

# Final Recommendations for Updating the Quality-Based Reimbursement Program for Rate Year 2018 and 2019

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This recommendation is final recommendation ready for Commission action. Final recommendations are updated from the draft recommendations presented at October 19<sup>th</sup> and December 14<sup>th</sup>, 2016 Commission meetings. Updated sections are **highlighted and bolded** in the text.

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## **LIST OF ABBREVIATIONS**

ACA	Affordable Care Act
CDC	Centers for Disease Control & Prevention
CY	Calendar year
CAUTI	Catheter-associated urinary tract infection
CLABSI	Central line-associated blood stream infections
CMS	Centers for Medicare & Medicaid Services
DRG	Diagnosis-related group
ED	Emergency department
FY	Fiscal year
FFY	Federal fiscal year
HAI	Healthcare Associated Infections
HCAHPS	Hospital Consumer Assessment of Healthcare Providers and Systems
HSCRC	Health Services Cost Review Commission
MRSA	Methicillin-resistant staphylococcus aureus
NHSN	National Health Safety Network
PQI	Prevention quality indicators
QBR	Quality-Based Reimbursement
RY	Maryland HSCRC Rate Year
SIR	Standardized infection ratio
SSI	Surgical site infection
THA/TKA	Total hip and knee arthroplasty
VBP	Value-Based Purchasing

## INTRODUCTION

The Maryland Health Services Cost Review Commission's (HSCRC's or Commission's) quality-based measurement and payment initiatives are important policy tools for providing strong incentives for hospitals to improve their quality performance over time. These initiatives hold amounts of hospital revenue at risk directly related to specified performance benchmarks. Maryland's Quality-Based Reimbursement (QBR) program, in place since July 2009, employs measures that are similar to those in the federal Medicare Value-Based Purchasing (VBP) program, in place since October 2012. Because of its long-standing Medicare waiver for its all-payer hospital rate-setting system and the implementation of the QBR program, the Centers for Medicare & Medicaid Services (CMS) has given Maryland various special considerations, including exemption from the federal Medicare VBP program.

Similar to the VBP program, the QBR program currently measures performance in clinical care, patient safety, and experience of care domains. Despite higher weighting of financial incentives on the experience of care domain (50%) which employs the national Hospital Consumer Assessment of Healthcare Providers and Systems (HCAHPS) survey instrument, Maryland has continued to perform below the national average over the last several years with little or no improvement, including for the Rate Year (RY) 2017 completed performance year. The patient safety domain was weighted second highest, and scores on average for this domain were next lowest.

The purpose of this report is to make draft recommendations for the QBR program for fiscal year (FY) 2019. The report also recommends updates to the approach for scaling rewards and penalties retrospectively for RY 2017 and 2018 in order to assign rewards and penalties consistent with hospital performance levels based on data now finalized for RY 2017.

## BACKGROUND

### Federal VBP Program

The Affordable Care Act (ACA) established the hospital VBP program,<sup>1</sup> which requires CMS to reward hospitals with incentive payments for the quality of care provided to Medicare beneficiaries. The program assesses hospital performance on a set of measures in clinical care, experience of care, safety, and efficiency (i.e., Medicare spending per beneficiary) domains. The incentive payments are funded by reducing the base operating diagnosis-related group (DRG) amounts that determine the Medicare payment for each hospital inpatient discharge.<sup>2</sup> The ACA

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<sup>1</sup> For more information on the VBP program, see <https://www.cms.gov/Medicare/Quality-Initiatives-Patient-Assessment-Instruments/hospital-value-based-purchasing/index.html?redirect=/Hospital-Value-Based-Purchasing/>

<sup>2</sup> 42 USC § 1395ww(o)(7).

set the reduction at 1 percent in federal fiscal year (FFY) 2013 and required that it increase incrementally to 2 percent by FFY 2017.<sup>3</sup>

CMS will calculate FFY 2018 hospital final scores based on measures in the four equally weighted domains (Appendix I). Although not final, CMS has proposed no changes to the domain weights for the FFY 2019 program from those used for FFY 2018.

### Maryland’s Current QBR Program (RY 2018 Performance Period)

For the RY 2018 performance period, Maryland’s QBR program like the federal VBP program, assesses hospital performance on similar (or the same where feasible) measures, and holds 2% of hospital revenue at risk based on performance. (See Appendix II for more detail, including the timeline for base and performance years impacting RYs 2017-2019).

For RY 2018, the QBR domains are weighted differently than those of the VBP program as illustrated in Figure 1 below. Main changes for this performance year are that the three-item Care Transition Measure (CTM-3)<sup>4</sup> dimension was added to the HCAHPS survey, and the PC01-Early Elective Delivery measure was added to the Safety domain. The QBR program does not include an efficiency domain within the QBR program; however, Maryland has implemented an efficiency measure in relation to global budgets based on potentially avoidable utilization as measured by the Agency for Healthcare Research and Quality Prevention Quality Indicators (PQI) and readmissions. HSCRC staff will continue to work with key stakeholders to complete development of an efficiency measure that incorporates population-based cost outcomes.

**Figure 1. RY 2018 Measures and Domain Weights for CMS VBP<sup>5</sup> and Maryland QBR Programs**

	Maryland QBR Domains and Measures	CMS VBP Domain Weights and Measure Differences
<b>Clinical Care</b>	15% (1 measure: all cause inpatient mortality)	25% (3 measures: condition-specific mortality)
<b>Experience of Care<sup>6</sup></b>	50% (9 measures: HCAHPS 8 dimensions + CTM 3 dimension)	25% Same

<sup>3</sup> 42 USC § 1395ww(o)(7)(C).

<sup>4</sup> The Care-Transitions Measure is a composite of three questions related to patients’ and caregivers’ understanding of necessary follow-up care post-discharge, detailed in questions 23-25 of the HCAHPS survey. For specifics on the measure, including question language, please see:

[https://mhd0.maine.gov/pdf/CTM%20Microspecifications%20Manual %20Nov%202013\\_final.pdf](https://mhd0.maine.gov/pdf/CTM%20Microspecifications%20Manual%20Nov%202013_final.pdf).

<sup>5</sup> Details of CMS VBP measures may be found at: <https://www.cms.gov/Medicare/Quality-Initiatives-Patient-Assessment-Instruments/HospitalQualityInits/Measure-Methodology.html>

<sup>6</sup> For the FFY 2018 VBP program, CMS changed the name of this domain from “Patient experience of care” to “Patient and Caregiver-Centered Experience of Care/Care Coordination,” and for the 2019 VBP program, CMS changed the name to “Patient and Community Engagement.” For purposes of this report, this domain will be referred to as “experience of care” across the program years.

	Maryland QBR Domains and Measures	CMS VBP Domain Weights and Measure Differences
<b>Safety</b>	35% (8 measures: CDC NHSN, all-payer PSI 90, PC01)	25% PSI 90 Medicare only; others same
<b>Efficiency</b>	N/A	25% (Medicare spending per beneficiary measure)

## ASSESSMENT

This section summarizes Maryland hospital performance including scores for RY 2017 (completed), and the most updated performance data on a select subset of measures currently in use for the RY 2018 QBR or VBP program.

### Performance Results on QBR and VBP Measures with Most Recent Data Available

For a **subset** of the measures across the domains used for the RY 2018 QBR and/or VBP programs based on the most current data available from CMS, Figure 2 below provides Maryland’s performance levels (Most Recent Rate), the change from the previous 12-month period (Improvement from Previous Year), and the difference between the most recent national VBP program performance and the most recent Maryland rates (Difference from National Rates). The colors of the cells illustrate comparisons to national or previous year’s rates (see color key). Figure 2 is designed to provide a concise snapshot on performance, but detailed data for this Figure and additional comparison calculations are available in the series of tables found in Appendix III. Additional highlights regarding Maryland’s performance on the measures by domain are provided in the text just following Figure 2.

Figure 2. Selected QBR/VBP Measures: Maryland Current Rates, Improvement from Previous Year, and Change in Difference from National Performance

Color Codes	Worse than the National Rate	Worse than MD Previous Year	MD-National gap worse than previous yr. gap
	Better than the National Rate	Improved from MD Previous Year	MD National gap better than Previous year gap
	At National Average	No Change	No Change Not Available
Domain (RY 2018) Measure	Most Recent Rate	Improvement From Previous Year	Difference from National Rate
<b>Experience of Care Domain (HCAHPS Percent “top box” or most positive response reported)</b>			
Responsiveness	59%	-1%	-9%
Overall Rating	65%	0%	-7%
Clean/Quiet	62%	0%	-7%
Explained Medications	60%	0%	-5%
Nurse Communication	76%	0%	-4%
Pain Management	68%	1%	-3%
Doctor Communication	79%	1%	-3%
Discharge Info	86%	0%	-1%
Three-Part Care Transitions Measure	48%	0%	-4%
<b>Clinical Care- Outcome Domain (Mortality Risk Adjusted Rates)</b>			
30-day AMI	14.06%	-0.44%	-0.14%
30-day Heart Failure	10.86%	-0.04%	-0.74%
30-day Pneumonia	10.64%	-0.21%	-0.86%
<b>Safety Domain</b>			
PC-01 Early Elective Delivery (% Deliveries)	5%	2%	2%
<b>NHSN SIR: Standardized Infection Ratios</b>			
CLABSI	0.50	-5.12%	-0.50%
CAUTI	0.86	-48.04%	-0.14%
SSI – Colon	1.19	12.32%	0.19%
SSI - Abdominal Hysterectomy	0.92	-28.49%	-0.08%
MRSA	1.20	-10.71%	0.20%
C.diff.	1.15	-0.26%	0.15%
Measurement time periods for HCAHPS and Safety measures: Q4-2013 to Q3-2014 and Q4-2014 to Q3-2015 (most recent rate); for 30-day mortality Q3-2010 to Q2-2013 and Q3-2011 to Q2-2014 (most recent rate). For measures reported as a percentage, the improvement and National gap are reported as percentage points; for SIRs, the improvement and National gap are reported as percent differences.			

## *Safety Measures*

For the early elective induction or Cesarean section delivery measure (PC-01), staff notes that Maryland performed better than the nation in the earlier time period but worse with a sharp increase in the later period. By contrast, the nation improved from the earlier to the latter period.

For Centers for Disease Control National Health Safety Network (CDC NHSN) Standardized Infection Ratio (SIR) measures compared to a national reference period (2008-2011) where the SIR was established at the value of 1 (See Appendix III, Table 4 for detailed data), Maryland statewide performance appears better on average than the national average for some of the measures and worse for others in both the earlier and later time periods. Staff was unable to compare changes in the national rate from a previous time period (indicated in Figure 2 above as grey “not available”).

## *Experience of Care Measures*

As noted previously, the experience of care domain is weighted most heavily in the Maryland QBR Program (45 percent in RY2017 and 50 percent in RY 2018). Staff compared the most recently available two years of data for experience of care with that of the nation (Figure 2; see Appendix III, Table 1 for detailed data) and notes that compared to the nation, Maryland’s most recent rates are worse for all nine of the experience of care HCAHPS dimensions (indicated in Figure 2 as all red).

Maryland’s performance has not changed significantly overall, and the nation has had modest improvement year over year from 2012 to 2015. In their letters exempting Maryland from the VBP program in 2015 and 2016 (see Appendix II), CMS also notes Maryland’s ongoing significant lag behind national medium performance levels and has been strongly in favor of increasing weight for this domain in the QBR program. Additional analysis of experience of care scores (an aggregate of eight dimensions available since 2012) comparing Maryland to the nation shows that, as illustrated in Figure 3 below, Maryland’s performance declined in 2013 and improved in 2014 to 2012 levels. Given that 2013 was the base period for RY 2017, some of the improvement seen in the RY 2017 QBR scores is due to declines in performance in the base year.

