



## 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 9, 2022 Public Meeting:

1. Draft Recommendation for the Maryland Hospital Acquired Conditions Program for RY 2025
2. Draft Recommendation on Adjustments to Maryland Medicare TCOC Performance

WRITTEN COMMENTS ON THE AFOREMENTIONED STAFF DRAFT RECOMMENDATIONS ARE DUE IN THE COMMISSION'S OFFICES ON OR BEFORE NOVEMBER 23, 2022, UNLESS OTHERWISE SPECIFIED IN THE RECOMMENDATION.



**600th Meeting of the Health Services Cost Review Commission  
November 9, 2022**

(The Commission will begin in 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 12, 2022
2. Docket Status – Cases Closed  
2604A - University of Maryland Medical Center    2605A - University of Maryland Medical Center  
2606A - Johns Hopkins Medical System            2607A - University of Maryland Medical Center
3. Docket Status – Cases Open  
2589R - Shady Grove Adventist Medical Center    2601N - Luminis Doctor's Community Medical  
2603R - Luminis Anne Arundel Medical Center        Center
4. Confidential Data Request Recommendations
5. RY 2025 Quality Based Reimbursement Policy – Final Recommendation
6. RY 2025 Maryland Hospital Acquired Conditions Policy - Draft Recommendation
7. CY 2022 Performance and Draft Recommendation on Adjustments to Maryland's TCOC Performance
8. Policy Update and Discussion
  - a. Population Health Quality Measurement Discussion
  - b. COVID Community Vaccination Program - Final Report
9. Hearing and Meeting Schedule

## Cases Closed

The closed cases from last month are listed in the agenda

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

AS OF October 31, 2022

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

Docket Number	Hospital Name	Date Docketed	Purpose	Analyst's Initials	File Status
2589R	Shady Grove Adventist Medical Center	3/16/2022	CAPITAL	JS/AP	OPEN
2601N	Luminis Doctor's Community Medical Center	7/18/2022	I/P PSYCH	WN	OPEN
2603R	Luminis Anne Arundel Medical Center	7/22/2022	FULL	KW	OPEN

PROCEEDINGS REQUIRING COMMISSION ACTION - NOT ON OPEN DOCKET

None

<b>IN RE: THE PARTIAL RATE</b>	*	<b>BEFORE THE HEALTH SERVICES</b>
<b>APPLICATION OF THE</b>	*	<b>COST REVIEW COMMISSION</b>
<b>LUMINIS HEALTH DOCTORS</b>	*	<b>DOCKET: 2022</b>
<b>COMMUNITY MEDICAL CENTER</b>	*	<b>FOLIO: 2411</b>
<b>LANHAM, MARYLAND</b>	*	<b>PROCEEDING: 2601N</b>

**Staff Recommendation**  
**November 9, 2022**

**Introduction**

On July 18, 2022, Luminis Health Doctors Community Medical Center ( “the Hospital”), submitted a partial-rate application to obtain a new Psychiatric Acute (PSY) rate. The Hospital has an approved Certificate of Need to establish a 16-bed inpatient adult psychiatric unit. They requested to establish a unit rate for PSY services effective November 1, 2022.

**Staff Evaluation**

HSCRC policy is to set the rates for new services at the lower of the statewide median or at a rate based on the Hospital’s projections. The Hospital requested a PSY rate of \$1,612.80 per patient days, which represents the statewide median rate for PSY services.

<b><u>Service</u></b>	<b><u>Service Unit</u></b>	<b><u>Unit Rate</u></b>	<b><u>Projected Volumes</u></b>	<b><u>Approved Revenue</u></b>
Psychiatric Acute	Patient Days	\$1,612.80	1,688	\$2,722,406

**Recommendation**

After reviewing the Hospital’s application, the staff recommends:

1. That the PSY rate of \$1,612.80 per patient days be approved effective November 1, 2022;
2. That the PSY rate center not be rate realigned until a full year of cost data has been reported to the Commission; and
3. That no change be made to the Hospital’s Global Budget Revenue for the PSY services.



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**Final Staff Recommendation for a Request to Access  
HSCRC Confidential Patient Level Data from  
The University of Maryland School of Medicine (UMSOM),  
Greenbaum Comprehensive Cancer Center**

Health Services Cost Review Commission

4160 Patterson Avenue, Baltimore, MD 21215

November 9, 2022

**This is a Final Recommendation for Commission consideration at the November 9, 2022, Public Commission Meeting.**

## **SUMMARY STATEMENT**

The University of Maryland School of Medicine (UMSOM), UM Greenbaum Comprehensive Cancer Center is requesting access to the Health Services Cost Review Commission (HSCRC) Inpatient and Outpatient Hospital data through CRISP, that includes limited confidential information (“the Data”) to examine healthcare utilization by UM patients who use e-cigarettes or vaping devices compared to patients who use combustible tobacco products.

## **OBJECTIVE**

Rates of e-cigarette and vaping use are increasing in the United States, leading to cases of e-cigarette, or vaping, associated lung injury (EVALI) that are difficult to treat. Researchers and clinicians know little about EVALI, its causes, association with e-cigarettes and vaping, and other susceptibility factors that place an individual at risk for this disease. E-cigarette and vaping use are more likely to occur in younger populations, with likelihood of addiction to tobacco and future advent of preventable disease including cancer. There is an urgent need for detailed information on e-cigarette and vaping users to examine the factors that contribute to illness, a crucial first step that will inform treatment and prevention efforts. Investigators received approval from the Maryland Department of Health (MDH) IRB on February 10, 2021, and the MDH Strategic Data Initiative (SDI) office on September 9, 2022. The Data will not be used to identify individual hospitals or patients. The Data will be retained until November 1, 2025; at that time, the Data will be destroyed, and a Certification of Destruction will be submitted to the HSCRC.

## **REQUEST FOR ACCESS TO THE CONFIDENTIAL PATIENT LEVEL DATA**

All requests for the Data are reviewed by the HSCRC Confidential Data Review Committee (“the Review Committee”). The Review Committee is composed of representatives from HSCRC, the MDH Environmental Health Bureau and the Behavioral Health Administrations. The role of the Review Committee is to determine whether the study meets the minimum requirements described below and to make recommendations for approval to the HSCRC at its monthly public meeting.

1. The proposed study or research is in the public interest;
2. The study or research design is sound from a technical perspective;
3. The organization is credible;
4. The organization is in full compliance with HIPAA, the Privacy Act, Freedom Act, and all other state and federal laws and regulations, including Medicare regulations; and
5. The organization has adequate data security procedures in place to ensure protection of patient confidentiality.

The Review Committee unanimously recommended that UMSOM be given access to the Data. As a condition for approval, the applicant will be required to file annual progress reports to the HSCRC, detailing any changes in goals, design, or duration of the project; data handling procedures; or unanticipated events related to the confidentiality of the data. Additionally, the applicant will submit a copy of the final report to the HSCRC for review prior to public release.

## **STAFF RECOMMENDATION**

1. HSCRC staff recommends that the request by UMSOM for the Data for Calendar Year 2019 through 2023 be approved.
2. This access will include limited confidential information for subjects meeting the criteria for the research.





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**Final Staff Recommendation for a Request to Access  
HSCRC Confidential Patient Level Data from  
The Johns Hopkins University (JHU) Lipitz Center for Health  
Policy and Management.**

Health Services Cost Review Commission

4160 Patterson Avenue, Baltimore, MD 21215

November 9, 2022

**This is a final recommendation for Commission consideration at the November 9, 2022, Public Commission Meeting.**

## **SUMMARY STATEMENT**

The Johns Hopkins University (JHU) Lipitz Center for Health Policy and Management in partnership with MedStar Health is requesting access to Health Services Cost Review Commission (HSCRC) Inpatient and Outpatient Hospital data through CRISP, that includes limited confidential information (“the Data”) to conduct a health services research study entitled “Pragmatic Trial: Improving Communication for Primary Care Patients.”

## **OBJECTIVE**

The overall purpose of this study is to improve advance care planning discussions for older adult patients (age 65+) in a population at risk for fragmented, burdensome, low-quality, and high-cost end of life care. This work seeks to establish the benefits of novel strategies to normalize advance care planning (ACP) using a multicomponent intervention known as SHARING Choices. Effectiveness of the intervention will be evaluated on the rates of advance care planning, advance directive documentation, and end of life outcomes in patients aged 65 years and older. Investigators received approval from the Maryland Department of Health (MDH) IRB on July 21, 2022, and the MDH Strategic Data Initiative (SDI) office on October 3, 2022. The Data will not be used to identify individual hospitals or patients. The Data will be retained by JHU until August 30, 2026; at that time, the Data will be destroyed, and a Certification of Destruction will be submitted to the HSCRC.

## **REQUEST FOR ACCESS TO THE CONFIDENTIAL PATIENT LEVEL DATA**

All requests for the Data are reviewed by the HSCRC Confidential Data Review Committee (“the Review Committee”). The Review Committee is composed of representatives from HSCRC, the MDH Environmental Health Bureau. The role of the Review Committee is to determine whether the study meets the minimum requirements described below and to make recommendations for approval to the HSCRC at its monthly public meeting.

1. The proposed study or research is in the public interest;
2. The study or research design is sound from a technical perspective;
3. The organization is credible;
4. The organization is in full compliance with HIPAA, the Privacy Act, Freedom Act, and all other state and federal laws and regulations, including Medicare regulations; and
5. The organization has adequate data security procedures in place to ensure protection of patient confidentiality.

The Review Committee unanimously recommended that JHU be given access to the Data. As a condition for approval, the applicant will be required to file annual progress reports to the HSCRC, detailing any changes in goals, design, or duration of the project; data handling procedures; or unanticipated events related to the confidentiality of the data. Additionally, the applicant will submit a copy of the final report to the HSCRC for review prior to public release.

## **STAFF RECOMMENDATION**

1. HSCRC staff recommends that the request by JHU for the Data for Calendar Year 2021 through 2023 be approved.
2. This access will include limited confidential information for subjects meeting the criteria for the research.



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# Final Quality-Based Reimbursement Program for Rate Year 2025

November 9, 2022

This document contains the staff final recommendations for updating the Quality-Based Reimbursement Program for RY 2025.

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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
TFU	Timely Follow Up after Acute Exacerbation of a Chronic Condition
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
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.	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.	The QBR policy currently holds 2 percent of hospital inpatient revenue at-risk for Person and Community Engagement, Safety, and Clinical Care outcomes.	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.	Quality programs that reward hospitals for the better of attainment or improvement (QBR and RRIP) better allow the policies to target improvements in hospitals that serve a high proportion of under-resourced patients. The Health Equity Workgroup (HEW) analyzed the Medicare Timely Follow-Up measure and found disparities by race, dual-status, and Area Deprivation. Over the coming year, HSCRC staff will explore methods to assess disparities in Timely Follow-Up across social factors and develop hospital incentives for reducing these disparities, similar to the approved readmission disparity gap improvement policy.

## RECOMMENDATIONS

This document puts forth the RY 2025 Quality-Based Reimbursement (QBR) final policy recommendations. This recommendation proposes maintaining updates from RY 2024 with minimal changes to the program measures 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 2025 QBR Program:

1. Continue Domain Weighting as follows for determining hospitals' overall performance scores:
  - Person and Community Engagement (PCE) - 50 percent, Safety (NHSN measures) - 35 percent, Clinical Care - 15 percent.
  - a. Within the PCE domain, continue to include four linear HCAHPS measures weighted at 10% of QBR score; remove associated revenue at risk from top box.
  - b. Within the PCE domain, add the Timely Follow-Up measure for Medicaid.

2. Develop the following monitoring reports for measures that will be considered for adoption after RY 2025:
  - a. 30-day all-payer, all-cause mortality (claims based)
  - b. Timely Follow-Up for Behavioral Health
  - c. Disparity gaps for Timely Follow-Up
3. Implement the HCAHPS improvement framework with key stakeholders.
4. Continue collaboration with CRISP and other partners on infrastructure to collect hospital electronic clinical quality measures and core clinical data elements; For CY 2023 require submission of:
  - a. ED-2 eCQM for monitoring; consider for re-adoption after RY 2025 (in CY 2024)
  - b. Safe Opioid Use eCQM for monitoring
  - c. Four additional eCQM measures aligned with the SIHIS goals and hospital improvement priorities
  - d. Clinical data elements for 30-day mortality and readmission hybrid measures beginning July 2023
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.
  - a. Retrospectively evaluate 41 percent cut point using more recent data to calculate national average score

## 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 October 29, 2021, that Maryland's exemptions were granted for federal fiscal year 2022. 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. Further, CMS noted they expect 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 Maryland TCOC Model. As such, they should be comprehensively integrated and aligned across the spectrum of healthcare delivery. CMS noted their evaluation of future CMS Quality Program Waiver requests will consider Maryland's performance improvement and advancement in these three high-priority areas. HSCRC has submitted our exemption request for FY 2023 and responded to the issues raised by CMS in last year's exemption approval; staff is awaiting CMS' response.



This RY 2025 policy recommendation summarizes the state’s efforts to implement updates identified during last year’s redesign of 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 staff and QBR Redesign Subgroup convened in 2021, and by the standing PMWG which moved the subgroup findings forward. This policy includes recommended changes to the program for RY 2025 (see Figure 1 for status and progress of work by domain and measure). See the RY 2024 QBR policy for additional information on the findings from the QBR Redesign.

**Figure 1. Status and Progress on QBR Redesign Tasks**

Domain/ Measure	RY 2025	Future program years
<b>Person and Community Engagement domain</b>		
<b>HCAHPS</b>	<ul style="list-style-type: none"> <li>• Monitor HCAHPS linear and overall scores after allocating 10% of points for the linear scores to the Person and Community Engagement (PCE) domain</li> <li>• Use HCAHPS patient level data from the Maryland Health Care Commission (MHCC) for additional analytics, including on disparities, and hospital improvement</li> <li>• Work with stakeholders to facilitate more sharing of best practices</li> </ul>	<ul style="list-style-type: none"> <li>• Continue to use HCAHPS patient-level data from the MHCC for additional analytics, including on disparities, and hospital improvement.</li> <li>• Continue working 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>• Use infrastructure for electronic clinical quality measures (eCQMs) to enable the collection of data for an ED wait time measure; begin collection in CY 2022</li> </ul>	<ul style="list-style-type: none"> <li>• Continue to collect the ED wait time measure eCQMs; consider adopting the ED measure 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>• Identify strategies for all hospitals in Maryland to achieve the SIHIS goal for Timely Follow-up</li> <li>• Develop monitoring reports for 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 the national VBP Program; focus on improvement on current measures.</li> <li>• Analyze impact of COVID on MD vs national trends</li> </ul>	<ul style="list-style-type: none"> <li>• Continue to analyze Maryland trends compared to national performance.</li> <li>• Explore working with CDC to add more innovative and less burdensome “digital” measures.</li> </ul>

Domain/ Measure	RY 2025	Future program years
<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</li> <li>Continue to develop the 30-day measure for monitoring in RY 2025</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> <li>Consider adoption for RY 2026</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 and to outpatient cases.</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 two and a half years 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.

CMS has paused revenue adjustments for both the VBP (QBR-analogous) and HAC Reduction programs for FY 2023 due to COVID impact concerns; Maryland shares the same concerns and is considering suspension of the revenue adjustments for RY 2023 for the QBR and MHAC programs. Given the expected persistence of COVID-19, Maryland might decide that more adjustments are needed to further account for the effects of the pandemic in the RY 2024 QBR policy. Thus, staff recommended to the Commission that we retrospectively assess the need for changes for the RY 2024 policy and report those changes to the Commission. For RY 2025, staff is only recommending retrospectively evaluating the revenue adjustment scale cut point to allow for national comparison and to take into account any COVID issues (i.e., rather than adjusting measurement, focus on how measures are converted to revenue adjustments).

### 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 Person and Community Engagement and Safety domains. For the Clinical Care domain, the program uses Maryland-specific standards for the inpatient mortality measure and national standards for the Medicare only measure of total hip arthroplasty/total knee arthroplasty (THA/TKA) complications. Figure 2 compares RY 2024 QBR measures and domain weights to those used in the VBP Program.

**Figure 2. RY 2024 QBR measures and domain weights compared with those used in the VBP Program**

Domain	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 top box score and four categories linear score; Medicare follow-up after chronic conditions exacerbation	<b>25 percent</b> Eight HCAHPS measures top box score.
<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

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 and Medicare Timely Follow-Up (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 total score of 0 percent means that performance on all measures is below the national threshold and has not improved, whereas a total 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

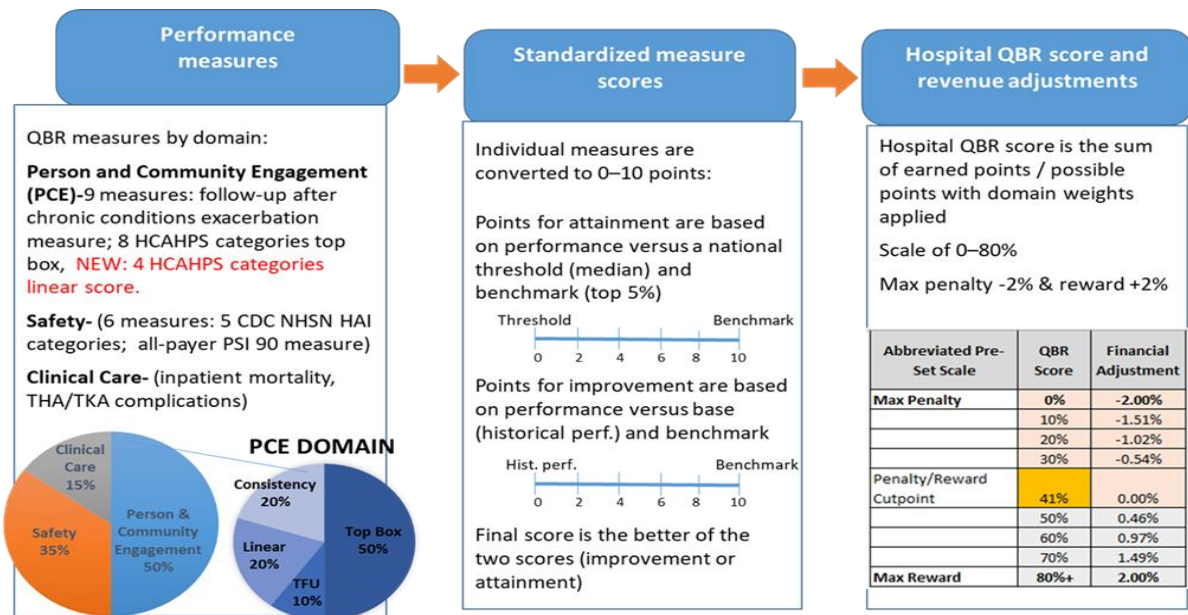
scores for federal fiscal years 2016–2021, which indicated the average national score using Maryland domain weights (without the Efficiency domain) was around 41 percent (ranging from 38.5 to 42.7).

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
5. 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. RY 2024 QBR Policy Methodology Overview**



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

## 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 the QBR program, compared to the nation when national data is available. In addition, staff has proposed a preliminary revenue adjustment scale and a method

for assessing the scale retrospectively, but does not present new modeling of potential revenue adjustments.

## Person and Community Engagement Domain

The Person and Community Engagement domain currently measures performance using the HCAHPS patient survey and a measure of timely follow-up (TFU) after discharge for an acute exacerbation of a chronic condition for Medicare FFS beneficiaries. 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. This section also discusses the HSCRC staff's work with CRISP to collect the eCQM version of the ED wait time measure.

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

The HCAHPS survey is a standardized, publicly reported survey that measures patient's perceptions of their hospital experience. In keeping with the national VBP Program, the QBR Program scores hospitals on either improvement or attainment, whichever is highest, across the following HCAHPS domains: (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. The QBR Program also scores hospitals separately on consistency<sup>1</sup>; a range of 0-21 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.

The VBP and QBR program have historically measured HCAHPS based on the top-box score (e.g., the percent of respondents who indicate they strongly agree). As part of the RY 2024 QBR Redesign, the state decided to also score hospitals on the HCAHPS linear scores, which are the average response across all response categories. Specifically, HCAHPS linear scores were added as 20% of the PCE domain (i.e., 10 percent of overall QBR score) for the following domains: the nurse communication, doctor communication, responsiveness of staff and care transition. The addition of the linear measures is designed to further incent focus on HCAHPS by providing credit for improvements along the continuum and not just improvements in top box scores. Also by focusing on just 4 of the 8 measures, staff believes additional emphasis will be put on these important measures that have been shown to be correlated with other patient safety outcomes. The HSCRC staff recommends including the linear measures for RY 2025; however, staff will assess if adding the linear measures helps improve top-box scores over the

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

coming 2-3 years. If top box scores do not improve, the staff will recommend removing the linear measures in future rate years.

Figures 4 and 5 below provide graphic and numeric representations respectively of the HCAHPS measure results for Maryland compared to the Nation, revealing that:

- Maryland continues to lag behind the Nation.
- Both the Nation and Maryland declined slightly from the base to the performance periods for most of the HCAHPS categories.
- For the “Overall Rating 9 or 10” category, Maryland performs worse than the Nation but both Maryland and the Nation maintained their performance from the base.
- For “ Discharge Information Provided”, Maryland and the Nation performed on par with one another and maintained their performance levels from the base.

Subsequent to the state vs. national analysis through 3/31/21, updated data through 6/30/21 was released on CMS Care Compare showing similar trends of Maryland lagging behind the nation and poorer performance for both Maryland and the nation in the performance period compared with the pre-COVID base period.

