



## **NOTICE OF WRITTEN COMMENT PERIOD**

Notice is hereby given that the public and interested parties are invited to submit written comments to the Commission on the staff draft recommendations and updates that will be presented at the November 10, 2021 Public Meeting:

1. Draft Recommendation on Revenue for Reform

WRITTEN COMMENTS ON THE AFOREMENTIONED STAFF DRAFT RECOMMENDATIONS ARE DUE IN THE COMMISSION'S OFFICES ON OR BEFORE NOVEMBER 17, 2021, UNLESS OTHERWISE SPECIFIED IN THE RECOMMENDATION.

**589th Meeting of the Health Services Cost Review Commission  
November 10, 2021**

(The Commission will begin public session at 11:30 am for the purpose of, upon motion and approval, adjourning into closed session. The open session will resume at 1:00pm)

**EXECUTIVE SESSION  
11:30 am**

1. Discussion on Planning for Model Progression – Authority General Provisions Article, §3-103 and §3-104
2. Update on Administration of Model - Authority General Provisions Article, §3-103 and §3-104
3. Update on Commission Response to COVID-19 Pandemic - Authority General Provisions Article, §3-103 and §3-104

**PUBLIC MEETING  
1:00 pm**

1. Review of Minutes from the Public and Closed Meetings on October 13, 2021
2. Docket Status – Cases Closed  
2570N – UM Rehabilitation & Orthopedic Institute                      2571A – Johns Hopkins Health System
3. Docket Status – Cases Open  
2569N – Greater Baltimore Medical Center                              2572A - University of Maryland Medical Center
4. Final Recommendation on Quality-Based Reimbursement Program for RY 2024
5. Draft Recommendation on Revenue for Reform
6. Policy Update and Discussion
  - a. Model Monitoring
  - b. Inflation Factors Review
7. Legal Update
8. Hearing and Meeting Schedule

H.S.C.R.C's CURRENT LEGAL DOCKET STATUS (OPEN)

AS OF NOVEMBER 2, 2021

A: PENDING LEGAL ACTION : NONE  
 B: AWAITING FURTHER COMMISSION ACTION: NONE  
 C: CURRENT CASES:

Docket Number	Hospital Name	Date Docketed	Decision Required by:	Rate Order Must be Issued by:	Purpose	Analyst's Initials	File Status
2569N	Greater Baltimore Medical Center	9/8/2021	10/8/2021	3/8/2021	CAPITAL	JS/AP	OPEN
2572A	University of Maryland Medical System	10/28/2021	N/A	N/A	ARM	DNP	OPEN
2573A	University of Maryland Medical System	10/28/2021	N/A	N/A	ARM	DNP	OPEN

PROCEEDINGS REQUIRING COMMISSION ACTION - NOT ON OPEN DOCKET

None

**IN RE: THE APPLICATION FOR  
ALTERNATIVE METHOD OF RATE  
DETERMINATION  
UNIVERSITY OF MARYLAND  
MEDICAL CENTER  
BALTIMORE, MARYLAND**

**\* BEFORE THE MARYLAND HEALTH  
\* SERVICES COST REVIEW  
\* COMMISSION  
\* DOCKET: 2021  
\* FOLIO: 2382  
\* PROCEEDING: 2572A**

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**Staff Recommendation**

**November 10, 2021**

## **I. INTRODUCTION**

The University of Maryland Medical Center (“the Hospital”) filed an application with the HSCRC on October 28, 2021 for an alternative method of rate determination, pursuant to COMAR 10.37.10.06. The Hospital requests approval from the HSCRC to continue to participate in a global rate arrangement for solid organ and blood and bone marrow transplant services with INTERLINK for a period of one year, effective December 1, 2021.

## **II. OVERVIEW OF APPLICATION**

The contract will continue to be held and administered by University Physicians, Inc. (UPI). UPI will manage all financial transactions related to the global price contract including payments to the Hospital and bear all risk relating to regulated services associated with the contract.

## **III. FEE DEVELOPMENT**

The hospital component of the global rates was developed by calculating mean historical charges for patients receiving like procedures. The remainder of the global rate is comprised of physician service costs. Additional per diem payments were calculated for cases that exceed a specific length of stay outlier threshold.

## **IV. IDENTIFICATION AND ASSESSMENT OF RISK**

The Hospital will continue to submit bills to UPI for all contracted and covered services. UPI is responsible for billing the payer, collecting payments, disbursing payments to the Hospital at its full HSCRC approved rates, and reimbursing the physicians. The Hospital contends that the arrangement among UPI, the Hospital, and the physicians holds the Hospital harmless from any shortfalls in payment from the global price contract. UPI maintains it has been active in similar types of fixed fee contracts for several years, and that UPI is adequately capitalized to bear the risk of potential losses.

## **V. STAFF EVALUATION**

Although there has been no activity under this arrangement in the last year, staff believes that the Hospital can achieve a favorable experience under this arrangement.

## **V I. STAFF RECOMMENDATION**

Staff recommends that the Commission approve the Hospital's application to continue to participate in an alternative method of rate determination for solid organ and blood and bone marrow transplant services with INTERLINK for a one year period commencing December 1, 2021. Consistent with its policy paper regarding applications for alternative methods of rate determination, the staff recommends that this approval be contingent upon the execution of the standard Memorandum of Understanding ("MOU") with the Hospital for the approved contract. This document would formalize the understanding between the Commission and the Hospital, and would include provisions for such things as payments of HSCRC-approved rates, treatment of losses that may be attributed to the contract, quarterly and annual reporting, confidentiality of data submitted, penalties for noncompliance, project termination and/or alteration, on-going monitoring, and other issues specific to the proposed contract. The MOU will also stipulate that operating losses under the contract cannot be used to justify future requests for rate increases.



maryland  
**health services**  
cost review commission

# Final Quality-Based Reimbursement Program for Rate Year 2024

November 10, 2021

This document contains the final staff recommendations for updating the Quality-Based Reimbursement Program for RY 2024.

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## LIST OF ABBREVIATIONS

CDC	Centers for Disease Control & Prevention
CAUTI	Catheter-associated urinary tract infection
CDIFF	Clostridium Difficile Infection
CLABSI	Central Line-Associated Bloodstream Infection
CMS	Centers for Medicare & Medicaid Services
DRG	Diagnosis-Related Group
ED	Emergency Department
FFY	Federal Fiscal Year
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 (Coincides with State Fiscal Year (SFY) July-Jun; signifies the timeframe in which the rewards and/or penalties would be assessed)
SIR	Standardized Infection Ratio
SSI	Surgical Site Infection
THA/TKA	Total Hip and Knee Arthroplasty Risk Standardized Complication Rate
VBP	Value-Based Purchasing

## POLICY OVERVIEW

Policy Objective	Policy Solution	Effect on Hospitals	Effect on Payers/ Consumers	Effect on Health Equity
<p>The quality programs operated by the Health Services Cost Review Commission, including the Quality-Based Reimbursement (QBR) program, are intended to ensure that any incentives to constrain hospital expenditures under the Total Cost of Care Model do not result in declining quality of care. Thus, HSCRC’s quality programs reward quality improvements and achievements that reinforce the incentives of the Total Cost of Care Model, while guarding against unintended consequences and penalizing poor performance.</p>	<p>The QBR program is one of several pay-for-performance quality initiatives that provide incentives for hospitals to improve and maintain high-quality patient care and value within a global budget framework.</p>	<p>The QBR policy currently holds 2 percent of hospital inpatient revenue at-risk for Person and Community Engagement, Safety, and Clinical Care outcomes.</p>	<p>This policy ensures that the quality of care provided to consumers is reflected in the rate structure of a hospital’s overall global budget. The HSCRC quality programs are all-payer in nature and so improve quality for all patients that receive care at the hospital.</p>	<p>The quality programs that assign hospitals credit for the better of attainment or improvement on the measures (QBR and RRIP) better allow the policies to target improvements in hospitals that serve patient populations impacted more by disparities in care. In the future, the QBR policy may provide direct hospital incentives for reducing disparities, similar to the approved readmission disparity gap improvement policy.</p>

## RECOMMENDATIONS

This document puts forth the RY 2024 Quality-Based Reimbursement (QBR) final policy recommendations. This recommendation proposes changes to the program measures to address areas where Maryland has consistently performed poorly and where CMMI has been concerned about performance, as outlined below. It also makes several recommendations for the development of monitoring reports and building of infrastructure that will support expansion of the QBR program in future rate years. Staff greatly benefits from Commissioner support on these longer-term initiatives.

Final Recommendations for RY 2024 QBR Program:

1. Continue Domain Weighting to determine hospitals' overall performance scores as follows: Person and Community Engagement (PCE) - 50 percent, Safety (NHSN and AHRQ Patient Safety Index composite) - 35 percent, Clinical Care - 15 percent.
  - A. Within the PCE domain, pilot including four linear measures weighted at 10% of QBR score; remove associated revenue at risk from top box.
  - B. Within the PCE domain, continue to include timely follow-up after acute exacerbation of a chronic condition weighted at 5% of QBR score; currently, Medicare only measure.
2. Collaborate with partners to implement statewide HCAHPS improvement initiative, which can focus on root causes of HCAHPS performance and the sharing of best practices for improvement.
3. Develop monitoring reports for measures that expand the scope of the policy and align with the goals of the TCOC Model that will be considered for adoption in RY 2025:
  - A. 30-day all-payer, all-cause mortality;
  - B. Follow-up for acute exacerbation of chronic conditions for Medicaid; and
  - C. Follow-up after hospitalization for mental illness.
4. Collaborate with CRISP to develop infrastructure for collection of hospital electronic clinical quality measures (eCQMs) and core clinical data elements:
  - A. Require hospitals to submit the CY 2022 ED-2 eCQM and consider for re-adoption in future rate years; and
  - B. Explore development of hospital eCQM for inpatient/outpatient all-payer THA-TKA complications.
5. Maintain the pre-set scale (0-80 percent with cut-point at 41 percent), and continue to hold 2 percent of inpatient revenue at-risk (rewards and penalties) for the QBR program.
6. Adjust retrospectively the RY 2024 QBR pay-for-performance program methodology as needed due to COVID-19 Public Health Emergency and report any changes to Commissioners.

# INTRODUCTION

Maryland hospitals have been funded under a population-based revenue system with a fixed annual revenue cap under the All-Payer Model agreement with the Centers for Medicare & Medicaid Services (CMS) beginning in 2014, and continuing under the current Total Cost of Care (TCOC) Model agreement, which took effect in 2019. Under the global budget system, hospitals are incentivized to shift services to the most appropriate care setting and simultaneously have revenue at risk in Maryland's unique, all-payer, pay-for-performance quality programs; this allows hospitals to keep any savings they earn via better patient experiences, reduced hospital-acquired infections, or other improvements in care. Maryland systematically revises its quality and value-based payment programs to better achieve the state's overarching goals: more efficient, higher quality care, and improved population health. The revisions include annual updates to each program policy, which must be approved by the Health Services Cost Review Commission (HSCRC), and have also included more recent large-scale overhauls of the Maryland Hospital Acquired Condition Program and Readmissions Reduction Incentive Program to better align program policies with the expanded and evolving goals of the TCOC Model agreement.

Under the TCOC Model, Maryland must request exemptions each year from CMS pay-for-performance programs, e.g., the Value Based Purchasing (VBP) program for which the Quality Based Reimbursement (QBR) is the state analog. CMS assesses and grants these exemptions based on a report for each program showing that Maryland's results continue to meet or surpass those of the nation. CMS notified the HSCRC on September 29, 2020, that Maryland's exemptions were granted for federal fiscal year 2021. However, CMS raised concerns about Maryland's subpar performance on measures in two QBR Program domains: (1) the Hospital Consumer Assessment of Healthcare Providers and Systems (HCAHPS) measures in the Person and Community Engagement domain and (2) the Centers for Disease Control and Prevention's (CDC's) National Health Safety Network infection measures in the Safety domain. CMS also noted its support for re-adoption of ED wait time measurement due to Maryland's historical poor performance. Finally, as part of exemption approval, CMS stipulated that Maryland develop a high-level work plan to redesign the QBR program and then a report summarizing the potential changes that would be recommended to the Commission.

This RY 2024 policy recommendation summarizes the state's efforts to redesign the QBR Program, which was the first hospital pay-for-performance program implemented by the HSCRC. Specifically, it describes the work done by the HSCRC and a stakeholder workgroup, the QBR Redesign Subgroup, which convened monthly over five months to examine and consider revisions to the QBR Program. The Performance Measurement Workgroup (PMWG) also reviewed the subgroup's findings. This policy includes recommended changes to the program for RY 2024 and beyond based on those two engagements. The following action items and topics listed in Figure 1 represent the main findings of both workgroups:

**Figure 1. Action items and discussion topics for the PMWG for RY 2024 and future program years**

Measure	RY 2024	Future program years
<b>Person and Community Engagement domain</b>		
<b>HCAHPS</b>	<ul style="list-style-type: none"> <li>Create criteria for and determine which HCAHPS measures' linear scores to include in the Person and Community Engagement (PCE) domain</li> </ul>	<ul style="list-style-type: none"> <li>Develop state infrastructure to collect patient-level data and more timely hospital HCAHPS scores to provide opportunities for additional analytics, including on disparities, and hospital improvement</li> <li>Work with stakeholders to facilitate more sharing of best practices</li> </ul>
<b>Emergency department (ED) wait times</b>	<ul style="list-style-type: none"> <li>Conduct more research and analyses, such as an analysis of ED median times during the COVID-19 pandemic if the data are publicly released by CMS</li> <li>Continue work on avoidable ED utilization in parallel as part of Potentially Avoidable Utilization (PAU) measurement</li> </ul>	<ul style="list-style-type: none"> <li>Develop infrastructure for electronic clinical quality measures (eCQMs) to enable the collection of data for an ED wait time measure; this will enable such a measure to be included again in the QBR Program in future years</li> <li>Determine components to allow inclusion of measure in program (such as performance standards)</li> </ul>
<b>Follow-up measure</b>	<ul style="list-style-type: none"> <li>To align with and support achievement of the State Integrated Health Improvement Strategy (SIHIS) goal, identify strategies for all hospitals in Maryland to rise above the national average for the current Medicare-only follow-up measure in the QBR PCE domain.</li> <li>Develop monitoring reports for Medicaid and behavioral health for the Timely Follow-Up measures</li> </ul>	<ul style="list-style-type: none"> <li>Evaluate the results in the monitoring reports for the Medicaid and behavioral health follow-up measures; consider adding a measure that includes Medicaid and/or behavioral health to the QBR Program in RY 2025</li> </ul>
<b>Safety domain</b>		
<b>CDC National Health Safety Network</b>	<ul style="list-style-type: none"> <li>In light of the work group's findings that demonstrate that Maryland is on par with national performance, maintain alignment with national VBP Program; focus on improvement on current measures</li> </ul>	<ul style="list-style-type: none"> <li>Explore working with CDC to add more innovative and less burdensome "digital" measures (such as the hospital-onset bacterium measure)</li> </ul>
<b>Clinical Care domain</b>		
<b>30-day mortality</b>	<ul style="list-style-type: none"> <li>Review additional analyses related to 30-day measure (e.g., reason for lack of correlation with inpatient measure, updates to hospice flag)</li> <li>Continue to develop the 30-day measure for monitoring or adoption in RY 2024</li> </ul>	<ul style="list-style-type: none"> <li>Continue to evaluate 30-day measure</li> <li>Consider developing a hybrid measure using eCQM infrastructure</li> </ul>
<b>Total hip arthroplasty/total knee arthroplasty</b>	<ul style="list-style-type: none"> <li>Consider expansion of the current inpatient total hip arthroplasty/total knee arthroplasty measure to all-payers</li> </ul>	<ul style="list-style-type: none"> <li>When eCQM infrastructure is developed, explore adaptation of provider measures to assess all-payer inpatient and outpatient complications</li> <li>Explore opportunities for Patient Reported Outcome Measures (PROMs)</li> </ul>

# Implications of COVID-19

Like the rest of the United States, Maryland has spent the past year and a half battling the COVID-19 pandemic. First responders, nurses, doctors, hospitals, and health care providers have worked heroically to combat this dangerous virus. Emergency measures have transformed our health care landscape, in some cases temporarily and in others permanently.

We previously recognized this time of disruption and uncertainty by discontinuing the assessment of quality in the RY 2022 performance period across all pay-for-performance programs. To the extent possible, staff also acknowledged the ongoing effects of the COVID-19 pandemic when considering changes to the QBR policy with the QBR Redesign Subgroup and PMWG. However, further analysis of data or unforeseen complications related to COVID-19 may affect Maryland’s ability to assess quality performance as outlined in this policy. Given the expected persistence of COVID-19, Maryland might decide that more adjustments are needed to further account for the effects of the pandemic. Thus, staff is recommending to the Commission that we will retrospectively assess whether any changes are needed for the RY 2024 policy and report those changes to the Commission.

## BACKGROUND

### Overview of the QBR Program

The QBR Program, implemented in 2010, includes potential scaled penalties or rewards of up to 2 percent of inpatient revenue. The program assesses hospital performance against national standards for its Safety domain and Person and Community Engagement domain. For the Clinical Care domain, the program uses Maryland-specific standards for the inpatient mortality measure and national standards for the measure of total hip arthroplasty/total knee arthroplasty (THA/TKA) complications. Figure 2 compares RY 2023 QBR measures and domain weights to those used in the VBP Program.

*Figure 2. RY 2023 QBR measures and domain weights compared with those used in the VBP Program*

	Maryland QBR domain weights and measures	CMS VBP domain weights and measures
<b>Clinical Care</b>	<b>15 percent</b> Two measures: All-cause inpatient mortality; THA/TKA complications	<b>25 percent</b> Five measures: Four condition-specific mortality measures; THA/TKA complications
<b>Person and Community Engagement</b>	<b>50 percent</b> Nine measures: Eight HCAHPS categories; follow-up after chronic conditions exacerbation	<b>25 percent</b> Eight HCAHPS measures
<b>Safety</b>	<b>35 percent</b>	<b>25 percent</b>

	Maryland QBR domain weights and measures	CMS VBP domain weights and measures
	Six measures: Five CDC NHSN hospital-acquired infection (HAI) measure categories; all-payer PSI 90	Five measures: CDC NHSN HAI measures
<b>Efficiency</b>	n.a.	<b>25 percent</b> One measure: Medicare spending per beneficiary

With the selected measures from above, the QBR Program assesses hospital performance based on the national threshold (50th percentile) and benchmark (mean of the top decile) values for all measures, except the HSCRC calculated in-hospital mortality rate (which uses state data to calculate performance standards). Each measure is assigned a score of zero to ten points, then the points are summed and divided by the total number of available points, and weighted by the domain weight. Thus, a score of 0 percent means that performance on all measures is below the national threshold and has not improved, whereas a score of 100 percent means performance on all measures is at or better than the mean of the top decile (about the 95th percentile). This scoring method is the same as that used for the national VBP Program. But unlike the VBP Program, which ranks all hospitals relative to one another and assesses rewards and penalties to hospitals in a revenue neutral manner retrospectively based on the distribution of final scores, the QBR Program uses a preset scale to determine each hospital's revenue adjustment. This gives Maryland hospitals predictability and an incentive to work together to achieve high quality of care, instead of competing with one another for better rank.

The preset scale for revenue adjustments is 0 to 80 percent, regardless of the score of the highest-performing hospital in the state, and the cut-point at which a hospital earns rewards or receives a penalty is 41 percent. This reward and penalty cut-point is based on an analysis of the national VBP Program scores for federal fiscal years 2016–2018, which indicated the average national score using Maryland domain weights (without the Efficiency domain) was around 41 percent (ranging from 39.9 to 42.7).

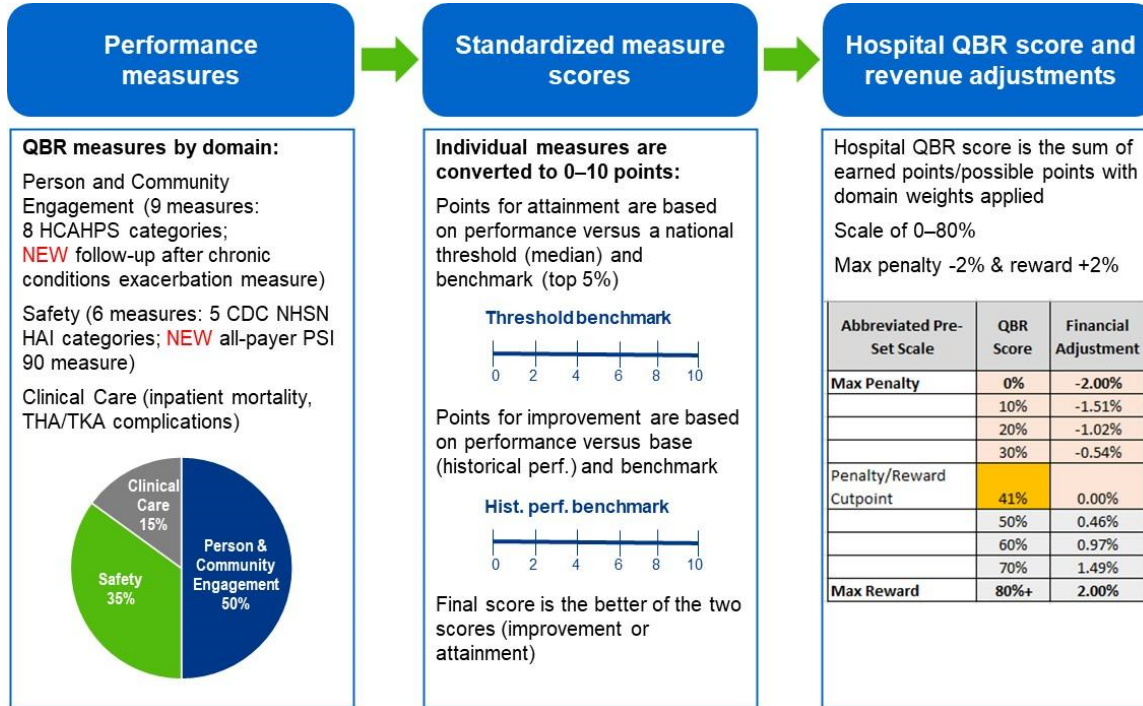
As a recap, the method for calculating hospital QBR scores and associated inpatient revenue adjustments has remained essentially unchanged since RY 2019. It involves:

1. Assessing performance on each measure in the domain
2. Standardizing measure scores relative to performance standards
3. Calculating the total points a hospital earned divided by the total possible points for each domain
4. Finalizing the total hospital QBR score (0 to 100 percent) by weighting the domains, based on the overall percentage or importance the HSCRC placed on each domain

- Converting the total hospital QBR scores into revenue adjustments using the preset scale (range of 0 to 80 percent)

This method is shown in Figure 3.

**Figure 3. Process for calculating RY 2023 QBR scores**



Appendix A contains more background and technical details about the QBR and VBP Programs.

## Overview of QBR Redesign Subgroup

The HSCRC convened a QBR Redesign Subgroup, comprising key stakeholders from the PMWG and broader Maryland healthcare system community, from March through July 2021. The subgroup considered options for overhauling the QBR Program to meet or exceed the cost and quality outcomes of the national VBP Program, to explore opportunities for innovation in the hospital quality arena, and to ensure the state achieves the goals of the TCOC Model. Members of the subgroup were appointed based on their expertise and potential contribution to the defined scope of work. Subgroup feedback was collected through discussion and written feedback. Appendix A contains the list of subgroup members.

The HSCRC established subgroup goals to help ensure success under the TCOC Model. As a result, the goals focused on (1) quality and safety areas where Maryland underperforms, relative to the VBP Program or to national or historic performance in other measurement areas, and (2) opportunities for innovation in hospital measurement and improvement. The goals are as follows:

- Review and suggest options for updating measures in the QBR Program



2. Review and suggest options for measurement data sources
3. Review and suggest options for updating scoring and incentives

## ASSESSMENT

The purpose of this section is to present an assessment, using the most current data available, of Maryland's performance on measures used in QBR as well as other measures where national comparisons are available. It also includes additional analytics and summarizes the discussion of possible changes to the program that were considered by the QBR Redesign Subgroup. The assessment together with the deliberations of the QBR Redesign Subgroup and Performance Measurement Workgroup (PMWG) serve as the basis for the final recommendations for the RY 2024 QBR program. In addition, staff has modeled the QBR revenue adjustments with the recommended changes.

### Person and Community Engagement Domain

The Person and Community Engagement domain currently measures performance using the HCAHPS patient survey and a measure of follow-up after discharge for an acute exacerbation of a chronic condition. This domain accounts for 50 percent of the overall QBR score. In addition this domain previously included the emergency department (ED) wait time measures for admitted patients, which were retired in CY 2019 and CY 2020 due to federal discontinuance of these measures. The workgroup discussed options for obtaining data for ED wait time measures as summarized below.

### Hospital Consumer Assessment of Healthcare Providers and Systems (HCAHPS)

The HSCRC incorporated HCAHPS top-box survey results into the QBR Program in RY 2013, as part of the program's Person and Community Engagement domain. This domain, largely composed of the HCAHPS top-box scores, was weighted at 40 percent of a hospital's total QBR score in FY 2016. In RY 2017, the domain weight increased to 45 percent and in FY 2018, to 50 percent. HSCRC Commissioners agreed to this increase, which is double the 25 percent weight in the national VBP Program, due to concerns regarding lower statewide HCAHPS performance relative to the nation. Over the years, the HSCRC has implemented additional methodological changes (for example, switching from state to national performance standards where feasible in 2016, removing revenue-neutral reward- penalty scale, and so on) to strengthen the improvement incentives relative to the nation. The QBR Program scores hospitals on either improvement or attainment, whichever is highest, across the following HCAHPS measures: (1) communication with nurses, (2) communication with doctors, (3) responsiveness of hospital staff, (4) communication about medicine, (5) hospital cleanliness and quietness, (6) discharge

information, (7) a composite care transition measure, and (8) overall hospital rating. In keeping with the national VBP Program, the QBR Program also scores hospitals separately on consistency<sup>1</sup>; a range of 0-20 consistency points are awarded by comparing a hospital's HCAHPS survey lowest performing measure rates during the performance period to all hospitals' HCAHPS survey measure rates from a baseline period.

Over the last several years, the Center for Medicare and Medicaid Innovation (CMMI) has raised concerns about Maryland's HCAHPS performance in response to the HSCRC's annual request for exemption from the federal VBP Program. Compared to national VBP hospitals, Maryland hospitals perform lower overall on all HCAHPS measures except for discharge information, despite a higher weight than the VBP Program and despite applying higher all-payer revenue adjustments. While Maryland has improved on five of the eight HCAHPS measures over time (from 2015 to 2019), VBP performance standards (threshold and benchmark) have also increased slightly over time for all measures except doctor communication. Figure 4 provides the Maryland HCAHPS top-box performance results for the 2015 to 2019 performance periods compared to the nation's VBP thresholds and benchmarks.<sup>2</sup> Despite improvements, the State's average performance is not better than the nation's 50th percentile. Appendix B shows graphs of Maryland's performance on each HCAHPS measure compared to the national threshold and benchmark.

**Figure 4. VBP thresholds, benchmarks and Maryland HCAHPS top-box scores (2015–2019)**

		CY 2015	CY 2016	CY 2017	CY 2018	CY 2019
<b>Nurse communication</b>	Threshold (National Median)	78.19%	78.52%	78.69%	79.08%	79.06%
	Benchmark (National mean of top decline)	86.61%	86.68%	86.97%	87.12%	87.36%
	MD top box (State average performance)	76.00%	75.00%	76.00%	76.00%	76.00%
<b>Doctor communication</b>	Threshold	80.51%	80.44%	80.32%	80.41%	79.91%
	Benchmark	88.80%	88.51%	88.62%	88.44%	88.10%
	MD top box	78.00%	77.00%	78.00%	77.00%	77.00%
<b>Staff responsiveness</b>	Threshold	65.05%	65.08%	65.16%	65.07%	65.77%
	Benchmark	80.01%	80.35%	80.15%	80.14%	81.00%
	MD top box	59.00%	60.00%	61.00%	60.00%	61.00%
<b>Communication about medicines</b>	Threshold	62.88%	63.37%	63.26%	63.30%	63.83%
	Benchmark	73.36%	73.66%	73.53%	73.86%	74.75%

<sup>1</sup> For more information on the national VBP Program's performance standards, please see <https://qualitynet.cms.gov/inpatient/hvbp/performance>.

<sup>2</sup> CMS uses a threshold (50th percentile) and benchmark (mean of the top decile) to determine how many points to award for Achievement and Improvement scores.

		CY 2015	CY 2016	CY 2017	CY 2018	CY 2019
	MD top box	60.00%	59.00%	60.00%	61.00%	61.00%
<b>Discharge information</b>	Threshold	85.91%	86.60%	87.05%	87.44%	87.38%
	Benchmark	91.23%	91.63%	91.87%	92.11%	92.17%
	MD top box	86.00%	86.00%	86.00%	87.00%	86.00%
<b>Care transition</b>	Threshold	-	51.45%	51.42%	51.14%	51.87%
	Benchmark	-	62.44%	62.77%	62.50%	63.32%
	MD top box	48.00%	47.00%	49.00%	49.00%	49.00%
<b>Hospital rating</b>	Threshold	70.02%	70.23%	70.85%	71.59%	71.80%
	Benchmark	84.60%	84.58%	84.83%	85.12%	85.67%
	MD top box	65.00%	65.00%	67.00%	65.00%	66.00%
<b>Average cleanliness and quietness</b>	Threshold	65.30%	65.60%	65.58%	65.72%	65.61%
	Benchmark	79.39%	79.00%	79.06%	79.42%	79.58%
	MD top box	61.50%	62.50%	62.00%	63.00%	63.50%

The HSCRC presented the following analyses to the subgroup:

- Analyzed the **change in HCAHPS scores over time** by hospital. For each HCAHPS measure except for doctor communication, more than half of Maryland hospitals improved on top-box scores from 2013 to 2018. Fewer hospitals saw improvements from 2018 to 2019, but some hospitals saw a substantial one-year change (> 3 percent increase). Overall staff believe this indicates annual increases in hospital HCAHPS performance are possible.
- HSCRC staff analyzed whether HCAHPS **improvement differed for low- versus high-performing hospitals**. This was done by first grouping hospitals into quartiles of performance using 2013 top-box scores.<sup>3</sup> Staff next examined the average improvement in each quartile through 2018. On average, hospitals in the worst-performing quartile (4th) show the largest improvement within each HCAHPS category, while hospitals within the top quartile get slightly worse. These trends are not surprising given factors such as relative opportunity for improvement, regression to the mean, and incentives tied to both improvement and attainment.
- A **literature review** conducted by Mathematica summarizing successful HCAHPS improvement strategies implemented by other states or individual hospitals (for example, organizational factors

<sup>3</sup> The same analysis was also done for linear scores using 2014 as the starting year.

associated with a culture of “patient focus,” best practices for patient-physician communication, hospital interventions, and so on).<sup>4</sup>

- A preliminary **survey conducted by the HSCRC staff of Maryland hospitals’ HCAHPS practices and improvement initiatives** (n = 20), found the following:
  - All respondents indicated that their leadership, frontline staff, and board of directors systematically review HCAHPS results.
  - All but one respondent rated HCAHPS prominence in their mission or vision as a 4 or 5 (1 = not at all, 5 = core component).
  - Half of respondents indicated that some form of staff direct (e.g., performance bonus) or indirect (e.g., performance points for leadership participation in patient rounding) incentives were used to improve on HCAHPS; leadership and management staff were mentioned most frequently as included in the incentive programs as opposed to direct care providers.
  - Respondents indicated they most often used unit meetings (83.3 percent, department meetings (77.8 percent), and electronic communication (83.3 percent) to communicate HCAHPS goals and performance.
- An **HCAHPS Spearman rank-order correlation analysis** ( $p < 0.05$ ) was conducted looking at the relationship between HCAHPS domain scores and various quality measures and hospital characteristics (for example, staffing ratio, Potentially Preventable Complication rate, readmission rate, survival rate, length of stay, and so on) and found:<sup>5</sup>
  - While most Maryland quality measures and hospital characteristics for CYs 2017 to 2018 have low (not statistically significant) correlations with HCAHPS, those that have statistically significant correlations are notable:
    - There is a positive, moderate, and statistically significant correlation between survival rate and several HCAHPS categories.
    - Higher HCAHPS scores are associated with better quality outcomes. Specifically, higher HCAHPS scores are associated with lower readmissions and mortality. Thus, there may be complementary investments hospitals can make (for example, increasing the number of productive hours worked by RNs with direct patient care responsibilities per patient day) to improve on the HCAHPS.

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<sup>4</sup> For the HCAHPS literature review, please see [https://hscrc.maryland.gov/Documents/Quality\\_Documents/QBR/Ry2023/Literature%20Review%20Summary%20for%20HCAHPS%20Improvement.pdf](https://hscrc.maryland.gov/Documents/Quality_Documents/QBR/Ry2023/Literature%20Review%20Summary%20for%20HCAHPS%20Improvement.pdf).

<sup>5</sup> For the HCAHPS Spearman rank-order correlation analysis on the relationship between domain scores and various quality measures and hospital characteristics, please see Figures B.3.a. and B.3.b. in Appendix B.

## *Strengthening HCAHPS Incentives in QBR*

The HSCRC staff and subgroup explored innovative ways to address low HCAHPS performance through the QBR Program. The HSCRC presented the following levers to the subgroup as potential ways to target improvement: revenue at risk, performance standards, timing of incentives, scoring, measures, and domain weights.<sup>6</sup> Across subgroup meetings, the HSCRC detailed redesign options, including the following:

- Adding an HCAHPS linear scoring component<sup>7</sup>
- Changing the timing of incentives by providing up-front rewards with the same at-risk dollars for anticipated improvements
- Adding complementary measures
- Further increasing the domain weight
- Requiring hospitals to expand on sharing best practices<sup>8</sup>

The subgroup had the most in-depth discussions about the first two policy levers. These discussions are further detailed below. In addition to these levers, the Maryland Health Care Commission advised the PMWG in the September meeting that they were setting up a data infrastructure and process to collect HCAHPS case level data directly from hospitals which will allow additional analysis in the future on patient characteristics that impact HCAHPS performance; this will help to identify disparities and improve health equity.

### **Linear scoring**

Stakeholders have previously suggested that incentivizing linear scoring may encourage improvement across all levels of performance. Because only the most positive responses (“always”) receive any points under top-box scoring,<sup>9</sup> there may be a cliff effect occurring that does not recognize more granular gradations in HCAHPS performance and therefore discourages further investment in improvement. Linear scoring, however, gives partial credit for intermediate response options (“sometimes” and “usually”) and

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<sup>6</sup> For an HCAHPS policy lever diagram, please see Figure B.4 in Appendix B.

<sup>7</sup> CMS Star Ratings use linear scores that score all possible scores with equal intervals between each option (always, usually, sometimes, and never) in a 0 to 100 scale that is weighted by discharge and response rate.

<sup>8</sup> The HSCRC asked the Maryland Hospital Association to present at the March 2021 meeting. The presentation detailed how the organization identified Maryland’s top HCAHPS performers, interviewed these hospitals, and shared best practices with other hospitals. The HSCRC is exploring whether to require the sharing of best practices. For further Maryland Hospital Association data and initiatives surrounding HCAHPS, please see [https://hscrc.maryland.gov/Documents/Quality\\_Documents/QBR/Ry2023/MHA%20HCAHPS%20Presentation%20at%20March%202021%20QBR%20Redesign%20Subgroup.pdf](https://hscrc.maryland.gov/Documents/Quality_Documents/QBR/Ry2023/MHA%20HCAHPS%20Presentation%20at%20March%202021%20QBR%20Redesign%20Subgroup.pdf).

<sup>9</sup> Top-box scoring: never = 0 points; sometimes = 0 points; usually = 0 points; always = 100 points.

inclusion of linear scores could motivate hospitals that earn low points on top-box scoring. Figure 5 shows the concept of the linear scoring methodology.

*Figure 5. CMS star rating linear scoring methodology*



Given the high correlation between top-box and linear scores,<sup>10</sup> incentivizing improvements in linear scores could have the potential to raise top-box scores over time, and in certain cases could recognize better health care outcomes, as linear performance for select measures demonstrated stronger, statistically significant correlation with reduced readmission, length of stay and mortality rate. Figure 6 details the results of the Spearman correlation analysis.<sup>11</sup> There is also some evidence that while patients prefer top-box scores, providers feel that the linear scores better reflect the quality of care being provided. Moreover, Dr. Dale Schumacher from the Rockburn Institute presented an analysis that indicates the Mid-Atlantic region generally performs worse on HCAHPS and better on clinical care when compared with all other hospitals nationally, thereby suggesting an unaccounted for regional bias.<sup>12</sup> The addition of linear scores may ameliorate this regional bias in HCAHPS scores. Lastly, while top-box scores are used for VBP, linear scores are used by CMS in the Hospital Star Ratings, thus Maryland hospitals will continue to be evaluated by measures of national import if linear performance is introduced into the QBR program.

<sup>10</sup> For the Maryland HCAHPS top-box and linear scores correlation analysis, please see Figure B.5 in Appendix B.

<sup>11</sup> Mathematica, on behalf of the HSCRC, repeated a correlation analysis looking at the relationship between Maryland hospitals' linear scores and various quality measures and hospital characteristics. The analysis found increases in the correlations between higher linear scores and other favorable quality outcomes (for example, lower mortality, lower readmissions, and so on).

<sup>12</sup> For the regional bias analysis conducted by the Rockburn Institute that compared mid-Atlantic to national HCAHPS and VBP scores, please see [https://hscrc.maryland.gov/Documents/Quality\\_Documents/QBR/Ry2023/Rockburn%20Institute%20HCAHPS%20VBP%20QBR%20Redesign%20Presentation%204-21-21\(3\)%20\(1\).pdf](https://hscrc.maryland.gov/Documents/Quality_Documents/QBR/Ry2023/Rockburn%20Institute%20HCAHPS%20VBP%20QBR%20Redesign%20Presentation%204-21-21(3)%20(1).pdf).

