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**580th Meeting of the Health Services Cost Review Commission**
**January 13, 2020**

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

**EXECUTIVE SESSION**
**11:30 am**

1. Discussion on Planning for Model Progression – Authority General Provisions Article, §3-103 and §3-104

2. Update on Administration of Model - Authority General Provisions Article, §3-103 and §3-104

3. Update on Commission Response to COVID-19 Pandemic - Authority General Provisions Article, §3-103 and §3-104

**PUBLIC MEETING**
**1:00 pm**

1. Review of Minutes from the Public and Closed Meetings on December 9, 2020

2. Docket Status – Cases Closed

3. Docket Status – Cases Open

   2541N Sheppard and Enoch Pratt Hospital
   2546N Garrett Regional Medical Center
   2547A Johns Hopkins Health System
   2548A Johns Hopkins Health System

4. Final Recommendation on the Readmission Reduction Incentive Program (RRIP) for RY 2023

5. Final Full Rate Review Methodology Recommendation

6. Policy Update and Discussion

   a. Model Monitoring

7. Legal Update

8. 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 January 4, 2021

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

| Docket Number | Hospital Name | Date Docketed | Decision Required by: | Rate Order Must be Issued by: | Purpose | Analyst's Initials | File Status |
|---|---|---|---|---|---|---|---|
| 2541N | Sheppard and Enoch Pratt Hospital | 11/12/2020 | 12/12/2020 | 4/12/2021 | TMS | WH | OPEN |
| 2546N | Garrett Regional Medical Center | 12/3/2020 | 1/2/2021 | 4/2/2021 | LIT | WH | OPEN |
| 2547A | Johns Hopkins Health System | 12/17/2020 | N/A | N/A | ARM | DNP | OPEN |
| 2548A | Johns Hopkins Health System | 12/17/2020 | N/A | N/A | ARM | DNP | OPEN |

PROCEEDINGS REQUIRING COMMISSION ACTION - NOT ON OPEN DOCKET

None

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|---|---|---|---|
| **IN RE: THE PARTIAL RATE** | * | **BEFORE THE HEALTH SERVICES** | |
| **APPLICATION OF THE** | * | **COST REVIEW COMMISSION** | |
| **SHEPPARD AND ENOCH** | * | **DOCKET:** | **2020** |
| **PRATT HOSPITAL** | * | **FOLIO:** | **2351** |
| **TOWSON, MARYLAND** | * | **PROCEEDING:** | **2541N** |

**Staff Recommendation**
**January 13, 2021**

## Introduction

On November 6, 2020, Sheppard and Enoch Pratt Hospital ("the Hospital") submitted a partial rate application to establish a new Transcranial Magnetic Stimulation (TMS) rate. The Hospital is the nation's largest private, nonprofit provider of mental health, substance use, special education, developmental disability, and social services. TMS, or repetitive TMS, is a noninvasive precedure used to treat some types of mood disorder, including treatment-resistant depression. The Hospital requests a treatment rate for TMS to be effective Febuary 1, 2021.

## 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 a hospital's projections. The Hospital provided projected costs associated with the TMS expansion and requested a rate of $388.7266 per treatment. Based on the Centers for Medicare and Medicaid Services (CMS) and the Ambulatory Payment Classification (APC) rate structure, Staff determined that a TMS rate of $339.1538 is reasonable and appropriate.

| Service | Service Unit | Unit Rate | Projected Volumes | Approved Revenue |
|---|---|---|---|---|
| Transcranial Magnetic Stimulation (TMS) | Treatments | $339.1538 | 3915 | $1,327,788 |

## Recommendation

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

1. That the TMS rate of $339.1538 per treatment be approved effective Febuary 1, 2021;

2. That the TMS rate center not be rate realigned until a full year of cost data have been reported to the Commission; and

3. That the TMS services be subject to the applicatoin of the Approved Revenue and Unit Rate Policies.

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|---|---|---|---|
| **IN RE: THE PARTIAL RATE** | * | **BEFORE THE HEALTH SERVICES** | |
| **APPLICATION OF THE** | * | **COST REVIEW COMMISSION** | |
| **GARRETT REGIONAL** | * | **DOCKET:** | **2020** |
| **MEDICAL CENTER** | * | **FOLIO:** | **2356** |
| **OAKLAND, MARYLAND** | * | **PROCEEDING:** | **2546N** |

**Staff Recommendation**
**January 13, 2021**

## Introduction

On December 3, 2020, Garrett Regional Medical Center ("the Hospital") submitted a partial rate application to establish a new Lithotripsy (LIT) rate. The Hospital is the sole community provider of nearly all outpatient diagnostic, inpatient, rehabilitation, and emergency medical services situated in the Appalachian Mountain. The Hospital requests a procedure rate for LIT to be effective Febuary 1, 2021.

## 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 a hospital's projections. Based on the information received, the Hospital requested a rate of $3,634 per procedure, while the statewide median rate for LIT services is $3,775.04 per procedure.

| Service | Service Unit | Unit Rate | Projected Volumes | Approved Revenue |
|---|---|---|---|---|
| Lithotripsy | Procedure | $3,634 | 248 | $901,232 |

## Recommendation

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

1. That the Commission waive COMAR 10.37.10.07, which requires that a hospital file A rate application for new service at least 60 days before its operational opening.

2. That the LIT rate of $3,634 per procedure be approved effective Febuary 1, 2021;

3. That the LIT rate center not be rate realigned until a full year of cost data has been reported to the Commission; and

4. That no change be made to the Hospital's Global Budget Revenue for the LIT Services.

| | | | |
|---|---|---|---|
| **IN RE: THE APPLICATION FOR** | * | **BEFORE THE MARYLAND HEALTH** | |
| **ALTERNATIVE METHOD OF RATE** | * | **SERVICES COST REVIEW** | |
| **DETERMINATION** | * | **COMMISSION** | |
| **JOHNS HOPKINS HEALTH** | * | **DOCKET:** | **2020** |
| **SYSTEM** | * | **FOLIO:** | **2357** |
| **BALTIMORE, MARYLAND** | * | **PROCEEDING:** | **2547A** |

**Staff Recommendation**

**January 13, 2021**

## I. INTRODUCTION

Johns Hopkins Health System (System) filed an application with the HSCRC on December 17, 2020 on behalf of Johns Hopkins Hospital and Johns Hopkins Bayview Medical Center (the Hospitals) for an alternative method of rate determination, pursuant to COMAR 10.37.10.06. The System requests approval from the HSCRC to continue to participate in an amended global rate arrangement for solid organ transplant, bone marrow transplant, and cardiovascular services with Global Excel Management for a period of one year beginning February 1, 2021.

## II. OVERVIEW OF APPLICATION

The contract will continue to be held and administered by Johns Hopkins HealthCare, LLC ("JHHC"), which is a subsidiary of the System. JHHC will manage all financial transactions related to the global price contract including payments to the Hospitals and bear all risk relating to regulated services associated with the contract.

## III. FEE DEVELOPMENT

The hospital portion of the global rates was developed by calculating mean historical charges for patients receiving kidney, bone marrow transplants, and cardiovascular services at the Hospitals. The remainder of the global rate is comprised of physician service costs. Additional per diem payments were calculated for cases that exceed a specific length of stay outlier threshold.

## IV. IDENTIFICATION AND ASSESSMENT OF RISK

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

## V. STAFF EVALUATION

Staff found that the experience under this arrangement was favorable last year. Staff believes that the Hospitals can continue to achieve a favorable experience under this arrangement.

## VI. STAFF RECOMMENDATION

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

| | | | |
|---|---|---|---|
| **IN RE: THE APPLICATION FOR** | * | **BEFORE THE MARYLAND HEALTH** | |
| **ALTERNATIVE METHOD OF RATE** | * | **SERVICES COST REVIEW** | |
| **DETERMINATION** | * | **COMMISSION** | |
| **JOHNS HOPKINS HEALTH** | * | **DOCKET:** | **2020** |
| **SYSTEM** | * | **FOLIO:** | **2358** |
| **BALTIMORE, MARYLAND** | * | **PROCEEDING:** | **2548A** |

**Staff Recommendation**

**January 13, 2021**

## I. INTRODUCTION

On December 17, 2020, the Johns Hopkins Health System ("System") filed a renewal application on behalf of its member hospitals Johns Hopkins Hospital and Johns Hopkins Bayview Medical Center (the "Hospitals") requesting approval from the HSCRC to continue to participate in a global rate arrangement for cardiovascular surgery with Quality Health Management. The Hospitals request that the Commission approve the arrangement for one year effective February 1, 2021.

## II. OVERVIEW OF APPLICATION

The contract will continue to be held and administered by Johns Hopkins HealthCare, LLC ("JHHC"), which is a subsidiary of the System. JHHC will continue to manage all financial transactions related to the global price contract including payments to the System hospitals and bear all risk relating to regulated services associated with the contract.

## III. FEE DEVELOPMENT

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

## IV. IDENTIFICATION AND ASSESSMENT OF RISK

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

## V. STAFF EVALUATION

Staff found that the experience under this arrangement for the prior year has been

favorable.

## VI. STAFF RECOMMENDATION

The staff recommends that the Commission approve the Hospitals' application for an alternative method of rate determination for cardiovascular surgery for one year beginning February 1, 2021. The Hospitals must file a renew application annually for continued participation.

Consistent with its policy paper regarding applications for alternative methods of rate determination, the staff recommends that this approval be contingent upon the execution of the standard Memorandum of Understanding ("MOU") with the Hospitals for the approved contract. This document will formalize the understanding between the Commission and the Hospitals, and will include provisions for such things as payments of HSCRC-approved rates, treatment of losses that may be attributed to the contract, quarterly and annual reporting, and confidentiality of data submitted, penalties for noncompliance, project termination and/or alteration, on-going monitoring, and other issues specific to the proposed contract. The MOU will also stipulate that operating losses under the contract cannot be used to justify future requests for rate increases.

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# Final Recommendation for the Readmission Reduction Incentive Program for Rate Year 2023

January 13, 2021

This document contains the final staff recommendations for the Readmission Reduction Incentive Program.

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# Table of Contents

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# List of Abbreviations

| | |
|---|---|
| ADI | Area Deprivation Index |
| AMA | Against Medical Advice |
| APR-DRG | All-patient refined diagnosis-related group |
| CMS | Centers for Medicare & Medicaid Services |
| CMMI | Center for Medicare and Medicaid Innovation |
| CRISP | Chesapeake Regional Information System for Our Patients |
| CY | Calendar year |
| eCQM | Electronic Clinical Quality Measure |
| EDAC | Excess Days in Acute Care |
| FFS | Fee-for-service |
| HCC | Hierarchical Condition Category |
| HRRP | Hospital Readmissions Reduction Program |
| HSCRC | Health Services Cost Review Commission |
| HWR | Hospital-Wide Readmission Measure |
| MCDB | Medical Claims Database |
| MPR | Mathematica Policy Research |
| MSA | Metropolitan Statistical Area |
| NQF | National Quality Forum |
| PAI | Patient Adversity Index |
| PMWG | Performance Measurement Workgroup |
| PQI | Prevention Quality Indicators |
| RRIP | Readmissions Reduction Incentive Program |
| RY | Rate Year |
| SIHIS | Statewide Integrated Healthcare Improvement Strategy |
| SOI | Severity of illness |
| TCOC | Total Cost of Care |
| YTD | Year-to-date |

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# Key Methodology Concepts and Definitions

**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.

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

**Case-Mix Adjustment:** Statewide rate for readmissions (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 readmissions, a process known as indirect standardization.

**Prevention Quality Indicator (PQI):** a set of measures that can be used with hospital inpatient discharge data to identify quality of care for "ambulatory care sensitive conditions." These are conditions for which good outpatient care can potentially prevent the need for hospitalization or for which early intervention can prevent complications or more severe disease.

**Area Deprivation Index (ADI):** A measure of neighborhood deprivation that is based on the American Community Survey and includes factors for the theoretical domains of income, education, employment, and housing quality.

**Patient Adversity Index (PAI):** HSCRC developed composite measure of social risk incorporating information on patient race, Medicaid status, and the Area Deprivation Index.

**Excess Days in Acute Care (EDAC):** Capture excess days that a hospital's patients spent in acute care within 30 days after discharge. The measures incorporate the full range of post-discharge use of care (emergency department visits, observation stays, and unplanned readmissions).

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# 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 Readmission Reduction Incentive Program (RRIP), 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 RRIP policy 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. | The RRIP policy currently holds 2 percent of hospital revenue at-risk for readmissions occurring within 30-days of discharge for all payers and all causes. Specific criteria for inclusion (oncology discharges) and exclusion (discharges leaving Against Medical Advice, Planned Admissions) are detailed in Appendix I. | 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. | Currently, the RRIP policy measures within-hospital disparities in readmission rates, using an HSCRC-generated Patient Adversity Index (PAI), and provides rewards for hospitals that meet specified disparity gap reduction goals. The broader RRIP policy continues to reward or penalize hospitals on the better of improvement and attainment, which incentivizes hospitals to improve poor clinical outcomes that may be correlated with health disparities. It is important that persistent health disparities are not made permanent.<br><br>Moving forward, the assessment of performance may evolve the existing PAI measure, and the reward structure for improvements in within-hospital disparities in readmission rates. |

# Recommendations

The RRIP policy was redesigned in Rate Year (RY) 2022 to modernize the program for the Total Cost of Care Model. This RY 2023 final recommendation, in general, maintains the measure updates and methodology determinations that were developed and approved for RY 2022.[1]

These are the final recommendations for the RY 2023 Readmission Reduction Incentive Program (RRIP) policy:

1. Maintain the 30-day, all-cause readmission measure.
    a. Remove Pediatric Oncology cases, in accordance with the intention of the oncology readmission measure.

[1] See the RY 2022 policy for detailed discussion of the RRIP redesign, rationale for decisions, and approved recommendations

2. Improvement Target - Maintain the RY 2022 approved statewide 5-year improvement target of -7.5 percent from 2018 base period.
3. Attainment Target - Maintain the attainment target whereby hospitals at or better than the 65th percentile statewide performance receive scaled rewards for maintaining low readmission rates.
4. For improvement and attainment, increase the maximum reward hospitals can receive to 2 percent of inpatient revenue and maintain the maximum penalty at 2 percent of inpatient revenue.
5. Provide additional payment incentive (up to 0.50 percent of inpatient revenue) for reductions in within-hospital readmission disparities. Scale rewards beginning at 0.25 percent of IP revenue for hospitals on track for 50 percent reduction in disparity gap measure over 8 years (>=15.91 percent reduction in disparity gap measure 2018 to 2021), capped at 0.50 percent of IP revenue for hospitals on pace for 75 percent or larger reduction in disparity gap measure over 8 years (>=29.29 percent reduction in disparity gap measure 2018 to 2021).
6. Continue development of an all-payer Excess Days in Acute Care measure in order to account for readmission, emergency department, and observation revisits post-discharge.
7. Adjust the RRIP pay-for-performance program methodology as needed due to COVID-19 Public Health Emergency and report to Commissioners as follows:
    a. For RY 2022 (CY 2020 performance period)
        i. Exclude COVID-19 positive cases from the program.
        ii. Exclude the data for January to June 2020; evaluate whether to use the final six months of 2020 or whether to use a prior time period.
        iii. Evaluate case-mix adjustment and performance standards concerns arising from use of a pre-COVID time period to determine normative values.
    b. For RY 2023 (CY 2021 performance period) include COVID-19 positive cases but retrospectively assess any case-mix concerns, including the use of a pre-COVID time period to determine normative values.

# Introduction

Since 2014, Maryland hospitals have been funded under a global budget system, which is a fixed annual revenue cap that is adjusted for inflation, quality performance, reductions in potentially avoidable utilization, market shifts, and demographic growth. Under the global budget system, hospitals are incentivized to transition services to the most appropriate care setting and may keep savings that they achieve via improved health care delivery (e.g., reduced avoidable utilization, such as readmissions or hospital-acquired infections). 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 that reinforce the incentives of the global budget system, while penalizing poor performance and guarding against unintended consequences.

