphasizing coordination and efficiency of care delivery.

Responding to comments that Medicare spending on post-discharge services is outside the control of hospitals, CMS indicates that hospitals can have a significant impact on quality and efficiency of services if they work to redesign care systems and coordinate with other providers.

In response to comments, CMS indicates that explanatory language will be provided on *Hospital Compare* to assist beneficiaries in interpreting the data on Medicare spending per beneficiary.

Addition of Medicare Spending per Beneficiary to VBP FY 2014 Payment

In this IPPS final rule, CMS reports that among the comments received on the proposed performance period for this measure (discussed below), all but one stated that implementation should be delayed. Commenters offered numerous reasons for supporting delay. Most indicated that the measure was not posted on *Hospital Compare* in time to meet the statutory requirement that measures be displayed there for one year prior to the start of the performance period. CMS responds to this by stating that the measure was included on April 21, 2011, which is more than one year before the proposed performance period start date of May 14, 2012. [Note: This issue underlies the reason the measure was subsequently suspended for the FY 2014 VBP Program, as discussed further in section IV.]

In several places, CMS discusses its views on the timing of when measures can be added to the VBP Program. CMS does not believe that the statute requires that a measure be specified for the IQR before it is included on *Hospital Compare*, nor does it require that performance data be included on *Hospital Compare* before the measure is selected for the VBP Program. In CMS's view, including measures on *Hospital Compare* provides sufficient public notice that measures may be chosen for the IQR and possibly simultaneously for the VBP Program, as long as the performance period begins at least one year after the initial "inclusion" on *Hospital Compare*.

In this rule, CMS takes this position in addressing comments questioning the timing of the addition of the Medicare spending per beneficiary measure and also regarding the timing of the addition of the HACs to the VBP Program. In that case, CMS states that the HAC measures were first included on *Hospital Compare* on March 3, 2011 in the "Highlights" section and in the "Glossary". (Earlier in the final rule, CMS refers to providing information on future measures in the "Spotlight" section of the *Hospital*

Compare website. It is not clear whether this was the reference intended here.) CMS believes this display meets the requirements of section 1886(o)(2)(C)(i) that measures be *included* on the *Hospital Compare* for at least one year prior to the start of the performance period.

Scoring the Medicare Spending per Beneficiary Measure

In this rule, CMS finalizes, with clarifications, the proposed scoring methodology for calculating a hospital's Medicare spending per beneficiary ratio for purposes of the hospital VBP Program. The methodology parallels those previously finalized for the clinical process of care and outcomes measures in the VBP Program. That is, scores for achievement and improvement will be calculated and a hospital's score on this measure will be the higher of the two. The achievement threshold will be the median Medicare spending per beneficiary ratio across all hospitals during the performance period; the benchmark will be the mean of the lowest decile of ratios for the period.

CMS clarifies that a lower Medicare spending per beneficiary ratio results in higher points on this measure. That is, a hospital with a ratio above the achievement threshold will receive zero achievement points for this measure; one with a score at or below the benchmark will receive 10 points. Scores for hospitals with ratios between the benchmark and the threshold will range from 1 to 9 points under the formula:

[9*((achievement threshold - Hospital performance period score)/(achievement threshold-benchmark))]+ 0.5

For the improvement score, a baseline period for the Medicare spending per beneficiary ratio of May 15, 2010 through February 14, 2011 will be used. A hospital with a Medicare spending per beneficiary ratio in the performance period that is equal to or greater than its baseline ratio will score zero improvement points on the measure. A hospital with a performance period score that is less than its baseline period score but above the benchmark will receive 0 to 9 improvement points under the formula below, where the benchmark is the mean of the lowest decile of Medicare spending per beneficiary ratios across all hospitals.

[10*((Hospital baseline period Medicare spending per beneficiary ratio – hospital performance period ratio)/(hospital baseline period ratio - benchmark))] - 0.5

Scoring Example. The final rule provides the following example of scoring the Medicare spending per beneficiary measure.