Measure	Nurse Communication	Doctor Communication	Staff Responsiveness	Communication About Medicines	Discharge Information	Care Transition	Overall Hospital Rating	Recommend Hospital	Average Clean and Quiet
Linear Measures									
PPC Rate	-0.05	0.07	-0.04	-0.02	0.04	-0.11	-0.14	-0.19	-0.12
Readmission Rate	-0.52*	-0.16	-0.42*	-0.1	-0.14	-0.34*	-0.32*	-0.28	-0.24
Survival Rate	0.37*	0.09	0.34*	0.24	0.14	0.23	0.1	0.1	0.38*
Length of Stay	-0.38*	-0.1	-0.37*	-0.17	-0.23	-0.43*	-0.29	-0.24	-0.16
Top Box									
PPC Rate	0	0.05	0.01	0.08	0.04	-0.11	-0.12	-0.19	-0.03
Readmission Rate	-0.46*	-0.01	-0.24	-0.01	-0.14	-0.22	-0.27	-0.23	-0.05
Survival Rate	0.36*	0.09	0.2	0.22	0.14	0.26	0.06	0.06	0.28
Length of Stay	-0.38*	-0.05	-0.21	-0.07	-0.23	-0.23	-0.21	-0.17	-0.02
(*) indicates statistical significance at $p < 0.05$ .									
Both Statistically Significant						Linear Only Significant			

Staff supports inclusion of linear measures in the HCAHPS domain because linear scores accomplishes the following:

- Recognizes finer gradations in hospital performance; makes additional sense to providers
- More highly correlated with desirable quality outcomes than top-box scores, many of which are currently incentivized in existing HSCRC pay-for-performance programs
- May encourage iterative improvement on HCAHPS under the QBR Redesign that could lead to improvement in HCAHPS top box scores

Subgroup members agreed with adding linear scores as part of the HCAHPS domain. They believe a linear approach could help recognize HCAHPS performance that is trending in the right direction and could spur greater improvement. As shown in Figure 7, staff is proposing a reweighting of the Person and Community Engagement domain to include 10 percent of the domain (5 percent of overall QBR score) on linear scoring by reducing the weight on top-box scores. While some members stated that it could be worth weighting linear measures greater than 10 percent of the overall QBR score, they recognized that hospitals should still be incentivized to improve their top-box scores. Some subgroup members cautioned against putting too much weight on linear scores so as to maintain top-box weighting of at least 25 percent of the QBR score to stay aligned with the VBP Program—which weights top box scores, along with consistency scoring, at 25 percent—and because it is not clear how adding incentives to linear scoring will drive behavior change. Furthermore, staff is concerned about diluting or lowering the standards on HCAHPS too much with the addition of linear scores. As discussed further in the stakeholder response section, the addition of linear scores should be considered a pilot approach for HCAHPS improvement that should be phased out if positive changes are not seen in the next 2-3 years.

**Figure 7. HSCRC proposal for reweighting the Person and Community Engagement domain to include linear scoring at 10 percent**

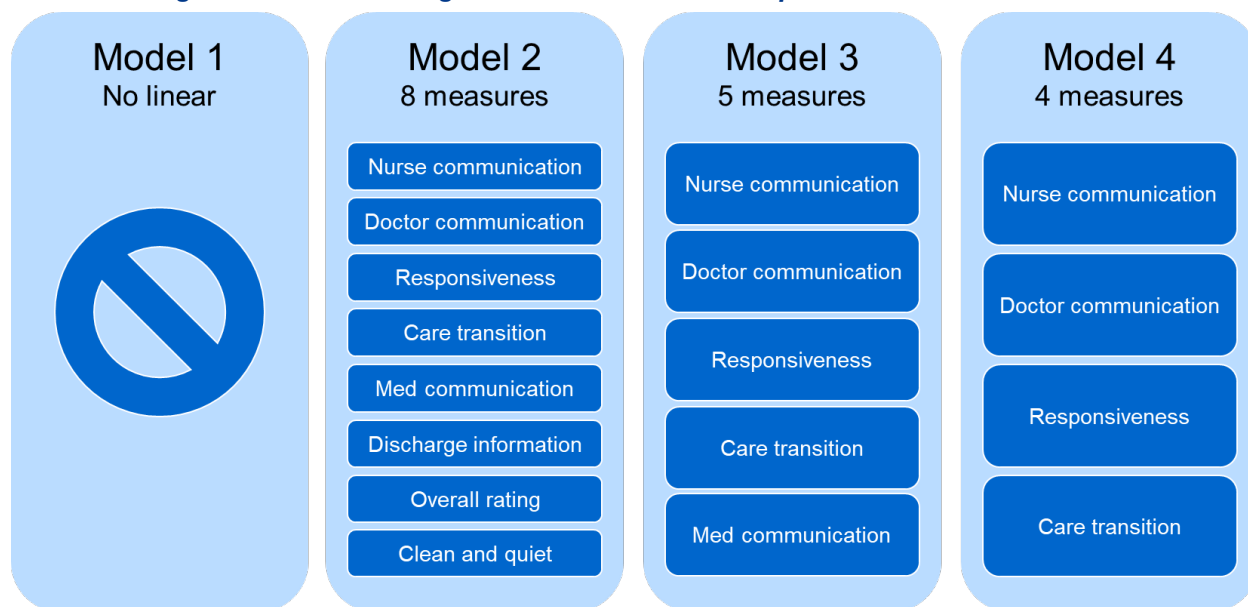
Person and Community Engagement subdomain	Weight of QBR score
Top-box measures	25 percent
Consistency scores	10 percent
Follow-up	5 percent
Linear measures	10 percent
<b>Total for domain</b>	<b>50 percent</b>

Staff also asked for feedback on whether the linear portion of the domain weight should be focused on linear scores for all HCAHPS measures (eight total) or on specific measures (for example, measures where Maryland wants to be a leader, measures with the biggest gaps from the national average, measures with correlations to other important outcomes, measures aligned with other ratings such as Leapfrog, and so on). Subgroup members favored a more focused approach using a subset of HCAHPS measures as they believed it would increase focus and be more likely to ultimately raise top-box scores.

Thus, the HSCRC modeled three approaches that included the addition of linear scores to the HCAHPS domain. Figure 8 displays the various options modeled, with linear scoring representing 10 percent of the total QBR score for each of the models 2 through 4. The HSCRC used the following considerations for narrowing down measures: (1) Leapfrog alignment, (2) correlations with other outcomes, (3) comprehensiveness, (4) parsimony, and (5) importance to the TCOC Model. The workgroups primarily debated about the inclusion of responsiveness. Some stakeholders were concerned about responsiveness scores in the time of COVID and preferred the overall hospital rating (which is not included in Leapfrog Survey). However, another member shared that responsiveness is linked to patient safety, which is corroborated by the stronger correlations seen for the linear responsiveness measure and other quality outcomes. Ultimately the PMWG agreed to recommend to the Commission Model 4 with nurse communication, doctor communication, responsiveness, and the 3-part care transition measure.



**Figure 8. Linear scoring measures modeled at 10 percent of total QBR score**



Subgroup members had conflicting views on which linear score model to implement. In discussing Model 2 results, one member believed that having more measures could allow for greater flexibility for hospitals that do better in some measures than others. Another member, who supported Model 4, stated that if the goal of implementing linear scoring is to focus on improvement, it would help to limit the number of measures and to focus on clinically meaningful and modifiable measures. In general, however, the subgroup supported a focused approach but debated on whether to include the responsiveness measure. One member suggested it would be better to focus on measures that would result in quality outcome improvements, such as communication about medicines.

### **Voluntary up-front investment**

Staff also explored the idea of voluntary, up-front financial investment or support to spur improvements in HCAHPS scores. The up-front investment, which would be a loan based on anticipated improvements, would allow participating hospitals to make investments in activities to improve HCAHPS and thus reduce penalties or increase rewards at the end of the rate year. Staff believes loss aversion is a salient negative consequence and, thus, the incentive for improvement could be greater if hospitals have upfront financial support (without raising the percentage of revenue at risk) that would be taken back fully if improvements were not made. Moreover, given the Maryland hospital survey results that indicated a low percentage of hospitals provide direct incentive payments to frontline staff to improve HCAHPS performance and literature reviews suggest direct incentive payments do improve patient satisfaction scores, an up-front investment may also finance changes in hospital operations to fund frontline staff incentives that lead to permanent improvements in patient experience. However, hospital workgroup members expressed

hesitancy about this approach due to the risk and one year timeframe for improvements. For example, some stakeholders were concerned that if a hospital did not reach the anticipated improvement that it would have spent money it did not originally have and be worse off. Because of these concerns along with the staff level of effort to administer this upfront investment, staff is not recommending that this offer be formally available to hospitals. However, going forward the Commission is open to discussing proposals from any hospital that believes an upfront investment opportunity is needed to support better HCAHPS performance.

### **Adding complementary measures**

Another topic discussed was adding in complementary measures that are correlated with HCAHPS, with the idea that if there are incentives to improve on these other measures that HCAHPS scores may improve as well. In RY 2021 and RY 2022 the Commission approved the addition of inpatient ED wait times and timely follow-up after exacerbation of a chronic condition (Medicare only), respectively, as complementary measures to QBR. The Subgroup discussed adding back into the Person and Community Engagement domain an ED wait time measure when the data are available (See ED Wait Time Section). Analysis, which was supported by some of the subgroup members, has shown that ED wait time has a high correlation with the HCAHPS measures. The subgroup also discussed the addition of the Medicaid population to the follow-up measure and expanding the measure to behavioral health, also in the Person and Community Engagement domain (See Timely Follow-up Section). At this time, the staff and subgroup did not discuss or suggest additional complementary measures, but this could be revisited in future years.

### **Increasing the domain weight**

Staff asked the subgroup to discuss the potential of increasing the Person and Community Engagement domain's weight, and subsequently, the HCAHPS weight. However, staff and subgroup members said they did not think this would be a good option for the QBR Program because the Person and Community Engagement domain's weight was already higher than it is weighted in the VBP program and this higher weight has not resulted in narrowing the gap between Maryland and national performance. In addition, higher weight would require reducing other already lower weighted domains and further take away incentives from other important measures in the QBR Program.

### **Expansion of sharing best practices**

HSCRC staff also discussed increasing the opportunities for hospitals to share HCAHPS best practices and initiatives that have successfully raised HCAHPS scores. The Maryland Hospital Association (MHA) has facilitated some opportunities for such sharing; however, several subgroup members were supportive of more opportunities to share best practices. Under the design of the QBR Program, it is advantageous for all hospitals to perform well because a prospective scale is used and hospitals are not relatively

ranked after the performance period. The subgroup, however, did not offer specific suggestions on ways to increase sharing of best practices; this could be further explored by the MHA as an extension of its previous work, and the PMWG.

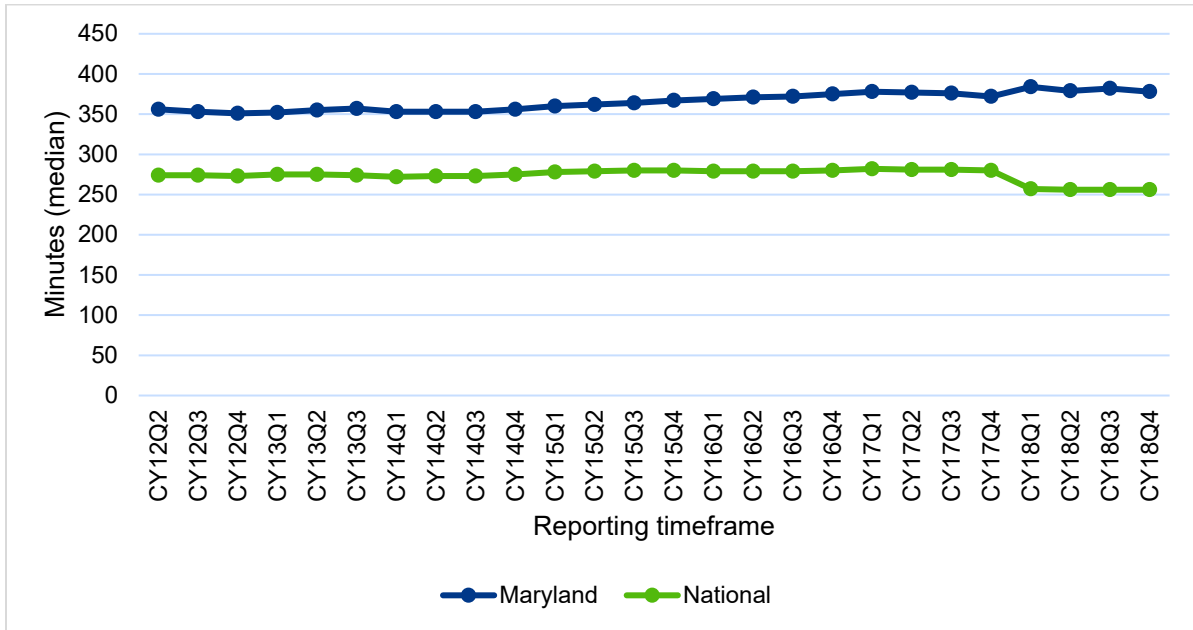
### Emergency Department Wait Time Measure

Long ED wait times are an enduring issue in Maryland, which has had longer wait times than the national average pre-dating the start of global budgets in 2014. Figures 9—11 depict Maryland performance compared to national performance on measures ED-1b: Arrival to Admission for Admitted Patients, ED-2b: Decision to Admit to Admission for Admitted Patients, and OP-18b: Arrival to Departure for Discharged ED Patients. Concerns about unfavorable ED throughput data have been shared by many Maryland stakeholders, including the HSCRC, the Maryland Health Care Commission, payers, consumers, emergency room physicians, the Maryland Institute of Emergency Medical Services Systems, and the Maryland General Assembly.<sup>13</sup> Under alternative payment models, such as hospital global budgets or other hospital capitated models, there may be an incentive to reduce staffing that leads to ED throughput issues. Measuring ED wait times is one way to monitor for unintended consequences of the Model on hospital throughput. In general, ED staff supported including the inpatient wait time measures to address the issue of ED boarding and hospital throughput.

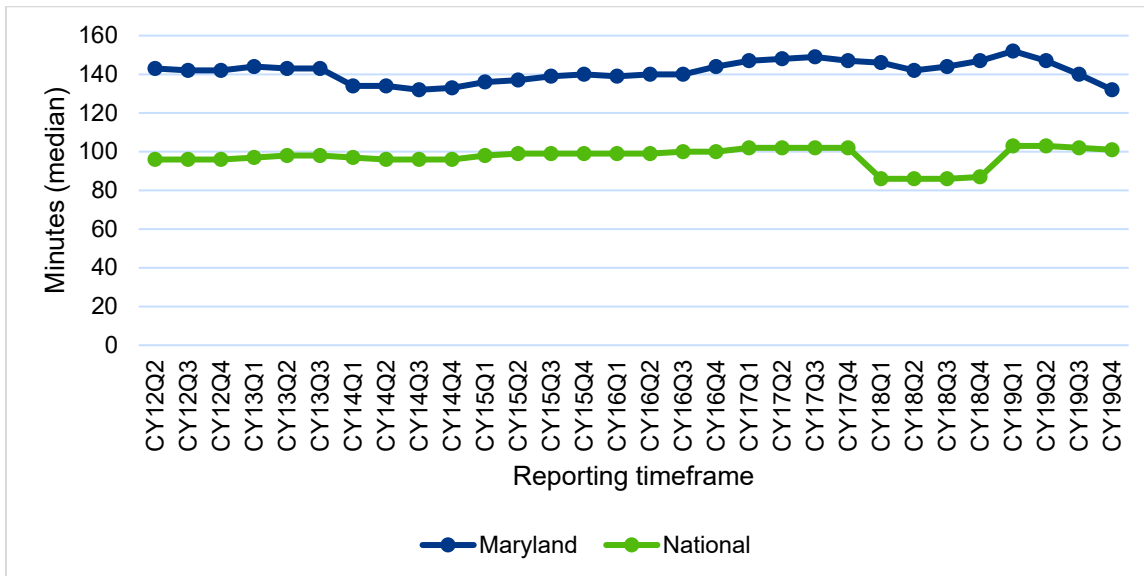
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<sup>13</sup> For the “Emergency Department Overcrowding Update” November 2019 Joint Chairman Report, please see <http://www.miemss.org/home/Portals/0/Docs/LegislativeReports/miemss-ed-overcrowding-update-10-31-19.pdf?ver=2019-11-19-174743-763>.

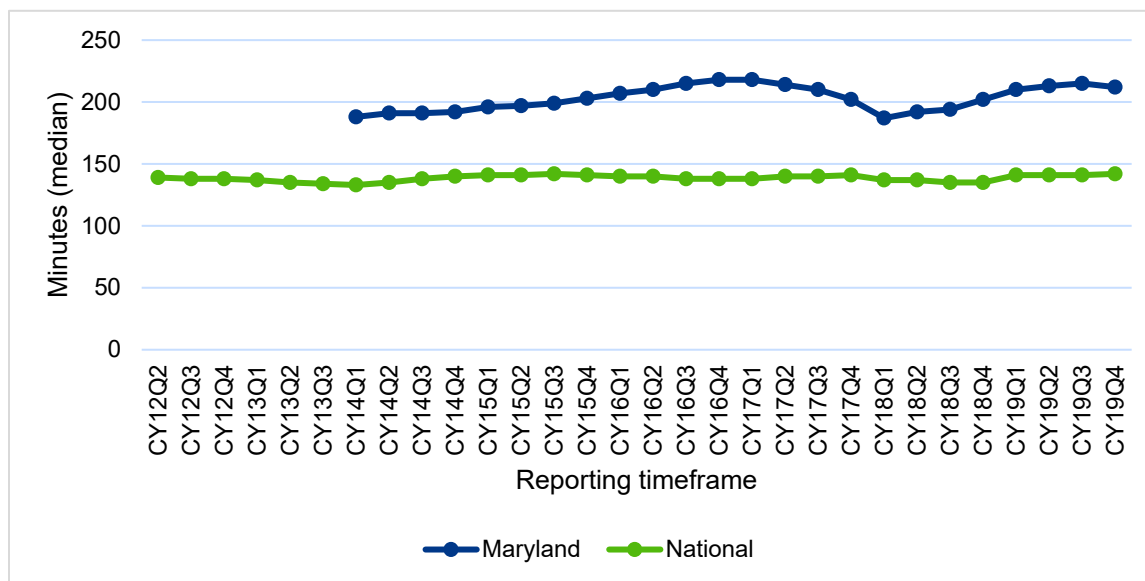
**Figure 9. Maryland performance compared to national performance on ED-1b:  
Arrival to Admission for Admitted Patients**



**Figure 10. Maryland performance compared to national performance on ED-2b:  
Decision to Admit to Admission for Admitted Patients**



**Figure 11. Maryland performance compared to national performance on OP-18b: Arrival to Departure for Discharged ED Patients**



In RY 2020 (CY 2018 measurement period), the QBR Program introduced the use of the two inpatient ED wait time measures (ED-1b and ED-2). The HSCRC included the measures as part of the QBR Person and Community Engagement domain because of the correlation between ED wait times and HCAHPS performance. To ensure fairness in performance assessment Maryland hospitals are compared to national peer groups based on ED volume. Stakeholders have also voiced concern about whether the measures should be risk adjusted for occupancy. Staff analysis of 2019 data do indicate that ED visit volume and occupancy are both statistically significantly associated with ED-2b in univariate regression analyses ( $p < .05$ ). However, after controlling for ED volume, occupancy is no longer statistically significant. Based on this analysis, hospitals with greater volumes should be given a higher time threshold, and staff also suggested considering continuous volume adjustment in the future. Lastly, the HSCRC provided protections to hospitals by removing the measure from the total QBR score if the hospital saw improvement in ED wait times but had a lower QBR score when the measure was included (Appendix C).<sup>14</sup>

In CYs 2019 and 2020, CMS’s Hospital Inpatient Quality Reporting Program stopped requiring submission of the ED-1b and ED-2b measures, respectively, which meant that the HSCRC had to remove the measures from the QBR Program. However, the Commissioners requested that staff pursue other options to obtain ED wait time data. The two options for measuring ED wait times staff identified are to use CRISP Admission-Discharge-Transfer (ADT) data feeds or the CMS electronic clinical quality measure (eCQM) version of the ED-2 measure, which is optional for hospitals to submit. However, in the

<sup>14</sup> For preliminary regression results that risk adjusted ED wait time measures to account for volume and occupancy, please see Figure C.2 in Appendix C.

FY 2022 IPPS Final Rule, CMS finalized plans to remove this measure beginning with CY 2024 reporting. Despite its removal from the Inpatient Quality Reporting program, HSCRC staff believes it may be possible for hospitals to continue to report the measure electronically since the measure is already nationally specified and continues to be used voluntarily by hospitals for submission to CMS for CYs 2022 and 2023, and is part of the Joint Commission measure set. An ADT-based measure is a less preferable option as it would need to be specified, and there are concerns about the consistency of ADT feeds across hospitals and the potential lack of data elements for establishing a valid and reliable measure using ADT data.

As shown above there is also a sustained trend of longer wait times than the national average for outpatient ED visits (OP-18b), which CMS is continuing to report for hospitals. However, historically stakeholders have not been supportive of including this outpatient measure in the QBR Program. Some stakeholders, including HSCRC staff, have voiced support for including an ED wait time measure for patients not admitted to the hospital because patients should receive timely care and the outpatient ED wait times are correlated with the inpatient ED wait times. However, HSCRC Commissioners did not vote to adopt OP-18b because of the concerns that the time spent on care management in the ED is preferable to an avoidable admission. And while some stakeholders might say that care management should be becoming more efficient, staff did not explore the inclusion of OP-18 as part of the QBR redesign and instead focused on how to obtain inpatient ED wait times for inclusion.

### *Collection of ED Wait Time Data*

The QBR Redesign Subgroup considered options for readopting ED wait time measures in the future to address the persistently long wait times that patients face in Maryland. Because ED wait times are positively correlated with HCAHPS performance, staff believe the Commissioners are interested in including an ED wait time measure for inpatient admissions again, because it could help improve HCAHPS scores. Currently the staff are collaborating with CRISP to build infrastructure for Maryland to collect electronic clinical quality measures (eCQMs) and clinical core data elements for hybrid measures since CMS is signalling this the direction for quality measurement. This investment in eCQM infrastructure also provides an avenue to collect wait times because there is an eCQM specified (ED-2 eCQM). The eCQM ED-2 measure has several advantages:

- Nationally specified measure
- National historical data will be available for establishing performance standards
- Aligns with CMS requirements for submitting eCQMs through CY 2023, and is still used voluntarily by the Joint Commission

Staff also presented Admit, Discharge, and Transfer (ADT) feeds from the CRISP infrastructure system as an alternative data source to eCQMs. CRISP is currently working with hospitals through the Reporting

and Analytics Committee to increase utilization of ADT feeds for other use cases, such as flagging acute exacerbation of chronic conditions for the SIHIS follow-up measure. However, “Decision to admit” is not a specified field within ADT; at best, the ADT feed would have the capability to approximate ED-1b. There were no subgroup comments surrounding ADT feeds.

The subgroup was supportive of monitoring the eCQM ED-2 measure, appreciating that it correlates with patient experience and serves as a broad measure of hospital efficiencies: many departments have to be working properly for a decrease to take place in the time between the decision to admit and actual admission. Broadly, subgroup members noted that eCQM measures are simple, perform better than other collected measures (for example, abstraction measures), and give hospitals the ability to look at data in real time.

The subgroup members had some concerns about implementing eCQM ED-2 into payment, including the lack of comparable historical or national data on all hospitals for creating a benchmark since reporting is voluntary. Because it is a voluntary metric nationally, poor performing hospitals may choose not to report. Noting the concerns around implementing ED-2 into payment, staff believe that there are ways to develop performance standards. For example, staff note that we could continue with the same performance standards as we had with the chart abstracted measure or develop a scoring methodology that only looks at improvement. Staff noted that it will take time for CRISP to develop an eCQM infrastructure, but that the work is underway and they have hired a contractor to assist with the implementation. Thus, for this policy we are asking Commissioners to approve the recommendation to require hospitals to submit the ED-2 eCQM for CY 2022 performance and then in future policies consider readopting the measure for payment.

## Follow-Up After Discharge

On March 17, 2021, CMS approved Maryland's proposed SIHIS, which included a National Quality Forum-endorsed health plan measure of timely follow-up after an acute exacerbation of a chronic condition in the Care Transition domain. The SIHIS goal is to achieve a 75 percent "timely" follow-up rate for Medicare across the six specified conditions and respective time frames. To hold hospitals accountable for meeting this goal, the HSCRC introduced this measure for Medicare beneficiaries into the RY 2023 QBR Program within the Person and Community Engagement domain and recommend continuing it in the RY 2024 QBR program weighted at 5 percent of the overall QBR score.

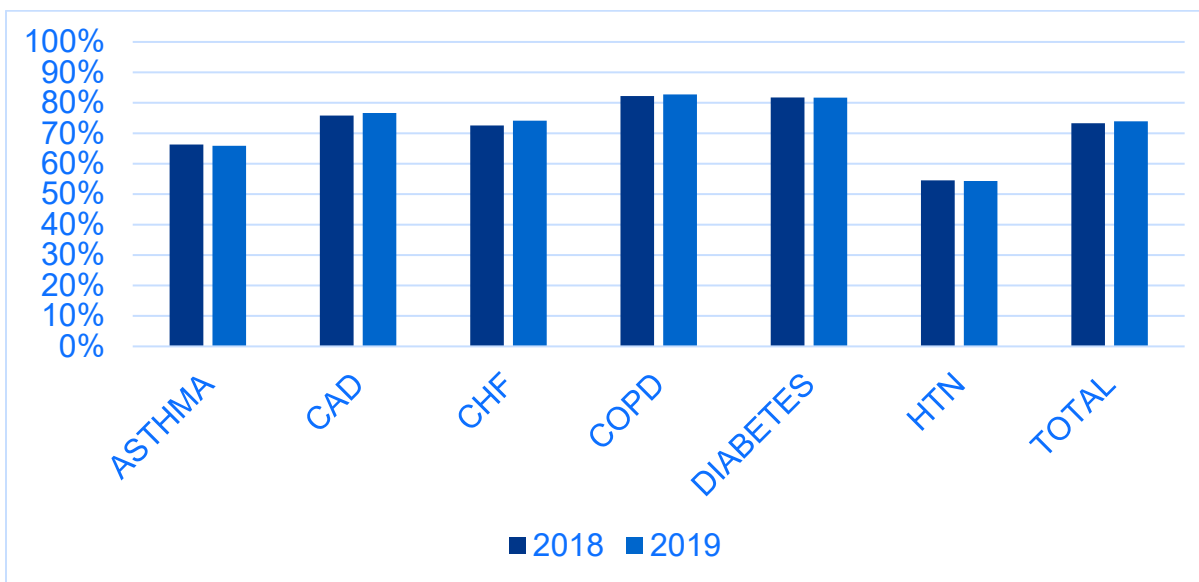
The measure assesses the percentage of ED visits, observation stays, and inpatient admissions for one of six conditions in which a follow-up was received within the time frame recommended by clinical practice:

- Hypertension (follow-up within seven days)
- Asthma (follow-up within 14 days)
- Heart failure (follow-up within 14 days)
- Coronary artery disease (follow-up within 14 days)
- Chronic obstructive pulmonary disease (follow-up within 30 days)
- Diabetes (follow-up within 30 days)

Figure 12 shows Maryland's performance over time for each chronic condition. These numbers have recently been updated due to corrections to the measure specifications. Given that the TCOC Model has both hospital and primary care components, CMMI has suggested that Maryland should perform well on follow-up, which is included as one of the care transformation measures in the Statewide Integrated Health Improvement Strategy (SIHIS). Furthermore, Maryland's robust health information exchange, CRISP, has been working to develop tools to help hospitals and providers identify patients using real-time Admission-Discharge-Transfer (ADT) data to alert providers of a patient with one of the chronic conditions being discharged. However, CRISP analyzed the (ADT) data and found that only 14 of 49 hospitals (28.6 percent) are sending 90 percent or more of their discharges with diagnosis codes in their ADT data at the time of discharge, and most hospitals (51.0 percent) are sending 32 percent or less of their discharges with diagnosis codes in their ADT data at the time of discharge. Thus, CRISP is working with the hospitals to understand this issue and how the data might be improved to better track discharges for the chronic conditions follow-up measure. In the meantime, staff notes that the hospitals do have access to the Medicare Claim and Claim Line Feed data to do their own tracking of follow-up.



**Figure 12. Medicare-only: Maryland performance by chronic condition (CY 2019)**



Note: Maryland numbers are claims-based and built on the Claim and Claim Line Feed with a four-month runout.

CAD = coronary artery disease, CCW = Chronic Conditions Data Warehouse; CHF = coronary heart failure; COPD = chronic obstructive pulmonary disease; HTN = hypertension.

As part of the SIHIS proposal, it was noted that staff would explore expanding the follow-up rates for chronic conditions to other payers and adding follow-up after a hospitalization for mental illness. Thus, the QBR subgroup discussed the goal of moving towards multiplayer or all-payer tracking of follow up. However, given data concerns that have been identified in the Medicare follow-up measure, staff and subgroup members are recommending continuing with Medicare only for RY 2024 and developing monitoring reports for Medicaid and behavioral health. Then in future years the Medicaid and behavioral health can be considered for future payment policy.

## Safety Domain

The QBR Safety domain contains five measures from six CDC NHSN HAI categories and the AHRQ Patient Safety Index Composite (PSI-90).<sup>15</sup> It is weighted at 35 percent of the QBR score.

### CDC NHSN HAI measures

The CDC's National Healthcare Safety Network (NHSN) tracks healthcare-associated infections such as central-line associated bloodstream infections and catheter-associated urinary tract infections. In the latest exemption approval, CMMI raised concerns about NHSN performance based upon analyses of state-level results compared to national results using the weighted mean, which were submitted by the HSCRC. However, based on additional analysis of available data that removes size of the hospital from influencing the assessment, Maryland's performance on NHSN measures has trended on par with the national average over time.

Figure 13 shows that performance varies by NHSN measure and by the calculated statistic using CY 2019 data.<sup>16</sup> Of note, for four of six NHSN measures, the median hospital in Maryland performed better, i.e. had lower standardized infection ratios (SIRs), than the national median hospital; SSI hysterectomy and C. Diff. are the exceptions.<sup>17</sup>

**Figure 13. Maryland performance on CDC NHSN HAI measures (CY 2019)**

CDC NHSN HAI measure	Maryland weighted mean (SIR)	Non-Maryland weighted mean (SIR)	Maryland median (SIR)	Non-Maryland median (SIR)
<b>Central Line-Associated Bloodstream Infection (CLABSI)</b>	0.711	0.681	0.469	0.592
<b>Catheter-Associated Urinary Tract Infection (CAUTI)</b>	0.732	0.717	0.535	0.653
<b>Surgical Site infection (SSI) Colon</b>	0.938	0.865	0.651	0.717
<b>SSI Hysterectomy</b>	1.372	0.918	1.371	0.735
<b>Methicillin-Resistant Staphylococcus Aureus (MRSA)</b>	0.752	0.821	0.696	0.726
<b>C. Diff.</b>	0.607	0.579	0.531	0.524

<sup>15</sup> For use in the QBR Program, as well as the VBP program, the SSI Hysterectomy and SSI Colon measures are combined.

<sup>16</sup> For further descriptive statistics for each NHSN measure, please see Figures E.2–E.7 in Appendix E.

<sup>17</sup> CMMI's VBP analysis uses unweighted means, whereas the HSCRC's analysis looks at unweighted means, weighted means (weighted based on hospital volume), and medians using CMS Hospital Compare data.

Other studies included a trend analysis<sup>18</sup> and a peer-group analysis and reviewing data from the CDC 2019 National and State HAI Progress Report.<sup>19</sup> The HSCRC conducted a trend analysis from CY 2016–2019 that shows most NHSN measures improved over time (except for the two SSI measures); see Appendix D. Mathematica also conducted a peer-group analysis, using the K-nearest neighbor approach to assign a peer group of 15 national hospitals most similar to a particular Maryland hospital on a number of key hospital characteristics. This analysis shows that Maryland performed worse than its peers 50 to 60 percent of the time in CY 2016–2018. However in 2019 across all measures the hospitals improved and performed better than its peers 52 percent of the time. This improvement was largely driven by improvements in CLABSI, CAUTI, and MRSA. Figure 14 shows the findings from the peer-group analysis.

**Figure 14. Percentage of Maryland hospitals with SIRs above and below peer-group median**

Measure	Maryland SIR vs. peer group		2016	2017	2018	2019
	Above	Below				
<b>CLABSI</b>	Above		47.2%	56.4%	56.4%	47.4%
	Below		52.8%	43.6%	43.6%	52.6%
<b>CAUTI</b>	Above		69.4%	59.0%	54.1%	39.5%
	Below		30.6%	41.0%	45.9%	60.5%
<b>SSI Colon</b>	Above		56.3%	62.9%	46.9%	54.5%
	Below		43.8%	37.1%	53.1%	45.5%
<b>SSI Hysterectomy</b>	Above		62.5%	55.6%	70.0%	70.0%
	Below		37.5%	44.4%	30.0%	30.0%
<b>MRSA</b>	Above		71.9%	63.9%	54.5%	42.9%
	Below		28.1%	36.1%	45.5%	57.1%
<b>C. Diff.</b>	Above		61.0%	68.2%	63.6%	50.0%
	Below		39.0%	31.8%	36.4%	50.0%
<b>Average<sup>a</sup></b>	Above		61.1%	61.9%	56.4%	48.0%
	Below		38.9%	38.1%	43.6%	52.0%

<sup>a</sup> The average was calculated as the number of Maryland hospitals with an SIR above (or below) its peer-group median divided by the number of Maryland hospitals with an SIR across the six HAI measures.

Figure 15 below shows the CDC findings from the 2019 CDC National and State HAI Progress Report for Maryland versus the nation. Of note, CDC statistical analysis of the data indicate that (1) most Maryland hospitals (64 to 94 percent, depending on the measure) have SIRs that are not statistically different from

<sup>18</sup> For a trend analysis (CY 2016–2019) comparing non-Maryland weighted SIR means to Maryland weighted SIR means, please see Figures E.2–E.7 in Appendix D.

<sup>19</sup> For more information on the CDC 2019 National and State HAI Progress Report, please see <https://www.cdc.gov/hai/data/portal/progress-report.html>.

the national rate and (2) there was no statistically significant change on any NHSN measure between 2018 and 2019 for Maryland.

**Figure 15. CDC assessment of the statistical significance of Maryland versus national hospital SIRs<sup>20</sup>**

Measure	Number of infections		95% confidence interval for SIR		Facility-specific SIRs				Facility-specific SIRs at key percentiles					
	Observed	Predicted	SIR	Lower	Upper	No. of facilities with at least one predicted infection	% of facilities with SIR sig. higher than national SIR	% of facilities with SIR sig. lower than national SIR	% of facilities with SIR similar to national SIR	10th	25th	Percentile 50th	75th	90th
CLABSI	328	449.26	0.730	0.654	0.812	42	10%	7%	83%	0.000	0.173	0.548	0.860	1.267
CAUTI	348	443.58	0.785	0.705	0.870	41	7%	2%	90%	0.017	0.294	0.631	0.908	1.176
SSI Hysterectomy. <sup>a</sup>	44	37.20	1.183	0.870	1.573	8	NA	NA	NA	NA	NA	NA	NA	NA
SSI Colon	137	160.74	0.852	0.718	1.004	32	3%	6%	91%	0.000	0.000	0.676	1.244	1.746
MRSA	143	186.91	0.765	0.647	0.898	35	6%	0%	94%	0.000	0.309	0.574	0.863	1.252
C. Diff.	1,107	1,778.81	0.622	0.586	0.660	47	21%	15%	64%	0.130	0.304	0.546	0.797	0.903

<sup>a</sup> Not enough hospitals reporting for comparison to nation or percentile analysis.

Subgroup members also discussed surveillance bias for NHSN measures in great detail. Mathematica, on behalf of the HSCRC, conducted a literature review on surveillance bias.<sup>21</sup> Studies indicate that HAI rates vary across facilities, in part because of differences in the application of NHSN criteria, clinical definitions, and surveillance bias, but that auditing and clinical education can reduce over- and under-reporting of HAIs. Some subgroup members said investing more resources in NHSN measures could result in finding more infections and thus reduce performance. Among the solutions to reduce surveillance bias, the subgroup discussed using EHR metrics or claims-based measures that yield appropriate rank-order comparisons across hospitals on infection rates postoperatively.

### Patient Safety Index (PSI-90)

To align with the VBP program and expand the QBR program’s measurement of preventable complications that cause patient harm and increase the cost of hospital care, the Commission approved the adoption of the all-payer version of the PSI-90 measure in the RY 2023 QBR program at the recommendation of staff and PMWG stakeholders. The Agency for Healthcare Research and Quality

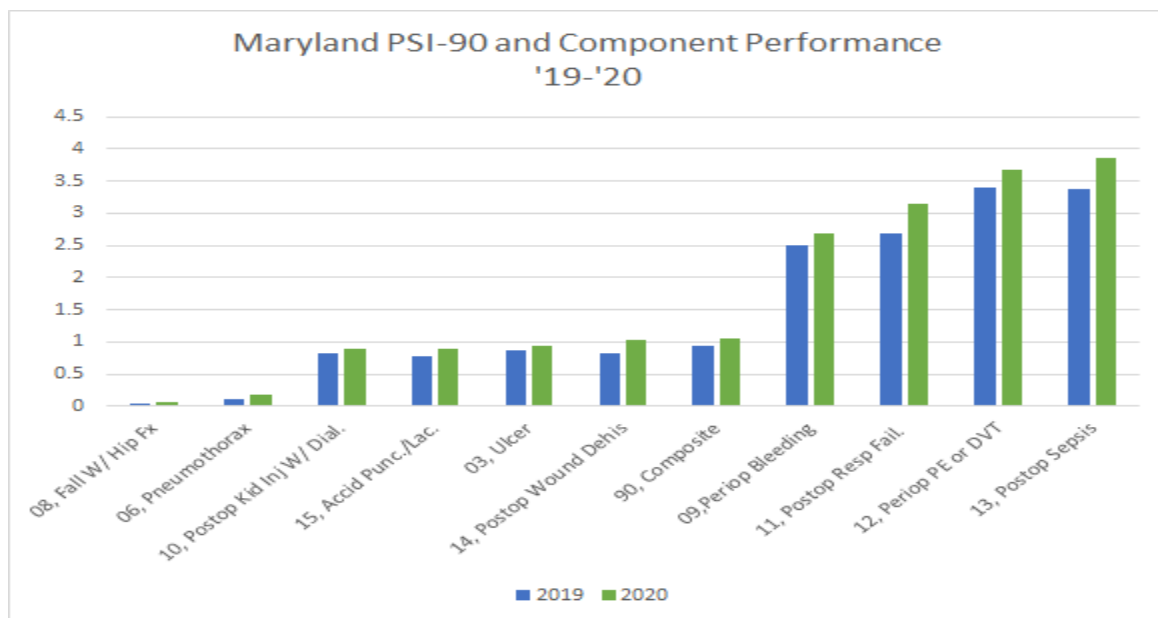
<sup>20</sup> Ibid.