The Readmissions Reduction Incentive Program (RRIP) is one of several pay-for-performance initiatives that provide incentives for hospitals to improve patient care and value over time. The RRIP currently holds up to 2 percent of inpatient hospital revenue at-risk in penalties and up to 1 percent at-risk in rewards based on improvement and attainment in case-mix adjusted readmission rates. In addition, the RRIP is the first quality policy to provide incentives for reducing disparities by rewarding hospitals up to 0.5 percent of inpatient hospital revenue for reducing within-hospital disparities in readmissions.

With the commencement of the Total Cost of Care (TCOC) Model Agreement on January 1, 2019, the performance standards and targets in HSCRC's portfolio of quality and value-based payment programs have been reviewed and updated. In CY 2019, staff focused on the RRIP program and convened a subgroup with clinical and measurement experts who made recommendations that were then further evaluated by the Performance Measurement Workgroup (PMWG). The RRIP subgroup and PMWG considered updated approaches for reducing readmissions in Maryland to support the goals of the TCOC Model. Specifically, the workgroup evaluated Maryland hospital performance relative to various opportunity analyses, including external national benchmarks, and staff developed a within-hospital disparities metric for readmissions in consultation with the workgroup.

# Background

## Brief History of RRIP program

Maryland made incremental progress each year throughout the All-Payer Model (2014-2018), ultimately achieving the Model goal for the Maryland Medicare FFS readmission rate to be at or below the unadjusted national Medicare readmission rate by the end of Calendar Year (CY) 2018. Maryland had historically performed poorly compared to the nation on readmissions; it ranked 50th among all states in a study examining Medicare data from 2003-2004.[2] In order to meet the All-Payer Model requirements, the Commission approved the RRIP program in April 2014 to further bolster the incentives to reduce unnecessary readmissions.

As recommended by the Performance Measurement Workgroup, the RRIP is more comprehensive than its federal counterpart, the Medicare Hospital Readmission Reduction Program (HRRP), as it is an all-cause measure that includes all patients and all payers.[3]

In Maryland, the RRIP methodology evaluates all-payer, all-cause inpatient readmissions using the CRISP unique patient identifier to track patients across Maryland hospitals. The readmission measure excludes certain types of discharges (such as planned readmissions) from consideration, due to data issues and clinical concerns. Readmission rates are adjusted for case-mix using all-patient refined diagnosis-related group (APR-DRG) severity of illness (SOI), and the policy determines a hospital's score and revenue adjustment by the better of improvement or attainment, with scaled rewards of up to 1 percent of inpatient revenue and scaled penalties of up to 2 percent.[4]

## RRIP Redesign

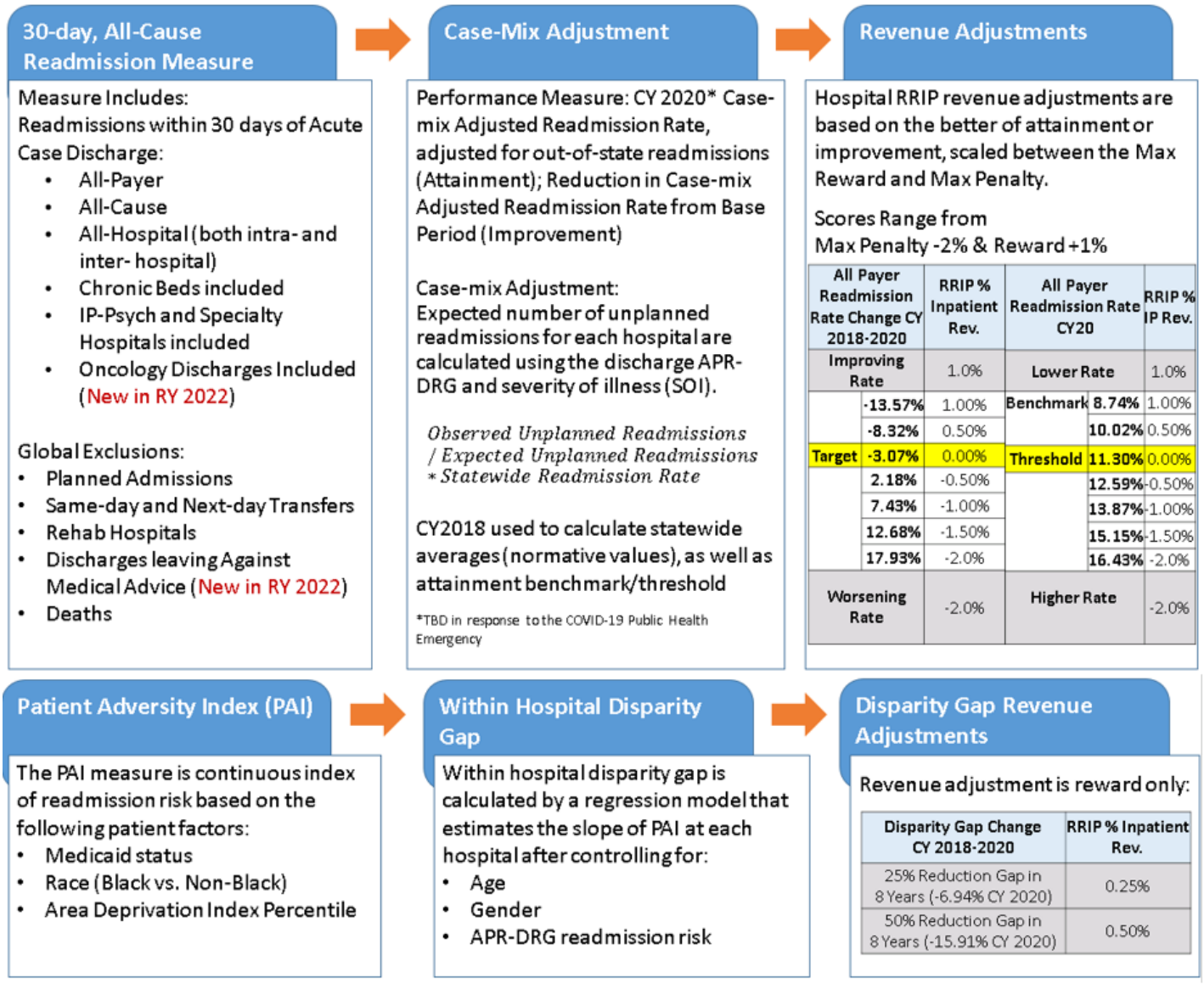
As part of the ongoing evolution of the All-Payer Model's pay-for-performance programs to further bring them into alignment under the Total Cost of Care Model, HSCRC convened a work group in CY 2019 to evaluate the Readmission Reduction Incentive Program (RRIP). The work group consisted of stakeholders, subject matter

[2] Jencks, S. F. et al., "Hospitalizations among Patients in the Medicare Fee-for-Service Program," *New England Journal of Medicine* Vol. 360, No. 14: 1418-1428, 2009.
[3] For more information on the HRRP, please see: https://www.cms.gov/Medicare/Medicare-Fee-for-Service-Payment/AcuteInpatientPPS/Readmissions-Reduction-Program. Maryland remains exempted from the federal HRRP.
[4] See Appendix I for details of the current RRIP methodology.

experts, and consumers, and met six times between February and September 2019. The work group focused on the following six topics, with the general conclusions summarized below:

1. Analysis of Case-mix Adjustment and trends in Eligible Discharges over time to address concern of limited room for additional improvement;
    - Case-mix adjustment acknowledges increased severity of illness over time
    - Standard Deviation analysis of Eligible Discharges suggests that further reduction in readmission rates is possible
2. National Benchmarking of similar geographies using Medicare and Commercial data;
    - Maryland Medicare and Commercial readmission rates and readmissions per capita are on par with the nation
3. Updates to the existing All-Cause Readmission Measure;
    - Remove Eligible Discharges that left against medical advice (~7,500 discharges)
    - Include Oncology Discharges with more nuanced exclusion logic
        - Additionally, remove pediatric oncology cases from readmission eligibility
    - Analyze out-of-state ratios for other payers as data become available
4. Statewide Improvement and Attainment Targets under the TCOC Model;
    - 7.5 percent Improvement over 5 years (2018-2023)
    - Ongoing evaluation of the attainment threshold at 65th percentile
5. Social Determinants of Health and Readmission Rates; and
    - Methodology developed to assess within-hospital readmission disparities
6. Alternative Measures of Readmissions
    - Further analysis of per capita readmissions as broader trend; not germane to the RRIP policy because focus of evaluation is clinical performance and care management post-discharge
    - Observation trends under the All-Payer Model to better understand performance given variations in hospital observation use; future development will focus on incorporation of Excess Days in Acute Care (EDAC) measure in lieu of including observations in RRIP policy
    - Electronic Clinical Quality Measure (eCQM) may be considered in future to improve risk adjustment

**Figure 1. Overview Rate Year 2022 RRIP Methodology**



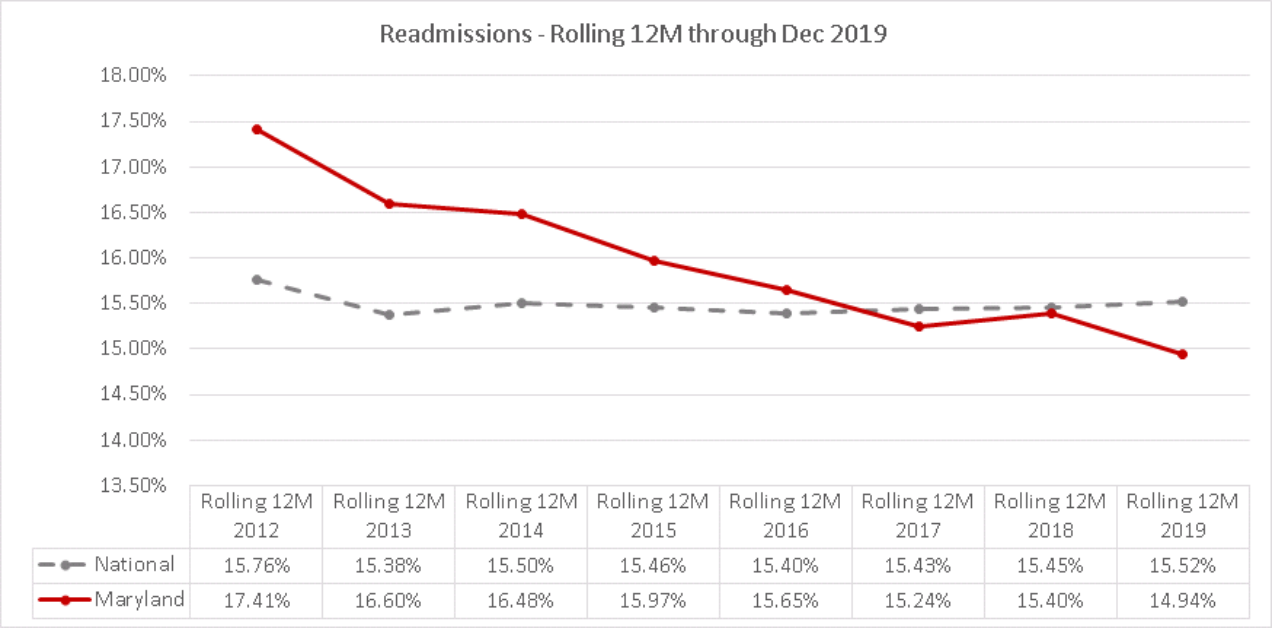

# Assessment

In general, stakeholders support the staff's recommendation to not make major changes to the RY 2023 RRIP program. This section of the report provides an overview of the data and issues discussed by the PMWG, including analysis of CY 2019 statewide readmission rates, estimated hospital scores, and revenue adjustment modelling. Staff has not included CY 2020 YTD readmission rates due to the ongoing COVID-19 Public Health Emergency (see more below).

## Statewide Readmissions Performance

In CY 2019, Maryland improved upon its All-Payer Model achievement of being at or below the National Medicare FFS Rate. In CY 2018 at the conclusion of the All-Payer Model, Maryland had an unadjusted Medicare readmission rate of 15.40%, compared to the national rate of 15.45%. Through CY 2019, Maryland further improved its readmission rate, concluding the year with a rate of 14.94% compared to the national rate of 15.52% (see Figure 2 below).

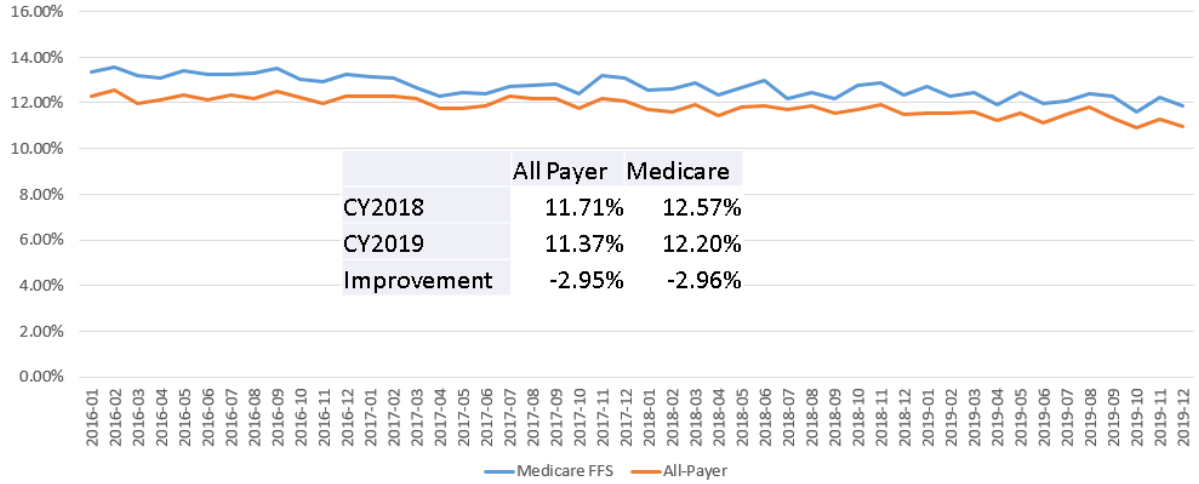
**Figure 2. TCOC Model "Waiver Test" - Maryland and National Unadjusted Readmission Rates**




| | Rolling 12M 2012 | Rolling 12M 2013 | Rolling 12M 2014 | Rolling 12M 2015 | Rolling 12M 2016 | Rolling 12M 2017 | Rolling 12M 2018 | Rolling 12M 2019 |
|---|---|---|---|---|---|---|---|---|
| National | 15.76% | 15.38% | 15.50% | 15.46% | 15.40% | 15.43% | 15.45% | 15.52% |
| Maryland | 17.41% | 16.60% | 16.48% | 15.97% | 15.65% | 15.24% | 15.40% | 14.94% |

Maryland also improved upon its Case-mix Adjusted Readmission rate in CY 2019, concluding CY 2019 with an all-payer case-mix adjusted readmission rate of 11.37%, a 2.90% reduction from the RY 2022 base period of CY 2018 (Figure 3, below). With the statewide improvement goal of 1.55% in CY 2020 (the compounded improvement needed to reach 7.5% over five years), 28 hospitals would have been "on track" to receive an incremental improvement reward for RY 2022, while 2 additional hospitals would have received the max reward for improvement.