If Hospital A had the following spending per beneficiary amounts during the baseline and performance periods:
Baseline = $10,105
Performance = $9,125;

and the median spending per beneficiary amounts across all hospitals for the baseline and performance periods were:

Median Baseline = $11,672
Median Performance = $12,467;

then the Medicare spending per beneficiary ratios for Hospital A in the baseline and performance periods would be:

Baseline Ratio = 0.867
Performance Ratio = 0.732.

The achievement threshold is the median ratio across all hospitals, which would be 1.0. In this example, the benchmark is assumed to be 0.712. CMS would calculate achievement and improvement points for Hospital A as follows:

Achievement Points = 9 * (1.0 – 0.732) / (1.0 – 0.712) + 0.5 = 8.868
Improvement Points = 10 * (0.867 – 0.732) / (0.867 – 0.712) – 0.5 = 8.185

These points are rounded to yield 9 attainment points and 8 improvement points.

Efficiency Domain

The measure will be added under a new "efficiency" domain. CMS proposed a weight of 20 percent for this new domain in the CY 2012 Hospital Outpatient Prospective Payment System proposed rule (discussed below), but the implementation of this measure was suspended in the final rule. Because the Medicare spending per beneficiary is the efficiency measure adopted for the VBP Program and has been suspended, there will be no efficiency domain in the 2014 VBP Program.

Performance Period for FY 2014

Again, because implementation of this measure was subsequently suspended, the description here of the performance period adopted for it in the FY 2012 IPPS final rule is included for reference, but no longer applies. For FY 2014, the performance period adopted for this measure was the 9-month period from May 15, 2012 through February 14, 2013. As noted earlier, the baseline period adopted was May 15, 2010 through February 14, 2011, and only discharges occurring within 30 days of the end of the baseline period will be counted as index admissions for the purpose of establishing Medicare spending per beneficiary baseline period episodes.

Response to Comments on HCAHPS

CMS responds to comments regarding the equity of using the HCAHPS survey in the VBP Program, concerned that safety net and urban hospitals serve a diverse population and face distinct challenges that cause them to perform poorly on the communications dimensions of the HCAHPS survey. CMS acknowledges that large urban hospitals have not performed as well as rural hospitals on the HCAHPS survey, but indicates that its internal studies show that hospitals in some urban areas score in the top quartile of

hospitals overall. CMS also used the AHRQ definition of safety net hospitals and found 30 hospitals meeting all the AHRQ criteria: high Medicaid percentage, high percentage of uncompensated care, and located in a high poverty county. Of these 30, CMS found 3 hospitals that fall in the top decile of all hospitals in terms of projected points earned on HCAHPS under the VBP scoring system. CMS says this suggests that safety net hospitals are capable of a high performance level on the HCAHPS.

Also related to comments on HCAHPS, CMS is considering the potential benefits of publicly reporting the patient mix characteristics and the pre- and post-patient-mix adjusted HCAHPS scores of participating hospitals.

IV. VBP Program Provisions in the CY 2012 OPPS Final Rule (November 30, 2011)

In the CY 2012 OPPS rulemaking cycle, CMS proposed additional changes to the VBP Program for FY 2014, involving measures, the minimum numbers of cases and measures for the outcome domain. Not all these changes were finalized, however. In addition, CMS in this rule suspends the effective date for addition of outcome and efficiency measures that were previously finalized for addition to the VBP Program in FY 2014.

Measures for 2014. CMS retains for FY 2014 the 13 clinical process of care and patient experience of care measures finalized for FY 2013 and adds 1 clinical process of care measure. The new measure is SCIP-Inf-9: Postoperative Urinary Catheter Removal on Postoperative Day 1 or 2; it is among the NQF SCIP infection prevention measures included in the HHS Action Plan to Prevent Healthcare Associated Infections.