**Figure 4. HCAHPS Top Box Results: Maryland Compared to the Nation, CY 2019 vs 10/1/20-9/30/21**

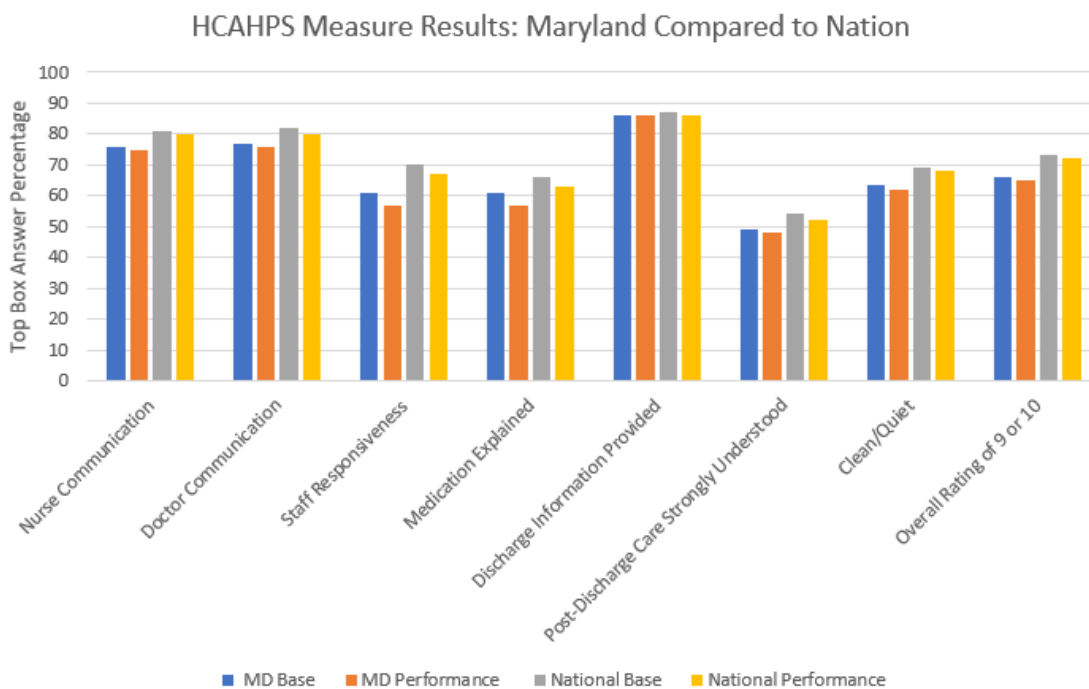


Figure. 5 HCAHPS Numeric Results: Maryland Compared to the Nation

	MD Base	MD Performance	National Base	National Performance
Nurse Communication	76	75	81	80
Doctor Communication	77	76	82	80
Staff Responsiveness	61	57	70	67
Medication Explained	61	57	66	63
Discharge Information Provided	86	86	87	86
Post-Discharge Care Strongly Understood	49	48	54	52
Clean/Quiet	63.5	62	69	68
Overall Rating of 9 or 10	66	65	73	72

## Maryland HCAHPS Improvement Framework

### Background

One important area CMMI has identified in feedback to the Commission is the need for targeting improvement in HCAHPS in the Person and Community Engagement domain, worth 50% of the QBR program score. Specifically, CMMI’s correspondence noted the following:

“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 expects 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. ”

### Historic Efforts to Improve HCAHPS

The State and hospitals have worked to target HCAHPS improvement over the past several years. In addition to increasing the incentives to double that of the nation under the QBR program, the Maryland Hospital Association (MHA) has worked with hospitals and health systems to assess HCAHPS performance and develop improvement initiatives stemming from best practices and leveraging efforts correlated with improvements in patient satisfaction. MHA planned additional collaboratives for CY 2020,



but these plans were halted because, like many hospitals around the country, all staff were fully engaged in responding to the COVID crisis.

### **Past Learning Collaboratives and Programs**

In 2018, MHA initiated a Patient Experience Mentoring Program. The program identified hospitals whose patient satisfaction scores were a top box, exceeded the Nation average, and improved over time. MHA reached out to them to know their success strategies and possibly replicate them state-wide. MHA paired the hospitals to create an inter-hospital sharing platform to guide/support each other and identify opportunities to improve HCAHPS scores. The pilot began with patient experience leads visiting their partner hospital for a discrete on-site visit. The leads toured the ED/patient rooms, attended morning bed huddles, observed nurse leader rounding, etc. They filled out a site visit guide with observations and shared it with the partner hospital. Hospitals have expressed that the peer program was beneficial and enhanced staff engagement.

In 2019, MHA conducted a **Patient Experience learning Conference**. The participants of the MHA mentoring program were in attendance to share their lessons learned/experiences. MHA began the event by sharing state-wide HCAHPS scores to help hospitals identify and close the gaps. National HCAHPS expert Carrie Brady facilitated the rest of the conference. Ms. Brady conducted a panel discussion on technology to support rounding, organizational structures to support patient experience, Nurse leader rounding, and staff engagement. Ms. Brady also made participants take the HCAHPS survey and reviewed the Always Events Toolkit. The takeaway of the conference was for the participants to receive a guide to creating their peer-to-peer learning program within the hospital or health system.

To address the ongoing concerns going forward, HSCRC will work in collaboration with Maryland hospitals, MHA, and other important stakeholders committed to developing and implementing a framework that supports improving Maryland performance on HCAHPS. An initial critical component of the framework includes collaboration with all key stakeholders, including Maryland Hospital Association (MHA), hospital staff/entities accountable for HCAHPS survey administration and for data analysis, patient representatives, and the Maryland Healthcare Commission (MHCC). Critical components of the framework are outlined below.

### **Administrative Leadership Accountability:**

HSCRC will first identify for each hospital the key hospital staff accountable for HCAHPS survey administration, data analysis, and improvement. These hospital contacts will be engaged in all activities established under the HCAHPS improvement framework.



***Anticipated Timeline:*** HSCRC will work with MHA and hospitals to identify HCAHPS-accountable hospital contacts by December 2022.

### **Data Analysis and Data Sharing:**

HSCRC will conduct or facilitate data analysis of HCAHPS data to stratify hospital-specific reporting on levels and rankings of performance on both top box scores, and on linear scores newly added to the QBR program as of rate year 2024. The analysis will also include hospital performance on specific HCAHPS categories. Further, HSCRC will work with MHCC to understand patient-specific demographic factors that may be contributing to hospital-specific trends or that may indicate disparities in performance.

***Anticipated Timeline:*** HSCRC will work with MHCC to analyze patient-level HCAHPS data once hospitals have submitted data for a full year. HCAHPS data submission began with MHCC receiving CY 2021 Q3 data in January 2022. We anticipate beginning an analysis of the HCAHPS data as of January 2023.

### **Hospital Adoption and Sharing of Best Practices:**

Drawing from a review of the literature on improving HCAHPS, hospitals will be surveyed on approaches they have implemented to improve their performance. Subsequently, hospitals will be convened so that they can share their experiences in designing and implementing best practices, which will include but are not limited to those outlined below.

***Anticipated Timeline:*** HSCRC will work with MHA, MHEI and hospitals to plan and implement sharing of best practices to improve HCAHPS beginning in CY 2023 and continuing into CY 2024.

### **Organizational Factors**

In a study of organizational factors that may improve patient experience, interviews of staff and patient representatives were conducted at eight geographically spread out organizations that included three inpatient hospitals known for such improvements. The study identified the following processes for improving patient-centered care:

1. strong, committed senior leadership,
2. clear communication of strategic vision,
3. active engagement of patient and families throughout the institution,
4. sustained focus on staff satisfaction,
5. active measurement and feedback reporting of patient experiences,
6. adequate resourcing of care delivery redesign,

7. staff capacity building,
8. accountability and incentives and
9. a culture strongly supportive of change and learning.<sup>2</sup>

*Patient-Physician Communication*

One publication provided a summary of current literature that lays out best practices that hospitals can employ to improve physician-patient communication, specifically targeting the HCAHPS survey.<sup>3</sup> The article outlined Best Practices summarized in the Figure 6 below.

**Figure 6. Hospital Provider Communication Best Practices**

Demonstrating Courtesy and Respect	Best Practices for Improving Listening	Best Practices for Explaining
<p>Knock before entering a patient's room. Greet the patient by name. Introduce yourself and your role. Review the chart prior to entering the room.</p> <ul style="list-style-type: none"> <li>● Treat every concern brought up as important and explain why you prioritize certain concerns over others in the hospital.</li> </ul> <p>Ask the patient for permission to conduct a physical examination.</p> <ul style="list-style-type: none"> <li>● At the end of an encounter, ask for questions in an open-ended fashion</li> <li>● End the hospital stay on a positive note.</li> </ul>	<ul style="list-style-type: none"> <li>● Avoid interrupting the patient.</li> <li>● Take notes so they know you take their concerns seriously</li> <li>● Summarize key points of a discussion.</li> <li>● Pay attention to nonverbal cues, and acknowledge emotions</li> <li>● Sit at the bedside.</li> <li>● Use social touch to convey empathy.</li> <li>● Be comfortable with silence: allow 5 seconds to re-sume conversation when there is a pause.</li> <li>● Watch your body language; don't appear hurried, bored or fidgety; don't cross your arms.</li> </ul>	<ul style="list-style-type: none"> <li>● Avoid medical jargon</li> <li>● Explain physical examination findings as you are conducting the examination.</li> <li>● Use the teach-back method to ensure understanding; utilize open-ended questions.</li> <li>● Explain procedures/testing before they are ordered/performed.</li> <li>● Write out important information, if needed (use white-boards in rooms).</li> <li>● Give patients a way to contact you with any questions after the hospital stay.</li> </ul>

*Discharge Planning/Care Transition*

A study surveyed 1,600 acute care hospitals on whether the following strategies were used:

<sup>2</sup> Luxford, Karen, Dana Gelb Safran, and Tom Delbanco. "Promoting Patient-Centered Care: A Qualitative Study of Facilitators and Barriers in Healthcare Organizations with a Reputation for Improving the Patient Experience." *International Journal for Quality in Health Care*, vol. 23, no. 5, 2011, pp. 510–515.

<sup>3</sup> Dutta, Suparna, and Syeda Uzma Abbas. "HCAHPS And The Metrics Of Patient Experience: A Guide For Hospitals And Hospitalists." *Hospital Medicine Practice*, vol. 3, no. 6, June 2015. Available at [http://medicine.med.miami.edu/documents/Patient\\_Satisfaction\\_6-15.pdf](http://medicine.med.miami.edu/documents/Patient_Satisfaction_6-15.pdf).

1. use of a dedicated discharge planner or discharge coordinator, create discharge summary prior to discharge and share with outpatient provider,
2. schedule follow-up appoints for all patients prior to discharge,
3. use electronic tools to reconcile discharge medications, and
4. use formal discharge checklist to document components of the discharge process.<sup>4</sup>

After categorizing responders into low-strategy, mid-strategy, and high-strategy groups based on quartiles of the number of strategies that used, the study found that compared with low-strategy hospitals, high-strategy hospitals had a higher overall rating (+2.23 percentage points (pp),  $P < 0.001$ ), higher recommendation score (+2.5 pp,  $P < 0.001$ ), and higher satisfaction with discharge process (+1.35 pp,  $P = 0.01$ ) and medication communication (+1.44 pp,  $P = 0.002$ ).

### Next Steps

Building off of the past efforts, MHA is working with Maryland Healthcare Education Institute (MHEI) and the Maryland Patient Safety Center (MPSC) on two current initiatives to support HCAHPS improvements through education and training efforts:

- [What Do Our Patients Want From Us Now?](#)
- [BIRTH Equity: Breaking Inequality Reimagining Transformative Healthcare](#)

HSCRC, again working with identified key stakeholders, will collaborate to finalize and implement the framework. Throughout the remainder of CY 2022 and going forward, the Commission will provide periodic updates on the framework and its implementation, including HCAHPS data trends.

### 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. 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>5</sup> Under alternative payment models, such as hospital global budgets or other hospital capitated models, there may be an incentive to reduce

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<sup>4</sup> Figueroa, J.F., Y. Feyman, X. Zhou, and K.J. Maddox. "Hospital-Level Care Coordination Strategies Associated with Better Patient Experience." *BMJ Quality & Safety*, vol. 27, 2018, pp. 844–851. Available at <https://qualitysafety.bmj.com/content/qhc/27/10/844.full.pdf>.

<sup>5</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>.

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.

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. In CYs 2019 and 2020, CMS's Hospital Inpatient Quality Reporting (IQR) 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. Staff recommended the CMS electronic clinical quality measure (eCQM) version of the ED-2 measure, which is optional for hospitals to submit. However, in the FY 2022 IPPS Final Rule, CMS finalized plans to remove this measure beginning with CY 2024 reporting. Despite its removal from the IQR program, HSCRC staff believes it will 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.

### *Collection of ED Wait Time Data*

Currently staff is collaborating with CRISP and its contractor, Medisolv, to collect electronic clinical quality measures (eCQMs), including the ED-2 eCQM, and clinical core data elements for hybrid measures since CMS is signaling this direction for quality measurement. Half of hospitals began submitting the measure using CY 2021 data, and all hospitals have been required to submit the measure for all four quarters in CY 2022. Please see more information regarding Maryland's hospital eCQM Infrastructure in the section below. 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

Stakeholders are 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.

Concerns raised about implementing eCQM ED-2 into payment include 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 believes 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. Thus, for this policy we are asking Commissioners to approve the recommendation to require hospitals to submit the ED-2 eCQM for CY 2023 performance and then in future policies consider readopting the measure for payment.

### Timely Follow-Up After Discharge

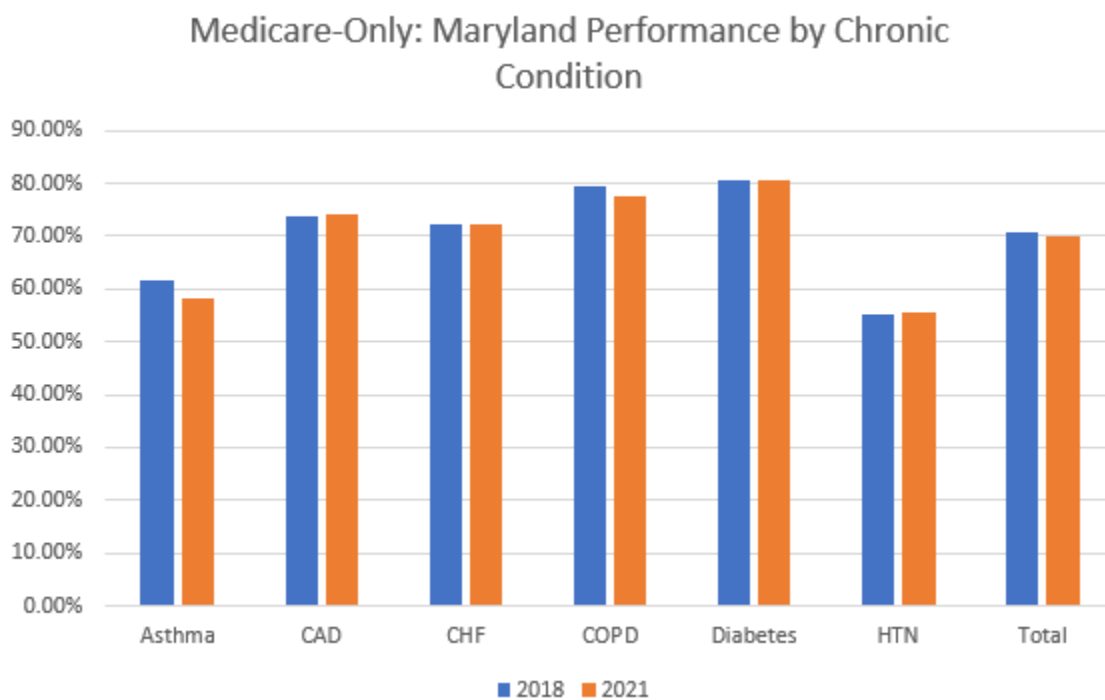
On March 17, 2021, CMS approved Maryland's proposed SIHIS, which included a National Quality Forum-endorsed health plan measure of timely follow-up (TFU) after an acute exacerbation of a chronic condition in the Care Transition domain. The SIHIS goal is to achieve a 75 percent TFU rate for Medicare FFS beneficiaries 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 2025 QBR program weighted at 10 percent of the PCE domain (20 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 7 shows Maryland's performance over time for each chronic condition and all conditions combined. For all conditions, there was a slight drop from 2018 to 2021 (70.85% to 70.07%) and thus Maryland did not meet the Year 3 SIHIS goal of 72.38 percent. The largest drop in follow-up was for asthma (-3.5%) and COPD (-1.7%), which also had increases in the number of discharges requiring follow-up in CY 2021 and thus higher weighting in the total composite. For CAD, CHF, diabetes, and hypertension there were slight increases in follow-up but also decreases in the number of discharges in 2021. Thus the weighting or number of discharges in the composite also impacts the total rate and may need to be considered as we assess progress on increasing follow-up.

**Figure 7. Medicare-only: Maryland Timely Follow-Up by Condition**



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.

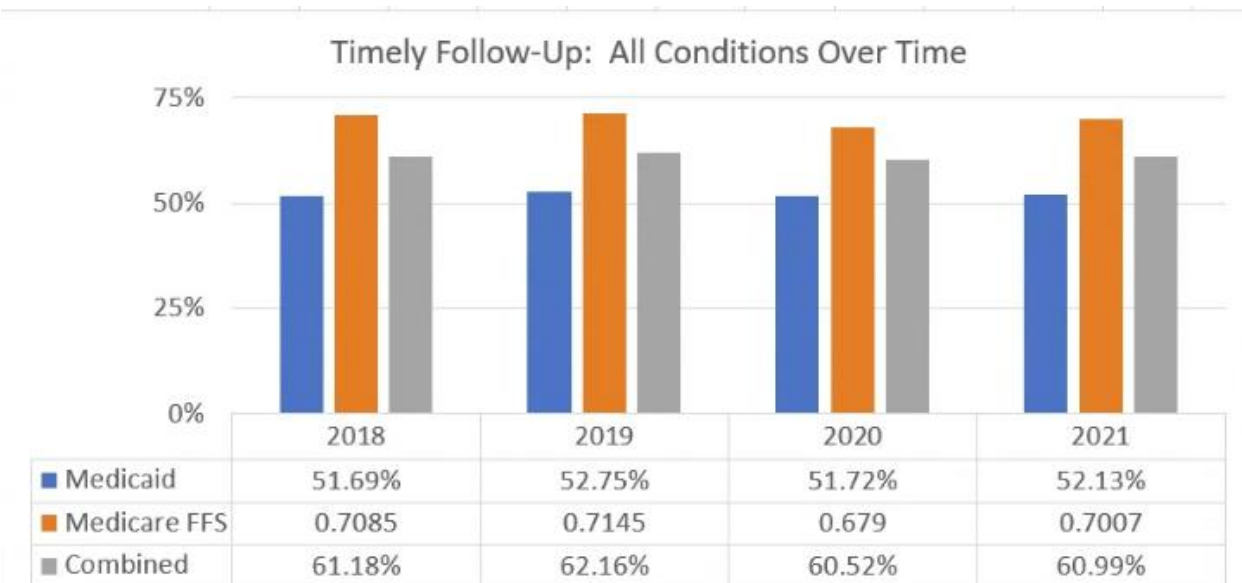
Figure 8 shows the annual performance on the total TFU measure for Maryland and the Nation (national data is based on the Chronic Condition Warehouse 5 percent sample). Overall there was a drop in TFU for both the State and the nation during the COVID-19 PHE. Based on the data from CY 2021, the state was at 70.07 percent TFU across all conditions and as mentioned above did not meet the Year 3 SIHIS goal of a TFU rate of 72.38 percent. However, Maryland did have some recovery in 2021 from 2020 and performed about 2.5 percent better than the Nation despite missing the SIHIS goal.

**Figure 8. Medicare-only: Timely Follow-Up across All Conditions**

	CY2018	CY2019	CY2020	CY2021
<b>Maryland</b>	70.85%	71.45%	67.90%	70.07%
<b>US</b>	66.82%	69.00%	64.75%	67.68%

As part of the SIHIS proposal, it was noted that staff would explore expanding the timely follow-up rates for chronic conditions to other payers and adding follow-up after a hospitalization for behavioral health. In Calendar Year 2022, staff worked with CRISP and Maryland Medicaid to provide hospitals monthly Medicaid Timely Follow-Up reports on the CRS portal. Figure 9 shows the TFU rate for both Medicare FFS and Medicaid individually and combined. Currently staff is vetting with the PMWG how to incorporate Medicaid in the payment program. Issues to discuss include the concerns of the SIHIS goal being missed for Medicare FFS, the significant differences between Medicare and Medicaid rates that make it less suitable as a combined measure, and the weight that would be put on a Medicaid measure (i.e., how would the current 5 percent of the PCE domain be split and is that weight significant enough of an incentive). The HSCRC staff will further review these issues with PMWG in October and request that comment letters provide feedback on how to incorporate Medicaid. Based on this discussion the staff will provide a final recommendation for consideration in November.

**Figure 9 Medicaid and Medicare FFS: Timely Follow-Up across All Conditions**



Staff is continuing to work to understand the Medicare and Medicaid behavioral health data and creating a Timely Follow-Up monitoring report for Behavioral Health.

### Health Equity Workgroup Findings

In the Summer of CY 2022, staff convened a Health Equity Workgroup which stratified Maryland’s quality measures by social demographic factors to glean disparities. For the QBR program, staff stratified the Timely Follow-Up measure by race, dual-eligibility status, and Area Deprivation Index (ADI). Results of this stratification analysis are below in Figures 10, 11, and 12, but overall the analysis found disparities on all three factors. For example, Figure 10 indicates that Blacks have a 58 percent higher odds of not receiving follow-up compared to Whites. Similar trends were seen where duals and those with higher area deprivation had a higher odds of not receiving follow-up. Given that the state did not meet the 2021 Year 3 Milestone Target and the overwhelming evidence of disparities in this measure, HSCRC staff will develop hospital incentives for reducing these disparities, similar to the approved readmission disparity gap improvement policy, over the next year. The methodology will address how to measure disparities in the three exposure factors above using a composite exposure variable that is not associated with the outcome. This differs from the current readmission methodology and will require time to develop the measure before reports can be provided to hospitals. However, this is a priority of the staff and will hopefully aid the state in achieving the final SIHIS goal of a 75 percent (or 0.5% better than the nation) timely follow-up rate in CY 2026.