**Figure 3. RY 22 Monthly Case-mix Adjusted Readmission Rates, thru CY 2019**




Given these favorable trends in readmission rates and given the challenges with assessing CY 2020 case-mix data during the COVID-19 Public Health Emergency (more below), staff is not recommending large changes to the RY 2023 RRIP policy, including maintaining the improvement and attainment methodologies for a planned CY 2021 performance period. The incremental improvement rate is assessed to be -4.57 percent, see Figure 4 below, while the attainment target benchmark and threshold will be calculated off of the most recent actionable case-mix data, adjusted for the proposed improvement (presently, CY 2019 under v37.1 of the APR-DRG grouper, yielding an attainment threshold of 10.96 percent and attainment benchmark of 8.16 percent). Based on the 2018 to 2019 readmission performance, there are 20 hospitals who have already exceeded the 4.57 percent improvement target such that if they maintain their 2019 readmission rates in 2021 they should receive an improvement reward.[5]

**Figure 4. Compounded Improvement Rate to Achieve 7.5% Five-Year Improvement**

| Year | 2019 | 2020 | 2021 | 2022 | 2023 |
|---|---|---|---|---|---|
| Improvement | -1.55% | -3.07% | -4.57% | -6.05% | -7.50% |

[5] Based on this preliminary attainment target one additional hospital would receive an attainment reward despite not meeting the improvement target.

## COVID-19 Program Considerations

Staff notes that, on September 2, 2020, CMS published an Interim Final Rule (IFR) in response to the COVID-19 PHE. In this IFR, they announced that:

- CMS will not use CY Q1 or CY Q2 of 2020 quality data even if submitted by hospitals.
- CMS is still reserving the right to suspend application of revenue adjustments for FFY 2022 for all hospital pay for performance programs at a future date in 2021; changes will be communicated through memos ahead of IPPS rules.

It is not known at this time if Maryland has flexibility in suspending our RY 2022 programs. However, CMMI has strongly suggested that the State must have quality program adjustments, and has further suggested that the State pursue alternative strategies, such as reusing portions of CY 2019 (as is being done for the Skilled Nursing Facility VBP program) to create a 12-month performance period, should that be necessary for data reliability and validity.

In context of the CMS announcement and CMMI comments, staff has evaluated the data issues and options for the RY 2022 RRIP policy in Maryland, as illustrated in Figure 5 below.

**Figure 5. RY 2022 COVID-Related Data Concerns and Options**

| COVID Data Concerns | Options |
|---|---|
| Only 6 months of data for CY 2020:<br>1. Is July-December data reliable?<br>2. What about seasonality? | • Use 6-months data, adjust base as needed for seasonality concerns<br>• Merge 2019 and 2020 data together to create a 12 month performance period<br>• Use 2019 data or revenue adjustments |
| Clinical concerns over inclusion of COVID patients | • Remove COVID patients from CY 2020 Eligible Discharges or Readmissions |
| Case-mix adjustment, performance standard and revenue adjustment scale concerns:<br>1. Inclusion of COVID patients when not in normative values<br>2. Impacts on other DRG/SOI of COVID PHE | • Remove COVID patients from CY 2020 evaluation<br>• Develop concurrent norms and performance standards for comparison and possible use<br>• Use 2019 data or revenue adjustments<br>• Modify revenue adjustment scale to recognize COVID related concerns |

At this stage, staff believes the most appropriate approach for the RRIP policy is to exclude the COVID-19 patients[6] if any CY 2020 data is used. Over the coming months, staff will work to assess any case-mix adjustment and performance standard issues due to the absence of COVID-19 patients in the base period and normative values, and to finalize the performance period. Staff will provide updates to the Commission in February, at the earliest, on the final decisions for any adjustments to all RY 2022 quality policies.

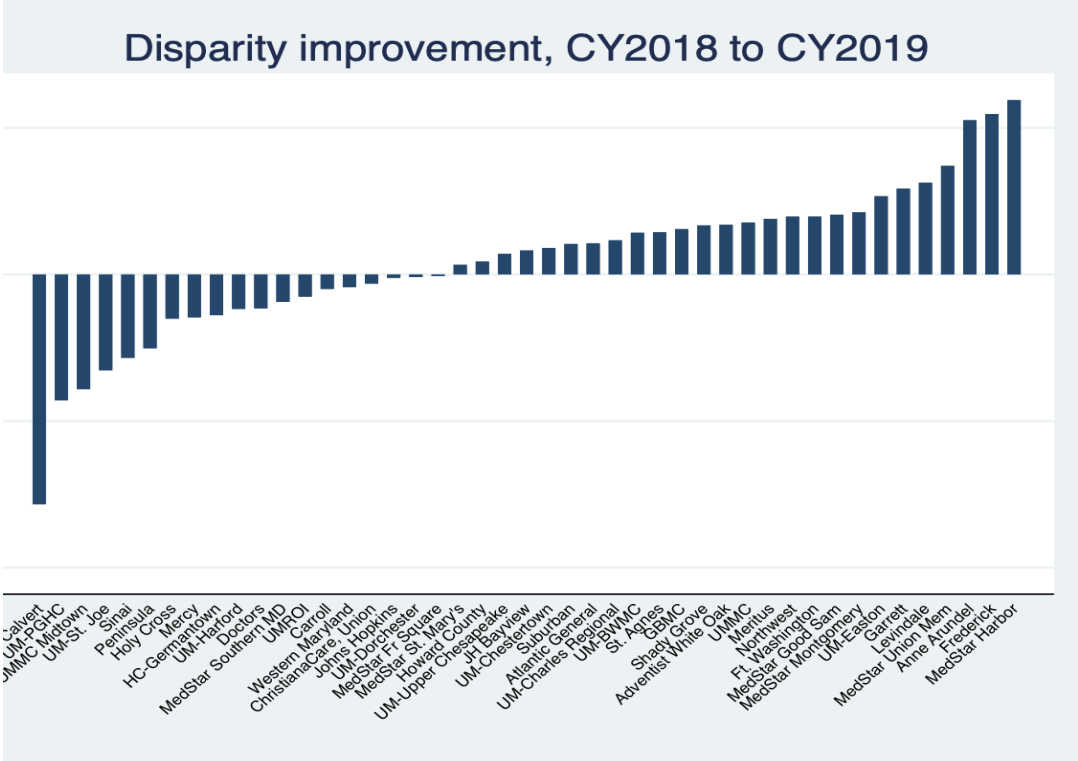
For RY 2023, the program will use v38 of the APR-DRG grouper, however, unlike the v38 PPC grouper, this updated grouper does not make changes to the readmission flags to account for COVID-19. Staff will need to consider any additional modifications to address case-mix adjustment and performance standard concerns that may arise from inclusion of COVID-19 positive patients in the performance period, especially since COVID-19 cases were not part of the statewide normative values. Furthermore, based on stakeholder comments, analyses should be done on case-mix adjustment and performance standards concerns for non-COVID patients.

## Within-Hospital Disparities in Readmissions

In March 2020 the Commission approved rewards for hospitals reducing socioeconomic disparities in readmission rates between CY2018 and CY2020.[7] Evaluation of performance for CY2019 showed 26 of 45 hospitals improved on the disparity measure (Figure 6).

[6] COVID-19 cases are defined as those coded with the ICD10 code U07.1
[7] Details on the methodology for calculating within hospital disparities can be found in the RY 2022 RRIP policy

Figure 6: CY2019 Disparity Improvement[8]




Of those that improved, four would be ineligible for disparity reward due to overall RRIP performance requirement of some improvement, and one was not on track to attain the minimum disparity gap improvement threshold. Two hospitals are on track for a reward of 0.25% IP revenue and 19 are on track for a reward of 0.50% IP revenue.

Staff recommended the currently approved reward targets after reviewing analytics suggesting significant change in disparities would be difficult and time consuming for hospitals to achieve. However, as the program developed, Staff implemented a change in the calculation procedure to better account for shifting PAI values at individual hospitals. Specifically, initial analytics for the program were developed with the Patient Adversity Index (PAI), which measures patient socioeconomic exposures, using claims from CY2016 to 2018, which had the effect of stabilizing hospital disparity levels estimated annually during that three-year period. Ultimately, however, Staff elected to measure PAI, and to calculate mean PAI for each hospital, using data only from CY2018 to more accurately reflect PAI values, readmission risk, and performance during the base year, rather than during years not included in the base. This led to a larger-than-anticipated number of hospitals qualifying for the maximum reward category for RY 2022.

[8] This graph does not show the absolute difference in readmission rates between Medicaid and other payers, black vs non black, and high ADI vs low ADI, and nor does it represent the change in readmission rates for these groups, but rather this graph shows the change in the disparity gap over time between the groups as determined through an evaluation of the change in slope for readmissions across all levels of patient adversity at each hospital.

Because of this methodology change, Staff recommends updating the reward structure to provide rewards beginning at 0.25 percent of IP revenue for hospitals on track for 50 percent reduction in disparity gap measure over 8 years (>=15.91 percent reduction in disparity gap measure 2018 to 2021), and 0.50 percent of IP revenue for hospitals on pace for 75 percent or larger reduction in disparity gap measure over 8 years (>=29.29 percent reduction in disparity gap measure 2018 to 2021).[9] Under this approach, six hospitals are currently on track to receive the lower reward, and 13 on track to receive the higher one. Staff also tends to evaluate approaches to scaling rewards between the lower and higher points.

Staff has received feedback from stakeholders suggesting that a review of initial program results to evaluate the possibility of unintended consequences related to the policy, such as shifts in coding of patient race. This work is planned for early 2021. Additionally, Staff is aware of the need to develop an approach to accounting for the effect of COVID-19 on disparities measurement.

## Hospital Score and Revenue Adjustment Modeling

For this final policy, staff modeled hospital performance and revenue adjustments as if the policy had been applied from the base of 2018 to the 2019 performance year. This was done by calculating the one-year improvement targets for both case-mix adjusted readmissions and the disparity gap, i.e. 1.55 percent for readmissions and 3.53 percent (25 percent target) and 8.30 percent (50 percent target) for disparities. Furthermore, the attainment target was updated to what it would have been if it had been set at the 65th percentile of CY 2018 performance.

Using the readmission measure that was approved for RY 2022, staff modeled improvement for 2018 to 2019 and 2019 attainment.[10] The revenue adjustment scales for improvement and attainment were created as if the RY 2022 policy had been in place for 2019 performance. In addition staff modeled the disparity gap in 2018 and 2019 to assess improvement compared to the one year improvement goal needed to achieve a 25 and 50 percent reduction in disparities over 8 years. Based on the combined revenue adjustments for the better of improvement or attainment and the disparity gap reward, 13 hospitals would be penalized for a total of $7.5 million and 32 hospitals would be rewarded for a total of $41.7 million. Approximately half of the rewards ($20.3 million) are due to reductions in disparities between 2018 and 2019. Specifically, 19 hospitals had disparity gap reductions of greater than 8.30 percent (putting them on track to reduce disparities by 50 percent over 8 years and earning then 0.50 percent inpatient revenue reward) and 2 hospitals had disparity gap reductions of greater than 3.53 percent (putting them on track for 25 percent reduction over 8 years and earning them a 0.25 percent inpatient revenue reward). Based on this modeling, staff have proposed to raise the expectations for disparity reductions in order to begin earning a reward and plan to scale the rewards (i.e., make continuous) from those on track for a 50 percent improvement starting to earn reward and those on track for a 75 percent reward getting the full 0.50 percent reward.

Figure 7: Modeling of 2018-2019 Readmissions Performance

[9] Five hospitals have already improved by greater than 29.29 percent CY 2018 to CY 2019

[10] Please note that this modeling was not updated to exclude pediatric oncology - per the Stakeholder Feedback section, pediatric oncology discharges are approximately 50 eligible discharges annually.

| Statewide Revenue Adjustment Modeling | Improvement/Attainment Case-Mix Adjusted Readmission Rate | | Disparity Gap Reduction Reward | | Total Combined Revenue Adjustment | |
|---|---|---|---|---|---|---|
| | $ | % | $ | % | $ | % |
| Net | $13,947,627 | 0.14% | $20,288,666 | 0.21% | $34,236,293 | 0.35% |
| Penalties | -$7,891,071 | -0.08% | | | -$7,478,827 | -0.08% |
| Rewards | $21,838,698 | 0.23% | $20,288,666 | 0.21% | $41,715,120 | 0.43% |
| | | | | | | |
| # Hospitals Penalized | 16 | | 21 | | 13 | |
| # Hospitals Rewarded | 29 | | 24 | | 32 | |

# Additional Future Considerations

It remains important that the HSCRC continue to compare Maryland readmission rates against national readmission rates to evaluate relative Maryland performance. Staff is presently working with CMMI to better understand the federal Hospital-wide Readmission (HWR) measure, which is publicly posted on CMS Hospital Compare once a year. It may be advantageous to better understand the federal HWR measure, as it includes a risk-adjustment; the "Waiver Test" readmission rate for Maryland is presently an unadjusted readmission rate, which may present future challenges as Maryland reduces unnecessary utilization and simultaneously increases the case-mix index of remaining eligible discharges. Additionally, a Hybrid HWR Measure was adopted by CMS in 2018 as a voluntary measure under the Hospital Inpatient Quality Reporting Program. The Hybrid HWR Measure differs from the claims-based HWR measure, as it merges electronic health record (EHR) data elements with claims data to calculate the risk-standardized readmission rate.[11] Staff will consider potential use(s) of the HWR/HWR Hybrid measure in the future.

As mentioned above, staff will need to evaluate the implications of the COVID-19 Public Health Emergency on all pay-for-performance programs, including the RRIP. Finally, staff continue to work with Mathematica Policy Research (MPR), our contractor, to operationalize an all-payer measure of Excess Days in Acute Care, which would incorporate admissions, observation stays, and ED visits within 30 days of an acute care discharge. Staff appreciates the opportunity to continue to evolve this policy under the TCOC Model.

# Stakeholder Feedback and Staff Response

The HSCRC received three comment letters, from the Maryland Hospital Association, the Johns Hopkins Healthcare System, and Luminis Health. The letters shared broad agreement with maintaining the recently redesigned RRIP as is, and made the following topical suggestions:

1. **Lower the improvement target from three-years (4.57%) to two-years (3.07%)** in acknowledgement of the COVID-19 pandemic and the unreliability of the CY 2020 data.

[11] For additional information, see: https://qualitynet.cms.gov/inpatient/measures/hybrid

**Response**: Per the "Assessment" section above, just under half of MD hospitals (20) improved greater than 4.57% in one year, 2018-2019. We believe the five-year improvement remains reasonable and achievable; staff does not agree with the suggestion.

2. **Increase the maximum reward to 2%**, to align with the other quality, pay-for-performance programs.

   **Response**: Staff appreciates the commitment to symmetry across the pay-for-performance quality programs; and notes the historical improvement of Maryland hospitals with regard to readmission rates.

   Staff would also note the following:

   - A required further reduction of 7.5% over the 5 years of the TCOC Model after successfully reducing readmissions by ~15% during the All-Payer Model and the ultimate goal of moving the State to the 25th percentile of benchmark peers will require additional resources.
   - RRIP is the only Quality pay-for-performance policy that does not have symmetrical risk, which adds complexity to the policy.
   - The Commission routinely incentivizes hospitals to reduce readmissions through the Potentially Avoidable Utilization Shared Savings program by removing inflation from readmissions and avoidable admissions, thereby maintaining a greater emphasis on downside risk in readmissions.

   Staff therefore agrees with this suggestion to raise the maximum reward to 2 percent.

3. **"Blend" the base year to be a combination of multiple years**, so that one particularly good or bad base year does not have an outsized influence on potential improvement.

   **Response**: Currently the Maryland quality programs that assess improvement have a one year base period (or equal base period time frame as the performance period). This has been true for RRIP since its start where the base period was locked in at 2013 or 2016 (post ICD-10) and staff do not recall this being brought up as a stakeholder concern during the RRIP redesign. In addition, at a statewide level there is fairly high correlation in readmission rates year over year despite overall reductions in readmissions, suggesting that there is limited year over year volatility in hospital's readmission rate and widespread improvement in readmissions, which hospitals get credit for in the RRIP policy. Last, hospitals with a low readmission rate in the base period still have opportunities for attainment rewards under the policy.

4. In agreement with Commissioner Elliott, **remove pediatric oncology cases** from readmission eligibility.

   **Response**: Staff agrees, and thanks Commissioner Elliott for bringing this to our attention.

   Preliminary modeling suggests that the removal of pediatric oncology cases will result in little material impact, with approximately 50 annual eligible discharges affected. However, this measure update will further align the oncology discharges within the readmission measure with the intention of the measure steward.