Suspended Measures. The previously finalized measures for which this rule suspends implementation are: the 8 HAC measures and 2 composite measures developed by AHRQ, all of which would have been included in the outcome domain, and a measure of Medicare spending per beneficiary, the only measure adopted under the efficiency domain. In suspending the effective date for these measures, CMS is also not finalizing at this time other proposals related to them, such as performance periods and scoring methodologies, and will take comments made on these proposals into account in future rulemaking.

CMS bases its decision to suspend implementation of these measures on comments questioning the statutory authority to include them without first publicly releasing the specifications and displaying hospital performance data on the *Hospital Compare* website for at least one year. CMS indicates that in proposing the addition of the measures for FY 2014 it was interpreting the statute in a way that enabled swift action to improve patient safety and efficiency. However, CMS acknowledges that hospitals would benefit from seeing performance data on measures before they are included in the VBP Program, and therefore announces it will publicly post hospital performance data on VBP Program candidate measures for at least one year prior to the start of the performance period.

The addition of the HAC, AHRQ and Medicare spending per beneficiary measures are therefore suspended because none of these measures have been posted on Hospital Compare in time to be added for the FY 2014 VBP Program. CMS concludes that in order to implement a program that responds to the concerns of commenters and enjoys wide public support, it has good cause to waive the Administrative Procedure Act (APA) requirements for notice and opportunity to comment on the decision to suspend the effective dates for adding these measures to the VBP Program.

Several important items are noted in CMS's discussion of its decision to suspend the addition of these measures to the VBP Program. First, performance data on the HAC and AHRQ measures were posted on Hospital Compare on October 13, 2011, and CMS is "working expeditiously to appropriately post Medicare spending per beneficiary data on Hospital Compare." Second, CMS intends to release specifications for the Medicare spending per beneficiary measure, and will "ensure that interested parties have an opportunity to comment on them." Finally, the suspension of these measures from addition to the VBP Program has no effect on their status under the Hospital Inpatient Quality Reporting Program.

Minimum Numbers of Cases and Measures for the Outcome Domain for FY 2014. In the VBP final rule, CMS established a policy to exclude from the VBP Program calculations any clinical process of care measures for which a hospital reported fewer than 10 cases, and to exclude any hospital to which fewer than 4 clinical process of care measures apply. These minimums were developed based on analysis done by Brandeis University.

In this rule, based on further analyses by Brandeis University and Mathematica, CMS establishes that to receive a VBP Program score on a mortality measure, a hospital must report a minimum of 10 cases. CMS proposals regarding minimums for the AHRQ composite and HAC measures are not adopted as these measures are not finalized for inclusion in the FY 2014 VBP Program. CMS had proposed a 3-case minimum for scoring the AHRQ composite measures, and that a hospital would receive a score on the HACs as long as it had submitted at least one Medicare claim during the reporting period.

With respect to the minimum number of outcomes measures required for a score, CMS finalizes that hospitals must have scores on at least two of the three mortality measures. CMS had proposed a more complicated requirement, namely that a hospital would need to report on 10 measures, comprised of 7 of the 8 HAC measures along with 3 of the other outcome measures (e.g., 2 AHRQ measures and 1 mortality measure or 3 mortality measures). Under the proposed methodology, the HAC measure Foreign Object Retained After Surgery would not be required to achieve an outcome score because it is not relevant to the small number of hospitals that do not perform surgery.

In order for a hospital to receive a total performance score under the VBP Program for FY 2014, the hospital must have enough cases and measures to report on all finalized domains (i.e., clinical process of care, patient experience of care and outcomes.)