**Figure 10. Odds Ratio of No Follow-Up by Race**

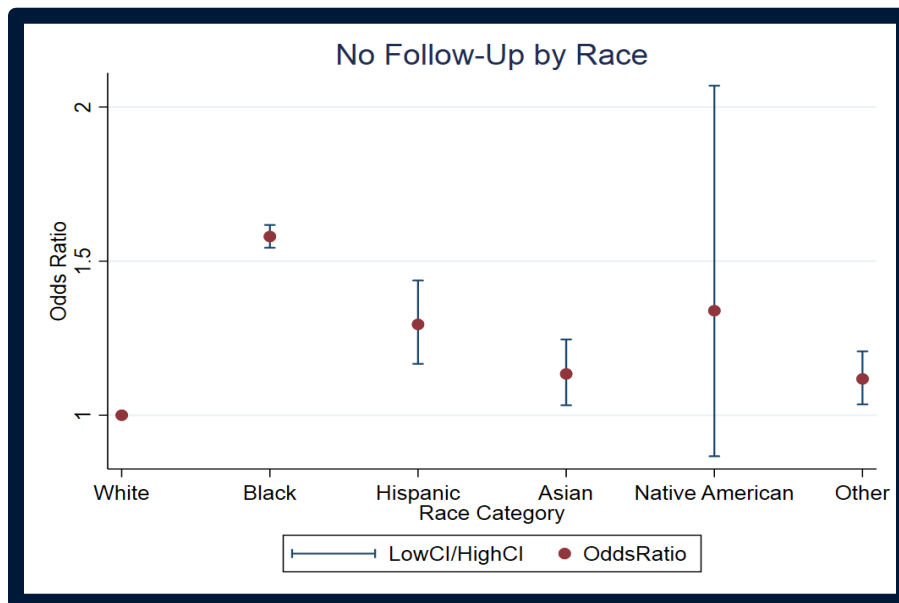




Figure 11. Odds Ratio of No Follow-Up by ADI Decile

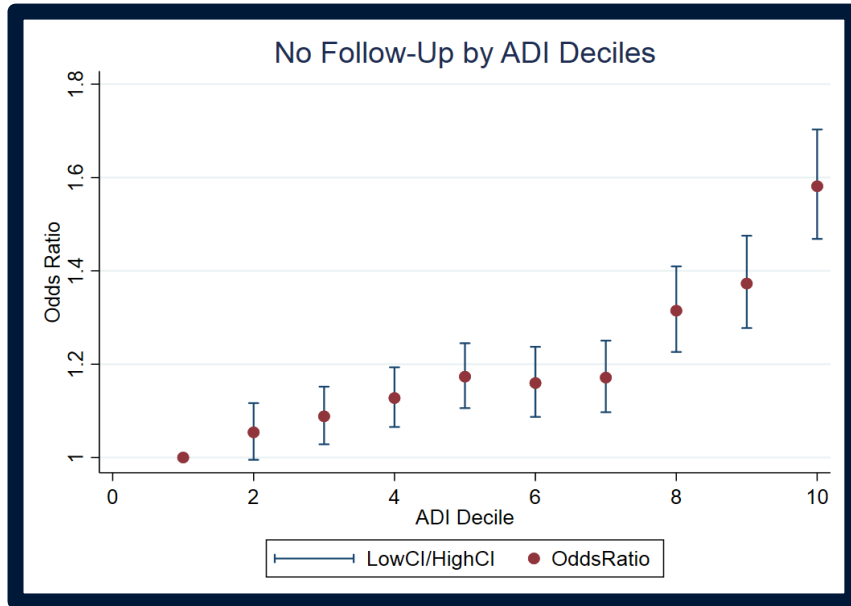
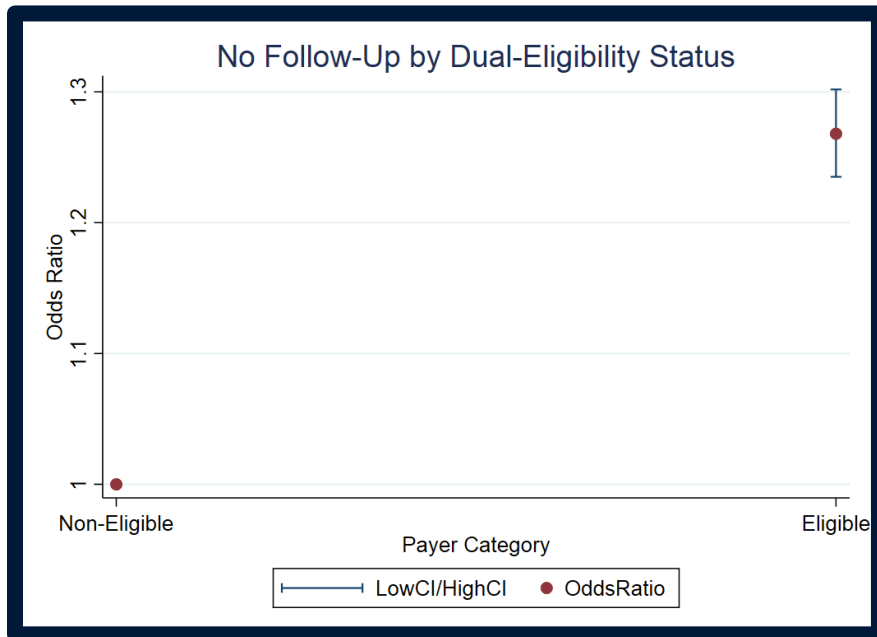


Figure 12. Odds Ratio of No Follow-Up by Dual-Eligibility Status



## 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>6</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. Both Maryland and the nation have seen increases in HAIs during CY 2020 and CY 2021. Specifically, CDC has reported that there were significant increases in the national SIRs for CLABSI, CAUTI, VAE, and MRSA bacteremia in 2020 compared to 2019, but that the increases varied by quarter and State. In Maryland, there were statistically significant increases in CLABSI in 2020, while all other NHSN measures for Maryland did not show a statistically significant change despite increases. Furthermore a recent study has shown that the increase in HAI SIRs continued into CY 2021.<sup>7</sup> For example, nationally CLABSI increased by 45 percent from Q1 2019 to Q1 2021. Based on these trends, the FY 2023 CMS final rule suppressed the NHSN HAI measures in the national VBP program based on the significant changes in the national results during COVID, as well as significant shortages in health personnel that would impact care delivery. Thus, the Maryland and national results below should be interpreted cautiously and the HSCRC staff will need to monitor whether CMS makes any additional recommendations for suppressing measures during the RY 2025 performance period.

CMS Care Compare has updated the HAI SIR data tables for the nation and by state through October 2021. As Figure 13 below indicates, Maryland's performance is worse (higher SIRs) on all measures with the exception of MRSA. Furthermore, Maryland performed worse on all measures except SSI-Colon from 2019; nationally the measures also got worse except for MRSA and c.Diff.

### Figure 13. NHSN SIR Values for CY19 compared to Q4 CY20-Q3 CY21, Maryland versus the nation.

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<sup>6</sup> For use in the QBR Program, as well as the VBP program, the SSI Hysterectomy and SSI Colon measures are combined.

<sup>7</sup> Lastinger, L., Alvarez, C., Kofman, A., Konnor, R., Kuhar, D., Nkwata, A., . . . Dudeck, M. (2022). Continued increases in the incidence of healthcare-associated infection (HAI) during the second year of the coronavirus disease 2019 (COVID-19) pandemic. *Infection Control & Hospital Epidemiology*, 1-5. doi:10.1017/ice.2022.116



### 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 (AHRQ) Patient Safety Indicators were developed<sup>8</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 removed the PSI-90 measure from the VBP program in FY 2024, but retained the measure in the Hospital Acquired Conditions Reduction Program. Since Maryland does not have PSI-90 in the MHAC program, staff is recommending to retain it in the RY 2025 QBR program.

As illustrated in Figure 14 below, for CY 2021 (with COVID cases removed as recommended by AHRQ) compared with CY 2019, Maryland’s statewide performance is as follows:

- The state has **improved** with lower rates in 2021 on PSIs 09 Perioperative Hemorrhage or Hematoma Rate and 14 Postoperative Wound Dehiscence Rate.
- The state has **neither improved or declined** on PSIs 03 Pressure Ulcer Rate, 08 In-Hospital Fall With Hip Fracture Rate, and 10 Postoperative Acute Kidney Injury Requiring Dialysis Rate.
- The state has **worsened** with higher rates in 2021 on PSIs 06 Iatrogenic Pneumothorax Rate, 11 Postoperative Respiratory Failure Rate, 12 Perioperative Pulmonary Embolism (PE) or Deep Vein

<sup>8</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)

Thrombosis (DVT) Rate, 13 Postoperative Sepsis Rate, and 15 Abdominopelvic Accidental Puncture or Laceration Rate.

- On the overall PSI 90 composite measure, the state has worsened slightly.

**Figure 14. Maryland Statewide All-Payer Performance on PSI-90 and Component Indicators, COVID Removed, CY 2021 Compared to CY 2019**

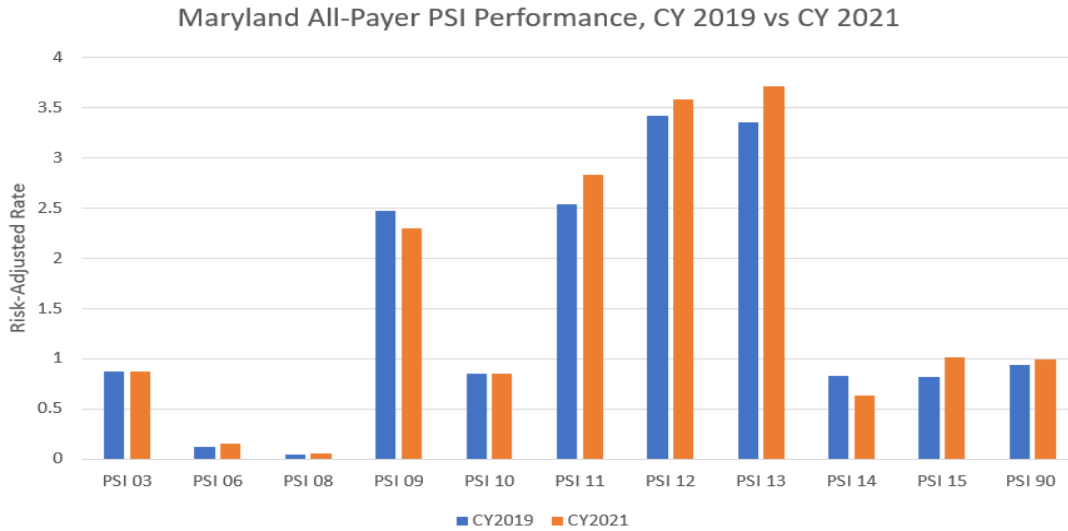
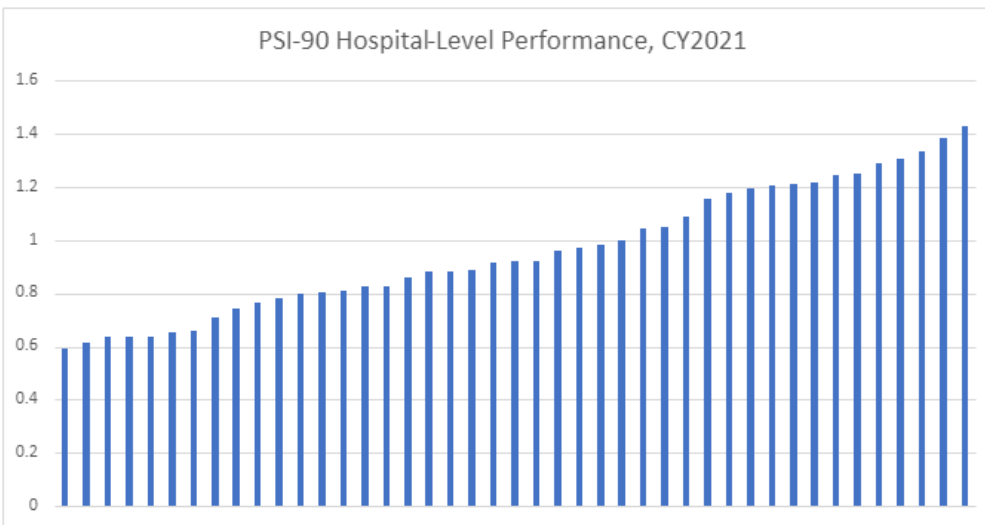


Figure 15 below illustrates the hospital-level performance on the all-payer PSI-90 composite measure for CY 2021; the variation in performance by hospital suggests there may be opportunity for improvement on this measure. However, it should be noted that this data may be impacted by the COVID PHE even though COVID cases were removed.

**Figure 15. PSI-90 Hospital-Level Performance, CY 2021**



## Clinical Care Domain

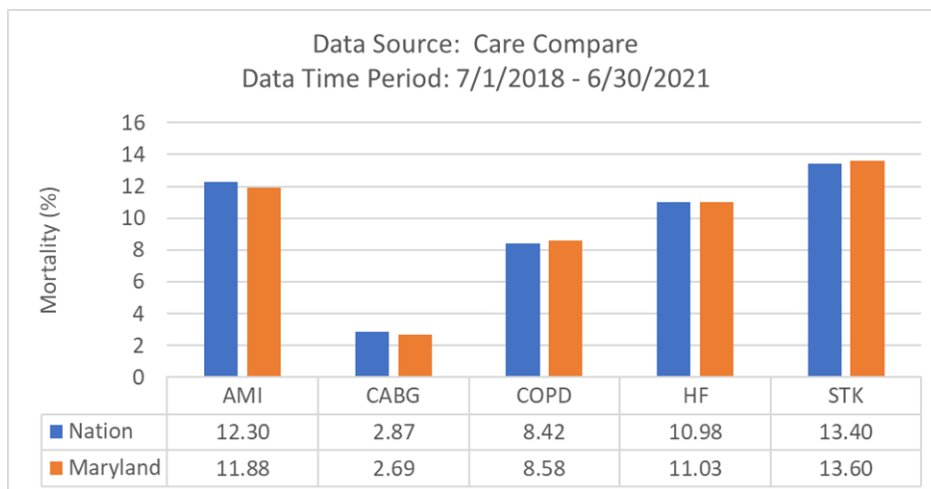
This domain, weighted at 15 percent of the QBR score, currently includes:

- 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. Medicare also monitors two additional 30-day mortality measures for Coronary Artery Bypass Graft (CABG) and Stroke (STK). The HSCRC is in the process of developing an all-payer, all-cause 30 day mortality measure and recommends developing monitoring reports for RY 2025.
- 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.

### Mortality

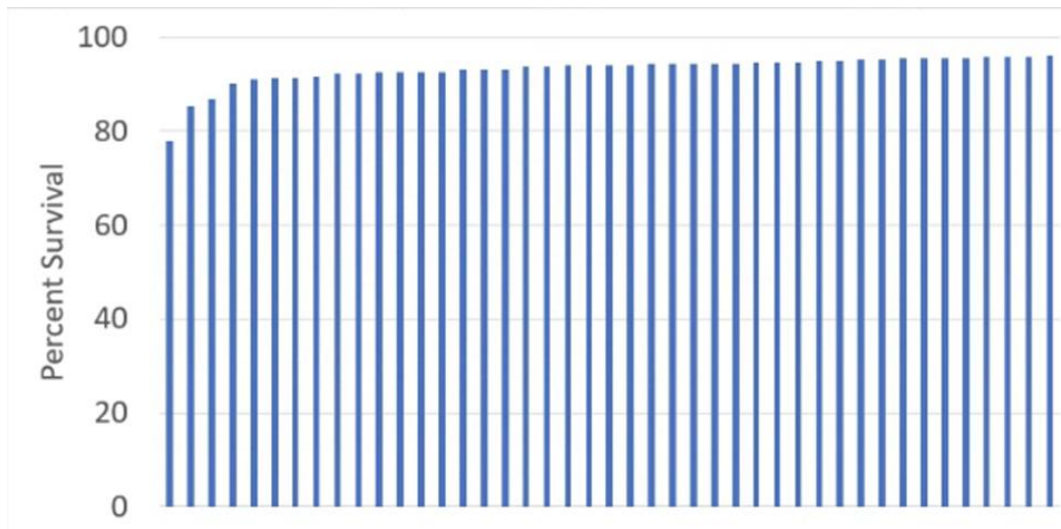
Based on the most recently available data through June of 2021, Maryland performs on par with the nation on all five of the condition specific mortality measures (data on pneumonia was removed in the latest Care Compare release due to COVID). Specifically Maryland performs slightly better than the nation on AMI and CABG, and slightly worse on COPD, HF, and STK (Figure 16). It should be noted that this data was impacted by the COVID PHE and that the first 6 months of CY 2020 was excluded from the three year measure (i.e., the measurement period was shorter than normal).

**Figure 16. Maryland vs. National Hospital Performance on CMS Condition-Specific Mortality Measures**



For the QBR all-payer inpatient mortality measure, which assesses hospital services where 80% of the mortalities occur (80% DRG exclusion), statewide survival rate decreased during the COVID PHE from 94.86% in the CY 2019 base period to 93.63% in the CY 2021 performance period. These mortality results modified our risk-adjustment model to add patient COVID status during admission and percent of patients at the hospital with COVID to the CY 2021 regression to better account for COVIDs impact on mortality. As illustrated in Figure 17 below, there are less than a handful of hospitals that appear to have lower survival rates, whereas most perform above 90 percent.

**Figure 17. Maryland Hospital Performance, CY 2021 QBR Inpatient All Condition, All Payer Mortality Measure**

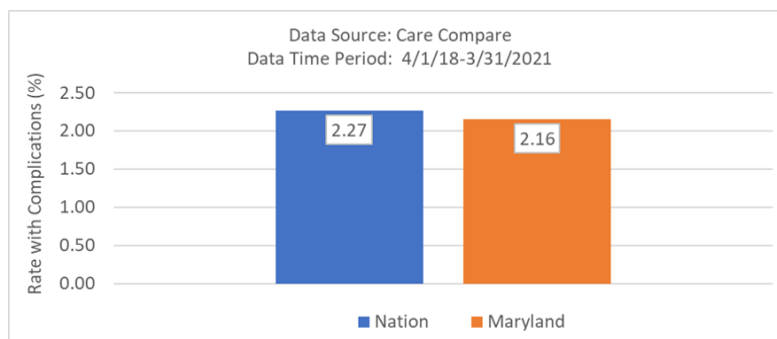


For RY 2024, staff is not proposing any significant methodology changes to the inpatient mortality measure. However, staff continues to assess impacts of COVID on the mortality measure. Furthermore, work continues on development of a 30-day, all-payer, all-cause mortality measure that can be monitored during CY 2023. Staff believes that expansion to a 30-day measure will better capture the quality of care delivered by hospitals. Last, as part of the digital measures initiative, staff plans to move the 30-day mortality measure from fully claims-based to a hybrid measure.

### Hip and Knee Arthroplasty Complications

For the hip and knee complication rate measure based on the most recent data available on Care Compare, Figure 18 illustrates that, based on analysis of the weighted average rates for Maryland and the nation, Maryland performed around 5 percent better than the nation.

**Figure 18. Maryland THA/TKA Measure Performance Compared to the Nation, 4/1/18-3/31/2021**



Since this measure is calculated by Hospital Compare using Medicare claims data using 3-year base and performance periods and includes only Medicare patients, payer stakeholders of the PMWG have voiced support for expanding this measure to the commercial population and other payers if feasible. In addition, staff notes that this measure is applicable only to patients in the inpatient setting. Although CMS reversed its action, with the previous removal of elective hip and knee replacement procedures from the Medicare “inpatient only” list--procedures for which Medicare will reimburse only if performed in the inpatient setting--, and the shift of these procedures to the outpatient setting, staff believes the QBR Program should consider both payer and care setting applicability options for measure expansion.<sup>9</sup>

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. For additional specific details on the options for THA/TKA outpatient and all-payer measure adaptation or adoption, please see the Quality Based Reimbursement RY 2024 Policy.

## Electronic Clinical Quality Measures (eCQM)/ Digital Quality Measures Infrastructure

### CMS Digital Quality Measures Roadmap

Like the national programs, the quality programs in Maryland provide incentives for and/or penalties for performance on quality measures, contribute to improvements in health care, enhance patient outcomes, inform consumer choice, and promote transformation to a digital health ecosystem. Over the past decade, CMS has led efforts to advance the use of data from electronic health records (EHRs) to enhance and expand quality measurement. However, accessing clinical patient data from EHRs for the purpose of quality reporting remains relatively burdensome. Additionally, CMS’s current approach to quality

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<sup>9</sup> In the CY 2022 Hospital outpatient prospective payment system (OPPS) and ambulatory surgical center (ASC) payment system final rule, CMS finalized the year’s Medicare payment rates for hospital outpatient and ASCs. CMS paused the elimination of the inpatient only list due in part to receiving overwhelming stakeholder feedback arguing that patients’ safety would be at far greater risk with a total elimination. The final rule added back to the IPO list all the services removed in 2021 except for three distinct procedures and their associated anesthesia codes. The services described by the following CPT codes will remain off the IPO list:

- 22630 (lumbar spine fusion)
- 23472 (reconstruct shoulder joint)
- 27702 (reconstruct ankle joint)
- The anesthesia codes corresponding to these procedures



measurement does not easily incorporate emerging digital data sources such as patient-reported outcomes (PROs) and patient-generated health data (PGHD). There is a need to streamline the approach to data standardization, collection, exchange, calculation, and reporting to fully leverage clinical and patient-centered information for measurement, quality improvement, and learning.

Advancements in the interoperability of healthcare data from EHRs create an opportunity to dramatically improve quality measurement systems and realize creation of a learning health system. In 2020, the Department of Health and Human Services (HHS) finalized interoperability requirements in CMS's Interoperability and Patient Access final rule and in the Office of the National Coordinator for Health Information and Technology's (ONC's) 21st Century Cures Act final rule. Driven by the Cures Act's goal of "complete access, exchange, and use of all electronically accessible health information," these changes will greatly expand the availability of standardized, readily accessible data for measurement. Most important, CMS's and ONC's interoperability rules and policies require specified healthcare providers and health plans to make a defined set of patient information available to authorized users (patients, other providers, other plans) with no special effort using Fast Healthcare Interoperability Resources (FHIR®) application programming interfaces (APIs). The scope of required patient data and standards that support them will evolve over time, starting with data specified in the United States Core Data for Interoperability (USCDI) Version 1, structured according to the Health Level Seven International (HL7®) FHIR US Core Implementation Guide (US Core IG).

This increasing availability of structured, FHIR-formatted EHR data can be leveraged to greatly reduce long-standing challenges to quality measurement. Currently, implementing individual EHR-based measures requires providers to install and adapt measure calculation software in their respective EHR systems, which often use variable or proprietary data models and structures. This process is burdensome and costly, and it is difficult to reliably obtain high-quality data across EHR instances. Once providers map their EHR data (structured using a uniform FHIR standard) to a FHIR API to meet the Cures Act requirements, it will be possible to exchange much of the foundational data needed for measures without significant additional provider investment or effort. Learnings from these activities can be leveraged and applied to other digital data that live outside the clinical EHR, enhancing and expanding the use of data such as PRO and PGHD for quality measurement in the future. The advances in interoperability will enable development of measure calculation tools (MCTs) for digital quality measures (dQMs) that solely use EHR data, so providers will no longer need to install measures one-by-one and update them annually in their unique EHR systems. Measures can be self-contained tools executed by the provider on-site, and by multiple other key actors in measurement — including states, CMS, other payers, clinical registries, and data aggregators. This approach to measurement tools could reduce provider measurement burden, facilitate the cross-provider aggregation of data needed for high priority measures such as outcome measures, and support the alignment of measures and data across multiple agencies and payers.

Maryland, like CMS, believes that In the future, interoperability of EHR and other digital health data can fuel a revolution in healthcare delivery and advance MCTs to leverage data beyond just EHRs and across settings and providers. A learning health system powered by advanced analytics applied to all digital health data can optimize patient safety, outcomes, and experience.<sup>10</sup>

### Near-Term Reporting Requirements

As noted earlier Maryland has implemented a statewide infrastructure and required all acute hospitals to report eCQM measures to the state. The reporting requirements are more aggressive than the national CMS requirements as Maryland believes early adoption and migration to the FHIR-formatted data and measures will constitute less burden for hospitals and provide greater opportunity for the state and hospitals to measure and improve quality. Figure 19 below illustrates Maryland and CMS reporting requirements for eCQMs.

