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Health Services Cost Review Commission

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To: Hospital CFOs

Cc: Hospital Quality Liaisons
Case Mix Liaisons

From: HSCRC Quality/Performance Measurement Team

Date: February 11, 2019

Re: Maryland Quality Based Reimbursement Program Measure Standards, Scaling Determination, and other Methodology Changes for Rate Year 2021

This memo summarizes the changes to the Quality Based Reimbursement Program (QBR) that will impact hospital rates in Rate Year (RY) 2021.

[Scaling Methodology and Revenue At-Risk](#)

On December 12, 2018, the Commission approved the staff recommendations for revising the Quality-Based Reimbursement (QBR) Program for RY 2021. The preset scale for RY 2021 uses a full distribution of potential scores (scale of 0-80%), and a score cut point of 41% for rewards and penalties. The maximum reward will remain at 2%, and the maximum penalty will remain at 2%. The preset scale is included as Appendix A of this memorandum.

[Aligning the QBR program with the CMS Value Based Purchasing \(VBP\) Program](#)

VBP Exemption

Exemptions from CMS quality hospital programs enable Maryland to operate programs with incremental revenue adjustment scales established prospectively with all hospitals having the opportunity to earn rewards based on their performance. As required, HSCRC has submitted to the Centers for Medicare & Medicaid Services (CMS) Maryland's QBR program reports and requests for exemptions from the Value-Based Purchasing (VBP) program for FY 2013 through FY 2019. The exemption requests have emphasized that the QBR policy continues to heavily weight the Hospital Consumer Assessment of Healthcare Providers and Systems (HCAHPS) scores due to concerns regarding progress on these measures. Going forward under the TCOC Model, HSCRC's portfolio of quality and value-based payment programs will be updated, including updated performance targets and requirements. In order for Maryland to maintain its exemptions from Federal pay-for-performance quality programs, the State must ensure that there is no backsliding on the progress made under the All-Payer Model, and the policies must continue to be aggressive and progressive.

RY 2021 Measure Changes and Updates

For the QBR program, the HSCRC generally follows the VBP programs in terms of measures and calculation of measure scores. Below are the updates to the QBR program measures for RY 2021:

- 1) The HSCRC staff has added the Total Hip Arthroplasty/Total Knee Arthroplasty Risk Standardized Complication Rate (THA-TKA) measure to the Clinical Care Domain and are weighting the measure at 5% to align with the National VBP program.
- 2) Following the removal of the PC-01 and ED-1b measures from CMS' VBP and IQR programs respectively, The HSCRC staff has removed the PC-01 and ED-1b measures from the QBR program. Hospitals will now be assessed on their improvement on one measure of Emergency Department (ED) throughput efficiency—ED-2b, Median time from admit decision to time of departure from the emergency department for patients admitted to inpatient status. Unlike other QBR measures, which calculate the benchmark performance at the 95th percentile, the benchmark for the ED measures is the national median by hospital volume category, stratified into four categories by annual numbers of ED visits, incentivizing improvement to move Maryland hospitals closer to the national median. Hospitals at or below the national median for their respective volume categories during the performance period are eligible for a full 10 attainment points regardless of their improvement. The ED wait time measure data are available on CMS Hospital Compare. The QBR base period workbook, which accompanies this memo, contains hospital volume categories, base year (CY 2017) performance, and volume-stratified benchmarks for this measure.
 - (a) Hospitals that improve enough to achieve at least one improvement point on the ED wait time measure will receive the better of their final QBR score, with or without measured-2b. For more information on the measure-specific **protections**, please see Appendix B.

Domain Weights

The Final Measure Domain Weights for the QBR program compared with the VBP Program for RY 2021 are listed below in Figure 1.

Figure 1. QBR Measure Domain Weights Compared with the VBP Program

	Clinical Care	Person and Community Engagement	Safety	Efficiency
QBR	15% (2 measures- inpatient all cause mortality +1 THA/TKA complication measure)	50% (9 measures- 8 HCAHPS, 1 ED Wait Time measure)	35% (6 measures- CDC NHSN HAIs)	N/A
CMS VBP	25% (5 measures- 4 condition specific 30-day mortality measures + 1 THA/TKA complication measure)	25% (8 measures- HCAHPS)	25% (6 measures- CDC NHSN HAIs)	25%

Measurement Periods

The base and performance measurement periods used for the QBR program for RY 2021 are

illustrated below in figure 2.