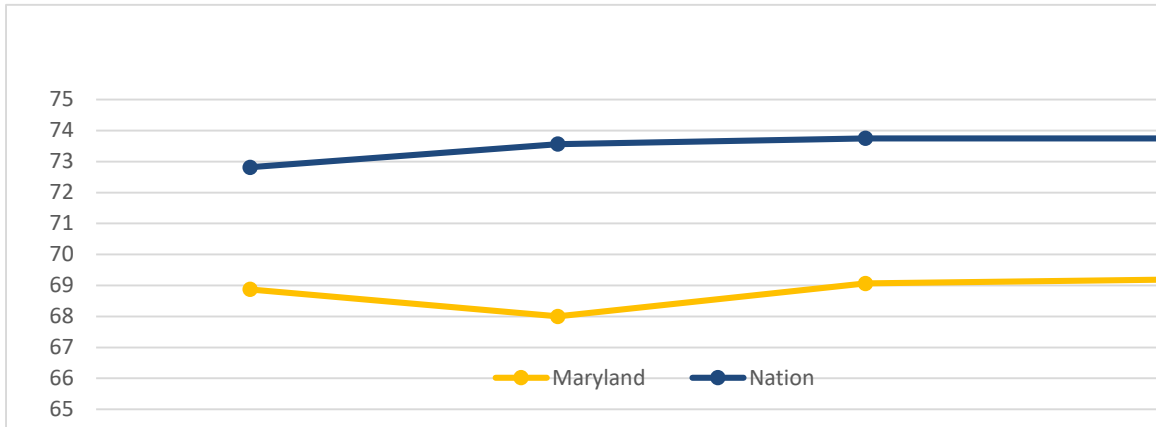
Staff notes that, consistent with the VBP program determination in the FY 2017 Outpatient Prospective Payment System (PPS) Final Rule,<sup>7</sup> the pain management question will be prospectively removed from the QBR program for RY 2019.

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<sup>7</sup> FY 2017 OPPS Final Rule found at: <https://www.cms.gov/Medicare/Medicare-Fee-for-Service-Payment/HospitalOutpatientPPS/Hospital-Outpatient-Regulations-and-Notices-Items/CMS-1656-P.html>, last accessed December 1, 2016.



**Figure 3. Maryland vs. National Experience of care  
Aggregate Scores over Time**



**Clinical Care Mortality Measures**

On the three CMS condition-specific mortality measures used in the VBP program—30 day heart attack (AMI), heart failure (CHF), and pneumonia— Maryland performs better than the nation with the gap narrowing over time (Figure 2 above; See Appendix III, Table 2 for detailed data).

For the Maryland inpatient, all-payer, all-cause mortality measure used for the QBR program, Maryland’s mortality rate declined from 2.87 percent to 2.15 percent between RY 2014 and calendar year (CY) 2015 (see Appendix III, Table 3). Staff analyzed the trend in mortality rates and concluded that the palliative care exclusion has contributed to the decline in the all-payer, all-cause mortality rates. As illustrated in Figure 4 below, the percentage of deaths with palliative codes increased from 42.92 percent to 61.09 percent over the last two years. To prevent further impact of changes in palliative care trends on mortality measurement, the palliative care case exclusion will be eliminated for RY 2019, and these cases will now be included in calculating benchmarks, thresholds, and risk-adjusted hospital mortality rates.

**Figure 4. Maryland Statewide Hospital Total and Palliative Care Cases, CY 2013-2015**

Calendar Year	Total Discharges	Discharges w/ Palliative Care (PC) Diagnosis (Dx)	Total Deaths	Total Deaths w/ PC Dx	% of Total Discharges w/PC Dx	% of Deaths w/PC Dx	% Live Discharges w/PC Dx
2013	664,849	14,038	13,105	5,625	2.11%	42.92%	1.29%
2014	642,139	17,464	12,670	6,802	2.72%	53.69%	1.69%
2015	624,202	19,447	12,114	7,401	3.12%	61.09%	1.97%

## Additional Measure Results

For the newly published Total Hip and Knee Arthroplasty THA/TKA complication measure, performance results were only available for the latter time period. *Hospital Compare*<sup>8</sup> reports that all Maryland hospitals perform “as expected” on this measure (with the exception of one hospital that is better and one that is worse than expected) compared with the nation.

**In draft recommendations, staff supported adopting this measure for the RY 2019 QBR program to be consistent with CMS VBP. Upon further analysis of data available from the CMS website, staff now recommends delaying the adoption of this measure to RY 2020 pending resolution of data issues.**

As part of the strategic plan to expand the performance measures, staff started to examine other measures available in public reporting. Staff notes that Maryland performs poorly on the ED wait time measures compared to the nation. In addition, Maryland and national performance is declining over time. Therefore, staff strongly advocates “active” monitoring of the ED wait times measures with consideration as to the feasibility of adding these measures to the QBR program in future years (See Appendix III, Table 5).

## RY 2019 VBP and QBR Measures, Performance Standards, and Domain Weighting

HSCRC staff are proposing to keep the QBR measures, domain weights, and inclusion criteria for RY 2019 the same as they were for RY 2018, per Figure 5 below. Appendix I details the measures by domain and the available published performance standards for each measure. It also indicates the measures that will be included in the VBP and QBR Programs. Staff note that currently there is no ICD-10 compatible risk-adjusted Patient Safety Indicator 90 (PSI-90) measure but that this measure will be included in the future.

**Figure 5. Final Measure Domain Weights for the CMS Hospital VBP Program and Proposed Domain Weights for the QBR Program, FY 2019**

	Clinical Care	Patient Experience of Care; Care Coordination	Safety	Efficiency
QBR FY 2018	15% (1 measure - mortality)	50% (9 measures - HCAHPS + CTM)	35% (8 measures - Infection, PSI, PC-01)	PAU
Proposed QBR FY 2019	15% (1 measure - mortality)	50% (8 measures - HCAHPS + CTM)	35% (7 measures - Infection + PC-01)	PAU
CMS VBP FY 2019	25% (4 measures - condition-specific mortality; THA/TKA)	25% (8 measures - HCAHPS + CTM)	25% (8 measures - Infection, PSI, PC-01)	25%

<sup>8</sup> See <https://www.medicare.gov/hospitalcompare/search.html> for more information.

## QBR RY 2017 Final Scores and Reward and Penalty Preset Scale

Similar to other quality-based programs, the Commission voted to modify fundamentally the QBR program methodology for calculating rewards and penalties for RY 2017, such that the level of rewards or penalties is determined based on performance points achieved relative to a preset scale, rather than a relative ranking and scaling of the hospitals determined after the performance period. This transition coincided with major changes in the measures used for the QBR program, which entailed removing the process measures (which had higher scores), increasing the weight of experience of care (which had lower scores), and tying the benchmarks to the national distribution. At the time, staff did not have sufficient data to model the implications of these changes on the performance points thoroughly and, therefore, set the payment adjustment scale based on the base year attainment-only performance results relying on input from the Performance Measurement Workgroup.

Hospital pay-for-performance programs implemented nationally and in Maryland generally score hospitals on both attainment (level of rates compared to benchmarks) and on improvement (rate of change from the baseline). Hospitals may earn two scores on the measure specified within each domain—one for attainment (0-10) and one for improvement (0-9). The final score awarded to a hospital for each measure is the higher of these two scores. For experience of care measures, there are also consistency points. All measure scores, with exception of the HSCRC-derived measures using Maryland all-payer case mix data (e.g., PSI 90, all-cause inpatient mortality), include assignment of points between 0 and 10 based on the national average rate for 0 points and the top 25 percent national performance for 10 points. Details regarding the scoring calculations are found in Appendix II.

Figure 5 below provides descriptive statistics on the final statewide total QBR scores and scores by each domain for RY 2017. These aggregate level domain scores reflects the proportion of total available points received by the hospital. A 0 score represents none of the measures in that domain were better than the national average or did not improve. A score of 1 represents all measures are at or better than the top 25 percent performance. Experience of care is the most heavily weighted domain, and Maryland scores are lowest for this domain, with an average score of 0.24 and maximum score of 0.54. The domain with the next lowest distribution of scores is safety, with an average score of 0.40; this domain is also weighted second highest in calculating hospitals' total QBR scores. Appendix IV presents RY 2017 final QBR score results by hospital and domain.

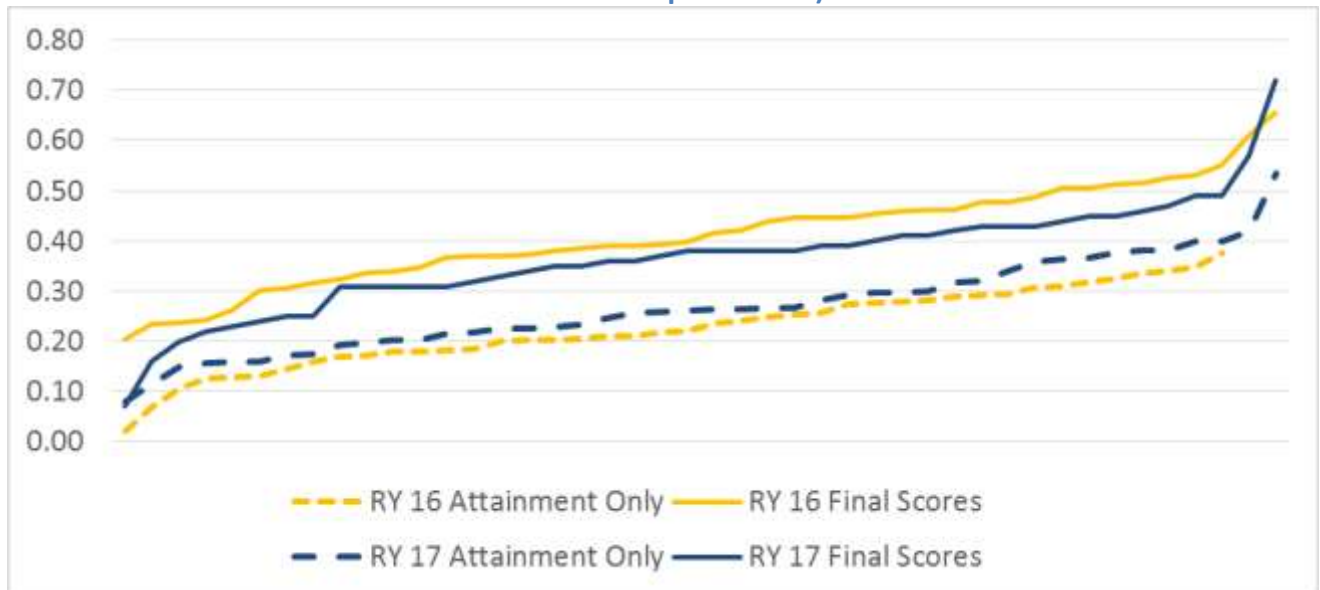
**Figure 5. RY 2017 Final QBR Scores Distribution Overall and by Domain**

Domains	Experience of Care	Clinical Care- <i>(Process Sub-domain retired after RY 2017)</i>	Clinical Care- (Outcome Sub-domain)	Safety	Total QBR Score
Measure Description	HCAHPS	AMI 7a-Fibrinolytic Therapy IMM 2- Influenza Immunization	Inpatient All DRG Mortality	CDC NHSN Infection (3 measures), PSI 90	

Ry 2017 Weights	45%	5%	15%	35%	100%
Minimum Score	0.03	0.00	0.00	0.00	0.07
25th percentile	0.16	0.40	0.33	0.25	0.31
Median	0.23	0.60	0.60	0.39	0.38
Average	0.24	0.56	0.60	0.40	0.37
75th Percentile	0.30	0.80	0.88	0.54	0.43
Maximum Score	0.54	1.00	1.00	1.00	0.72
Coefficient of Variation	46%	59%	48%	54%	30%

While the figure 5 provides information for the FY 2017 Final QBR scores, Figure 6 below shows the difference between the base period attainment-only scores for RYs 2016 and 2017 versus the final scores for each period, illustrating a significant increase in the final scores when improvement is taken into account. Absent data, staff was unable to model the final scale for RY 2017 and agreed to set the points for the attainment-only scale given the major changes in the program described above.