5. JHHS recommended changing the **RRIP disparity component to provide rewards for past progress already achieved.**

   **Response**: Staff does not support inclusion of attainment rewards over the near term. The Commission's approach with the overall RRIP policy has been to focus on incenting improvement during the initial years of the policy, and the current disparity component is consistent with that approach. Secondly, unless the disparity threshold were set at zero, an attainment policy would have the effect of classifying some level of disparity as acceptable and suitable for reward. Staff does not believe this approach would ultimately result in an equitable healthcare system.

6. Continue to **evaluate the validity of the Excess Days in Acute Care (EDAC) measure**, including "factors that contribute to Emergency Department and Observation Revisits".

   **Response**: Staff appreciates this feedback and will continue to work with our stakeholder workgroup as we evaluate this measure. Currently staff have engaged Mathematica to develop an all-payer version of this measure, which staff at this time would see as additive to the program and not designed to necessarily replace the current readmission measure.

7. One stakeholder letter requested clarification on the **flags defining COVID positive patients**, and how COVID-positive cases transferred to a hospital would be accounted for in the RRIP policy.

   **Response**: COVID positive flag is presently U07.1 per CDC guidelines. Should these guidelines change we will follow the updated CDC guidelines. All patients transferred from one acute care hospital to another (discharged and then admitted within the same day or next-day) are excluded from counting as a readmission from the transferring hospital within the RRIP. These patients are counted as an eligible discharge for the receiving hospital. The current case-mix adjustment severity of illness will reflect the higher risk of readmission to transfer patients. However, the HSCRC can examine the specific risk to COVID positive patients retrospectively.

8. Finally, the Maryland Hospital Association reiterates that the COVID-19 public health emergency is ongoing and unprecedented. As such, MHA notes that the **CY 2020 data is unreliable and should not be used in any RY 2022 pay-for-performance assessment of quality, and that RY 2022 pay-for-performance programs should be suspended.**

**Response**: Staff appreciates this viewpoint and notes that Maryland currently has no latitude to discontinue RY 2022 pay-for-performance revenue adjustment, as CMS and by extension CMMI have not as yet agreed to a blanket suspension of RY 2022 pay-for-performance programs. Should the federal government decide to suspend these programs, staff will advocate to include Maryland in that suspension. At present, staff is working with statisticians, subject-matter experts, and stakeholders to ascertain how best to apply revenue adjustments in FY 2022 (for RY 2022 programs). We appreciate stakeholder feedback on this endeavor.

# Recommendations

1. Maintain the 30-day, all-cause readmission measure.
    a. Remove Pediatric Oncology cases, in accordance with the intention of the oncology readmission measure.
2. Improvement Target - Maintain the RY 2022 approved statewide 5-year improvement target of -7.5 percent from 2018 base period.
3. Attainment Target - Maintain the attainment target whereby hospitals at or better than the 65th percentile statewide performance receive scaled rewards for maintaining low readmission rates.
4. For improvement and attainment, increase the maximum reward hospitals can receive to 2 percent of inpatient revenue and maintain the maximum penalty at 2 percent of inpatient revenue.
5. Provide additional payment incentive (up to 0.50 percent of inpatient revenue) for reductions in within-hospital readmission disparities. Scale rewards beginning at 0.25 percent of IP revenue for hospitals on track for 50 percent reduction in disparity gap measure over 8 years (>=15.91 percent reduction in disparity gap measure 2018 to 2021), capped at 0.50 percent of IP revenue for hospitals on pace for 75 percent or larger reduction in disparity gap measure over 8 years (>=29.29 percent reduction in disparity gap measure 2018 to 2021).
6. Continue development of an all-payer Excess Days in Acute Care measure in order to account for readmission, emergency department, and observation revisits post-discharge.
7. Adjust the RRIP pay-for-performance program methodology as needed due to COVID-19 Public Health Emergency and report to Commissioners as follows:
    a. For RY 2022 (CY 2020 performance period)
        i. Exclude COVID-19 positive cases from the program.
        ii. Exclude the data for January to June 2020; evaluate whether to use the final six months of 2020 or whether to use a prior time period.
        iii. Evaluate case-mix adjustment and performance standards concerns arising from use of a pre-COVID time period to determine normative values.
    b. For RY 2023 (CY 2021 performance period) include COVID-19 positive cases but retrospectively assess any case-mix concerns, including the use of a pre-COVID time period to determine normative values.

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# Appendix I. Readmission Measure Specifications and Revenue Adjustment Methodology

**1) Performance Metric**

The methodology for the Readmissions Reduction Incentive Program (RRIP) measures performance using the 30-day all-payer all hospital (both intra- and inter-hospital) readmission rate with adjustments for patient severity (based upon discharge all-patient refined diagnosis-related group severity of illness [APR-DRG SOI]) and planned admissions.[12] Unique patient identifiers from CRISP are used to be able to track patients across hospitals for readmissions.

The measure is similar to the readmission rate that is calculated by CMMI to track Maryland performance versus the nation, with some exceptions. The most notable exceptions are that the HSCRC measure includes psychiatric patients in acute care hospitals, and readmissions that occur at specialty hospitals. In comparing Maryland's Medicare readmission rate to the national readmission rate, the Centers for Medicare & Medicaid Services (CMS) will calculate an unadjusted readmission rate for Medicare beneficiaries. Since the Health Services Cost Review Commission (HSCRC) measure is for hospital-specific payment purposes, an additional adjustment is made to account for differences in case-mix. See below for details on the readmission calculation for the RRIP program.

**2) Inclusions and Exclusions in Readmission Measurement**

- Planned readmissions are excluded from the numerator based upon the CMS Planned Readmission Algorithm V. 4.0. The HSCRC has also added all vaginal and C-section deliveries and rehabilitation as planned using the APR-DRGs, rather than principal diagnosis.[13] Planned admissions are counted as eligible discharges in the denominator, because they could have an unplanned readmission.
- Discharges for newborn APR-DRG are removed.[14]
- New in RY 2022: Remove DRG oncology exclusion but continue to exclude bone marrow transplants and liquid tumor patients by making these discharges not eligible to have an unplanned readmission or count as an unplanned readmission.[15]
- New in RY 2022: Exclude patients with a discharge disposition of Left Against Medical Advice (PAT_DISP = 71, 72, or 73 through FY 2018; 07 FY 2019 onward)
- Rehabilitation cases as identified by APR-860 (which are coded under ICD-10 based on type of daily service) are marked as planned admissions and made ineligible for readmission after readmission logic is run.
- Admissions with ungroupable APR-DRGs (955, 956) are not eligible for a readmission, but can be a readmission for a previous admission.
- APR-DRG-SOI categories with less than two discharges statewide are removed.
- A hospitalization within 30 days of a hospital discharge where a patient dies is counted as a readmission;

[12] Planned admissions defined under [CMS Planned Admission Logic version 4 – updated March 2018].
[13] **Rehab** DRGs: 540, 541, 542, 560, and 860; **OB Deliveries and Associated DRGs**: 580, 581, 583, 588, 589, 591, 593, 602, 603, 607, 608, 609, 611, 612, 613, 614, 621, 622, 623, 625, 626, 630, 631, 633, 634, 636, 639, 640, and 863.
[14] **Newborn APR-DRGs:** 580, 581, 583, 588, 589, 591, 593, 602, 603, 607, 608, 609, 611, 612, 613, 614, 621, 622, 623, 625, 626, 630, 631, 633, 634, 636, 639, 640, and 863.
[15] **Bone Marrow Transplant:** Diagnosis code Z94.81 or CCS Procedure code 64; **Liquid Tumor:** Diagnosis codes C81.00-C96.0. See section below for additional details on the oncology logic.

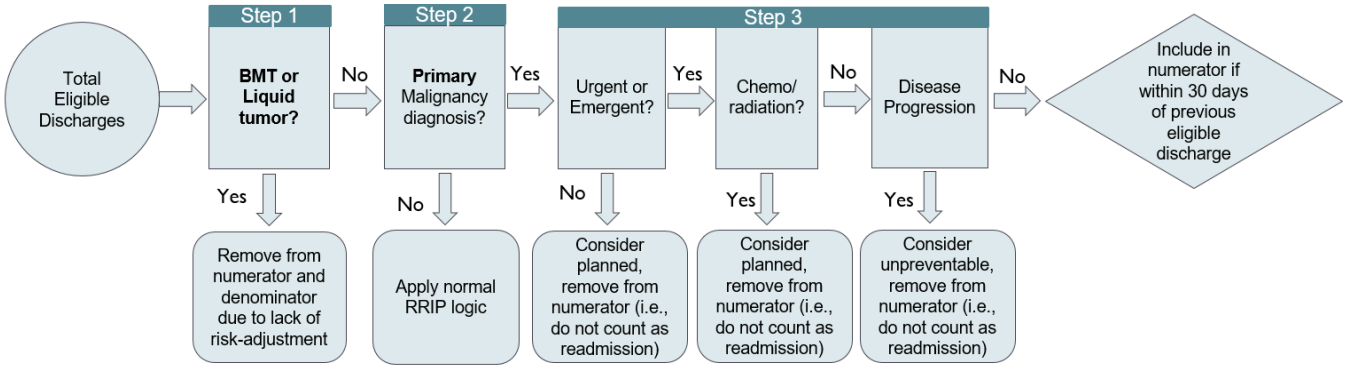
however, the readmission is removed from the denominator because the case is not eligible for a subsequent readmission.

- Admissions that result in transfers, defined as cases where the discharge date of the admission is on the same or next day as the admission date of the subsequent admission, are removed from the denominator. Thus, only one admission is counted in the denominator, and that is the admission to the transfer hospital (unless otherwise ineligible, i.e., died). It is the second discharge date from the admission to the transfer hospital that is used to calculate the 30-day readmission window.
- Beginning in RY 2019, HSCRC started discharges from chronic beds within acute care hospitals.
- In addition, the following data cleaning edits are applied:
    - Cases with null or missing CRISP unique patient identifiers (EIDs) are removed.
    - Duplicates are removed.
    - Negative interval days are removed.

      HSCRC staff is revising case-mix data edits to prevent submission of duplicates and negative intervals, which are very rare. In addition, CRISP EID matching benchmarks are closely monitored. Currently, hospitals are required to make sure 99.5 percent of inpatient discharges have a CRISP EID.

**Additional Details on Oncology Logic:**

Flow Chart for Revised Oncology Logic




*Items that are **bolded** are adaptations from NQF measure

This updated logic replaces the RY 2021 measure logic that removes all oncology DRGs from the dataset, such that an admission with an oncology DRG cannot count as a readmission or be eligible to have a readmission.

**Step 1:** Exclude discharges where patients have a bone marrow transplant procedure, bone marrow transplant related diagnosis code, or liquid tumor diagnosis. This logic varies from the NQF cancer

hospital measure that risk-adjusts for bone marrow transplant and liquid tumors. HSCRC staff recommended removing these discharges (similar to current DRG exclusion) because the current indirect standardization approach did not allow for additional risk-adjustment but based on conversations with clinicians staff agreed these cases were significantly more complicated and at-risk for an unpreventable readmission.

**Step 2:** Flag discharges with a primary malignancy diagnosis to apply cancer specific logic for determining readmissions. This varies from the NQF cancer hospital measure that flags patients with primary or secondary malignancy diagnosis being treated in a cancer specific hospital. Staff think we should only flag those with a primary diagnosis since in a general acute care hospital there may be differences in the types of patients with a secondary malignancy diagnosis. Further, we remove the bone marrow and liquid tumor discharges regardless of malignancy diagnosis, thus ensuring the most severe cases are removed. Last, our initial analyses did not show a large impact on overall hospital rates when primary vs primary and secondary malignancies were flagged. It should be noted however that the current modeling in this policy uses readmission rates where both primary and secondary are flagged.

**Step 3:** Flag planned admissions using additional criteria beyond the CMS planned admission logic:

a) Nature of admission of urgent or emergent considered unplanned, all other nature of admission statuses are planned
b) Any admission with primary diagnosis of chemotherapy or radiation is considered planned
c) Any admission with primary diagnosis of metastatic cancer is not considered preventable, and thus gets excluded from being a readmission

In step 3, admissions are deemed not eligible to be a readmission but they are eligible to have a subsequent unplanned readmission.

### 3) Details on the Calculation of Case-Mix Adjusted Readmission Rate

**Data Source:**

To calculate readmission rates for RRIP, inpatient abstract/case-mix data with CRISP EIDs (so that patients can be tracked across hospitals) are used for the measurement period, with an additional 30 day runout. To calculate the case-mix adjusted readmission rate for CY 2018 base period and CY 2020 performance period, data from January 1 through

December 31, plus 30 days in January of the next year are used. The base period data are used to calculate the normative values, which are used to determine a hospital's expected readmissions, as detailed below, as well as the estimated CY 2018 readmission rates.

Please note that, the base year readmission rates are not "locked in", and may change if there are CRISP EID or other data updates. The HSCRC does not anticipate changing the base period data, and does not anticipate that any EID updates will change the base period data significantly; however, the HSCRC has decided the most up-to-date data should be used to measure improvement. For the performance period, the CRISP EIDs are updated throughout the year, and thus, month-to-month results may change based on changes in EIDs.

**SOFTWARE:** APR-DRG Version 38 for CY 2018-CY 2021.

**Calculation:**

$$\text{Case-Mix Adjusted Readmission Rate} = \frac{\text{(Observed Readmissions)}}{\text{(Expected Readmissions)}} * \text{Statewide Base Year Readmission Rate}$$

**Numerator:** Number of observed hospital-specific unplanned readmissions.

**Denominator**: Number of expected hospital specific unplanned readmissions based upon discharge APR-DRG and Severity of Illness. See below for how to calculate expected readmissions, adjusted for APR-DRG SOI.

**Risk Adjustment Calculation:**

Calculate the Statewide Readmission Rate without Planned Readmissions.

- Statewide Readmission Rate = Total number of readmissions with exclusions removed / Total number of hospital discharges with exclusions removed.

For each hospital, enumerate the number of observed, unplanned readmissions.

For each hospital, calculate the number of expected unplanned readmissions at the APR-DRG SOI level (see Expected Values for description). For each hospital, cases are removed if the discharge APR-DRG and SOI cells have less than two total cases in the base period data.

Calculate at the hospital level the ratio of observed (O) readmissions over expected (E) readmissions. A ratio of > 1 means that there were more observed readmissions than expected, based upon a hospital's case-mix. A ratio of < 1 means that there were fewer observed readmissions than expected based upon a hospital's case-mix.

Multiply the O/E ratio by the base year statewide rate, which is used to get the case-mix adjusted readmission rate by hospital. Multiplying the O/E ratio by the base year state rate converts it into a readmission rate that can be compared to unadjusted rates and case-mix adjusted rates over time.

**Expected Values:**

The expected value of readmissions is the number of readmissions a hospital would have experienced had its rate of readmissions been identical to that experienced by a reference or normative set of hospitals, given its mix of patients as

defined by discharge APR-DRG category and SOI level. Currently, HSCRC is using state average rates as the benchmark.

The technique by which the expected number of readmissions is calculated is called indirect standardization. For illustrative purposes, assume that every discharge can meet the criteria for having a readmission, a condition called being "eligible" for a readmission. All discharges will either have zero readmissions or will have one readmission. The readmission rate is the proportion or percentage of admissions that have a readmission.

The rates of readmissions in the normative database are calculated for each APR-DRG category and its SOI levels by dividing the observed number of readmissions by the total number of eligible discharges. The readmission norm for a single APR-DRG SOI level is calculated as follows:

Let:

N = norm
P = Number of discharges with a readmission
D = Number of eligible discharges
i = An APR DRG category and a single SOI level

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

For this example, the expected rate is displayed as readmissions per discharge to facilitate the calculations in the example. Most reports will display the expected rate as a rate per one thousand.