Performance Periods and Baseline Periods for FY 2014 Measures. CMS finalizes performance periods and baseline periods for the FY 2014 VBP Program as shown in the table below. (FY 2013 information is also shown for reference.) With respect to clinical process of care measures, CMS notes that for FY 2013, a 3-quarter performance period was established due to various statutory deadlines and other implementation challenges, but a 12-month performance period is ultimately envisioned. For FY 2014, CMS states that a 12-month performance period is not yet feasible; the 3-quarter period from April 1, 2012 to December 31, 2012 will permit CMS to notify hospitals of the amount of their incentive payment at least 60 days before the start of FY 2014, and will allow CMS to consider selecting 2013 as the performance period for the FY 2015 VBP Program. A comparable three-quarter period is finalized for the baseline period for these measures for FY 2014. As noted above, in the final rule for the VBP Program, CMS adopted 12-month performance and baseline periods for the mortality measures, also shown in the table.

CMS does not finalize performance and baseline periods for the suspended Medicare spending per beneficiary, AHRQ and HAC measures.

Hospital VBP Program Baseline and Performance Periods		
Domain	**Baseline Period – FY 2013**	**Performance Period – FY 2013**
Clinical Process	July 1, 2009 – March 31, 2010	July 1, 2011 – March 31, 2012
Patient Experience	July 1, 2009 – March 31, 2010	July 1, 2011 – March 31, 2012
Domain	**Baseline Period – FY 2014**	**Performance Period – FY 2014**
Clinical Process	April 1, 2010 – December 31, 2010	April 1, 2012 – December 31, 2012
Patient Experience	April 1, 2010 – December 31, 2010	April 1, 2012 – December 31, 2012
Outcomes		
• *Mortality*	July 1, 2009 – June 30, 2010	July 1, 2011 – June 30, 2012

Performance Standards for FY 2014. CMS reviews and displays the achievement and improvement performance standards for mortality outcome measures as finalized in the VBP Program final rule.

For the FY 2014 clinical process of care and patient experience of care measures, CMS uses the same approach adopted in the VBP Program final rule. That is, the achievement threshold for each measure is set at the median of hospital performance during the baseline period (April 1, 2010 to December 31, 2010), and the benchmark is the mean of the top decile performance of applicable hospitals during the baseline period. These standards are shown in the summary table at the end. CMS will also continue to set the improvement threshold for each of the measures as each hospital's performance on the measure during the baseline period. No thresholds or benchmarks are finalized for the suspended efficiency and outcome measures (AHRQ composite measures, HACs, and Medicare spending per beneficiary).

Scoring Methodology. In the VBP Program final rule, CMS adopted a methodology for scoring clinical process of care, patient experience of care, and outcome measures. The proposed methodology for scoring the HAC measures, which would have used an aggregate HAC rate based on an unweighted average of the rates of the individual HAC measures, is not adopted as the addition of this measure to the VBP Program has been suspended.

Ensuring HAC Reporting Accuracy. CMS indicates that it is considering a validation process for HACs that would target a subset of hospitals that report zero or an aberrantly low percentage of HACs on Medicare fee-for-service IPPS claims relative to the national average of HACs. Comments received in response to the OPPS proposed rule will be considered in future policy development. In that proposed rule, CMS stated its belief that HAC rates may be under-reported on claims data. Specifically, CMS analyzed HAC rates calculated from claims data and found that the HAC rates appear under-reported when compared with rates for similar HAI measures. CMS notes in particular that the Catheter Associated Urinary Tract Infection (CAUTI) measure rate as reported in the AHRQ 2008 National Healthcare Quality Report is 54 out of every 1,000 eligible discharges, more than 125 times greater than the national HAC reported CAUTI rate of 0.317 out of every 1,000 eligible discharges.

Acknowledging differences in definitions, CMS states that definitive conclusions cannot be drawn from this comparison regarding systematic under-reporting by specific hospitals, but believes this indicates the need for consideration of an HAC validation process to ensure accurate reporting of HACs on Medicare claims. CMS also indicates that it intends to take appropriate action if it discovers systematic underreporting of HACs or other adverse event information, including reporting such instances to the HHS Office of the Inspector General for its review.