<sup>21</sup> For more information on the HAI measure environmental scan, please see [https://hscrc.maryland.gov/Documents/HAI%20Measure%20Lit%20Rev%20%20Environmental%20Scan\\_4.13.21.pdf](https://hscrc.maryland.gov/Documents/HAI%20Measure%20Lit%20Rev%20%20Environmental%20Scan_4.13.21.pdf).

(AHRQ) Patient Safety Indicators were developed<sup>22</sup> and released in 2003 to help assess the quality and safety of care for adults in the hospital. PSI-90 focuses on a subset of ten AHRQ-specified PSIs of in-hospital complications and adverse events following surgeries, procedures, and childbirth. The PMWG noted that CMS is removing the PSI-90 measure from the VBP program but will retain the measure in the Hospital Acquired Conditions Reduction Program for FY 2024. Since Maryland does not have PSI-90 in the MHAC program, staff is recommending to retain it in the QBR program.

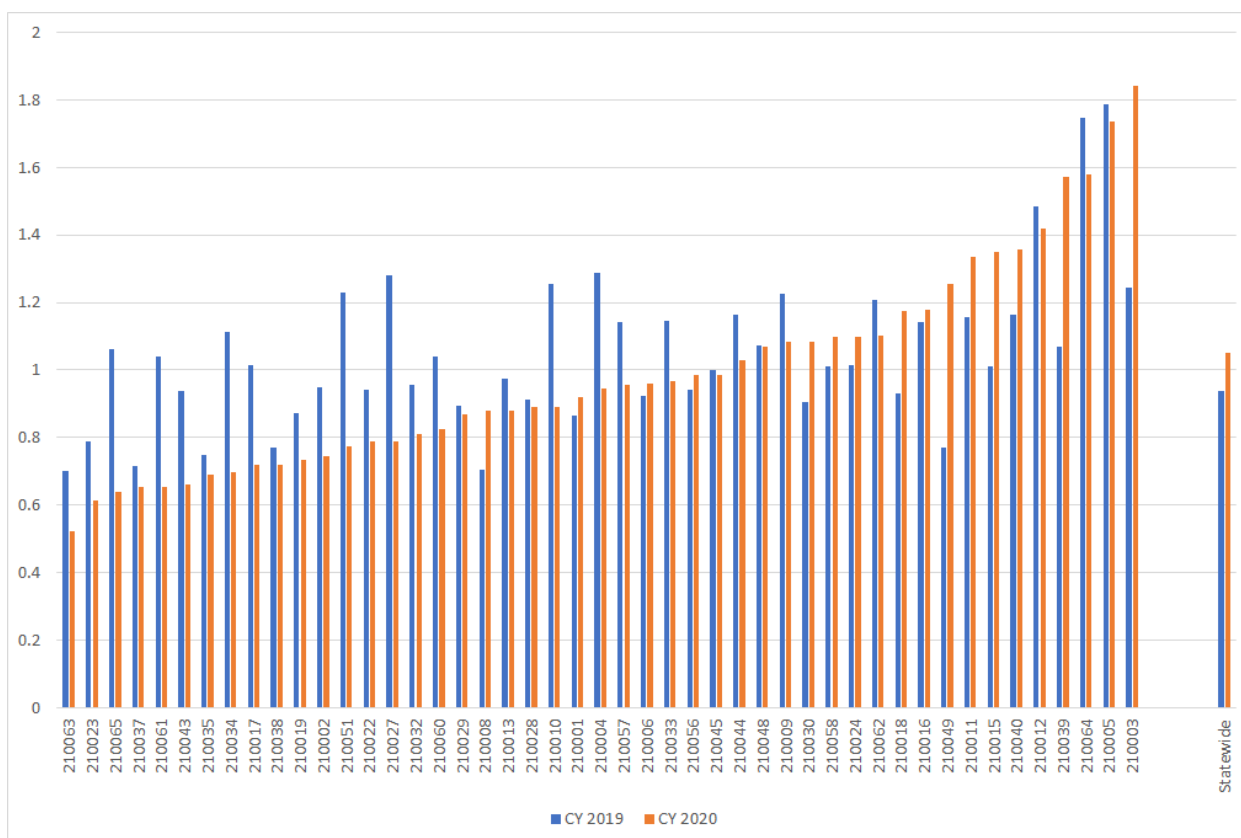
Maryland statewide performance has declined slightly on the PSI-90 composite as well as the component measures for 2020 compared to 2019 as illustrated in Figures 16 and 17 with some variation across hospitals as illustrated in Figure 17. Staff notes this is not unanticipated, as hospital stakeholders have noted increases in other complication measures, such as infections related to the COVID pandemic in 2020.

**Figure 16. Performance on All-Payer PSI 90 Composite and Component Measures**



<sup>22</sup> AHRQ contracted with the University of California, San Francisco, Stanford University Evidence-based Practice Center, and the University of California Davis for development. For additional information: [https://www.qualityindicators.ahrq.gov/Modules/psi\\_resources.aspx](https://www.qualityindicators.ahrq.gov/Modules/psi_resources.aspx)

Figure 17. Maryland By-Hospital PSI Rates CYs 2019 and 2020



### Other potential measures

Despite various analyses indicating Maryland is performing on par with the nation for the NHSN measures, subgroup members and staff expressed commitment to continued improvement across these measures to improve the safety of Maryland hospitals. Staff also explored potential ways to expand the Safety domain to other measures, including some that are existing and emerging NHSN measures not currently in the VBP program.<sup>23,24</sup> While staff is tracking NHSN measures, they are also exploring other quality measures from CMS Care Compare Inpatient Quality Reporting (IQR) measures Program to see where CMS is moving and whether Maryland has an opportunity to improve in those areas. Measures discussed are listed below.

- **Sepsis bundles** (CMS-required measure in the Hospital Inpatient Quality Reporting Program): Sepsis bundle (SEP\_1) came online in CY 2017, and additional process measures (such as the

<sup>23</sup> For CDC NHSN SSI procedure code lists and protocols, please see [https://www.cdc.gov/nhsn/psc/ssi/index.html?CDC\\_AA\\_refVal=https%3A%2F%2Fwww.cdc.gov%2Fnhsn%2Facute-care-hospital%2Fssi%2Findex.html](https://www.cdc.gov/nhsn/psc/ssi/index.html?CDC_AA_refVal=https%3A%2F%2Fwww.cdc.gov%2Fnhsn%2Facute-care-hospital%2Fssi%2Findex.html).

<sup>24</sup> For CDC NHSN VAE measures, please see [https://www.cdc.gov/nhsn/pdfs/pscmanual/10-vae\\_final.pdf](https://www.cdc.gov/nhsn/pdfs/pscmanual/10-vae_final.pdf).

septic shock three-hour bundle [SEP\_SH\_3HR]) were added in CY 2019. For the sepsis bundle, subgroup members expressed concern that the measure definitions were not consistently applied by hospital staff and therefore the measures were not strong QBR measure candidates.

- **Severe maternal morbidity:** The CDC-defined measure uses administrative discharge data and diagnosis and procedure codes from the International Classification of Diseases (ICD) submitted to the HSCRC by hospitals as “case mix” data.<sup>25</sup> Maryland has SIHIS goals related to cutting the number of severe maternal morbidity (SMM) events and reducing disparities. Staff is working to develop hospital-level SMM reports for hospitals. In the IPPS FY 2022 Final Rule, CMS finalized its requirements for hospital reporting on a Structural Measure indicating whether the hospital participates in a Statewide and/or National Perinatal Quality Improvement Collaborative Program aimed at improving maternal outcomes during inpatient labor, delivery and postpartum care, and has implemented patient safety practices or bundles related to maternal morbidity to address complications, including, but not limited to, hemorrhage, severe hypertension/preeclampsia or sepsis. Some members expressed support for an SMM measure but recommended monitoring since the measure is not risk adjusted.
- **Hospital-onset bacteremia (HOB):** CDC is developing a HOB measure that is broader than CLABSI in that a central line is not needed as the source of infection. The Society for Healthcare Epidemiology of America Research Network administered a web-based, multiple-choice survey to 133 hospitals and found that HOB is perceived as preventable, reflective of quality of care, and potentially acceptable as a publicly reported quality metric.<sup>26</sup> Further studies of HOB are needed, including validation as a quality measure, assessment of risk adjustment, and formation of evidence-based bundles and tool kits to facilitate measurement and improvement of HOB rates. Some subgroup members noted there is a push to move quality reporting away from certain NHSN metrics currently in use because they only capture a small number of infections and patient factors that are not properly risk adjusted. For instance, subgroup members said they expect HOB to replace CLABSI soon, given that HOB is a more comprehensive and valid way to measure hospital acquired blood infections

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<sup>25</sup> For more information on CDC’s severe maternity morbidity indicators, please see <https://www.cdc.gov/reproductivehealth/maternalinfanthealth/severematernalmorbidity.html#icd>.

<sup>26</sup> For more information on the HOB pilot, please see <https://pubmed.ncbi.nlm.nih.gov/30932802/>.

Although some members agreed that investments in implementation and improvement should be made in valid new safety measures, many members stressed the need to focus on improving existing NHSN measures rather than adding more measures to QBR's Safety domain at this time. They noted that improving existing measures would help maintain a level of comparability to the national VBP model. The subgroup did not comment on changing the Safety domain weighting from 35 percent. Staff will continue with immediate next steps toward understanding and improving safety measurement:

- Discuss with CMMI the opportunity to help the CDC pilot HOB or other new digital measures in Maryland hospitals
- Consider modifying how scores are assessed due to the COVID-19 pandemic increasing hospital infections
- Complete development of reports by hospital on SMM for monitoring and to support SIHIS-related goals



## Clinical Care Domain

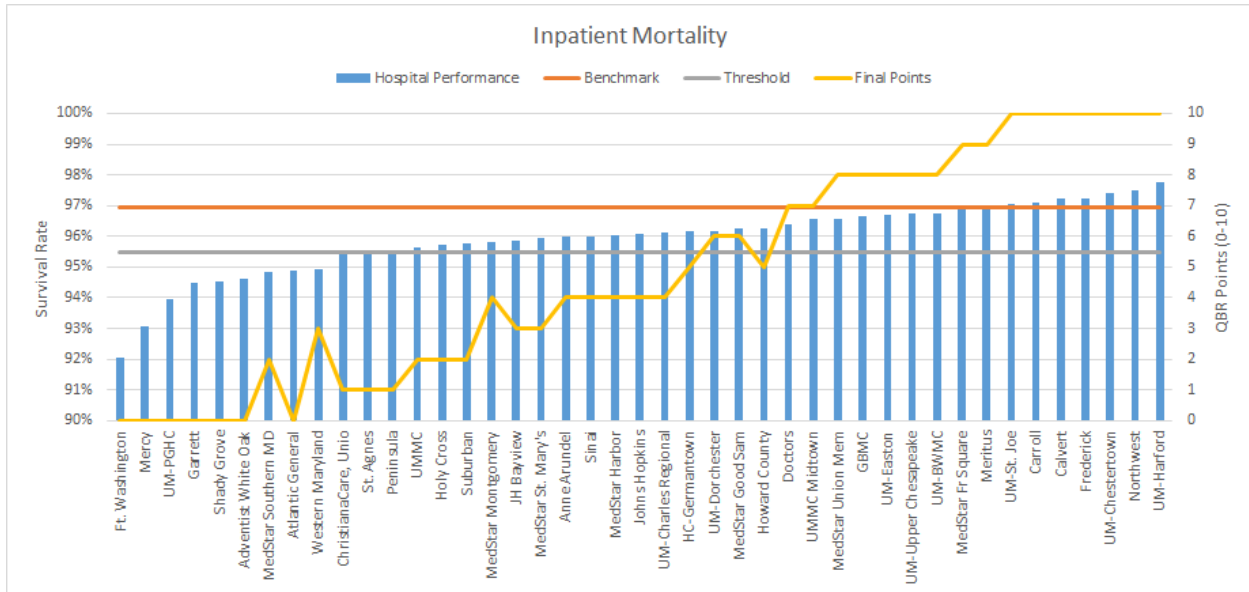
This domain, weighted at 15 percent of the QBR score, currently includes:

- A broader inpatient, all-payer, all-condition mortality measure that is weighted at 10 percent. This differs from the CMS VBP Program that uses four condition-specific, 30-day mortality measures for Medicare beneficiaries. The HSCRC is in the process of developing an all-payer, all-cause 30 day mortality measure for future rate years.
- The inpatient Medicare Total Hip Arthroplasty-Total Knee Arthroplasty (THA/TKA) Complications measure is weighted at 5 percent. This is also used by the CMS VBP program.

### Inpatient mortality

The current mortality measure in the QBR Program is an all-cause, all-payer measure that captures patients who die while in the hospital. It was designed as an inpatient measure due to a lack of data on post discharge mortality at the time of development. Figure 18 shows the RY 2021 by hospital performance (blue bars), along with the threshold (grey; state median) and benchmark (orange; State mean of top decline) lines. The yellow line indicates the number of points each hospital would earn based on their performance relative to the threshold and benchmark. The line is jagged in parts since hospitals could earn the better of attainment or improvement. In total 16 percent (7 out of 44) hospitals earn the full 10 points. Furthermore, staff believes the current inpatient measure might be topped out due to the shrinking distance between benchmark and threshold values and because most Maryland hospitals (34 of 44) are either earning equal improvement and attainment credit (n = 14) or are earning attainment credit (n = 20). Figure 18 shows the threshold and benchmark values for the current inpatient mortality measure.

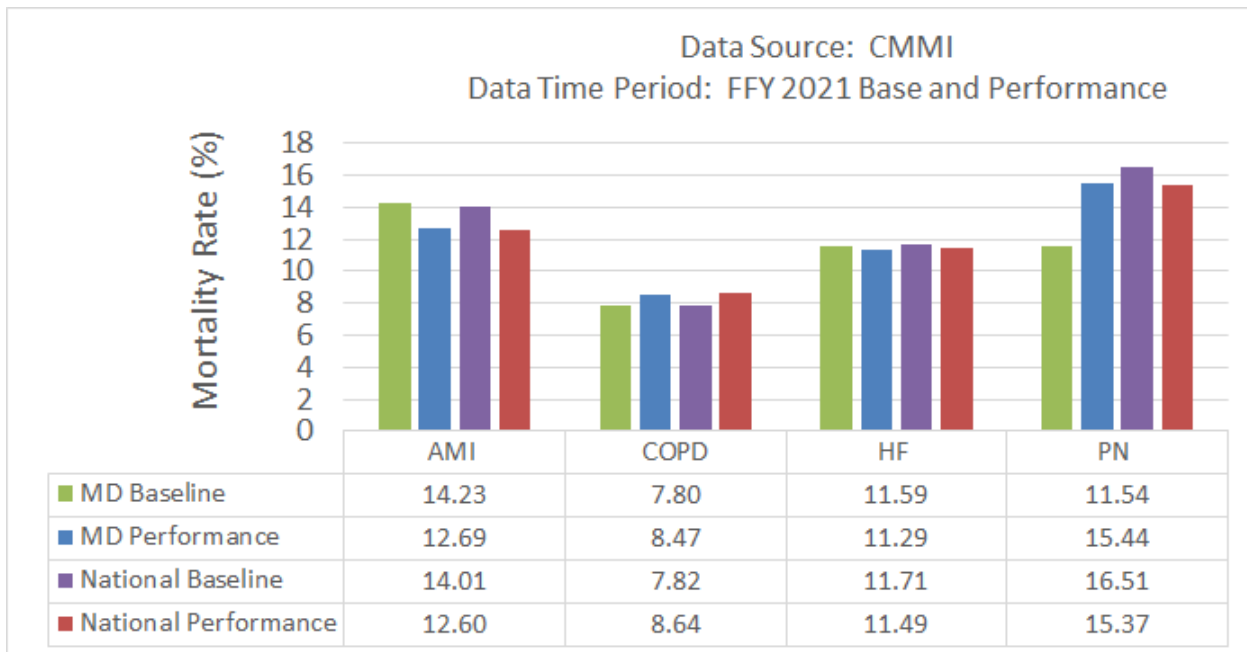
Figure 18. Maryland inpatient mortality and QBR scores



### CMS 30-Day condition-specific mortality measure

CMS uses condition-specific 30-day mortality measures based on Medicare claims data in its VBP program. Although Maryland does not use these measures in the QBR program since they apply to Medicare patients only, Maryland performance data is available for comparison. As illustrated in Figure 19 below, Maryland performs slightly better than the National VBP hospitals on Chronic Obstructive Pulmonary Disease and Heart Failure, and slightly worse on Acute Myocardial Infarction and Pneumonia.

**Figure 19. Maryland 30-day Condition Specific Mortality Compared to the Nation**



### 30-Day All-Payer Mortality Measure

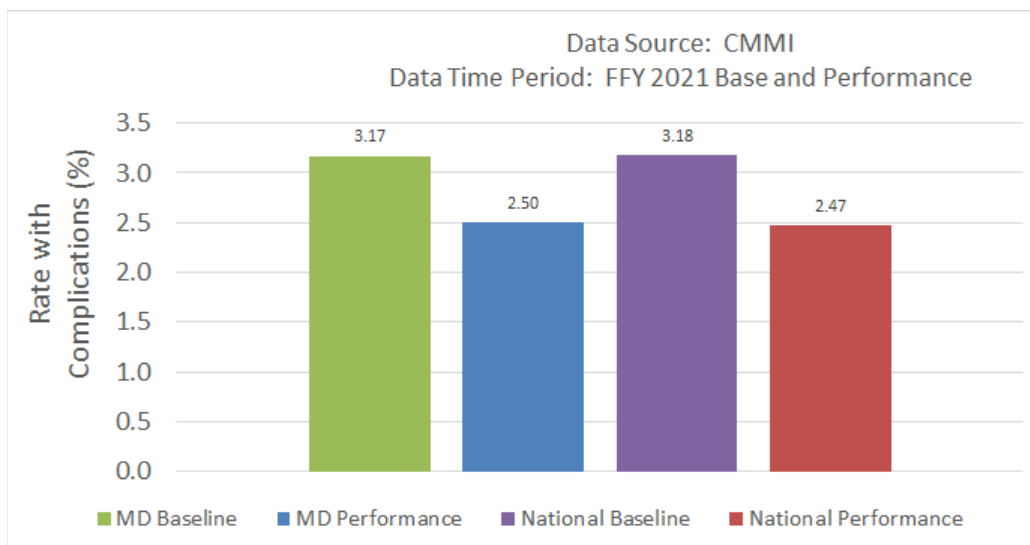
Recent legislative changes have allowed HSCRC to get access to death data from Maryland Vital Statistics. Although it is estimated that two-thirds of deaths occur in hospitals, staff believes post-hospitalization deaths are an important indicator of quality and that moving to a 30-day measure better aligns with CMS's measures. Furthermore, staff believes the current inpatient measure might be topped out. Thus, staff has been working with Mathematica to develop a 30-day all-payer, all-cause mortality measure based on CMS's measures. Appendix E provides details on the specification of the measure and validity and reliability tests to be applied. Currently staff is awaiting a revised case-mix file with a 30-day death flag from CRISP to continue measure development. For RY 2024 the workgroup members<sup>27</sup> recommend developing summary level monitoring reports and hospital specific discharge level files so that the hospitals can review the measure and the trends in 30-day mortality, and considering adoption of the measure for payment in RY 2025.

<sup>27</sup> Medstar, UMMS, and Johns Hopkins have written letters in support of moving to a 30-day mortality measure.

## Total Hip Arthroplasty-Total Knee Arthroplasty (THA/TKA) Complications

The QBR Program currently includes an inpatient THA/TKA complications measure for Medicare beneficiaries under the QBR Program's Clinical Care domain and, similar to the THA/TKA complications measure in the national VBP Program, is weighted at 5 percent. Hip/knee complications in the inpatient measure include various post-operative infections, pulmonary embolism, heart attack, bleeding, mechanical complication, and death. Maryland performs on par with the nation on the THA/TKA measure, as illustrated in figure 20 below.

**Figure 20. THA/TKA complication rates FFY 2021 base and performance periods: Maryland vs. the nation**



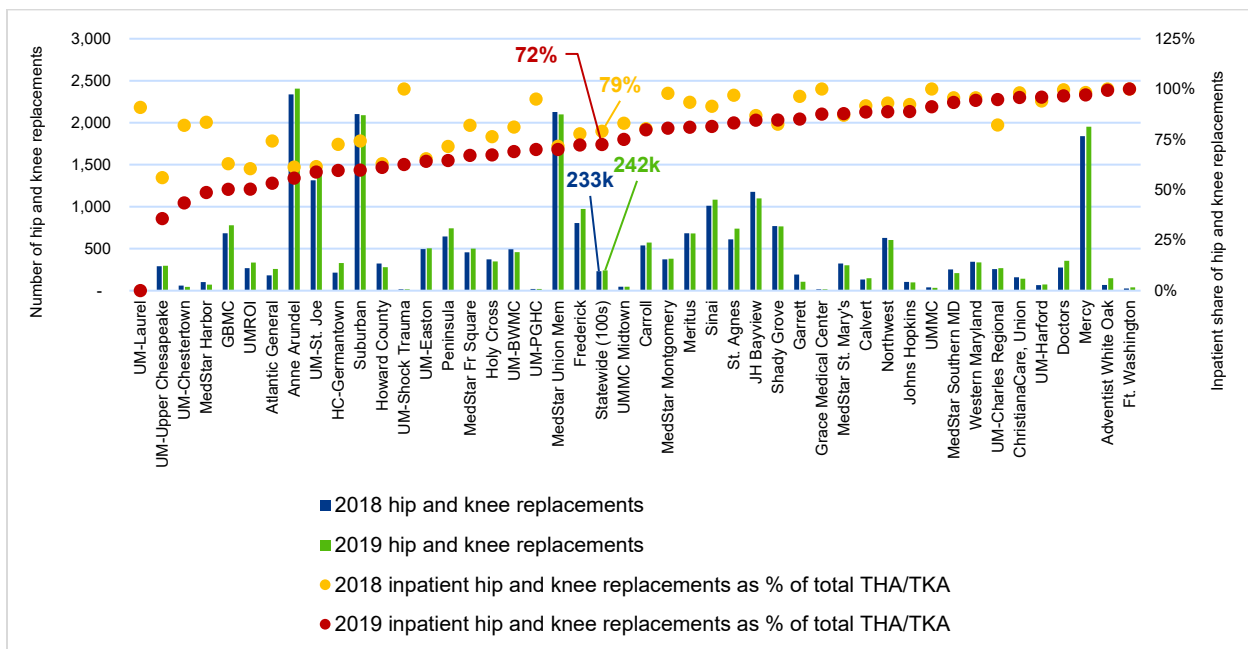
Staff presented three issues for the subgroup to consider related to updating the THA/TKA measure.

1. There is **movement of THA/TKA procedures from the inpatient setting to the outpatient hospital setting**, nationally and statewide
2. The current measure does not account for **non-Medicare THA/TKA procedures**
3. There are **other potential THA/TKA measures**, such as a provider level eCQM for THA/TKA complications and a hospital-level patient-reported outcome performance measure (PRO-PM) that could be adopted for hospital use

### Inpatient to outpatient THA/TKA procedure movement

Based on analysis of Maryland THA/TKA procedure volume for 2018 and 2019, the percentage of all-payer inpatient procedures dropped from 79 percent in 2018 to 72 percent in 2019, while the total volume of THA/TKA procedures rose from 23,300 to 24,200. Figure 21 shows the movement of THA/TKA procedures per Maryland hospital from 2018 to 2019.

**Figure 21. Total number of hip and knee replacements and inpatient share across Maryland hospitals**



Subgroup members cautioned against using 2019 data when analyzing the shift from the inpatient to the outpatient setting, given the even larger shift in 2020 and 2021 (especially at academic medical centers) due to the COVID-19 pandemic and CMS regulatory requirements. In addition, staff and subgroup members noted that some surgery centers where THA/TKA procedures are done are not hospital owned or regulated, and hospitals are seeing complications after procedures performed in these alternate locations. In light of this, subgroup members also advised gaining better understanding of how a new THA/TKA measure would specifically affect the QBR Program and how best to structure financial incentives to achieve better outcomes for hospitals when procedures are done at non-affiliated/regulated sites.

### *Accounting for non-Medicare THA/TKA procedures*

With the current Medicare-only measure, the quality of care is not assessed for many patients undergoing these procedures (~40 percent).<sup>28</sup> The subgroup discussed options for expanding to a multi-payer or all-payer measure as outlined below.

### *Potential THA/TKA measure options*

Staff and the subgroup discussed other measure options and their applicability. The current Medicare-only measure could be expanded to include Medicaid procedures, while retaining CMS's risk adjustment model, which relies on non-hospital claims preceding the index stay. This would entail use of the full Medicaid claims data set, for which the HSCRC has access through CRISP. Alternatively, a measure including all payers could be specified, replacing CMS's risk adjustment approach with one based on case-mix from the index stay.

The subgroup discussed an eCQM for THA/TKA complications measure created in 2020 by Brigham and Women's Hospital. CMS developed this measure for the Merit-Based Incentive Payment System, and it uses the same complications as the current CMS claims-based measure. The measure would need to be specified as a hospital-level measure since it is currently specified at the provider level. It is an all-payer measure that includes both inpatient and outpatient procedures (ages 18+), which would align with the HSCRC's current strategy and investment to begin collecting eCQMs. Subgroup members noted the need to establish a new baseline as a result of a potential increase in the inpatient complications rate (with a shift to the outpatient setting, the more complex patients may have procedures in inpatient settings, leading to an increase in the complications rate).

The subgroup expressed enthusiasm for exploring patient-reported outcomes (PRO) and believes PROs are critical to driving value for patients. If pursuing a patient-reported outcome measure (PROM), staff could use the hospital-level PRO performance measure suggested in the FY 2022 IPPS proposed rule.<sup>29</sup> This PROM, developed by the Joint Commission, consists of two (preoperative and postoperative) process measures and captures the share of patients for which patient-reported outcome (PRO) data were collected. The measure was also used as part of the CMS Comprehensive Care for Joint Replacement (CJR) model. If the HSCRC wants to add a PROM, the necessary infrastructure would need to be created for collecting PROs. Subgroup members noted a potential challenge for community-based hospitals in working with provider groups affiliated with multiple hospitals. Community hospitals should do

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<sup>28</sup> 56 percent of THA/TKA procedures in 2018 and 57 percent of THA/TKA procedures in 2019 were from Maryland Medicare fee-for-service and Medicare Advantage patients, which indicates the measure could account for over 40 percent more patients.

<sup>29</sup> For the section in the FY 2022 IPPS proposed rule on "Potential Future Inclusion of a Hospital-Level, Risk-Standardized Patient-Reported Outcomes Measure Following Elective Primary Total Hip and/or Total Knee Arthroplasty," please see <https://www.govinfo.gov/content/pkg/FR-2021-05-10/pdf/2021-08888.pdf> (pp. 519–523).

their best to help these provider groups meet multiple standards, especially if there is a shift toward outpatient measures. Some subgroup members noted that the real value in the PRO measure is not necessarily on the hospital side but on the physician practice side, adding that capturing patient outcomes at certain points after surgery was important for discerning whether a patient’s functioning and quality of life had improved.

Subsequently, members expressed an overall concern with an inpatient-only measure. They also advised caution in adapting an eCQM measure designed for the outpatient/clinician level and attributing it to the hospital level without first looking at the research on the measure’s validity.

Figure 22 summarizes the measures considered and the programs that currently use the measures. Figure 23 shows the measure options and how they would achieve the shift from inpatient to outpatient, from Medicare to all-payer, or from inpatient to outpatient *and* Medicare to all-payer—which would require the most resources from staff.<sup>30</sup>

**Figure 22. THA/TKA quality measures and programs**

Measure	Program
1. Inpatient risk-standardized complications measure based on Medicare claims data	CMS Hospital Inpatient Quality Reporting Program, VBP, CMS CJR program
2. Inpatient PROM based on claims and surveys	CJR program
3. Inpatient and outpatient complications measure based on EHRs	CMS Measuring Outcomes in Orthopedics Routinely (MOOR) project <sup>a</sup>
4. Inpatient and outpatient PROM based on EHRs and a survey (MOOR project)	CMS MOOR project
5. Outpatient/ambulatory PROM, a process measure based on chart abstraction and a survey	Joint Commission Certification for Hip and Knee Replacement

<sup>a</sup> The MOOR project is measured at the physician level, but it also includes development of a PROM and two post-discharge drug measures.

**Figure 23. THA/TKA quality measures and adoption options summary**

	Inpatient	Inpatient and outpatient
<b>Medicare</b>	<ol style="list-style-type: none"> <li>1. CMS THA/TKA complications claims measure (Hospital Inpatient Quality Reporting Program, VBP, CJR)</li> <li>2. CMS inpatient PROM (CJR)</li> </ol>	Measures <b>1 and 2 (adapted for outpatient)</b>
<b>All-payer</b>	Measures <b>1 and 2 (adapted for all-payer)</b> <ol style="list-style-type: none"> <li>5. Joint Commission outpatient/ ambulatory PROM, a process measure based on chart abstraction and a survey;</li> </ol>	<b>3. CMS inpatient and outpatient complications measure based on EHRs (adapt for hospital)</b>

<sup>30</sup> For a more thorough list describing hip/knee hospital measure options, please see [https://hsrc.maryland.gov/Documents/Quality\\_Documents/QBR/R2023/THA-TKA%20Measure%20Expansion%20Options%20for%20Discussion.pdf](https://hsrc.maryland.gov/Documents/Quality_Documents/QBR/R2023/THA-TKA%20Measure%20Expansion%20Options%20for%20Discussion.pdf).

	Inpatient	Inpatient and outpatient
	the outcome is administration of the PROM survey, not the results	<b>4. CMS's inpatient and outpatient PROM based on EHRs and a survey (adapt for hospital)</b>

Going forward, Commission staff will work with the PMWG and other stakeholders to continue building a multiyear, multipronged, broad strategy for inclusion of outpatient measures in the HSCRC's quality programs. Specifically, for a THA/TKA measure, staff and stakeholders should explore approaches to adapting CMS's current claims-based inpatient THA/TKA measure to the all-payer population, and the feasibility, validity and reliability of specifying the eCQM version of the measure at the hospital level. Further in the future, staff and stakeholders should explore the feasibility of developing an infrastructure to collect and use a hospital-level PRO-PM for elective primary THA/TKA procedures.

## Outpatient new measures

As alluded to earlier, the QBR Program currently consists of quality measures limited to the inpatient setting. The HSCRC is exploring how to expand pay-for-performance programs, including QBR, to include outpatient quality measures for the following reasons:

- CMS and CMMI have expressed interest in this shift, particularly as care delivery previously completed in an inpatient setting is shifting to the outpatient setting.<sup>31</sup>
- Maryland's All-Payer Model established incentives to move care down the continuum as clinically appropriate, and these incentives continue with even greater emphasis under the TCOC Model.
- An outpatient expansion would align well with other TCOC initiatives, such as the Episode Quality Improvement Program,<sup>32</sup> SIHIS population health goals, and timely follow-up after inpatient/ED/observation visits.
- Development of an outpatient quality strategy is broader than the QBR redesign and could overlap with other Maryland quality programs.

<sup>31</sup> Last year, CMS finalized plans to eliminate its "inpatient-only" list over a three-year period starting in CY 2021. But in the Outpatient Prospective Payment System CY 2022 proposed rule, CMS walked back its plan to eliminate this list and, after clinical review of the 298 services removed from the list in CY 2021, proposes to add these services back to the inpatient-only list starting in CY 2022. For more information, see <https://www.cms.gov/newsroom/fact-sheets/cy-2022-medicare-hospital-outpatient-prospective-payment-system-and-ambulatory-surgical-center>.

<sup>32</sup> The voluntary Episode Quality Improvement Program uses an episode-based approach to engage specialist physicians treating Maryland Medicare beneficiaries in care transformation and value-based payment. The program holds participants accountable for achieving cost and quality goals for one or more clinical episodes. With enrollment beginning in July 2021 and implementation planned for January 1, 2022, the first performance year of the Episode Quality Improvement Program will cover a range of initial clinical episodes in the areas of cardiology, gastroenterology, and orthopedics.



As noted above regarding outpatient measure expansion for THA/TKA, staff acknowledge that a shift to include outpatient measures would be a multipronged, multiyear effort. To prepare, staff has been researching existing outpatient measures—such as federal Hospital Outpatient Quality Reporting Program measures; National Quality Forum-endorsed measures; Joint Commission-required measures; and measures from outpatient monitoring or regulatory groups such as MedPAC, the Maryland Health Care Commission, or Leapfrog.<sup>33</sup> Staff has also been looking for opportunities beyond what is available in the measurement space by reviewing CMS Claim and Claim Line Feed data and inpatient and outpatient data, with a focus on known shifts to the outpatient care setting, and trying to understand overlapping regulatory authorities for care across the system.

With readily available data for Maryland and the nation for comparison, HSCRC has analyzed a subset of seven of the CMS Hospital Outpatient Quality Reporting (OQR) Program measures using CY 2019 data. As illustrated in the summary of the analysis below in Figure 24, Maryland statewide performs worse than the nation on the OP -18b ED Arrival to ED Departure for Discharged ED Patients, and the OP-32 Seven-day Hospital Visit Rate after Colonoscopy. Detailed results for each measure are included in Appendix F.

**Figure 24. CMS OQR Program Measures, Maryland vs the Nation (CY 2019)**

Measure	Maryland's performance compared with the nation's
<b>OP-18b: Median Time from ED Arrival to ED Departure for Discharged ED Patients</b>	Worse
<b>OP-23: Head CT or MRI Scan Results for Acute Ischemic Stroke or Hemorrhagic Stroke Patients Who Received Head CT or MRI</b>	Same
<b>OP-29: Appropriate Follow-Up Interval for Normal Colonoscopy in Average-Risk Patients</b>	Better
<b>OP-32: Facility Seven-Day Risk Standardized Hospital Visit Rate After Outpatient Colonoscopy</b>	Worse
<b>OP-35ADM: Admissions for Patients Receiving Outpatient Chemotherapy</b>	Slightly better
<b>OP-35ED: ED Visits for Patients Receiving Outpatient Chemotherapy</b>	Slightly worse
<b>OP-36: Hospital Visits After Hospital Outpatient Surgery</b>	Slightly worse

Staff also conducted a selective study using Claim and Claim Line Feed data to determine the volume of elective services by place of service. Figure 25 shows a sample of the study results.<sup>34</sup> Although

<sup>33</sup> Staff has researched the following existing data sources for creating an outpatient expansion measure: CMS Hospital Compare outpatient data, outpatient case-mix data, and CMS's Claim and Claim Line Feed TCOC data. They have also researched nursing home data from the Minimum Data Set, home health data from the Outcome and Assessment Information Set, and data from the Ambulatory Surgical Center Quality Reporting Program for further down the line.

<sup>34</sup> For additional procedures, see [https://hscrc.maryland.gov/Documents/CY2019%20Surgeries%20by%20POS%20\(1\).xlsx](https://hscrc.maryland.gov/Documents/CY2019%20Surgeries%20by%20POS%20(1).xlsx).

colonoscopy procedures mostly occur in ambulatory surgical centers, which are outside the HSCRC's regulatory authority, hip and knee procedures mainly occur in hospitals. Staff saw this as an indicator that creating or adapting an outpatient measure for elective hip and knee procedures could be a way to improve quality in the hospital outpatient space. However, staff also wants to acknowledge Maryland's relatively worse performance on OP-32: Hospital Visit Rate After Outpatient Colonoscopy combined with the large volume of colonoscopy services provided in hospitals, despite a larger percentage of these services occurring in ambulatory surgical centers.

**Figure 25. Volume of elective services by place of service among Maryland hospitals (CY 2019)**

Surgeries by POS CY2019 Current Procedural Terminology category	Claims				Percentage		
	Inpatient	Outpatient	Ambulatory surgical centers	Total	Inpatient	Outpatient	Ambulatory surgical centers
Elective knee arthroplasty-partial	81	787	246	1,114	7%	71%	22%
Elective knee arthroplasty-total	5,215	8,931	413	14,559	36%	61%	3%
Elective knee arthroplasty-revision	1,125	116	67	1,308	86%	9%	5%
Elective hip arthroplasty (non-fracture)-total	5,937	132	155	6,224	95%	2%	2%
Elective hip arthroplasty (non-fracture)-revision	770	5	32	807	95%	1%	4%
Colonoscopy-diagnostic/therapeutic	1,108	18,972	42,289	62,369	2%	30%	68%
Combo: Colonoscopy & endoscopy	1,464	8,225	19,953	29,642	5%	28%	67%
Colonoscopy-screening	766	7,842	21,435	30,043	3%	26%	71%

Staff believes both volume and percentage of services, as well as quality performance where measures exist, should be considered when strategically deciding to include an outpatient measure in a pay-for-performance program. And, as previously stated, some of these measures might fit better in other quality programs (such as revisit-type measures in Maryland's Readmissions Reduction Incentive Program or Potentially Avoidable Utilization Savings Policy). Thus, at this time the staff is not recommending any immediate changes to the QBR policy but will be working over the coming years to develop a comprehensive outpatient hospital quality strategy and policy updates.

## Score and Revenue Adjustment Modeling

For this policy, staff modeled scores and revenue adjustments using data from RY 2021 time periods. The two models presented below in Figure 26 are with and without the addition of linear scores. It shows that hospital scores increase slightly when linear HCAHPS scores are included rather than only top box scores for HCAHPS; staff notes this would be expected since the linear scores somewhat lower the standards in HCAHPS with the idea it will reinvigorate efforts to focus on these important measures. It is

worth noting again that 35 percent of the QBR score remains on HCAHPS top box and consistency, which is still higher than the 25 percent in the national VBP program.

**Figure 26. Hospital Score Modeling**

Statistic	Total QBR Score	
	Model A RY23 Measures, No Linear	Model B RY23 Measures + 4 Linear*
<b>Median</b>	32.96%	33.49%
<b>Average</b>	34.25%	34.82%
<b>25th Percentile</b>	27.79%	28.02%
<b>75th Percentile</b>	39.23%	39.65%
<b>Min</b>	13.02%	12.90%
<b>Max</b>	51.23%	53.52%

\* The four HCAHPS measures are: nurse communication, doctor communication, responsiveness, and the 3-part care transitions measure

Beyond the addition of linear measures, the QBR scores and revenue adjustments were calculated using the methodology approved for RY 2023. This includes maintaining the reward/penalty cut-point at 41 percent. This cut point is estimated by calculating the average VBP score nationally if the VBP program had the QBR domains and weights. Staff updated this calculation by bringing in linear scores for national hospitals for FFY 20 and FFY 21. While the national average scores also increased slightly with linear measures included, the average VBP score for the last six years is 40.39 percent, which supports the cutpoint remaining at 41 percent. Using the scores presented above, staff modeled revenue adjustments using the RY 2021 preset scale. This scale is designed to not reward hospitals for performance that lags behind the nation. Figure 27 provides the estimated statewide revenue adjustments and counts of hospitals receiving a reward and penalty. Overall, the estimated revenue adjustments are fairly similar across the models, although penalties are the lowest and rewards the highest when linear scores are added (Model B). However, adding the linear scores does not result in any hospital going from the penalty to the reward zone (i.e., the 9 hospitals rewarded are the same for both models).