Once a set of norms has been calculated, the norms are applied to each hospital's DRG and SOI distribution. In the example below, the computation presents expected readmission rates for a single diagnosis category and its four severity levels. This computation could be expanded to include multiple diagnosis categories, by simply expanding the summations.

Consider the following example for a single diagnosis category.

**Expected Value Computation Example – Individual APR-DRG**

| A Severity of Illness Level | B Eligible Discharges | C Discharges with Readmission | D Readmissions per Discharge (C/B) | E Normative Readmissions per Discharge | F Expected # of Readmissions (A*E) |
|---|---|---|---|---|---|

| | | | | | |
|---|---|---|---|---|---|
| 1 | 200 | 10 | .05 | .07 | 14.0 |
| 2 | 150 | 15 | .10 | .10 | 15.0 |
| 3 | 100 | 10 | .10 | .15 | 15.0 |
| 4 | 50 | 10 | .20 | .25 | 12.5 |
| **Total** | **500** | **45** | **.09** | | **56.5** |

For the diagnosis category, the number of discharges with a readmission is 45, which is the sum of discharges with readmissions (column C). The overall rate of readmissions per discharge, 0.09, is calculated by dividing the total number of eligible discharges with a readmission (sum of column C) by the total number of discharges at risk for readmission (sum of column B), i.e., 0.09 = 45/500. From the normative population, the proportion of discharges with readmissions for each severity level for that diagnosis category is displayed in column E. The expected number of readmissions for each severity level shown in column F is calculated by multiplying the number of eligible discharges (column B) by the normative readmissions per discharge rate (column E) The total number of readmissions expected for this diagnosis category is the sum of the expected numbers of readmissions for the 4 severity levels.

In this example, the expected number of readmissions for this diagnosis category is 56.5, compared to the actual number of discharges with readmissions of 45. Thus, the hospital had 11.5 fewer actual discharges with readmissions than were expected for this diagnosis category. This difference can also be expressed as a percentage or the O/E ratio.

**4) Revenue Adjustment Methodology**

The RRIP assesses improvement in readmission rates from base period, and attainment rates for the performance period with an adjustment for out-of-state readmissions. The policy then determines a hospital's revenue adjustment for improvement and attainment and takes the better of the two revenue adjustments, with scaled rewards of up to 1 percent of inpatient revenue and scaled penalties of up to 2 percent of inpatient revenue. The figure below provides a high level overview of the RY 2021 RRIP methodology for reference. For RY 2022 RRIP methodology, please see figure 1 within the policy.

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## Overview Rate Year 2021 RRIP Methodology

### RRIP Performance Metric

**Measure**: All-Payer, 30-day, all-cause readmissions using CRISP unique identifier to track patients across acute hospitals in Maryland

**Case-Mix Adjustment**: Indirect standardization by diagnosis and severity of illness levels to calculate hospital expected readmissions given the patient mix and acuity

**Discharges Ineligible for Readmission:** transfers, deaths, oncology, rehab, newborns, APR-DRG SOI cells <2 discharges statewide, missing or ungroupable data

**Unplanned Readmissions Only:** Planned admissions (based on CMS logic) are not counted as readmissions (but are eligible for an unplanned readmission)

**Improvement:** Change in readmission rate from base period (RY 2022: CY16-CY19)

**Attainment:** All-payer readmission rate is adjusted to account for out of state readmissions using Medicare ratio of in-state vs. out-of-state readmissions

### Revenue Adjustments: Better of Improvement or Attainment

**Improvement**

| | Change in Readmission Rate | Percent Adjustment |
|---|---|---|
| Improving → | **-14.40%** | 1.00% |
| | **-9.15%** | 0.50% |
| | **-3.90%** | 0.00% |
| | **1.35%** | -0.50% |
| | **6.60%** | -1.00% |
| | **11.85%** | -1.50% |
| Worsening → | **17.10%** | -2.0% |

Max Penalty = 2%
Max Reward = 1%

**Attainment**

| | Readmission Rate w/ Out-of-State | Percent Adjustment |
|---|---|---|
| Benchmark → | **8.94%** | 1.00% |
| | **10.03%** | 0.50% |
| Threshold → | **11.12%** | 0.00% |
| | **12.21%** | -0.50% |
| | **13.30%** | -1.00% |
| | **14.39%** | -1.50% |
| | **15.47%** | -2.0% |

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# Appendix II. RRIP Revenue Adjustment Modeling

Please note: These figures model RY 22 RRIP with CY 2018 Base period and CY 2019 Performance Period (i.e., using a one-year improvement target based on the RY 2022 readmission measure and the RY 22 at-risk amounts for rewards of 1% and penalties of 2%).

| RY 22 RRIP for Modeling – CY 18 Base; CY 19 Perf | | | | Imp | Attainment Scaling | | Improve/Attain Final Adjustment | | | Disparity Gap | | | | Combined Revenue Adjustment | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| HOSP ID | HOSP NAME | RY 19 Estimated Permanent Inpatient Revenue | CY18-CY19 % Δ in CM Adj Rate | % Rev Adj For Imp - 1.55% | CY18 CM Adj Rate w OOS Adj | % Rev Adj 35th % 10.7% | $ Better of Att or Imp | RY20 Final % Rev Adj | Imp or Att | CY18-CY19 % Δ in Gap | Elig? | % Rev Adj | $ Rev Adj | % Rev Adj | $ Rev Adj |
| 210001 | MERITUS | $219,551,750 | -6.24% | 0.45% | 11.06% | -0.12% | $987,983 | 0.45% | Imp | -18.99% | Yes | 0.5% | $1,097,759 | 0.95% | $2,085,742 |
| 210002 | UMMC | $1,203,673,856 | -3.15% | 0.15% | 13.14% | -0.82% | $1,805,511 | 0.15% | Imp | -17.68% | Yes | 0.5% | $6,018,369 | 0.65% | $7,823,880 |
| 210003 | UM-PG | $282,929,188 | -5.11% | 0.34% | 12.43% | -0.58% | $961,959 | 0.34% | Imp | 42.94% | Yes | 0.0% | $0 | 0.34% | $961,959 |
| 210004 | HOLY CROSS | $355,608,692 | -2.47% | 0.09% | 12.40% | -0.57% | $320,048 | 0.09% | Imp | 15.12% | Yes | 0.0% | $0 | 0.09% | $320,048 |
| 210005 | FREDERICK | $232,665,827 | -1.23% | -0.03% | 10.96% | -0.09% | -$69,800 | -0.03% | Imp | -54.71% | Yes | 0.5% | $1,163,329 | 0.47% | $1,093,529 |
| 210006 | UM-HARFORD | $54,181,186 | 0.00% | -0.15% | 11.62% | -0.31% | -$81,272 | -0.15% | Imp | 11.76% | No | 0.0% | $0 | -0.15% | -$81,272 |
| 210008 | MERCY | $226,492,002 | -3.57% | 0.19% | 12.75% | -0.69% | $430,335 | 0.19% | Imp | 14.65% | Yes | 0.0% | $0 | 0.19% | $430,335 |
| 210009 | JHH | $1,456,687,424 | 0.08% | -0.15% | 13.67% | -0.99% | -$2,185,031 | -0.15% | Imp | 1.20% | No | 0.0% | $0 | -0.15% | -$2,185,031 |
| 210010 | UM-DORCHEST | $22,653,845 | -4.50% | 0.28% | 9.64% | 0.36% | $81,554 | 0.36% | Att | 0.90% | Yes | 0.0% | $0 | 0.36% | $81,554 |
| 210011 | ST. AGNES | $238,757,730 | -4.94% | 0.32% | 11.61% | -0.30% | $764,025 | 0.32% | Imp | -14.38% | Yes | 0.5% | $1,193,789 | 0.82% | $1,957,814 |
| 210012 | SINAI | $399,817,673 | -6.66% | 0.49% | 11.05% | -0.12% | $1,959,107 | 0.49% | Imp | 28.48% | Yes | 0.0% | $0 | 0.49% | $1,959,107 |
| 210015 | MS-FR SQ | $306,898,504 | -5.36% | 0.36% | 12.62% | -0.64% | $1,104,835 | 0.36% | Imp | 0.53% | Yes | 0.0% | $0 | 0.36% | $1,104,835 |
| 210016 | WASH ADV | $164,197,283 | -3.17% | 0.15% | 11.71% | -0.34% | $246,296 | 0.15% | Imp | -16.96% | Yes | 0.5% | $820,986 | 0.65% | $1,067,282 |

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| RY 22 RRIP for Modeling – CY 18 Base; CY 19 Perf | | | | Imp | Attainment Scaling | | Improve/Attain Final Adjustment | | | Disparity Gap | | | | Combined Revenue Adjustment | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| HOSP ID | HOSP NAME | RY 19 Estimated Permanent Inpatient Revenue | CY18-CY19 % Δ in CM Adj Rate | % Rev Adj For Imp - 1.55% | CY18 CM Adj Rate w OOS Adj | % Rev Adj 35th % 10.7% | $ Better of Att or Imp | RY20 Final % Rev Adj | Imp or Att | CY18-CY19 % Δ in Gap | Elig? | % Rev Adj | $ Rev Adj | % Rev Adj | $ Rev Adj |
| 210017 | GARRETT | $23,714,400 | -32.57% | 1.00% | 7.94% | 0.92% | $237,144 | 1.00% | Imp | -29.27% | Yes | 0.5% | $118,572 | 1.50% | $355,716 |
| 210018 | MS-MONTG | $84,721,645 | -13.13% | 1.00% | 10.91% | -0.07% | $847,216 | 1.00% | Imp | -21.21% | Yes | 0.5% | $423,608 | 1.50% | $1,270,824 |
| 210019 | PRMC | $249,228,264 | -10.55% | 0.86% | 10.49% | 0.07% | $2,143,363 | 0.86% | Imp | 25.22% | Yes | 0.0% | $0 | 0.86% | $2,143,363 |
| 210022 | SUBURBAN | $208,954,270 | -9.41% | 0.75% | 11.31% | -0.20% | $1,567,157 | 0.75% | Imp | -10.38% | Yes | 0.5% | $1,044,771 | 1.25% | $2,611,928 |
| 210023 | AAMC | $294,544,506 | 2.44% | -0.38% | 12.15% | -0.49% | -$1,119,269 | -0.38% | Imp | -52.60% | No | 0.0% | $0 | -0.38% | -$1,119,269 |
| 210024 | MS-UNION | $243,156,679 | -3.35% | 0.17% | 11.99% | -0.43% | $413,366 | 0.17% | Imp | -37.04% | Yes | 0.5% | $1,215,783 | 0.67% | $1,629,149 |
| 210027 | WESTERN MARYLAND | $169,462,000 | 2.60% | -0.39% | 12.65% | -0.65% | -$660,902 | -0.39% | Imp | 4.34% | No | 0.0% | $0 | -0.39% | -$660,902 |
| 210028 | MS-ST. MARY | $79,141,046 | -5.85% | 0.41% | 12.41% | -0.57% | $324,478 | 0.41% | Imp | -3.28% | Yes | 0.0% | $0 | 0.41% | $324,478 |
| 210029 | JHBAYVIEW | $366,607,627 | -3.64% | 0.20% | 13.76% | -1.02% | $733,215 | 0.20% | Imp | -8.22% | Yes | 0.25% | $916,519 | 0.45% | $1,649,734 |
| 210030 | UM-CHESTER | $17,859,942 | -7.44% | 0.56% | 7.80% | 0.97% | $173,241 | 0.97% | Att | -9.04% | Yes | 0.5% | $89,300 | 1.47% | $262,541 |
| 210032 | UNION OF CECIL | $65,426,887 | 3.91% | -0.52% | 13.34% | -0.88% | -$340,220 | -0.52% | Imp | 3.19% | No | 0.0% | $0 | -0.52% | -$340,220 |
| 210033 | CARROLL | $140,291,849 | 3.14% | -0.45% | 12.35% | -0.55% | -$631,313 | -0.45% | Imp | 4.95% | No | 0.0% | $0 | -0.45% | -$631,313 |
| 210034 | MS-HARBOR | $110,392,040 | -6.97% | 0.52% | 13.42% | -0.91% | $574,039 | 0.52% | Imp | -59.46% | Yes | 0.5% | $551,960 | 1.02% | $1,125,999 |
| 210035 | UM-CHARL | $76,930,098 | -1.92% | 0.04% | 12.07% | -0.46% | $30,772 | 0.04% | Imp | -11.66% | Yes | 0.5% | $384,650 | 0.54% | $415,422 |
| 210037 | UM-EASTON | $103,481,053 | -5.16% | 0.34% | 9.31% | 0.47% | $486,361 | 0.47% | Att | -26.70% | Yes | 0.5% | $517,405 | 0.97% | $1,003,766 |
| 210038 | UM-MID | $111,141,002 | -3.05% | 0.14% | 14.52% | -1.28% | $155,597 | 0.14% | Imp | 39.17% | Yes | 0.0% | $0 | 0.14% | $155,597 |
| 210039 | CALVERT | $67,111,996 | 8.12% | -0.92% | 12.26% | -0.52% | -$348,982 | -0.52% | Att | 78.42% | No | 0.0% | $0 | -0.52% | -$348,982 |
| 210040 | NORTHWE | $138,719,920 | -11.31% | 0.93% | 10.47% | 0.08% | $1,290,095 | 0.93% | Imp | -19.72% | Yes | 0.5% | $693,600 | 1.43% | $1,983,695 |
| 210043 | BWMC | $250,217,336 | -0.85% | -0.07% | 11.79% | -0.37% | -$175,152 | -0.07% | Imp | -14.23% | Yes | 0.5% | $1,251,087 | 0.43% | $1,075,935 |

maryland health services cost review commission

| RY 22 RRIP for Modeling – CY 18 Base; CY 19 Perf | | | | Imp | Attainment Scaling | | Improve/Attain Final Adjustment | | | Disparity Gap | | | | Combined Revenue Adjustment | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| HOSP ID | HOSP NAME | RY 19 Estimated Permanent Inpatient Revenue | CY18-CY19 % Δ in CM Adj Rate | % Rev Adj For Imp - 1.55% | CY18 CM Adj Rate w OOS Adj | % Rev Adj 35th % 10.7% | $ Better of Att or Imp | RY20 Final % Rev Adj | Imp or Att | CY18-CY19 % Δ in Gap | Elig? | % Rev Adj | $ Rev Adj | % Rev Adj | $ Rev Adj |
| 210044 | G.B.M.C. | $237,787,317 | 1.13% | -0.25% | 10.93% | -0.08% | -$190,230 | -0.08% | Att | -15.43% | No | 0.0% | $0 | -0.08% | -$190,230 |
| 210048 | HOWARD | $182,870,977 | 2.42% | -0.38% | 11.62% | -0.31% | -$566,900 | -0.31% | Att | -4.38% | No | 0.0% | $0 | -0.31% | -$566,900 |
| 210049 | UM-UCH | $128,686,091 | -0.17% | -0.13% | 11.83% | -0.38% | -$167,292 | -0.13% | Imp | -7.06% | Yes | 0.25 % | $321,715 | 0.12% | $154,423 |
| 210051 | DOCTORS | $141,094,311 | -9.17% | 0.73% | 10.88% | -0.06% | $1,029,988 | 0.73% | Imp | 11.59% | Yes | 0.0% | $0 | 0.73% | $1,029,988 |
| 210056 | MS-GOOD SAMARITAN | $146,901,579 | -6.93% | 0.51% | 12.98% | -0.76% | $749,198 | 0.51% | Imp | -20.37% | Yes | 0.5% | $734,508 | 1.01% | $1,483,706 |
| 210057 | SHADY GR | $251,748,234 | -8.49% | 0.66% | 10.09% | 0.21% | $1,661,538 | 0.66% | Imp | -16.74% | Yes | 0.5% | $1,258,741 | 1.16% | $2,920,279 |
| 210058 | UMROI | $72,350,285 | 31.86% | -2.00% | 11.30% | -0.20% | -$23,152 | -0.03% | Att | 7.57% | No | 0.00 % | $0 | -0.03% | -$23,152 |
| 210060 | FT. WASH | $19,890,383 | 11.19% | -1.21% | 14.10% | -1.14% | -$226,750 | -1.14% | Att | -19.73% | No | 0.00 % | $0 | -1.14% | -$226,750 |
| 210061 | ATLANTIC GENERAL | $36,931,910 | -5.31% | 0.36% | 10.01% | 0.23% | $132,955 | 0.36% | Imp | -10.59% | Yes | 0.50 % | $184,660 | 0.86% | $317,615 |
| 210062 | MS-SO MD | $162,087,856 | 4.01% | -0.53% | 13.02% | -0.78% | -$859,066 | -0.53% | Imp | 9.33% | No | 0.00 % | $0 | -0.53% | -$859,066 |
| 210063 | UM ST. JOE | $223,399,907 | -0.44% | -0.11% | 11.48% | -0.26% | -$245,740 | -0.11% | Imp | 32.73% | Yes | 0.00 % | $0 | -0.11% | -$245,740 |
| 210064 | LEVINDALE | $57,510,719 | -8.68% | 0.68% | 10.00% | 0.24% | $391,073 | 0.68% | Imp | -31.28% | Yes | 0.50 % | $287,554 | 1.18% | $678,627 |
| 210065 | HC GTOWN | $59,062,315 | -5.79% | 0.40% | 11.90% | -0.40% | $236,249 | 0.40% | Imp | 13.92% | Yes | 0.00 % | $0 | 0.40% | $236,249 |
| | | | | | | | | | | | | | | | |
| **STATEWIDE** | | **$9,685,539,404** | | **Net Reward/Penalty** | | | **$13,947,627** | | | | | | **$20,288,666** | | **$34,236,293** |
| Penalty | | | | Penalty | | | -$7,891,071 | | | | | | $0 | | -$7,478,827 |
| Reward | | | | Reward | | | $21,838,698 | | | | | | $20,288,666 | | $41,715,120 |