**Figure 6. QBR RY 2016-2017 Attainment-Only and Final Scores (Reflecting the better of Attainment or Improvement)**



Staff calculated hospital RY 2017 QBR scores and analyzed the scores relative to the QBR preset scale determined last year and notes that almost all hospitals receive a reward for RY 2017 despite relatively poor performance (Appendix V). With the recommendation to make retrospective adjustments to the readmission policy, staff had noted the issue with the QBR scaling at the June 2016 Commission meeting and has been working since then to understand the

implications. Expecting changes to the results, July RY 2017 rate orders and global budgets were sent without QBR program adjustments.

Based on the analysis comparing attainment and improvement points, staff asserts that the RY 2017 preset scale was too low, because it was developed using base period data to calculate attainment-only scores and, again, did not account for improvement trends. The intention to use a preset scale was to improve predictability of the payment adjustments, not to lower the scale as Maryland has been progressively “raising the bar” for performance. Staff is proposing the following for RY 2017 scaling adjustment to correct the issue of the current preset scale being too low:

- Revise preset scale to use final RY 2017 QBR scores. This would result in a relative ranking within the State that penalizes hospitals with QBR scores below the statewide average and reward hospitals with scores above the statewide average (i.e., RY 2017 State average score is 0.37). Staff has provided modeling of the RY 2017 scores using the final scores for FY 2017 in Appendix V.

HSCRC has received input from stakeholders regarding the draft recommendation updating the QBR program presented in the October Commission meeting. As mentioned earlier, HSCRC has also received VBP exemption approval letters from CMS directly addressing the experience of care domain performance lag in Maryland (Appendix II). Highlights of the issues raised during the meeting and in the letters submitted to the Commission by CMS, the Maryland Hospital Association (MHA) and Consumer Health First (CHF), along with staff responses, is provided below, and the MHA and CHF comment letters are provided in Appendix VI.

- ***Consistency with the CMS VBP approval letters (CMS)***- Staff asserts that Maryland has committed to adjusting incentives to support improvement in experience of care as part of the conditions for seeking the Maryland exemptions from year to year from the VBP program. In their responses, CMS has voiced strong support for increasing the weight of the experience of care domain to improve Maryland’s poor performance. Staff asserts that using a scale that rewards poor performance is not consistent with Maryland’s commitments to, and recommendations from, CMS.
- ***Need for predictability (MHA, hospital stakeholders)***- Staff supports the principle of predictability and asserts this must be balanced with the principle of fairness. Staff, for example, made retrospective changes to the Readmission policy in June 2016 to reduce penalties for hospitals with low readmission rates and low improvement. Staff also voiced the concern regarding the low bar for the QBR program scaling in the same June 2016 meeting.
- ***Approach must maintain trust between stakeholders and Commission (MHA, hospitals, CHF)***- Staff asserts that justified corrections, just as they have been made historically, will continue to strengthen trust, and providing rewards not aligned with performance has potential to erode public trust.

- **QBR must support patient-centered care and the goals emphasized by the All-Payer Model (CMS, CHF)**- Staff is in strong agreement that improved performance on experience of care is of high importance and priority as part of Maryland’s patient centered care model as it strives to achieve better care, better outcomes, and lower costs.
- **No error in policy was made in determining RY 2017 scaling approach (MHA, hospitals)**- The distribution of the scores used to set the payment scale (Figure 6 above) using base year attainment only scores was done with the assumptions that changes in the measures and benchmarks would precipitate lower scores for RY 2017. Preliminary performance score calculations in May 2016 showed a \$30M net positive impact despite low performance scores. Staff again believes there was an error and supports a technical correction to the point intervals used for scaling.
- **Burdensome to make mid-year GBR adjustment (MHA, hospitals)**- Although not preferable, if the retroactive scaling adjustment is approved for RY 2017, MHA will support it without a “retroactive budget change” in the current fiscal year. Staff proposes to limit negative revenue adjustments during the current RY with partial penalties up to the amount indicated in the preset scale in the January RY 2017 rate adjustments, and the remaining penalties July RY 2018 rate adjustment. Staff supports hospitals receiving their full rewards under the revised scaling for RY 2017 in the January rate update. Figure 7 below shows the partial rate adjustment implementation scenarios

**Figure 7. Examples of Implementation of Revenue Adjustments for RY2017**

	Original Preset Scale	Revised Revenue Adjustment	January Adjustment	July Adjustment
Hospital A	-100,000	-120,000	-100,000	-20,000
Hospital B	10,000	-30,000	0	-30,000
Hospital C	100,000	60,000	60,000	0

**QBR RY 2018 Payment Adjustment Scaling Options**

**For RY 2018, a retrospective change to the preset payment scale is proposed, as the payment scale was set with the same points as original RY 2017 and will therefore be similarly incorrect. Staff is recommending to recalibrate the scaling in the same way that was approved for RY 2017, whereby final scores will be used to create a scale that penalizes those hospitals with below average performance. It is anticipated that the RY 2018 payment adjustments may not be implemented until January 2018 due to data delays. However, staff is working with CMS to determine if the state can receive the Hospital Compare data earlier to calculate QBR scores.**

## QBR RY 2019 Payment Adjustment Scaling

While staff agrees that there are limited options for RY 2018 adjustments since the performance period is completed, RY 2019 scaling approach can be modified to ensure the payment amounts are more directly linked with the states performance against national trends. Therefore, for RY 2019, staff is proposing a prospective scaling approach that uses the national full score range with adjustments to assess Maryland hospital performance. Based on stakeholder input, including a comment letter from the Maryland Hospital Association (MHA) (Appendix VII), the hospital industry prefers using a prospective scale, over using a scale based on final scores. However, staff believes that continuing to use the statewide distribution of scores to set the payment adjustment scale does not incentivize all Maryland hospitals to improve and achieve performance on par with the nation.

With the exception of the HSCRC-derived measures, which utilize Maryland all-payer case mix data (e.g., all-cause inpatient mortality), the thresholds and benchmarks for the QBR scoring methodology are based on the national average (threshold) and the top performance (benchmark) values for all measures. A score of 0 means that performance on all measures are below the national average or not improved, while a score of 1 mean all measures are at or better than top 5 percent best performing rates. Although hospital scores reflect performance relative to the national thresholds and benchmarks, the use of a statewide distribution to set the scaling for financial incentive payment adjustments creates a disconnect between Maryland and national performance, resulting in rewards for scores at or above 37% and the maximum reward to scores of 57%. The problem resulting from using Maryland scaling was evident in the initial results for RY2017, which provided significant reward payments despite the state's unfavorable collective performance.

Adjusting the scale to reflect the full distribution of scores (0% to 100%) ensures that QBR revenue adjustments are linked with Maryland hospital performance relative to the nation. As Maryland raises the bar that must be cleared to obtain rewards with this approach, the potential rewards should be commensurately increased from 1 percent to 2 percent. The full scale approach allows the HSCRC to set the scaling prospectively, meaning that hospitals will not be relatively ranked after the performance period. Most importantly, the use of the full score scale ensures that hospitals that perform better than the national average will be rewarded, and hospitals that perform worse than the national average will be penalized.

The staff modeled the following options for the RY 2019 scaling adjustments using the final RY 2017 hospital scores (see Figure 8 for statewide adjustments and Appendix Y for Hospitals specific results):

- **Prospective Scale set on RY2017 Final Scores Range: 7-57% with 37% reward/penalty cutoff**
- **Full Score Range: 0-100% with 50% reward/penalty cutoff**



- **Adjusted Full Score Range Option 1: 0-80% (max realistic score) with 40% reward/penalty cutoff**
- **Adjusted Full Score Range Option 2: 0-80% (max realistic score) with 45% reward/penalty cutoff**

**Figure 8. RY 2019 Scaling Options and Statewide Revenue Adjustments**

RY 19 Scaling Options	Min	Cut Point	Max	Statewide Penalties	Statewide Rewards
Final Scores (max reward 1%)	7%	37%	57%	-\$20M	+11M
<b>Full Scale Options Max Reward 2%</b>					
Full Score Range	0%	50%	100%	-49M	+1M
Option 1	0%	40%	80%	-24M	+7M
Option 2	0%	45%	80%	-37M	+3M
<i>Note: Modeling based on RY17 Final Scores</i>					

The MHA comment letter models an additional option where the prospective scale is based on RY 2017 scores (range 7% - 57%) but with a revenue neutral zone between 34% and 38%. The staff does not support a revenue neutral zone given state performance compared to the nation and the need for all hospitals to be incentivized to improve.

Staff recommends Option 2, an adjusted full score distribution scale that ranges from 0 to 80% where hospitals scoring greater than 45% are rewarded. The maximum score for the full 2% reward was set at 80% because this represents a realistic max score. The staff propose the cut off point for penalties/rewards be 45%. The staff note that while the National average VBP score ranges from 36% to 41% according to the MHA comment letter, these VBP scores have different measures, domains, and weights. An analysis of FFY 2017 VBP scores indicates that the national average VBP score would be approximately 5% higher (36% vs 41%) without the efficiency domain and with RY 2017 QBR weights applied.

## Recommendations

Staff notes the State’s improvement trends in the Maryland inpatient, all-cause, all-payer mortality rate used for the QBR program as well as the CMS condition-specific mortality measures used for the VBP program but cautions these observations should be tempered with the knowledge that the previous palliative care exemption will not be applied going forward. Staff also recognizes the gap that remains between Maryland and national performance on the experience of care measures in particular, the domain that constitutes 45 percent for RY 2017 and 50 percent for RY 2018 of the hospitals’ QBR total scores. **In this section of the report, staff presents previously approved final recommendations for RY 2017 and final recommendations for RYs 2018 and 2019.**



## **Final Recommendations for RY 2017—Approved at December 14, 2017 Commission Meeting**

Based on the analysis and observations presented above, staff recommends the following retrospective adjustments to the RY 2017 QBR program:

- Adjust retrospectively the RY 2017 QBR preset scale for determining rewards and penalties such that the scale accounts for both attainment and improvement trends.
- Use a relative scale to linearly distribute rewards and penalties based on the final QBR scores, without revenue neutrality adjustment.
- Adjust rates in the updated rate orders to reflect the proposed updated QBR scaling approach.
- Limit negative revenue adjustments during the current RY by partially implementing penalties (up to the amount indicated in preset scale) in the January RY 2017 rate adjustments, and implementing the remaining penalties in the July RY 2018 rate adjustments.