Domain Weighting. As finalized in previous rulemaking, for the FY 2013 Hospital VBP Program, CMS will weight a hospital's score for the clinical process of care domain at 70% of the total performance score, with the remaining 30% weight given to the patient experience of care domain. The outcome measure domain does not apply for scoring in the FY 2013 Hospital VBP Program, the first year of implementation.

In this rule, CMS finalizes the following domain weights for FY 2014:

Outcome = 25%
Clinical process of care = 45%
Patient experience of care = 30%

The efficiency domain, proposed to have a weight of 20% for FY 2014 is not finalized because implementation of the Medicare spending per beneficiary measure, the only measure adopted for this domain, was suspended. Under that proposal, outcomes and patient experience would have been weighted at 30% each and clinical process of care measures at 20%.

CMS has repeatedly indicated its view that, over time, scoring methodologies should be weighted more toward outcomes, patient experience of care and functional status measures (e.g. measures assessing physical and mental capacity, capability, well-being and improvement).

Review and Correction Process. CMS adopts a process that offers hospitals an opportunity to review and correct chart-abstracted data and patient experience data for the Hospital VBP Program. In future rulemaking CMS intends to propose review and correction processes for outcome measures, efficiency measures, and domain, condition and total performance scores.

For chart-abstracted measures, CMS will rely on the process already in place for review and correction under the Hospital IQR Program. Specifically, once a hospital has an opportunity to review and correct data related to chart-abstracted measures submitted for the Hospital IQR Program, CMS will consider that the hospital has been given an opportunity for review and correction of these data for purposes of the VBP Program. Under the IQR process, hospitals have an opportunity to submit, review and correct chart-abstracted information submitted to the Quality Improvement Organization (QIO) Clinical Warehouse during the 4½ month period following the last discharge in a calendar quarter. [Note: Under the FY 2012 IPPS/LTCH PPS proposed rule, CMS had proposes to change that period to 104 days, but this change was not finalized.]

For HCAHPS data, CMS adopts a two-phase process for data review and correction. The first phase will permit review and correction of HCAHPS data submitted for the Hospital IQR Program, and the second phase allows for review of the patient-mix and mode adjusted HCAHPS scores on those dimensions that are used to score hospitals under the VBP Program.

For the phase one review, which was finalized in the FY 2012 IPPS/LTCH PPS final rule, the HCAHPS submission deadline under the Hospital IQR Program is reduced from 14 weeks to 13 weeks providing a 1-week period for hospitals to review and correct their HCAHPS data. During the 1-week review and correction period, hospitals may provide any missing data or replace incorrect data for records that they submitted to the QIO Clinical Warehouse. They may also review frequency distributions of all their submitted data items, including hospital summary information, patient administrative data and patient survey responses. Hospitals may not submit new data records during this period, and once the 1-week period has concluded, hospitals may not review, correct or submit additional HCAHPS data for the applicable quarter.

For phase two, hospitals will have 1 week to examine the HCAHPS dimension scores for the applicable VBP Program performance period. These scores are calculated after the data submitted by hospitals are analyzed to identify and remove incomplete surveys and after adjustments are made for effects of patient mix and survey mode. If a hospital believed its scores were miscalculated, CMS will check the calculation and recalculate the scores if necessary. Hospitals will not be able to modify HCAHPS data previously

submitted or submit new data. CMS intends to propose detailed procedures for the phase 2 review and correction period in future rulemaking.

In response to comments, CMS indicates that in future rulemaking, details will be provided on review and corrections for claims-based measures, and an appeals process will be proposed.