**Figure 19. CMS-Maryland CY 2022-CY 2024 Anticipated eCQM Reporting Requirements**

Reporting Period/ payment determination	CMS Measures	Maryland Measures
CY 2022/ FY 2024	Three self-selected eCQMs plus Safe Use Opioids Concurrent Prescribing	Four eCQMs: Two self-selected eCQMs Two required measures: -Safe Opioids -ED-2
CY 2023/ FY 2025	Three self-selected eCQMs plus Safe Use Opioids Concurrent Prescribing  Clinical data elements for two hybrid measures (beginning July 2023) -30-day mortality -30-day readmissions	Six required eCQMs: -Safe Opioids -ED-2 -hyperglycemia -hypoglycemia -Cesarean Birth -Severe Obstetric complications  Clinical data elements for two hybrid measures (beginning July 2023) -30-day mortality -30-day readmissions

<sup>10</sup> Please see CMS Digital Quality Measurement Strategic Roadmap: [https://ecqi.healthit.gov/sites/default/files/CMSdQMStrategicRoadmap\\_032822.pdf](https://ecqi.healthit.gov/sites/default/files/CMSdQMStrategicRoadmap_032822.pdf), last accessed 8/9/2022.

Reporting Period/ payment determination	CMS Measures	Maryland Measures
CY 2024/ FY 2026	<b>Three self-selected eCQMs;</b> <b>Three required eCQMs</b> -Safe Use of Opioids -Cesarean Birth -Severe Obstetric Complications  <b>Clinical data elements for two hybrid measures</b> -30-day mortality -30-day readmissions	<b>Number of eCQMs TBD</b> <b>Required eCQMs-</b> -Safe Opioids -ED-2 -hypoglycemia -hyperglycemia -Cesarean Birth -Severe Obstetric complications  <b>Clinical data elements for two hybrid measures</b> -30-day mortality -30-day readmissions

The state notes that earlier adoption of a full four quarters of data on eCQMs that are consistent across all hospitals in the state will allow Maryland to publicly report these measures through collaboration with the MHCC and its quality reporting website.

In addition to the eCQM reporting requirements, Maryland will also utilize the established infrastructure to collect 30-day Hospital Wide Readmission (HWR) and Hospital Wide Mortality (HWM) hybrid measures adapted to our all-payer environment required as of July 1, 2023. The state notes that adoption of an all-payer hybrid HWM measure will allow Maryland to transition to the 30-day mortality measure from its current inpatient mortality measure under the QBR program. In addition, beginning with January 2023, hospitals may submit HWR and/or HWM hybrid measures voluntarily to the state. The required submission timeline is consistent with the CMS timeline requirements as well. In summary, Maryland's early adoption of eCQMs/digital measures will again allow the state to leverage the established infrastructure to monitor and improve quality and to progress to a less burdensome FIHR-enabled environment, and allow for earlier adoption of such measures as patient reported outcomes.

## Revenue Adjustment Methodology

For this policy, staff believe it is important to have a preset method for taking scores and converting those scores to revenue adjustments on a prospective basis. However, over the course of the COVID-19 PHE this has become more and more difficult to do prospectively. Thus for RY 2025, staff propose to maintain the 0-80 percent scale where rewards start for those who score greater than 41 percent. The 41 percent cut point is the most difficult part to estimate as we want to set it high enough to not reward hospitals in Maryland that are performing below the national average. Normally staff would use Care Compare data to approximate QBR scores for all hospitals nationally and set the cut point at the average national score

over the last several years. However, staff have not repeated this analysis on more recent data due to concerns about its validity and reliability, as well as some data being wholly suppressed due to the COVID PHE. Thus staff proposes to maintain the current scale, but determine if the cut point needs to be amended once we have more recent complete data. If staff determine the cut point needs to be amended, we will report this to the Commission.

## STAKEHOLDER FEEDBACK AND RESPONSES

Comment letters were submitted to the Commission in response to the QBR RY 2025 draft policy from Johns Hopkins Health System (JHHS), the Maryland Hospital Association (MHA), Maryland Medicaid, and Meritus Health. Furthermore, the draft policy was reviewed by the PMWG and the feedback from that workgroup is included below. Commenters were all supportive of the draft policy and direction and continued use of the current QBR methodology. This included: adding patients covered by Medicaid and assessing disparity gaps in the Timely Follow Up (TFU) measure; working to expand the use of the digital measurement infrastructure over time, provided there is flexibility in data submission timelines; and expanding the mortality measure to 30 days, with the proposed monitoring period for CY 2023 before adoption in the payment program. Staff appreciates commenters' support for the draft policy. Additional comments and staff responses are provided below.

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

JHHS noted their concern about the clinical significance of the timeframes proposed in the follow up after discharge metric, citing their findings of a random sample review they conducted of adult patients admitted with HTN and asthma across JHHS. They found that many patients admitted with these conditions were having difficulties refilling their medication for a variety of reasons, let alone having follow up in the specified timeframes. They also note many patients did not seem to have clinical indication for follow up within 7 days or 14 days of discharge, respectively. They support stratification of Medicare and Medicaid populations in TFU measure. They suggest that the HSCRC partner with other state programs to ensure adequate access to care, including primary care and providers that accept Medicare, noting that the measure is described as a health plan measure. Other feedback from PMWG was that timely follow-up is an important and concrete measure for hospitals and that increased weighting of the measure in the QBR program should be considered. Lastly, given the disparities in TFU it was requested by a Commissioner to ensure hospitals have access to data to track disparities in this measure and that reduction in disparities in TFU be prioritized.

**Staff Response:** Staff notes that expected performance on this measure is not 100%. Staff continues to support the NQF-endorsed measure developed by IMPAQ, including the timeframes specified for each medical condition, as the measure has had broader vetting with clinicians and has passed reliability and

validity testing. Staff notes that the measure has the potential to support hospitals in identifying and in helping address social determinants of health, such as resources for prescription and transportation or telehealth resources. Staff agrees that adequate outpatient provider access is important and will consider options for collaborating with health partners on analyses of this issue going forward. Furthermore, staff note that hospitals do have access to TFU by various factors such as race through the CRS portal case level reports and SIHIS dashboard (for Medicare). While staff is not recommending changes to the weighting of the TFU measure in the QBR program at this time, if the measure does not improve overall and/or disparities are not addressed such that the SIHIS goal may not be met, then raising the weight of the measure or including a disparity component should be considered for RY 2026.

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

In the JHHS letter, they note they value the opportunity to meet with other hospitals to share best practices to improve HCAHPS scores and suggest including other national leaders in these sessions for more learning opportunities.

**Staff Response:** Staff agrees the HCAHPS improvement collaborative project will benefit from national experts and will work with MHA to identify and engage national leaders.

### **Prospectively Lower the Reward/Penalty Cut Point from 41 percent to 36 percent**

Both MHA and Meritus support lowering the hospital QBR score cut point for rewards from 41 percent to 36 percent as national data analysis shows that average performance on VBP is as low as 30 percent, with the lower performance attributable to continued impacts of the COVID pandemic.

**Staff Response:** Staff continues to support the 41 percent with the option to analyze whether a decrease is justified retrospectively. This is because as health care rebounds post-COVID, it is unclear whether the current trends will continue or for how long. Thus, as discussed in the policy, staff has outlined the analysis that will be done retrospectively to assess the cut point.

## **FINAL RECOMMENDATIONS FOR RY 2025 QBR PROGRAM**

1. Continue Domain Weighting as follows for determining hospitals' overall performance scores:  
Person and Community Engagement (PCE) - 50 percent, Safety (NHSN measures) - 35 percent, Clinical Care - 15 percent.
  - a. Within the PCE domain, continue to include four linear HCAHPS measures weighted at 10% of QBR score; remove associated revenue at risk from top box.
  - b. Within the PCE domain, add the Timely Follow-Up measure for Medicaid.
2. Develop the following monitoring reports for measures that will be considered for adoption after

RY 2025:

- a. 30-day all-payer, all-cause mortality (claims based)
  - b. Timely Follow-Up for Behavioral Health
  - c. Disparity gaps for Timely Follow-Up
3. Implement the HCAHPS improvement framework with key stakeholders.
4. Continue collaboration with CRISP and other partners on infrastructure to collect hospital electronic clinical quality measures and core clinical data elements; For CY 2023 require submission of:
  - a. ED-2 eCQM for monitoring; consider for re-adoption after RY 2025 (in CY 2024)
  - b. Safe Opioid Use eCQM for monitoring
  - c. Four additional eCQM measures aligned with the SIHIS goals and hospital improvement priorities
  - d. Clinical data elements for 30-day mortality and readmission hybrid measures beginning July 2023
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.
  - a. Retrospectively evaluate 41 percent cut point using more recent data to calculate national average score

## APPENDIX A

### QBR PROGRAM BACKGROUND

#### **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 2024-2125 QBR measures and domain weights compared with those used in the VBP Program**

	<b>Maryland QBR domain weights and measures</b>	<b>CMS VBP domain weights and measures</b>
<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 for Medicare PROPOSED NEW: follow-up after chronic conditions exacerbation for Medicaid	<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>11</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 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>12</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>13</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

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<sup>11</sup> Scaling refers to the differential allocation of a predetermined portion of base-regulated hospital inpatient revenue based on an assessment of hospital performance.

<sup>12</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>13</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.

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.

**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.

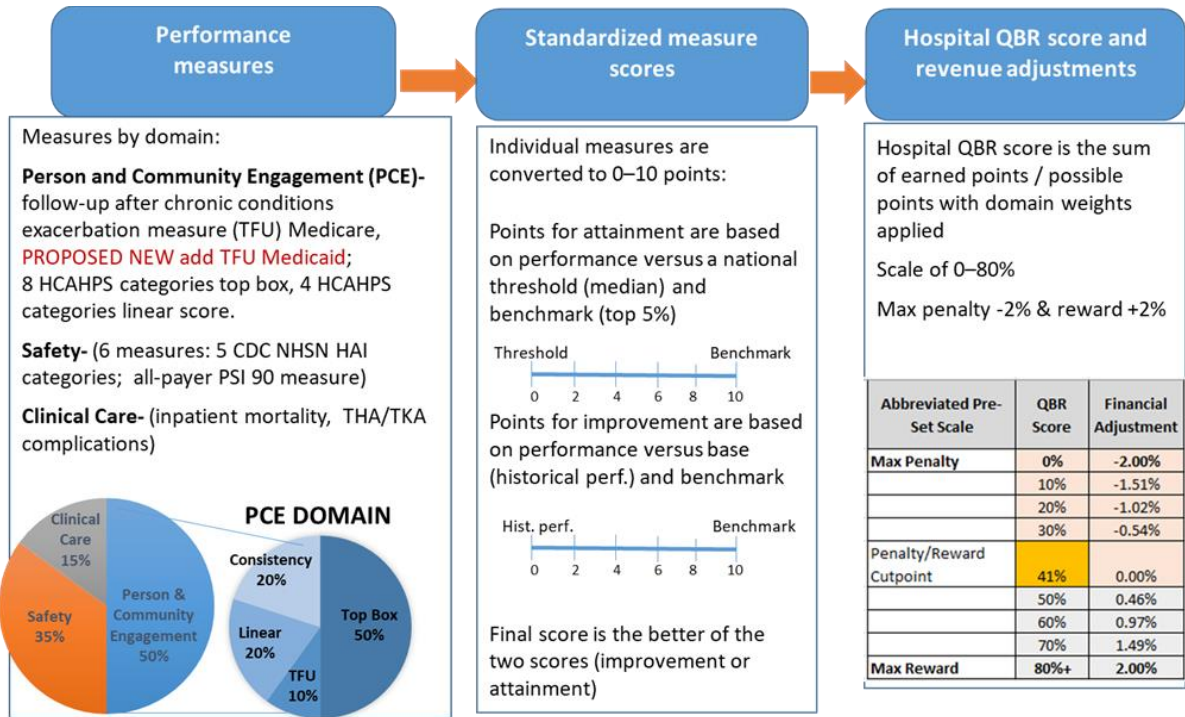
**Total performance score:** The total performance score is computed by multiplying the domain scores by their specified weights and then adding those totals together. The total performance score is then translated into a reward or penalty that is applied to hospital revenue.

### 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 2024 QBR scores, and Proposed updates for RY 2025**



There were no fundamental changes for the measures and domain weighting for RYs 2024 and 2025, as shown in Figure A.3.

**Figure A.3. RY 2024-2125 QBR domains, measures, and data sources**

	Clinical Care	Person and Community Engagement	Safety
<b>QBR RY 24 Program</b>	<p>15 percent</p> <p>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>50 percent</p> <p>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, <b>proposed add Medicaid for RY 2025</b>)</li> </ul>	<p>35 percent</p> <p>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 beginning 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>14</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>15</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>14</sup> Source: <https://www.qualityindicators.ahrq.gov/Downloads/Modules/PSI/V2020/TechSpecs/PSI%2090%20Patient%20Safety%20and%20Adverse%20Events%20Composite.pdf>.

<sup>15</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>16</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
2. Asthma: Within 14 days of the date of discharge

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<sup>16</sup> Source: <https://impagint.com/measure-information-timely-follow-after-acute-exacerbations-chronic-conditions>

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>17</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.

An acute event is assigned to [condition] if:

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<sup>17</sup> Please see <https://impagint.com/measure-information-timely-follow-after-acute-exacerbations-chronic-conditions>.

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 2025 base and performance periods by measure

Figure A.4 shows the proposed base and performance period timeline for the RY 2025 QBR Program.



**Figure A.4. RY 2025 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			
<b>QBR base and perform- ance periods</b>	<b>BASE- CMS Hospital Compare base period (HCAHPS measures, all CDC NHSN measures)*</b>																								
																	<b>PERFORMANCE: CMS Hospital Compare performance period (HCAHPS measures, all CDC NHSN measures)</b>								
											<b>BASE- inpatient mortality, PSI-90, follow-up chronic conditions</b>														
																		<b>PERFORMANCE: inpatient mortality, PSI- 90, follow-up chronic conditions)</b>							
											<b>PERFORMANCE: THA/TKA Complications**</b>														

\*As described more fully in section V.I.4.b. of the preamble of this final rule, we are finalizing our proposals to update the baseline periods for the measures included in the Person and Community Engagement and Safety domains for FY 2025.

\*\*In accordance with the CMS ECE granted in response to the COVID-19 PHE and the policies finalized in the September 2, 2020 interim final rule with comment titled “Medicare and Medicaid Programs, Clinical Laboratory Improvement Amendments(CLIA), and Patient Protection and Affordable Care Act; Additional Policy and Regulatory Revisions in Response to the COVID–19 Public Health Emergency,” (85 FR 54820), we will not use Q1 and Q2 2020 data that was voluntarily submitted for scoring purposes under the Hospital VBP Program.





Larry Hogan, Governor · Boyd K. Rutherford, Lt. Governor · Dennis R. Schrader, Secretary

October 19, 2022

Adam Kane  
Chair  
Health Services Cost Review Commission  
4160 Patterson Avenue  
Baltimore, MD 21215

Dear Chair Kane,

On behalf of the Medicaid program at the Maryland Department of Health (the Department), I am submitting this letter to support the inclusion of Medicaid in the timely follow-up measure in the Quality-Based Reimbursement (QBR) recommendation.

The current timely follow-up measure in the Statewide Integrated Health Improvement Strategy (SIHIS) is Medicare-only. As such, the Department supports adding Medicaid into the QBR program to further the all-payer mission of the Total Cost of Care model. Medicaid has been working with CRISP and HSCRC since 2021 to calculate this measure and provide person-level data to the hospitals so that they can monitor performance. Officially including this measure in the payment model will incentivize critical health care for those who need it most.

Medicaid is proud to support collaborative actions like these that spur health transformation across the continuum of care. Please let me know if you have any further questions.

Sincerely,

A handwritten signature in cursive script that reads "Laura Goodman".

Laura Goodman  
Deputy Director, Medicaid Office of Innovation, Research and Development

CC: Katie Wunderlich  
Alyson Schuster  
Dianne Feeney  
Tricia Roddy



October 20, 2022

Allan Pack, PhD  
Principal Deputy Director, Quality Methodologies  
Health Services Cost Review Commission  
4160 Patterson Avenue  
Baltimore, Maryland 21215

Dear Dr. Pack,

On behalf of the Johns Hopkins Health System (JHHS), thank you for the opportunity to provide input on the draft recommendation for the Quality Based Reimbursement (QBR) RY 2025 policy. JHHS supports most of the recommendations proposed by staff. We always appreciate the opportunity to provide input and collaborate on the development of policy changes. Many of our comments and suggestions are the same as from our letter on the QBR redesign on August 4, 2021. Our additional comments are outlined below.

*Suspension of the QBR and Maryland Healthcare Associated Conditions (MHAC) programs and use of concurrent norms for the Readmission Reduction Incentive Program (RRIP)*

JHHS supports the suspension of the MHAC and QBR program for the 2023 fiscal year due to continued disruptions to processes, supplies and staffing from the COVID-19 emergency. Quality metric results during this time are more likely to represent impacts of COVID-19 which are disproportionately distributed among hospitals. We appreciate the development of a temporary concurrent norm methodology to compare previous performance on the RRIP program to current performance.

*Inclusion of linear mean in the Hospital Consumer Assessment of Healthcare Providers and Systems (HCAHPS) program*

Our comments and recommendation remain the same as detailed in our August 4, 2021 letter.

We value the opportunity to meet with other hospitals to share best practices to improve HCAHPS scores and suggest including other national leaders in these sessions for more learning opportunities.

### *Follow up after discharge*

In addition to our previous comments, we are concerned about the clinical significance of the time frame proposed in the follow up after discharge metrics. In our random sample review of adult patients admitted with HTN and asthma across JHHS, we found that many patients admitted with these conditions were having difficulties refilling their medication for a variety of reasons and many did not seem to have clinical indication for follow up within 7 days or 14 days of discharge respectively. Given that financial constraints were an issue for refilling medications to begin with, this strict time line may cause more unnecessary financial burden and further limit the well-being of our community.

We would further like to suggest that the HSCRC partner with other state programs to ensure adequate access to care. This measure counts visits completed and access to primary care providers - including whether these providers take Medicare patients - may severely constrain availability. The NQF endorsed IMPAQ measure is described as a metric designed for payers.

We support assessing disparity gaps in follow up after discharge and expanding to groups outside of Medicaid. We would recommend that Medicaid and Medicare patients remain stratified and the issues and improvement plans will likely be different in these groups and more granular data will help develop nuanced focused improvement plans.

### *Monitoring reports*

JHHS appreciates the opportunity to review and understand performance measurement reports before they are included in value-based purchasing programs. This allows us to partner with you to catch any measurement or implementation issues and to understand opportunities and potential unintended consequences before the metric is implemented. We are supportive of the upcoming adoption of the 30-day all-payer, all-cause mortality metric, the timely follow up for behavioral health metric and the disparity gaps for timely follow-up measures

### *eCQM collaborations*

JHHS supports the move towards automated measures and the inclusion of clinical data in eCQMs. Our concerns in this area are largely related to the extra work in implementing eCQMs while we are all still recovering from staffing challenges across all aspects of healthcare and healthcare infrastructure. We would suggest offering flexible deadlines to help us meet these goals.

We appreciate the opportunity to comment on the draft recommendation for the Quality Based Reimbursement (QBR) RY 2025 policy. Please let us know if you have questions or would like further information on our feedback.

Sincerely,

*Nicki Sandusky McCann*

Nicki Sandusky McCann  
Vice President, Provider/Payer Transformation  
Johns Hopkins Health System

cc: Adam Kane, Esq., Chairman  
Joseph Antos, Ph.D., Vice Chairman  
Victoria W. Bayless  
Stacia Cohen, RN

John M. Colmers  
James Elliott, MD  
Sam Maholtra  
Katie Wunderlich



Maryland  
Hospital Association

October 20, 2022

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 (QBR) Program for Rate Year 2025*. **We support staff's recommendations, which are largely unchanged from the existing policy; however, we propose lowering the QBR cut-point from 41% to 36%.**

We appreciate HSCRC staff's willingness to retrospectively evaluate the 41% cut-point using more recent data to calculate national average. Yet, data justifies a prospective cut-point reduction. As it stands, Maryland hospitals must perform well above the national mean to earn rewards. The national average is as low as 30%. When the 41% cut-point was established, average national scores ranged from 39.9% to 42.7%. We recommend lowering the cut-point five hundred basis points from 41% to 36%. This is a practical adjustment considering drastic response to the impact of COVID-19 on quality performance—in Maryland and nationwide.

A hallmark of Maryland's Total Cost of Care Model (Model) is ensuring patients, regardless of payer, receive the same high-quality care. As such, including Medicaid patients in the timely follow-up after discharge measure is a reasonable and expected evolution. The Statewide Integrated Health Improvement Strategy is critical to the Centers for Medicare & Medicaid Services' evaluation of the Model. Maryland did not meet the year three total follow-up milestone—likely due to COVID disruptions. We are confident Maryland will continue to outperform the nation and regain progress to meet the year-five total follow-up target. Therefore, we agree the 10% domain weight remains reasonable to incentivize targeted improvement.

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

Alyson Schuster  
October 20, 2022  
Page 2

CC: Adam Kane, Esq., Chairman  
Joseph Antos, PhD, Vice Chairman  
Victoria W. Bayless  
James Elliott, M.D.  
Maulik Joshi, DrPH  
Stacia Cohen, RN, MPA  
Sam Malhotra





Dianne Feeney -MDH- <dianne.feeney@maryland.gov>

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## RY2025 QRB Comments - Meritus Health

1 message

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**Michael R. Staley** <Michael.Staley@meritushealth.com>

Thu, Oct 20, 2022 at 7:00 PM

To: "hscrc.quality@maryland.gov" <hscrc.quality@maryland.gov>

Cc: "Carrie A. Adams" <Carrie.Adams@meritushealth.com>, "Michael R. Staley" <Michael.Staley@meritushealth.com>

Comments related to the RY2025 QBR Recommendations from Meritus Health,

In general, Meritus Health has reviewed and agrees with the recommendations set forth for the RY2025 QBR program.

Meritus agrees with the request from Medstar, Hopkins, and UMMS for time to allow for monitoring of the 30-day all payer, all-cause mortality measure.

With respect to electronic clinical quality measures, Meritus wants the HSCRC to take into consideration any potential data submission delays that may exist for EPIC hospitals.

Meritus supports the consideration for changing the set point for QBR to be more in line with national cut points.

Meritus appreciates the efforts towards improving HCAHPs by engaging key stakeholders and collaborating to drive improvement.