## **Final Recommendation for RY 2018**

**Staff recommends the following for RY 2018:**

- **Calculate the scaling points based on RY 2018 performance periods and provide rewards to hospitals that are above the average score, with a maximum penalty of 2 percent and maximum reward of 1 percent of inpatient revenue distributed linearly in proportion to calculated scores.**

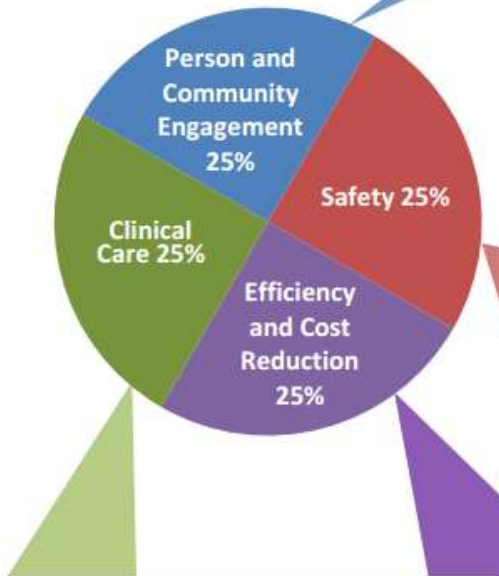
## **Final Recommendations for RY 2019**

**Staff recommends the following for RY 2019:**

- **Maintain RY 2018 domain weights: 50 percent for Patient Experience/Care Transition, 35 percent for Safety, and 15 percent for Clinical Care.**
- **Move to a modified full score distribution ranging from 0-80%, and linearly scale penalties and rewards at 45% cut point.**
- **Maintain 2% maximum penalty and increase the maximum reward to 2 percent as the achieving rewards will be based on full score distribution.**

# APPENDIX I. CMS FFY 2019 VBP MEASURES AND PERFORMANCE PERIODS

**FY 2019 Value-Based Purchasing Domain Weighting**  
(Payment adjustment effective for discharges from October 1, 2018 to September 30, 2019)



CLINICAL CARE		
Mortality		
Baseline Period	Performance Period	
July 1, 2009 – June 30, 2012	July 1, 2014 – June 30, 2017	
Measure (Displayed as survival rate)	Threshold (%)	Benchmark (%)
30-day mortality, AMI	85.0671	87.3283
30-day mortality, heart failure	88.3472	90.8094
30-day mortality, pneumonia	88.2334	90.7908
Complications		
Baseline Period	Performance Period	
July 1, 2010 – June 30, 2013	January 1, 2015 – June 30, 2017	
New† THA/TKA – Total hip/total knee arthroplasty complications	03.2229	02.3178

PERSON AND COMMUNITY ENGAGEMENT			
Baseline Period		Performance Period	
January 1, 2015 – December 31, 2015		January 1, 2017 – December 31, 2017	
HCAHPS Survey Dimensions	HCAHPS Performance Standard		
	Floor (%)	Threshold (%)	Benchmark (%)
Communication with nurses	28.10	78.69	86.97
Communication with doctors	33.46	80.32	88.62
Responsiveness of hospital staff	32.72	65.16	80.15
Communication about medications	11.38	63.26	73.53
Cleanliness and quietness	22.85	65.58	79.06
Discharge information	61.96	87.05	91.87
CTM-3 3-Item Care Transitions Measure	11.30	51.42	62.77
Overall rating of hospital	28.39	70.85	84.83

SAFETY		
Complication/Patient Safety for Selected Indicators		
Baseline Period		Performance Period
July 1, 2011 – June 30, 2013		July 1, 2015 – June 30, 2017
Measure	Threshold	Benchmark
AHRQ PSI 90 composite*	0.840335	0.589462
Perinatal		
Baseline Period		Performance Period
January 1, 2015 – December 31, 2015		January 1, 2017 – December 31, 2017
Measure	Threshold	Benchmark
PC-01 Elective Delivery Prior to 39 Completed Weeks Gestation	0.010038	0.000
Healthcare-Associated Infections:		
Baseline Period		Performance Period
January 1, 2015 – December 31, 2015		January 1, 2017 – December 31, 2017
Measure	Threshold (‡)	Benchmark (‡)
CLABSI†	0.427	0.000
CAUTI†	0.464	0.000
SSI Colon‡	0.832	0.000
Abdominal Hysterectomy‡	0.698	0.000
C. difficile	0.816	0.012
MRSA Bacteremia	0.823	0.000

\*Potential removal in future rulemaking.  
†Includes selected ward (non-ICU) locations.  
‡Standardized infection ratios.  
§There will be one SSI measure score that will be a weighted average based on predicted infections for both procedures.

The Lake Superior Quality Innovation Network serves Michigan, Minnesota, and Wisconsin, under the Centers for Medicare & Medicaid Services Quality Improvement Organization Program.

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EFFICIENCY AND COST REDUCTION		
Baseline Period		Performance Period
January 1, 2015 – December 31, 2015		January 1, 2017 – December 31, 2017
Measure	Threshold (%)	Benchmark (%)
MSPB-1 Medicare spending per beneficiary	Median Medicare spending per beneficiary ratio across all hospitals during performance period.	Mean of lowest decile of Medicare spending per beneficiary ratios across all hospitals during performance period.

## Appendix II. HSCRC QBR Program Details: Domain Weights, Revenue at Risk, Points Calculation, Measurement Timeline and Exemption from CMS VBP Program

### Domain Weights and Revenue at Risk

As illustrated in the body of the report, for the RY 2018 QBR program, the HSCRC will weight the clinical care domain at 15 percent of the final score, the safety domain at 35 percent, and the experience of care domain at 50 percent.

The HSCRC sets aside a percentage of hospital inpatient revenue to be held “at risk” based on each hospital’s QBR program performance. Hospital performance scores are translated into rewards and penalties in a process that is referred to as scaling.<sup>9</sup> Rewards (referred to as positive scaled amounts) or penalties (referred to as negative scaled amounts) are then applied to each hospital’s update factor for the rate year. The rewards or penalties are applied on a one-time basis and are not considered permanent revenue. The Commission previously approved scaling a maximum reward of one percent and a penalty of two percent of total approved base inpatient revenue across all hospitals for RY 2018.

HSCRC staff has worked with stakeholders over the last several years to align the QBR measures, thresholds, benchmark values, time lag periods, and amount of revenue at risk with those used by the CMS VBP program where feasible,<sup>10</sup> allowing the HSCRC to use data submitted directly to CMS. As alluded to in the body of the report, Maryland implemented efficiency measure in relation to global budgets based on potentially avoidable utilization outside of QBR program. The HSCRC does apply a potentially avoidable utilization savings adjustment to hospital rates based on costs related to potentially avoidable admissions, as measured by the Agency for Healthcare Research and Quality Prevention Quality Indicators (PQIs) and avoidable readmissions. HSCRC staff will continue to work with key stakeholders to complete development of an efficiency measure that incorporates population-based cost outcomes.

### QBR Score Calculation

**Attainment Points:** During the performance period, attainment points are awarded by comparing an individual hospital’s rates with the threshold, which is the median, or 50<sup>th</sup> percentile of all hospitals’ performance during the baseline period, and the benchmark, which is the mean of the top decile, or approximately the 95<sup>th</sup> percentile during the baseline period. With the exception of the mortality and AHRQ PSI 90 measure applied to all payers, the benchmarks and thresholds are the same as those used by CMS for the VBP program measures. For each measure, a hospital that has a rate at or above benchmark receives 10 attainment points. A hospital that has a rate

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<sup>9</sup> Scaling refers to the differential allocation of a pre-determined portion of base-regulated hospital inpatient revenue based on assessment of the quality of hospital performance.

<sup>10</sup> HSCRC has used data for some of the QBR measures (e.g., CMS core measures, CDC NHSN CLABSI, CAUTI) submitted to the Maryland Health Care Commission (MHCC) and applied state-based benchmarks and thresholds for these measures to calculate hospitals’ QBR scores up to the period used for RY 2017.

below the attainment threshold receives 0 attainment points. A hospital that has a rate at or above the attainment threshold and below the benchmark receives 1-9 attainment points

**Improvement Points:** The improvement points are awarded by comparing a hospital's rates during the performance period to the hospital's rates from the baseline period. A hospital that has a rate at or above benchmark receives 9 improvement points. A hospital that has a rate at or below baseline period rate receives 0 improvement points. A hospital that has a rate between the baseline period rate and the benchmark receives 0-9 improvement points

**Consistency Points:** The consistency points relate only to the experience of care domain. The purpose of these points is to reward hospitals that have scores above the national 50<sup>th</sup> percentile in all of the eight HCAHPS dimensions. If they do, they receive the full 20 points. If they do not, the dimension for which the hospital received the lowest score is compared to the range between the national 0 percentile (floor) and the 50<sup>th</sup> percentile (threshold) and is awarded points proportionately.

**Domain Scores:** Composite scores are then calculated for each domain by adding up all of the measure scores in a given domain divided by the total possible points x 100. The better of attainment and improvement for experience of care scores is also added together to arrive at the experience of care base points. Base points and the consistency score are added together to determine the experience of care domain score.

**Total Performance Score:** The total Performance Score is computed by multiplying the domain scores by their specified weights, then adding those totals and dividing them by the highest total possible score. The Total Performance Score is then translated into a reward/ penalty that is applied to hospital revenue.

## QBR Base and Performance Periods Impacting RYs 2017-2019

HSCRC QBR Base, Performance Periods and Rate Year Impacted											ICD 9		ICD 10																
Rate Year (Maryland FY)	FY13-Q2	FY13-Q3	FY13-Q4	FY14-Q1	FY14-Q2	FY14-Q3	FY14-Q4	FY15-Q1	FY15-Q2	FY15-Q3	FY15-Q4	FY16-Q1	FY16-Q2	FY16-Q3	FY16-Q4	FY17-Q1	FY17-Q2	FY17-Q3	FY17-Q4	FY18-Q1	FY18-Q2	FY18-Q3	FY18-Q4	FY19-Q1	FY19-Q2	FY19-Q3	FY19-Q4		
Calendar Year	CY12-Q4	CY13-Q1	CY13-Q2	CY13-Q3	CY13-Q4	CY14-Q1	CY14-Q2	CY14-Q3	CY14-Q4	CY15-Q1	CY15-Q2	CY15-Q3	CY15-Q4	CY16-Q1	CY16-Q2	CY16-Q3	CY16-Q4	CY17-Q1	CY17-Q2	CY17-Q3	CY17-Q4	CY18-Q1	CY18-Q2	CY18-Q3	CY18-Q4	CY19-Q1	CY19-Q2		
<b>Quality Programs that Impact Rate Year 2017</b>																													
QBR	Federal Standards	Maryland QBR Core Process, HCAHPS, CLABSI Base Period																											
		QBR Core process, HCAHPS, CLABSI, PSI 90 performance Period											Rate Year Impacted by QBR Results																
		Maryland Mortality, PSI Base Period																											
		QBR SSI (Colon, hysterectomy) Base Period																											
		QBR Maryland Mortality, CAUTI*, SSI Performance Period																											
<b>Quality Programs that Impact Rate Year 2018</b>																													
QBR	Federal Standards	QBR PC-01, HCAHPS, NHSN Safety Base Period																											
		QBR Mortality Base Period											QBR PC-01, HCAHPS, NHSN Safety Performance Period											Rate Year Impacted by QBR Results					
													QBR Mortality Performance Period																
<b>Quality Programs that Impact Rate Year 2019</b>																													
QBR	Federal Standards	QBR PC-01, HCAHPS, NHSN Safety Base Period																											
		Maryland Mortality Base Period***											Rate Year Impacted by QBR Results																
		QBR Maryland PSI 90* Base Period																											
		**Medicare Total Hip/Knee Arthroplasty Risk Standardized Complication Rate (THA/TKA RSCR) Performance Period																											
		QBR PC-01, HCAHPS, NHSN Safety Performance Period											QBR Maryland Mortality, PSI 90*, Performance Period																
<p>*Rate Year 2017 Catheter Associated UTI (CAUTI) measure scored on attainment only.</p> <p>**Rate Year 2019 use of PSI 90 subject to AHRQ Development of ICD 10 measure specifications</p> <p>***Rate Year 2019 Base Period for THA/TKA RSCR measure 7/1/2010-6/30/2013; use of this measure contingent on Medicare claims data availability.</p> <p>****Proposed base period to allow shift to 3M Grouper version 34, exclusively ICD-10 Compatible.</p>																													

## Maryland VBP Exemption

Under Maryland's previous Medicare waiver, VBP exemptions were requested and granted for FYs 2013 through 2015. The CMS FY 2015 Inpatient Prospective Payment rule stated that, although exemption from the hospital VBP program no longer applies, Maryland hospitals will not be participating in the VBP program because §1886(o) of the ACA<sup>11</sup> and its implementing regulations are waived under Maryland's New All-Payer Model, subject to the terms of the Model agreement as excerpted below:

**“4. Medicare Payment Waivers.** Under the Model, CMS will waive the requirements of the following provisions of the Act as applied solely to Regulated Maryland Hospitals:

**e. Medicare Hospital Value Based Purchasing.** Section 1886(o) of the Act, and implementing regulations at 42 CFR 412.160 - 412.167, only insofar as the State submits an annual report to the Secretary that provides satisfactory evidence that a similar program in the State for Regulated Maryland Hospitals achieves or surpasses the measured results in terms of patient health outcomes and cost savings established under 1886(o) of the Act....”