**Figure 27. Revenue Adjustment Modeling**

Descriptive Statistics	Model A RY23 Measures, No Linear		Model B RY23 Measures + 4 Linear	
	\$	%	\$	%
Net Adjustments	-\$51,276,346	-0.52	-\$47,724,587	-0.48
Penalties	-\$53,679,444	-0.01	-\$50,850,934	-0.01
Rewards	\$2,403,098	0.00	\$3,126,347	0.00
# Hospitals Penalized	33		33	
# Hospitals Rewarded/ Not Penalized	9		9	

## FUTURE OF QBR

While the RY 2024 QBR redesign is focused on immediate changes in HCAHPS incentives, it also is laying the foundation for future program improvements. As staff we value Commissioner input and support on these longer-term initiatives to ensure the policy will be evolving in the direction of the Commission strategy. Furthermore, support from Commissions is especially helpful as we balance various stakeholders' perspectives.

As a recap these longer-term initiatives include:

- Developing an electronic clinical quality measure infrastructure with CRISP that will allow collection of ED wait times but also open up opportunities for new measures to be collected with minimum effort long term. Furthermore, this infrastructure will also allow us to collect EHR data for better risk adjustment of measures across our programs. Developing this infrastructure will also show Maryland as a state leader in digital quality measures as we leverage the flexibility in adopting innovations under our model with CMS/CMMI to help achieve better quality and efficiency.
- Developing monitoring reports that will help hospitals begin to understand quality issues, such as 30-day mortality or follow-up after a hospitalization for mental illness. The monitoring reports also serve as a way for hospitals to help validate the measures and any changes that may need to be made. However, the ultimate goal of the monitoring is to then consider these measures for payment.
- Building on Maryland's early work to implement a comprehensive outpatient measurement and pay-for-performance strategy that is a multipronged, multiyear effort that considers volume and

percentage of services, as well as quality performance where measures exist; outpatient measures may be applicable across our current quality programs or in a new program policy.

- Determining any policy adjustments that are needed given the occurrence and expected persistence of COVID-19; staff is recommending to the Commission that we will retrospectively assess whether any changes are needed for the RY 2024 policy and report those changes to the Commission.
- Leveraging new data sources with patient, environmental, and/or clinical characteristics to identify health disparities and improve health equity, e.g., work with MHCC to analyze the case-level HCAHPS data they plan to receive to identify opportunities to adjust hospital performance incentives to improve equity.

## STAKEHOLDER FEEDBACK AND RESPONSES

Comment letters were submitted to the Commission in response to the QBR Re-design process and direction by Medstar Health and by the Johns Hopkins health System and the University of Maryland Medical Systems combined (JHHS/UMMS). Subsequently, comments on the draft QBR recommendations were submitted by Adventist Health Care, JHHS, and the Maryland Hospital Association (MHA). Commenters were generally supportive of the RY 2024 QBR policy and direction and continued use of the current QBR methodology. This included working to: expand the hip/knee complication measure to the outpatient space, expand the mortality measure to 30 days, and collaborate with entities such as the CDC on piloting new hospital acquired infection measures not as prone to small volume event statistical anomalies. However, some targeted concerns were raised and suggestions provided for modifying specific aspects of the draft recommendations. These comments and suggestions are summarized below along with staff's responses.

### **Reward/Penalty Cut-point of 41%**

In their letter, MHA raised concerns that the cut-point may be too aggressive since it was determined in large part on 2019 pre-COVID quality data from CMS, and updated data has not become available.

**Staff Response:** Staff agrees and will retrospectively evaluate the cut-point as part of the work to make retrospective adjustments to the methodology because of the COVID pandemic.

### **HCAHPS**

#### ***Providing Up-front Loan Investment for Improving HCAHPS***

In their letter, MedStar indicated they would not request an up-front investment as did many hospital representatives on the QBR Subgroup and the PMWG. In addition, CMS notes, in their quality exemption approval letter for RY 2022 dated October 29, 2021, that they believe that providing hospitals with a voluntary up-front investment in efforts to facilitate improvements in HCAHPS would offer limited benefit. They continue that the global budgets currently provide hospitals with enhanced financial stability and congruent opportunities to invest in transformative activities, including quality performance activities, which is an expectation under the Model.

**Staff Response:** Staff has evaluated stakeholder feedback on the initial draft recommendation to provide a voluntary up-front investment and agrees with the arguments that the effort to administer a program with no apparent hospital interest is not a good use of staff resources. Therefore, staff has removed this from the final recommendations. However hospitals who believe that they may benefit from this approach are welcome to submit proposals to the HSCRC for consideration.

### ***Adding HCAHPS Linear Scores***

The JHHS, JHHS/UMMS, MedStar and MHA all support adding HCAHPS linear scores to the Person and Community Engagement domain. However, hospital and Commissioner stakeholders voiced concerns about including the “responsiveness of hospital staff” measure in the focused set of linear measures and suggested instead the use of the “overall rating of care” measure. Furthermore, in the exemption approval noted above, CMS stated concerns that this approach would only drive minor improvements.

**Staff Response:** As stated in this recommendation, staff continues to support the “responsiveness” measure in the linear score calculation as this measure is meaningful to patients while they are receiving care and potentially is not as linked to an institutional reputation as the “overall” rating may be. Furthermore, nationally there is high correlation between responsiveness and the overall hospital rating for both top-box and linear scores. Thus, staff maintains the recommendation to include responsiveness as a linear measure of performance. Furthermore, to address CMS concerns, the staff proposes that the addition of linear scores be thought of as a pilot that can be phased out in coming years if improvements are not realized.

### ***ED Wait Time Measure Concerns***

The Adventist Health, JHHS, JHHS/UMMS and MHA letters raise concerns about the recommendation to require hospitals to report the ED-2 eCQM measure. Adventist notes that the eCQM submission timeframes beginning in CY 2022 that were outlined in an HSCRC staff memo of 9/23/21 do not align with

the timeframes required for the CMS Inpatient Quality Reporting (IQR) program, and that the reporting requirement would be inefficient and cause additional, unnecessary expense for hospitals in third party vendor costs. The JHHS letter notes the importance of lowering ED wait times to improve patient experience, however, they along with UMMS cite concerns about the variation across hospitals of ED-2 measure definition of admission times, and the measure holding hospitals accountable for infrastructure outside the hospital (e.g., primary care and behavioral health services). The MHA letter asserts that the measure is not appropriate in a pay for performance program. On the other hand, the MedStar letter notes that they “see ED-2b as particularly valuable in that it is a ‘leading measure’ on which we can focus operational improvement work.”

**Staff Response:** Staff appreciates the comments and remains concerned that Maryland continues to be a significant outlier on every measure of ED wait times that is also correlated with sub-par HCAHPS performance in the state. Staff will work with hospitals, CRISP and their digital measure vendor subcontractor, Medisolv, to address the submission timeframe alignment concerns between HSCRC and CMS IQR digital measure reporting. Staff also asserts that the eCQM version of the ED-2 measure provides better standardization and definitions of data elements that comprise the measure such as time of admission. Staff also believes that stratifying hospitals in volume groups to establish the performance standards and measure performance provides for adequate comparison. Further, staff believes the digital measure infrastructure will increase our ability to be efficient and innovative as more digital measures become available. Finally, staff note in the CMS exemption letter that CMMI believes the state should continue to work to collect ED-2 from hospitals to address this area of performance and hopefully lead to commensurate improvements in HCAHPS.

#### ***Timely Follow-up after Acute Exacerbation of Chronic Conditions Measure***

The JHHS/UMMS, JHHS, MHA letters agree that timely follow-up after acute exacerbations of chronic conditions improves patient outcomes; however, their letters voice concerns about the lack of available timely and accurate data reports to the hospitals over the last year. The MHA letter requests that the measure be suspended in the QBR program pending the production of timely and valid hospital-level reports. To the recommendation to expand the measure to behavior health and Medicaid populations, the comments support production of hospital monitoring reports in CY 2022 before considering expansion of the measure. The MedStar letter supports maintaining a Medicare-only measure to minimize confusion and promote alignment with the Statewide Integrated Health Improvement Strategy (SIHIS).

**Staff Response:** Staff does acknowledge that the production of timely and valid hospital reports on the Medicare measure has been challenging in the last year. Staff notes, however, that hospitals have had access to their own Medicare data used to calculate the measure in the last year and that the conditions

included in the measure were known to hospitals before the measurement period, allowing them to target their efforts to improve follow up for these patient populations. Staff continues to support the inclusion of behavioral health and Medicaid populations in the measure and believes this is an important next step in our all-payer system. Staff agrees that monitoring performance on behavioral health and Medicaid for the next year as they are included in the measure is appropriate and is working with CRISP to operationalize these monitoring reports.

### ***Better Understanding of HCAHPS Performance and Strategies to Improve***

The exemption letter from CMS encourages the State to prioritize strategies to investigate the root cause of poor HCAHPS performance, create a formalized platform for hospitals to share HCAHPS best practices, and invest in infrastructure to capture patient-level-data. Furthermore, they suggest that Maryland should consider developing statewide improvement goals for HCAHPS and request to see a framework for sharing of best practices and improvement goals as part of the FY 2023 exemption request.

**Staff Response:** The Maryland Healthcare Commission (MHCC) noted during the workgroup process that it was setting up infrastructure to collect patient level HCAHPS data, which the State has expressed in for several years. There was also interest from some of the subgroup members to develop a way to expand sharing of best practices. Staff hope to work with partners (MHA, MHCC) to collect and analyze patient level HCAHPS data so as to better understand any underlying factors that cause poor performance, e.g. ED wait times, out-of-pocket expenses. Staff will also work with partners to develop a plan for expanding sharing of best practices and discussing statewide improvement goals over the next few years while staff simultaneously assesses the efficacy of incentivizing improvements in linear performance. Based on this feedback an additional recommendation has been added to this final recommendatio

## **FINAL RECOMMENDATIONS FOR RY 2024 QBR PROGRAM**

Final Recommendations for RY 2024 QBR Program:

1. Continue Domain Weighting to determine hospitals' overall performance scores as follows: Person and Community Engagement (PCE) - 50 percent, Safety (NHSN and AHRQ Patient Safety Index composite) - 35 percent, Clinical Care - 15 percent.
  - A. Within the PCE domain, pilot including four linear measures weighted at 10% of QBR score; remove associated revenue at risk from top box.



- B. Within the PCE domain, continue to include timely follow-up after acute exacerbation of a chronic condition weighted at 5% of QBR score; currently, Medicare only measure.
2. Collaborate with partners to implement statewide HCAHPS improvement initiative, which can focus on root causes of HCAHPS performance and the sharing of best practices for improvement.
3. Develop monitoring reports for measures that expand the scope of the policy and align with the goals of the TCOC Model that will be considered for adoption in RY 2025:
  - A. 30-day all-payer, all-cause mortality;
  - B. Follow-up for acute exacerbation of chronic conditions for Medicaid; and
  - C. Follow-up after hospitalization for mental illness.
4. Collaborate with CRISP to develop infrastructure for collection of hospital electronic clinical quality measures (e-CQMs) and core clinical data elements:
  - A. Require hospitals to submit the CY 2022 ED-2 eCQM and consider for re-adoption in future rate years; and
  - B. Explore development of hospital eCQM for inpatient/outpatient all-payer THA-TKA complications.
5. Maintain the pre-set scale (0-80 percent with cut-point at 41 percent), and continue to hold 2 percent of inpatient revenue at-risk (rewards and penalties) for the QBR program.
6. Adjust retrospectively the RY 2024 QBR pay-for-performance program methodology as needed due to COVID-19 Public Health Emergency and report any changes to Commissioners.

## APPENDIX A QBR PROGRAM BACKGROUND AND SUBGROUP OVERVIEW

### A. Detailed Overview of HSCRC QBR Program

Maryland's QBR Program, in place since July 2009, uses measures that are similar to those in the federal Medicare VBP Program, under which all other states have operated since October 2012. Similar to the VBP Program, the QBR Program currently measures performance in Clinical Care, Safety, and Person and Community Engagement domains, which comprise 15 percent, 35 percent, and 50 percent of a hospital's total QBR score, respectively. For the Safety and Person and Community Engagement domains, which constitute the largest share of a hospital's overall QBR score (85 percent), performance standards are the same as those established in the national VBP Program. The Clinical Care Domain, in contrast, uses a Maryland-specific mortality measure and benchmarks. In effect, Maryland's QBR Program, despite not having a prescribed national goal, reflects Maryland's rankings relative to the nation by using national VBP benchmarks for the majority of the overall QBR score.

In addition to structuring two of the three domains of the QBR Program to correspond to the federal VBP Program, the HSCRC has increasingly emphasized performance relative to the nation through benchmarking, domain weighting, and scaling decisions. For example, beginning in RY 2015, the QBR Program began using national benchmarks to assess performance for the Person and Community Engagement and Safety domains. Subsequently, the RY 2017 QBR policy increased the weighting of the Person and Community Engagement domain, which was measured by the national HCAHPS survey instrument to 50 percent. The weighting was increased to raise incentives for HCAHPS improvement, as Maryland has consistently lagged behind the nation on these measures. In RY 2020, ED-1b and ED-2b wait time measures for admitted patients were added to this domain, with the domain weight remaining at 50 percent. In RY 2021, the domain weight remained constant, but the ED-1b measure was removed from the program. For RY 2022, ED-2b was removed from QBR because CMS no longer required submission of the measure for the Inpatient Quality Reporting Program.

Although the QBR Program has many similarities to the federal Medicare VBP Program, it does differ because Maryland's unique model agreements and autonomous position allow the state to be innovative and progressive. Figure A.1 compares the RY 2023 and 2024 QBR measures and domain weights to those used in the CMS VBP Program.

**Figure A.1. RY 2023 and 2024 QBR measures and domain weights compared with those used in the VBP Program**

	Maryland QBR domain weights and measures	CMS VBP domain weights and measures
<b>Clinical Care</b>	<b>15 percent</b> Two measures: All-cause inpatient mortality; THA/TKA complications	<b>25 percent</b> Five measures: Four condition-specific mortality measures; THA/TKA complications
<b>Person and Community Engagement</b>	<b>50 percent</b> Nine measures: Eight HCAHPS categories; follow-up after chronic conditions exacerbation	<b>25 percent</b> Eight HCAHPS measures
<b>Safety</b>	<b>35 percent</b> Six measures: Five CDC NHSN hospital-acquired infection (HAI) measure categories; all-payer PSI 90	<b>25 percent</b> Five measures: CDC NHSN HAI measures
<b>Efficiency</b>	n.a.	<b>25 percent</b> One measure: Medicare spending per beneficiary

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

The methodology for calculating hospital QBR scores and associated inpatient revenue adjustments has remained essentially unchanged since RY 2019. It involves (1) assessing performance on each measure in the domain; (2) standardizing measure scores relative to performance standards; (3) calculating the total points a hospital earned divided by the total possible points for each domain; (4) finalizing the total hospital QBR score (0–100 percent) by weighting the domains based on the overall percentage or importance the HSCRC has placed on each domain; and (5) converting the total hospital QBR scores into revenue adjustments, using a preset scale ranging from 0 to 80 percent.

## 1. Domain weights and revenue at risk

As already noted, the policy weights the Clinical Care domain at 15 percent of the final score, the Safety domain at 35 percent, and the Person and Community Engagement 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 called scaling.<sup>35</sup> Rewards (positive scaled amounts) or penalties (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 HSCRC previously

<sup>35</sup> Scaling refers to the differential allocation of a predetermined portion of base-regulated hospital inpatient revenue based on an assessment of hospital performance.

approved scaling a maximum reward of 2 percent and a penalty of 2 percent of the total approved base revenue for inpatients across all hospitals.

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>36</sup> enabling the HSCRC to use data submitted directly to CMS. Maryland implemented an efficiency measure outside of the QBR Program, based on potentially avoidable utilization (PAU). The PAU savings adjustment to hospital rates is based on the costs of potentially avoidable admissions, as measured by the Agency for Healthcare Research and Quality's Prevention Quality Indicators and avoidable readmissions. HSCRC staff will continue to work with key stakeholders to finish developing an efficiency measure that incorporates population-based cost outcomes.

## 2. QBR score calculation

QBR scores are evaluated by comparing a hospital's performance rate to its base period rate, as well as to 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 roughly the 95<sup>th</sup> percentile, during the baseline period).

**Attainment points:** During the performance period, attainment points are awarded by comparing a hospital's rates with the threshold and the benchmark. With the exception of the Maryland mortality measure and ED wait time measures, the benchmarks and thresholds are the same as those used by CMS for the VBP Program measures.<sup>37</sup> For each measure, a hospital that has a rate at or above the benchmark receives 10 attainment points. A hospital that has a rate 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:** 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 the attainment benchmark receives 9 improvement points. A hospital that has a rate at or below the baseline period rate receives 0 improvement points. A hospital that has a rate between the baseline period rate and the attainment benchmark receives 0–9 improvement points.

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<sup>36</sup> VBP measure specifications can be found at [www.cms.gov/Medicare/Quality-Initiatives-Patient-Assessment-Instruments/HospitalQualityInits/Measure-Methodology.html](http://www.cms.gov/Medicare/Quality-Initiatives-Patient-Assessment-Instruments/HospitalQualityInits/Measure-Methodology.html).

<sup>37</sup> One exception is the ED wait time measures. For these measures, attainment points are not calculated; instead, the full 10 points are awarded to hospitals at or below (more efficient) than the national medians for their respective volume categories in the performance period.

**Consistency points:** Consistency points are awarded only in 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 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 denominator adjustments:** In certain instances, QBR measures will be excluded from the QBR Program for individual hospitals. Hospitals are exempt from measurement for any of the NHSN Safety measures for which there is less than one predicted case in the performance period. If a hospital is exempt from an NHSN measure, its Safety domain score denominator is reduced from 50 to 40 possible points. If it is exempt from two measures, the Safety domain score denominator would be 30 possible points. Hospitals must have at least two of five Safety measures to be included in the Safety domain.

**Domain scores:** The better of the attainment score and improvement score for each measure is used to determine the measure points for each measure. The measure points are then summed and divided by the total possible points in each domain and multiplied by 100.

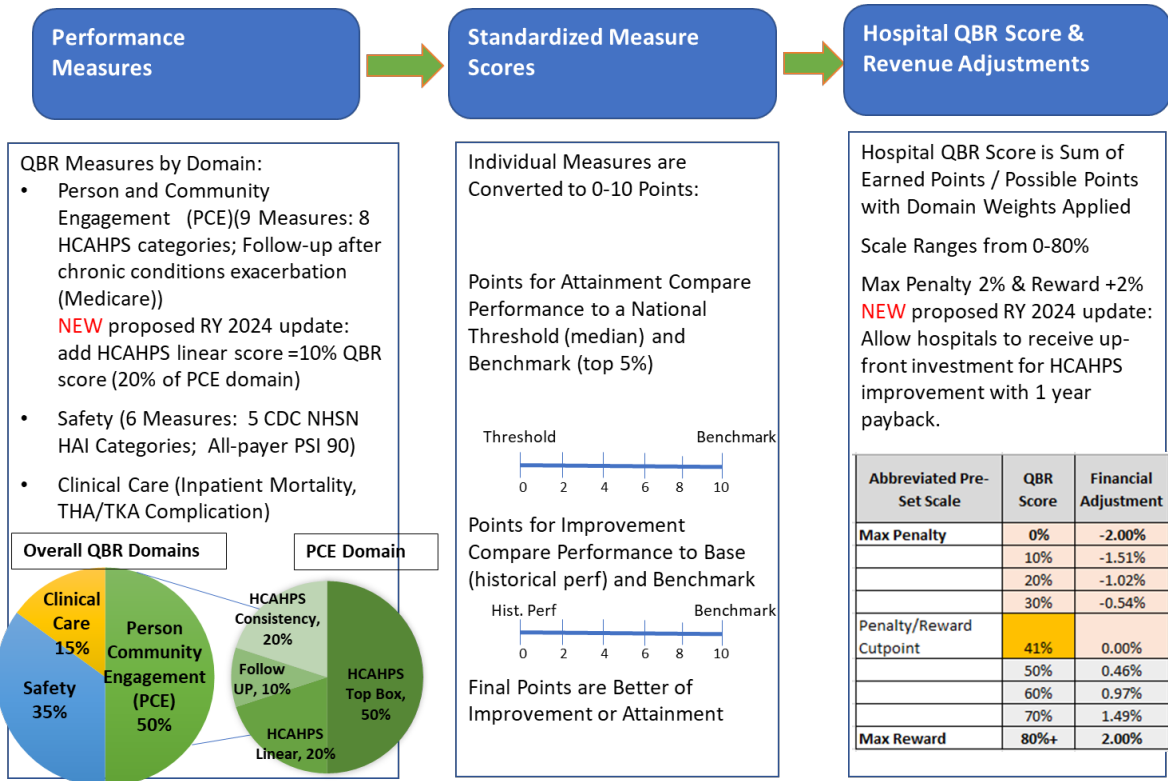
**Total performance score:** The total performance score is computed by multiplying the domain scores by their specified weights and then adding those totals together. The total performance score is then translated into a reward or penalty that is applied to hospital revenue.

### 3. RY 2023 and 2024 QBR Program

For RY 2023, the HSCRC did not make fundamental changes to the QBR Program's methodology but implemented the addition of the Follow-Up After Acute Exacerbation of Chronic Conditions measure and PSI-90 composite measures.

Figure A.2 shows the steps for converting measure scores to standardized scores for each measure, and then to rewards and penalties based on total scores earned, reflecting the updates for RY 2023 and proposed for RY 2024.

**Figure A.2. Process for calculating RY 2023 QBR scores, and Proposed updates for RY 2024**



There were no fundamental changes for the measures and domain weighting for RYs 2023 and 2024, as shown in Figure A.3.

**Figure A.3. RY 2023-2024 QBR domains, measures, and data sources**

	Clinical Care	Person and Community Engagement	Safety
<b>QBR RY 23 Program</b>	<p><b>15 percent</b> 2 measures</p> <ul style="list-style-type: none"> <li>Inpatient mortality (HSCRC case-mix data)</li> <li>THA TKA (CMS Hospital Compare, Medicare claims data)</li> </ul>	<p><b>50 percent</b> 9 measures</p> <ul style="list-style-type: none"> <li>8 HCAHPS domains (CMS Hospital Compare patient survey)</li> <li>Follow-Up After Acute Exacerbation of Chronic Conditions (Medicare claims )</li> </ul>	<p><b>35 percent</b> 7 measures</p> <ul style="list-style-type: none"> <li>6 CDC NHSN HAI measures (CMS Hospital Compare chart abstracted)</li> <li>PSI 90 all-payer (HSCRC case-mix data)</li> </ul>

**a. *PSI 90 measure (adopted for RY 2023)***

Newly adopted in RY 2023, the Patient Safety Indicator composite measure was developed by the Agency for Healthcare Research and Quality in 2003.<sup>38</sup> CMS first adopted the composite measure in the VBP program in FFY 2015 and removed the measure in FY 2019-FY 2022 due to operational constraints from the International Classification of Diseases, Tenth Revision (ICD-10) transition. The HSCRC had used the ICD-9 version of this measure in the QBR program but applied it to Maryland's all-payer population. CMS adopted the updated NQF endorsed ICD-10 version of the measure (Medicare only) that is used beginning with the FY 2023 Hospital VBP program<sup>39</sup>, and also adopted by the QBR program (all-payer version) in RY 2023.

AHRQ's specified PSI uses include:

- Assess, monitor, track, and improve the safety of inpatient care
- Comparative public reporting, trending, and pay-for-performance initiatives
- Identify potentially avoidable complications that result from a patient's exposure to the health care system
- Detect potential safety problems that occur during a patient's hospital stay

The discharge weighted average of the observed-to-expected ratios for the following subset of AHRQ's PSIs comprise the PSI-90 composite measure:

- PSI 03 Pressure Ulcer Rate
- PSI 06 Iatrogenic Pneumothorax Rate
- PSI 08 In-Hospital Fall With Hip Fracture Rate
- PSII 09 Perioperative Hemorrhage or Hematoma Rate
- PSI 10 Postoperative Acute Kidney Injury Requiring Dialysis Rate
- PSI 11 Postoperative Respiratory Failure Rate
- PSI 12 Perioperative Pulmonary Embolism (PE) or Deep Vein Thrombosis (DVT) Rate
- PSI 13 Postoperative Sepsis Rate
- PSI 14 Postoperative Wound Dehiscence Rate
- PSI 15 Abdominopelvic Accidental Puncture or Laceration Rate

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<sup>38</sup> Source: <https://www.qualityindicators.ahrq.gov/Downloads/Modules/PSI/V2020/TechSpecs/PSI%2090%20Patient%20Safety%20and%20Adverse%20Events%20Composite.pdf>.

<sup>39</sup> For more information on the measure removal and adoption, reference the [FY 2018 IPPS/LTCH PPS final rule](#) (82 FR 38242-38244) and (82 FR 38251-38256).

PSI 90 combines the smoothed (empirical Bayes shrinkage) indirectly standardized morbidity ratios (observed/expected ratios) from selected Patient Safety Indicators. The weights of the individual component indicators are based on two concepts: the volume of the adverse event and the harm associated with the adverse event. The volume weights were calculated based on the number of safety-related events for the component indicators in the all-payer reference population. The harm weights were calculated by multiplying empirical estimates of the probability of excess harms associated with each patient safety event by the corresponding utility weights (1–disutility). Disutility is the measure of the severity of the adverse events associated with each harm (for example, the outcome severity or the least-preferred states from the patient perspective).

The PSI 90 measure scores are converted to program scores, as described in the QBR Score Calculation section of this appendix.

**b. *Follow-Up After Acute Exacerbation for Chronic Conditions (adopted for RY 2023)***

Newly proposed for RY 2023, this measure was developed by IMPAQ on behalf of CMS.<sup>40</sup> Technical details for calculating measure scores are provided below.

**Measure full title:** Timely Follow-Up After Acute Exacerbations of Chronic Conditions

**Measure steward:** IMPAQ International

**Description of measure:** The percentage of issuer-product-level acute events requiring an ED visit or hospitalization for one of the following six chronic conditions: hypertension, asthma, heart failure, coronary artery disease, chronic obstructive pulmonary disease, or diabetes mellitus (Type I or Type II), where follow-up was received within the time frame recommended by clinical practice guidelines in a non-emergency outpatient setting.

**Unit of analysis:** Issuer-by-product

**Numerator statement:** The numerator is the sum of the issuer-product-level denominator events (ED visits, observation hospital stays, or inpatient hospital stays) for acute exacerbation of the following six conditions in which follow-up was received within the time frame recommended by clinical practice guidelines:

1. Hypertension: Within 7 days of the date of discharge

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<sup>40</sup> Source: <https://impaqint.com/measure-information-timely-follow-after-acute-exacerbations-chronic-conditions>



2. Asthma: Within 14 days of the date of discharge
3. HF: Within 14 days of the date of discharge
4. Coronary artery disease: Within 14 days of the date of discharge
5. Chronic obstructive pulmonary disease: Within 30 days of the date of discharge
6. Diabetes: Within 30 days of the date of discharge

**Numerator details:** This measure is defined at the issuer-by-product level, meaning that results are aggregated for each qualified insurance issuer and for each product. A product is defined as a discrete package of health insurance coverage benefits that issuers offer in the context of a particular network type, such as health maintenance organization, preferred provider organization, exclusive provider organization, point of service, or indemnity. Issuers are broadly defined as health insurance providers who participate in the Federally Facilitated Marketplaces and health insurance contracts offered in the Medicare Advantage market.

Timely follow-up is defined as a claim for the same patient after the discharge date for the acute event that (1) is a non-emergency outpatient visit and (2) has a Current Procedural Terminology (CPT) or Healthcare Common Procedure Coding System (HCPCS) code indicating a visit that constitutes appropriate follow-up, as defined by clinical guidelines and clinical coding experts. The follow-up visit may be an office or telehealth visit and takes place in certain chronic care or transitional care management settings. The visit must occur within the condition-specific time frame to be considered timely and for the conditions specified in the numerator. For a list of individual codes, please see the data dictionary.<sup>41</sup>

The time frames for a follow-up visit for each of the six chronic conditions are based on evidence-based clinical practice guidelines, as laid out in the evidence form.

**Denominator statement:** The denominator is the sum of the acute events—that is, the issuer-product-level acute exacerbations that require an ED visit, observation stay, or inpatient stay—for any of the six conditions listed above (hypertension, asthma, heart failure, coronary artery disease, chronic obstructive pulmonary disease, or diabetes).

**Denominator details:** Acute events are defined as either an ED visit, observation stay, or inpatient stay. If a patient is discharged and another claim begins for the same condition on the same day or the following day, the claims are considered to be part of one continuous acute event. In this case, the discharge date of the last claim is the beginning of the follow-up interval. The final claim of the acute event must be a discharge to community.

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<sup>41</sup> Please see <https://impaqint.com/measure-information-timely-follow-after-acute-exacerbations-chronic-conditions>.

An acute event is assigned to [condition] if:

1. The primary diagnosis is a sufficient code for [condition].

OR

2. The primary diagnosis is a related code for [condition] AND at least one additional diagnosis is a sufficient code for [condition].
  - If the event has two or more conditions with a related code as the primary diagnosis and a sufficient code in additional diagnosis positions, **assign the event to the condition with a sufficient code appearing in the “highest” (closest to the primary) diagnosis position.**

If the visits that make up an acute event are assigned different conditions, the event is assigned the condition that occurs last in the sequence. Following this methodology, only one condition is recorded in the denominator per acute event.

**Denominator exclusions:** The measure excludes events with:

1. Subsequent acute events that occur two days after the prior discharge but still during the follow-up interval of the prior event for the same reason; to prevent double-counting, the denominator will include only the first acute event
2. Acute events after which the patient does not have continuous enrollment for 30 days in the same product
3. Acute events in which the discharge status of the last claim is not “to community” (“left against medical advice” is not a discharge to community)
4. Acute events for which the calendar year ends before the follow-up window ends (for example, acute asthma events ending less than 14 days before December 31)
5. Acute events in which the patient enters a skilled nursing facility, non-acute care, or hospice care during the follow-up interval

**Measure scoring:**

1. Denominator events are identified by hospitalization, observation, and ED events with appropriate codes (that is, codes identifying an acute exacerbation of one of the six included chronic conditions).
2. Exclusions are applied to the population from Step 1 to produce the eligible patient population (that is, the count of all qualifying events) for the measure.

3. For each qualifying event, the claims are examined to determine whether they include a subsequent code that satisfies the follow-up requirement for that event (for example, whether a diabetes event received follow-up within the appropriate time frame for diabetes, from an appropriate provider). Each event for which the follow-up requirement was satisfied is counted as one in the numerator. Each event for which the follow-up requirement was not satisfied is counted as zero in the numerator.
4. The percentage score is calculated as the numerator divided by the denominator.

**Measure-scoring logic:** Following the National Quality Forum's guideline, we use **opportunity-based weighting** to calculate the follow-up measure. This means each condition is weighted by the sum of acute exacerbations that require either an ED visit or an observation or inpatient stay for all of the six conditions that occur, as reflected in the logic below.

$$[\text{NUM}(\text{ASM}) + \text{NUM}(\text{CAD}) + \text{NUM}(\text{HF}) + \text{NUM}(\text{COPD}) + \text{NUM}(\text{DIAB}) + \text{NUM}(\text{HTN})] / [\text{DENOM}(\text{ASM}) + \text{DENOM}(\text{CAD}) + \text{DENOM}(\text{HF}) + \text{DENOM}(\text{COPD}) + \text{DENOM}(\text{DIAB}) + \text{DENOM}(\text{HTN})]$$

Although the development team designed the measure to aggregate each condition score in the manner described above into a single overall score, programs may choose to also calculate individual scores for each chronic condition when implementing the measure. Individual measure scores would be calculated by dividing the condition-specific numerator by the condition-specific denominator, as in the example for heart failure:  $\text{NUM}(\text{HF}) / \text{DENOM}(\text{HF})$ .

The follow-up measure scores are converted to QBR scores, as described in the QBR Score Calculation section above.

## 5. QBR RY 2024 base and performance periods by measure

Figure A.4 shows the proposed base and performance period timeline for the RY 2023 QBR Program.

Figure A.4. RY 2024 timeline (base and performance periods; financial impact)

Rate year (Maryland fiscal year)	Q3-19	Q4-19	Q1-20	Q2-20	Q3-20	Q4-20	Q1-21	Q2-21	Q3-21	Q4-21	Q1-22	Q2-22	Q3-22	Q4-22	Q1-23	Q2-23	Q3-23	Q4-23	Q1-24	Q2-24	Q3-24	Q4-24	
Calendar year	Q1-19	Q2-19	Q3-19	Q4-19	Q1-20	Q2-20	Q3-20	Q4-20	Q1-21	Q2-21	Q3-21	Q4-21	Q1-22	Q2-22	Q3-22	Q4-22	Q1-23	Q2-23	Q3-23	Q4-23	Q1-24	Q2-24	
QBR base and performance periods	<b>BASE-</b> CMS Hospital Compare base period (HCAHPS measures, all CDC NHSN measures )																						
													<b>PERFORMANCE:</b> CMS Hospital Compare performance period (HCAHPS measures, all CDC NHSN measures)										
	<b>BASE-</b> inpatient mortality, PSI-90, follow-up chronic conditions																						
													<b>PERFORMANCE:</b> inpatient mortality, PSI-90, follow-up chronic conditions)										
	<b>PERFORMANCE:</b> CMS Hospital Compare THA/TKA performance period*X																						

\* Hospital Compare THA/TKA complications **base period** April 1, 2014–March 31, 2017.

X CMS announced it will not use data for CY Quarters 1 and 2 for the quality pay-for-performance programs due to the COVID-19 public health emergency; staff will consider options as CMS publishes to the updated measure performance period.