Thank you,

**Dr. Michael R. Staley, Pharm.D.**

Executive Director, Quality/Accreditation and Pharmacy Services

Office | 301-790-8590

Cell | 814-248-8360

[Michael.Staley@MeritusHealth.com](mailto:Michael.Staley@MeritusHealth.com)

**Meritus Medical Center**

[11116 Medical Campus Road](#)

[Hagerstown, MD 21742](#)

[www.meritushealth.com](http://www.meritushealth.com)



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# Draft Recommendation for the Maryland Hospital Acquired Conditions Program for Rate Year 2025

November 9, 2022

This document contains draft recommendations for the Maryland Hospital Acquired Conditions Program for RY 2025. Comments are due by Wednesday, 11/23/2022 and may be submitted to [HSCRC.quality@maryland.gov](mailto:HSCRC.quality@maryland.gov).

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## List of Abbreviations

AHRQ	Agency for Health Care Research and Quality
APR-DRG	All Patients Refined Diagnosis Related Groups
CMS	Centers for Medicare & Medicaid Services
CY	Calendar Year
DRG	Diagnosis-Related Group
FFY	Federal Fiscal Year
FY	State Fiscal Year
HAC	Hospital-Acquired Condition
HAI	Hospital Associated Infection
HSCRC	Health Services Cost Review Commission
ICD	International Statistical Classification of Diseases and Related Health Problems
MHAC	Maryland Hospital-Acquired Condition
NHSN	National Healthcare Safety Network
NQF	National Quality Forum
PMWG	Performance Measurement Work Group
POA	Present on Admission
PPC	Potentially Preventable Complication
PSI	Patient Safety Indicator
QBR	Quality-Based Reimbursement
RY	Rate Year
SIR	Standardized Infection Ratio
SOI	Severity of Illness
TCOC	Total Cost of Care
VBP	Value-Based Purchasing
YTD	Year to Date

## Key Methodology Concepts and Definitions

**Potentially preventable complications (PPCs):** 3M originally developed 65 PPC measures, which are defined as harmful events that develop after the patient is admitted to the hospital and may result from processes of care and treatment rather than from the natural progression of the underlying illness. PPCs, like national claims-based hospital-acquired condition measures, rely on **present-on-admission codes** to identify these post-admission complications.

**At-risk discharge:** Discharge that is eligible for a PPC based on the measure specifications

**Diagnosis-Related Group (DRG):** A system to classify hospital cases into categories that are similar clinically and in expected resource use. DRGs are based on a patient's primary diagnosis and the presence of other conditions.

**All Patients Refined Diagnosis Related Groups (APR-DRG):** Specific type of DRG assigned using 3M software that groups all diagnosis and procedure codes into one of 328 All-Patient Refined-Diagnosis Related Groups.

**Severity of Illness (SOI):** 4-level classification of minor, moderate, major, and extreme that can be used with APR-DRGs to assess the acuity of a discharge.

**APR-DRG SOI:** Combination of Diagnosis Related Groups with Severity of Illness levels, such that each admission can be classified into an APR-DRG SOI "cell" along with other admissions that have the same Diagnosis Related Group and Severity of Illness level.

**Case-Mix Adjustment:** Statewide rate for each PPC (i.e., normative value or "norm") is calculated for each diagnosis and severity level. These **statewide norms** are applied to each hospital's case-mix to determine the expected number of PPCs, a process known as **indirect standardization**.

**Observed/Expected Ratio:** PPC rates are calculated by dividing the observed number of PPCs by the expected number of PPCs. Expected PPCs are determined through case-mix adjustment.

**Diagnostic Group-PPC Pairings:** Complications are measured at the diagnosis and Severity of Illness level, of which there are approximately 1,200 combinations before one accounts for clinical logic and PPC variation.

**Zero norms:** Instances where no PPCs are expected because none were observed in the base period at the Diagnosis Related Group and Severity of Illness level.

## Policy Overview

Policy Objective	Policy Solution	Effect on Hospitals	Effect on Payers/Consumers	Effects on Health Equity
<p>The quality programs operated by the Health Services Cost Review Commission, including the Maryland Hospital Acquired Conditions (MHAC) 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 MHAC 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 over time.</p>	<p>The MHAC policy currently holds 2 percent of inpatient hospital revenue at-risk for complications that may occur during a hospital stay as a result of treatment rather than the underlying progression of disease. Examples of the types of hospital acquired conditions included in the current payment program are respiratory failure, pulmonary embolisms, and surgical-site infections.</p>	<p>This policy affects a hospital's overall GBR and so affects the rates paid by payers at that particular hospital. The HSCRC quality programs are all-payer in nature and so improve quality for all patients that receive care at the hospital.</p>	<p>Historically the MHAC policy included the better of improvement and attainment, which incentivized hospitals to improve poor clinical outcomes that are often emblematic of disparities. The protection of improvement has since been phased out to ensure that poor clinical outcomes and the associated health disparities are not made permanent, which is especially important for a measure that is limited to in-hospital complications. In the future, the MHAC policy may provide direct hospital incentives for reducing disparities, similar to the approved readmission disparity gap improvement policy.</p>

## Recommendations

The MHAC policy was redesigned in Rate Year (RY) 2021 to modernize the program for the new Total Cost of Care Model. This RY 2025 draft recommendation, in general, maintains the measures and methodology that were developed and approved for RYs 2022 through 2024.<sup>1</sup>

These are the draft recommendations for the RY 2024 Maryland Hospital Acquired Conditions (MHAC) program:

1. Continue to use 3M Potentially Preventable Complications (PPCs) to assess hospital acquired complications.
  - a. Maintain a focused list of PPCs in the payment program that are clinically recommended and that generally have higher statewide rates and variation across hospitals.
  - b. Assess monitoring PPCs based on clinical recommendations, statistical characteristics, and recent trends to prioritize those for future consideration for updating the measures in the payment program.
  - c. Engage hospitals on specific PPC increases as indicated/appropriate to understand trends and discuss potential quality concerns.
2. Use more than one year of performance data for small hospitals (i.e., less than 20,000 at-risk discharges and/or 20 expected PPCs). The performance period for small hospitals will be CYs 2022 and 2023.
3. Continue to assess hospital performance on attainment only.
4. Continue to weigh the PPCs in the payment program by 3M cost weights as a proxy for patient harm.
5. Maintain a prospective revenue adjustment scale with a maximum penalty at 2 percent and maximum reward at 2 percent and continuous linear scaling with a hold harmless zone between 60 and 70 percent.

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<sup>1</sup> See the [RY 2022 policy](#) for detailed discussion of the MHAC redesign, rationale for decisions, and approved recommendations.



## 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. It is important that the Commission ensure that any incentives to constrain hospital expenditures do not result in declining quality of care. Thus, the Maryland Health Services Cost Review Commission's (HSCRC's or Commission's) quality programs reward quality improvements and achievements that reinforce the incentives of the global budget system, while guarding against unintended consequences and penalizing poor performance.

The Maryland Hospital Acquired Conditions (MHAC) program is one of several quality pay-for-performance initiatives that provide incentives for hospitals to improve and maintain high-quality patient care and value over time. The program currently holds 2 percent of hospital revenue at-risk for hospital acquired complications that may occur during a hospital stay as a result of treatment rather than the underlying progression of disease. Examples of the types of hospital acquired conditions included in the current payment program are respiratory failure, pulmonary embolisms, and surgical-site infections.

For MHAC, as well as the other State hospital quality programs, annual updates are vetted with stakeholders and approved by the Commission to ensure the programs remain aggressive and progressive with results that meet or surpass those of the national CMS analogous programs (from which Maryland must receive annual exemptions). For purposes of the RY 2025 MHAC draft Policy, staff vetted the updated draft policy in October with the Performance Measurement Workgroup (PMWG), the standing advisory group that meets monthly to discuss Quality policies.

Additionally, with the onset of the Total Cost of Care Model Agreement with CMS on January 1, 2019, each program was overhauled to ensure they support the goals of the Model. For the MHAC policy, the overhaul was completed during 2018, which entailed an extensive stakeholder engagement effort. The major accomplishments of the MHAC program redesign were focusing the payment incentives on a narrower list of clinically significant complications, moving to an attainment only system given Maryland's sustained improvement on complications, adjusting the scoring methodology to better differentiate hospital

performance, and weighing complications by their associated cost weights as a proxy for patient harm. The redesign also assessed how hospital performance is converted to revenue adjustments, and ultimately recommended maintaining the use of a linear revenue adjustment scale with a hold harmless zone.

In light of the recent MHAC program redesign, and the COVID-19 Public Health Emergency (PHE), this RY 2025 MHAC policy proposes minimal changes to the program. The assessment section does, however, include an evaluation of PPCs in “Monitoring” status because the approved recommendations for RY 2021 and future rate years included identifying PPCs that due to worsening performance should be included back into the MHAC program. Furthermore, the assessment section outlines necessary timeline changes and the current plan to assess the impact of COVID-19 for both the RYs 2023 and 2024 policy.

## Background

### Exemption from Federal Hospital-Acquired Condition Programs

The Federal Government operates two hospital complications payment programs, the Deficit Reduction Act Hospital Acquired Condition program (DRA-HAC), which reduces reimbursement for hospitalizations with inpatient complications, and the HAC Reduction Program (HACRP), which penalizes hospitals with high rates of complications. Detailed information, including HACRP complication measures, may be found in Appendix I.

Because of the State’s unique all-payer hospital model and its global budget system, Maryland does not directly participate in the federal pay-for-performance programs. Instead, the State administers the Maryland Hospital Acquired Conditions (MHAC) program, which relies on quality indicators validated for use with an all-payer inpatient population. However, the State must submit an annual report to CMS demonstrating that Maryland’s MHAC program targets and results continue to be aggressive and progressive, i.e., that Maryland’s performance meets or surpasses that of the nation. Specifically, the State must ensure that the improvements in complication rates observed under the All-Payer Model through 2018 are maintained throughout the TCOC model. Based on the 2020 PPC results, CMS granted Maryland exemption from the federal pay-for-performance programs (including the HAC Reduction Program) for Federal Fiscal Year 2022 on October 29, 2021; HSCRC is awaiting CMS’ response to our exemption request for FFY 2023.

### Overview of the MHAC Policy

The MHAC program, which was first implemented for RY 2011, is based on a system developed by 3M Health Information Systems (3M) to identify potentially preventable complications (PPCs) using

present-on-admission for eligible secondary diagnosis codes available in claims data. 3M originally developed specifications for 65 PPCs<sup>2</sup>, which are defined as harmful events that develop after the patient is admitted to the hospital and may result from processes of care and treatment rather than from the natural progression of the underlying illness. For example, the program holds hospitals accountable for venous thrombosis and sepsis that occur during inpatient stays. These complications can lead to 1) poor patient outcomes, including longer hospital stays, permanent harm, and death; and 2) increased costs. Thus, the MHAC program is designed to provide incentives to improve patient care by adjusting hospital budgets based on PPC performance.

## MHAC Methodology

Figure 1 provides an overview of the three steps in the RY 2024 MHAC methodology that converts hospital performance to standardized scores, and then payment adjustments, as outlined below:

**Step 1.** For the PPCs identified for payment, clinically-determined global and PPC-specific exclusions, as well as volume based hospital-level exclusions are identified to ensure fairness in assignment of complications.

**Step 2.** Case-mix adjustment is used to calculate observed to expected ratios that are then converted to a standardized point based score (0-100 points) based on each hospital's attainment levels using the same scoring methodology that is used for CMS Value-Based Purchasing and Maryland QBR program.

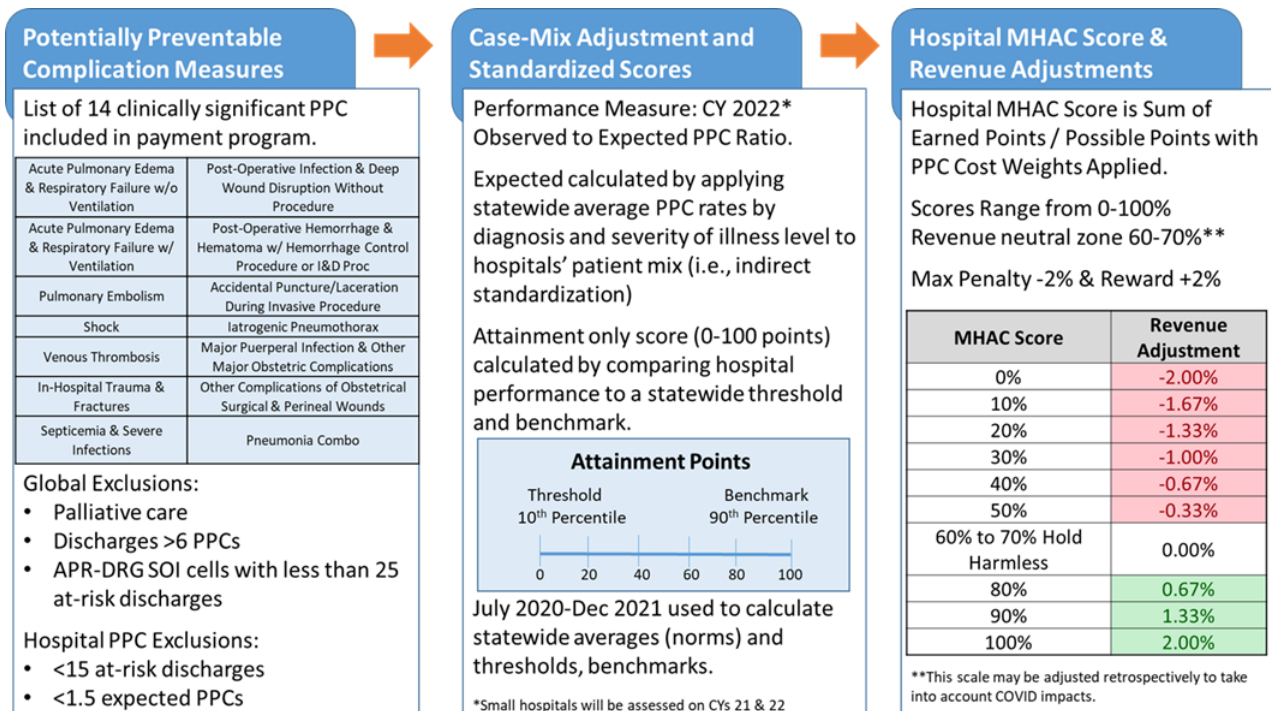
**Step 3.** Overall hospital scores are then calculated by taking the points for each PPC and multiplying by the 3M PPC cost weights, then summing numerator (points scored) and denominator (possible points) across the PPCs to calculate a percent score. A linear point scale set prospectively is then used to calculate the revenue adjustment percent. This prospective scaling approach differs from national programs that relatively rank hospitals after the performance period.

Because of the ongoing COVID PHE, consistent with the CMS HAC reduction program, staff has requested that CMS allow the state to suspend revenue adjustments for the RY 2023 program. Further, working with PMWG and other stakeholders, staff will consider retrospective adjustments to the approved RY 2024 methodology outlined above and illustrated in Figure 1 below. Among the potential changes are inclusion versus exclusion of COVID patients, updates to the base and performance periods, and updates to the performance standards. Additional information on the current MHAC policy can be found in Appendix II.

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<sup>2</sup> In RY 2020, there were 45 PPCs or PPC combinations included in the program, from an initial 65 PPCs in the software, as 3M had discontinued some PPCs and others were deemed not suitable for a pay-for-performance program.

Figure 1. Overview Rate Year 2024 MHAC Methodology



## Assessment

In order to develop the RY 2025 MHAC policy, staff solicited input from the PMWG and other stakeholders. In general, stakeholders support the staff's recommendation to not make major changes to the RY 2025 MHAC program. This section of the report provides an overview of the statewide PPC trends—for those used for payment, under monitoring, and overall—and updates related to 3M clinical logic and MHAC methodology.

## Statewide PPC Performance Trends

### Complications Included in Payment Program

Under the All-Payer Model, Maryland hospitals saw a dramatic decline in complications and, as a State, well exceeded the requirement of a 30 percent reduction by the end of CY 2018. These reductions were achieved through clinical quality improvement, as well as improvements in documentation and coding.

As mentioned previously, the MHAC redesign assessed which PPCs should be included in the pay-for-performance program based on criteria developed by the Clinical Adverse Events Measures (CAEM) subgroup that are outlined in the “Monitored Complications” section below.

Under the TCOC Model, Maryland must maintain these improvements by not exceeding the CY 2018 PPC rates. Figure 2 below shows the statewide observed to expected (O/E) ratio from 2016 through June CY 2022.<sup>3</sup> The O/E ratio presents the count of observed PPCs divided by the calculated number of expected PPCs (which is generated using normative values applied to the case-mix of discharges a hospital experiences). An O/E Ratio of greater than 1 indicates that a hospital experienced more PPCs than expected, and conversely, an O/E Ratio less than one indicates that a hospital experienced fewer PPCs than expected. Figure 2 below also indicates how Maryland is performing relative to CY 2018, which is the time period that will be used to assess any backsliding on performance.<sup>4</sup> Specifically, there has been a 22% decrease in the ratio based on the most recent data available (CY 2018 O/E ratio = 1.18 and CY 2021 YTD O/E ratio = 0.92).

PPCs in the MHAC payment program include:

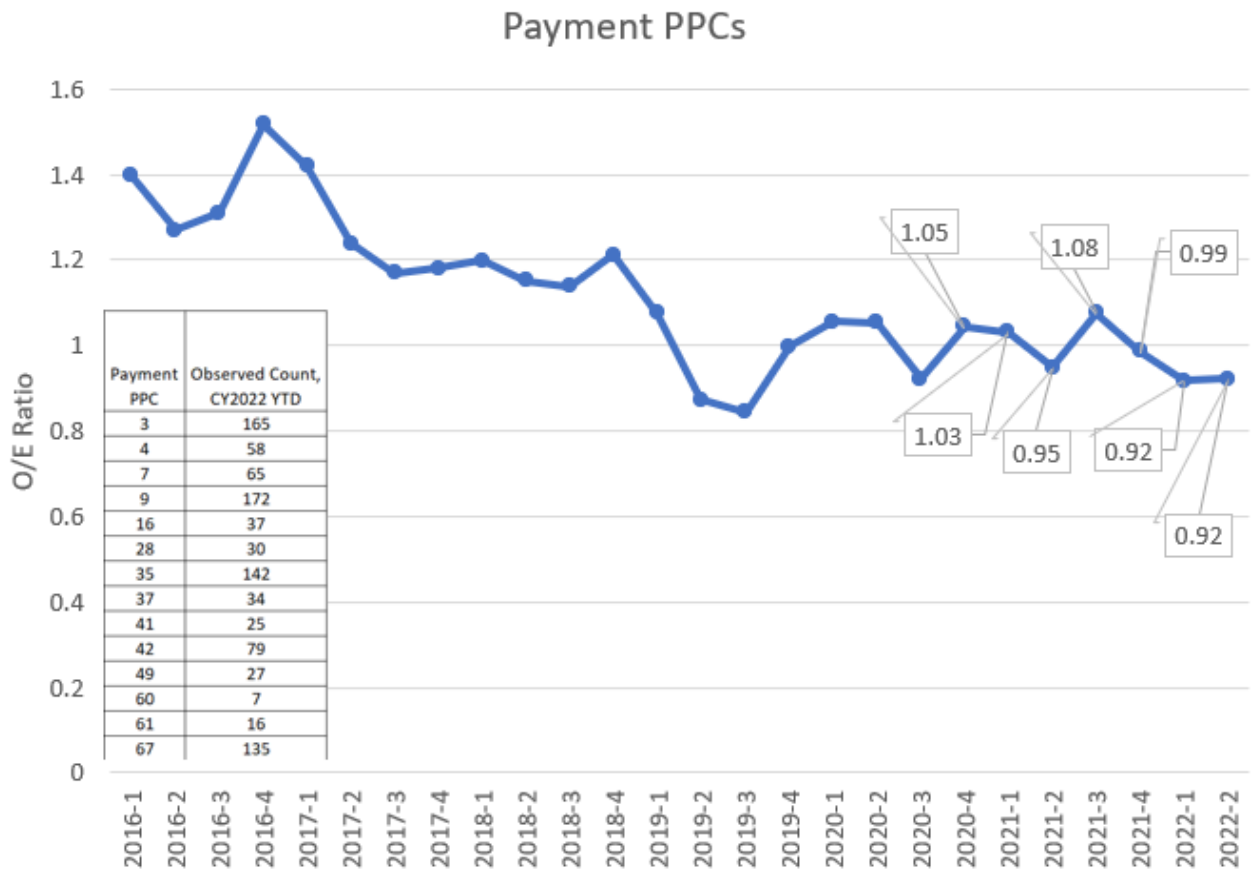
- 3 Acute Pulmonary Edema and Resp Failure w/o Ventilation
- 4 Acute Pulmonary Edema, Resp Failure w/ventilation
- 7 Pulmonary Embolism
- 9 Shock
- 16 Venous Thrombosis
- 28 In-Hospital Trauma and Fractures
- 35 Septicemia & Severe Infections
- 37 Post-Operative Infection & Deep Wound Disruption Without Procedure
- 41 Post-Operative Hemorrhage & Hematoma w/ Hemorrhage Control Procedure or I&D
- 42 Accidental Puncture/ Laceration During Invasive Procedure
- 49 Iatrogenic Pneumothorax
- 60 Major Puerperal Infection and Other Major Obstetric Complications
- 61 Other Complications of Obstetrical Surgical & Perineal Wounds
- 67 Pneumonia Combo (with and without aspiration)

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<sup>3</sup> Staff notes that, consistent with federal policies during the COVID Public Health Emergency, PPC data from January-June 2020 will not be used for assessing quality of care.

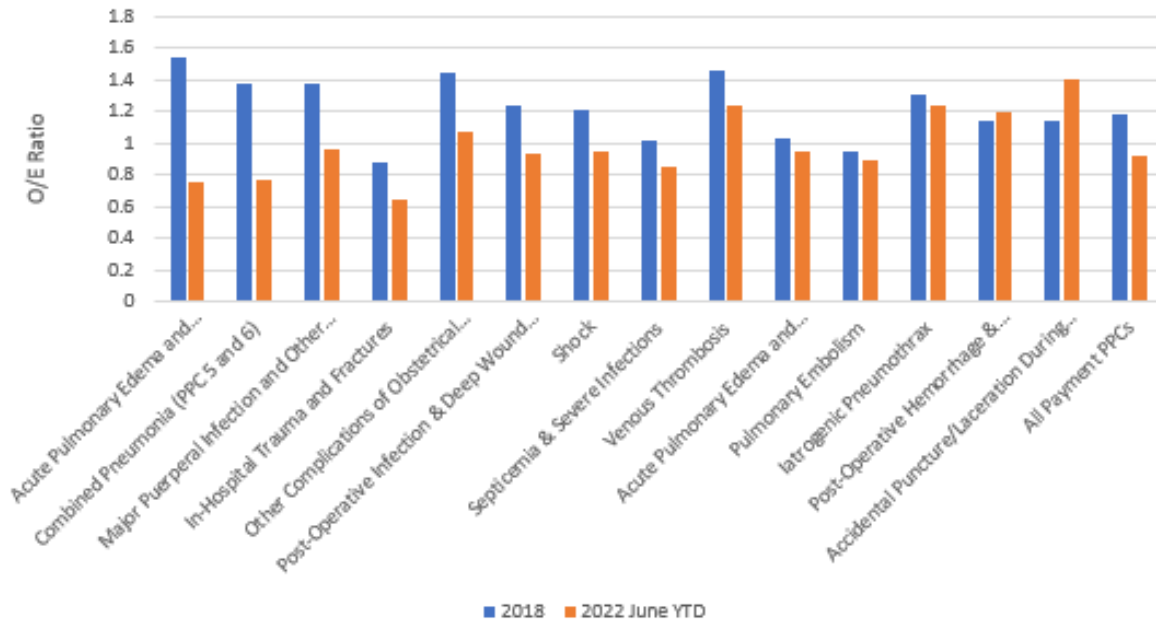
<sup>4</sup>Beginning in v38 of the 3M PPC grouper, COVID exclusions vary by PPC.