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| RY 22 RRIP for Modeling – CY 18 Base; CY 19 Perf | | | | Imp | Attainment Scaling | | Improve/Attain Final Adjustment | | | Disparity Gap | | | | Combined Revenue Adjustment | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| HOSP ID | HOSP NAME | RY 19 Estimated Permanent Inpatient Revenue | CY18-CY19 % Δ in CM Adj Rate | % Rev Adj For Imp - 1.55% | CY18 CM Adj Rate w OOS Adj | % Rev Adj 35th % 10.7% | $ Better of Att or Imp | RY20 Final % Rev Adj | Imp or Att | CY18-CY19 % Δ in Gap | Elig? | % Rev Adj | $ Rev Adj | % Rev Adj | $ Rev Adj |

Values for PG hospital represent just PG Hospital

Percentages have been rounded for display. Final scaling values are rounded to two decimal places.

Maryland
Hospital Association

December 18, 2020

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 Maryland Readmissions Reduction Incentive Program (RRIP) for Rate Year 2023.*

We support the staff's recommendation to continue the readmissions program largely unchanged from the existing policy. The impact of the COVID public health emergency (PHE) needs to be considered when evaluating hospitals' performance year 2021. The improvement target was set based on a 2018 base period and assumed a linear change through 2023.

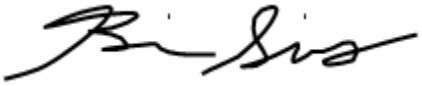
COVID severely impacted access to care, exacerbated chronic illnesses, and forced hospitals to employ non-traditional staffing models. These disruptions fundamentally changed the types and numbers of admissions at hospitals. Changes have been highly variable across hospitals, including a decline in typical caseloads and high numbers of COVID patients at some hospitals. **The improvement target should be lowered**, as hospitals may not experience the expected improvements in 2020 that the long-term improvement trend anticipated. Hospitals that experienced the most disruption due to COVID are disadvantaged and should not be expected to continue previous performance trends.

**The maximum reward should be raised to 2%.** Increased incentives and resources are necessary to improve at this mature stage of the program and would align with maximum rewards of other policies in the quality program.

The state PHE has disrupted every aspect of care delivery and care transformation in Maryland. The Centers for Medicare & Medicaid already declared that they would not use January through June 2020 data to make revenue adjustments. Considering current COVID cases and the projected mid-winter peak, no data from 2020 will accurately assess hospitals' performance. No global budget revenue adjustments should be made for fiscal 2022. It has been suggested that previous period adjustments could be reapplied in the absence of performance period data, effectively doubling hospitals' penalties and rewards. A fairer approach is to **forego performance-based revenue adjustments for rate year 2022.**

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

Sincerely,



Brian Sims, Director, Quality & Health Improvement

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

Luminis Health℠

2001 Medical Parkway
Annapolis, Md. 21401
443-481-1000 | luminishealth.org

December 18, 2020

Mr. Adam Kane
Chairman
Health Services Cost Review Commission

Dear Chairman Kane,

On behalf of Luminis Health, thank you for the opportunity to comment on the proposed Readmission Reduction Incentive Program (RRIP). We support the Staff's decision to keep the policy largely unchanged in RY2023, with appropriate adjustments as hospitals manage the negative impacts of the COVID-19 crisis in 2020 and 2021.

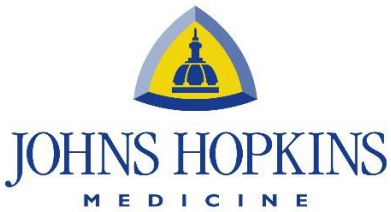
Addressing health disparities continues to be a key focus area for our system, and we strongly support its continued inclusion in the methodology. We look forward to future discussion regarding case-mix index challenges, the federal Hospital-wide Readmission measure, and the potential impact on the Total Cost of Care Model.

Thank you again for the opportunity to provide comments. Please let us know if we can be of assistance.

Sincerely,

Sherry B. Perkins, PhD, RN, FAAN
President, Luminis Health, Anne Arundel Medical Center

Deneen Richmond, MHA, RN
President, Luminis Health, Doctors Community Medical Center




December 18, 2020

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

Dear Dr. Schuster,

On behalf of the Johns Hopkins Health System (JHHS), thank you for the opportunity to provide input on the draft recommendation for the Readmission Reduction Incentive Program (RRIP) for Rate Year 2023. JHHS supports most of the recommendations proposed by staff, but also always appreciates the opportunity to provide input and collaborate on the development of policy changes. Our specific concerns and recommendations on a few of the recommendations are detailed below, otherwise JHHS supports any recommendations not specifically noted.

*Maintain the 30-day, all-cause readmission measure*

JHHS supports the recommendation to maintain the 30-day, all cause readmission measure. This risk-adjusted, all-payor readmission measure is in alignment with Maryland's commitment to measure and improve the health of our communities beyond the Medicare population. As JHHS frequently notes, the foundation and uniqueness of the Maryland model is its All-Payor nature. When considering future changes to the RRIP, we encourage consideration of blending multiple years as the base. As structured currently, if a base year is used when a hospital performed well, then the hospital will likely perform poorly under RRIP in future years and conversely if a hospital performed poorly under a single base year that is used, then performing well in future RRIP years has more certainty. A blended multiple year base would create more stability and consistency.

*Provide additional payment incentive for reductions in within-hospital readmission disparities*

HSCRC and Commissioners should be applauded for the focus on reducing readmission disparities. Many factors contribute to health disparities and JHHS fully supports the heightened focus to disparities that this metric will bring. Considering that the readmission disparities is a relatively new measurement, JHHS appreciates staff's recommendation to make this a reward only metric at this time. JHHS does however disagree with the recommendation to make this an improvement only

metric. Over the past several years, JHHS hospitals have implemented our care management and transition efforts aimed at reducing readmissions with a focus on patients with high levels of adversity. It is our hope that the approach to the disparity measurement could be refined to recognize the efforts some hospitals have already deployed to reduce the disparity gap. Ideally the disparity measurement would either reward past progress already achieved, or recognize improvement. Additionally, since the goal is to achieve a statewide reduction in disparities in readmissions, JHHS believes that the HSCRC should explore opportunities for hospitals to share best practices in achieving this goal. An emphasis on achieving positive impacts among populations that are disproportionately affected by inequities is critical under Maryland's population health model.

*Continue development of an all-payer Excess Days in Acute Care measure in order to account for readmission, emergency department, and observation revisits post-discharge*

JHHS appreciates that the Excess Days in Acute Care measure is still under consideration, and strongly encourages ongoing dialogue and evaluation. The validity of this measure and the factors that contribute to emergency department and observation revisits must be fully understood before any metric moves forward. There is tremendous promise in using this measure as an adjunctive or replacement measure to RRIP, however there must be robust dialogue and evaluation as to how to properly structure the measure to avoid adverse impact and unintended consequences.

*Adjust the RRIP pay-for-performance program methodology as needed due to COVID-19*

JHHS appreciates the recommendation of the HSCRC to adjust RRIP in response to COVID-19. Care for patients with COVID-19 has impacted many aspects of hospital care and readmissions for 2020 and 2021. In deciding whether to exclude COVID-19 patients from RRIP for 2021, it is critical that the HSCRC develop clear and consistent definitions of who is captured as a COVID-19 patient. As noted by the HSCRC staff, robust and adequate case- mix adjustment for COVID-19 patients will need to developed and implemented for the RRIP program in response to COVID.

Another factor to consider when evaluating the impact of COVID on readmissions is evaluating transfer patients. Patients who are transferred from one hospital to another, who are likely transferred due to the severity of their illness, may be at a higher risk for readmissions which may be entirely appropriate within the scope of their illness. Evaluation of the readmissions rate for both COVID patients and all patients may provide appropriate insight as to when readmissions may be necessary and clinically appropriate.

*Additional concern*

JHHS strongly recommended adding a pediatric exclusion under the RRIP oncology inclusion. The inclusion of cancer patients was based on a metric for an adult population that does not recognize unique pediatric conditions or care. The standard of care for certain pediatric oncology patients, such as febrile neutropenic children is that they should be hospitalized, especially if high risk. There should not be a RRIP metric that penalizes the standard of care.

Alyson Schuster
Response to RRIP
December 18, 2020

HSCRC staff and the Performance Measurement Workgroup should be applauded for their ongoing commitment and dedication to evaluating and revising the RRIP. Achieving a balance between stable and predictable metrics that are also evidence based and patient centered is challenging work. JHHS looks forward to ongoing engagement with the HSCRC to ensure that the RRIP continues to progress as a measurement that improves patient care and reduces costs.

Sincerely,

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

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# Final Recommendation on Full Rate Application Policy

January 13, 2021

This document contains the final staff recommendations for Full Rate Application Policy.

**P:** 410.764.2605 ● 4160 Patterson Avenue | Baltimore, MD 21215 ● hscrc.maryland.gov

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## Table of Contents

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## Key Methodology Concepts and Definitions

1. Equivalent Casemix Adjusted Discharges (ECMADS) – ECMADS are a volume statistic that account for the relative costliness of different services and treatments, as not all admissions or visits require the same level of care and resources.

2. Inter-hospital Cost Comparison (ICC) Standard – Each hospital's ICC revenue base is built up from a peer group standard cost, with adjustments for various social goods (e.g. trauma costs, residency costs, uncompensated care mark-up) and costs beyond a hospitals control (e.g. differential labor market costs) that are not included in the peer group standard. The revenue base calculated through the ICC does not include profits. Average costs are reduced by a productivity factor of 2 percent. The term "Relative efficiency" is the difference between a hospital's actual revenue base and the ICC calculated cost base.

3. Total Cost of Care (TCOC) Benchmark Performance – TCOC, an assessment of part A and B Medicare expenditures and all commercial expenditures excluding retail pharmacy, is measured by comparing the per capita cost of care in a hospital's service area to matched national Medicare and Commercial benchmarks on a risk, benefit (commercial only) and demographic adjusted basis

4. Total Cost of Care (TCOC) Savings Tests - The TCOC Model has two principal TCOC tests the State must adhere to and address through the Annual Update Factor Policy, which provides inflation and volume funding in line with population growth to all HSCRC regulated facilities. These tests require the State to achieve prescribed annual TCOC savings, culminating in $300 million in annual savings relative to 2013 by 2023, and they require the State to not exceed national Medicare growth by 1% in any one year and to not exceed national Medicare growth in consecutive years.

## Policy Overview

| Policy Objective | Policy Solution | Effect on Hospitals | Effect on Payers/Consumers | Effect on Disparities in Healthcare |
|---|---|---|---|---|
| Per statute, the Commission is required to establish rates for a hospital that are reasonably related to reasonable costs. These determinations are to be done within 150 days of hospitals filing of full rate application and in the TCOC Model should assess a hospitals performance in TCOC. | This policy develops objective standards for determining a rate structure in line with hospital's current service delivery and hospital's bearing on TCOC for its surrounding region. | Staff envisions that this policy will only be utilized to provide revenue commensurate with reasonable cost levels to hospitals that file a full rate application. | By establishing objective standards by which hospitals may quality for additional revenue in a full rate application, this policy ensures that rate enhancements are not provided arbitrarily or needlessly and therefore, along with other Commission efficiency policies, protects consumers from excessive charge levels. | Staff does not anticipate this policy to have any demonstrable effect on disparities in healthcare and notes that many of the risk adjustments in the policy normalize the difference between serving an affluent population and a more impoverished population, e.g. risk adjustments for higher levels of uncompensated care and governmental payer mix in the ICC and risk adjustments for |

| | | | | |
|---|---|---|---|---|
| | | | | deep poverty and purchasing power parity in the TCOC benchmark analyses. |

## Recommendations

1. Formally adopt policies to assess cost per case efficiency and total cost of care efficiency to determine the rate structure for hospitals[1] should:
    a. A hospital request a full rate application; or
    b. HSCRC open a full rate review on a hospital;
2. Use the Inter-Hospital Cost Comparison, including its supporting methodologies to compare cost-per-case for the above evaluations;
3. Use Total Cost of Care measures with a geographic attribution to evaluate per capita cost performance for the above evaluations;
4. Allow staff to include in full rate application recommendations the following:
    a. Implementation date for global budget enhancement that considers and comports with the State's TCOC savings tests; and
    b. Hospital specific, mutually agreed upon moratorium on full rate applications that extends beyond the regulatory limits. COMAR 10.37.10.03 allows a hospital to file a full rate application at any time provided there is no pending hospital-instituted case before the Commission or the subject hospital has not obtained permanent rates through the issuance of a Commission rate order within the previous 90 days.

## Introduction

Historically, the HSCRC has had a full rate application methodology to assess hospitals' efficiency. The methodology allowed staff to review a hospital's entire regulated rate structure and was employed:

- When a hospital submitted a full rate application for an increased rate structure; or
- When HSCRC staff identified a hospital with high cost inefficiency in order to reduce the hospital's rate structure.

Full rate application assessments have historically been based on a hospital's cost per case efficiency relative to a peer group standard, i.e. a hospitals' revenue base compared to average peer group cost per

[1] Total Cost of Care Assessments relative to attainment and growth standards performed by payer will be used to modify a hospital's cost per case efficiency analysis.

case with profit removed PLUS a productivity adjustment. However, given the incentives of the TCOC Model and the broader cost accountability hospitals now face, Commissioners directed staff to develop total cost of care metrics that would complement the Commission's cost review methodology in a TCOC Model, and yet still adhere to its statutory mandate, per Maryland HEALTH-GENERAL Article, An. Code Ann. § 19-219(a), to assure each purchaser of hospital services that:

**(1)** The total costs of all hospital services offered by or through a facility are reasonable;
**(2)** The aggregate rates of the facility are related reasonably to the aggregate costs of the facility; and
**(3)** The rates are set equitably among all purchasers or classes of purchasers without undue discrimination or preference.