Figure 2. RY 2021 QBR Base and Performance Timeline

Rate Year (Maryland Fiscal Year)	Q3-16	Q4-16	Q1-17	Q2-17	Q3-17	Q4-17	Q1-18	Q2-18	Q3-18	Q4-18	Q1-19	Q2-19	Q3-19	Q4-19	Q1-20	Q2-20	Q3-20	Q4-20	Q1-21	Q2-21	Q3-21	Q4-21				
Calendar Year	Q1-16	Q2-16	Q3-16	Q4-16	Q1-17	Q2-17	Q3-17	Q4-17	Q1-18	Q2-18	Q3-18	Q4-18	Q1-19	Q2-19	Q3-19	Q4-19	Q1-20	Q2-20	Q3-20	Q4-20	Q1-21	Q2-21				
Rate Year 2021																										
QBR					Hospital Compare Base Period (HCAHPS measures, ED-2b; All NHSN)																Rate Year Impacted by QBR Results					
												Hospital Compare Performance Period (HCAHPS measures, ED-2b; All NHSN Measures)														
							QBR Maryland Mortality Base Period																			
													QBR Maryland Mortality Performance Period													
		NEW MEASURE: Hospital Compare THA/TKA Performance Period*																								

* Hospital Compare THA/TKA Base Period April 1, 2011-March 31, 2014

QBR Data Sources, Score Calculations and Performance Standards for RY 2021

As stated previously, to the extent possible, HSCRC has aligned the QBR program data, scoring calculations, measures list and performance standards with the VBP program. Appendix C provides an overview of the QBR methodology. Key points regarding this are outlined below.

- HSCRC will use the data submitted to CMS for the Inpatient Quality Reporting program and posted to Hospital Compare for calculating hospital performance scores for all measures with exception of in-hospital mortality measure, which is calculated using HSCRC case mix data.
 - NOTE: If NHSN data are unavailable on CMS Hospital Compare for the relevant time periods for some or all hospitals, the HSCRC may obtain these data directly from CMS, or may download the data directly from the NHSN by MHCC. Results from MHCC may be pulled at a different time and may not match CMS data.
- CMS rules will be used when possible for minimum measure requirements for scoring a domain and for readjusting domain weighting if a measurement domain is missing for a hospital. Hospitals must be eligible for a score in the HCAHPS domain (i.e., must have at least 100 completed surveys in the performance period) to be included in the program.
- Maryland Mortality summary reports and case level data are provided to hospitals quarterly based on preliminary and final data. Reports are available on the CRS Portal. Current Base Year data, DRGs, and thresholds/benchmarks are provided with this memo. Appendix D contains the specifications for the Maryland Mortality measure.
- For hospitals with measures that have no data in the base period, staff reserves the right to assess hospitals on attainment-only, since HSCRC will be unable to calculate improvement scores.
- For hospitals that have measures with data missing for the base and performance periods, staff reserves the right to give hospitals a score of zero for these measures. **It is imperative, therefore, that hospitals review their data as soon as it is available and contact CMS with any concerns related to preview data or issues with posting data to Hospital Compare,** and to alert HSCRC staff in a timely manner if issues cannot be resolved.

- The performance standards for each of the Safety, Clinical Care, and Person and Community Engagement measures for RY 2021 are listed below in Figure 3.
 - NOTE: In prior years, CMS has adjusted the VBP thresholds and benchmarks mid-year for certain measures (most notably, the C. diff measure). Should any VBP measure included in the RY 2021 QBR program be updated, HSCRC will notify industry and provide an updated calculation sheet at that time.

An excel workbook with base year data accompanies this memo and will be posted to the HSCRC website and CRISP Reporting Services (CRS) Portal. HSCRC has also developed and is providing a score calculation workbook containing a worksheet for each domain for hospitals to use to calculate and monitor their scores; the workbook accompanies this memo and will also be posted to the website and CRS portal.