## **B. QBR Subgroup Members**

### **Carrie Adams, PharmD**

Vice President, Chief Quality and Transformation Officer

*Meritus Medical Center*

### **Charles Albrecht, MD**

Vice President, Chief Quality Officer

*Lifebridge*

### **Zahid Butt, MD**

CEO

*Medisolv*

### **Courtney Carta, MSPH, CPHQ**

Chief, Hospital Quality Initiatives

*Maryland Health Care Commission*

### **Cheryl Cioffi**

Senior Vice President, Chief Operating Officer & CNO

*Frederick Health*

### **Renee Demski, MSW, MBA**

Vice President Quality

*The Johns Hopkins Hospital and Health System, Armstrong Institute for Patient Safety and Quality*

### **Joy Gill, RN, BS, CPHQ, CSSBB**

Director, Quality Regulatory Programs and Analytics

*Adventist Health System*

### **Toby Gordon, ScD**

Associate Professor of Practice, Johns Hopkins Carey Business School

*Consumer Representative*

### **Traci LaValle**

Senior Vice President, Quality & Health Improvement

*Maryland Hospital Association*

### **Lily Mitchell**

Quality Management Consultant

*CareFirst BCBS*

**Stephen Michaels, MD**

Chief Operating Officer

*Medstar St. Mary's Hospital*

**Jonathan Patrick, MD, FACC**

AVP, Clinical Quality Performance, Co-Chair, System P&T

*Medstar Health*

**Richard Pomerantz, MD, FACC**

Chairman, Department of Medicine

*St. Agnes*

**Megan Priolo, DrPH, MHS**

Senior Director of Reporting and Analytics

*CRISP*

**Suzana (Suzy) Quick, RN, BSN, MSN, CPHQ, CPPS, CLSSGB**

Health Systems Improvement Advisor

*Qlarant*

**Brian Sims**

Director, Quality & Health Improvement

*Maryland Hospital Association*

**Mike Sokolow, MBA**

Senior Director, Business Intelligence & Regulatory Policy

*The University of Maryland Medical System*

**Geetika Sood, MD**

Assistant Professor of Medicine and Hospital Epidemiologist

*Johns Hopkins University School of Medicine*

**Anne Van Waes, MS, RN, CIC, CJCP, CPHQ**

Director, Quality and Regulatory Affairs

*Luminis Health, Anne Arundel Medical Center*

## **C. The HSCRC Staff**

**Dianne Feeney**, BSN, MS, Associate Director, Quality, HSCRC

**Allan Pack**, Principal Deputy Director, Population-Based Methodologies, HSCRC

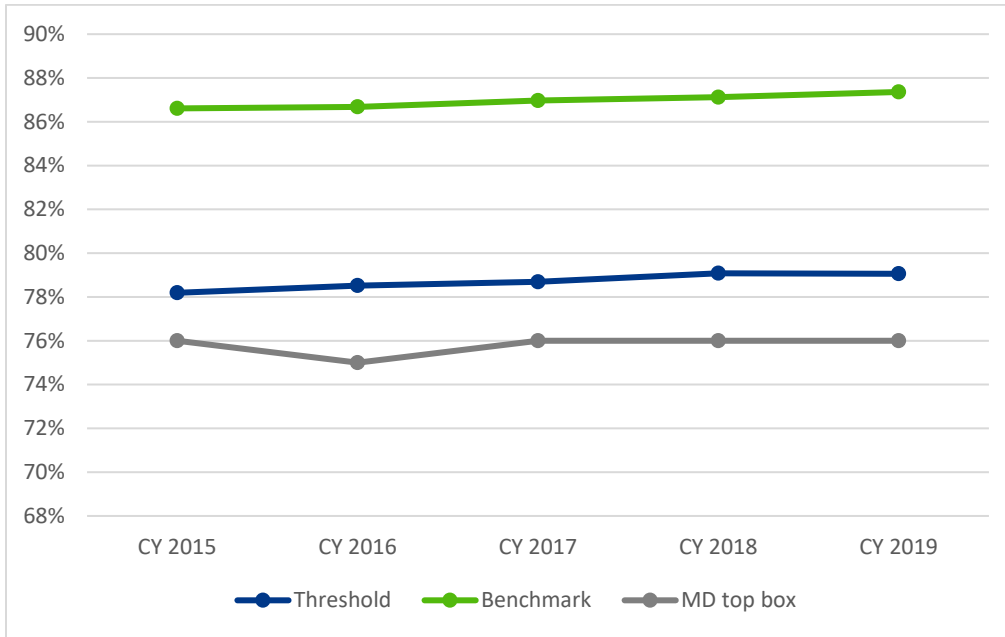
**Alyson Schuster**, PhD, Deputy Director, Quality Initiatives, HSCRC

**Andrea Zumbrum**, MPH, Chief, Quality Initiatives, HSCRC

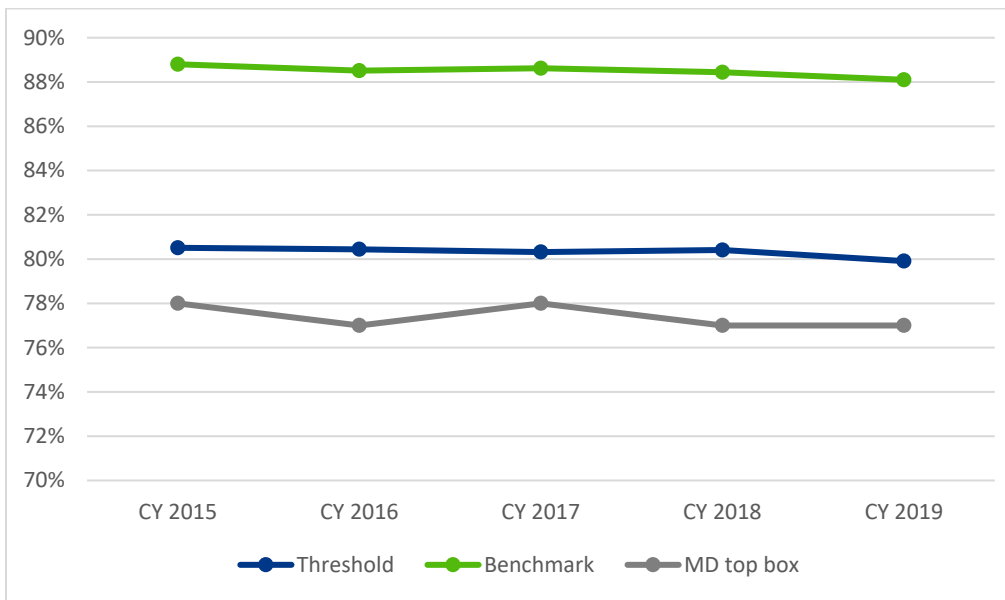
## APPENDIX B HCAHPS

*Figure B.1. VBP thresholds, benchmarks and Maryland HCAHPS top box scores (2016–2019)*

*Figure B.1.a. Nurse communication*

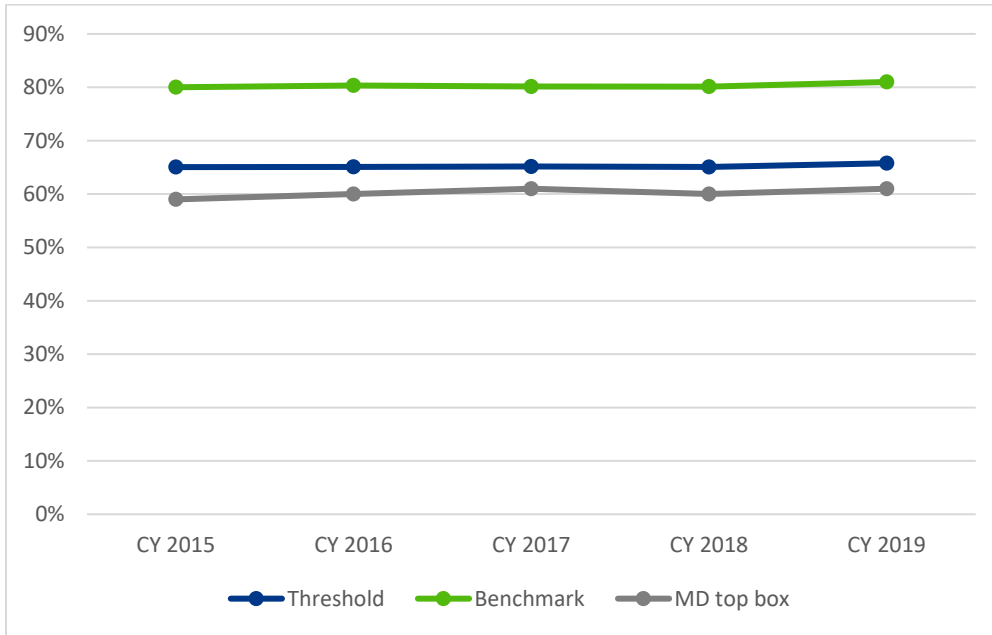


*Figure B.1.b. Doctor communication*

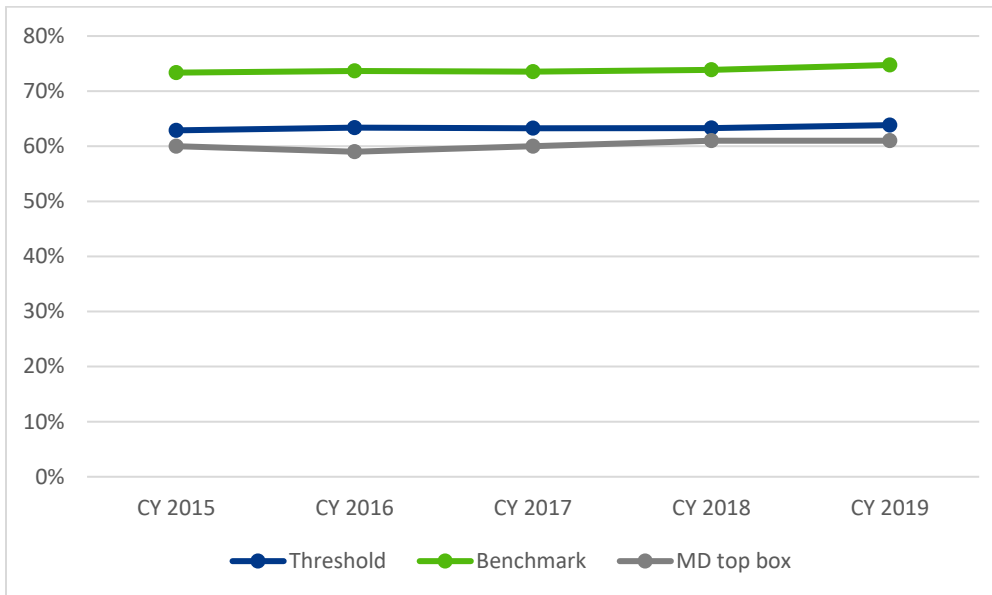




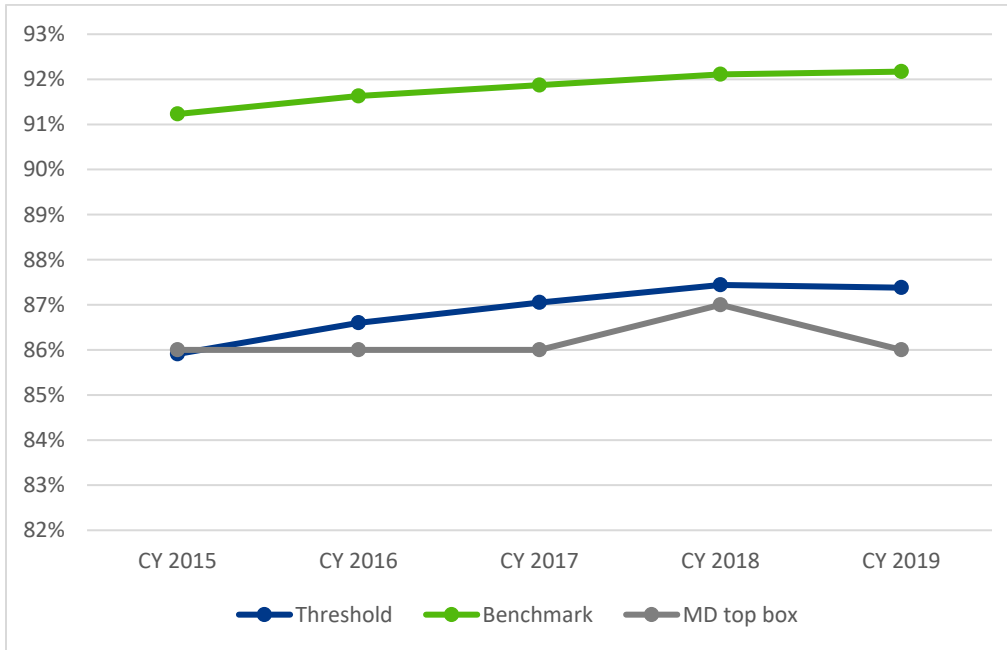
**Figure B.1.c. Staff responsiveness**



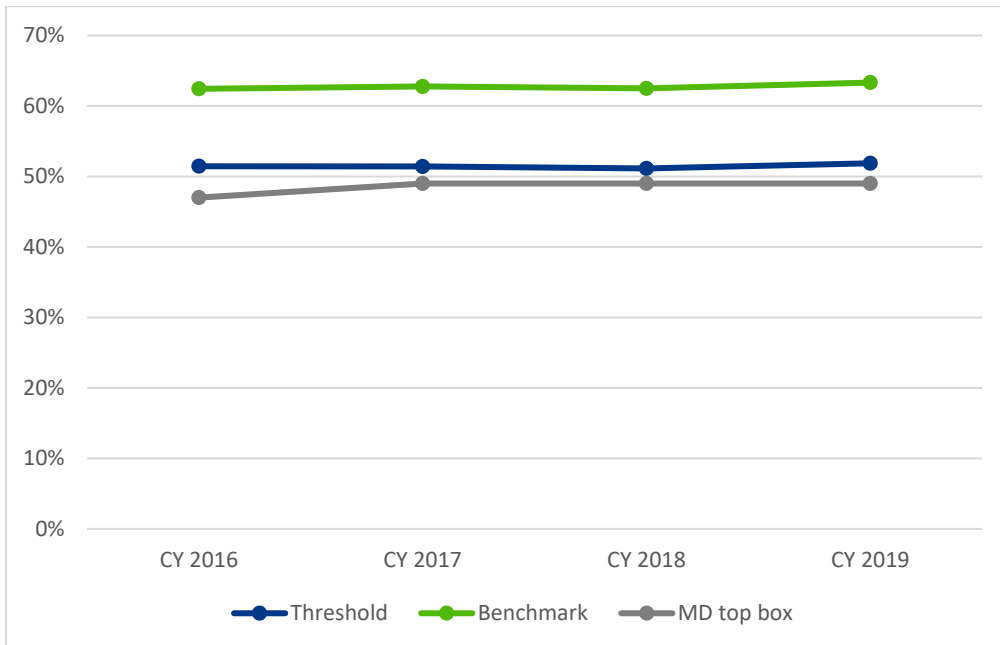
**Figure B.1.d. Communication about medicines**



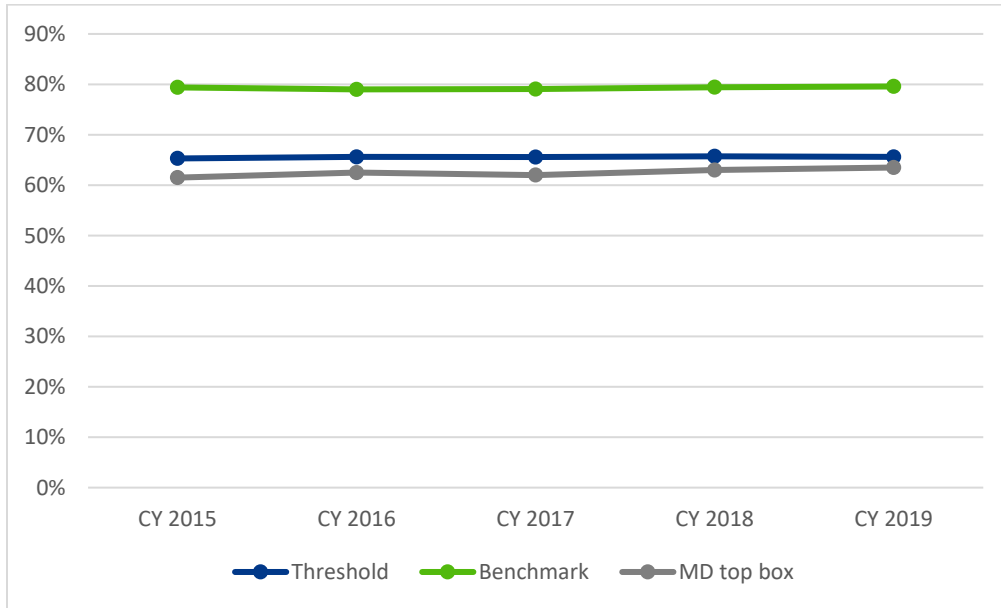
**Figure B.1.e. Discharge information**



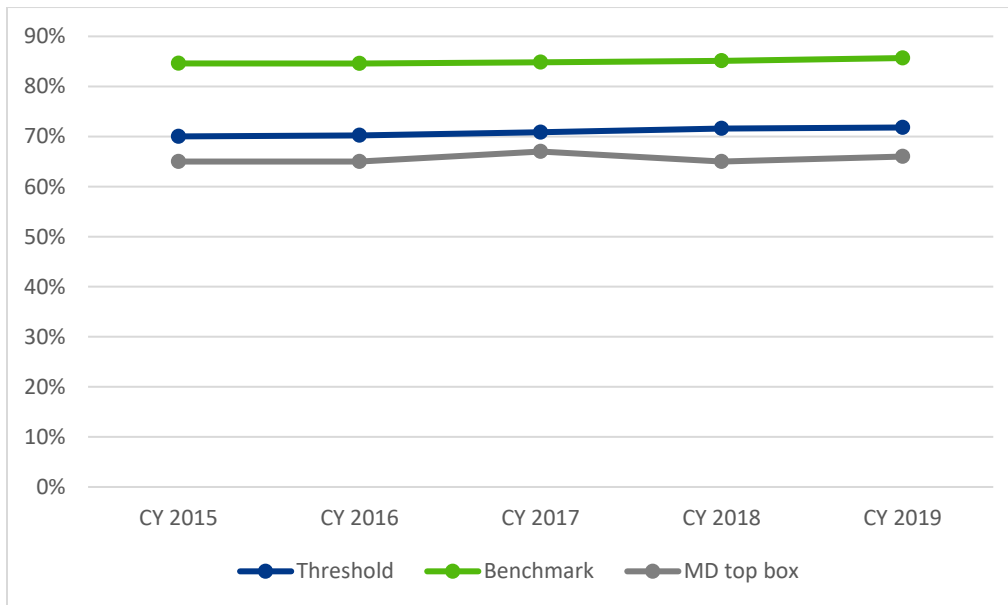
**Figure B.1.f. Care transition**



**Figure B.1.g. Clean and quiet**

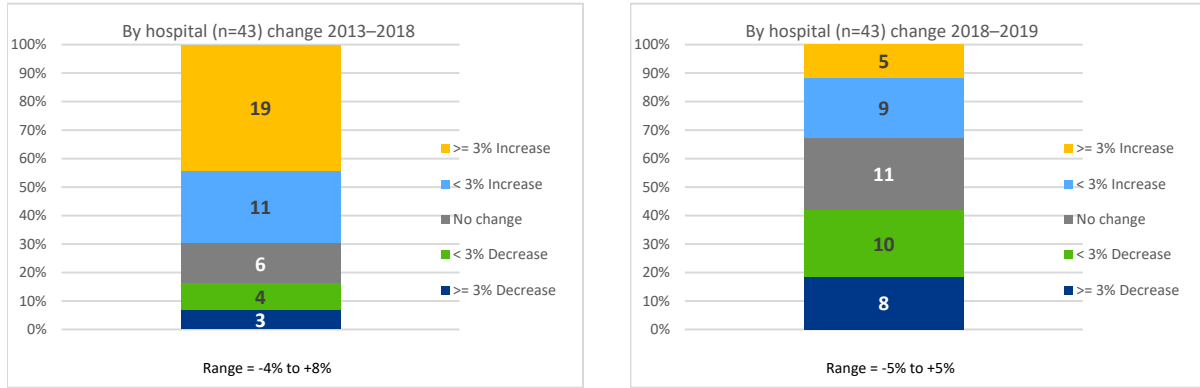


**Figure B.1.h. Hospital rating**

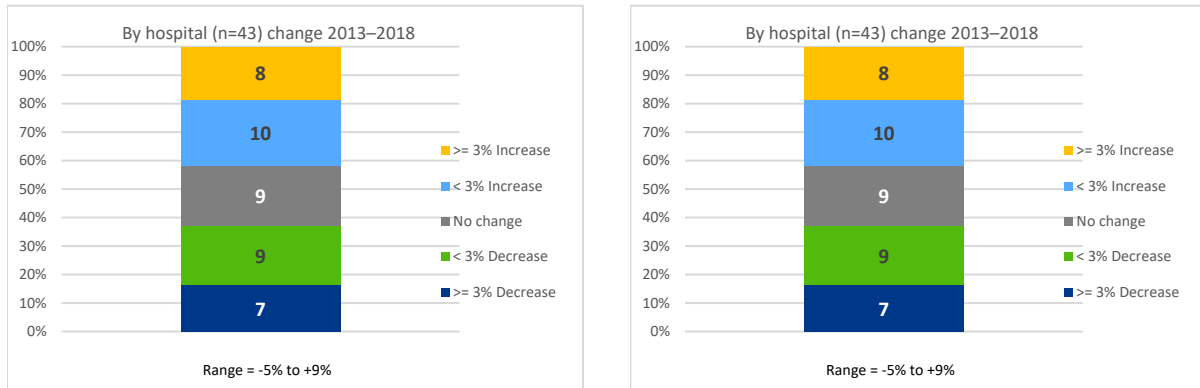


**Figure B.2. Maryland hospital top box score changes over time (2013–2018, 2018–2019)**

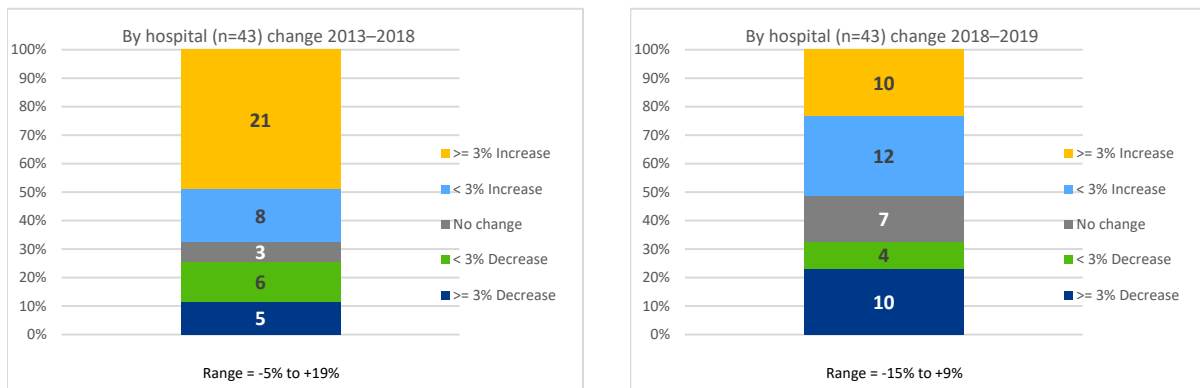
**Figure B.2.a. Nurse communication**



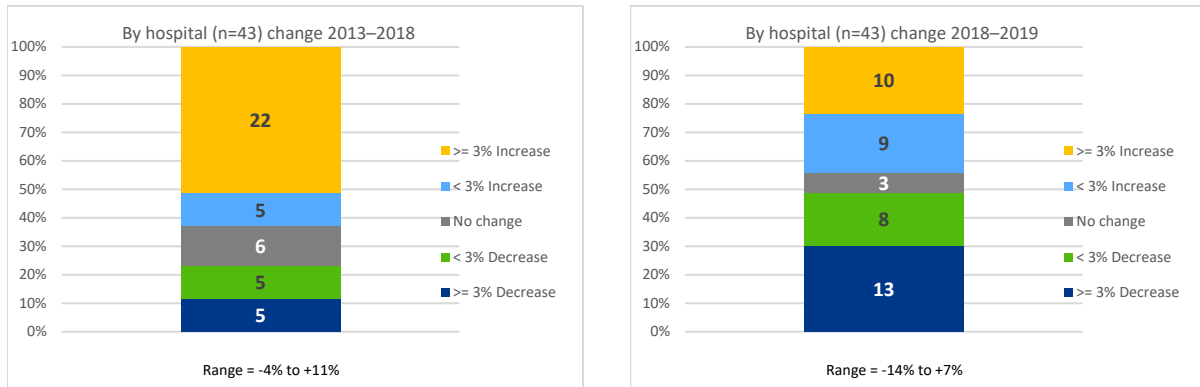
**Figure B.2.b. Doctor communication**



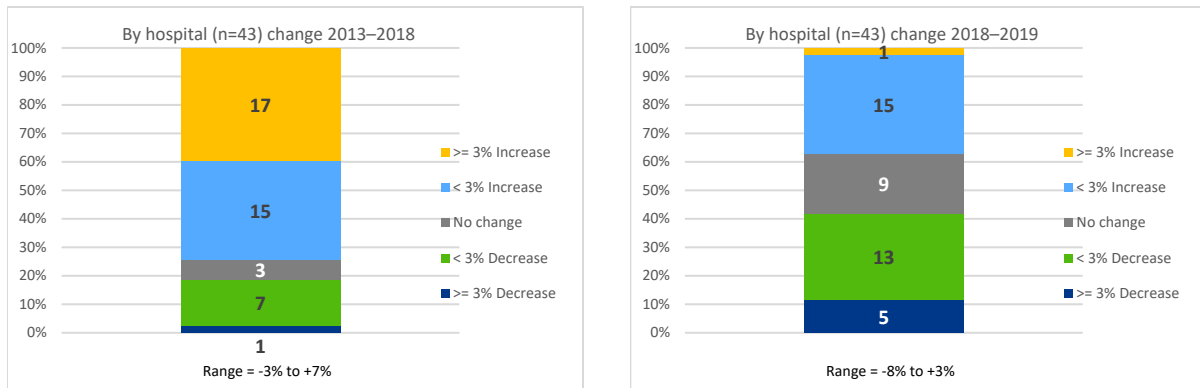
**Figure B.2.c. Staff responsiveness**



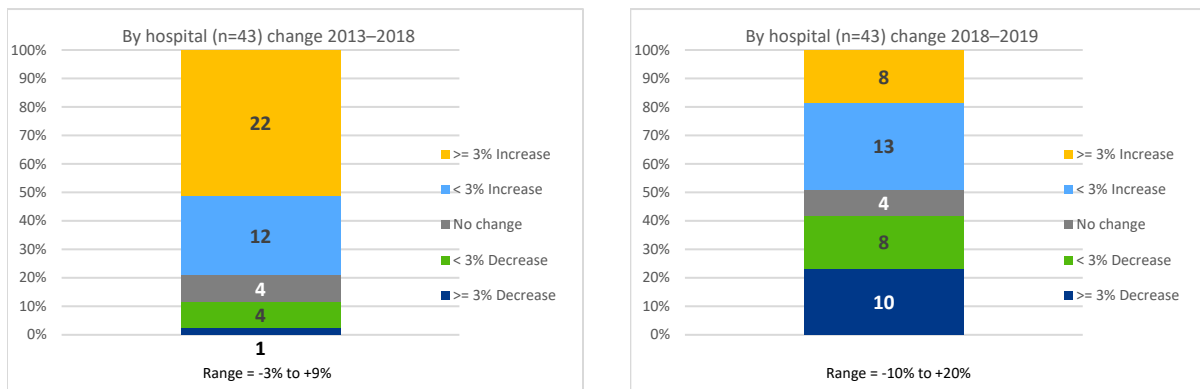
**Figure B.2.d. Communication about medicines**



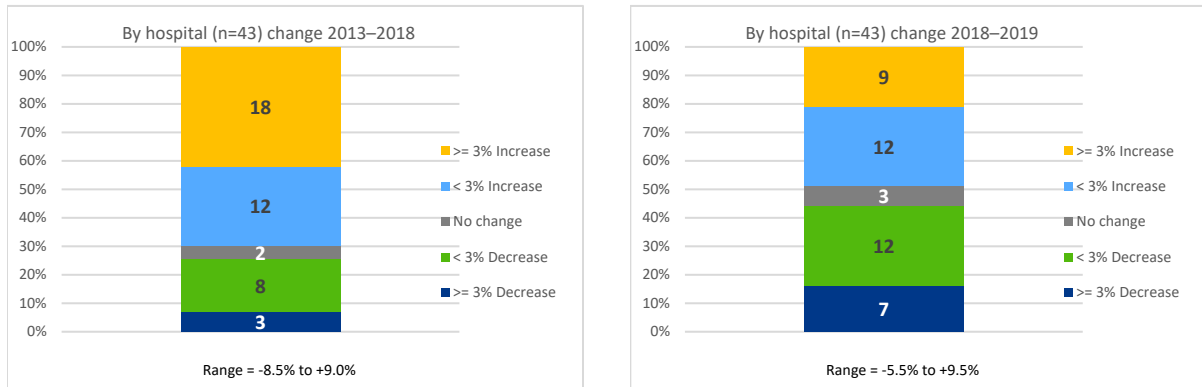
**Figure B.2.e. Discharge information**



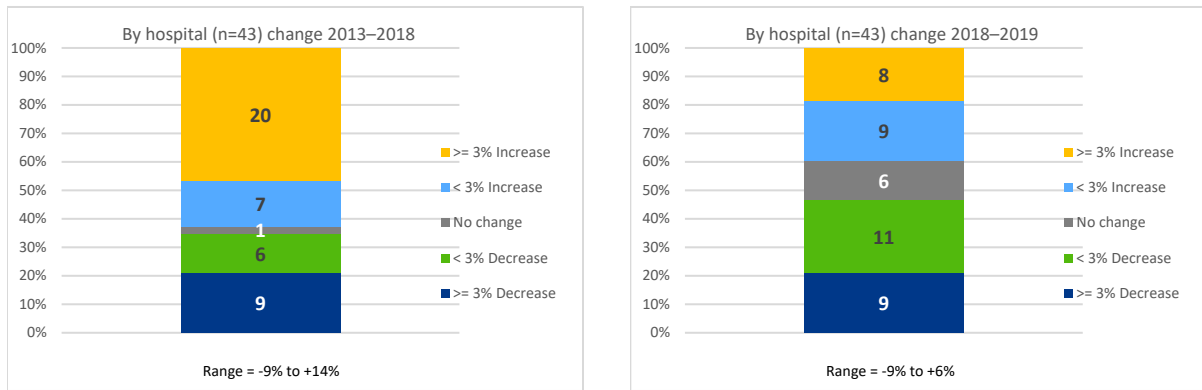
**Figure B.2.f. Care transition**



**Figure B.2.g. Average clean and quiet**



**Figure B.2.h. Overall hospital rating**



**Figure B.3. Spearman rank-order correlation analysis looking at the relationship between domain scores and various quality measures and hospital characteristics**

**Figure B.3.a. 2017**

Measure	Nurse communication	Doctor communication	Staff responsiveness	Communication about medicines	Discharge information	Care transition	Clean-liness	Quietness	Overall hospital rating	Recom-mend hospital	Average clean and quiet	Average 7 measures
PPC rate	0.1	0.2	-0.02	0.01	0.19	-0.01	0.13	0.02	0.18	0.06	0.11	0.12
Readmission rate	-0.47*	-0.08	-0.26	-0.03	-0.08	-0.25	-0.39*	0.16	-0.27	-0.16	-0.1	-0.28
Survival rate	0.50*	0.06	0.11	0.09	0.13	0.47*	0.28	-0.05	0.28	0.17	0.14	0.34*
Length of stay	-0.39*	-0.25	-0.54*	-0.17	-0.11	-0.24	-0.39*	-0.09	-0.2	-0.13	-0.27	-0.34*
Race/ethnicity, White	0.52*	0.15	0.32*	0.23	0.32*	0.37*	0.65*	-0.14	0.28	0.12	0.31*	0.41*
Race/ethnicity, Black	-0.45*	-0.13	-0.24	-0.16	-0.26	-0.35*	-0.64*	0.12	-0.3	-0.15	-0.32*	-0.36*
Race/ethnicity, Native American	-0.24	-0.35*	-0.47*	-0.16	-0.27	-0.02	-0.25	-0.1	-0.14	-0.08	-0.21	-0.24
Race/ethnicity, Asian	-0.17	-0.02	-0.35*	-0.37*	-0.3	0.1	-0.3	0.16	0.2	0.32*	-0.14	-0.19
Race/ethnicity, Hawaiian	0.2	-0.03	-0.04	-0.17	-0.15	0.14	0.22	-0.09	0.19	0.17	0.12	0.06
Race/ethnicity, other	-0.28	-0.11	-0.40*	-0.39*	-0.26	-0.01	-0.19	-0.06	0.04	0.16	-0.14	-0.21
ADI	-0.06	0.22	0.09	0.44*	0.42*	0.03	-0.11	0.15	0.07	-0.06	0.03	0.19
Dual status	-0.38*	-0.15	-0.06	-0.05	-0.05	-0.53*	-0.3	-0.08	-0.49*	-0.49*	-0.23	-0.32*
PAI distribution	-0.35*	-0.02	-0.11	0.23	0.12	-0.24	-0.39*	0.09	-0.22	-0.26	-0.18	-0.13
PSI 90 composite	-0.26	-0.13	-0.25	0.14	0.03	-0.28	-0.17	-0.16	-0.17	-0.23	-0.23	-0.17
Survey response rate	0.47*	0.43*	0.29	0.28	0.34*	0.49*	0.55*	-0.07	0.53*	0.43*	0.29	0.53*
Bad debt as % of total charges	-0.35*	-0.45*	-0.1	-0.49*	-0.52*	-0.41*	-0.26	-0.40*	-0.44*	-0.40*	-0.43*	-0.48*
Case mix index	0.15	0.04	-0.2	-0.04	0.11	0.33*	0.16	0.16	0.43*	0.42*	0.22	0.19

Note: Asterisk (\*) indicates statistical significance at  $p < 0.05$ .

Figure B.3.b. 2018

Measure	Nurse communication	Doctor communication	Staff responsiveness	Communication about medicines	Discharge information	Care transition	Cleanliness	Quietness	Overall hospital rating	Recommend hospital	Average clean and quiet	Average 7 measures
Staffing ratio	0.30*	0.2	0.38*	0.25	0.38*	0.16	0.16	-0.18	-0.1	-0.17	0.05	0.23
PPC rate	0	0.05	0.01	0.08	0.04	-0.11	0.03	-0.03	-0.12	-0.19	-0.03	-0.04
Readmission rate	-0.46*	-0.01	-0.24	-0.01	-0.14	-0.22	-0.27	0.09	-0.27	-0.23	-0.05	-0.27
Survival rate	0.36*	0.09	0.2	0.22	0.14	0.26	0.31*	0.2	0.06	0.06	0.28	0.22
Length of stay	-0.38*	-0.05	-0.21	-0.07	-0.23	-0.23	-0.3	0.29	-0.21	-0.17	-0.02	-0.25
Race/ethnicity, White	0.66*	0.16	0.33*	0.25	0.51*	0.27	0.46*	-0.29	0.29	0.17	0.17	0.40*
Race/ethnicity, Black	-0.58*	-0.1	-0.28	-0.13	-0.47*	-0.21	-0.41*	0.3	-0.35*	-0.22	-0.12	-0.36*
Race/ethnicity, Native American	-0.08	-0.13	-0.35*	-0.15	-0.17	-0.12	-0.2	0.04	-0.12	-0.14	-0.15	-0.18
Race/ethnicity, Asian	-0.05	0.06	-0.31*	-0.19	-0.21	0.18	-0.34*	0.24	0.31*	0.44*	-0.12	0.05
Race/ethnicity, Hawaiian	0.17	-0.12	-0.01	-0.15	-0.1	0.2	-0.05	0.04	0.33*	0.22	-0.04	0.12
Race/ethnicity, Other	-0.18	-0.09	-0.23	-0.32*	0.01	-0.06	-0.19	0.03	0.16	0.2	-0.1	-0.02
ADI	-0.17	0.13	0.06	0.26	0.14	-0.1	-0.01	0.16	-0.04	-0.1	0.09	-0.01
Dual status	-0.44*	-0.14	-0.02	-0.02	-0.3	-0.49*	-0.12	0.09	-0.63*	-0.59*	-0.03	-0.43*
PAI distribution	-0.46*	-0.03	-0.14	0.06	-0.17	-0.28	-0.22	0.17	-0.29	-0.3	-0.06	-0.27
PSI 90 composite	-0.23	-0.28	-0.2	-0.14	-0.23	-0.39*	-0.22	-0.06	-0.31*	-0.35*	-0.19	-0.35*
Bed size	0.01	0.01	-0.25	-0.19	0.01	0.19	-0.33*	0.3	0.43*	0.39*	-0.07	0.13
DSH percentage	-0.48*	-0.09	-0.17	-0.08	-0.19	-0.39*	-0.19	0.18	-0.19	-0.2	0.02	-0.3
Survey response rate	0.42*	0.37*	0.24	0.22	0.34*	0.3	0.32*	-0.11	0.37*	0.34*	0.13	0.43*
Bad debt as % of total charges	-0.16	-0.29	0.02	-0.28	-0.17	-0.37*	0.01	-0.24	-0.26	-0.30*	-0.18	-0.24
Case mix index	-0.06	-0.32*	-0.07	-0.45*	-0.03	-0.22	0.12	-0.14	0.02	-0.1	0	-0.16

Note: Asterisk (\*) indicates statistical significance at  $p < 0.05$ .



## B. Subgroup discussion

*Figure B.4. HCAHPS policy lever diagram*



## 1. Linear scoring

**Figure B.5. HCAHPS top-box and linear scores correlation analysis**

Measure	Type	Perf 2014	Perf 2015	Perf 2016	Perf 2017	Perf 2018
<b>Nurse communication</b>	Corr. top-box & linear, Spearman	0.96*	0.96*	0.95*	0.96*	0.96*
	Corr. top 2 boxes & linear, Spearman	0.94*	0.92*	0.92*	0.92*	0.96*
<b>Doctor communication</b>	Corr. top-box & linear, Spearman	0.94*	0.95*	0.88*	0.94*	0.9*
	Corr. top 2 boxes & linear, Spearman	0.89*	0.89*	0.92*	0.75*	0.83*
<b>Staff responsiveness</b>	Corr. top-box & linear, Spearman	0.97*	0.98*	0.97*	0.87*	0.87*
	Corr. top 2 boxes & linear, Spearman	0.96*	0.93*	0.94*	0.86*	0.88*
<b>Communication about medicines</b>	Corr. top-box & linear, Spearman	0.95*	0.89*	0.94*	0.89*	0.91*
	Corr. top 2 boxes & linear, Spearman	0.97*	0.98*	0.97*	0.98*	0.97*
<b>Discharge information</b>	Corr. top-box & linear	1*	1*	1*	1*	1*
<b>Care transition</b>	Corr. top-box & linear, Spearman	0.97*	0.96*	0.96*	0.92*	0.92*
	Corr. top 2 boxes & linear, Spearman	0.82*	0.79*	0.89*	0.84*	0.8*
<b>Cleanliness</b>	Corr. top-box & linear, Spearman	0.94*	0.95*	0.95*	0.98*	0.95*
	Corr. top 2 boxes & linear, Spearman	0.96*	0.95*	0.95*	0.96*	0.89*
<b>Quietness</b>	Corr. top-box & linear, Spearman	0.88*	0.92*	0.95*	0.94*	0.89*
	Corr. top 2 boxes & linear, Spearman	0.87*	0.93*	0.92*	0.87*	0.85*
<b>Overall hospital rating</b>	Corr. top-box & linear, Spearman	0.97*	0.89*	0.92*	0.89*	0.95*
	Corr. top 2 boxes & linear, Spearman	0.92*	0.93*	0.94*	0.92*	0.92*
<b>Recommend hospital</b>	Corr. top-box & linear, Spearman	0.99*	0.98*	0.96*	0.95*	0.97*
	Corr. top 2 boxes & linear, Spearman	0.92*	0.89*	0.91*	0.82*	0.88*
<b>Average clean and quiet</b>	Corr. top-box & linear, Spearman	0.93*	0.93*	0.96*	0.95*	0.9*
	Corr. top 2 boxes & linear, Spearman	0.92*	0.96*	0.93*	0.93*	0.92*
<b>Average 7 measures</b>	Corr. top-box & linear, Spearman	0.98*	0.97*	0.96*	0.95*	0.97*
	Corr. top 2 boxes & linear, Spearman	0.98*	0.96*	0.97*	0.94*	0.94*

\* Statistical significance at  $p < 0.05$ .