In response to Commissioner directives to incorporate per capita efficiency measures into overall efficiency analyses in line with the TCOC Model, staff have developed an approach that incorporates TCOC performance relative to national benchmarks into the Interhospital Cost Comparison (ICC) methodology. Specifically, staff uses a TCOC algorithm that assesses TCOC performance relative to attainment and growth standards that then modifies a hospital's ICC result, but the extent of this modification is limited to the responsibility or influence hospitals have on TCOC on a statewide basis. Unlike the Integrated Efficiency Policy, which also incorporates TCOC benchmark performance for the purpose of scaling annual inflation, the Full Rate Application Policy does not relatively rank hospitals on a combination of the ICC and TCOC. This is because full rate assessments have always been analyses relative to an absolute standard so that the Commission may reset a hospital's rate structure to be in line with its current services.

This report outlines the ICC and TCOC methodology to be used in the Full Rate Application Policy and the proposed approach to incorporate TCOC metrics into a hospital cost analysis. This report also outlines recommended procedures for administering global budget revenue enhancements secured through the full rate application process.

Future iterations of the Full Rate Application policy will address potential modifications to the current efficiency tools, most notably potential changes in the ICC for peer groupings, incorporation of national inpatient analyses for academic medical center efficiency, and changes to allowed medical residents costs, all of which may have an effect on hospitals' current efficiency standing.

# Background

## Efficiency Tools

In November 2015, full rate reviews were suspended to allow development of tools and methodologies consistent with the new All-Payer Model. Regulations were introduced at the September 2017 Commission meeting that updated filing requirements for full rate reviews and the moratorium on full rate reviews was lifted in November of 2017. At the November 2017 Commission meeting, staff put forward a final recommendation to the cost-per-case and per visit analysis - the Inter-hospital Cost Comparison (ICC)

methodology, a tool that HSCRC staff proposes to continue using in evaluating hospitals' cost-per-case efficiency. At that time, staff recommended that the Commission defer formal adoption of an efficiency methodology because more work was required to develop additional efficiency tools, namely total cost of care analyses. Also, staff set out, with support of a technical workgroup, to refine the casemix methodology that serves as the basis for the volume statistic used in the ICC to evaluate cost-per-case efficiency, in accordance with Commission priorities.

While staff has utilized the ICC and various total cost of care growth analyses to support Commission proposals to modify certain hospitals' global revenues,[2] thereby implicitly approving these efficiency tools through adjudication, no formal policies are currently in place. It is important that formal policies reflective of all methodology enhancements are approved by the Commission to provide greater clarity to the industry and to allow for the Commission's methodologies to be more formulaic and uniform in their application.

In terms of the ICC, staff did not materially change the methodology from what was presented to the Commission in November of 2017. The ICC still places hospitals into peer groups based on geography/urbanicity and teaching status and then develops a peer group cost average, devoid of unique hospital cost drivers (e.g. labor market, casemix) and various social goods (e.g. residency programs), to ultimately build up hospital revenue for each hospital based on the calculated peer group cost average. The difference between a hospital's evaluated revenue and its revenue calculated from the ICC cost standard is the measure of a hospital's cost-per-case efficiency.

Staff has also developed total cost of care "attainment" benchmarks calculations into the final efficiency determinations, inclusive of Commercial performance, that will be discussed in the Overview of the *Total Cost of Care Calculation* section.

## Efficiency Implementation

### Full Rate Application Process

The current process for full rate applications is outlined in Maryland statute (Health-General Article §19-222 and COMAR 10.37.10.03 et seq). It allows hospitals to a file for a change in its rate schedule that will be effective based on the date that the rate application notice specifies, which must be at least 30 days after the date on which the notice is filed.

The Commission, upon receiving the full rate application, must review and act on the rate application within 150 days after the notice is filed, unless both parties agree to postpone this deadline. If the Commission decides to hold a public hearing, the Commission must set a place and time for the hearing within 65 days of the filing notice. In the event of a hearing, the Commission may suspend the effective date of any

[2] Anne Arundel Medical Center, Garret Regional Medical Center, UMMC Midtown Hospital, Bayview Hospital

proposed change until 30 days after the hearing. Finally, if the Commission fails to complete the review of the rate application within 150 days, the change in rate structure will be effective to the date provided on the rate application notice.

Due to the alacrity with which rate determinations must be made, there are two concerns this policy would like to address, namely the implications rate enhancements have on TCOC savings tests and staff resources. For the former, staff would note three important contextual points:

1) The TCOC contract does not allow for the State to exceed its required TCOC savings tests due to global budget revenue enhancements provided to hospitals that have successfully filed a full rate application.
2) Currently, the only time in which global budget revenue on a statewide basis is considered for the State's annual TCOC savings tests is the Annual Update Factor Policy, which provides inflation and volume funding in line with population growth on a State fiscal year basis to comport with the State's various TCOC tests.
3) Staff has to provide a full rate application recommendation for each filed rate application that is not withdrawn, which offers an opportunity for staff to speak to the impact a global budget enhancement will have on TCOC.

In this context, staff recommends the following options for administering a global budget enhancement should Commissioners approve one through the full rate application process:

1) **Provide the revenue increase immediately because there are no potential concerns about total cost of care performance.**
2) **Provide revenue increase immediately but concurrently reduce inflation across the board for all hospitals due to total cost of care performance.**
3) **Provide a portion of revenue increase immediately and provide remaining revenue at semi-annual milestone (Jan or July 1st) when total cost of care can be accounted for.**
4) **Delay revenue increase to semi-annual milestone (Jan or July 1st) when total cost of care can be accounted for.**

For the approaches outlined in numbers 3 and 4 to be implemented, the Commission would need to seek a change in statute and COMAR or would need to create an expectation or norm in the hospital industry that if delay of a revenue enhancement is not mutually agreed upon by the Commission and the requesting party, the Commission will pursue option 2. At this time, staff recommend not pursuing a change to statute and COMAR. Thus, if there is a concern that implementation of a global budget revenue enhancement allowed under a full rate review recommendation would negatively impact total cost of care performance and the requesting party does not agree to a delay in funding, staff proposes that option 2 be utilized, thereby adhering to statute and COMAR.

Staff are also concerned about the extent of staff resources in reviewing hospitals entire rate structure within 150 days, especially when multiple rate applications are filed in one year, and staff believe there are many opportunities for hospitals to improve solvency in the TCOC Model that do not require a full rate application methodology, e.g., reduce avoidable utilization, improve cost efficiency, and seek less laborious revenue enhancements through the proposed Integrated Efficiency policy. As such, it is anticipated that each full rate application recommendation specifically address the length of time the subject hospital is precluded from filing another full rate application, which will need to be mutually agreed upon. Expected suspensions for an individual hospital will be 2-3 years.

### Spend Down Process

The HSCRC have also historically used the full rate application methodology to enter into spend down arrangements with hospitals, whereby the Commission opens a rate review and reduces an inefficient hospital's rate structure over a period of years. The modern analog would be to reduce a hospital's permanent global budget revenue base. Because staff is using the proposed Integrated Efficiency Policy to address inefficient outliers, at this time staff do not recommend employing the full rate application methodology to open a review on a hospital in order to reduce a hospital's permanent revenue base.

## Overview of Efficiency Calculations

### Overview of ICC Calculation

The general steps for the ICC calculation, consistent with prior practices, are as follows:

1. Calculate approved permanent revenue for included volume as measured by ECMADs that will be evaluated in the ICC methodology. This excludes the hospital revenues for one-time temporary adjustments and assessments for funding Medicaid expansion, Medicaid deficits and user fees, such as fees that support the operations of the HSCRC.

2. Permanent revenues are adjusted for social goods (e.g. medical education costs) and for costs that take into consideration factors beyond a hospital's control (e.g. labor market areas as well as markup on costs to cover uncompensated care and payer differential).

3. Hospitals are divided into peer groups for comparison, recognizing that specific adjustments may not fully account for cost differences. The adjusted revenue per ECMAD is compared to other hospitals within the peer group to assess relative adjusted charge levels. The peer groups are:

- Peer Group 1 (Non-Urban Teaching)
- Peer Group 3 (Suburban/Rural Non-Teaching)
- Peer Group 4 (Urban Hospitals)

- Peer Group 5 (Academic Medical Center Virtual, which overlaps with peer group 4)

**Future development work may result in different peer groups.**

4. There are two additional steps to convert revenues to cost. The first additional adjustment is to remove profits from regulated services from the adjusted revenues (profit strip henceforth). The second is to make a productivity adjustment to the costs. These two adjustments are made to allow for consideration of efficient costs for purposes of rate setting.

5. After applying the calculated peer group cost average to each hospital, all costs that were removed in Step 2 (social goods and factors beyond a hospital's control) are added back to each hospital to build revenue up to the ICC calculated value. The profit strip and productivity adjustment outlined in Step 4 are not added back to a hospital's revenue. The difference between the ICC calculated value and the revenue included in the ICC evaluation, as described in Step 1, is the measure of a hospital's relative efficiency in relation to the ICC Cost Standard.

For a graphic outline of this process, please see Exhibits 1a and 1b.

**Exhibit 1a: Overview of ICC Cost Comparison Calculation Determining Peer Group Cost-per-case (Stripping Down)**

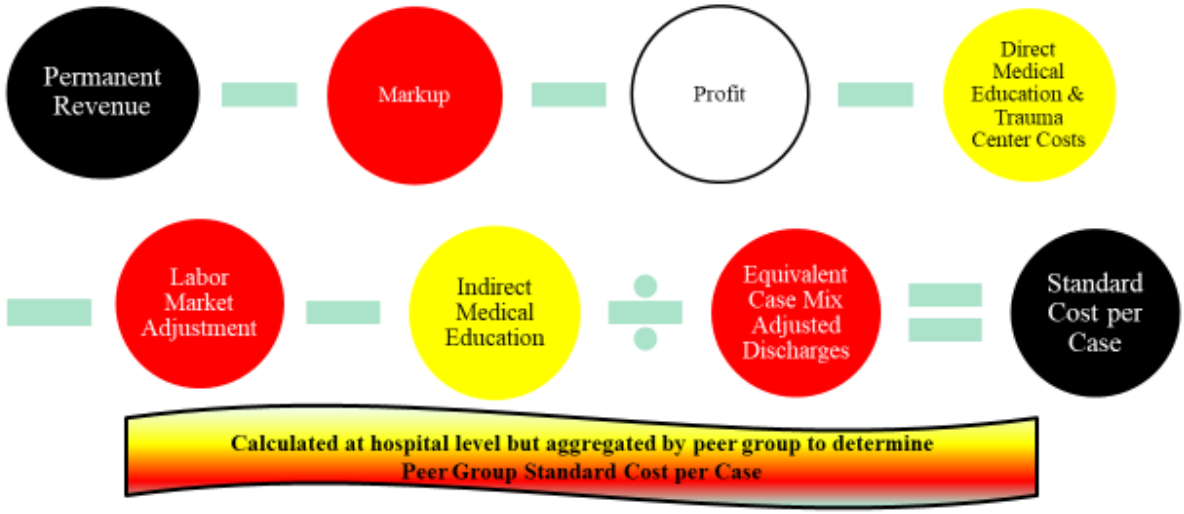
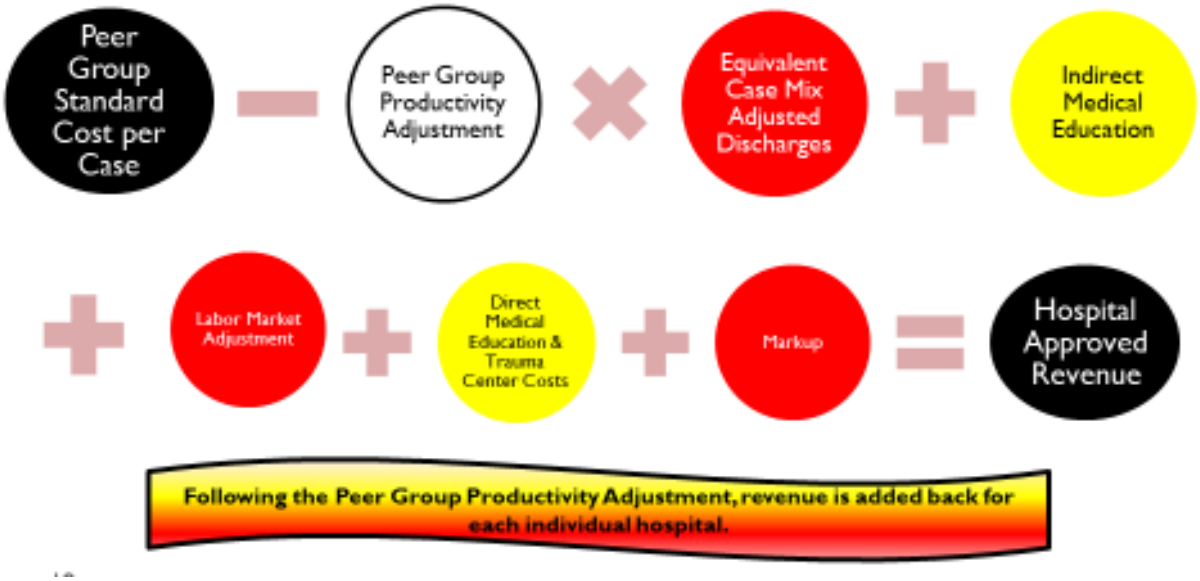


**Exhibit 1b: Overview of ICC Cost Comparison Calculation Determining Total Revenue (Building Back Up)**




## Proposed Changes to ICC Methodology

The staff will now discuss its considerations in proposing changes to the ICC relative to the methodology in effect in 2011.

**Step 1- Calculate Permanent Revenue**

A. Outpatient Drug Overhead Adjustment

As described in Appendix 1, staff has concluded its work in developing weights on outpatient cases, particularly cases that are subject to cycle billing and are ubiquitous across multiple outpatient settings. Staff did not develop usable weights for oncology and infusion drugs because these costs are highly variable by hospital due to various discounts that only certain hospitals receive, e.g., 340b discounts, and therefore do not offer a reliable efficiency comparison. As such, staff excluded oncology drugs from the cost-per case/visit comparisons but retained the charges/cost constituting drug overhead, especially since the magnitude of drug overhead allocations are not uniform across hospitals. In the HSCRC rate setting calculations, a significant portion of costs continues to be allocated based on "accumulated costs." This

process is allocating too much overhead to outpatient biological drugs, and staff has concluded that this allocation distorts cost comparisons.[3]

**Step 2- Adjustments to Revenue**

Adjustments to revenue along with changes to each adjustment methodology are proposed by staff below:

A. Medical Education Costs

Consistent with past practices, direct medical education costs, including nurse and other training as well as graduate medical education (GME) costs, are stripped from the permanent revenues using amounts reported in hospitals' annual cost filings. HSCRC policies limited recognition of growth in residencies beginning in 2002, unless increases in residencies were approved through a rate setting process, consistent with Medicare policies that also limit recognition of growth in residencies. For the proposed ICC formulation, the staff is limiting the counts and costs used in the GME calculations based on the number of residents and interns that were included in the 2011 regression. Moreover, staff is capping direct medical education costs for hospitals to no more than the average direct cost per resident statewide, which in the RY 2019 annual filing was $132,803.

Over the years, the calculation of indirect medical education ("IME") costs has been difficult. In 2011, the HSCRC reached a calculation after much debate of an IME allowance per resident of $230,746. Staff believed this figure was too high for those hospitals that are not major academic medical centers with high ratios of residents per bed. As such, staff worked with a contractor to create a nationally calibrated two-peer-group model to determine major academic indirect medical education costs versus the IME costs per resident of other teaching hospitals.[4] The criteria staff used for defining these two peer groups were as follows:

[3] Medicare adds six percent to average sales price to pay for overhead on physician administered drugs that are not bundled into a visit cost, while non-governmental payers use a somewhat higher overhead figure on top of average sales price in their payment formulation. It is likely that HSCRC will need to change its overhead allocation and rate setting formulation for these biological and cancer drugs in the near term as costs continue to escalate. In the meantime, staff recommends retaining the overhead related revenues/costs in revenues evaluated under ICC charge-per case/visit comparisons.