Figure 3. QBR Performance Standards for RY 2021

Measure ID	Description	Achievement threshold	Benchmark
Safety Domain* (Standardized Infection Ratios (SIR))			
CAUTI	Catheter-Associated Urinary Tract Infection	0.774	0.000
CLABSI	National Healthcare Safety Network Central Line-associated Bloodstream Infection Outcome Measure.	0.687	0.000
CDI	Clostridium <i>difficile</i> Infection	0.748	0.067
MRSA bacteremia	National Healthcare Safety Network Facility-wide Inpatient Hospital-onset Methicillin-resistant <i>Staphylococcus aureus</i> Bacteremia Outcome Measure.	0.763	0.000
SSI - Hysterectomy	Abdominal Hysterectomy Colon Surgery	0.726	0.000
		0.754	0.000
Clinical Care Domain			
Mortality**	Inpatient All-Payer, All Cause	95.4754%	96.9606%
THA/TKA RSCR *	Total Hip/ Knee Arthroplasty Risk Standardized Complication Rate	03.1157%	02.2418%
Person and Community Engagement Domain- HCAHPS*			
HCAHPS			
	Benchmark	Achievement Threshold	Floor
Communication with Nurses	87.36%	79.06%	42.06%
Communication with Doctors	88.10%	79.91%	41.99%
Responsiveness of Hospital Staff	81.00%	65.77%	33.89%
Communication about Medicines	74.75%	63.83%	33.19%
Cleanliness & Quietness of Hospital Environment	79.85%	65.61%	30.60%

Discharge Information	92.17%	87.38%	66.94%
3- Item Care Transition (CTM)	63.32%	51.87%	6.53%
Overall Rating of Hospital	85.67%	71.80%	34.70%
ED-2b Admit decision time to emergency department departure time for admitted patients***			
Low Volume Visits	54 minutes	N/A	N/A
Medium Volume Visits	91 minutes	N/A	N/A
High Volume Visits	118 minutes	N/A	N/A
Very High Volume Visits	142 minutes	N/A	N/A

*Performance standards were published in the CMS Inpatient Prospective Payment System FFY 2019 Final Rule.

**Mortality performance standards, percent of patients that survive, were calculated by HSCRC using v. 36 of the APR DRG grouper.

***ED-2b Person and Community Engagement performance standards displayed in this table were downloaded by HSCRC from Hospital Compare using the base period calendar year 2017 data.

If you have any questions, please email hscrc.quality@maryland.gov or call Dianne Feeney (410-764-2582) or Alyson Schuster at (410-764-2673).

Attachments: Excel files entitled "QBR RY2021 Base Period Results"; "RY 2021 QBR Calculation Sheet."

Appendix A: RY 2021 QBR Preset Payment Scale

Please see below for approximate revenue adjustments associated with QBR scores.

Final QBR Score	QBR Preset Scale	Final QBR Score	QBR Preset Scale
Scores less than or equal to	0%		
	-2.00%	42%	0.05%
	-1.95%	43%	0.10%
	-1.90%	44%	0.15%
	-1.85%	45%	0.20%
	-1.80%	46%	0.26%
		47%	0.31%
	-1.76%	48%	0.36%
	-1.71%	49%	0.41%
	-1.66%	50%	0.46%
	-1.61%	51%	0.51%
	-1.56%	52%	0.56%
	-1.51%	53%	0.62%
	-1.46%	54%	0.67%
	-1.41%	55%	0.72%
	-1.37%	56%	0.77%
	-1.32%	57%	0.82%
	-1.27%	58%	0.87%
	-1.22%	59%	0.92%
	-1.17%	60%	0.97%
	-1.12%	61%	1.03%
	-1.07%	62%	1.08%
	-1.02%	63%	1.13%
	-0.98%	64%	1.18%
	-0.93%	65%	1.23%
	-0.88%	66%	1.28%
	-0.83%	67%	1.33%
	-0.78%	68%	1.38%
	-0.73%	69%	1.44%
	-0.68%	70%	1.49%
	-0.63%	71%	1.54%
	-0.59%	72%	1.59%
	-0.54%	73%	1.64%
	-0.49%	74%	1.69%
	-0.44%	75%	1.74%
	-0.39%	76%	1.79%
	-0.34%	77%	1.85%
	-0.29%	78%	1.90%
	-0.24%	79%	1.95%
	-0.20%	80%	2.00%
	-0.15%		
	-0.10%		
	-0.05%		
	0.00%	Scores greater than or equal to	80%
			2.00%