Under the New All-Payer Model, HSCRC staff submitted exemption requests for FYs 2016 and 2017 and received approvals from CMS on August 27, 2015, and April 22, 2016, included below.

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<sup>11</sup> Codified at 42 USC § 1395ww(o).





August 27, 2015

Ms. Donna Kinzer  
Executive Director, Maryland Health Services Cost Review Commission  
State of Maryland Department of Health and Mental Hygiene  
4160 Patterson Avenue  
Baltimore, MD 21215

Dear Ms. Kinzer:

Thank you for your letter, on behalf of the State of Maryland, requesting an exemption from the FY 2016 Hospital Value-Based Purchasing (VBP) Program. As you know, Section 4(e) of the Maryland All-Payer Model Agreement provides that CMS will waive the VBP Program requirements for Maryland hospitals, as set out in Section 1886(o) of the Social Security Act and implementing regulations at 42 CFR 412.160 - 412.167, provided that the State submits "an annual report to the Secretary that provides satisfactory evidence that a similar program in the State for Regulated Maryland Hospitals achieves or surpasses the measured results in terms of patient health outcomes and cost savings established under 1886(o) of the Act."

The Centers for Medicare & Medicaid Services (CMS) has reviewed your exemption request and supporting documentation. We officially grant the State of Maryland's exemption request for its hospitals as authorized by Section 1886(o)(1)(C)(iv) of the Act based on the fact that the Maryland program achieved or exceeded patient health outcomes measured in the Hospital VBP Program. CMS has also determined that the Maryland program meets the cost savings requirement for exemption from the Hospital VBP Program for FY 2015 because both programs reward high performers in a revenue-neutral manner.

Last year, when approving your request for an exemption from the Hospital VBP Program for FY 2014, we noted that your state's performance in the Patient Experience of Care domain significantly lagged behind national medium performance levels, and we strongly encouraged you to take steps to improve performance in that domain. Maryland's performance continues to lag behind the nation in Patient Experience of Care, however, as you indicated in your exemption request, you have assigned comparatively more weight to Hospital Consumer Assessment of Healthcare Providers and Systems performance in the Maryland program, and you are considering increasing that weight by an additional 5%. We support these efforts to improve Patient Experience of Care and we are eager to assist you in helping hospitals improve in this domain by other means.

Should you have any questions, please do not hesitate to contact the Maryland All Payer Model Team.

Sincerely,

A handwritten signature in black ink that reads "Patrick Conway, MD". The signature is written in a cursive, slightly slanted style.

Patrick Conway, MD, MSc

Acting Principal Deputy Administrator, CMS

Chief Medical Officer, CMS

Deputy Administrator for Innovation and Quality, CMS

Director, Center for Medicare and Medicaid Innovation



DEPARTMENT OF HEALTH & HUMAN SERVICES  
Centers for Medicare & Medicaid Services  
7500 Security Boulevard, Mail Stop WB-06-05  
Baltimore, Maryland 21244-1850



**Center for Medicare and Medicaid Innovation**

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April 22, 2016

Ms. Donna Kinzer

Executive Director, Maryland Health Services Cost Review Commission State of Maryland  
Department of Health and Mental Hygiene  
4160 Patterson Avenue  
Baltimore, MD 21215

Dear Ms. Kinzer:

Thank you for your letter, on behalf of the State of Maryland, requesting an exemption from the FY 2017 Hospital Value-Based Purchasing (VBP) Program. As you know, Section 4(e) of the Maryland All-Payer Model Agreement provides that CMS will waive the Hospital VBP Program requirements for Maryland hospitals, as set out in Section 1886(0) of the Social Security Act and implementing regulations at 42 CFR 412.160 412.167, provided that the State submits "an annual report to the Secretary that provides satisfactory evidence that a similar program in the State for Regulated Maryland Hospitals achieves or surpasses the measured results in terms of patient health outcomes and cost savings established under 1886(0) of the Act."

The Centers for Medicare & Medicaid Services (CMS) has reviewed your exemption request and supporting documentation. We officially grant the State of Maryland's exemption request for its hospitals as authorized by Section 1886(o)(1)(C)(iv) of the Act based on the fact that the Maryland program achieved patient health outcomes and clinic process scores not significantly different from those measured in the Hospital VBP Program. CMS has also determined that the Maryland program meets the cost savings requirement for exemption from the Hospital VBP Program for FY 2017 because both programs reward high performers in a revenue-neutral manner.

Last year, when approving your request for an exemption from the Hospital VBP Program for FY 2016, we noted that your state's performance in the Patient Experience of Care domain using data from 2014 significantly lagged behind national medium performance levels, and we strongly encouraged you to take steps to improve performance in that domain. Maryland's performance continues to lag behind the nation in Patient Experience of Care. As indicated in your exemption request, you have assigned comparatively more weight to Hospital Consumer Assessment of Healthcare Providers and Systems performance in the Maryland program, and you are continuing to increase the weight even more in the coming years. We support these efforts to improve Patient Experience of Care and we are eager to assist you in helping hospitals improve in this domain in any way possible.

Should you have any questions, please do not hesitate to contact the Maryland All Payer Model Team.

Sincerely,

A handwritten signature in black ink, appearing to read 'Stephen Cha', written in a cursive style.

Stephen Cha, MD, MHS  
Director, State Innovations Group,  
Center on Medicare and Medicaid Innovation,  
Centers for Medicare and Medicaid Services

## APPENDIX III. RY 2017 QBR PERFORMANCE SCORES

Table 1. HCAHPS Analysis

Measure	Maryland (Q413-Q314)	National (Q413-Q314)	Percent difference MD-US	Maryland (Q414-Q315)	Change from Base	National (Q414-Q315)	Change from Base	Percent difference MD-US
Responsiveness	60	68	-8	59	-1	68	0	-9
Overall Rating	65	71	-6	65	0	72	1	-7
Clean/Quiet	61.5	68	-7	61.5	0	68	0	-7
Explained Medications	60	65	-5	60	0	65	0	-5
Nurse Communication	76	79	-3	76	0	80	1	-4
Pain Management	67	71	-4	68	1	71	0	-3
Doctor Communication	78	82	-4	79	1	82	0	-3
Discharge Info	86	86	0	86	0	87	1	-1
<b>8 Item Aggregate TOTAL</b>	<b>69.1875</b>	<b>73.75</b>	<b>-4.56</b>	<b>69.31</b>	<b>0.13</b>	<b>74.1</b>	<b>0.38</b>	<b>-4.81</b>
Three-Part Care Transitions Measure	48	52	-4	48	0	52	0	-4

Table 2. CMS Condition-Specific Mortality Measures

Mortality Measures	Maryland (Q310-Q213)	National (Q310-Q213)	Percent difference MD-US	Maryland (Q311-Q214)	Change from Base	National (Q311-Q214)	Change from Base	Percent difference MD-US
30-day AMI	14.50%	14.90%	-0.40%	14.06%	-0.44%	14.20%	-0.70%	-0.14%
30-day Heart Failure	10.90%	11.90%	-1.00%	10.86%	-0.04%	11.60%	-0.30%	-0.74%
30-day Pneumonia	10.85%	11.90%	-1.05%	10.64%	-0.21%	11.50%	-0.40%	-0.86%

Table 3. Maryland All-Payer Inpatient Mortality Measure

Mortality Measures	Maryland RY2014	Maryland CY2015	Change from Base
MD Mortality Measure	2.87%	2.15%	-0.72%

**Table 4. Safety Measures**

Safety Measures	Maryland (Q413-Q314)	National (Q413-Q314)	Percent difference MD-US	Maryland (Q414-Q315)	Change from Base	National (Q414-Q315)	Change from Base	Percent difference MD-US	Change from Base Period
CLABSI	0.527	1	-47.30%	0.5	NOTE: Change from base is not calculated because MD SIR is in relation to national SIR of 1	1	NOTE: Change from base is not calculated because MD SIR is in relation to national SIR of 1	-50.00%	-0.027
CAUTI	1.659	1	65.90%	0.862		1		-13.80%	-0.797
SSI - Colon	1.055	1	5.50%	1.185		1		18.50%	0.13
SSI - Abdominal Hysterectomy	1.281	1	28.10%	0.916		1		-8.40%	-0.365
MRSA	1.344	1	34.40%	1.2		1		20.00%	-0.144
C.diff.	1.15	1	15.00%	1.147		1		14.70%	-0.003
PC-01 Elective Delivery	3	4	-1	5		3		2	

**Table 5. Measures for Monitoring**

Other Measures - Monitoring Status	Maryland (Q413-Q314)	National (Q413-Q314)	Percent difference MD-US	Maryland (Q414-Q315)	Change from Base	National (Q414-Q315)	Change from Base	Percent difference MD-US
<i>IMM-2 Influenza Immunization</i>	96	93	3.23%	97	1	94	1	3.19%
ED1b - Arrive to admit	353	273	29.30%	364	11	280	7	30.00%
ED2b - Admit decision to admit	132	96	37.50%	139	7	99	3	40.40%
OP20 - Door to diagnostic eval	46	24	91.67%	48	2	23	-1	108.70%

## APPENDIX IV. QBR MEASURES PERFORMANCE TRENDS

QBR Performance Scores						
Hospital ID	Hospital Name	HCAHPS Score	Clinical/ Process Score	Clinical/ Mortality Score	Safety Score	QBR Score
210001	MERITUS	0.17	1.00	0.30	0.53	<b>0.36</b>
210002	UNIVERSITY OF MARYLAND	0.25	0.80	0.80	0.33	<b>0.39</b>
210003	PRINCE GEORGE	0.03	0.70	0.10	0.50	<b>0.24</b>
210004	HOLY CROSS	0.09	0.80	0.30	0.30	<b>0.23</b>
210005	FREDERICK MEMORIAL	0.22	0.60	1.00	0.53	<b>0.46</b>
210006	HARFORD	0.30	0.80	0.40	0.33	<b>0.35</b>
210008	MERCY	0.49	0.00	0.20	0.45	<b>0.41</b>
210009	JOHNS HOPKINS	0.33	0.40	0.90	0.15	<b>0.36</b>
210010	DORCHESTER	0.24	0.80	0.90	.	<b>0.44</b>
210011	ST. AGNES	0.16	0.20	0.80	0.33	<b>0.32</b>
210012	SINAI	0.27	0.80	0.40	0.25	<b>0.31</b>
210013	BON SECOURS	0.15	0.00	0.00	0.00	<b>0.07</b>
210015	FRANKLIN SQUARE	0.13	0.40	0.60	0.40	<b>0.31</b>
210016	WASHINGTON ADVENTIST	0.23	0.80	0.70	0.00	<b>0.25</b>
210017	GARRETT COUNTY	0.27	0.60	0.70	.	<b>0.40</b>
210018	MONTGOMERY GENERAL	0.22	0.40	0.60	0.68	<b>0.45</b>
210019	PENINSULA REGIONAL	0.32	0.00	0.40	0.50	<b>0.38</b>
210022	SUBURBAN	0.37	0.00	0.50	0.65	<b>0.47</b>
210023	ANNE ARUNDEL	0.18	0.60	0.70	0.28	<b>0.31</b>
210024	UNION MEMORIAL	0.34	0.40	0.30	0.25	<b>0.31</b>
210027	WESTERN MARYLAND	0.32	1.00	0.80	0.08	<b>0.34</b>
210028	ST. MARY	0.51	1.00	0.60	1.00	<b>0.72</b>
210029	HOPKINS BAYVIEW MED CTR	0.25	0.80	0.50	0.43	<b>0.38</b>
210030	CHESTERTOWN	0.10	1.00	1.00	.	<b>0.38</b>
210032	UNION OF CECIL COUNT	0.29	0.40	0.40	0.47	<b>0.37</b>
210033	CARROLL COUNTY	0.21	0.80	0.60	0.58	<b>0.43</b>
210034	HARBOR	0.19	0.40	0.70	0.68	<b>0.45</b>
210035	CHARLES REGIONAL	0.22	0.00	0.50	0.70	<b>0.42</b>
210037	EASTON	0.24	0.80	0.50	0.25	<b>0.31</b>
210038	UMMC MIDTOWN	0.09	0.40	0.30	0.27	<b>0.20</b>
210039	CALVERT	0.25	0.40	1.00	.	<b>0.43</b>
210040	NORTHWEST	0.19	1.00	0.30	0.10	<b>0.22</b>
210043	BWMC	0.16	0.60	0.90	0.28	<b>0.33</b>
210044	G.B.M.C.	0.54	0.60	1.00	0.20	<b>0.49</b>
210048	HOWARD COUNTY	0.38	1.00	0.80	0.65	<b>0.57</b>
210049	UPPER CHESAPEAKE	0.12	0.80	1.00	0.38	<b>0.38</b>
210051	DOCTORS COMMUNITY	0.10	0.60	0.30	0.65	<b>0.35</b>
210055	LAUREL REGIONAL	0.16	0.00	0.20	.	<b>0.16</b>
210056	GOOD SAMARITAN	0.33	0.60	0.60	0.63	<b>0.49</b>
210057	SHADY GROVE	0.28	0.60	1.00	0.23	<b>0.38</b>
210060	FT. WASHINGTON	0.23	0.80	0.80	.	<b>0.41</b>
210061	ATLANTIC GENERAL	0.28	0.10	0.90	0.35	<b>0.39</b>
210062	SOUTHERN MARYLAND	0.17	0.00	0.10	0.45	<b>0.25</b>
210063	UM ST. JOSEPH	0.21	1.00	1.00	0.40	<b>0.43</b>