V. Summary Tables of Measures for FY 2013 and FY 2014

Table 1. VBP Program Measures – FY 2013 FINAL					
Measure	**Baseline Period**	**Performance Period**	**Achievement Threshold**	**Benchmark**	**Notes**
Clinical Process of Care Domain Weight = 70% Minimum of 10 cases for measure score Minimum of 4 measures for domain score	7/1/2009-3/31/2010	7/1/2011-3/31/2012			VBP final rule
Acute Myocardial Infarction:					
AMI-7a Fibrinolytic Therapy Received Within 30 Minutes of Hospital Arrival			0.6548	0.9191	
AMI-8a Primary PCI Received Within 90 Minutes of Hospital Arrival			0.9186	1.0	
Heart Failure:					
HF-1 Discharge Instructions			0.9077	1.0	
Pneumonia:					
PN-3b Blood Cultures Performed in the Emergency Department Prior to Initial Antibiotic Received in Hospital			0.9643	1.0	
PN-6 Initial Antibiotic Selection for CAP in Immunocompetent Patient			0.9277	0.9958	
Healthcare-associated Infections:					
SCIP-Inf-1 Prophylactic Antibiotic Received Within One Hour Prior to Surgical Incision			0.9735	0.9998	
SCIP-Inf-2 Prophylactic Antibiotic Selection for Surgical Patients			0.9766	1.0	
SCIP-Inf-3 Prophylactic Antibiotics Discontinued Within 24 Hours After Surgery End Time			0.9507	0.9968	
SCIP-Inf-4 Cardiac Surgery Patients with Controlled 6AM Postoperative Serum Glucose			0.9428	0.9963	
Surgeries:					
SCIP-Card-2 Surgery Patients on a Beta Blocker Prior to Arrival That Received a Beta			0.9399	1.0	

Table 1. VBP Program Measures – FY 2013 FINAL					
Measure	**Baseline Period**	**Performance Period**	**Achievement Threshold**	**Benchmark**	**Notes**
Blocker During Perioperative Period					
*SCIP-VTE-1*Surgery Patients with Recommended Venous Thromboembolism Prophylaxis Ordered			0.9500	1.0	
SCIP-VTE-2 Surgery Patients Who Received Appropriate Venous Thromboembolism Prophylaxis Within 24 Hours Prior to Surgery to 24 Hours After Surgery			0.9307	0.9985	
Patient Experience of Care Weight = 30%					VBP final rule
Hospital Consumer Assessment of Healthcare Providers and Systems Survey (HCAHPS) Minimum 100 surveys for domain score	7/1/2009-3/31/2010	7/1/2011-3/31/2012			
HCAHPS dimensions:					Floor for calculating consistency score:
Communication with Nurses			75.18%	84.70%	38.98%
Communication with Doctors			79.42%	88.95%	51.51%
Responsiveness of Hospital Staff			61.82%	77.69%	30.25%
Pain Management			68.75%	77.90%	34.76%
Communication About Medicines			59.28%	70.42%	29.27%
Cleanliness and Quietness of Hospital Environment			62.80%	77.64%	36.88%
Discharge Information			81.93%	89.09%	50.47%
Overall Rating of Hospital			66.02%	82.52%	29.32%

Table 2. VBP Program Measures – 2014 Final					
Measure	**Baseline Period**	**Performance Period**	**Achievement Threshold**	**Benchmark**	**Notes on Rulemaking**
Clinical Process of Care Domain Weight = 45% Minimum of 10 cases for measure score Minimum of 4 measures for domain score	4/1/2010-12/31/2010	4/1/2012-12/31/2012			2014 baseline and performance periods, achievement threshold, benchmark, and domain weights from OPPS final rule, except mortality measure periods, thresholds and benchmarks from VBP final rule
Acute Myocardial Infarction:					
AMI-7a Fibrinolytic Therapy Received Within 30 Minutes of Hospital Arrival.			0.8066	0.9630	
AMI-8a Primary PCI Received Within 90 Minutes of Hospital Arrival.			0.9344	1.0000	
Heart Failure:					
HF-1 Discharge Instructions			0.9266	1.0000	
Pneumonia:					
PN-3b Blood Cultures Performed in the Emergency Department Prior to Initial Antibiotic Received in Hospital			0.9730	1.0000	
PN-6 Initial Antibiotic Selection for CAP in Immunocompetent Patient			0.9446	1.0000	
Healthcare-associated Infections:					
SCIP-Inf-1 Prophylactic Antibiotic Received Within One Hour Prior to Surgical Incision			0.9807	1.0000	
SCIP-Inf-2 Prophylactic Antibiotic Selection for Surgical Patients.			0.9813	1.0000	