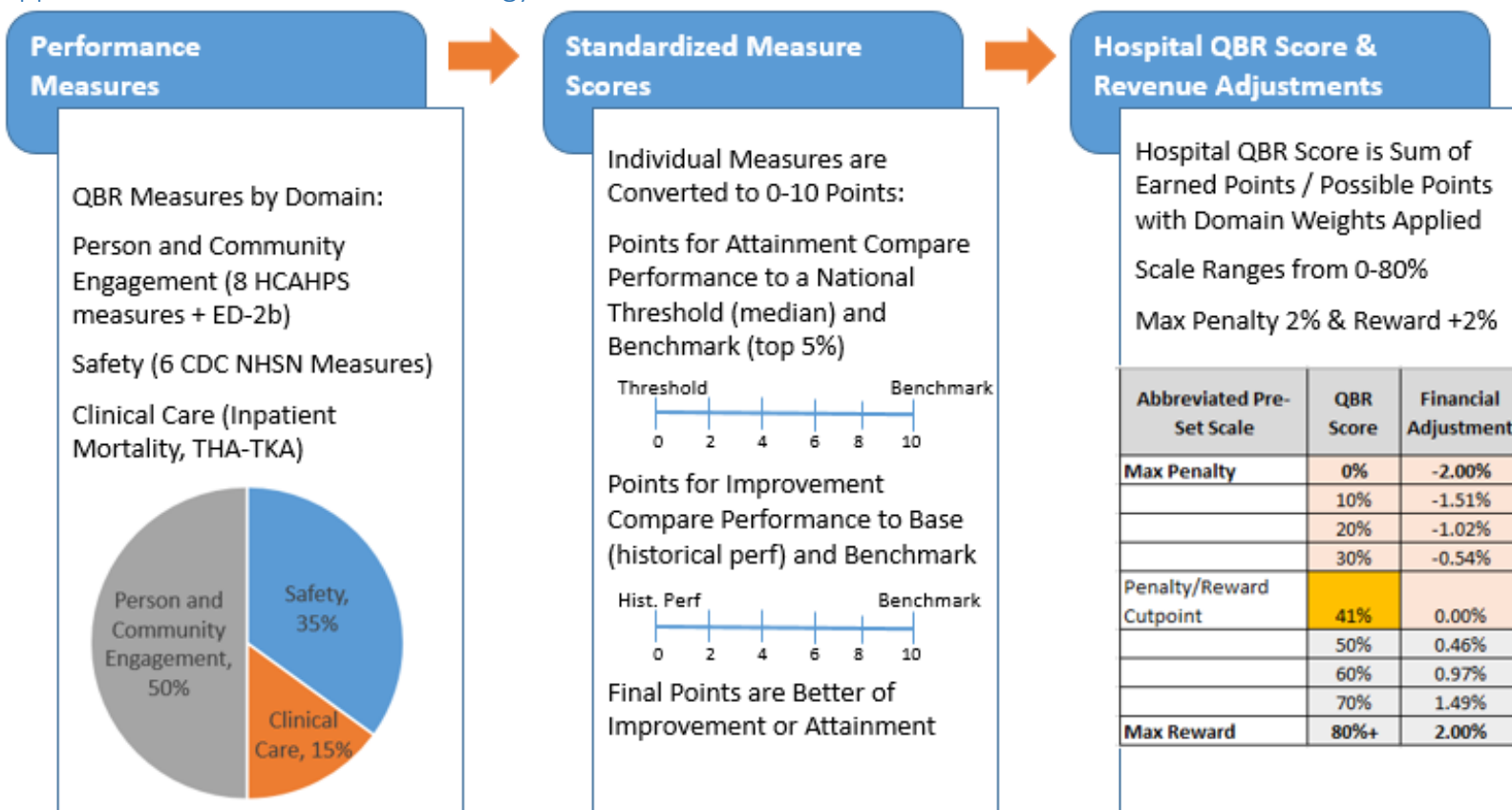
*For RY 2021, hospitals receiving a score from 0.00 to 0.40 will receive a penalty, and hospitals receiving 0.42 and above will receive a reward. Any hospital receiving a score of 0.80 or higher will receive the maximum reward.