Figure 2. Payment Program PPCs Quarterly Observed to Expected Ratios CY 2016 to CY 2022 June



In terms of specific improvements among the 14 payment PPCs, Figure 3 shows the O/E ratios for CY 2018 and CY 2022 YTD, sorted from greatest percent decrease (on the left) to greatest percent increase (on the right). The two PPCs that worsened during this time period include PPC 41- Postoperative Hemorrhage & Hematoma w/ Hemorrhage Control Procedure or I&D and PPC 42-Accidental Puncture/ Laceration During Invasive Procedure. The three PPCs with the greatest decreases include PPC 4- Acute Pulmonary Edema, Resp Failure w/ventilation, PPC 60- Major Puerperal Infection and Other Major Obstetric Complications and PPC 67 - Pneumonia Combo (with and without aspiration).

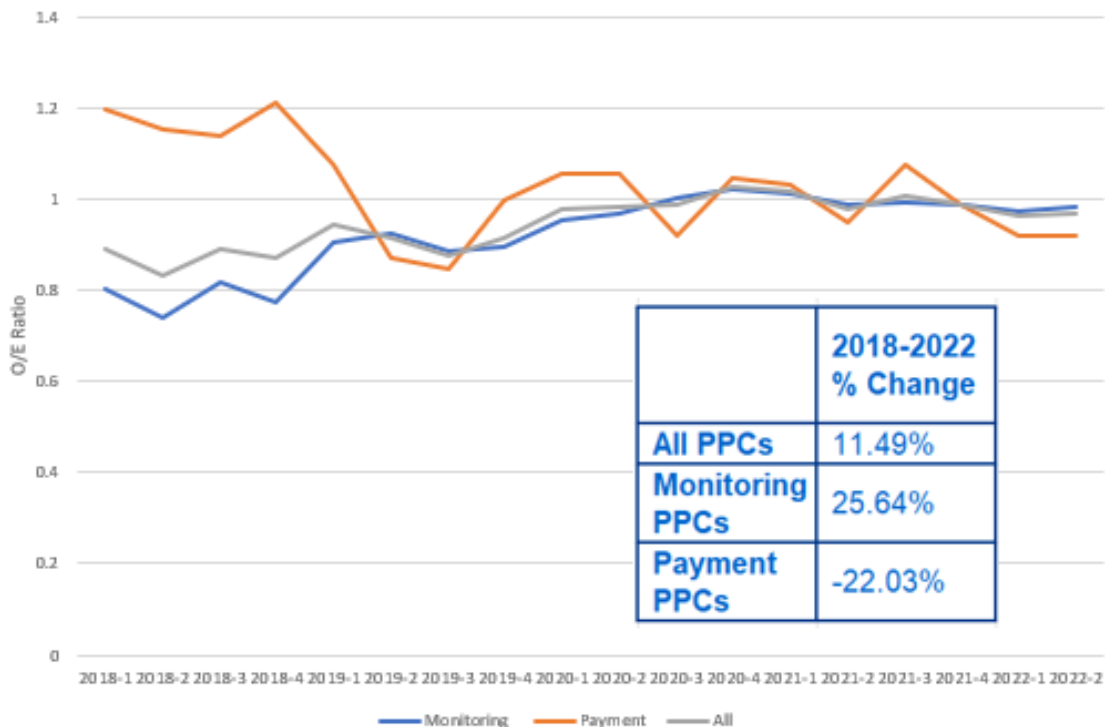
Figure 3. Payment Program PPC Observed to Expected Ratios CY 2019 and CY 2022 June YTD



### Monitored Complications

In addition to focusing on a narrowed list of PPCs for payment, as stated previously, the RY 2021 MHAC policy included a recommendation to monitor the remaining PPCs. Staff fulfills this recommendation by monitoring all PPCs that are still considered clinically valid by 3M, and distinguishing between “Monitoring” and “Payment” PPCs. The overall PPC trend across all 54 PPCs shows that there has been an increase in the overall statewide O/E ratio from 0.87 in CY 2018 to 0.97 in CY 2022 YTD; the worsening performance is driven primarily by increases in PPCs under monitoring status, and not increases in the payment program PPCs, as illustrated in Figure 4. In the RY 2023 policy, staff reached out to hospitals with increases in monitoring PPCs and were given several reasons for the increase unrelated to declining quality. Appendix III provides the statewide changes in observed, expected, and the O/E ratios for the monitoring PPCs sorted by the observed PPCs that accounted for the largest proportion of the increase from 2018 to 2022 YTD through June.

Figure 4. PPC O/E Ratio Trends CY 2016 Through CY 2022 Qtr 2



As mentioned previously, the MHAC redesign process assessed which PPCs should be included in the pay-for-performance program based on criteria developed by the Clinical Adverse Events Measures (CAEM) subgroup. To support determining the monitored PPCs that are the best candidates for re-adopting into the payment program, staff and stakeholders are using the previously established criteria that include:

- PPC Data Analysis/Statistics
  - Greater than 50% increase in O/E ratio comparing 2022 to 2018
  - Rate per 1,000 generally 0.5 or above
  - Volume of observed events 100 or above (over two years)
  - Significant variation across hospitals O/E ratios less than .85 and greater than 1.15
  - At least half of the hospitals are eligible for the PPC
- Additional Considerations
  - PSI overlap
  - Clinical significance
  - Opportunity for improvement



- All-payer

Based on staff assessment to date of monitored PPC trends and the criteria above, staff vetted the PPCs listed below with PMWG stakeholders<sup>5</sup>. Staff established two tiers of PPCs currently monitored to consider for use in the payment program, which were listed in the RY 2024 policy. For RY 2025, staff assessed the increases in monitoring PPCs and found that PPC 31 (Decubitus Ulcer) and PPC 47 (Encephalopathy), which were in the “Strongly Consider” tier in last year’s analysis, are still of concern according to the criteria for re-inclusion into the payment program that is listed above.

As stated above, staff is committed to ensuring that the additional monitored complication measures that are areas of concern and are deemed appropriate for a pay-for-performance program are proposed for re-inclusion. Therefore, Staff is recommending that PPC 47 be included in the MHAC payment program beginning in RY 2025. Staff’s analyses show that the O/E ratio of PPC 47 has consistently increased since CY 2016 and meets all of the aforementioned criteria for re-inclusion in the payment program; the results of these analyses are included in Appendix III. Although there are concerns regarding the increases seen in PPC 31, staff is not recommending inclusion in the payment program because of the significant overlap with PSI.

## COVID-19 Update

The RY 2025 policy will use data during the COVID PHE to determine performance standards (i.e., the two year base period will be July 2020 through June 2022) under PPC Grouper Version 40. Thus, the performance standards will be determined post-COVID, thereby reducing the concerns of using a pre-COVID time period. As with PPC Grouper Version 39, the Version 40 grouper has clinical logic that determines if a discharge with a COVID diagnosis can be assigned a PPC, which in effect means that the PPC Grouper is acknowledging that these PPCs for COVID patients are not potentially preventable. Below is the list of PPCs that can be assigned for discharges with a COVID diagnosis, with the five payment PPCs bolded.

- 20 Other Gastrointestinal Complications
- 23 Genitourinary Complications except Urinary Tract Infection
- 26 Diabetic Ketoacidosis & Coma
- 27 Post-Hemorrhagic & Other Acute Anemia with Transfusion

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<sup>5</sup> In addition to adjusting the expected rates at each hospital by their APR-DRG Severity of Illness (SOI) patient mix, staff has noted that the MHAC program also relies on the work of 3M to review the PPC clinical logic and perform PPC Grouper updates annually. Staff has encouraged stakeholders, particularly clinicians, to review 3M updated global exclusion logic and PPC-specific assignment and exclusion logic and to weigh in on the monitored PPCs they believe are best to include in the payment program

- **28 In-Hospital Trauma and Fractures**
- 29 Poisonings except from Anesthesia
- 30 Poisonings due to Anesthesia
- 31 Pressure Ulcer
- 32 Transfusion Incompatibility Reaction
- 36 Altered Mental Status
- **37 Post-Procedural Infection & Deep Wound Disruption without Procedure**
- 38 Post-Procedural Infection & Deep Wound Disruption with Procedure
- 39 Reopening Surgical Site
- **42 Accidental Puncture/Laceration during Invasive Procedure**
- 44 Other Surgical Complication - Moderate
- 45 Post-Procedural Foreign Bodies and Substance Reaction
- 48 Other Complications of Medical Care
- **49 Iatrogenic Pneumothorax**
- 50 Mechanical Complication of Device, Implant & Graft
- 51 Gastrointestinal Ostomy Complications
- 52 Infection, Inflammation & Other Complications of Devices, Implants or Grafts except Vascular Infection
- 54 Central Venous Catheter-Related Infection
- 59 Medical & Anesthesia Obstetric Complications
- **60 Major Puerperal Infection and Other Major Obstetric Complications**
- 64 Other In-Hospital Adverse Events
- 65 Urinary Tract Infection
- 66 Catheter-Related Urinary Tract Infection

While staff believes the post-COVID base for performance standards and the grouper logic largely handle COVID concerns, hospitals should alert staff of any COVID concerns for review and possible retrospective changes.

## **Palliative Care Update**

Last year for RY 2024, the MHAC program adjusted its methodology to exclude palliative care cases because the palliative care diagnosis became exempt from present-on-admission coding. Under the 3M PPC Grouper Version 40, palliative care has moved from a global exclusion to a PPC specific exclusion. Moving forward, the MHAC program will rely on the 3M clinical logic to determine what PPCs can be assigned to discharges with a palliative care diagnosis (whether or not present-on-admission). Below is the

list of PPCs that can be assigned for discharges with a palliative care diagnosis, with the two payment PPCs (PPC 28 and 42) bolded.

Palliative care exclusion is applicable to all PPCs except:

- **PPC 28 In-Hospital Trauma and Fractures**
- PPC 29 Poisonings except from Anesthesia
- PPC 39 Reopening Surgical Site
- **PPC 41 Post-Operative Hemorrhage & Hematoma w/ Hemorrhage Control Procedure or I&D**
- **PPC 42 Accidental Puncture/Laceration during Invasive Procedure**
- PPC 48 Other Complications of Medical Care
- PPC 64 Other In-Hospital Adverse Events
- PPC 66 Catheter-Related Urinary Tract Infection

## Case-Mix Adjusted PPC Rates

As Maryland hospitals continue to improve on payment PPCs, staff plan to pursue statistical methods that will better address small cell size issues and statistical reliability and validity. Thus, during CY 2023, staff will work with our contractor MPR to explore whether changes are needed to the program. The methods that will be considered are similar to methods used by CMS for the same concerns (i.e., Bayesian smoothing) and modeling will be presented to the PMWG in the winter/spring for consideration in RY 2026.

## Hospital Revenue Adjustments

The hospital scores are calculated across all payment PPCs and then converted to revenue adjustments using a prospectively determined revenue adjustment scale, which allows hospitals to track their progress throughout the performance period. Since the redesign the scale has remained the same--that is it goes from 0 to 100 percent with a hold harmless zone between 60 and 70 percent. Despite historical concerns regarding the lack of a continuous scale from some stakeholders, staff still believe that the hold harmless zone is reasonable given the lack of national benchmarks for establishing a cut-point. The final policy will include modeling of the revenue adjustments with PPC 47 Encephalopathy added, and will look at the distribution of scores to determine whether the hold harmless zone remains centered around the average or median hospital score.

## Health Equity

Over the past year, Staff began to analyze the quality programs and measures for racial and sociodemographic disparities. Specifically for the MHAC program, the results for the payment PPCs were stratified by race, payer and area deprivation index (ADI) and was risk-adjusted for age, sex, Admit-DRG, and Severity of Illness level. Results of this analysis suggested that there are statistically insignificant differences between racial categories; however, there were statistically significant differences between payers and ADI categories. While statistically significant differences were found between payers and ADI categories, the odds ratios are relatively low and are, therefore, not an area of large concern for staff compared to the disparities uncovered in other quality measures, for example, Timely Follow-Up. Staff remains committed to addressing health equity, but at this time does not recommend including additional incentives for reducing disparities in PPC performance because of the overall low rates in PPCs and the relatively low odds ratios between payer and ADI categories. Over the next year, Staff will continue to monitor disparities in the quality programs' measures and develop disparity measure(s) and incentives that will drive improvement in disparities.

## Recommendations

The MHAC policy was redesigned in Rate Year (RY) 2021 to modernize the program for the new Total Cost of Care Model. This RY 2025 draft recommendation, in general, maintains the measures and methodology that were developed and approved for RY 2024.<sup>6</sup>

These are the draft recommendations for the RY 2024 Maryland Hospital Acquired Conditions (MHAC) program:

6. Continue to use 3M Potentially Preventable Complications (PPCs) to assess hospital acquired complications.
  - a. Maintain a focused list of PPCs in the payment program that are clinically recommended and that generally have higher statewide rates and variation across hospitals.
  - b. Assess monitoring PPCs based on clinical recommendations, statistical characteristics, and recent trends to prioritize those for future consideration for updating the measures in the payment program.
  - c. Engage hospitals on specific PPC increases as indicated/appropriate to understand trends and discuss potential quality concerns.
7. Use more than one year of performance data for small hospitals (i.e., less than 20,000 at-risk

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<sup>6</sup> See the [RY 2024 policy](#) for detailed discussion of the MHAC redesign, rationale for decisions, and approved recommendations

discharges and/or 20 expected PPCs). The performance period for small hospitals will be CYs 2022 and 2023.

8. Continue to assess hospital performance on attainment only.
9. Continue to weigh the PPCs in the payment program by 3M cost weights as a proxy for patient harm.
10. Maintain a prospective revenue adjustment scale with a maximum penalty at 2 percent and maximum reward at 2 percent and continuous linear scaling with a hold harmless zone between 60 and 70 percent.

## Appendix I. Background on Federal Complication Programs

The Federal Government operates two hospital complications payment programs, the Deficit Reduction Act Hospital Acquired Condition program (DRA-HAC) and the HAC Reduction Program (HACRP), both of which are designed to penalize hospitals for post-admission complications.

### Federal Deficit Reduction Act, the Hospital-Acquired Condition Present on Admission Program

Beginning in Federal Fiscal Year 2009 (FFY 2009), per the provisions of the Federal Deficit Reduction Act, the Hospital-Acquired Condition Present on Admission Program was implemented. Under the program, patients were no longer assigned to higher-paying Diagnosis Related Groups if certain conditions were acquired in the hospital and could have reasonably been prevented through the application of evidence-based guidelines.

### Hospital-Acquired Condition Reduction Program

CMS expanded the use of hospital-acquired conditions in payment adjustments in FFY 2015 with a new program, entitled the Hospital-Acquired Condition Reduction Program, under the authority of the Affordable Care Act. That program focuses on a narrower list of complications and penalizes hospitals in the bottom quartile of performance. Of note, as detailed in Figure 1 below, all the measures in the Hospital-Acquired Condition Reduction Program are used in the CMS Value Based Purchasing program, and the National Healthcare Safety Network (NHSN) Healthcare-Associated Infection (HAI) measures are also used in the Maryland Quality Based Reimbursement (QBR) program.

**Figure 1. CMS Hospital-Acquired Condition Reduction Program (HACRP) FFY 2020 Measures**

<p>Recalibrated Patient Safety Indicator (PSI) measure:<sup>^</sup></p> <ul style="list-style-type: none"> <li>● PSI 03 – Pressure Ulcer Rate</li> <li>● PSI 06 – Iatrogenic Pneumothorax Rate</li> <li>● PSI 08 – In-Hospital Fall with Hip Fracture Rate</li> <li>● PSI 09 – Perioperative Hemorrhage or Hematoma Rate</li> <li>● PSI 10 – Postoperative Acute Kidney Injury Requiring Dialysis Rate</li> <li>● PSI 11 – Postoperative Respiratory Failure Rate</li> <li>● PSI 12 – Perioperative Pulmonary Embolism or Deep Vein Thrombosis Rate</li> <li>● PSI 13 – Postoperative Sepsis Rate</li> <li>● PSI 14 – Postoperative Wound Dehiscence Rate</li> <li>● PSI 15 – Unrecognized Abdominopelvic Accidental Puncture/Laceration Rate</li> </ul>
Central Line-Associated Bloodstream Infection (CLABSI) <sup>^*</sup>
Catheter-Associated Urinary Tract Infection (CAUTI) <sup>^*</sup>
Surgical Site Infection (SSI) – colon and hysterectomy <sup>^*</sup>
Methicillin-resistant Staphylococcus aureus (MRSA) Bacteremia <sup>^*</sup>
Clostridium Difficile Infection (CDI) <sup>^*</sup>

<sup>^</sup>Recalibrated PSI Composite Measures included in the CMS VBP Program beginning FFY 2023. \* National Healthcare Safety Network (NHSN) Healthcare-Associated Infection (HAI) measures included in both the CMS VBP and Maryland QBR Programs.

For more information on the DRA HAC program POA Indicator, please refer to:

<https://www.cms.gov/Medicare/Medicare-Fee-for-Service-Payment/HospitalAcqCond/index>

For more information on the DRA HAC program, please refer to:

<https://www.cms.gov/Medicare/Medicare-Fee-for-Service-Payment/HospitalAcqCond/Downloads/FAQ-DRA-HAC-PSI.pdf>

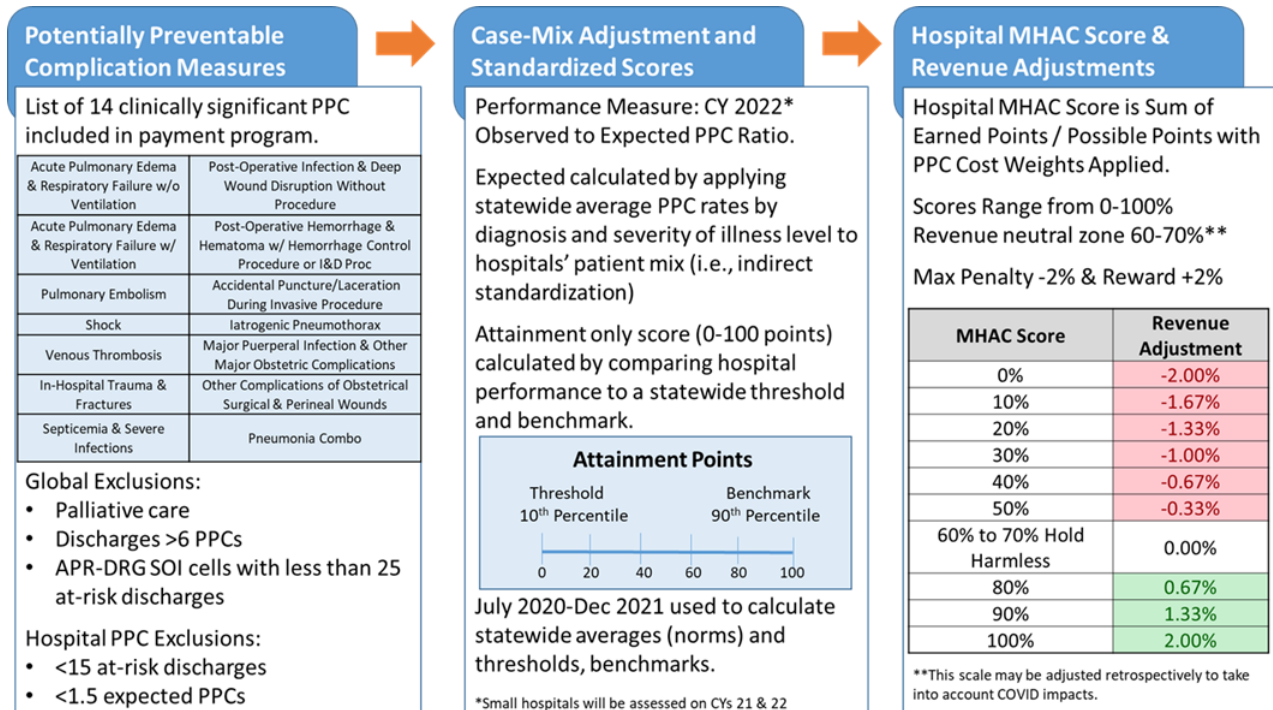
For more information on the HAC Reduction program, please refer to:

<https://www.cms.gov/Medicare/Medicare-Fee-for-Service-Payment/AcuteInpatientPPS/HAC-Reduction-Program>

## Appendix II: RY 2024 MHAC Program Methodology

Figure 1 below provides a summary overview of the approved RY 2023 MHAC methodology.

Figure 1. Overview of RY 2024 Approved MHAC Methodology



### Performance Metric

The methodology for the MHAC program measures hospital performance using the Observed (O) /Expected (E) ratio for each PPC. Expected number of PPCs are calculated using historical data on statewide PPC rates by All Patient Refined Diagnosis Related Group and Severity of Illness Level (APR-DRG SOI). See below for details on how expected number of PPCs are calculated for each hospital.

### Observed and Expected PPC Values

The MHAC scores are calculated using the ratio of *Observed* : *Expected* PPC values.

Given a hospital's unique mix of patients, as defined by APR-DRG category and Severity of Illness (SOI) level, the HSCRC calculates the hospital's expected PPC value, which is the number of PPCs the hospital would have experienced if its PPC rate were identical to that experienced by a normative set of hospitals.

The expected number of PPCs is calculated using a technique called indirect standardization. For illustrative purposes, assume that every hospital discharge is considered "at-risk" for a PPC, meaning that all discharges would meet the criteria for inclusion in the MHAC program. All discharges will either have no



PPCs, or will have one or more PPCs. In this example, each discharge either has at least one PPC, or does not have a PPC. The unadjusted PPC rate is the percent of discharges that have at least one PPC.

The rates of PPCs in the normative database are calculated for each diagnosis (APR-DRG) category and severity level by dividing the observed number of PPCs by the total number of admissions. The PPC norm for a single diagnosis and severity level is calculated as follows:

Let:

$N$  = norm

$P$  = Number of discharges with one or more PPCs

$D$  = Number of “at-risk” discharges

$i$  = A diagnosis category and severity level

$$N_i = \frac{P_i}{D_i}$$

In the example, each normative value is presented as PPCs per discharge to facilitate the calculations in the example. Most reports will display this number as a rate per one thousand discharges.