**Figure B.6. Linear scoring thresholds, benchmarks versus the top box scores thresholds, benchmarks analysis**

Measure	Linear			Top-box		
	Threshold	Benchmark	Gap	Threshold	Benchmark	Gap
Cleanliness and quietness	84.50%	90.30%	5.80%	65.61%	79.58%	13.97%
Nurse communication	91.00%	93.60%	2.60%	79.06%	87.36%	8.30%
Doctor communication	91.00%	94.60%	3.60%	79.91%	88.10%	8.19%
Staff responsiveness	85.00%	90.20%	5.20%	65.77%	81.00%	15.23%
Communication about medicines	78.00%	84.60%	6.60%	63.83%	74.75%	10.92%
Care transition	82.00%	84.70%	2.70%	51.87%	63.32%	11.45%
Overall hospital rating	88.00%	92.70%	4.70%	71.80%	85.67%	13.87%

**Figure B.7. Modeled statewide QBR scores with linear measures**

Statistic	Total QBR score			
	Model 1 RY23 measures, no linear	Model 2 RY23 measures + 8 linear (all)	Model 3 RY23 measures + 5 linear	Model 4 RY23 measures + 4 linear
Median	32.24%	33.11%	32.98%	33.01%
Average	32.96%	33.41%	33.42%	33.49%
25th percentile	27.68%	27.81%	27.81%	27.75%
75th percentile	38.94%	39.48%	39.60%	39.66%
Min	13.02%	13.02%	12.90%	12.90%
Max	51.23%	52.48%	52.55%	53.52%

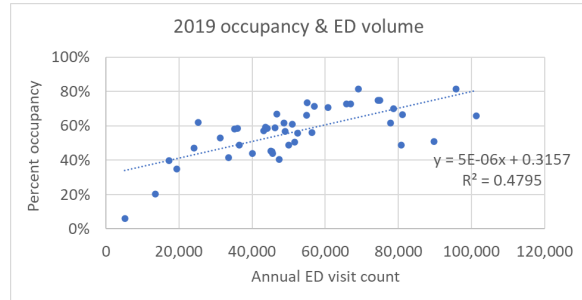
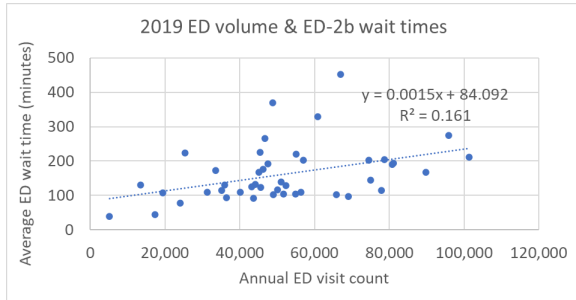
## APPENDIX C EMERGENCY DEPARTMENT WAIT TIME MEASURE

### A. Analyses

*Figure C.1. Emergency department utilization snapshot*

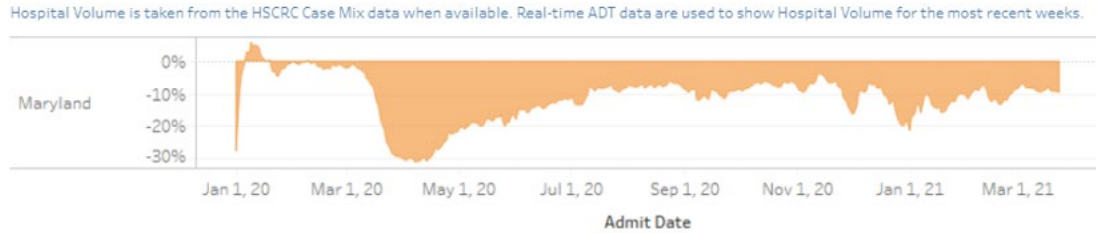
Maryland	National
<ul style="list-style-type: none"> <li>• ~2.38M annual ED visits (average CY16-19)                             <ul style="list-style-type: none"> <li>– NOTE: CY 2020 experienced sustained volume decline to 1.78M visits</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>• 130M annual ED visits</li> </ul>
<ul style="list-style-type: none"> <li>• 39.45 visits per 100 Marylanders per year</li> </ul>	<ul style="list-style-type: none"> <li>• 42 visits per 100 Americans per year</li> </ul>
<ul style="list-style-type: none"> <li>• 17.9% arrive by ambulance (CY19)</li> </ul>	<ul style="list-style-type: none"> <li>• ~15% of patients arrive by ambulance</li> </ul>
<ul style="list-style-type: none"> <li>• ~85.5% of patients are discharged <b>without</b> being admitted                             <ul style="list-style-type: none"> <li>– NOTE: 2020 this figure dropped to 83.3%</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>• Common complaints are:                             <ul style="list-style-type: none"> <li>– Stomach/abdominal pain</li> <li>– Chest Pain</li> <li>– Fever/Headache</li> </ul> </li> </ul>
	<ul style="list-style-type: none"> <li>• ~80% of patients are discharged <b>without</b> being admitted</li> </ul>

*Figure C.2. Preliminary regression results: Risk adjusting ED wait time measures to account for volume and occupancy*

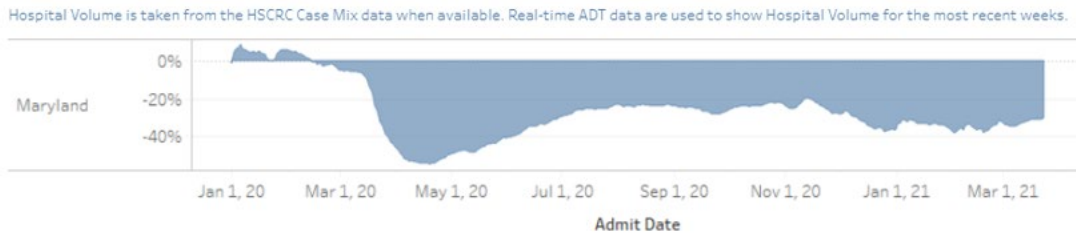


**Figure C.3. COVID and ED volume reduction**

While inpatient volumes have predominantly recovered following April–June 2020 declines (~10% current decline),



we see a persistent decline in year-over-year emergency department volume (~25% current decline).



## APPENDIX D CDC NHSN HAI

### A. Analyses

Figure D1. Summary table: Data sources and analyses for NHSN SIRs

Data sources	Hospitals included	Descriptive statistics
CMMI VBP Analysis	MD + VBP hospitals	Unweighted mean
CMS Hospital Compare	All hospitals, approximation can be used to limit to VBP-only hospitals	Unweighted mean, weighted mean, median
CDC Progress Report	All hospitals with >1 predicted	Weighted means and hospital mean

Figure D2. CLABSI snapshot

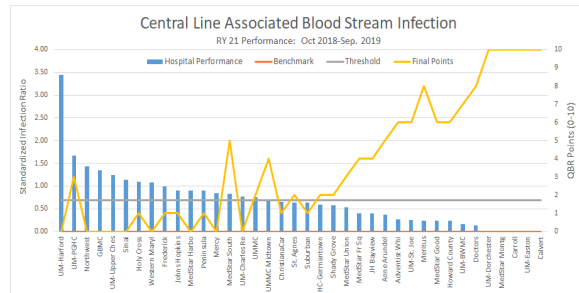
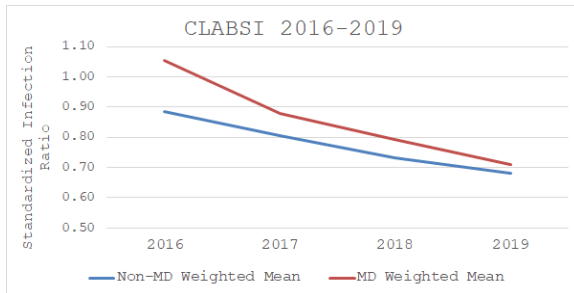
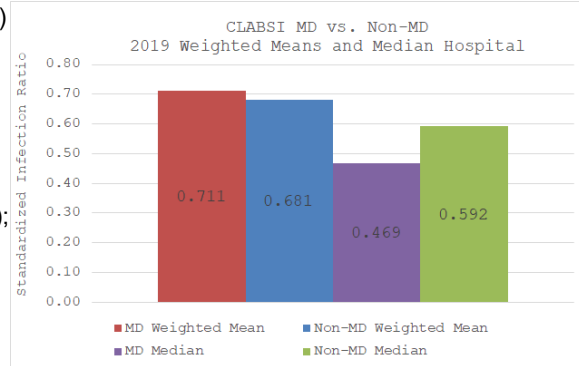
Maryland performs worse than nation\* (weighted mean)

Median Maryland hospital performs better than median non-MD hospital

By hospital graph shows distribution in performance; some hospitals are receiving improvement points despite poor performance

2019: State rank 39 (weighted mean); 26 (unweighted);

2019: 209 CLABSI events in Maryland (hosp=37)



\* National data is all non-Maryland hospitals subject to VBP.

**Figure D3. CAUTI snapshot**

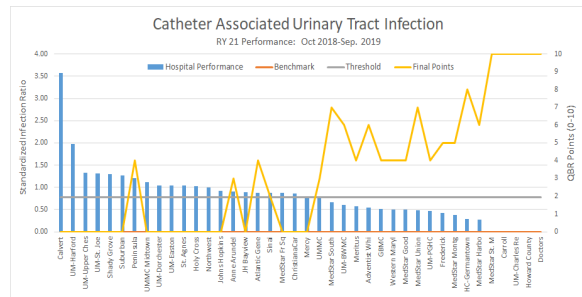
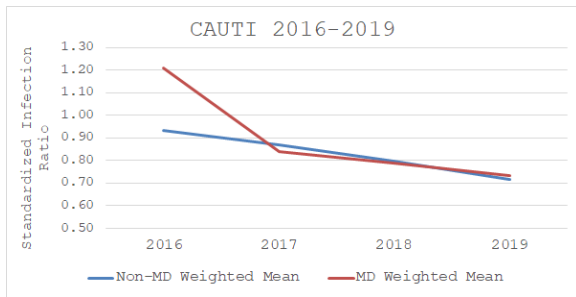
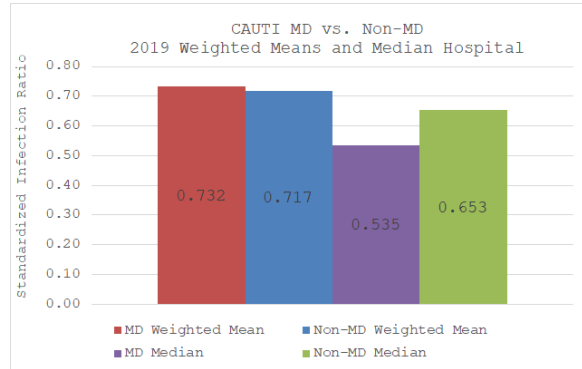
Maryland performs tad worse than nation\* (weighted mean)

Median Maryland hospital performs better than median non-MD hospital

By hospital graph shows distribution in performance; some hospitals are receiving improvement points despite poor performance

2019: State rank #26 (weighted mean); 18 (unweighted)

2019: 225 CAUTI events in Maryland (N=38)



\* National data is all non-Maryland hospitals subject to VBP.

**Figure D4. SSI Colon snapshot**

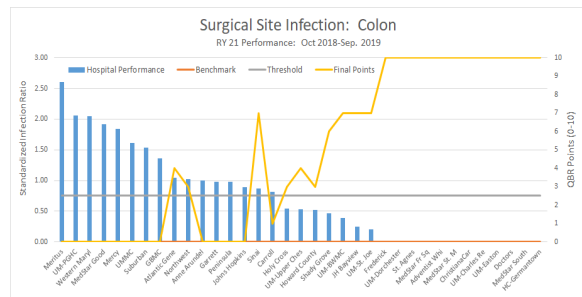
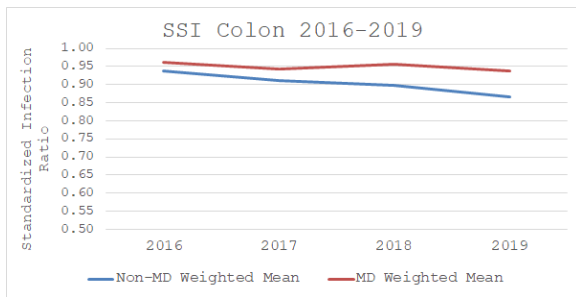
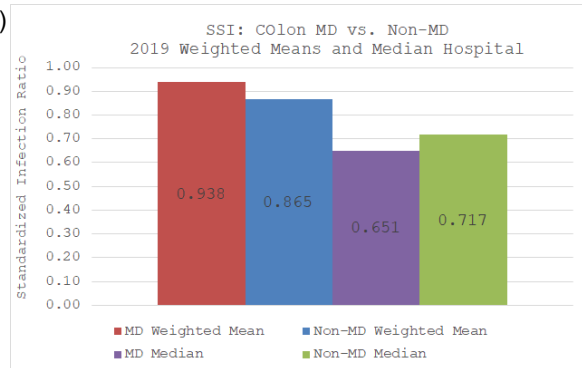
Maryland performs worse than nation\* (weighted mean)

Median Maryland hospital performs better than median non-MD hospital

By hospital graph shows distribution in performance; some hospitals are receiving improvement points despite poor performance

2019: State rank #31 (weighted mean); 19 (unweighted)

2019: 138 Colon SSI events in Maryland (N=33)



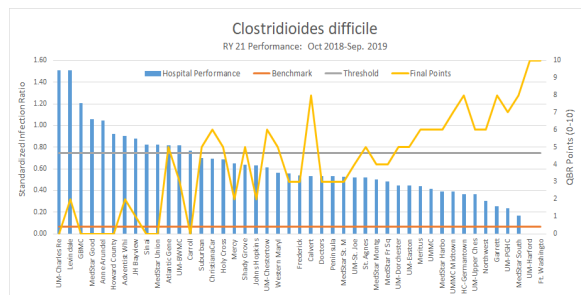
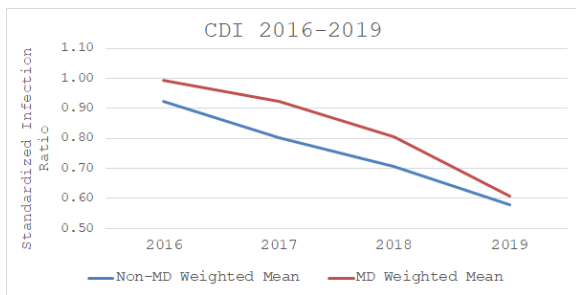
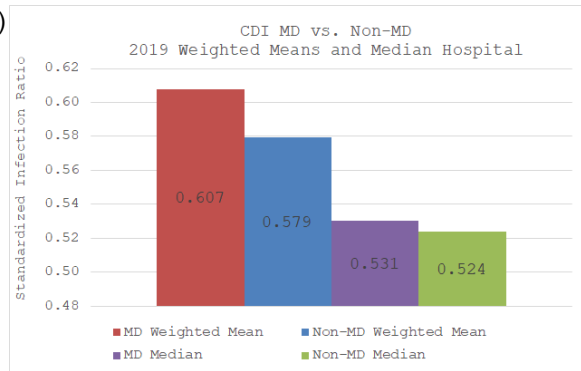
\* National data is all non-Maryland hospitals subject to VBP.





**Figure D7. C.Diff. snapshot**

Maryland performs worse than nation\* (weighted mean)  
 Median Maryland hospital performs worse than median non-MD hospital  
 By hospital graph shows distribution in performance; some hospitals are receiving improvement points despite poor performance  
 2019: State rank #26 (weighted mean); 19 (unweighted)  
 2019: 1,065 CDI events in Maryland (N=43)



\* National data is all non-Maryland hospitals subject to VBP.

## APPENDIX E 30-DAY MORTALITY MEASURE

### 30-Day All Cause, All Payer Mortality Measure Development

Recent legislative changes have allowed Maryland Vital Statistics to share death data directly with CRISP, the state-designated health information exchange, which can share data with the HSCRC. HSCRC staff and CRISP are working to finalize the monthly data process to match death data to our inpatient case-mix files. In the meantime, staff have been working with Mathematica to develop specifications for a 30-day all-cause, all-payer mortality measure to capture deaths within 30 days of hospital admission, regardless of where the deaths occur. Although it is estimated that two-thirds of deaths occur in hospitals, staff believe post-hospitalization deaths are an important indicator of quality and that moving to a 30-day measure better aligns with CMS's measures. Furthermore, staff believes the current inpatient measure might be topped out due to the shrinking distance between benchmark and threshold values and because most Maryland hospitals (34 of 44) are either earning equal improvement and attainment credit (n = 14) or are earning attainment credit (n = 20). Figure X shows the threshold and benchmark values for the current inpatient mortality measure.

**Figure E1. Maryland's threshold and benchmark values for the inpatient mortality measure in the QBR Program**

	Threshold	Benchmark	Distance
<b>RY 2018</b>	97.5400%	98.7700%	1.23%
<b>RY 2019-Palliative care excluded</b>	98.1949%	99.2436%	1.05%
<b>RY 2019-Palliative care included</b>	95.5074%	97.1680%	1.66%
<b>RY 2020</b>	95.6169%	97.0807%	1.46%
<b>RY 2021</b>	95.4754%	96.9606%	1.49%
<b>RY 2022</b>	96.1926%	97.2555%	1.06%

For its quality programs, CMS calculates a number of condition- and procedure-specific 30-day mortality measures. CMS does not calculate an all-cause claims-based mortality measure, but it has specified one in partnership with the Yale Center for Outcomes Research & Evaluation (CORE). The HSCRC is using this measure as a guide for designing the QBR 30-day measure. Although CMS did not implement the

claims-based version,<sup>42</sup> the agency will require hospitals to submit core clinical data elements for a hybrid version of the measure.<sup>43</sup>

Figure XX compares the draft specifications for the HSCRC's 30-day all-cause mortality measure to the specifications to the CMS claims based measure. The biggest difference is that the HSCRC's all-payer measure risk adjustment for this all-payer measure is based on the current inpatient measure because the HSCRC lacks complete inpatient and outpatient all-payer claims data. Otherwise in terms of specifications the Maryland 30-day measure is similar to the CMS measure for things such as exclusions, assignment to service lines, and calculation of the overall mortality rate.

**Figure .E2 The HSCRC's proposed 30-day all-cause mortality measure versus CMS's draft all-cause claims-based mortality measure**

	CMS	Maryland
<b>Population</b>	Medicare beneficiaries	All-payer
<b>Service lines</b>	Stays assigned to service lines in nonsurgical and surgical cohorts	Same as CMS except maternity service line will be identified but not used in final calculation of hospitals' rates
<b>Risk-adjustment data</b>	Inpatient Medicare administrative claims data extending 12 months before the index admission, and all claims data for the index admission itself	Same data used for the QBR Program inpatient measure based on All-Patient Refined Diagnosis-Related Groups (APR-DRGs) and risk of mortality, age, gender, and palliative care diagnosis
<b>Selection of random hospitalizations</b>	Selects one admission for inclusion in the sample for patients who have multiple admissions that qualify for measure inclusion	Same as CMS

As mentioned above, we are currently waiting for an updated case-mix data file with a flag for 30-day death following hospital admission and merged with our CCLF data to obtain additional hospice cases for Medicare that were not identified using the case-mix data. Then Mathematica will be able to run the 30-day mortality measure and assess the following statistical properties:

- **Convergent validity:** Compare the measure results with CMS's overall star ratings, CMS's condition-specific 30-day mortality results (July 2015–June 2018), and the HSCRC's inpatient mortality results from the QBR Program (CY 2018 and 2019).

<sup>42</sup> CMS used a hybrid approach, relying on administrative and EHR data rather than claims-based data.

<sup>43</sup> The CMS IPPS FY 2022 proposed rule recommends adopting the measure in a stepwise fashion, starting with a voluntary reporting period from July 1, 2022, through June 30, 2023, and followed by mandatory reporting from July 1, 2023, through June 30, 2024. This would affect the FY 2026 payment determination and payment for subsequent years.

- **Predictive validity:** Compare all-payer, 30-day mortality results for CY 2018 and CY 2019 to assess correlation overtime. Assuming the underlying quality is stable from year to year, we would expect a high degree of correlation across the two years, which does occur.
- **Reliability analysis:** Conduct a signal-to-noise test to assess reliability of both the overall measure and by hospital measure.
- **C-statistic:** Calculate the C-statistic to assess how well a measure distinguishes between an event and a non-event. A C-statistic of 0.5 indicates that the model does no better than a coin flip in terms of accurately predicting an outcome, whereas values close to 1 indicate better prediction.

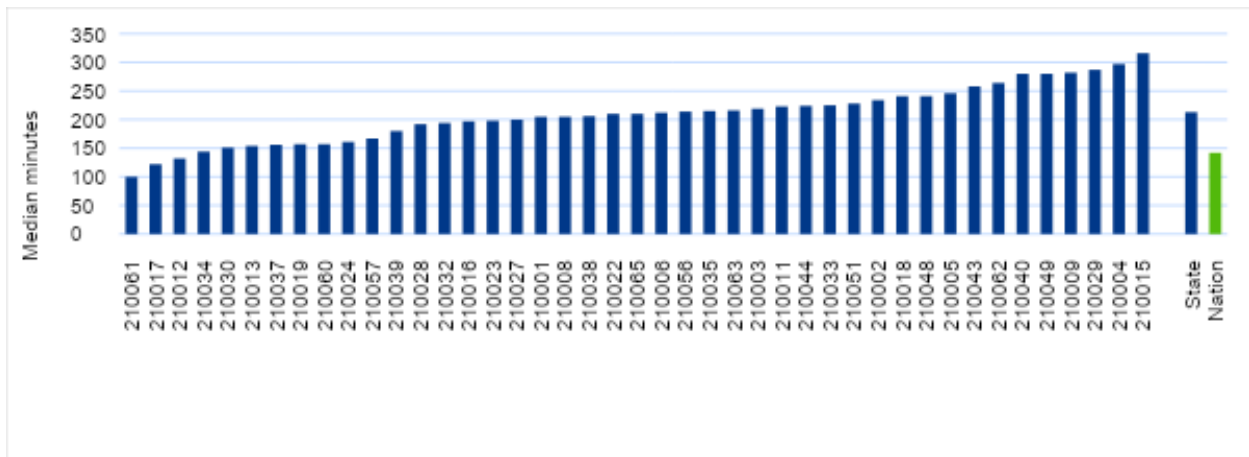
## APPENDIX F

### CMS HOSPITAL OUTPATIENT QUALITY MEASURE ANALYSIS

The graphs in this appendix show Maryland vs. the Nation CY2019 performance results based on data from CMS Care Compare on seven of the CMS Hospital Outpatient Quality Reporting Program.

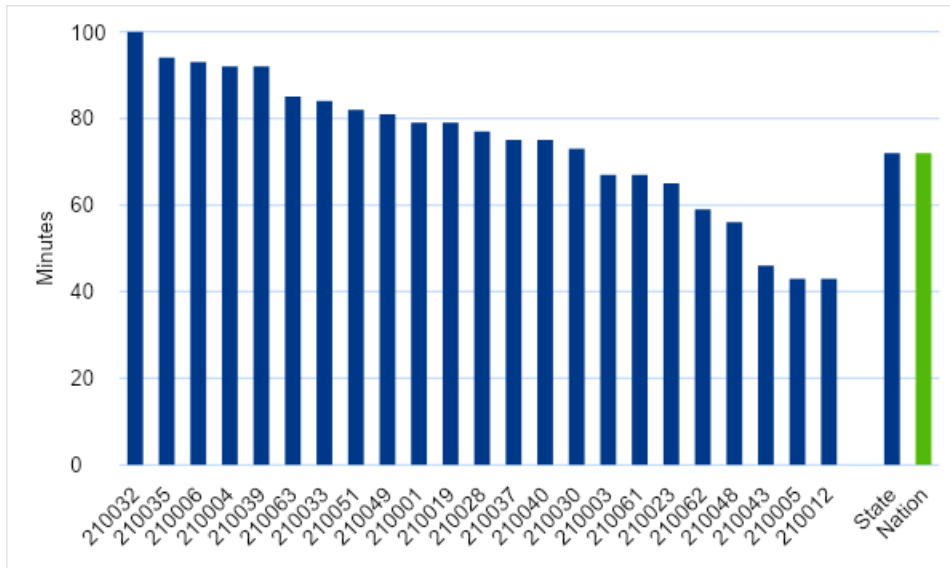
**a. timely and effective care measures.**

**Figure F1. OP-18b: Median Time from ED Arrival to ED Departure for Discharged ED Patients (CY 2019)**



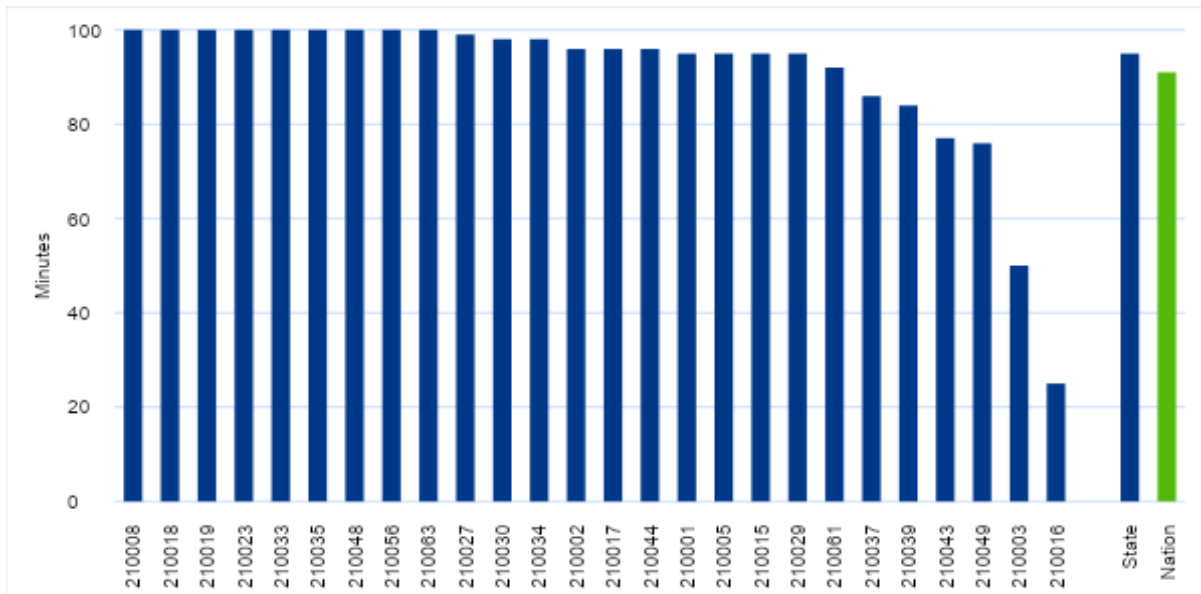
Note: Lower is better.

**Figure F2. OP-23: Head Computed Tomography (CT) or Magnetic Resonance Imaging (MRI) Scan Results for Acute Ischemic Stroke or Hemorrhagic Stroke Patients Who Received Head CT or MRI Scan Interpretation Within 45 Minutes of ED Arrival (CY 2019)**



Note: Higher is better.

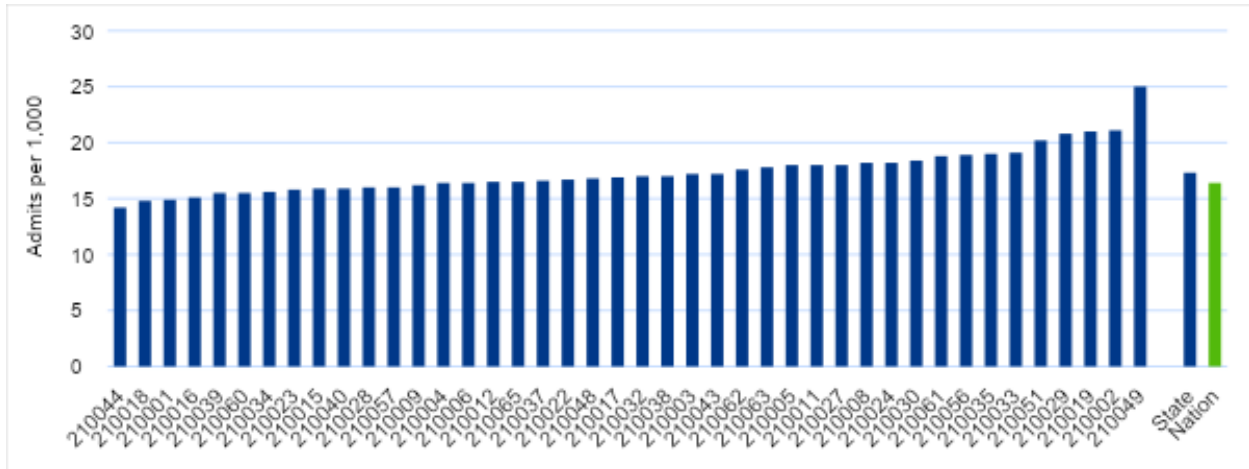
**Figure F3. OP-29: Appropriate Follow-Up Interval for Normal Colonoscopy in Average-Risk Patients (CY 2019)**



Note: Higher is better.

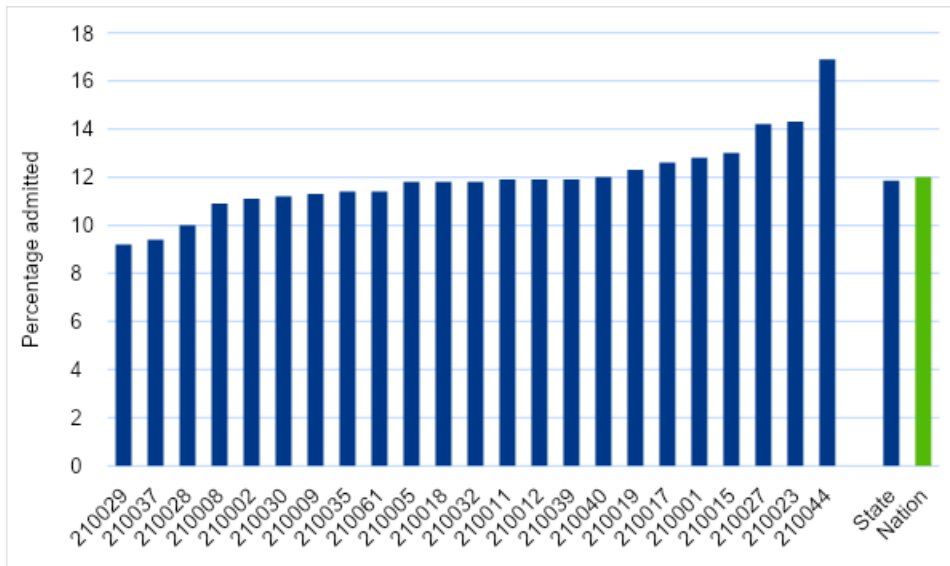
**b. Unplanned hospital visit measures**

**Figure F4 . OP-32: Facility Seven-Day Risk Standardized Hospital Visit Rate After Outpatient Colonoscopy (time period: 2017–2019)**



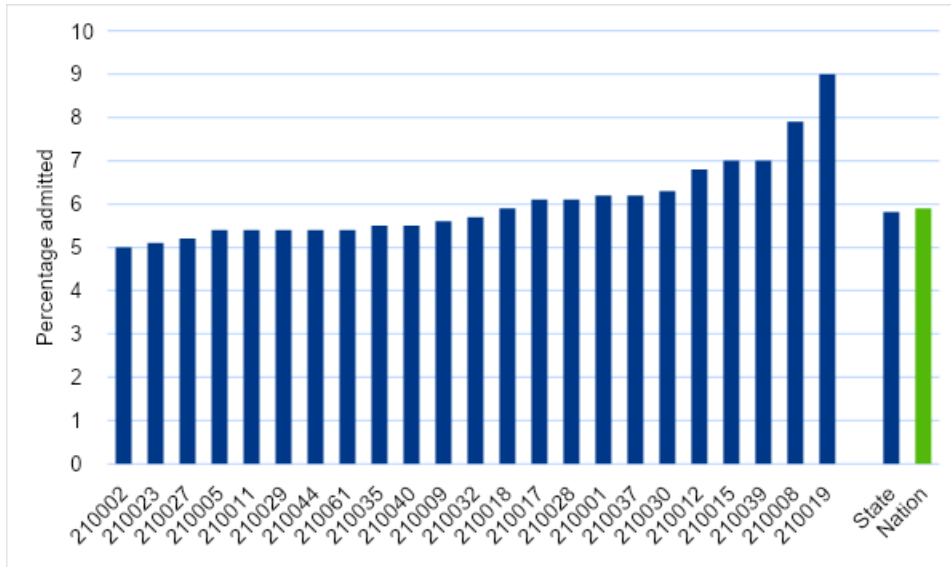
Note: Lower is better.

**Figure F5. OP-35ADM: Admissions for Patients Receiving Outpatient Chemotherapy**



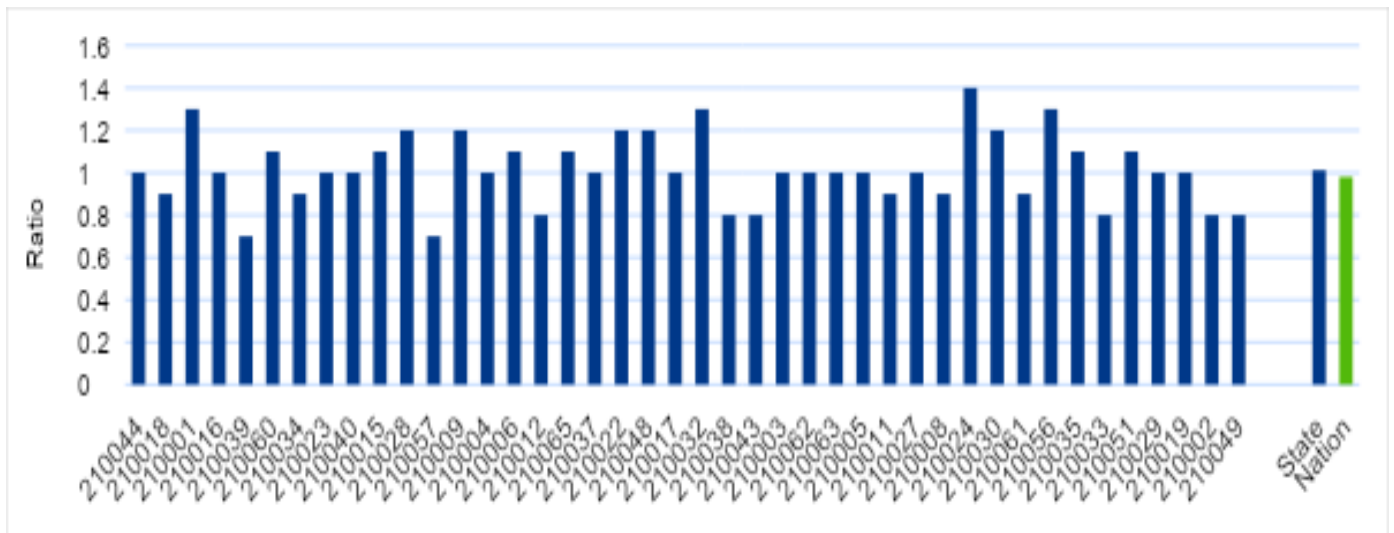
Note: Lower is better.

**Figure 6. OP-35ED: Emergency Department (ED) Visits for Patients Receiving Outpatient Chemotherapy**



Note: Lower is better.

**Figure F7. OP-36: Ratio of Unplanned Hospital Visits After Outpatient Surgery (time period: 2019)**



Note: Lower is better.





August 4, 2021

Alyson Schuster, PhD  
Deputy Director, Quality Methodologies  
Health Services Cost Review Commission  
4160 Patterson Avenue  
Baltimore, Maryland 21215

Dear Dr. Schuster:

On behalf of both the Johns Hopkins Health System (JHHS) and the University of Maryland Medical System, (UMMS), we welcome the opportunity to provide feedback on HSCRC's redesign of its Quality Based Reimbursement (QBR) program. We thank HSCRC commissioners and staff for the collaborative approach and we share your commitment to advancing healthcare quality and equity for all Maryland residents.

JHHS and UMMS generally support the QBR redesign proposal and request consideration for the following comments and recommendations on specific components listed below:

### **Domain 1: Person and Community Engagement**

#### ***HCAHPS***

1. JHHS and UMMS support adding linear mean scores to "top box" scores for HCAHPS domains. We agree that reflecting the additional gradation in performance will help recognize improvements that may not yet be reflected in improved "top box" scores. The linear mean score is proposed to be weighted at 10% of the total domain and we would recommend increasing the weight to 20%.
2. We appreciate the analysis completed by the staff to look at the relationship between a hospital's HCAHPS scores with other safety outcomes. We support including those domains into the QBR redesign that are most highly correlated with safety outcomes and are most clinically meaningful. In addition, we support HSCRC's proposal to narrow to a small number of HCAHPS domains, which will allow hospitals to focus their efforts in specific key areas to drive performance. We support HSCRC using model 4 (nurse communication, doctor communication, responsiveness of hospital staff, and care transitions) with one caveat, which we note below.
3. We recommend HSCRC add the "overall rating of care" score to model 4 and remove the "responsiveness of hospital staff" domain. We recommended including "overall rating of care" as it directly asks patients their experience of the overall quality of care they received, rather than one component. Although important from a patient-

facing perspective, we recommend removing the “responsiveness of hospital staff” domain as there have been limitations to in-person care partner visits during the Covid-19 pandemic (for safety concerns) and severe staffing shortages, which has been a national challenge during the pandemic. These limitations are likely not experienced equally across all Maryland hospitals, as several Maryland hospitals have disproportionately cared for more Covid-19 patients.

### ***Follow up after discharge***

1. Overall, JHHS and UMMS support efforts to improve patient follow-up after discharge from the hospital, as research shows timely follow-up with outpatient providers improves outcomes for patients with many conditions. One concern we have with this proposed measure, as it is currently defined, is that it does not capture all the factors that can influence successful follow-up appointments within a strict, defined timeframe. Examples of factors that are not captured include: access to transportation, competing economic and home priorities, mental illness, and substance use. These factors are likely not evenly distributed across the patient populations for every hospital in the state. While we agree that it is important to understand and mitigate these factors to best serve our patient population, if this measure is going to be included in a quality-based payment program, the confounding factors need to be assessed and appropriately attributed. This could be done through stratification, risk-adjustment, or more heavily weighting improvement over attainment. One recommendation for risk adjustment is to consider including the area deprivation index (ADI).
2. We acknowledge that the ‘follow-up after discharge’ measure for Medicare patients is currently included in QBR for CY21 performance / FY23 payment determination. We would like to express our concern with the accuracy of the data we are finding with the current measure, and we would like to request to work collaboratively with HSCRC to address this.

As a result of our experience with the ‘follow-up after discharge’ measure with Medicare patients, JHHS and UMMS recommends at a minimum one year of monitoring and evaluation (CY2022) to ensure data accuracy and validity before adding Medicaid patients. This recommendation would allow hospitals the opportunity to assess their gaps and opportunities before holding them financially accountable for improvement. If we agree, we will monitor the addition of Medicaid patients in CY2022 with potential inclusion in QBR in CY2023 and potential financial determination in FY2025.

### ***Emergency Room Wait Time***

1. We have concerns about including *Emergency Department (ED) 2 - Admit Decision Time to ED Departure for Admitted Patients* measure in QBR redesign. CMS Inpatient Prospective Payment System (IPPS) FY2022 Final Rule removes this eCQM measure based on a literature review that shows inconclusive association

between a hospital's ED boarding times and negative outcomes, such as patient mortality. We agree with CMS's decision to remove this measure for the reasons mentioned in the FY2022 final rule and would recommend HSCRC align with CMS decision on this measure.

2. One concern with an ED wait time measure is the heterogeneity in how different hospitals choose to define different time points. Time zero for "decision to admit" can be measured in multiple ways, making inter-hospital comparisons both difficult and inaccurate.
3. ED wait times can also be influenced by systemic factors that are likely not directly controllable by a hospital. For example, patient access to urgent care centers or robust community outpatient practices, access to community resources for behavioral health, and patients that are willing and able to engage with outpatient care (a variable known to be associated with socio-economic factors) all influence emergency room and hospital patient volumes. If HSCRC continues to move forward with this measure, we recommend HSCRC analyze the availability of these community resources to better understand current performance, gaps, attribution, and opportunities for improvement.

## **Domain 2: Clinical Care**

### ***30 Day Mortality***

1. JHHS and UMMS support HSCRC migrating from the existing in-hospital mortality measure to an all-cause all payer 30-day mortality measure.
2. We recommend monitoring the all-cause all payer 30-day mortality measure for a minimum of one year (CY22) before it is used in a quality-based payment program (CY23 performance / FY25 financial determination). This will allow for the time needed to refine the measure specifications, such as defining "hospice care" and formalizing the inclusion and exclusion criteria that will better reflect the new data sources being sourced for this metric.