Table 2. VBP Program Measures – 2014 Final					
Measure	**Baseline Period**	**Performance Period**	**Achievement Threshold**	**Benchmark**	**Notes on Rulemaking**
SCIP-Inf-3 Prophylactic Antibiotics Discontinued Within 24 Hours After Surgery End Time.			0.9663	0.9996	
SCIP-Inf-4 Cardiac Surgery Patients with Controlled 6AM Postoperative Serum Glucose.			0.9634	1.0000	
SCIP INF-9 Postoperative Urinary Catheter Removal on Postoperative Day 1 or 2			0.9286	0.9989	Added for 2014
Surgeries:					
SCIP-Card-2 Surgery Patients on a Beta Blocker Prior to Arrival That Received a Beta Blocker During the Perioperative Period.			0.9565	1.0000	
*SCIP-VTE-1*Surgery Patients with Recommended Venous Thromboembolism Prophylaxis Ordered.			0.9462	1.0000	
SCIP-VTE-2 Surgery Patients Who Received Appropriate Venous Thromboembolism Prophylaxis Within 24 Hours Prior to Surgery to 24 Hours After Surgery			0.9492	0.9983	
Patient Experience of Care Domain Weight = 30%	4/1/2010-12/31/2010	4/1/2012-12/31/2012			
Hospital Consumer Assessment of Healthcare Providers and Systems Survey (HCAHPS) Minimum 100 surveys for domain score					
HCAHPS dimensions:					Floor for calculating consistency score:
Communication with Nurses			75.79%	84.99%	42.84%

Table 2. VBP Program Measures – 2014 Final					
Measure	**Baseline Period**	**Performance Period**	**Achievement Threshold**	**Benchmark**	**Notes on Rulemaking**
Communication with Doctors			79.57%	88.45%	55.49%
Responsiveness of Hospital Staff			62.21%	78.08%	32.15%
Pain Management			68.99%	77.92%	40.79%
Communication About Medicines			59.85%	71.54%	36.01%
Cleanliness and Quietness of Hospital Environment			63.54%	78.10%	38.52%
Discharge Information			82.72%	89.24%	54.73%
Overall Rating of Hospital			67.33%	82.55%	30.91%
Outcomes **Domain Weight = 25%** Minimum of 2 measures for domain score					Performance periods, benchmarks and thresholds from VBP final rule. Domain weight and minimum measures from OPPS final rule.
Mortality Measures (Medicare Patients) Minimum cases = 10	7/1/2009-6/30/2010	7/1/2011-6/30/2012			
Acute Myocardial Infarction (AMI) 30-day mortality rate			84.77%	86.73%	
Heart Failure (HF) 30-day mortality rate			88.61%	90.42%	
Pneumonia (PN) 30- day mortality rate			88.18%	90.21%	

Table 3. VBP Measures Adopted for FY 2014 and Later Suspended Note: All Measures adopted in the VBP Final Rule (May 2011) and suspended in the OPPS final rule (November 2011)
Outcome domain
AHRQ Patient Safety Indicator (PSI) and Inpatient Quality Indicator (IQI) Composite Measures
Complication/patient safety for selected indicators (composite)
Mortality for selected medical conditions (composite)
Hospital Acquired Condition Measures
Foreign Object Retained After Surgery
Air Embolism
Blood Incompatibility
Pressure Ulcer Stages III & IV
Falls and Trauma (Includes: Fracture, Dislocation, Intracranial Injury, Crushing Injury, Burn, Electric Shock)
Vascular Catheter-Associated Infection
Catheter-Associated Urinary Tract Infection (UTI)
Manifestations of Poor Glycemic Control
Efficiency domain
Medicare Spending per Beneficiary