Once the normative expected values have been calculated, they can be applied to each hospital. In this example, the normative expected values are computed for one diagnosis category and its four severity levels.

Consider the following example in Figure 2 for an individual diagnosis category.

Figure 2. Expected Value Computation Example for one Diagnosis Category

A Severity of illness Level	B At-risk Discharges	C Observed Discharges with PPCs	D PPCs per discharge (unadjusted PPC Rate)	E Normative PPCs per discharge	F Expected # of PPCs	G Observed: Expected Ratio
			= (C / B)	(Calculated from Normative Population)	= (B x E)	= (C / E) rounded to 4 decimal places
1	200	10	.05	.07	14.0	0.7143
2	150	15	.10	.10	15.0	1.0000
3	100	10	.10	.15	15.0	0.6667
4	50	10	.20	.25	12.5	0.8000
<b>Total</b>	<b>500</b>	<b>45</b>	<b>.09</b>		<b>56.5</b>	<b>0.7965</b>

For the diagnosis category, the number of discharges with PPCs is 45, which is the sum of discharges with PPCs (column C). The overall rate of PPCs per discharge in column D, 0.09, is calculated by dividing the total number of discharges with PPCs (sum of column C) by the total number of discharges at risk for PPCs (sum of column B), i.e.,  $0.09 = 45/500$ . From the normative population, the proportion of discharges with PPCs for each SOI level for that diagnosis category is displayed in column E. The expected number of PPCs for each severity level shown in column F is calculated by multiplying the number of at-risk discharges (column B) by the normative PPCs per discharge rate (column E). The total number of PPCs expected for this diagnosis category is the expected number of PPCs for the severity levels.

In this example, the expected number of PPCs for the APR DRG category is 56.5, which is then compared to the observed number of discharges with PPCs (45). Thus, the hospital had 11.5 fewer observed discharges with PPCs than were expected for 500 at-risk discharges in this APR DRG category. This difference can be expressed as a percentage difference as well.

All APR-DRG categories and their SOI levels are included in the computation of the observed and expected rates, except when the APR-DRG SOI level has less than 30 at-risk discharges statewide.

### PPC Exclusions

Consistent with prior MHAC policies, the number of at-risk discharges is determined prior to the calculation of the normative values (hospitals with <10 at-risk discharges are excluded for a particular PPC) and the normative values are then re-calculated after removing PPCs with <2 complication expected. The following exclusions will also be applied:

For each hospital, discharges will be removed if:

- Discharge is in an APR-DRG SOI cell has less than 31 statewide discharges.
- Discharge has a diagnosis of palliative care (this exclusion may be removed in the future once POA status is available for palliative care for the data used to determine performance standards); and
- Discharge has more than 6 PPCs (i.e., a catastrophic case, for which complications are probably not preventable).

For each hospital, PPCs will be removed if during July 2020 to December 2021:

- The number of cases at-risk is less than 15; and
- The expected number of PPCs is less than 1.5.

The PPCs for which a hospital will be assessed are determined using the July 2020 to December 2021 data and not reassessed during the performance period. This is done so that scores can be reliably calculated during the performance period from a pre-determined set of PPCs. The MHAC summary workbooks provide the excluded PPCs for each hospital.

### **Combination PPCs**

Based on clinical input and 3M recommendation, starting in RY 2021 two pneumonia (PPC 5 Pneumonia & Other Lung Infections & PPC 6 Aspiration Pneumonia) PPCs were combined into single pneumonia PPC and the 3M cost weight is a simple average of the two PPC cost weights.

### **Hospital Exclusions**

Acute care hospitals that do not have sufficient volume to have at least 15 at-risk and 1.5 expected for any payment program PPC are excluded from the MHAC policy.

### **Benchmarks and Thresholds**

For each PPC, a threshold and benchmark value are calculated using the determined base period data. In previous rate years when improvement was also assessed, the threshold was set at the statewide median of 1 and the benchmark was the O/E ratio for the top performing hospitals that accounted for 25% of discharges. For RY 2021 under an attainment only methodology, staff adapted the MHAC points system to

allow for greater performance differentiation by moving the threshold to the value of the observed to expected ratio at the 10th percentile of hospital performance, moving the benchmark to the value of the observed to expected ratio at the 90th percentile of hospital performance, and assigning 0 to 100 points for each PPC between these two percentile values.

### **Attainment Points (possible points 0-100)**

If the PPC ratio for the performance period is greater than the threshold, the hospital scores zero points for that PPC for attainment.

If the PPC ratio for the performance period is less than or equal to the benchmark, the hospital scores a full 100 points for that PPC for attainment.

If the PPC ratio is between the threshold and benchmark, the hospital scores partial points for attainment.

The formula to calculate the Attainment points is as follows:

- $\text{Attainment Points} = [99 * ((\text{Hospital's performance period score} - \text{Threshold}) / (\text{Benchmark} - \text{Threshold}))] + 0.5$

### **Calculation of Hospital Overall MHAC Score**

To calculate the final score for each hospital, the attainment points earned by the hospital and the potential points (i.e., 100) for each PPC are multiplied by the 3M cost weights. Hospital scores across PPCs are calculated by summing the total weighted points earned by a hospital, divided by the total possible weighted points (100 per PPC \* 3M cost weight). Figure 5 provides a hypothetical example of the points based scoring approach with the 3M cost weights.

### **RY 2023 Update: Small Hospital Methodology**

Hospital-specific PPC inclusion requirements were maintained in the RY 2023 policy, i.e., all hospitals are required to have at least 15 at-risk discharges and 1.5 expected PPCs in order for a particular PPC to be included in the payment program. Because of the volatility in performance scores for smaller hospitals, the Commission also approved the following policy updates in RY 2022:

“Establish small hospital criteria for assessing performance under the MHAC policy based on the number of at-risk discharges and expected PPCs (i.e., small hospitals are those with less than 20,000 at-risk discharges and/or 20 expected PPCs across all payment program PPCs) as opposed

to the number of PPC measure types, and for hospitals that meet small hospital criteria, increase reliability of score by using two years of performance data to assess hospital performance (i.e., for RY 2022 use CY 2019 and 2020). “

Because of the COVID PHE, the above proposal was not implemented for RY 2022 but instead, the MHAC scores and revenue adjustments for RY 2021 were repeated in RY 2022.

For RY 2023, staff proposed to maintain the small hospital criteria and expected to utilize CY 2020 and CY2021 for the assessment of small hospitals. However, staff will need to reconsider this approach due to the COVID related suspension of data use for January to June of 2020. Thus, in the RY 2023 recommendations, staff proposed that for small hospitals more than one year of data be used, and that the performance period will be CY 2021 plus yet to be determined performance period. For example, if the Commission decides to use July to December 2020 data, then small hospitals could be assessed on data from July 2020 through December 2020 and January to December 2021

## Appendix III: Monitoring PPCs

The table below shows the monitored PPCs O/E ratios for CY 22 YTD (through June) and the percent changes in the observed-to-expected ratio from CY 2018.

PPC	2022 YTD O/E Ratio	2018-2022 % Change
45: Post-Procedure Foreign Bodies	25.47%	-78.77%
2: Extreme CNS Complications	46.04%	-60.54%
5: Pneumonia & Other Lung Infections	77.78%	-50.42%
66: Catheter-Related Urinary Tract Infection	39.74%	-42.35%
6: Aspiration Pneumonia	73.74%	-35.06%
21: Clostridium Difficile Colitis	100.53%	-18.26%
39: Reopening Surgical Site	80.32%	-17.98%
65: Urinary Tract Infection without Catheter	99.37%	-10.84%
33: Cellulitis	99.45%	7.59%
11: Acute Myocardial Infarction	97.61%	10.91%
25: Renal Failure with Dialysis	138.51%	11.65%
19: Major Liver Complications	69.02%	13.86%
14: Ventricular Fibrillation/Cardiac Arrest	80.11%	14.32%

40: Post-Operative Hemorrhage & Hematoma without Hemorrhage Control Procedure or I&D Proc	95.96%	20.43%
10: Congestive Heart Failure	84.03%	25.69%
27: Post-Hemorrhagic & Other Acute Anemia with Transfusion	99.22%	29.40%
54: Infections due to Central Venous Catheters	89.46%	36.95%
8: Other Pulmonary Complications	124.86%	38.89%
44: Other Surgical Complication- Mod	61.23%	40.33%
1: Stroke & Intracranial Hemorrhage	97.45%	46.48%
52: Inflammation & Other Complications of Devices, Implants or Grafts Except Vascular Infection	98.06%	47.07%
17: Major Gastrointestinal Complications without Transfusion or Significant Bleeding	90.32%	51.06%
29: Poisonings due to Anesthesia	142.19%	52.18%
20: Other Gastrointestinal Complications without Transfusion or Significant Bleeding	101.41%	53.47%
23: GU Complications Except UTI	102.47%	69.48%
48: Other Complications of Medical Care	90.20%	69.56%
34: Moderate Infections	92.15%	69.64%

50: Mechanical Complication of Device, Implant & Graft	99.59%	90.65%
13: Other Cardiac Complications	103.61%	103.73%
59: Medical & Anesthesia Obstetric Complications	105.55%	125.40%
18: Major Gastrointestinal Complication with Transfusuib or Significant Bleeding	117.47%	130.00%
51: Gastrointestinal Ostomy Complications	119.35%	131.61%
38: Post-Operative Wound Infection & Deep Wound Disruption with Procedure	81.23%	133.71%
53: Infection, Inflammation & Clotting Complications of Peripheral Vascular Catheters & Infusions	181.68%	145.34%
15: Peripheral Vascular Complications Except Venous Thrombosis	124.30%	152.27%
26: Diabetic Ketoacidosis & Coma	121.83%	152.62%
64: Other In-Hospital Adverse Events	131.92%	155.78%
31: Decubitiis Ulcer	98.59%	214.82%
47: Encephalopathy	130.43%	243.51%
30: Poisonings due to Anesthesia	0 Observed	
32: Transfusion Incompatibility Reaction	0 Observed	



Below are results for PPC 47: Encephalopathy on the criteria used to re-include a monitoring PPC into the payment program.

## Monitoring PPC: Analysis of PPC 47

- Greater than 50% increase in O/E ratio comparing to 2018
  - 177.27% in 2021, 243.51% for 2022
- Clinical considerations
- Observed counts: 233 in 2021, 138 in 2022
- 3M v39 cost weight: 0.8728
- Percent of hospitals with O/E ratios less than .85 or greater than 1.15 (variation): 86.62 in 2021, 82.5% in 2022
- Rate per 1000 at risk: 1.12 in 2021, 1.43 in 2022
- Predictive validity: Adequate
- Reliability: Substantial
- 3M Group: Other Medical and Surgical Complications
- 3M Level: Major



# Draft Recommendation on Adjustments to Maryland Medicare TCOC Performance

November 9, 2022

This document contains a draft recommendation on adjustments to Maryland's Medicare total cost of care performance. Public comment will be accepted through November 28, 2022 to [matisia.jones2@maryland.gov](mailto:matisia.jones2@maryland.gov) or [katie.wunderlich@maryland.gov](mailto:katie.wunderlich@maryland.gov)

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## Introduction

The Commission is tasked with monitoring compliance of the Total Cost of Care Model contract agreement with CMMI, including attaining quality and population health targets, as well as providing consistent savings to the Medicare program. This draft recommendation examines the projected Medicare TCOC growth in Maryland in relation to the nation and potential adjustments that are warranted to ensure Maryland's growth stays closer to national growth.

Maryland has a rich history, dating back 50 years, of an all-payer hospital financing system. This system results in equitable distribution of hospital charges between payers and equitable funding of uncompensated care between hospitals, which ensures access to hospitals for all Maryland patients. This system provides the foundation for pay-for-performance programs, which link quality outcomes to hospital payment. Finally, this system provides support for the State-designated Health Information Exchange, workforce training, and other programs that strengthen the health care system in Maryland. The Commission applies all-payer rate adjustments to hospital payments in keeping with this tradition. This draft recommendation contains both all-payer rate adjustments, as well as Medicare-specific rate adjustments in recognition of the significant excess growth in Medicare costs in Maryland in calendar year 2022. Historically, the Commission has applied virtually all adjustments on an all-payer basis. The inclusion of Medicare-specific rate adjustments in this draft recommendation is a recognition of the size and timing of the current challenge which requires that payers other than Medicare need to bear a greater share of the shortfall given the challenge in the Medicare savings test. It does not represent a shift in the permanent focus of the Commission to adhere to an all-payer rate setting system. Moreover, the HSCRC remains committed to the goals and objectives of the Maryland Total Cost of Care Model to improve quality, reduce disparities, enhance access, and reduce costs for all Marylanders.

## Background on Medicare TCOC Savings Targets

The State of Maryland is leading a transformative effort to improve care and lower healthcare spending growth through the Maryland Total Cost of Care (TCOC) Model. The TCOC Model builds on the successes of the All-Payer Model, a 5-year demonstration project with the Centers for Medicare and Medicaid Services (CMS), which began January 1, 2014, and ended December 31, 2018. The TCOC Model, which began on January 1, 2019, aims to control total healthcare costs, enhance the quality of care, and improve health by progressively transforming care delivery across the healthcare system.

While the All-Payer Model (APM) focused primarily on hospitals, the Total Cost of Care (TCOC) Model focuses on transforming care across the entire healthcare system. The Model will continue through 2028 so long as Maryland meets the following spending and quality requirements included in the TCOC State Agreement:

- Average annual hospital revenue growth per capita must stay at or below 3.58 percent on a cumulative basis since 2013;
- Annual savings in Maryland Medicare TCOC per Beneficiary must reach \$120 million by (2019) and \$300 million by 2023;
- The State's Medicare TCOC per Beneficiary growth cannot exceed national Medicare FFS growth by more than 1 percent in any given year or exceed the national growth two years in a row;
- The State must maintain the improvements made in certain hospital quality measures; and
- Ninety-five percent of in-state hospital regulated revenue must be under population-based budget agreements.

As of the end of CY 2021, Maryland successfully met all the annual spending requirements mandated under the State agreement. While 2020 to 2021 growth was above the nation (0.6%), i.e. Maryland's Medicare TCOC per beneficiary growth rate exceeded the nation by 0.60 percentage points,<sup>1</sup> this was a consequence of very low trends in 2020 during the early stages of the COVID crisis, which drove a bounce back in 2021.

Despite slight TCOC dissavings in CY 2021, average per capita revenue growth of 3.08% from 2019 to 2021 is well below the 3.58% contractual limit, and Maryland achieved \$380 million in annual Medicare savings — surpassing the \$300 million annual savings requirement for Model Year 5.

Continued ripple effects from the COVID-19 pandemic, including unpredictable changes in utilization patterns and escalated costs in labor and supplies, have resulted in Maryland's growth rate exceeding the nation in CY 2021, and this trend, unfortunately, continues through CY 2022.

## **CY 2022 Medicare Total Cost of Care Performance**

Per the terms of the contract, Maryland is required to deliver \$267 million of annual Medicare Total Cost of Care (TCOC) savings in CY 2022, building up to \$300 million in annual Medicare TCOC savings in CY 2023. Based on projections, Maryland may miss the CY 2022 requirement by close to \$200 million, which could require a formal corrective action plan by the State. Staff have determined that the driving force behind the estimated TCOC dissavings is limited national growth of approximately 1.5 percent versus the CMS Office of the Actuary (OACT) estimates of 7.1 percent that the Commission utilized to establish the Update Factor for RY 2023 global budgets. Given that the TCOC Model allows Maryland hospitals to recoup most of the global budget revenues as volumes decline, it is self-evident that TCOC dissavings would increase when utilization in a national fee-for-service delivery system remains well below expectations.

If national growth fails to align with OACT estimates, the State could potentially miss the CY 2023 target of \$300 million annual TCOC savings, if no adjustments are made proactively. As CY 2023 is the final year

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<sup>1</sup> Annual Medicare TCOC Savings and Maryland year over year growth is subject to validation by CMMI.

before decisions are made on the future of the Model, Maryland should take proactive steps to improve Maryland's performance relative to the nation.

The tables below show the projected annual Medicare Total Cost of Care savings for CY 2022, as well the comparison to the target for CY 2022 outlined in the contract with CMMI.

Projected Annual Medicare TCOC Savings  
CY 2022 (in \$ millions)

	CY 2022
Prior Year Savings	\$380
Projected Current Results	(\$300)
Year-end position	\$80

Comparison to Target for CY 2022 (\$ in millions)

	CY 2022
Year-end position	\$80
Target	\$267
Excess/(Shortfall)	(\$197)

For purposes of this draft recommendation, Staff is focusing on the CY 2022 Medicare TCOC performance in planning its adjustments for CY 2023. Staff will continue to monitor and make adjustments as necessary into CY 2023. However, the deficit from CY 2022, projected to be almost \$200 million below the target, could potentially result in a formal corrective action plan in CY 2023 if the State takes no action and is significant enough to warrant proactive mid-year adjustments.

## Adjustments to Maryland Medicare TCOC

The Commission dedicated time during the October Commission meeting to solicit input from stakeholders on addressing the excess TCOC growth that is seen in the current calendar year. During that meeting, the Commission discussed considerations that should be used to guide the potential action steps to adjust Maryland's Medicare TCOC growth. These include:

- **Broad Mandate** - Commission should consider actions that support the broad mandate of the Model to drive savings and cost growth reductions, appropriately fund hospital delivery to incentivize care transformation, and fund population health efforts.
- **Recognition by State and Federal Partners** - Commission should advocate for State and Federal consideration to support Model success and appropriate adjustment actions.
- **Balance All-Payer and Medicare-only savings tools** - Commission should prioritize all-payer tools to preserve the character of the Maryland Model, to the extent possible. Given the magnitude of the excess cost growth in Maryland in CY 2022, the State should consider additional Medicare-only savings tools that provide one-time relief to the Medicare program.
- **Balance Temporary and Permanent Adjustments** - The 'miss' in CY 2022 appears to be attributable to slower than expected national growth in 2022; therefore, adjustments should be one-time in nature in response to the year over year dissavings. Permanent policy adjustments should be considered only if they contribute to longer-term Model success, or if there is a belief that the rebound of national TCOC growth will lag over a number of years.
- **Timing of Adjustments** - The adjustments should be implemented on January 1st to spread the global budget modifications over the entire calendar year, understanding that additional steps can be taken during the July 2023 update factor discussion to ensure compliance and to respond to national growth rate trends.
- **Adhere to Implementation of Existing Policies** - While short term adjustments may be necessary to adjust for the abnormality that occurred in CY 2022, the Commission should continue to implement existing policies and programs to plan for long-term Model success.

This draft recommendation contains a number of options that could be implemented to adjust the trajectory of Maryland's Medicare TCOC growth, while adhering to the above-mentioned considerations. Importantly, the State is pursuing both federal and State relief that could be provided to assist the Model in meeting its contractual obligations. Some of the options are within the Commission's control and some require approval by CMMI or the State. The options also spread the actions across hospitals, payers, and the State including:

- All-Payer Rate adjustment effectuated through hospital rate orders (reversal of 0.40% provided in RY 2023 Update Factor)
- Medicare-only payment reductions effectuated through the Medicare Performance Adjustment Savings Component

- Public Payer rate reductions through an increase to the Public Payer Differential for the duration of FY 2023 and 2024 (requires CMMI approval<sup>2</sup>)
- State contribution through Medicaid Deficit Assessment or additional grant dollars (requires State/Legislative approval)

Below is a table that summarizes the potential savings associated with each of the abovementioned actions that could be used to mitigate the excess cost of care growth in Maryland.

Savings (Cost) by Payer Type

	All-Payer	Medicare	Medicaid/State	Individuals and Businesses holding Commercial Insurance	All other
Reversal of 0.40% Provided in RY 2023 Update Factor	-\$80 m	-\$27 million	-\$16 million	-\$32 million	-\$5 million
Public Payer Differential Request	–	-\$26 million	-\$16 million	\$50 million	-\$8 million
MPA Savings Component	–	-\$50 million	–	–	
State Contribution through Medicaid Deficit Assessment	–	–	\$50 million	–	
<b>Total</b>		<b>-\$102 million</b>	<b>\$18 million</b>	<b>\$18 million</b>	

<sup>2</sup> Specifically the contract reads that “The State shall submit a request to change the Public Payer Differential no fewer than 120 days before the first day of the Model Year in which the modified Public Payer Differential would take effect, or by such other deadline specified by CMS.”



In addition to the specific actions that the Commission votes to advance through all-payer rate reduction, Public Payer Differential, and MPA Savings Component, the State should expect to see additional savings through previously approved policies and GBR mechanics. These include:

- Scoring the net of Undercharge Reversals and RRIP rewards (\$5 million Medicare savings); and
- Scoring the result of approved traditional MPA policy for CY 22 (\$20 million Medicare savings)

## Scaling Rate Reductions

Stakeholder feedback suggested that a portion of the required Medicare savings be scaled to inefficient hospitals or in some other manner that recognizes excess Medicare costs in the State. In this recommendation, Staff presents three ways that the MPA Savings Component reduction could be scaled. It is noted that additional Commission discussion is warranted before a final recommendation is released. Additionally, the final savings mechanisms approved by the Commission may also alter the way in which those savings are collected. For purposes of discussion by stakeholders and Commissioners, staff summarizes three potential ways to distribute any savings collection below.

1. Across the Board - Similar to the all-payer rate reduction, the MPA Savings Component could be distributed to all hospitals according to its share of gross hospital revenue.
2. Integrated Efficiency - The reduction to payments could be scaled to hospitals according to where they fall on the most recently released Integrated Efficiency policy results.
3. Traditional Medicare Performance Adjustment - The reduction could be scaled according to a hospital's ranking in the traditional MPA. This would recognize differential opportunities in TCOC performance but also put additional emphasis on a hospital's performance on TCOC since the start of the Model. Using this approach would further penalize hospitals that continue to drive excess Medicare total cost of care.

## Draft Recommendation

Staff recommends proactive steps to mitigate the excess Medicare TCOC growth in Maryland that add to \$100 million in Medicare savings. Staff believe that this step is warranted to keep the State better aligned with national growth. Additional steps can be considered in July 2023 to ensure full compliance with the contractual obligations with CMMI.

1. Staff recommends an all-payer rate reduction of 0.40% that will be taken from the January rate orders across the board;

2. Staff recommends requesting an increase to the Public Payer Differential of 1% for the remainder of FY 2023 and the duration of FY 2024, contingent upon approval of CMMI;
3. Staff recommends implementation of the Medicare Performance Adjustment Savings Component of \$50 million; and
4. Staff recommends that the Commission send a formal request to the State to reduce the Medicaid Deficit Assessment by \$50 million, contingent upon approval by the State Legislature.