### ***Hip/Knee Arthroplasty Complications***

1. We support expanding the Total Hip Replacement and Total Knee Replacement complications metric to include all-payers and outpatient procedures. We agree that there should be a minimum volume threshold of procedures performed for a hospital to be measured, as to improve the reliability of this performance metric.

## **Domain 3: Safety**

1. We support HSCRC testing and piloting new safety metrics, related to infection prevention, working with organizations, such as, the Centers for Disease Control and Prevention (CDC), to identify measures that are less focused on low-volume events in high-risk populations.

On behalf of both health systems (JHHS and UMMS), we appreciate the opportunity to comment on the redesign of the QBR program. We commend the HSCRC staff's thoughtful analysis, collaborative engagement in this work, and willingness to explore new opportunities and solicit stakeholder feedback. If you have questions or would like further information on our feedback, please contact Renee Demski, Vice President of Quality, Johns Hopkins Health System, via email: [rdemski@jhmi.edu](mailto:rdemski@jhmi.edu) and Michael Sokolow, Sr. Director Quality Business Intelligence, University of Maryland Medical System via email: [msokolow@umm.edu](mailto:msokolow@umm.edu).

Sincerely,



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Kevin W. Sowers, M.S.N., R.N., F.A.A.N.  
President, Johns Hopkins Health System  
EVP, Johns Hopkins Medicine



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Mohan Suntha, MD, MBA  
President & Chief Executive Officer  
University of Maryland Medical System

cc:

Adam Kane, Esq., Chairman  
Joseph Antos, PhD  
Victoria W. Bayless  
James Elliott, MD  
Maulik Joshi, Dr. PH  
Stacia Cohen, RN, MBA  
Sam Malhotra  
Katie Wunderlich, Executive Director

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



CENTER FOR MEDICARE AND MEDICAID

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October 29, 2021

Katie Wunderlich  
Executive Director, HSCRC  
4160 Patterson Avenue  
Baltimore, Maryland 21215

Re: Maryland's Request for Hospital Quality Program Exemption for Federal Fiscal Year 2022

Dear Ms. Wunderlich,

CMS has received your letter on behalf of the State of Maryland that requests an exemption from the national hospital quality and value-based payment programs for federal fiscal year (FFY) 2022 which include the Hospital Value-Based Purchasing (HVBP) program, Hospital Acquired Conditions Reduction (HAC) program, and the Hospital Readmissions Reduction program (HRRP). Under Section 8.d.iii. of the Maryland Total Cost of Care Model (MDTCOC Model) Agreement, the Centers for Medicare & Medicaid Services (CMS) will waive Maryland from participating in the national hospital quality and value-based payment programs as long as the State implements hospital quality and value-based payment programs that achieve or surpass the measured results in terms of patient outcomes and cost savings in HVBP, HAC, and HRRP.

Under sections 12.d.i.3 and 12.d.i.4 of the MDTCOC Model Agreement if CMS determines that the State has not improved quality or failed to demonstrate that the State's hospital and value-based payment program achieves or surpasses the measured results in terms of patient outcomes and cost savings in relation to the national program of equivalent, the result could qualify as an *other event*, and CMS may pursue corrective action as described in section 12.d.ii, including requiring the State to submit a formal *Corrective Action Plan (CAP)* or *termination* of the HVBP, HAC, or HRRP Medicare payment waivers.

As highlighted in the FFY 2021 CMS Quality Program Waiver Determination memo issued September 29, 2020, CMS will heavily consider the State's QBR redesign subgroup findings and subsequent QBR policy revisions in our FFY 2022 Quality Program Waiver Determination. CMS continues to be concerned with QBR performance, specifically performance in the Hospital Consumer Assessment of Healthcare Providers and Systems (HCAHPS). However, CMS finds that the QBR program redesign content meets the requirements outlined in the FFY 2021 CMS Quality Program Waiver Determination memo. Additionally, CMS acknowledges that Coronavirus Disease 2019 has made it difficult to assess quality performance and accurately calculate pay for performance adjustments using data determined to be unreliable and invalid.

CMS therefore grants the State of Maryland's exemption from HVBP, HAC, and HRRP for FFY 2022. However, we strongly encourage the State to consider the QBR related feedback outlined below and

suggest that the State prioritize QBR related strategies that have the greatest potential to maximize sustained performance improvement in QBR. For the FFY 2023 CMS Quality Program Waiver request, CMS expects to evaluate the States' quality performance using CY 2021 data, where applicable, for MHAC, RRIP, and QBR. CMS is committed to working with the State to reassess expectations if the reliability and validity of CY 2021 quality data becomes a concern.

Further, CMS expects the State to advance hospital quality improvement, total population health, and health equity. State improvements in each of these three areas are fundamental to the overall success of the MDTCC Model. As such, they should be comprehensively integrated and aligned across the spectrum of healthcare delivery. CMS' evaluation of future CMS Quality Program Waiver requests will consider Maryland's performance improvement and advancement in these three high-priority areas.

### **FFY 2022 CMS Quality Program Waiver Determination Overview:**

On February 24, 2021, the State presented to CMS the results of a comprehensive analysis that examined how Coronavirus Disease 2019 impacted the reliability and validity of quality data used to calculate Rate Year 2022 (July 2021 – June 2022) pay for performance adjustments. This analysis aligned with the National Quality Forum's (NQF) measure evaluation guidelines and met the requirements outlined by CMS. CMS agreed with the State's proposal to use full 2019 data as a proxy for 2020 performance for the Rate Year 2022 hospital quality pay for performance adjustments effective July 1, 2021. CMS approved this request on March 17, 2021, with the expectation that the State will continue to be held accountable for quality performance that occurred during 2020, where data is available.

Due to the State's identified concerns with data reliability and validity brought upon by Coronavirus Disease 2019, CMS leveraged 2019 data determined to be both reliable and valid as a supplement to assess performance in MHAC, RRIP and QBR. CMS reviewed both State provided quality performance data incorporated into the FFY 2022 CMS Quality Program exemption request and CMS produced data which assessed the State's performance in CMS national quality programs for FFY 2021. Our review reaffirms that in CY 2019, the State experienced favorable performance improvement under MHAC, and consistent performance under RRIP that has exceeded national outcomes.

### **CMS Feedback and Recommendations:**

**Quality Based Reimbursement (QBR):** CMS greatly appreciates the efforts put forth by the State to redesign the QBR program under challenging circumstances brought upon by Coronavirus Disease 2019. CMS reviewed the State's QBR redesign proposals for each of the three domains under the QBR program, which includes clinical care, safety measures, and person and community engagement. CMS continues to be concerned with the State's performance under the person and community engagement domain, specifically performance in HCAHPS. The COVID-19 pandemic has the potential to exacerbate unfavorable performance trends in HCAHPS, which further emphasizes the need for the State to implement evidenced-based strategies that have the greatest potential to maximize sustained performance improvement in QBR and HCAHPS alike.

#### *Person and Community Engagement Domain:*

CMS believes that providing hospitals with a voluntary up-front investment in efforts to facilitate improvements in HCAHPS would offer limited benefit. The global budgets currently provide hospitals with enhanced financial stability and congruent opportunities to invest in transformative activities,

including quality performance activities, which is an expectation under the Model. CMS is concerned that the lack of requirements and accountability associated with short-term investments could have unintended consequences and deemphasize sustained long-term performance improvement expectations.

CMS has reviewed the State's proposal to allocate 10 percent of the total 50 percent domain weight to linear scoring based on performance in select HCAHPS measures and would like to reaffirm that the State will continue to be evaluated based on top-box scoring methodology. CMS believes that all HCAHPS measures hold equal value and would not support any proposal that would lower the top box score beyond 25 percent as this would reduce top box score accountability and create misalignment with the national Value Based Purchasing program of equivalent. While there is potential for this policy to drive minor performance advancements, there is little evidence to support that rewarding hospitals for middle-box scores would facilitate HCAHPS improvement in top-box scoring. CMS sees more value in targeting lower performing hospitals with incentives to improve performance which could provide greater benefit to hospitals who serve underserved and at-risk populations.

CMS encourages the State to prioritize strategies to investigate the root cause of poor HCAHPS performance, create a formalized platform for hospitals to share HCAHPS best practices, and invest in infrastructure to capture patient-level-data; CMS believes that these strategies have the greatest potential to maximize sustained performance improvement in HCAHPS, long-term. CMS suggests the State consider implementing a State-wide HCAHPS performance improvement initiative that leverages input from providers, industry experts, and other stakeholders to develop future improvement goals. CMS is looking for the State to further develop these strategies and commit to creating a framework for setting HCAHPS performance improvement goals for future performance years. CMS will expect the FFY 2023 CMS Quality Program Waiver request to include a framework development timeline and proposal outlining the State's approach for developing HCAHPS performance improvement goals. This proposal and timeline will be heavily considered in evaluating the State's CMS Quality Program Waiver request for FFY 2023.

The State continues to have a longstanding issue with extended ED wait times compared to the nation. Therefore, CMS supports the State's proposal to include an inpatient ED wait time measure in the QBR program by RY 2024 and feels strongly that that in the interim, hospitals should continue to report the ED-2b measure electronically as it correlates with patient experience and creates continued emphasis on improving access to treatment. Additionally, CMS suggests that the State investigate how high ED wait times are impacting underserved populations to ensure that opportunities to improve care are being maximized and efforts to reduce disparities in timely access to care are being prioritized.

CMS reaffirms its support for integrating the timely follow-up after an acute exacerbation of a chronic condition measure into the QBR program; this creates measure alignment and the added incentive for all providers to focus efforts on improving follow-up performance. Due to the all-payer nature of the Model, CMS also supports expanding the follow-up measure to include the Medicaid population and agrees that monitoring follow-up trends within this population would provide the State with useful data to help drive future payment policy. With Coronavirus Disease 2019 worsening use of alcohol and other drugs and symptoms of anxiety and depression, addressing the behavioral health needs of Marylanders should continue to be a priority. CMS suggests that the State prioritize efforts to integrate a measure of

follow-up after a behavioral health admission for all-payers, given that one third of adults who are treated for a behavioral health disorder are eligible for Medicare and/or Medicaid.

*Safety Domain:*

CMS finds it critical that the State continue to prioritize the reduction of adverse event occurrences and improve quality performance under this domain. CMS appreciates the additional analyses conducted by the State which provides a more comprehensive evaluation of the State's performance in NHSN measures. The results reveal that the State's performance in NHSN measures continues to be sub-par in comparison to the rest of the nation. It is for this reason why CMS supports the State's proposal to improve upon existing measure performance and continue to hold the safety domain weight at 35 percent. CMS welcomes the opportunity to further discuss with the State options to help the CDC pilot HOB or other new digital measures in Maryland hospitals, but reiterates priorities should lie with improving performance on existing measures.

*Clinical Care Domain:*

The State should ensure that the standard of care and advancement in quality improvement extends beyond the hospital inpatient setting and across all sites of service. CMS agrees that a shift to include outpatient measures into the clinical care domain would be a multipronged, long term commitment. The State should continue to monitor total hip and knee replacement outpatient utilization and quality trends along with other services that have experienced growth in outpatient care. CMS supports the State's efforts to further assess performance in THA/TKA complications and other measures outside of the inpatient setting for all payers. CMS also supports the development of a 30-day all-cause, all-payer mortality measure that captures deaths within 30 days of hospital admission, no matter where the deaths occurs. While including the maternity service line in the 30-day measure yielded unreliable results, CMS finds it important for the State to continue to monitor mortality occurrences for maternity cases and consider other opportunities to hold hospitals accountable for high quality obstetric care.

**Medicare Performance Adjustment (MPA):** CMS fully supports the implementation of geographic attribution as proposed in the MPA PY 2022 policy. CMS believes that geographic attribution provides hospitals with a more consistent total cost of care accountability platform for hospitals to address community needs and greater alignment between the Traditional MPA component and CTIs. CMS strongly believes that revising the MPA and CTI quality related measures to reflect total population health and health equity strategic priorities will better incentivize hospitals to focus on activities that are happening elsewhere in the delivery system. Additionally, CMS strongly suggests increasing the weight of the quality adjustment under both mechanisms to further enhance accountability for quality performance. Lastly, CMS continues to feel that increasing the revenue at risk under the traditional MPA will congruently align efforts to increase accountability for TCOC performance and expenditure growth beyond hospital walls.

**In Closing:**

CMS looks forward to receiving the final QBR policy for RY 2024 in fall of 2021 and thanks the State for their continued efforts to improve the quality of hospital care in Maryland. Should you have any questions, please do not hesitate to contact the MDTCOC Model team.

Sincerely,



A handwritten signature in black ink, appearing to read "K Sapa". The signature is fluid and cursive, with the first letter 'K' being particularly large and stylized.

Katherine J. Sapa, PhD  
Director, Division of All-Payer Models  
Center for Medicare and Medicaid Innovation



October 20, 2021

Adam Kane, Esq., Chairman  
Health Services Cost Review Commission  
4160 Patterson Avenue  
Baltimore, Maryland 21215

Dear Mr. Kane:

On behalf of the Johns Hopkins Health System (JHHS) we appreciate the collaborative work and thorough analysis performed by the HSCRC staff in the redesign of the Quality Based Reimbursement (QBR) program presented at the October 13, 2021 HSCRC commission meeting.

We are supportive of almost all of the final recommendations from the QBR redesign committee. We also appreciate the work that has been done to improve the data validity of the follow-up after discharge metric. Thank you for the continued commitment to engaging providers and payors in improving the quality, access, efficiency and equity of healthcare delivery in Maryland.

We remained concerned about two areas as detailed below:

**1. Access to data to ensure validity prior to inclusion in value-based purchasing programs**

One of the fundamental premises of any value-based purchasing program is that feedback with data and financial incentives foster engagement, improvement and innovation to achieve successful outcomes that benefit patients and the community. Access to accurate and timely data are essential to understand specific hospital-level opportunities for improvement. Not having access to these data prior to holding providers/hospitals accountable for improvement in results, undermines those same goals.

While we appreciate the quick response to our concerns about data validity in the follow-up after discharge metric, we cannot emphasize enough that every new metric should allow time for providers/hospitals to review and understand their data prior to inclusion into an accountability program.

**2. ED-2 wait time**

While we understand and agree with the importance of wait times in the Emergency Department and it's impact on patient satisfaction and experience, we have significant concerns that the measure does not accurately measure wait time, the measure holds hospitals accountable for infrastructure beyond the hospital campus and that the unintended consequences of this metric causes more harm than the intended benefit.

These concerns were elucidated in our comment letter on August 4, 2021.

We suggest evaluating alternate measures with better face validity that will incentivize hospitals to improve wait times and patient satisfaction in ways that are actionable for the provider/hospital.

Thank you for your consideration and we look forward to working with HSCRC staff on these issues.

Sincerely,

A handwritten signature in blue ink, appearing to read "N. McCann", with a long horizontal flourish extending to the right.

Nicki Sandusky McCann  
VP Provider and Payer Transformation  
Johns Hopkins Health System

cc:

Joseph Antos, PhD  
Victoria W. Bayless  
James Elliott, MD  
Maulik Joshi, Dr. PH  
Stacia Cohen, RN, MBA  
Sam Malhotra  
Katie Wunderlich, Executive Director



Maryland  
Hospital Association

October 20, 2021

Dr. Alyson Schuster  
Deputy Director, Quality Methodologies  
Health Services Cost Review Commission  
4160 Patterson Avenue  
Baltimore, Maryland 21215

Dear Dr. Schuster:

On behalf of the Maryland Hospital Association's 60 member hospitals and health systems, we appreciate the opportunity to comment on the Health Services Cost Review Commission's (HSCRC) *Draft Recommendations for the Quality-Based Reimbursement Program for Rate Year 2024*. We appreciate the collaborative process over the last year to engage with staff and offer input to shape the policy in the best interest of high-quality care for all Marylanders through the QBR Redesign Subgroup process.

We support most of the rate year 2024 payment policy recommendations, which are similar to existing policy. We oppose the recommendation to require electronic reporting of an Emergency Department (ED) wait time measure and have concerns about the follow-up after discharge measure and the payment scale of the policy, which we will outline.

As we previously stated, ED wait times are not appropriate for a payment policy. Wait times are affected by many factors outside the control of hospitals. The Centers for Medicare & Medicaid Services (CMS) removed the remaining ED wait time from its Value Based Payment Program because wait times are not correlated with mortality and the administrative burden of reporting outweighed the value of including it.

We support the inclusion of the four linear measures within the Person and Community Engagement (PCE) domain, weighted at 10%. We believe this is a reasonable method of incentivizing targeted improved performance on HCAHPs while removing associated revenue at risk for top box scores.

We previously supported the timely follow-up after acute exacerbations of chronic conditions measure, stating that, Statewide Integrated Health Improvement Strategy (SIHIS) measures should be included in payment policy where appropriate to bolster performance and provide resources to hospitals. We supported this measure with the condition that hospitals have access to accurate and timely data. To date, there have been issues with obtaining timely data for this measure and most recently, concerns have been identified with the accuracy of the data. Though staff is working on this issue, this measure should be suspended from payment policy until it has been resolved.

The rate year 2024 recommendation proposes a continuous payment scale with a “cut-point” of 41%, the threshold at which hospitals either begin to earn rewards or penalties. This payment scale is typically determined by comparing the Maryland base period to national data and correlating to what median performance would be in Maryland’s QBR program. The most recent national data we have for hospital acquired infections (HAIs) and HCAHPS, is from calendar 2019 – prior to COVID. These data represent roughly 85% of the QBR program (35% Safety domain, 50% PCE domain). Additionally, we know that performance in these two areas have been adversely impacted during the pandemic. Therefore, we believe that using calendar year 2019 data as a baseline to set a payment scale is impractical for the current pandemic healthcare environment. We recommend revising the payment scale once the Centers for Medicare and Medicaid Services (CMS) releases COVID-era data on Care Compare for HAI and HCAHPS data.

We look forward to continuing to work with the commission on this and future policies.

Sincerely,



Traci La Valle, Senior Vice President, Quality & Health Improvement

cc: Adam Kane, Esq. Chairman	Maulik Joshi, DrPH
Joseph Antos, Ph.D., Vice Chairman	James N. Elliott, M.D.
Victoria W. Bayless	Sam Malhotra
Stacia Cohen, RN, MBA	Katie Wunderlich, Executive Director

June 25, 2021

Dear HSCRC:

As the QBR redesign continues to mature, MedStar Health would like to share our input on a few of the proposed changes to the program. These issues are clearly complex, and we want to recognize and to thank you for the expertise, the collaborative spirit, and the leadership that you all have brought to the process.

#### *Safety Domain*

We want to emphasize the importance of keeping this section limited to the current NHSN HAIs and PSI-90 (all-payor). The NHSN HAIs are well established all-payor measures that CMMI uses to compare our state's performance with the country. In fact, these were cited in the March 2021 QBR workgroup meeting slides as a key area where CMMI is looking for us to improve. Moreover, these measures are used in CMS Star Rating and Leapfrog evaluations of our hospitals. We feel it is very important for Maryland hospitals to keep laser focused on these current HAIs and the recently added PSI-90, as opposed to diverting resources/focus to other potential measures under consideration (eg hospital onset bacteremia, severe maternal morbidity, sepsis eQMs, etc). This approach will drive safety for our patients and will help Maryland perform well compared to the nation from the CMMI, CMS Stars, and Leapfrog perspectives.

#### *QBR Mortality Measure*

We feel the evolution of the QBR mortality measure to a 30-day measure is overall an excellent decision – it will push our hospitals to provide even better inpatient care and will align Maryland's mortality measure more closely with the CMS 30-day measures. As previously communicated, we want the policy to strongly support robust hospice services for our patients (a conspicuous weakness in the current CMS measures). This is critical for providing the best care for our patients and their families and for helping to support our TCOC efforts. We agree with the approach of excluding patients discharged to facility hospice or home hospice from the measure, we want to reiterate that excluding patients *enrolled in hospice at any time throughout the 30 days* would further strengthen the policy by incentivizing investments in much needed hospice services in outpatient settings.

#### *Person and Community Engagement Domain*

It is clear that overall improvement of HCAHPS performance is a significant focus of CMMI. From the data shared in the QBR workgroup, it appears the prior tactic of increasing the weighting of top-box HCAHPS scores has not proven to be broadly effective. We agree with your staff's recommendation to assign 10% of this domain to consistency scores and 10% to linear scores (with commensurate decreases in "top-box" score weights). We also agree with the plan to assign substantial portions of this domain to process measures known to correlate with and/or drive improvements in HCAHPS. We see ED-2b as particularly valuable in that it is a "leading measure" on which we can focus operational improvement work. We also think the SIHIS follow up measure is an excellent addition here. We would *recommend keeping the follow up measure in QBR the same as the SIHIS measure* to avoid confusions and to align improvement work. Specifically, we would recommend the QBR follow up measure is Medicare only (like in SIHIS). Regarding proposed voluntary upfront investments for HCAHPS improvements, it is unlikely we would pursue such funding.

*THK Complications*

Given the increasing proportion of elective hip and knee arthroplasties being performed in hospital-based outpatient settings and ambulatory surgical centers (ASCs), we view the THK complication measure as very dynamic. Overall, we think the best option is to continue using the current QBR inpatient-only measure. That said, we encourage your staff to look at complication rates in this increasingly small and complex inpatient population – as it may be important to re-establish baseline performance and benchmarks after COVID. If we pursue an eCQM THK measure in the future, we recommend limiting this to inpatient and hospital-based outpatient cases (not ASCs) to avoid confusion on case attribution to a given hospital.

Thank you for your consideration of our ideas and perspective. We are excited for this new version of QBR and optimistic it can be another lever to drive better care for Marylanders and better quality performance at our hospitals compared to the nation.

Sincerely,

A handwritten signature in black ink, appearing to read 'Rollin J. Fairbanks', with a stylized flourish at the end.

Rollin J (Terry) Fairbanks MD MS FACEP

Vice President and Chief Quality & Safety Officer, MedStar Health



October 14, 2021

Adam Kane, Esq.  
Chairman  
Health Services Cost Review Commission  
4160 Patterson Avenue  
Baltimore, Maryland 21215

Dear Chairman Kane,

On behalf of Adventist HealthCare Inc., thank you for the opportunity to provide input on the draft RY 2024 QBR recommendation. Adventist HealthCare (AHC) supports the general direction of this program that highlights key measures of an equitable, high-performing healthcare system. AHC seeks to draw your attention to significant operational issues associated with the inclusion of the eCQM measures in the draft recommendation. **These issues create a barrier to fair and accurate reporting for Maryland hospitals required to comply with the CY 2022 eCQM reporting requirement.**

In a memo dated September 23, 2021, the HSCRC advised hospitals of the requirement to submit quarterly CY2022 data for eED-2 (Admit Decision Time to ED Departure) and e-OPI-1 (Safe Use of Opioids)-Concurrent Prescribing, and two additional federally specified eCQMs (QRDA-1 file format). The Commission indicated that hospitals will be required to submit data to CRISP within approximately 75 days following the end of the calendar quarter, with an opportunity to file for extension if needed in early quarters.

On October 5, 2021, AHC corresponded with CMS Quality Support (Case CS1421870) regarding planned submissions for CY2022 eCQMs under the IQR and Promoting Interoperability programs, as eCQMs are required components of both CMS programs. The CMS requirement is as follows:

1. For the CY 2022 reporting period, for the FY 2024 payment determination, hospitals participating in the Hospital IQR Program will be required to report eCQM data on 3 self-selected quarters within the reporting period (Q1 2022 – Q4 2022). They must submit a total of 4 eCQMs for each quarter submitted and the eCQMs must be the same across quarters. One of the four eCQMs, Safe Use of Opioids measure, will be required starting with the CY 2022 reporting period. Hospitals will be able to self-select the remaining 3 eCQMs from the available eCQMs list.
2. The submission of eCQM data for the Hospital IQR Program is an annual requirement. The submission deadline for CY 2022 eCQM data is Tuesday, February 28, 2023 at 11:59 pm Pacific Time.

As demonstrated above, the submission timelines are incongruent. Many hospitals use software embedded within the EHR to collect and submit the eCQM data to regulatory agencies. The Software update, testing and submission cycles are structured around the federal (CMS) and Joint Commission (also annual in the following year) submission dates. It has been our experience that software is not available and producing reliable results until late Q3 of a performance year. Preliminary conversations with the vendor, who is dominant in the market, indicates no change in that pattern based on Maryland's schedule. This correlates with quality measure related vendor responses experiences in the late 1990s when Maryland's measures were different than the nation, forcing boutique solutions. This calls into question the data integrity of data collected for periods prior to use of vendor "certified" software.





**The State and its hospitals cannot afford to be subject to potential reporting errors due to use of non-certified software products to meet Maryland aggressive submission dates.**

Many hospitals submit through third parties, including their EHR vendor. CRISP will need to be added as an additional vendor, for an additional cost, or direct submission will need to be established, involving hospital IT resources. With the reduction in abstracted measures, vendors are providing any quality-based product add-ons at a premium to recover revenue. On September 13, 2021, TJC's QRDA vendor unexpectedly went out of business, leaving no submission portal for eCQMs. It is unknown if file formats will be changing to accommodate this unexpected circumstance. **Maryland hospitals cannot afford to introduce this additional cost and inefficiency to meet compliance.**

The measure eED-2 is marked for removal in CY2024 (FY2022 IPPS/LTCH PPS Proposed Rule Overview for Hospital Quality Programs, CMS, June 3, 2021). **Implementing this measure will yield no more than one baseline year of data (CY 2022) and one year of performance data (CY2023), which provides little value for trending or use in performance improvement initiatives.**

AHC appreciates the role of quality-based payment policies in the maintenance of optimal health outcomes for Maryland residents. The ability to manage support operations effectively and efficiently is foundational to providing value-based care. AHC appreciates the HSCRC's reassessment of this requirement considering these factors.

Sincerely,



Susan L. Glover, DOL, BSN, FACHE  
Senior Vice President, Chief Quality & Integrity Officer  
820 West Diamond Avenue  
Suite 600  
Gaithersburg, MD 20878

Internal cc:

Kristen Pulio, SVP, Chief Revenue Officer & CFO Non-Hospital Services

Dr. Bonnie Arze, VP, Physician Quality and Performance Services / Chief Medical Information Officer

Joy Gill, Director, Quality Regulatory Programs & Analytics

Cc:

Joseph Antos, Ph.D.

Victoria W. Bayless

Stacia Cohen, RN

James Elliott, MD

Maulik Joshi, DrPH

Sam Maholtra

Katie Wunderlich, Executive Director

Traci La Valle, Sr. VP, Quality & Health Improvement, MHA





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cost review commission

# Revenue for Reform

## Draft Recommendation

November 2021

This document contains the draft staff recommendations for a Revenue for Reform adjustment to the ICC for RY 2023. Comments on the draft policy may be submitted by email to [hsrc.tcoc@maryland.gov](mailto:hsrc.tcoc@maryland.gov) hereby and are due by November 17, 2021.

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# Draft Recommendations for Revenue for Reform Policy

Staff recommend the following revisions to the Integrated Efficiency policy:

1. A hospital's qualifying population health investments should be added to their approved revenue for the purposes of the ICC evaluation in the Integrated Efficiency policy. Qualifying population health investments should also not be subject to inflationary reductions, as outlined in the Integrated Efficiency policy.
2. Qualifying population health investments should be limited to the following:
  - a. Community spending in the hospital's primary service area, net of revenue generated for those services, (e.g. outside of the hospital's regulated space).
  - b. Non-physician costs (except as described below).
  - c. Spending that meets one of three following criteria:
    - i. An initiative that is intended to address an unmet health need identified on either the hospital's Community Health Needs Assessment or the Centers for Disease Control and Prevention's Health People 2030 Initiative; or
    - ii. Spending on primary care, mental health, or dental providers that are located in a Medically Underserved Area; or
    - iii. Initiatives that have a clear population target, an outcomes measure, and an improvement goal within a reasonable time frame.
3. Beginning in Rate Year 2025, hospitals will be spent down to a certain ratio of charges to ICC Approved Revenue, to be determined before RY 2024. Staff recommends that the Commission use the interim period to:
  - a. Work with industry to determine the appropriate threshold based on capital replacement, physician costs, and other factors.
  - b. Provide hospitals and Staff with time to evaluate and approve qualifying population health investments in the hospital's ICC Approved Revenue.

The following discussion provides rationale and detail for each of these recommendations.

## Policy Overview

Policy Objective	Policy Solution	Effect on Hospitals	Effect on Payers/Consumers	Effect on Health Equity
Under the GBR, hospitals can retain revenues from reduced utilization. These retained revenue can be reinvested in the community to improve population health. To date, hospital spending on population health has been limited.	Qualifying population health investments will be included in the hospital's ICC Approved Revenue. Qualifying population health investments will not be subject to efficiency reductions.	Hospitals that have not spent their retained revenues on population health will be spent down to an appropriate standard, beginning in RY 2025.	Consumers will benefit from additional population health spending. Payers will benefit if population health investments prove effective at reducing unnecessary utilization and improving health status.	Hospital's investments will be directed towards their community. Hospitals will not be able to use their retained revenues to invest in wealthy / healthier markets. This will increase population health spending in underserved areas.

## Background and Purpose

Since the beginning of the All-Payer Model in 2014, the State has been successful at meeting its financial obligations to CMS as a result of the Global Budget Revenue (GBR) system for hospital payment. The GBR provides hospitals with a revenue target that is relatively invariant to hospital utilization. This reimbursement system rewards hospitals for reducing unnecessary utilization because the revenue that had been associated with that utilization is retained by the hospital under the GBR.

Retained revenues have two purposes under the GBR system. First, retained revenues are used to support hospital financial stability, since per capita revenue is taken out of the system. The TCOC Model commits the State to reducing utilization by \$300 million by 2023. If overall utilization remained constant, then the reductions in per capita revenues would necessitate reductions in the price per case. In turn, this would put pressure on hospitals' margins. Under the GBR system, a hospital's retained revenues from reduced utilization are used to 'cushion' hospital finances from overall per capita revenue reductions. In this regard, the GBR system has been remarkably successful. Per capita Medicare costs have declined by nearly \$300 million relative to the nation, but per capita utilization has declined significantly and consequently hospital margins have been relatively stable.

The second purpose of retained revenues is to invest in the health of Marylanders. The fee-for-service system is a 'sick-care system' meaning that the majority of spending is directed to treating patients after they become sick. Under the GBR, hospitals have an incentive to invest in the care that keeps patients healthy. Under the GBR, retained revenues are not linked to a particular hospitalization episode and can therefore be reinvested in interventions that keep patients healthy and out of the hospital. The extent to which hospitals' retained revenues have been used for this purpose is unknown. The HSCRC has not made a systematic attempt to catalogue the monies spent by hospitals on population health. While some

laudable initiatives have been well-publicized by hospitals and the media, the total amount of population health spending remains unknown.

Assessing the extent to which retained revenues are used for population health is critical to the long-term success of the Maryland Model. Not only is it critical to sustain utilization reductions under the GBR, but the HSCRC's assessment of hospitals cost-efficiency currently does not incorporate the amount of population health spending. This creates a tension between the Integrated Efficiency policy, which aims to correct any maldistribution in the Model, and the purposes of the GBR. Resolving this tension is necessary to ensure that hospitals are equitably reimbursed while at the same time ensuring that hospitals are able to succeed under the GBR.

### **Quantification of Retained Revenue**

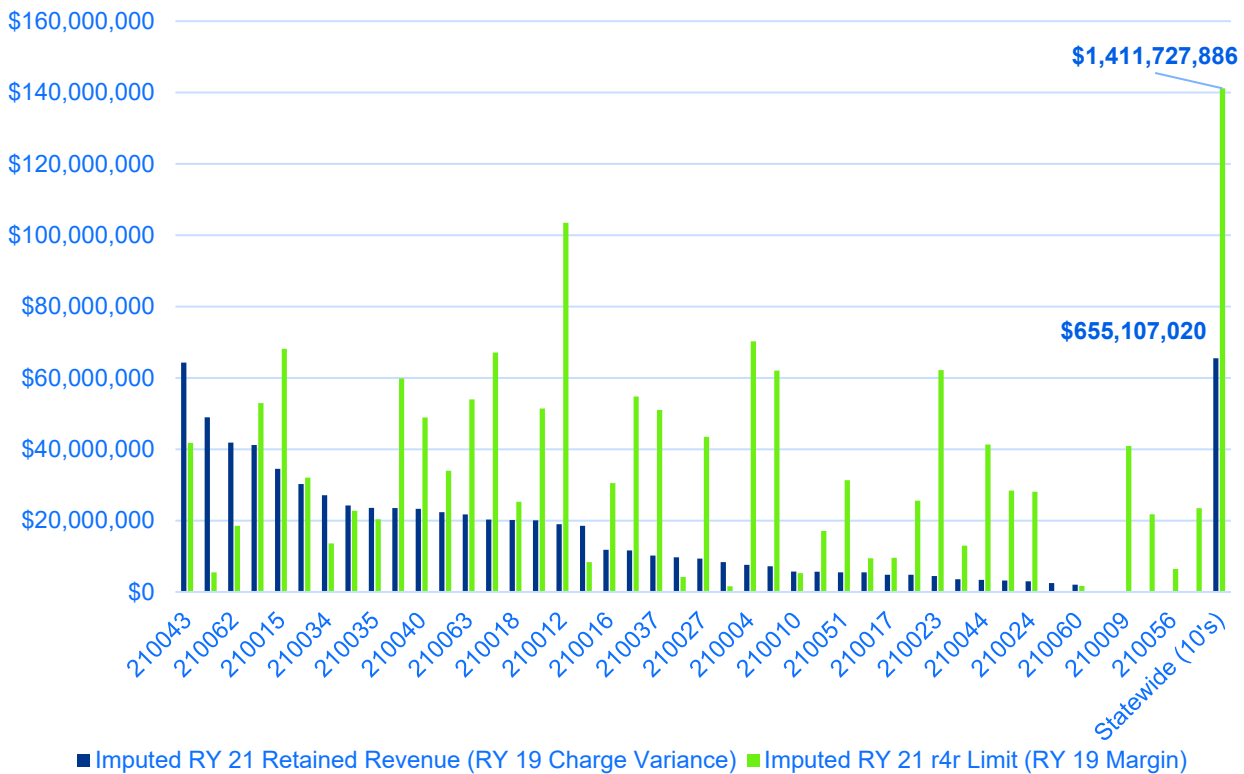
Since 2013, most hospitals in the State have been successful at reducing hospital utilization and therefore generating retained revenues. Staff estimated the magnitude of the retained revenues in the State by multiplying the hospitals charge variation by the hospital's permanent revenue. The charge variation is the amount by which a hospital increased or decreased their charges relative their rate order. The rate order is based on 2013 revenues and volumes, plus inflation.<sup>1</sup> So the difference between the charged amount and the rate order is an approximation of the revenues retained on volume decreases relative to 2013. There are other changes included in rates – capital spending, full rate orders, etc. – so using rate variances is only an approximation of the retained revenues but it does represent the best translation of volume declines into retained dollars available.

Staff calculation of retained revenue in the State is shown in Figure 1. Statewide, hospitals have generated approximately \$655 million of retained revenues. For comparison purposes, hospital regulated margin is also shown. On a statewide basis retained revenues are about 47% of regulated margin but the distribution of retained revenues is unequal. In general, hospitals that have been relatively successful at reducing utilization have more retained revenues than hospitals that have not significantly utilization.

### ***Figure 1: Retained Revenues and Regulated Margin***

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<sup>1</sup> In RY 2022, volumes were rebased to their 2019 levels. For this analysis, Staff used the charge variance as of 2019. This both measures the impact of utilization relative to 2013 and avoids the period during which the COVID-19 pandemic had a significant impact on hospital utilization.



**Tension with the ICC**

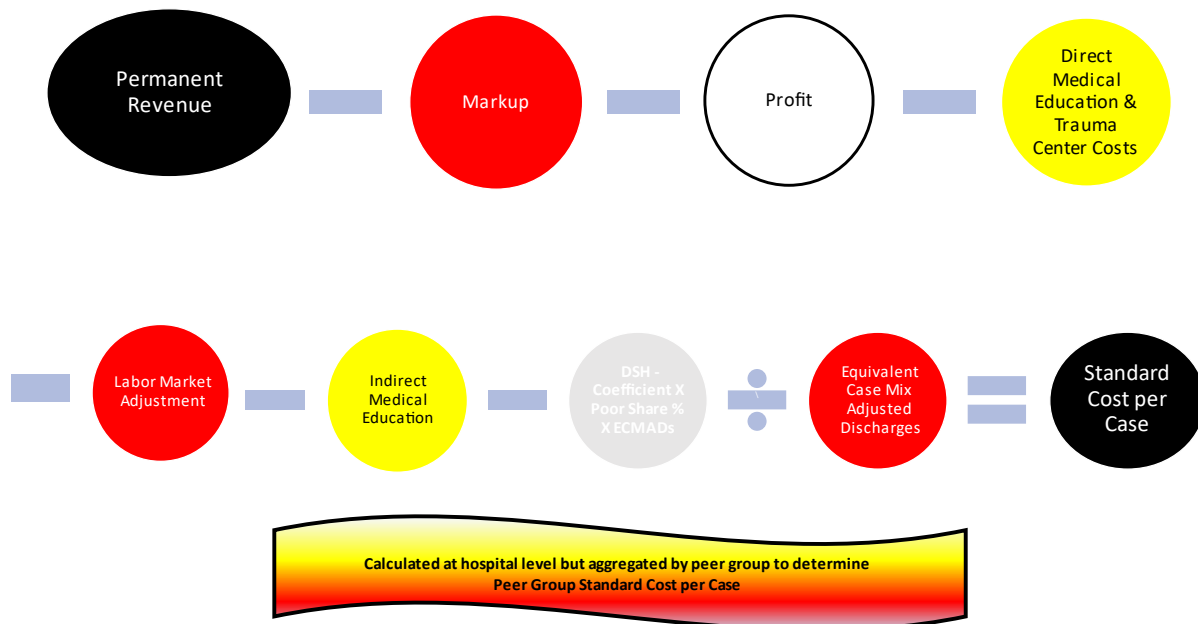
In October of 2019, the Commission approved a policy for assessing hospital’s relative cost-efficiency using the Inter-Hospital Cost Comparison (ICC) methodology.<sup>2</sup> In brief, the ICC compares a hospital’s charge per case to the hospital’s Approved Revenue, which is calculated based on a Peer Group Standard Cost Per Case. In essence, the Commission assesses a hospital’s efficiency by comparing the charge per case at the hospital to the charge per case at the hospital’s peer institutions, after controlling for the impact of exogenous facts and profit as explained below.