## APPENDIX V. MODELING OF QBR SCALING OPTIONS

(Table not updated from December recommendation).

HOSPITAL NAME	RY 16 Permanent Inpatient Revenue	RY 2017 QBR FINAL POINTS	1.RY 2017 Current Scale		2a.Proposed RY 2017 Scale		2b. January 2017 and July 2017 Implementations		3. RY 2018	4. National Scale (Draft Recommendation for RY 2019)	
			% Impact	\$ Impact	% Impact	\$ Impact	Jan 2017 Rate Order Adjustment effective July 2016	Rate Order FY18 GBR (July 2017)	Use Relative Scale or National	% Impact	\$ Impact
Bon Secours Hospital	\$74,789,724	0.07	-2.00%	-\$1,495,794	-2.00%	-\$1,495,794	-\$1,495,794	\$0	TBD	-1.65%	-\$1,234,030
Laurel Regional Hospital	\$60,431,106	0.16	-1.11%	-\$670,785	-1.40%	-\$846,035	-\$670,785	-\$175,250	TBD	-1.20%	-\$725,173
Maryland General Hospital	\$126,399,313	0.20	-0.67%	-\$846,875	-1.13%	-\$1,432,526	-\$846,875	-\$585,650	TBD	-1.05%	-\$1,327,193
Northwest Hospital Center	\$114,214,371	0.22	-0.44%	-\$502,543	-1.00%	-\$1,142,144	-\$502,543	-\$639,600	TBD	-0.95%	-\$1,085,037
Holy Cross Hospital	\$316,970,825	0.23	-0.33%	-\$1,046,004	-0.93%	-\$2,958,394	-\$1,046,004	-\$1,912,391	TBD	-0.90%	-\$2,852,737
Prince Georges Hospital Center	\$220,306,426	0.24	-0.22%	-\$484,674	-0.87%	-\$1,909,322	-\$484,674	-\$1,424,648	TBD	-0.85%	-\$1,872,605
Southern Maryland Hospital Center	\$156,564,761	0.25	-0.11%	-\$172,221	-0.80%	-\$1,252,518	-\$172,221	-\$1,080,297	TBD	-0.80%	-\$1,252,518
Washington Adventist Hospital	\$155,199,154	0.25	-0.11%	-\$170,719	-0.80%	-\$1,241,593	-\$170,719	-\$1,070,874	TBD	-0.80%	-\$1,241,593
Sinai Hospital	\$415,350,729	0.31	0.18%	\$747,631	-0.40%	-\$1,661,403	\$0	-\$1,661,403	TBD	-0.50%	-\$2,076,754
Memorial Hospital at Easton	\$101,975,577	0.31	0.18%	\$183,556	-0.40%	-\$407,902	\$0	-\$407,902	TBD	-0.50%	-\$509,878
Anne Arundel Medical Center	\$291,882,683	0.31	0.18%	\$525,389	-0.40%	-\$1,167,531	\$0	-\$1,167,531	TBD	-0.50%	-\$1,459,413
Franklin Square Hospital Center	\$274,203,013	0.31	0.18%	\$493,565	-0.40%	-\$1,096,812	\$0	-\$1,096,812	TBD	-0.50%	-\$1,371,015
Union Memorial Hospital	\$238,195,335	0.31	0.18%	\$428,752	-0.40%	-\$952,781	\$0	-\$952,781	TBD	-0.50%	-\$1,190,977
St. Agnes Hospital	\$232,266,274	0.32	0.21%	\$487,759	-0.33%	-\$774,221	\$0	-\$774,221	TBD	-0.45%	-\$1,045,198
Baltimore Washington Medical Center	\$237,934,932	0.33	0.25%	\$594,837	-0.27%	-\$634,493	\$0	-\$634,493	TBD	-0.40%	-\$951,740
Western MD Regional Medical Center	\$167,618,972	0.34	0.29%	\$486,095	-0.20%	-\$335,238	\$0	-\$335,238	TBD	-0.35%	-\$586,666
Harford Memorial Hospital	\$45,713,956	0.35	0.32%	\$146,285	-0.13%	-\$60,952	\$0	-\$60,952	TBD	-0.30%	-\$137,142

HOSPITAL NAME	RY 16 Permanent Inpatient Revenue	RY 2017 QBR FINAL POINTS	1.RY 2017 Current Scale		2a.Proposed RY 2017 Scale		2b. January 2017 and July 2017 Implementations		3. RY 2018	4. National Scale (Draft Recommendation for RY 2019)	
			% Impact	\$ Impact	% Impact	\$ Impact	Jan 2017 Rate Order Adjustment effective July 2016	Rate Order FY18 GBR (July 2017)	Use Relative Scale or National	% Impact	\$ Impact
Doctors Community Hospital	\$132,614,778	0.35	0.32%	\$424,367	-0.13%	-\$176,820	\$0	-\$176,820	TBD	-0.30%	-\$397,844
Meritus Hospital	\$190,659,648	0.36	0.36%	\$686,375	-0.07%	-\$127,106	\$0	-\$127,106	TBD	-0.25%	-\$476,649
Johns Hopkins Hospital	\$1,244,297,900	0.36	0.36%	\$4,479,472	-0.07%	-\$829,532	\$0	-\$829,532	TBD	-0.25%	-\$3,110,745
Union of Cecil	\$69,389,876	0.37	0.39%	\$270,621	0.00%	\$0	\$0	\$0	TBD	-0.20%	-\$138,780
Johns Hopkins Bayview Medical Center	\$343,229,718	0.38	0.43%	\$1,475,888	0.05%	\$171,615	\$171,615	\$0	TBD	-0.15%	-\$514,845
Shady Grove Adventist Hospital	\$220,608,397	0.38	0.43%	\$948,616	0.05%	\$110,304	\$110,304	\$0	TBD	-0.15%	-\$330,913
Peninsula Regional Medical Center	\$242,318,199	0.38	0.43%	\$1,041,968	0.05%	\$121,159	\$121,159	\$0	TBD	-0.15%	-\$363,477
Upper Chesapeake Medical Center	\$135,939,076	0.38	0.43%	\$584,538	0.05%	\$67,970	\$67,970	\$0	TBD	-0.15%	-\$203,909
Chester River Hospital Center	\$21,575,174	0.38	0.43%	\$92,773	0.05%	\$10,788	\$10,788	\$0	TBD	-0.15%	-\$32,363
University of Maryland Hospital	\$906,034,034	0.39	0.46%	\$4,167,757	0.10%	\$906,034	\$906,034	\$0	TBD	-0.10%	-\$906,034
Atlantic General Hospital	\$37,750,252	0.39	0.46%	\$173,651	0.10%	\$37,750	\$37,750	\$0	TBD	-0.10%	-\$37,750
Garrett County Memorial Hospital	\$19,149,148	0.40	0.50%	\$95,746	0.15%	\$28,724	\$28,724	\$0	TBD	-0.05%	-\$9,575
Fort Washington Medical Center	\$19,674,774	0.41	0.54%	\$106,244	0.20%	\$39,350	\$39,350	\$0	TBD	0.00%	\$0
Mercy Medical Center	\$214,208,592	0.41	0.54%	\$1,156,726	0.20%	\$428,417	\$428,417	\$0	TBD	0.00%	\$0
Civista Medical Center	\$67,052,911	0.42	0.57%	\$382,202	0.25%	\$167,632	\$167,632	\$0	TBD	0.05%	\$33,526
Carroll Hospital Center	\$136,267,434	0.43	0.61%	\$831,231	0.30%	\$408,802	\$408,802	\$0	TBD	0.10%	\$136,267
Calvert Memorial Hospital	\$62,336,014	0.43	0.61%	\$380,250	0.30%	\$187,008	\$187,008	\$0	TBD	0.10%	\$62,336
UM ST. JOSEPH	\$234,223,274	0.43	0.61%	\$1,428,762	0.30%	\$702,670	\$702,670	\$0	TBD	0.10%	\$234,223
Dorchester General Hospital	\$26,999,062	0.44	0.64%	\$172,794	0.35%	\$94,497	\$94,497	\$0	TBD	0.15%	\$40,499
Montgomery General Hospital	\$75,687,627	0.45	0.68%	\$514,676	0.40%	\$302,751	\$302,751	\$0	TBD	0.20%	\$151,375
Harbor Hospital Center	\$113,244,592	0.45	0.68%	\$770,063	0.40%	\$452,978	\$452,978	\$0	TBD	0.20%	\$226,489
Frederick Memorial	\$190,413,775	0.46	0.71%	\$1,351,938	0.45%	\$856,862	\$856,862	\$0	TBD	0.25%	\$476,034

HOSPITAL NAME	RY 16 Permanent Inpatient Revenue	RY 2017 QBR FINAL POINTS	1.RY 2017 Current Scale		2a.Proposed RY 2017 Scale		2b. January 2017 and July 2017 Implementations		3. RY 2018 Use Relative Scale or National	4. National Scale (Draft Recommendation for RY 2019)	
			% Impact	\$ Impact	% Impact	\$ Impact	Jan 2017 Rate Order Adjustment effective July 2016	Rate Order FY18 GBR (July 2017)		% Impact	\$ Impact
Hospital											
Suburban Hospital	\$193,176,044	0.47	0.75%	\$1,448,820	0.50%	\$965,880	\$965,880	\$0	TBD	0.30%	\$579,528
Greater Baltimore Medical Center	\$207,515,795	0.49	0.82%	\$1,701,630	0.60%	\$1,245,095	\$1,245,095	\$0	TBD	0.40%	\$830,063
Good Samaritan Hospital	\$160,795,606	0.49	0.82%	\$1,318,524	0.60%	\$964,774	\$964,774	\$0	TBD	0.40%	\$643,182
Howard County General Hospital	\$165,683,744	0.57	1.00%	\$1,656,837	1.00%	\$1,656,837	\$1,656,837	\$0	TBD	0.85%	\$1,408,312
St. Mary's Hospital	\$69,169,248	0.72	1.00%	\$691,692	1.00%	\$691,692	\$691,692	\$0	TBD	1.60%	\$1,106,708
<b>Statewide Total</b>	<b>\$8,730,031,841</b>			<b>\$27,058,414</b>		<b>-\$9,883,530</b>	<b>\$5,229,972</b>	<b>-\$15,113,502</b>			<b>-\$21,514,008</b>
			<b>Total Penalties</b>	-5,389,617		-20,503,119	-5,389,617	-15,113,502			-27,442,552
			<b>% Inpatient Revenue</b>	-0.06%		-0.23%	-0.06%	-0.17%			-0.31%
			<b>Total Rewards</b>	32,448,031		10,619,589	10,619,589	0			5,928,544
			<b>% Inpatient Revenue</b>	0.37%		0.12%	0.12%	0.00%			0.07%