Appendix B: Further Explanation of ED Wait Times Protections

In order to further incentivize hospitals to improve on ED Wait Times, hospitals that receive at least one improvement point on the ED Measure will be eligible for the HCAHPS domain score that is higher, with or without that included measure. As there is one measure, there are two scenarios:

1. Hospital does not improve/receives zero improvement points on the ED Wait Time measure
→ it is included in the PCE Domain score (i.e., the hospital does not receive a protection).
2. Hospital receives at least one improvement point on ED-2b → Hospital will receive the better of:
 - PCE with no ED measure included; or
 - PCE with ED-2b measure included.

Appendix C: RY 2021 QBR Methodology



Appendix D: RY 2021 Maryland Mortality Measure Specifications

Inpatient Mortality Rates using 3M, Health Information Systems Risk of Mortality Adjustment

As 3M Risk of Mortality (ROM) categories--which comprise four levels similar to severity of illness classifications used in the All Patient Refined Diagnosis Related Group (APR DRG) payment classification system-- account for risk adjustment for deaths in the hospital, the ROM may provide an appropriate measure of hospital mortality with a broader focus. 3M APR DRGs and ROM are also used as the risk adjustment methodology for other mortality measures, such as those developed by the Agency for Healthcare Research and Quality.

Exclusions

The following categories are removed from the denominators and therefore not included in the mortality rate calculations (excluded from both mortality counts and denominator):

1. Rehab hospitals (provider ids that start with 213) and Kernan/UMROI
2. Transfers to other acute hospitals (discharge destination=40 BEFORE July 1st 2018 02,05,07 AFTER July 1st 2018)
3. Age and sex unknown
4. Hospice patients (Daily service=10)
5. University of Maryland Shock Trauma Patients (daily service=02, and trauma days>0)
6. Left Against Medical Advice admissions: (discharge destination=71)
7. Trauma and Burn admissions: Admissions for multiple significant trauma (MDC=25) or extensive 3rd degree burn (APR DRG = 841 "Extensive 3rd degree burns with skin graft" or 843 "Extensive 3rd degree or full thickness burns w/o skin graft")
8. Error DRG: Admissions assigned to an error DRG 955 or 956
9. Other DRG: Admissions assigned to DRG 589 (Neonate BWT <500G or GA <24 weeks), 591 (neonate birthweight 500-749 grams without major procedure), 196 (cardiac arrest) due to high risk of mortality in these conditions.
10. APR DRG 004 (Tracheostomy w MV 96+ hours w extensive procedure or ECMO) due to low cell size.
11. Exclude McCready, Levindale and Mount Washington Pediatric
12. Medical (non-surgical) Malignancy admissions: Medical admissions with a principal diagnosis of a major metastatic malignancy (see calculation sheet for codes).
13. APR-DRGs that are NOT in the 80% of cumulative deaths after removing all the exclusions above, as well as removing palliative care discharges. Palliative care discharges are for selected DRGs are then added back into the denominator.
14. APR-DRG ROM with a state-wide cell sizes below 20 after removing all the exclusions above.

Adjustments

The Maryland inpatient hospital mortality measure was developed in conjunction with Performance Measurement workgroup and other stakeholders. Based on this stakeholder input mortality is assessed using a regression model that adjusts for the following variables:

1. Admission APR DRG with Risk of Mortality (ROM)
2. Age (as a continuous variable) and age squared
3. Gender
4. Palliative Care Status (ICD-10 code = Z51.5)
5. Transfers from another institution defined by source of admission codes.

Before July 1, 2018 use:

40 Admitted from another acute general hospital to MIEMS-designated specialty referral or area-wide trauma center

41 Admitted from another acute general hospital inpatient service for any other reason

On or after July 1, 2018 use:

04 Admitted from a different hospital facility (includes transfers from another acute care hospital (any unit), freestanding emergency department, MIEMSS-Designated facility. Not limited to only inpatient services.

Mortality Reporting

Hospitals will be provided with summary level quarterly reports based on preliminary and final HSCRC case-mix data. In addition, case level detailed files will be provided to each hospital. These summary and case level reports will be posted through the CRISP Reporting Services portal.