The peer group standard is calculated by taking the charge per case at a hospital’s peer institutions and subtracting: 1) costs that are outside of the hospital’s control such as impact of geographic variation in labor costs and to remove the markup on charges due to uncompensated care costs and the payer differential; 2) the cost of ‘social goods’ (such as

<sup>2</sup> <https://hsrc.maryland.gov/Documents/October%202019%20Public%20Post-Meeting%20Materials.pdf>

graduate medical and trauma center costs); and 3) hospital regulated profit. This peer group standard represents the minimum level of charges necessary to support hospital operations.

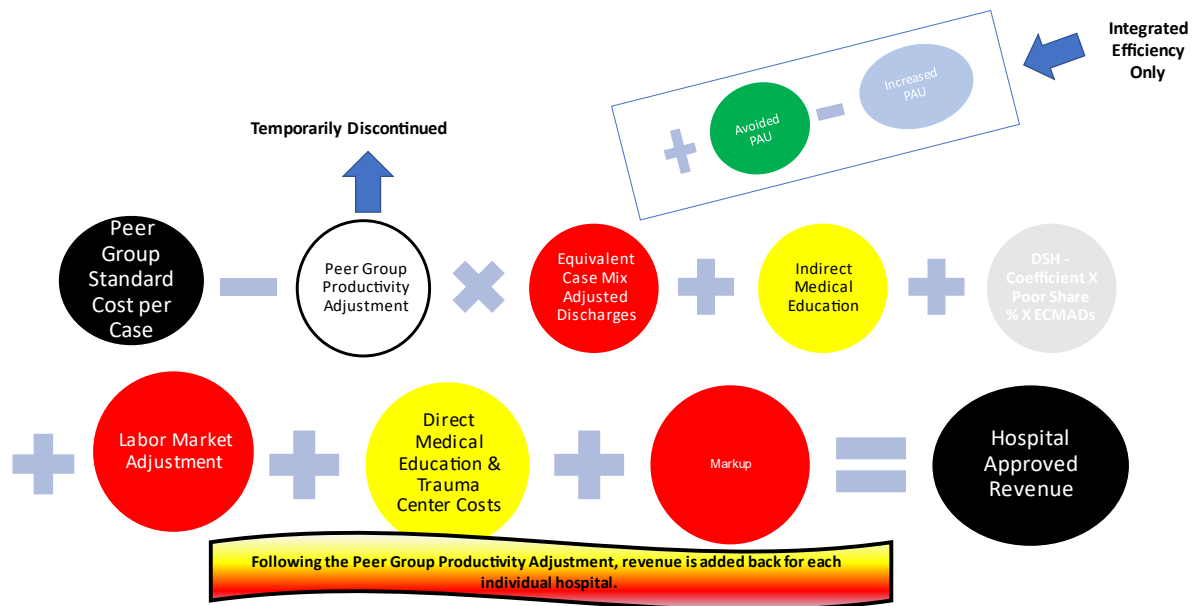
**Figure 2: Illustration of the Peer Group Standard Cost Per Case**



The hospital's Approved Revenue is equal to the Peer Group Standard plus the allowances made in other HSCRC policies for the hospitals geographic labor market, its medical education costs, etc. An illustration of the methodology to calculate the hospital's Approved Revenue is shown in Figure 3 below.



**Figure 3: Illustration of the Hospital Approved Revenue**



In general, retained revenues will make a hospital more inefficient relative to its Approved Revenue. Since hospitals do not incur variable costs on utilization that has been avoided, the revenue retained after a reduction in utilization will increase the hospital's regulated profit. And since regulated profit is not included in the hospital's Approved Revenue, the impact of retained revenue on hospital utilization will be to increase the hospitals charge per case without increasing the hospitals Approved Revenue. Thus, a hospital's retained revenue will make the hospital less efficient under the ICC evaluation.

This creates a tension between the ICC and the GBR. Hospitals are supposed to generate retained revenues in order to invest in community and population health. But if they do so, they are considered inefficient and – under the Integrated Efficiency policy – are provided less inflation than peer institutions. And perversely, a hospital that generates retained revenue and spends the entirety of that revenue on population health is considered equally inefficient as a hospital that generates retained revenue and does nothing productive with it.

The Revenue for Reform policy is intended to resolve this tension by adding the hospital's population health spending to its Approved Revenue for the purpose of the ICC evaluation.

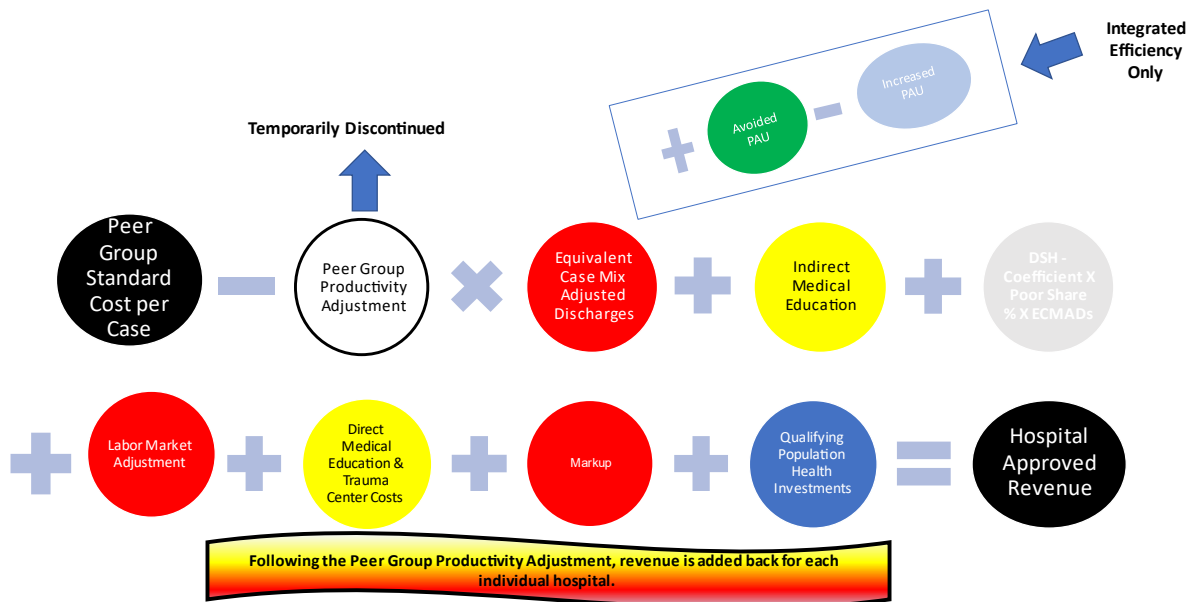
# Revenue for Reform Recommendations

## Revenue for Reform and the ICC

Under current policy, the ICC compares a hospital's charge per case to its Approved Revenue. Since retained revenue generally results in higher regulated profits, retained revenue will make the hospital appear inefficient even if that retained revenue is being spent on productive population health investments that are in line with the purpose of the Maryland Model. Staff recommend that the Commission include the hospital's population health investments in the hospital's Approved Revenue for the purpose of the ICC evaluation.

In calculating a hospital's Approved Revenue for the purpose of the ICC, the Commission adds the cost of 'social goods' to the peer group standard. This ensures that a hospital which provides graduate medical education services is not penalized for the cost of those services when it is compared with an institution that does not provide graduate medical education. Staff recommends that the Commission treat qualifying population health investments (described below) similarly to other social goods. The Commission will determine the cost of a hospital's population health investments and then add that amount to the hospital's Approved Revenue. A revised illustration of the ICC calculation is shown in Figure 4.

**Figure 4: Illustration of Revised ICC Calculation**



Including a hospital's population health investments in the hospital's Approved Revenue will ensure that hospitals engaged in population health interventions will not be penalized for the cost of those interventions when the hospital is compared with an institution that does not provide similar services. This will maintain the incentives of the GBR to reduce utilization and invest in population health while continuing to use the ICC to evaluate the relative cost efficiency of hospitals.

#### *Implications for the Integrated Efficiency Policy*

Under current policy, Staff calculate the ICC for all hospitals in the State prior to the Annual Update Factor. Hospitals are ranked based on the ratio of their charges to Approved Revenue. The amount by which the hospital is over (under) their Approved Revenue is the amount by which they are considered inefficient (efficient). For example, a hospital with \$130 million in charges and \$100 million in Approved Revenue would be considered 30% inefficient. Hospitals are then ranked from most efficient to least efficient. Hospitals do not receive the Medicare and Commercial portion of the annual update factor if: 1) the ratio of charges to Approved Revenue is greater than one standard deviation from average performance (currently 1.21); and 2) they are in the bottom quartile of hospitals.

Under the Revenue for Reform policy, the ICC evaluation is likely to change in three respects. First, hospitals may fall below the 1.21 threshold and thus no longer be subject to the integrated efficiency adjustment. Second, the ranking of hospitals will likely change. A hospital may fall out of the most inefficient quartile and another hospital will fall into it. Staff believes that this is an important piece of the Revenue for Reform policy. Even though only the least efficient quartile of hospitals is subject to the Integrated Efficiency cut, every hospital in the State has an incentive to participate in the Revenue for Reform policy. If they do not participate, then they may fall into the least efficient quartile as other hospitals improve their ICC standing. This creates a 'race to the top' and will encourage the maximum possible investment in population health. Third, regardless of efficiency ranking qualifying population health investments will receive full inflation and not be subject to efficiency reductions.

#### *Systematic Spend Downs of Unused Retained Revenue*

Since the beginning of the All-Payer Model, hospitals have generated substantial retained revenue but investment in population health has been limited. The Commission required hospitals to report their population health investments as of 2019 and found approximately \$200

million of population health investments, most of that associated with hospital-based care management programs. This raises two policy concerns: 1) the overall level of investment in population health is less than desired; and 2) there are distributional issues if some hospitals are doing a disproportional amount of the population health work. Both concerns are due to retained revenue that has not been reinvested in population health.

In order to address these concerns, Staff recommend applying spend downs to hospitals based on the ICC, after adjusting for population health investments. Currently, the Integrated Efficiency policy withholds a portion of the annual Update Factor to hospitals that are considered outliers relative to their Approved Revenue. This is intended to put hospitals on a path towards converging with their peers. Once the ICC includes population health spending as part of the hospital's Approved Revenue, hospitals will have an incentive to invest in population health in order to avoid the Integrated Efficiency cut. Staff expect this to begin redirecting hospital's retained revenue into population health interventions.

However, the magnitude of these Integrated Efficiency cut is relatively small and therefore the speed of convergence is relatively slow. In order to speed the reinvestment of hospital's retained revenue into population health, Staff recommend limiting hospitals charges to a fixed ratio of their retained revenue and the GBR for hospitals that exceed that ratio. For example, if the current threshold of 1.21 were used, then all hospitals that exceeded that ratio would have the GBR reduced by the excess amount.

Staff recommend beginning this systematic spend down in RY 2025 for two reasons. First, some time is needed for both hospitals and the HSCRC to determine which population health investments qualify for inclusion in the hospital's Approved Revenue. Further, hospitals that have under invested in population health can use the time to redirect their retained revenue. Second, Staff believe that significant work will be needed to assess the appropriate spend down threshold. Not all variation in the ICC evaluation is due to retained revenues. Some variation from the Approved Revenue is expected to account for regular operating profits, capital replacement, physician costs, and other categories of spending. Staff recommend that the Commission use the interim period to work with the industry to establish a spend down threshold.

### **Qualifying Population Health Investments**

As discussed above, Staff recommend that population health spending be included in the hospital's Approved Revenues for the purpose of the ICC evaluation. However, a clear and universal definition of population health investment does not exist. Therefore, Staff recommend establishing clear criteria for what qualifies for inclusion in the hospital's Approved Revenue.

Staff recommend that any spending, net of offsetting revenue for that activity, that meets the criteria be included in the hospital's approved revenue, provided that it does not exceed the hospital's regulated margin. Spending in excess of the regulated margin would indicate an unsustainable investment and should not be encouraged. Moreover, it would render the Commission's ICC assessment meaningless, as revenue associated with regulated hospital costs would be earmarked as population health investments.

Staff recommend that all qualifying spending be included in the Approved Revenue but that future policies examine the relative efficiency of the population health investments. Staff do not believe that sufficient information is available to set targets on the expected impact of the hospital's population health investments. However, it is important to ensure that hospitals are accountable for actual improvements in population health, not just monetary expenditures. Once the hospitals' population health investments are catalogued, future policies should compare the relative effectiveness of similar population investments and established outcomes targets for population health interventions that are included in the hospital's Approved Revenue.

### **Safe Harbors for Retained Revenues**

Staff recommend that all population health investments should meet the following three criteria in order to be included in the hospital's ICC Approved Revenue:

1. The investment must take place outside of the hospital itself. Activities that take place within the hospital are most likely targeted at patients currently in the hospital. These costs should be treated as part of the hospital's cost of a hospitalization and should not be safe harbored on the ICC. For example, hospital-based care management programs are valuable but are part of the routine cost of a hospitalization and should be included in the evaluation of the hospital's cost per case. An intervention is considered to be 'outside of the hospital' if services are provided to beneficiaries off of the hospital's campus, even if the intervention is deployed from the hospital. For example, a mobile integrated health program that treats

patients at home would qualify even if the program's base of operations was in the hospital itself.

2. The investment must be on a non-physician cost (with the exception of the physician safe harbor below). Physician costs are obviously a critical component of many population health interventions. However, most physician services are reimbursed for the services they provide. The reimbursement rate does not always exceed the cost of providing those services and health systems may need to invest in physician practices in order to develop a comprehensive strategy for managing the total cost of care. However, hospitals also spend money on physician practices for regular business reasons. Staff do not believe that there is an easy way to distinguish a 'business investment' from a 'population health investment.' Therefore, staff recommend excluding physician costs from the hospital Approved Revenue.<sup>3</sup> For this purpose, physician costs will be excluded if they are billing payers for services that they provide. If the staff of a program happen to be physicians but do not bill payers for services, their costs may be included.
3. The investment must be primarily serving people who live within the hospital's primary service area. This will ensure that the retained revenues are retained in the community itself and not just the hospital. Investments that are made in an area outside of the hospital's service area are presumably made for other purposes – such as promoting the health system in an area with a more favorable payer mix – than the health of the hospital's community. Exceptions may be made but would face a higher bar (described in the catch all safe harbor below).

The criteria above are intended to ensure that qualifying investments are based in the community and are not part of the hospital's routine business operations. In order to ensure that community-based investments are spent on population health, Staff recommends that the spending must fall into one of the following three safe harbor categories.

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<sup>3</sup> Staff believe that integrating non-hospital providers into the Model should be a high priority for the commission. But alternative policies, such as developing capitation-like arrangements for health system would be a more productive avenue.

### *Community Health Safe Harbor*

In order to ensure that the hospital's interventions are intended to improve the health of its community, the intervention must be 'reasonably related' to a community health need identified on one of the following:

- An unmet need included on the Community Health Needs Assessment (CHNA). Hospitals are required to conduct a CHNA once every three years in which they: 1) assess the health of their community; and 2) identify the significant health needs of their community. In conducting the CHNA, hospitals must work collaboratively with members of their community and establish an implementation strategy that describes how the hospital intends to address each health need (or explains why they do not intend to address that need). Since hospitals are already required to establish an implementation plan for addressing the needs of the community, Staff believe spending on community health should be limited to needs on the CHNA.
- A need identified by the Centers for Disease Control and Prevention (CDC)'s Healthy People 2030 initiative. The CDC establishes national population health priorities; essentially, this is a community health needs assessment for the entire country. Staff believe that hospitals should be allowed to invest in the national health priorities, even if their local community did not address identify a particular health need.

Staff recommend that hospitals be required to describe their interventions and justify how the intervention is intended to impact one of the community or national health needs. Staff will assess whether the intervention is reasonably related to the community health need identified by the hospital. If the Staff does not believe the intervention to be reasonably related to an identified community health need, then the costs of the intervention will not qualify for inclusion in the hospital's ICC approved revenue.

### *Physician Spending Safe Harbor*

Staff recommend that hospitals be allowed to subsidize physician in areas that do not have sufficient access. Hospitals may invest in primary care, mental health, or dental providers in areas that the Agency for Health Care Research and Quality (ARQH) has identified as a Medically Underserved Area. These are areas that have fewer physicians per capita than would be expected, adjusted for the percent of the population living below the poverty rate, the percent of the population that is older than 65, and the infant mortality rate. Spending on specialists

other than primary care, mental health, or dental providers would not be allowed and spending on those specialties outside of Medically Underserved Areas would not be allowed.

#### *“Catch-All” Safe Harbor*

Staff expect the majority of the hospital’s interventions to fall within one of the two safe harbors described above. However, there may be cases where an intervention falls outside of the other requirement. For example, an intervention might be targeted at an emergent public health need that has not yet appeared on the hospital’s CHNA or an intervention that would be located adjacent to the hospital’s service but still primarily serving the hospital’s community.

Staff recommend that these interventions be allowed as long as the hospital can justify why the intervention did not meet one of the other two safe harbor categories and also articulate the following information: 1) the targeted population for the intervention; 2) an outcomes measure that the hospital intends to impact and a data source to calculate the measure; and 3) and expected level of improvement in the targeted measure with a given amount of time. Staff would allow the intervention but could potentially withdraw the approval if the expected improvement in the measure did not materialize.

#### **Approval Process for Hospital Safe Harbors**

Staff recommend that the Revenue for Reform policy be implemented as follows:

1. In January of 2022, staff will release an application template for hospitals to complete. This will include a list of the hospital’s interventions, which safe harbor they are applying for, and the amount of losses that they expect to incur over the following fiscal year on that intervention.
2. By March 2022, staff will review the submissions and determine which interventions meet the requirements of the Revenue for Reform policy, described here. The cost of the approved intervention will be added to the calculation of the ICC for the purposes of the Integrated Efficiency Policy applicable for the Rate Year 2023 Update Factor. This will determine which hospitals are subject to the Integrated Efficiency cut in the Rate Year 2023 update factor.
3. In the fall of 2023, hospitals will be required to submit a budget describing the costs actually incurred on their approved population health interventions. The purpose of this report is to ensure that hospitals actually incurred the costs of the intervention for which they were given credit. A hospital that failed to spend at least 80% of their expected intervention will be



subject to a penalty of 3 times their approved spending. Staff believes that it is important to be punitive towards hospitals that do not meet their promised spending since their ICC performance will impact other hospitals.

**Title 10**  
**MARYLAND DEPARTMENT OF HEALTH**

**Subtitle 37 HEALTH SERVICES COST REVIEW COMMISSION**

**10.37.10 Rate Application and Approval Procedures**

Authority: Health-General Article, §§19-201, 19-207, 19-211, and 19-219, Annotated Code of Maryland

**Notice of Proposed Action**

[]

The Health Services Cost Review Commission proposes to amend Regulations .03 and .07-1 under COMAR 10.37.10 Rate Application and Approval Procedures.

This action was considered and approved for promulgation by the Commission at an open meeting held on July 14, 2021, notice of which was given through publication on the Commission's website under General Provisions Article, §3-302(c), Annotated Code of Maryland.

**Statement of Purpose**

The purpose of this action is to amend COMAR 10.37.10.03A(2) in order to extend the period of time for which a hospital that has obtained permanent rates through the issuance of a Commission rate order following a regular (i.e., full) rate application is eligible to file a regular rate application with the Commission from 90 days to 365 days.

In addition, the purpose of this action is also to amend COMAR 10.37.10.07-1 in order to clarify that:

(1) A hospital may not bill a separate hospital facility fee when a health care provider who provided telehealth services is authorized to bill independently for the professional services rendered; and

(2) The delivery of telehealth services where the health care provider **or the patient** is physically located at the hospital constitutes outpatient services provided at the hospital and, therefore, subject to the Commission's rate setting jurisdiction.

**Estimate of Economic Impact**

The proposed action has no economic impact.

**Economic Impact on Small Businesses**

The proposed action has minimal or no economic impact on small businesses.

**Impact on Individuals with Disabilities**

The proposed action has no impact on individuals with disabilities.

**Opportunity for Public Comment**

Comments may be sent to Dennis Phelps, Associate Director, Audit and Compliance, Health Services Cost Review Commission, 4160 Patterson Avenue, Baltimore, Maryland 21215, or call

410-764-2605 TTY: 888-287-3229, or email to dennis.phelps@maryland.gov, or fax to 410-358-6217. Comments will be accepted through September 27, 2021. A public hearing has not been scheduled.

Attached Document:

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## Title 10

# MARYLAND DEPARTMENT OF HEALTH

## Subtitle 37 HEALTH SERVICES COST REVIEW COMMISSION

### Chapter 10 Rate Application and Approval Procedures

Authority: Health-General Article, §§ 19-201, 19-207, 19-211, and 19-219, Annotated Code of Maryland

#### .03 Regular Rate Applications.

A. A hospital may file a regular (i.e., full) rate application with the Commission at any time if:

(1) (text unchanged)

(2) The subject hospital has not obtained rates through the issuance of a Commission rate order *following a regular rate application* within the previous [90] 365 days.

B.—C. (text unchanged)

#### .07-1 Outpatient Services – At the Hospital Determination.

[A. Definition. In this regulation, "at the hospital" means a service provided in a building on the campus of a hospital in which hospital services are provided.]

A. Definitions.

(1) *In this regulation, the following terms have the meanings indicated.*

(2) *Terms Defined.*

(a) *"At the hospital" means a service provided in a building on the campus of a hospital in which hospital services are provided.*

(b) *"Health care provider" means an individual who is licensed, certified, or otherwise authorized by law to provide health care services under Health Occupations Article, Annotated Code of Maryland.*

(c) *"Telehealth Services" means the delivery of health care services provided through the use of interactive audio, video, or other telecommunications or electronic technology by a health care provider at a hospital to a patient at a location other than at the hospital, **or to a patient at the hospital where the provider is at a location other than at the hospital**, which enables the patient to interact with the health care provider at the time the health care services are provided.*

B.—J. (text unchanged)

K. *A hospital may not bill a separate hospital facility fee when a health care provider who provided telehealth services is authorized to bill independently for the professional services rendered.*

L. *The delivery of telehealth services as described in §A(2) of this regulation constitutes outpatient services provided at the hospital.*

**Adam Kane, Chair**

**Health Services Cost Review Commission**



Kennedy Krieger Institute

**Bradley L. Schlaggar, MD, PhD**

President and CEO

Zanvyl Krieger Faculty Endowed Chair

*A comprehensive resource  
for children with disabilities*

September 23, 2021

Dennis Phelps  
Associate Director  
Audit and Compliance  
HSCRC Commission  
4160 Patterson Avenue  
Baltimore, MD 21215

Dear Mr. Phelps,

Thank you for the opportunity to comment on the proposed COMAR 10.37.10.07-1 amendment. Please find our recommended language added in red below.

**.07-1 Outpatient Services – At the Hospital Determination**

[A. Definition. In this regulation, “at the hospital” means a service provided in a building on the campus of a hospital in which hospital services are provided].

*A. Definitions*

*(1) In this regulation, the following terms have meanings indicated.*

*(2) Terms Defined.*

*(a) “At the hospital” means a service provided in a building on the campus of a hospital in which hospital services are provided.*

*(b) “Health care provider” means an individual who is licensed, certified, or otherwise authorized by law to provide health care services under Health Occupations Article, Annotated Code of Maryland*

*(c) “Telehealth services” means the delivery of health care services provided **as regulated outpatient services** through the use of interactive audio, video, or other telecommunications or electronic technology by a health care provider at a **regulated** hospital to a patient at a location other than at the hospital, which enables the patient to interact with the health care provider at the time the health care services are provided.*

B. – J. (text unchanged)

*K. A hospital **regulated by the HSCRC** may not bill a separate hospital facility fee when a health care provider who provided telehealth services is authorized to bill independently for the professional services rendered.*

*L. The delivery of telehealth services as described in (§) A(2) of this regulation constitutes **regulated** outpatient services provided at the hospital.*

Kennedy Krieger appreciates your thoughtful consideration of additional language to the proposed regulation. We are available to answer any questions you may have.

Thank you,

Bradley L. Schlaggar MD, PhD  
President and CEO  
Kennedy Krieger Institute

707 North Broadway • Baltimore, Maryland 21205 • KennedyKrieger.org

main 443.923.9300 • facsimile 443.923.9317 • tty 443.923.2645 • email Schlaggar@KennedyKrieger.org



15 School Street, Suite 200  
Annapolis, Maryland 21401  
410-269-1554

For information, contact:  
Matthew Celentano, Executive Director

September 16, 2021

Dennis Phelps  
Associate Director, Audit and Compliance  
Health Services Cost Review Commission  
4160 Patterson Avenue  
Baltimore, Maryland 21215

Re: 10.37.10 Rate Application and Approval Procedures

Dear Mr. Phelps:

On behalf of the League of Life and Health Insurers of Maryland, Inc. (League), thank you for the opportunity to provide comments on the draft proposed regulations for COMAR 10.37.10. The League is the state trade association representing life and health insurance companies in Maryland. The League appreciates the work the Health Services Cost Review Commission (HSCRC) has done on this issue throughout the 2021 Session to date and the collaborative process in which all stakeholders operated.

Our comments concern proposed changes to COMAR 10.37.10.07-1. The stated purpose of these amendments is to clarify that:

- (1) A hospital may not bill a separate hospital facility fee when a health care provider who provided telehealth services is authorized to bill independently for the professional services rendered; and*
- (2) The delivery of telehealth services where the health care provider is physically located at the hospital constitutes outpatient services provided at the hospital and, therefore, subject to the Commission's rate setting jurisdiction.*

#### **At the Hospital Determinations for Telehealth Services**

Prior to the pandemic, a hospital could not bill for any kind of telehealth services when the provider was located at a hospital (it was not considered an "at the hospital" service). During the pandemic, the HSCRC issued a temporary order to allow for billing of regulated hospital rates for telehealth services, including audio-only services. This regulation would extend that temporary authority and clarify that if

**The League of Life and Health Insurers of Maryland, Inc.**  
15 School Street, Annapolis, MD 21401  
410-269-1554  
[www.leaguemaryland.com](http://www.leaguemaryland.com)

the provider at the hospital can bill for telehealth independently as a professional service, no facility fees may be charged. Otherwise, the hospital may bill for telehealth services as a regulated outpatient service.

As you know, the telehealth legislation (Chapter 70) passed last Session and requires Medicaid and other payers to reimburse for telehealth services, including audio-only. However, the audio-only requirement in the legislation sunsets on June 30, 2023, to allow time for MHCC to complete a study on telehealth services. The regulation, as drafted, will permit hospitals to bill for audio-only telehealth services in perpetuity.

**League members' concern is that the regulations do not specify that audio-only telehealth coverage sunsets even though the audio-only provisions of Chapter 70 sunset on June 30, 2023. We recommend that the regulation separate out audio-only telehealth and sunset that provision on June 30, 2023, consistent with the legislation.** The legislation anticipates that there will be a re-evaluation of coverage mandates for audio-only telehealth once MHCC presents its report and data, and whatever comes from that could generate new statutory and regulatory requirements. These regulations can be revisited, if need be, as a result of future legislative action.

Thank you, again, for the opportunity to provide this feedback on these draft proposed regulations. Should you have any questions, please do not hesitate to contact me.

Sincerely,

A handwritten signature in black ink, appearing to read "Matthew Celentano", with a long horizontal line extending to the right.

Matthew Celentano  
Executive Director  
The League of Life and Health Insurers of Maryland, Inc.



October 12, 2021

Jason Caplan, Director  
Office of Regulation and Policy Coordination  
Maryland Department of Health  
201 West Preston Street, Room 512  
Baltimore, MD 21201  
*Delivered via electronic mail*

RE: Proposed HSCRC Regulations

Dear Mr. Caplan,

Thank you for the opportunity to comment on the proposed HSCRC regulations regarding the use of telehealth in regulated spaces. Johns Hopkins truly values its partnership with the HSCRC and is appreciative of the opportunity to provide input to ensure Maryland's healthcare system is as strong as possible.

During the COVID-19 pandemic, telehealth has been a critical tool for accessing healthcare for our patients and the citizens of Maryland. Practically overnight, Johns Hopkins expanded the use of telehealth nearly 100,000% during the pandemic peak. While the use of telehealth has decreased, in 2021 it is still used at significantly higher rate than pre-pandemic, representing approximately 20% of ambulatory care, and up to 75% of ambulatory care in important areas like mental and behavioral health. Understanding that telehealth is now an integral tool for delivering healthcare, Johns Hopkins would like provide comments on how to improve the regulations to ensure continued access to this care delivery modality for patients.

Hospital-based non-physician providers have represented a significant proportion of our outpatient telehealth volume. Due to new regulatory flexibilities, provider types such as nutritionists, substance use and mental health counselors, speech language pathologists, and registered nurses, were newly able to provide and bill for telehealth services during the pandemic. On our large academic campuses at Johns Hopkins Hospital and Bayview Medical Center, we've completed over 550,000 telemedicine visits since the beginning of the pandemic. Of those visits, nearly 190,000 (~34%) were delivered by non-physician, non-advanced practice providers. Anecdotally,

most of these providers delivered these services from their own homes. In many circumstances, providers are required to work from home because their clinical space cannot accommodate COVID social distancing standards. Generally, there is no reimbursement for these critical services, outside of a hospital-based facility fee. These are not providers who typically bill professional fees.

From our standpoint, **two key issues** will significantly impact our ability to continue to offer telemedicine access to patients from regulated space clinics in the future: 1) whether the HSCRC will continue to allow flexibility regarding hospital-based providers location during telehealth visits and 2) whether HSCRC regulations will allow for the ability to accurately track the delivery of telehealth services in hospital-based settings.

### ***Provider Location***

The requirement that a health care provider must be onsite at the health care facility, or otherwise at any specific clinical location, in order to deliver telehealth dramatically reduces the flexibility, convenience, and future efficiency of telehealth. A primary benefit of telehealth is the ability to deliver, or receive, health care from anywhere; limiting the use of telehealth for providers to only locations “at the hospital” creates an unnecessary burden to delivering care, increases costs, and reduces the potential to improve care offerings for our patients. For example, a hospital-employed psychologist working from home could serve multiple clinic sites simultaneously, thus allowing these clinics to efficiently use a scarce resource. The psychologist does not bill a professional fee. In this circumstance, the only opportunity to reimburse for the services of the psychologist is through a facility fee. The location of the provider does not meaningfully change the resources required to deliver care, as the entire care team functions virtually to deliver the same high-quality care requirement regardless of physical location. All of the core team functions (and core team costs) are similar and remain attributed to the visit: scheduling, front desk services, provider services, prescriptions, orders, and after visit coordination. We appreciate that the HSCRC has oversight only of care provided at a hospital facility, however, we are requesting this flexibility in the context of care that would have otherwise occurred in a regulated outpatient facility and the overall telehealth visit, utilizes hospital-based resources and services.

Over 1,300 frontline clinicians responded to a survey asking questions around their preferred location for conducting telemedicine – the top response was to conduct telemedicine from their home. We must create flexibility for both patients and providers, and ensure we create workforce flexibility for our frontline staff. Allowing flexibility for the provider to choose where telehealth occurs is essential for the continued use of telehealth in the regulated space environment.

### ***Accurately Tracking Telehealth Volume***

Over the past 18 months, without the ability to bill a facility fee for telehealth related services delivered alongside professional services, we have struggled to accurately assess the volume of care being provided. We would encourage the HSCRC to develop some mechanism for tracking the use of *all* telehealth in regulated spaces.



Johns Hopkins has been collecting internal data on the use of telehealth in regulated space, and as overall use has grown, so have costs to support this care. It would be beneficial to have a system for collecting data that accurately reflects the volume of telehealth services in regulated spaces throughout the state. Today, volume of regulated space services are tracked through hospital bills. Given there are regulations that prohibit hospital billing for a majority of telehealth activity, there should be special consideration of this nuance. Inability to track and receive credit for this activity may disproportionately limit certain specialties and/or patient populations from having access to telehealth services.

Johns Hopkins is thankful for the flexibilities HSCRC implemented during the pandemic to allow for the greater use of telehealth. We have invested and continue to invest in technology and human resources to ensure patients across Maryland can access high quality care at Johns Hopkins both in-person and virtually. Ultimately, we feel accessing providers is important for our patients and citizens, and meeting patients “where they are” is an important concept in our current healthcare landscape. The proposed regulations on telehealth present a real opportunity for the continued use and growth of telehealth in the State. As always, Johns Hopkins welcomes the opportunity to discuss these comments in more detail, and would look forward to more in-depth discussion in the future.

Sincerely,



**Brian Hasselfeld, MD**

Medical Director, Digital Health and Telemedicine

*Office of Johns Hopkins Physicians*

Primary Care Physician, Internal Medicine and Pediatrics

*Johns Hopkins Community Physicians*

(O) 410-955-2600

[bwh@jhmi.edu](mailto:bwh@jhmi.edu)



**Ed Beranek**

Vice President of Revenue Management & Reimbursement

Johns Hopkins Health System

(O) 443-997-0631

[jberane1@jhmi.edu](mailto:jberane1@jhmi.edu)



Maryland  
Hospital Association

October 12, 2021

Adam Kane  
Chairman  
Health Services Cost Review Commission  
4160 Patterson Avenue  
Baltimore, Maryland 21215

**Re: Proposed Regulations – COMAR 10.37.10.07-1**

Dear Chairman Kane:

On behalf of the Maryland Hospital Association's (MHA) 60 member hospitals and health systems, we appreciate the opportunity to comment on the Health Services Cost Review Commission's (HSCRC) proposed Rate Application and Approval Procedures regulations.

MHA appreciates the Commission's recognition that telehealth is a permanent delivery method for hospital services. Waivers and flexibilities for telehealth during the COVID-19 public health emergency helped hospitals deliver safe, effective services, while ensuring Medicare beneficiaries can access quality care when and where they need it. Telehealth also remains an increasingly vital tool for hospitals and health care professionals to reach the goals of Maryland's Total Cost of Care Model. Our members use these flexibilities to innovate, shifting care delivery in a way that will outlast the public health emergency if there is an appropriate statutory and regulatory framework.

However, MHA has several concerns about the proposed regulations:

***Requirement for Provider to be "At the Hospital"***

**By limiting the definition of telehealth services to those delivered "by a health care provider at a hospital," the proposed regulations do not align with the Preserve Telehealth Access Act (PTAA), which was signed into law this year.**

The legislation was intended to allow health care professionals and patients to safely engage in medically necessary services via telehealth, regardless of either party's location, and to be reasonably reimbursed for those services. Removing site prohibitions allowed physicians to safely see patients during nontraditional work hours. This expanded health care access, especially for behavioral specialties, where there is a documented provider shortage and increasing need. Limiting providers to hospital sites when delivering telehealth services will harm patient care and disrupt hospitals' efforts to mitigate exposure to COVID-19.

Although this language aligns with the Commission’s authority to only regulate hospital services, telehealth opens the door for hospital services to be increasingly delivered in nonhospital settings.

### ***Hospital Costs and Telehealth Charges***

On the surface, allowing only professional fee billing for a physician or other health care provider to evaluate a patient from a remote location is reasonable. However, hospitals pay direct and indirect costs to operate these services and are bound by HSCRC regulations when establishing charges to cover these costs. Therefore, we urge the Commission to acknowledge that hospitals still incur direct costs if personnel who cannot bill professional fees are involved in the visit, as well as indirect costs of patient registration, billing, system maintenance, and technology infrastructure.

MHA is concerned the proposed language prohibiting hospital charging for telehealth services distorts the underlying relationship between service costs and individual patient billing. Per Health – General § 19-219(a)(1), the Commission is charged with ensuring “[t]he aggregate rates of the facility are related reasonably to the aggregate costs of the facility.” Additionally, if hospitals cannot bill for the telehealth service, then there is no way for the hospital to track telehealth usage and assign the appropriate costs.

Without a mechanism to charge for telehealth services, hospital costs are spread to other centers. Direct hospital costs to provide telehealth services, such as nursing or other departmental staff, are likely accumulating in the clinical (CL) rate center. Indirect costs, such as registration, billing, operations, and maintaining information systems, are allocated to the CL rate center or spread throughout the hospital. Therefore, CL services billed for in-person visits, or other hospital service prices are artificially higher as rates are aligned with actual costs. During the pandemic, CL volumes decreased as hospitals moved toward virtual visits. If the telehealth costs accumulate to the CL rate center, CL rates charged for in-person visits are higher. One potential solution would be to create a new rate center that accumulates the direct and indirect telehealth costs—establishing a new rate to properly charge for these services.

Overall hospital charges are limited by global budget revenue (GBR), a cornerstone of HSCRC policy under our Maryland Model. MHA is not asking HSCRC to raise GBR limits. We are asking that HSCRC policy appropriately align hospital charges with the cost of telehealth.

We appreciate HSCRC’s proposal to establish permanent guidance on this matter. Before the Commission considers final regulations, MHA proposes HSCRC establish a work group of integral stakeholders to identify long-term, sustainable solutions for reasonable rates for hospital telehealth services. This will give HSCRC the opportunity to better understand hospital costs, the ability to connect providers outside of the hospital, and the need to align charging under our GBR model.

October 12, 2021  
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Thank you for your consideration, and please do not hesitate to contact me if you have any questions.

Sincerely,



Brett McCone,  
Senior Vice President, Health Care Payment  
Maryland Hospital Association

Cc:

Joseph Antos, PhD  
Victoria W. Bayless  
James Elliott, M.D.  
Maulik Joshi, DrPH  
Stacia Cohen, RN, MBA  
Sam Malhotra  
Katie Wunderlich, Executive Director  
Dennis Phelps, Deputy Director



**TO:** HSCRC Commissioners  
**FROM:** HSCRC Staff  
**DATE:** November 10, 2021  
**RE:** Hearing and Meeting Schedule

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**Adam Kane, Esq**  
Chairman

**Joseph Antos, PhD**  
Vice-Chairman

**Victoria W. Bayless**

**Stacia Cohen, RN, MBA**

**James N. Elliott, MD**

**Maulik Joshi, DrPH**

**Sam Malhotra**

.....  
**Katie Wunderlich**  
Executive Director

**Allan Pack**  
Director  
Population-Based Methodologies

**Tequila Terry**  
Director  
Payment Reform & Stakeholder Alignment

**Gerard J. Schmith**  
Director  
Revenue & Regulation Compliance

**William Henderson**  
Director  
Medical Economics & Data Analytics

December 8, 2021 To be determined - GoTo Webinar

January 12, 2022 To be determined - GoTo Webinar

The Agenda for the Executive and Public Sessions will be available for your review on the Thursday before the Commission meeting on the Commission's website at <http://hscrc.maryland.gov/Pages/commission-meetings.aspx>.

Post-meeting documents will be available on the Commission's website following the Commission meeting.