**APPENDIX VI. RY 2019 SCALING OPTIONS**

HOSPID	HOSPITAL NAME	FY 16 Permanent Inpatient Revenue	RY 2017 QBR FINAL POINTS	RY 2017 Scale		Full Scale Range		Option 1: Modified Full Scale 0.40		Option 2: Modified Full Scale 0.45	
				% Revenue Impact	\$ Revenue Impact	% Revenue Impact	\$ Revenue Impact	% Revenue Impact	\$ Revenue Impact	% Revenue Impact	\$ Revenue Impact
A	B	C	D	I	J	P	Q	P	Q	P	Q
210013	Bon Secours Hospital	\$74,789,724	0.07	-2.00%	-\$1,495,794	-1.72%	-\$1,286,383	-1.65%	-\$1,234,030	-1.69%	-\$1,263,115
210055	Laurel Regional Hospital	\$60,431,106	0.16	-1.40%	-\$846,035	-1.36%	-\$821,863	-1.20%	-\$725,173	-1.29%	-\$778,890
210038	Maryland General Hospital	\$126,399,313	0.20	-1.13%	-\$1,432,526	-1.20%	-\$1,516,792	-1.00%	-\$1,263,993	-1.11%	-\$1,404,437
210040	Northwest Hospital Center	\$114,214,371	0.22	-1.00%	-\$1,142,144	-1.12%	-\$1,279,201	-0.90%	-\$1,027,929	-1.02%	-\$1,167,525
210004	Holy Cross Hospital	\$316,970,825	0.23	-0.93%	-\$2,958,394	-1.08%	-\$3,423,285	-0.85%	-\$2,694,252	-0.98%	-\$3,099,270
210003	Prince Georges Hospital Center	\$220,306,426	0.24	-0.87%	-\$1,909,322	-1.04%	-\$2,291,187	-0.80%	-\$1,762,451	-0.93%	-\$2,056,193
210062	Southern Maryland Hospital Center	\$156,564,761	0.25	-0.80%	-\$1,252,518	-1.00%	-\$1,565,648	-0.75%	-\$1,174,236	-0.89%	-\$1,391,687
210016	Washington Adventist Hospital	\$155,199,154	0.25	-0.80%	-\$1,241,593	-1.00%	-\$1,551,992	-0.75%	-\$1,163,994	-0.89%	-\$1,379,548
210012	Sinai Hospital	\$415,350,729	0.31	-0.40%	-\$1,661,403	-0.76%	-\$3,156,666	-0.45%	-\$1,869,078	-0.62%	-\$2,584,405
210037	Memorial Hospital at Easton	\$101,975,577	0.31	-0.40%	-\$407,902	-0.76%	-\$775,014	-0.45%	-\$458,890	-0.62%	-\$634,515
210023	Anne Arundel Medical Center	\$291,882,683	0.31	-0.40%	-\$1,167,531	-0.76%	-\$2,218,308	-0.45%	-\$1,313,472	-0.62%	-\$1,816,159
210015	Franklin Square Hospital Center	\$274,203,013	0.31	-0.40%	-\$1,096,812	-0.76%	-\$2,083,943	-0.45%	-\$1,233,914	-0.62%	-\$1,706,152

HOSPID	HOSPITAL NAME	FY 16 Permanent Inpatient Revenue	RY 2017 QBR FINAL POINTS	RY 2017 Scale		Full Scale Range		Option 1: Modified Full Scale 0.40		Option 2: Modified Full Scale 0.45	
				% Revenue Impact	\$ Revenue Impact	% Revenue Impact	\$ Revenue Impact	% Revenue Impact	\$ Revenue Impact	% Revenue Impact	\$ Revenue Impact
A	B	C	D	I	J	P	Q	P	Q	P	Q
210024	Union Memorial Hospital	\$238,195,335	0.31	-0.40%	-\$952,781	-0.76%	-\$1,810,285	-0.45%	-\$1,071,879	-0.62%	-\$1,482,104
210011	St. Agnes Hospital	\$232,266,274	0.32	-0.33%	-\$774,221	-0.72%	-\$1,672,317	-0.40%	-\$929,065	-0.58%	-\$1,341,983
210043	Baltimore Washington Medical Center	\$237,934,932	0.33	-0.27%	-\$634,493	-0.68%	-\$1,617,958	-0.35%	-\$832,772	-0.53%	-\$1,268,986
210027	Western MD Regional Medical Center	\$167,618,972	0.34	-0.20%	-\$335,238	-0.64%	-\$1,072,761	-0.30%	-\$502,857	-0.49%	-\$819,471
210006	Harford Memorial Hospital	\$45,713,956	0.35	-0.13%	-\$60,952	-0.60%	-\$274,284	-0.25%	-\$114,285	-0.44%	-\$203,173
210051	Doctors Community Hospital	\$132,614,778	0.35	-0.13%	-\$176,820	-0.60%	-\$795,689	-0.25%	-\$331,537	-0.44%	-\$589,399
210001	Meritus Hospital	\$190,659,648	0.36	-0.07%	-\$127,106	-0.56%	-\$1,067,694	-0.20%	-\$381,319	-0.40%	-\$762,639
210009	Johns Hopkins Hospital	\$1,244,297,900	0.36	-0.07%	-\$829,532	-0.56%	-\$6,968,068	-0.20%	-\$2,488,596	-0.40%	-\$4,977,192
210032	Union of Cecil	\$69,389,876	0.37	0.00%	\$0	-0.52%	-\$360,827	-0.15%	-\$104,085	-0.36%	-\$246,720
210029	Johns Hopkins Bayview Medical Center	\$343,229,718	0.38	0.05%	\$171,615	-0.48%	-\$1,647,503	-0.10%	-\$343,230	-0.31%	-\$1,067,826
210057	Shady Grove Adventist Hospital	\$220,608,397	0.38	0.05%	\$110,304	-0.48%	-\$1,058,920	-0.10%	-\$220,608	-0.31%	-\$686,337
210019	Peninsula Regional Medical Center	\$242,318,199	0.38	0.05%	\$121,159	-0.48%	-\$1,163,127	-0.10%	-\$242,318	-0.31%	-\$753,879

HOSPID	HOSPITAL NAME	FY 16 Permanent Inpatient Revenue	RY 2017 QBR FINAL POINTS	RY 2017 Scale		Full Scale Range		Option 1: Modified Full Scale 0.40		Option 2: Modified Full Scale 0.45	
				% Revenue Impact	\$ Revenue Impact	% Revenue Impact	\$ Revenue Impact	% Revenue Impact	\$ Revenue Impact	% Revenue Impact	\$ Revenue Impact
A	B	C	D	I	J	P	Q	P	Q	P	Q
210049	Upper Chesapeake Medical Center	\$135,939,076	0.38	0.05%	\$67,970	-0.48%	-\$652,508	-0.10%	-\$135,939	-0.31%	-\$422,922
210030	Chester River Hospital Center	\$21,575,174	0.38	0.05%	\$10,788	-0.48%	-\$103,561	-0.10%	-\$21,575	-0.31%	-\$67,123
210002	University of Maryland Hospital	\$906,034,034	0.39	0.10%	\$906,034	-0.44%	-\$3,986,550	-0.05%	-\$453,017	-0.27%	-\$2,416,091
210061	Atlantic General Hospital	\$37,750,252	0.39	0.10%	\$37,750	-0.44%	-\$166,101	-0.05%	-\$18,875	-0.27%	-\$100,667
210017	Garrett County Memorial Hospital	\$19,149,148	0.40	0.15%	\$28,724	-0.40%	-\$76,597	0.00%	\$0	-0.22%	-\$42,554
210060	Fort Washington Medical Center	\$19,674,774	0.41	0.20%	\$39,350	-0.36%	-\$70,829	0.05%	\$9,837	-0.18%	-\$34,977
210008	Mercy Medical Center	\$214,208,592	0.41	0.20%	\$428,417	-0.36%	-\$771,151	0.05%	\$107,104	-0.18%	-\$380,815
210035	Civista Medical Center	\$67,052,911	0.42	0.25%	\$167,632	-0.32%	-\$214,569	0.10%	\$67,053	-0.13%	-\$89,404
210033	Carroll Hospital Center	\$136,267,434	0.43	0.30%	\$408,802	-0.28%	-\$381,549	0.15%	\$204,401	-0.09%	-\$121,127
210039	Calvert Memorial Hospital	\$62,336,014	0.43	0.30%	\$187,008	-0.28%	-\$174,541	0.15%	\$93,504	-0.09%	-\$55,410
210063	UM ST. JOSEPH	\$234,223,274	0.43	0.30%	\$702,670	-0.28%	-\$655,825	0.15%	\$351,335	-0.09%	-\$208,198
210010	Dorchester General Hospital	\$26,999,062	0.44	0.35%	\$94,497	-0.24%	-\$64,798	0.20%	\$53,998	-0.04%	-\$12,000
210018	Montgomery General	\$75,687,627	0.45	0.40%	\$302,751	-0.20%	-\$151,375	0.25%	\$189,219	0.00%	\$0

HOSPID	HOSPITAL NAME	FY 16 Permanent Inpatient Revenue	RY 2017 QBR FINAL POINTS	RY 2017 Scale		Full Scale Range		Option 1: Modified Full Scale 0.40		Option 2: Modified Full Scale 0.45			
				% Revenue Impact	\$ Revenue Impact	% Revenue Impact	\$ Revenue Impact	% Revenue Impact	\$ Revenue Impact	% Revenue Impact	\$ Revenue Impact		
A	B	C	D	I	J	P	Q	P	Q	P	Q		
	Hospital												
210034	Harbor Hospital Center	\$113,244,592	0.45	0.40%	\$452,978	-0.20%	-\$226,489	0.25%	\$283,111	0.00%	\$0		
210005	Frederick Memorial Hospital	\$190,413,775	0.46	0.45%	\$856,862	-0.16%	-\$304,662	0.30%	\$571,241	0.06%	\$108,808		
210022	Suburban Hospital	\$193,176,044	0.47	0.50%	\$965,880	-0.12%	-\$231,811	0.35%	\$676,116	0.11%	\$220,773		
210044	Greater Baltimore Medical Center	\$207,515,795	0.49	0.60%	\$1,245,095	-0.04%	-\$83,006	0.45%	\$933,821	0.23%	\$474,322		
210056	Good Samaritan Hospital	\$160,795,606	0.49	0.60%	\$964,774	-0.04%	-\$64,318	0.45%	\$723,580	0.23%	\$367,533		
210048	Howard County General Hospital	\$165,683,744	0.57	1.00%	\$1,656,837	0.28%	\$463,914	0.85%	\$1,408,312	0.69%	\$1,136,117		
210028	St. Mary's Hospital	\$69,169,248	0.72	1.00%	\$691,692	0.88%	\$608,689	1.60%	\$1,106,708	1.54%	\$1,067,183		
	<b>Statewide Total</b>	<b>\$8,730,031,841</b>			<b>-\$9,883,530</b>		<b>-\$48,787,350</b>		<b>-\$17,334,029</b>		<b>-\$34,058,155</b>		
					<b>Total Penalties</b>		-20,503,119		-49,859,954		-24,113,371		-37,432,890
					<b>% Inpatient Revenue</b>		-0.23%		-0.57%		-0.28%		-0.43%
					<b>Total rewards</b>		10,619,589		1,072,604		6,779,342		3,374,735
					<b>% Inpatient revenue</b>		0.12%		0.01%		0.08%		0.04%





Maryland  
Hospital Association

January 3, 2017

Dianne Feeney  
Associate Director, Quality Initiatives  
Health Services Cost Review Commission  
4160 Patterson Avenue  
Baltimore, Maryland 21215

Dear Ms. Feeney:

On behalf of the 64 hospital and health system members of the Maryland Hospital Association (MHA), we appreciate the opportunity to comment on the December *Draft Recommendations for Updating the Quality Based Reimbursement Program for Rate Year 2018 and 2019*.