Staff and Commissioners will continue to advocate to the State and federal government for additional allowances that can help the State meet the long-term goals and objectives of the Maryland Model.



# COVID-19 Community Vaccination Program

Final Report

November 2022

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## Introduction

The Health Services Cost Review Commission (HSCRC) provided funding to hospitals through the COVID-19 Community Vaccination Program to allow for creation, optimization, and/or expansion of community-based COVID-19 vaccine dissemination strategies. The COVID-19 Vaccination Program was intended to provide critical short-term funding through the all-payer rate setting system and align with the state's Vaccine Equity Task Force (VETF) to support efforts to increase vaccination rates in Maryland ZIP Codes identified as disadvantaged, vulnerable, underserved, and hard-to-reach. The program ran from May 1, 2021, through June 30, 2022. This report documents activities across the entire duration of the funding period.

## Background

The COVID-19 Community Vaccination Program was intended to use the flexibility of the TCOC Model and the State's rate setting system to aid in statewide vaccination efforts. The remaining Rate Year 2021 TCOC Model set-aside amount was directed to support hospital efforts to engage in community-based vaccination efforts. Hospital efforts, in partnership with these local organizations, have been vital to Maryland's work to stop the spread of COVID-19 and increase vaccination rates. As leading healthcare providers in their communities, many hospitals had already established vaccination programs across the State. Hospitals hosted vaccination clinics, worked with mass vaccination sites to provide staffing or other support, and partnered with local health departments and community-based organizations to conduct outreach and register eligible Marylanders for vaccinations. These efforts have included using mobile health vans and popular community facilities as vaccination sites, in addition to hospital-based clinics, to address vaccine administration disparities in communities across the State.

Despite a statewide effort to vaccinate all Marylanders, key challenges persisted and threatened abilities to achieve community immunity such as:

- Mass Vaccination Sites scaled back operations and were inaccessible for many in the State.
- Consumer demand for initial doses declined, although supply increased.
- Emergence of variants prompted a renewed urgency to reach still-unvaccinated patients and administer booster doses to eligible patients.
- Large numbers of children became vaccine-eligible which required an additional huge outreach effort.

As these challenges increased in Maryland, the HSCRC created the program to provide financial support to acute care hospitals to build the capacity of their community-based vaccine programs. Additionally, the

program encouraged collaboration between hospitals and community partners to increase vaccine rates in areas of the State with low vaccine administration rates. Further, the program was designed to achieve the following:

- Support statewide efforts to provide access to COVID-19 vaccines for all Marylanders in an equitable manner.
- Foster impactful, long-lasting partnerships between hospitals and community-based organizations.
- Educate and schedule vaccine appointments for individuals in hard-to-reach areas.
- Address race, age, gender, and ZIP Code-based shortcomings in vaccine administration through a “come-to-you” approach.

Under the program, hospitals volunteered for over 200 ZIP Codes that were identified by the Vaccination Equity Task Force (VETF) or in collaboration with Local Health Departments (LHDs) using CRISP data as disadvantaged, underserved, vulnerable, and/or hard-to-reach areas. Over the duration of the program, awardees focused their efforts in reaching those who faced hardships in reaching existing vaccine structures such as minority and low-income populations, senior citizens, uninsured populations, children, unhoused populations, home bound individuals, and people with disabilities.

## Activity Summary

The HSCRC awarded funding to 12 hospital systems in Maryland, totaling \$12,000,000, as shown in Table 1. The hospitals used funding to expand existing mobile and community-based vaccination programs and improve existing programs during the COVID-19 crisis.

**Table 1: COVID-19 Community Vaccination Funding Program Awardees**

Hospital/System	Award Amount	Counties Served
Atlantic General Hospital	\$94,167	Worcester County
Frederick Health	\$872,683	Frederick County
Greater Baltimore Medical Center	\$202,558	Baltimore City
Holy Cross Hospital	\$1,401,454	Montgomery & Prince George's County
Johns Hopkins Health System	\$1,653,606	Baltimore City, Baltimore County, Howard County, and Montgomery County
LifeBridge Health and Ascension	\$1,198,510	Baltimore City, Baltimore County, and Carroll County
Luminis Health	\$2,264,000	Anne Arundel & Prince George's County
MedStar Health- Baltimore	\$602,820	Baltimore City, Baltimore County, and Anne Arundel County

MedStar Southern Maryland	\$302,273	St. Mary's & Prince George's County
Meritus Medical Center	\$453,333	Washington County
University of Maryland Medical System	\$2,954,595	Baltimore City, Anne Arundel County, Baltimore County, Caroline County, Charles County, Dorchester County, Harford County, Kent County, Queen Anne's County, and Prince George's County
<b>Total</b>	<b>\$12,000,000</b>	

Awardees implemented a range of interventions in partnership with community collaborators to improve the overall vaccination rate in targeted ZIP Codes. Awardees had to pivot vaccination and outreach strategies over the course of the program as demand for initial doses of the vaccine waned, boosters were released, and the pediatric population became eligible for vaccination. Awardees were also allowed to use funds to provide monoclonal anti-body treatment (mAb) beginning in December 2021.

## Community-Based Vaccination Clinics

Awardees offered community-based vaccination clinics at recurring and pop-up sites. Clinics were held in locations such as local schools, health fairs, libraries, grocery stores, gas stations, churches, hair salons, apartment complexes, professional centers, nursing homes, and senior living communities. Clinics were held at both morning and evening times during the week and weekend to maximize community reach. Some awardees reported that hosting recurring events at the same community site over the duration of the program increased turnout among vaccine-eligible patients. One awardee scheduled initial and follow-up clinics at the same sites so patients could return to the same location to receive the second dose of their vaccination.

Multiple awardees hosted events specifically targeting the Latinx community. Spanish-speaking staff, including physicians and community health workers (CHWs), were available at many community sites to assist with one-on-one education on vaccine safety. In cases where no Spanish-speaking staff were available on site, clinics had in-person and remoted interpreters to facilitate conversations.

Some awardees customized vaccine offerings based on the specific population they were targeting at an event. For example, single-dose Johnson & Johnson was ideal for individuals in need of quick vaccinations, such patients with substance use disorders or individuals experiencing homelessness.

## At-Home Vaccinations

In addition to hosting community-based vaccine events, some awardees also focused on reaching elderly and home-bound patients with limited or no access to transportation. Those awardees worked closely with the local health department to identify eligible unvaccinated patients for at-home outreach and vaccination.

## Outreach Strategies

Community partners played a critical role in educating the community about vaccine safety and increasing turnout to vaccination events. In partnership with hospitals, community organizations employed a variety of outreach strategies to reach targeted populations. Awardees and their partners used social media sites, websites, QR codes, webinars, and online forums to distribute vaccine education and increase turn-out to community clinics. Community partners would canvass neighborhoods and flyer areas prior to vaccination events and work with local businesses to post signage to increase event turnout. Additionally, awardees noted that many vulnerable and at-risk individuals did not have email addresses or internet access which prevented them from registering online for vaccine clinics, so call centers were also an important outreach tool.

During vaccination events, some community partners also screened for social needs and referred individuals to resources, such as food assistance or medical care. Additionally, clinics were hosted in tandem with events that provided food assistance and clothing donations to increase clinic attendance. Awardees also reported that community partners offered enticements for individuals to get vaccinated. Incentives ranged from COVID-19 test kits, masks, gift certificates, and meals.

## Community Collaboration

Collaboration was a critical component of the program and hospitals were required to expand partnerships with local organizations within communities as part of the funding arrangement. Awardees reported working with over 500 community partners to host community vaccination events and conduct education and outreach. Partners included local health departments, faith-based organizations, local businesses, schools, and cultural centers.

Many community partners donated space and facilities for vaccination events and helped identify ideal locations for clinics to reach targeted populations. Community partners were key in disseminating information about the timing and location of clinics, as well as providing staff to assist workflow and educate patients. Community partners also supported the development of marketing materials and helped tailor materials to address specific community concerns about the vaccine. Some awardees provided direct financial support to community partners for dedicated door-to-door outreach and education.



# Addressing COVID-19 in the Community

## Common Challenges and Obstacles Faced

Awardees reported on a range of challenges faced in the implementation of their intervention activities. These are summarized below.

### Vaccine Hesitancy

The predominant challenge cited by all awardees, regardless of geography, was vaccine hesitancy. Misinformation, spread through social media and other outlets, contributed to mistrust of the vaccine which led many to delay getting vaccinated or refusing the vaccine altogether. Individuals were either skeptical of the science of the vaccine, which was not well understood, or mistrustful of outside organizations promoting vaccination. Clinicians and trusted community partners were critical to increasing vaccine confidence through community and on-site education.

### Declining Demand and Low Event Turnout

At the beginning of the program, consumer demand for vaccines was high which led to large turnouts at community vaccination events. As demand for vaccines declined over time, attendance at community-based clinics decreased. To address vaccine hesitancy, awardees and community partners pivoted to a one-on-one approach to educate patients about the vaccine. Consequently, while many community-based vaccination sites had low volumes, the effort and time to increase vaccine uptake increased. Physicians, community health workers, and community partners were present at vaccination events to support vaccine education. Unpredictable events and obstacles such as weather challenges, visibility of clinics, and site placements also contributed to low attendance at some community-based vaccination events.

## Solutions and Best Practices

Awardees reported on solutions and best practices they employed to implement program activities and address challenges they faced over the course of the program.

### Open and Ongoing Communication with Partners

The most common strategy awardees described was open and ongoing bidirectional communication with community partners. Awardees worked with partners to determine community vaccination needs and appropriate outreach strategies to reach unvaccinated populations. One awardee reported working closely with the local health department to identify home-bound individuals so they could deploy their mobile health team to provide at-home vaccinations. Open communication was also important to reduce duplication of efforts.

## Resources and Incentives

Awardees and their community partners provided a range of resources and incentives to patients to increase turnout to vaccination events. Some awardees partnered with community organizations that organized transportation services to clinics in the area. At a few locations, community partners offered incentives, such as meals and gift certificates, to patients who participated in vaccination clinics. Some clinics were organized in conjunction with food access and clothing donation events to increase event turnout.

## Education Strategies

Awardees had to be flexible and persistent in their education strategies to reach unvaccinated communities. All awardees cited the need for clear and easy-to-understand educational materials. Trusted community partners were critical to combatting vaccine hesitancy and increasing patient volume at community vaccination events. Some community partners conducted door-to-door outreach and education to address vaccine hesitancy. Other awardees had physicians, nurses, and other clinicians available at vaccination sites to answer questions from patients. One awardee reported that sharing educational materials through videos was at times more effective than using printed materials.

## Continuing Activities

Many awardees are continuing community vaccination clinics and coordinating events with community partners. Awardees cited the value of the new and continuing relationships with community partners developed through this program and opportunities to leverage those partnerships to improve outreach to address other health conditions and social needs. Many awardees plan to use infrastructure developed through this program to continue providing care in the community. One awardee established a mobile health service to support vaccination efforts which will continue to provide primary and preventative care to vulnerable and underserved community members.

## Impact Measures

In addition to final narrative and financial reports, awardees were required to submit monthly reports to the HSCRC on COVID-19 community vaccination efforts. Hospitals reported monthly on the type of vaccination events, number of vaccination events, total number of patients vaccinated (1<sup>st</sup> dose, 2<sup>nd</sup> dose, single dose, booster, and child 5-11), and any updates or changes to original strategies. Awardees reported the following monthly numbers on performance, administering a total of 118,653 vaccines over the 14 months of the program.

**Table 3: Monthly Vaccination Data<sup>1</sup>**

Month	Doses Administered	Community Events & Homebound Efforts
May 2021	12,429	142
June 2021	13,654	294
July 2021	6,506	309
August 2021	11,182	401
September 2021	6,231 (1 <sup>st</sup> /2 <sup>nd</sup> ) 868 (Booster)	325
October 2021	3,998 (1 <sup>st</sup> /2 <sup>nd</sup> ) 2,622 (Booster)	279
November 2021	2,500 (1 <sup>st</sup> /2 <sup>nd</sup> ) 6,640 (Booster) 3,785 (Child 5-11)	310
December 2021	3,434 (1 <sup>st</sup> /2 <sup>nd</sup> ) 9,616 (Booster) 3,631 (Child 5-11)	302
January 2022	3,187 (1 <sup>st</sup> /2 <sup>nd</sup> ) 6,775 (Booster) 1,562 (Child 5-11)	257
February 2022	2,146 (1 <sup>st</sup> /2 <sup>nd</sup> ) 2,710 (Booster) 932 (Child 5-11)	272
March 2022	926 (1 <sup>st</sup> /2 <sup>nd</sup> ) 1,348 (Booster) 386 (Child 5-11)	275
April 2022	508 (1 <sup>st</sup> /2 <sup>nd</sup> ) 3,748 (Booster) 142 (Child 5-11)	231
May 2022	296 (1 <sup>st</sup> /2 <sup>nd</sup> ) 3,369 (Booster) 141 (Child 5-11)	182
June 2022	248 (1 <sup>st</sup> /2 <sup>nd</sup> ) 2,792 (Booster) 346 (Child 5-11)	170
<b>Total</b>	<b>67,245 (1<sup>st</sup>/2<sup>nd</sup>)</b> <b>40,483 (Booster)</b> <b>10,925 (Child 5-11)</b>	<b>3,749</b>

**Table 4: Vaccination Rate Growth in Targeted ZIP Codes<sup>2</sup>**

Baseline Vaccination Rate (Dec 2020- April 2021)	Vaccination Rate at Program End (6/30/22)	Vaccination Rate Change
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<sup>1</sup> \*Based on hospital self-reporting.

<sup>2</sup> Based on Maryland Department of Health ImmuNet Data through CRISP. Rates are not specific to activities conducted solely under the HSCRC COVID-19 Community Vaccination Program.

34.02%	71.28%	37.07%
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## Expenditures Summary

Awardees provided summaries of total program expenditures against the budgets approved in their approved applications. These amounts were itemized into four broad categories of 1) Workforce/Staff, 2) IT/Technology, 3) Supplies, and 4) Indirect Costs. The below table shows the aggregate program expenditures as reported by hospitals in their final report.

**Table 5: Total Program Expenditures**

Category	Total Actual Expenditures
Workforce/Staff	\$8.9 million
IT/Technology	\$314K
Supplies	\$669K
Indirect Costs	\$1.76 million
<b>Total Expenditures</b>	<b>\$11.6 million</b>

HSCRC staff conducts financial audits of all special funding program expenditures to verify spending. Unspent monies by the end of the program are removed in future hospital rate orders.

**Table 6: Awardee Expenditures**

Awardee	Expenditures by Category	Total Expenditures
Atlantic General Hospital	<ul style="list-style-type: none"> <li>• <b>Workforce/Staff</b> expenditures in the amount of <b>\$58K</b></li> <li>• <b>IT/Technology</b> expenditures in the amount of <b>\$0</b></li> <li>• <b>Supplies</b> expenditures in the amount of <b>\$3K</b></li> <li>• <b>Other indirect costs expenditures</b> in the amount of <b>\$0</b></li> </ul>	\$61K
Frederick Health	<ul style="list-style-type: none"> <li>• <b>Workforce/Staff</b> expenditures in the amount of <b>\$594K</b></li> <li>• <b>IT/Technology</b> expenditures in the amount of <b>\$13K</b></li> <li>• <b>Supplies</b> expenditures in the amount of <b>\$11K</b></li> </ul>	\$812K

	<ul style="list-style-type: none"> <li>● <b>Other indirect costs expenditures</b> in the amount of <b>\$194K</b></li> </ul>	
Greater Baltimore Medical Center	<ul style="list-style-type: none"> <li>● <b>Workforce/Staff</b> expenditures in the amount of approximately <b>\$215K</b></li> <li>● <b>IT/Technology</b> expenditures in the amount of <b>\$0</b></li> <li>● <b>Supplies</b> expenditures in the amount of <b>\$6K</b></li> <li>● <b>Other indirect costs expenditures</b> in the amount of <b>\$17K</b></li> </ul>	\$238K
Holy Cross Hospital	<ul style="list-style-type: none"> <li>● <b>Workforce/Staff</b> expenditures in the amount of <b>\$569K</b></li> <li>● <b>IT/Technology</b> expenditures in the amount of <b>\$1K</b></li> <li>● <b>Supplies</b> expenditures in the amount of <b>\$20K</b></li> <li>● <b>Other indirect costs expenditures</b> in the amount of <b>\$29K</b></li> </ul>	\$619K
Johns Hopkins Health System	<ul style="list-style-type: none"> <li>● <b>Workforce/Staff</b> expenditures in the amount of <b>\$1.2 million</b></li> <li>● <b>IT/Technology</b> expenditures in the amount of <b>\$90K</b></li> <li>● <b>Supplies</b> expenditures in the amount of <b>\$229K</b></li> <li>● <b>Other indirect costs expenditures</b> in the amount of <b>\$23K</b></li> </ul>	\$1.5 million
LifeBridge Health and Ascension	<ul style="list-style-type: none"> <li>● <b>Workforce/Staff</b> expenditures in the amount of <b>\$1.1 million</b></li> <li>● <b>IT/Technology</b> expenditures in the amount of <b>\$2K</b></li> <li>● <b>Supplies</b> expenditures in the amount of <b>\$67K</b></li> <li>● <b>Other indirect costs expenditures</b> in the amount of <b>\$5K</b></li> </ul>	\$1.2 million
Luminis Health	<ul style="list-style-type: none"> <li>● <b>Workforce/Staff</b> expenditures in the amount of <b>\$1.85 million</b></li> <li>● <b>IT/Technology</b> expenditures in the amount of <b>\$0</b></li> <li>● <b>Supplies</b> expenditures in the amount of <b>\$201K</b></li> <li>● <b>Other indirect costs expenditures</b> in the amount of <b>\$278K</b></li> </ul>	\$2.3 million

MedStar Health-Baltimore	<ul style="list-style-type: none"> <li>● <b>Workforce/Staff</b> expenditures in the amount of <b>\$453K</b></li> <li>● <b>IT/Technology</b> expenditures in the amount of <b>\$53K</b></li> <li>● <b>Supplies</b> expenditures in the amount of <b>\$53K</b></li> <li>● <b>Other indirect costs expenditures</b> in the amount of <b>\$72K</b></li> </ul>	\$631K
MedStar Southern Maryland	<ul style="list-style-type: none"> <li>● <b>Workforce/Staff</b> expenditures in the amount of <b>\$216K</b></li> <li>● <b>IT/Technology</b> expenditures in the amount of <b>\$627</b></li> <li>● <b>Supplies</b> expenditures in the amount of <b>\$48K</b></li> <li>● <b>Other indirect costs expenditures</b> in the amount of <b>\$5K</b></li> </ul>	\$270K
Meritus Medical Center	<ul style="list-style-type: none"> <li>● <b>Workforce/Staff</b> expenditures in the amount of <b>\$275K</b></li> <li>● <b>IT/Technology</b> expenditures in the amount of <b>\$3K</b></li> <li>● <b>Supplies</b> expenditures in the amount of <b>\$9K</b></li> <li>● <b>Other indirect costs expenditures</b> in the amount of <b>\$234K</b></li> </ul>	\$521K
University of Maryland Medical System	<ul style="list-style-type: none"> <li>● <b>Workforce/Staff</b> expenditures in the amount of <b>\$2.36 million</b></li> <li>● <b>IT/Technology</b> expenditures in the amount of <b>\$151K</b></li> <li>● <b>Supplies</b> expenditures in the amount of <b>\$22K</b></li> <li>● <b>Other indirect costs expenditures</b> in the amount of <b>\$899K</b></li> </ul>	\$3.4 million

## Conclusion

Under this program, hospitals were able to scale existing vaccination programs and leverage relationships with community partners to address vaccination disparities. As challenges such as vaccine hesitancy and declining consumer demand for vaccines emerged, hospitals and their partners were flexible and persistent in their approach to reach and educate unvaccinated individuals. Community partners were critical to reaching people who were unable or unwilling to be vaccinated once vaccine supply became widely

available. The collaboration between hospitals and their partners shows the potential that such partnerships can have on the health and lives of Marylanders.

## Appendix A – ZIP Codes Served

Hospital/System	ZIP Codes
Atlantic General Hospital	21862, 21864, 21872, 21851, 21842, 21863, 21813, 21841, 21811
Frederick Health	21701, 21702, 21703, 21704, 21710, 21716, 21727, 21754, 21755, 21758, 21769, 21770, 21771, 21773, 21774, 21777, 21778, 21780, 21788, 21793, 21798
Greater Baltimore Medical Center	21202, 21093
Holy Cross Hospital	20705, 20770, 20784, 20785, 20866, 20868, 20901, 20902, 20903, 20904, 20906, 20910, 20912, 20850, 20710, 20877, 20783, 20853, 20817, 20833, 20854, 20879,
Johns Hopkins Health System	20723, 20794, 20814, 20815, 20817, 20850, 20852, 20854, 20874, 20878, 20902, 20904, 20906, 21043, 21044, 21045, 21046, 21075, 21202, 21205, 21213, 21219, 21222, 21224, 21231, 20877, 21206, 21216, 21218, 21074, 21771
LifeBridge Health and Ascension	21031, 21048, 21053, 21071, 21074, 21087, 21093, 21102, 21104, 21105, 21111, 21117, 21120, 21131, 21133, 21136, 21152, 21153, 21155, 21157, 21158, 21161, 21163, 21204, 21207, 21208, 21209, 21215, 21216, 21217, 21223, 21225, 21227, 21228, 21229, 21230, 21244, 21727, 21757, 21771, 21776, 21780, 21784, 21787, 21791
Luminis Health	20706, 20711, 20743, 20769, 20770, 20784, 20785, 21401, 21403, 21409, 20774, 20747, 20748, 20912, 20774, 21060, 20707, 21032, 20705, 20784
MedStar Health- Baltimore	21206, 21213, 21218, 21220, 21221, 21225, 21226, 21239, 21211, 21202, 21230, 21237
MedStar Southern Maryland	20634, 20653, 2066, 20735, 20747, 20743, 20710, 20618, 20624, 20622, 20680, 20745, 20785
Meritus Medical Center	21711, 21713, 21719, 21722, 21733, 21734, 21740, 21742, 21750, 21767, 21779, 21782, 21783, 21795
University of Maryland Medical System	20601, 20602, 20603, 20616, 20640, 20662, 21001, 21030, 21034, 21040, 21060, 21132, 21144, 21160, 21206, 21215, 21216, 21217, 21223, 21225, 21607, 21613, 21632, 21643, 21645, 21651





**TO:** HSCRC Commissioners  
**FROM:** HSCRC Staff  
**DATE:** November 9, 2022  
**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**

Dec 14, 2022 To be determined - GoTo Webinar

Jan 11, 2023 To be determined - GoTo Webinar

The Agenda for the Executive and Public Sessions will be available for your review on the Wednesday 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.

**Katie Wunderlich**  
Executive Director

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

**Allan Pack**  
Director  
Population-Based Methodologies

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