### **Fiscal Year 2017 Background**

With the fiscal 2017 Quality-Based Reimbursement (QBR) policy, a fundamental change was made to the payment scale to create more predictable payment adjustments that hospitals can monitor throughout the performance year. The changes, supported by the hospital field, eliminated a payment scale that required penalties to fund rewards in a revenue-neutral manner and replaced it with a non-revenue neutral scaling using pre-set adjustments based on specific performance targets. The discussions around the fiscal 2017 outcomes brought to light questions about statewide performance expectations.

### **Recommendations**

MHA offers two suggestions to better align QBR policy and methodology with HSCRC expectations:

1. The QBR payment scale is set in advance so clinicians can understand performance goals. However, while the HSCRC approves the weights to be applied to each measure and the maximum amount of rewards and penalties, it has not set explicit performance targets and does not approve how hospitals' performance will be arrayed within those reward and penalty boundaries. For example, the "break point" – the point chosen within the distribution of Maryland's hospitals that defines where rewards end and penalties begin – is a critically important decision and more strongly influences the outcome than does the decision about where the maximum rewards and penalties are set. **The HSCRC should expand its discussion and the commission should explicitly approve additional elements of the QBR policy, to include setting a break point that determines the penalty and reward zones in advance.**
2. Of greater importance, as noted at the October commission meeting, is a big picture question: what are we trying to achieve? Performing at the highest levels is desirable, but,

as in all incentive-based programs, the objective is to apply an incentive that yields a specific result. What are the goals for each measure? What level of improvement in each of the metrics do the HSCRC and the Centers for Medicare & Medicaid Services (CMS) consider meaningful? What do the evidence and research show about how quickly any particular measure can be improved, about the mix of providers and interventions needed to achieve that change, or about the time needed to achieve the desired change? These questions are critical for commission discussion and consideration, both in setting targets for improvement and in informing the staff's development of current and future goals and methods. **The HSCRC should expand its discussion of QBR policy to include these broader questions and discuss performance expectations.**

### **Fiscal Year 2018 Background**

The fiscal 2018 performance period ended September 30 for some metrics and December 31 for others. Statewide performance results will not be available for at least another six months, although hospitals are able to track their individual performance with less lag.

### **Recommendation**

Since the performance period has ended, there is little value in setting a performance target for fiscal 2018. **Instead, we recommend basing the payment scale on the actual fiscal 2018 scores, similar to the way in which HSCRC staff recommended revising the fiscal 2017 payment scale.** The payment scale could be tied to actual scores in the following manner:

*The highest score would be “anchored” to the maximum reward, in this case 1 percent of inpatient revenue. The lowest score would be anchored to the maximum penalty, previously set at 2 percent of inpatient revenue. A third anchor would be set at the “break point” or the score above which a hospital receives a reward and below which a hospital is penalized. The break point would be set at the average score. Payment adjustments would be linearly proportional between the average and highest score and likewise, proportional between the average and lowest score.*

Under this scenario, roughly half the hospitals would receive a reward and half penalized, but the positive and negative adjustments would not need to balance to zero. This change should occur after the performance period ended, but before hospitals' fiscal 2018 budgets are set because it reduces the risk of having statewide performance and payment adjustments fall out of line with expectations.

### **Fiscal Year 2019 Background**

Several options have been considered for the fiscal 2019 payment scale:

1. *Returning to a relative scale*

This option is undesirable because the payment adjustments are not known until all hospitals' final performance scores are calculated. The lag in publicly available data means that the payment adjustment is uncertain until a few months after the start of the fiscal year

in which the adjustment applies, making it difficult for hospitals to budget for the payment adjustment.

2. *Pre-set scale based on Maryland performance in a current or prior period*

While we support this approach for fiscal 2018 only, improvements are needed for 2019 and future years. Simply setting the payment scale on the most recent year's performance does not account for volatility in overall scores as measures are added to the program. This approach risks another misalignment of actual payment adjustments and performance expectations.

3. *National scale based on possible points (range from 0 - 1, with a break point set at 0.5.)*

This option is also undesirable. Under CMS' Value-Based Payment program, hospitals can score anywhere between 0 and 1.0 total points. However, the program adjusts for relative ranking, effectively grading on a curve. Using the 0-1 range and 0.5 as the break point would create a significantly higher performance standard in Maryland than the nation. To earn a score of 0.5, a hospital would need to perform at the national level or improve at the national improvement rate for each metric. Actual national average scores over the last several years range from 0.36-0.41.

### **Recommendation**

**MHA proposes setting the payment scale using three anchor points: a top score tied to the maximum reward, a low score tied to the maximum penalty and the average score tied to the break point.** Between the break point and the maximum reward and between the break point and the maximum penalty, payment adjustments would be proportionally scaled. Because hospitals above the break point receive positive adjustments and hospitals scoring below the break point are penalized, deciding where to set the three anchor points would make an explicit statement about performance expectations.

To address the difficulty in predicting a "good score," as metrics are added to or removed from the program each year, HSCRC should create a zone in the mid-range where no payment adjustment is made. This would create a "buffer zone" to protect against volatility in outcomes that results from changing metrics and is therefore beyond anyone's ability to predict. The no-adjustment zone would be set at a quarter of the standard deviation, centered on either side of an average score. Although a buffer zone raises concerns because of the idea that all hospitals should have a performance incentive, a small buffer zone would not detract from overall performance incentives.

Compared to the nation, Maryland's performance scores are more tightly clustered around the median, and a few points lower than the median. This suggests that moving the Maryland payment scale closer to national performance would move the Maryland performance curve to the right, indicating better statewide performance. The challenge in simply setting the Maryland scale with the break point a few points higher than the most recent Maryland average, or at the



most recent year's national median score, is that the national scores frequently move up or down by a few basis points, depending on which metrics are included.

The results of model of this alternative, using Maryland fiscal 2017 scores with a break point set at 0.36 (two basis points higher than the Maryland median and one point lower than the national median for 2017, are attached.

We appreciate the commission's consideration of our comments and the opportunity to continue working with the HSCRC.

Sincerely,



Traci La Valle  
Vice President

Enclosure

cc: Nelson J. Sabatini, Chairman  
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Jack C. Keane  
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FY 2019 Option

HOSPITAL NAME	FY 16 Permanent Inpatient Revenue	QBR FINAL POINTS	MHA Option	
			% Revenue Impact	\$ Revenue Impact
Bon Secours Hospital	\$ 74,789,724	0.07	-2.00%	-\$1,495,794
Laurel Regional Hospital	\$ 60,431,106	0.16	-1.33%	-\$805,748
Maryland General Hospital	\$ 126,399,313	0.20	-1.04%	-\$1,310,808
Northwest Hospital Center	\$ 114,214,371	0.22	-0.89%	-\$1,015,239
Holy Cross Hospital	\$ 316,970,825	0.23	-0.81%	-\$2,582,725
Prince Georges Hospital Center	\$ 220,306,426	0.24	-0.74%	-\$1,631,899
Southern Maryland Hospital Center	\$ 156,564,761	0.25	-0.67%	-\$1,043,765
Washington Adventist Hospital	\$ 155,199,154	0.25	-0.67%	-\$1,034,661
Sinai Hospital	\$ 415,350,729	0.31	-0.22%	-\$923,002
Memorial Hospital at Easton	\$ 101,975,577	0.31	-0.22%	-\$226,612
Anne Arundel Medical Center	\$ 291,882,683	0.31	-0.22%	-\$648,628
Franklin Square Hospital Center	\$ 274,203,013	0.31	-0.22%	-\$609,340
Union Memorial Hospital	\$ 238,195,335	0.31	-0.22%	-\$529,323
St. Agnes Hospital	\$ 232,266,274	0.32	-0.15%	-\$344,098
Baltimore Washington Medical Center	\$ 237,934,932	0.33	-0.07%	-\$176,248
Western MD Regional Medical Center	\$ 167,618,972	0.34	0.00%	\$0
Harford Memorial Hospital	\$ 45,713,956	0.35	0.00%	\$0
Doctors Community Hospital	\$ 132,614,778	0.35	0.00%	\$0
Meritus Hospital	\$ 190,659,648	0.36	0.00%	\$0
Johns Hopkins Hospital	\$ 1,244,297,900	0.36	0.00%	\$0
Union of Cecil	\$ 69,389,876	0.37	0.00%	\$0
Johns Hopkins Bayview Medical Center	\$ 343,229,718	0.38	0.00%	\$0
Shady Grove Adventist Hospital	\$ 220,608,397	0.38	0.00%	\$0
Peninsula Regional Medical Center	\$ 242,318,199	0.38	0.00%	\$0
Upper Chesapeake Medical Center	\$ 135,939,076	0.38	0.00%	\$0
Chester River Hospital Center	\$ 21,575,174	0.38	0.00%	\$0
University of Maryland Hospital	\$ 906,034,034	0.39	0.05%	\$476,860
Atlantic General Hospital	\$ 37,750,252	0.39	0.05%	\$19,869
Garrett County Memorial Hospital	\$ 19,149,148	0.40	0.11%	\$20,157
Fort Washington Medical Center	\$ 19,674,774	0.41	0.16%	\$31,065
Mercy Medical Center	\$ 214,208,592	0.41	0.16%	\$338,224
Civista Medical Center	\$ 67,052,911	0.42	0.21%	\$141,164
Carroll Hospital Center	\$ 136,267,434	0.43	0.26%	\$358,599
Calvert Memorial Hospital	\$ 62,336,014	0.43	0.26%	\$164,042
UM ST. JOSEPH	\$ 234,223,274	0.43	0.26%	\$616,377
Dorchester General Hospital	\$ 26,999,062	0.44	0.32%	\$85,260
Montgomery General Hospital	\$ 75,687,627	0.45	0.37%	\$278,849
Harbor Hospital Center	\$ 113,244,592	0.45	0.37%	\$417,217
Frederick Memorial Hospital	\$ 190,413,775	0.46	0.42%	\$801,742
Suburban Hospital	\$ 193,176,044	0.47	0.47%	\$915,044
Greater Baltimore Medical Center	\$ 207,515,795	0.49	0.58%	\$1,201,407
Good Samaritan Hospital	\$ 160,795,606	0.49	0.58%	\$930,922
Howard County General Hospital	\$ 165,683,744	0.57	1.00%	\$1,656,837
St. Mary's Hospital	\$ 69,169,248	0.72	1.00%	\$691,692
<b>FY17 Statewide Total</b>	<b>\$8,730,031,841</b>			<b>-\$5,232,563</b>
		<b>Total Penalties</b>		<b>-14,377,891</b>
		<b>% Inpatient Revenue</b>		<b>-0.16%</b>
		<b>Total rewards</b>		<b>9,145,329</b>
		<b>% Inpatient revenue</b>		<b>0.10%</b>