[4] Several studies also show that major teaching hospitals (sometimes, though not always, defined as academic medical centers or AMCs) have higher IME costs than non-major teaching hospitals. In its 2007 Report to Congress, MedPAC (2007) reported separate IME cost estimates for AMCs and other teaching hospitals. The results showed a stronger relationship to cost in AMCs than in other teaching hospitals. The IME cost estimate for major AMCs (2.6 percent) was nearly double the estimate for other teaching hospitals (1.5 percent). Nguyen and Sheingold (2011) also reported that the impact of teaching intensity on costs was higher among large urban hospitals than other hospitals. They found that costs per case for large urban hospitals increased 1.4 percent for every 10 percent increase in the ratio of residents to beds, compared with a 1.1 percent increase over all teaching hospitals.

**Exhibit 2 Criteria used to define teaching intensity hospital peer groups**

| Teaching intensity | Major AMC | Number of beds | IRB ratio |
|---|---|---|---|
| High | Yes | 500 or more | 0.60 or higher |
| Moderate to Low | No | Fewer than 500 | 0.03 to 0.60 |

Source: AAMC website and HCRIS, 2013-2015.
AAMC = American Association of Medical Colleges; AMC = academic medical center; HCRIS = Hospital Cost Reporting Information System

IRB ratio=Number of Interns and Residents/beds

Using the most recent three years of national hospital data (2013–2015) from the Hospital Cost Reporting Information System[5] and a regression that controlled for the other factors commonly associated with costs, such as hospitals' average patient severity and indigent care burden[6], it was determined that IME costs among high-teaching intensity hospitals are $302,887 and $110,875 for low- and moderate-teaching intensity hospitals combined. These values were inflated from the 2015 analysis to be equivalent to RY 2020 dollars.

**Future development work may result in different allowed resident counts, but the methodologies for determining the cost per resident for direct and indirect medical education will remain the same.**

**Exhibit 3 Estimated IME costs, by hospital peer group, 2013–2015**

| Teaching intensity | IME coefficient ($) | Standard error | P-value | 95 percent confidence interval | |
|---|---|---|---|---|---|
| All | 230,675*** | 11,753 | 0.000 | 207,639 | 253,711 |
| | | | | | |
| High[a] | 192,012*** | 41,873 | 0.000 | 109,942 | 274,082 |
| Moderate and low (omitted group) | 110,875*** | 17,216 | 0.000 | 77,132 | 144,619 |
| | | | | | |

Sources: HCRIS, 2013–2015; IPPS Impact File, 2013–2015.

Notes: The results are based on 124 hospitals in the high-teaching intensity group, 510 hospitals in the moderate-teaching intensity group, and 1,006 hospitals in the low-teaching intensity group.

[5] All Medicare-certified institutional providers are required to submit an annual cost report to a Medicare administrative contractor, which serves as the basis for the Hospital Cost Reporting Information System database. The cost report contains provider information such as facility characteristics, utilization data, cost and charges by cost center, in total and for Medicare.

[6] Several variables (including hospitals' case-mix index, wage index, census region, and urban or rural designation) were derived from the IPPS Impact File, which CMS uses to estimate payment impacts of various policy changes in the IPPS proposed and final rules.

[a] To calculate the marginal effect for these groups, add the estimated IME coefficient with the estimated IME coefficient for the omitted group within a given model. Estimated IME costs for high-teaching intensity hospitals in the two-peer group model is $302,887.

***Significantly different from zero at the .01 level, two-tailed t-test.

HCRIS = Hospital Cost Reporting Information System; IPPS = inpatient prospective payment system.

B. Labor Market Adjustment

In the prior ICC, the labor market adjustment was constructed using an HSCRC wage and salary survey that was based on two weeks of pay and included fringe benefits and contract labor. Each hospital was provided with a unique labor market adjustor that was more indicative of a hospitals ability or decision to pay salaries as opposed to the cost pressures hospitals face in various labor markets, and there were concerns about the consistency and accuracy of reported benefit levels and their impact on the measured wage levels. Staff suspended the wage and salary survey submission for 2017 and intends to replace this survey data with data that better accounts for labor costs hospitals cannot control. One potential solution is to utilize CMS's nationally reported data. Although this national CMS data is available historically, HSCRC staff has not had the opportunity to audit the data and there may be reporting errors. Staff and MHA have stressed the importance of accurate data in the 2017 reports to Medicare.

While staff will continue to use the HSCRC wage and salary survey in its formulation of the ICC until a new labor data source is available, it proposed in the 2018 ICC formulation to eliminate hospital specific adjustments for most hospitals. Specifically, the ICC will use two sets of hospital groupings, with the first set of grouping for Prince George's County and Montgomery County where wages are higher than Maryland's average, and a second grouping of all other hospitals.

C. Capital Cost Adjustment

Previously, there was a capital cost adjustment for differences in capital costs, which was being phased out over time. The time has elapsed, and there is no longer an adjustment for capital cost differences.

D. Disproportionate Share Hospital (DSH) Adjustment

In the 2011 analysis, staff made an adjustment to charges for patients considered to be poor, in consideration of the cost burden that those patients may place on hospitals with higher levels of poor patients. Prior calculations utilized the percentage of Medicaid, charity pay, and self-pay to determine this cost burden.

Medicaid expansion has dramatically increased the number of individuals with coverage. First, the expansion was extended to children; it was then extended to childless adults and those with higher incomes through the ACA expansion, rendering the prior definitions of limited use. Additionally, with increased

payments available to physicians for hospital and community based services and reductions in hospitals' uncompensated care, the financial reasons for potentially continuing this policy are more limited.

To evaluate the need for this adjustment, HSCRC staff compared the case-mix adjusted inpatient charges of potentially poor patients at each hospital (Medicaid, dually-eligible for Medicare and Medicaid, and self-pay and charity) to the case-mix adjusted charges of all other patients. A weighted comparison using the more sensitive severity adjusted APR-DRG's showed a small higher adjusted charge-per-case for Medicaid and dually-eligible persons and a lower charge-per-case for charity and self-pay patients. Staff also conducted various correlation analyses and found very limited relationships between ICC performance (before and after peer groupings) and various deprivation statistics, e.g. average Area Deprivation Index and share of services attributable to Medicaid, self-pay and charity care, and dual eligible. This leads staff to conclude that this adjustment is no longer needed, although staff does believe that the retention of peer groups may help to adjust for other costs that might not otherwise be well accounted for, such as security costs in inner city settings.

**Step 3- Productivity and Cost Adjustments**

A. Profits

Staff has retained the same adjustment used to remove profits from the ICC costs, which has been used historically. Consistent with the statutory authority of HSCRC, the Commission does not regulate professional physician services. The adjustment removes profits for regulated services and does not incorporate subsidies or losses for professional physician services.

B. Productivity Adjustment

In prior iterations of the ICC tool, staff recommended using an alternative approach to calculate the productivity adjustment. The excess capacity adjustment, which was formulated based on the declines in patient days (including observation cases >23 hours) from 2010 through 2018 in each peer group as well as the change in outpatient surgery days with a length of stay greater than 1 from 2013 to 2017, produced varying levels of required increased productivity for each peer group that staff believed was a methodological improvement to the historical 2 percent productivity adjustment employed across the board. However, given further review based on the final promulgation of the Major Capital Financing policy that also uses this calculation on a hospital specific basis, staff has determined that the excess capacity calculation should not be used to determine a peer group productivity adjustment due to the 85 percent variable cost factor in place from 2010 to 2014, which made the calculation overestimate the level of productivity expected of each peer group. Thus, staff recommending returning to the historical 2 percent productivity adjustment. **However, given stakeholder comment letters, staff have proposed**

**suspending the productivity adjustment to recognize the investments needed to control the total cost of care and improve quality and outcomes at both hospital and non-hospital sites of care and the ensuing responsibilities that hospitals have under the TCOC Model. Staff recommends this serve as a temporary adjustment until additional reporting can be established to quantify the expenses incurred by hospitals to improve cost, quality and health outcomes under the TCOC Model.**

**Step 4- Building Up a Hospital's Permanent Revenue**

A. Volume Adjustment

In iterations of the ICC that relatively rank hospitals for the purpose of identifying efficiency outliers, staff proposed to volume adjust the ICC because there exists an inverse correlation of (.53), whereby reductions in potentially avoidable utilization result in worse ICC performance. For purposes of the Full Rate Application Policy, staff do not support putting forward a volume adjustment for reductions in potentially avoidable utilization, as this policy is intended to establish a rate structure commensurate with current services that are delivered at a reasonable cost level. Since this policy should only be utilized by hospitals that seek a full rate review and will not be applied to all hospitals each year for the purposes of realigning global budget revenue, staff does not believe this recommendation to use current services is at odds with the incentives of the TCOC Model.

## Overview of Medicare Total Cost of Care Calculations

Consistent with the Total Cost of Care (TCOC) Model, the cost used in this evaluation will include all types of medical costs (including both hospital and non-hospital services) with the exception of retail pharmacy.

### Geographic Attribution Approach

For the purpose of this calculation, a hospital's attributed beneficiaries will be determined based on the PSA-Plus (PSAP) method used for the geographic attribution layer of the Medicare Performance Adjustment attribution approved by the Commission in November 2017. Under this approach, beneficiaries are attributed based on their zip code of residence. Zip codes are attributed to hospitals through three steps:

1. Costs and beneficiaries in zip codes listed as Primary Service Areas (PSAs) in the hospitals' GBR agreements are assigned to the corresponding hospitals. Costs and beneficiaries in zip codes claimed by more than one hospital are allocated according to the hospital's share on equivalent case-mix adjusted discharges (ECMADs) for inpatient and outpatient discharges among hospitals claiming that zip code. ECMADs are calculated from Medicare FFS claims for the Federal fiscal years 2014 and 2015.

2. Zip codes not claimed by any hospital are assigned to the hospital with the plurality of Medicare FFS ECMADs in that zip code, if such zip code does not exceed 30 minutes' drive time from the hospital's PSA. Plurality is identified by the ECMAD of the hospital's inpatient and outpatient discharges during the attribution period.

3. Zip codes still unassigned will be attributed to the nearest hospital based on drive-time.

With these modifications the PSAP methodology attributes 100% of Maryland's population to a hospital.

### Medicare and Commercial Benchmark Methodologies

A Medicare and a Commercial benchmark was calculated for each hospital. Each benchmark was developed in a three-step process. Step 1 was to identify benchmark groups for each Maryland geography. Step 2 was to translate the geographic benchmarks into hospital-level benchmarks. Step 3 was to complete the cost comparison adjusting for beneficiary risk and demographics.

Detailed methodologies and for each payer and additional data files related to the benchmarking process can be found in the Resources section of the Total Cost of Care Workgroup page on the HSCRC's website. The following is an abbreviated overview of these materials.

Step 1: Identify Benchmark Groups for each Maryland Geography

For Medicare benchmarking the geographic unit was a county. Due to limitations of the commercially available national data the benchmark geographic unit was a Metropolitan Statistical Area. (MSA) However, in Maryland where more granular data is available through the Maryland Health Care Commission's Medical Claims Database (MCDB), Maryland counties were reorganized into a group of MSA-like cohorts such that all Maryland counties were included and no non-MD counties were included (this is not the case with standard MSAs).

Potential comparison geographies for each Maryland geography were narrowed based on population density and size. Various demographic factors were then calculated for every geographic unit within this narrowed selection. The demographic values used were intended to capture the health needs and economic situation of the geography. Factors related to health system design like physician supply or provider concentration were explicitly excluded to avoid creating results that were biased by the nature of the delivery system.

A benchmark cohort was then developed for each Maryland geographic units (1 for Medicare and 1 for Commercial). The cohort was established based on selecting the 20 or 50 most statistically similar national geographies for each Maryland geography. The cohort include 20 members for all Commercial areas and for 5 large Maryland counties for Medicare. (Anne Arundel, Baltimore City, Baltimore County, Montgomery

County and Prince George's County). 50 member cohorts were used for Medicare for the remaining Maryland counties.

The cohort sizes were selected to balance the relative similarity of the included national geographies against the need for stable results over time. Medicare and Commercial benchmark cohorts are not identical as the same geographic unit was not used, but there is substantial overlap and the selection metrics were identical except that payer mix was used in the Commercial selection but not in the Medicare selection.

Step 2: Translate Geographic Benchmarks into Hospital benchmarks

As the policy requires measuring performance at a hospital level it was necessary to develop a hospital specific benchmark. This was done in three steps:

A. Calculate Maryland per capital total cost of care for each Maryland hospital based on their Primary Service Area Plus (PSAP).

B. Calculate the benchmark by blending the relevant geographic benchmarks based on the distribution of the beneficiaries within the hospital's PSAP. For example, a hospital with 60% of its beneficiaries in geographic unit A and 40% in geographic unit B has a benchmark per capita total cost of care equal to 60% A and 40% B.

C. Adjust the Maryland and benchmark values using the adjustments described in Step 3 below to adjust for differences between the Hospital's PSAP demographics and those in the geographic units in its benchmark.

Step 3: Complete the Cost Comparison adjusting for Beneficiary Risk and Demographics

Per Capital total cost of care is calculated for each Maryland hospital and its benchmark. For Medicare the paid amounts are used and for Commercial the allowed amount was used. For Medicare paid was utilized as that is the amount for which Maryland is accountable under the Total Cost of Care Model. For Commercial allowed was utilized to remove the impact of varying cost sharing amounts across different commercial populations. The raw amounts are then adjusted as follows:

A. Medical Education costs were stripped from all values. Medical Education was removed so that Maryland hospitals would not be harmed or helped versus their benchmark cohort based on the level of medical education provided.

B. Risk adjustment is applied. Medicare risk adjustment is applied using Medicare Hierarchical Conditioning Categories (HCCs). Commercial risk adjustment is applied using HHS-HCC Platinum Risk Scores. Both these methodologies are publicly available validated risk adjustment methodologies. Age and sex is incorporated in these methodologies and therefore was not separately addressed.

C. (Commercial Only) Benefit adjustment is applied. While the use of allowed amounts removes the cost impact of member cost shares it does not remove the utilization impact of varying cost shares. Generally, a plan with richer benefits will result in higher utilization. The benefit adjustment is intended to eliminate this impact from the comparison, so Maryland is not harmed or helped because its commercial health plans having poorer or richer benefits. The adjustment resulted in a scaled index for each MSA reflecting the relative richness of benefits. This value is then used to remove the impact of benefit differential from the per capita total cost of care.

D. Demographic Adjustment was applied. A demographic adjustment was developed to better standardize for demographic factors beyond the control of the health system that impact cost of care. The adjustment was calculated separately for Medicare and Commercial but in both cases was based on a regression of the risk and benefit adjusted total per capita cost of care against Median Income and Deep Poverty as reported by zip code in census data. The resulting regression coefficients were used to create a predicted value for each county and the ratio of the actual value to the predicted value was used to adjust the risk and benefit-adjusted per capita total cost of care.

The values calculated can then be used to compare each hospital's per capita total cost of care to their peer average (or other comparison points derived from the benchmark cohort, e.g. 75$^{th}$ percentile) while removing the impact of medical education, beneficiary risk, benefits and demographics from the comparison.

## Overview of Total Cost of Care Algorithm

A very important component of the modernization of the full rate application methodology is to incorporate TCOC performance into the overall efficiency assessment in recognition of a hospital's TCOC responsibility. While Maryland hospitals are collectively held accountable for all TCOC through the Update Factor Policy and through the broader TCOC Model, they are not currently directly responsible for all TCOC. Hospital services for all Maryland Medicare FFS beneficiaries represent 54 percent of TCOC spend, and hospital services for all Maryland Commercial Enrollees represent 30 percent of TCOC spend. However, even in the absence of direct individual responsibility a full rate application methodology must account for the most important efficiency outcome in the Model, namely TCOC performance, but restricting a full rate application methodology to TCOC performance fails to recognize the cost and price per case concerns that underlie the State's reimbursement system, which still requires purchasers to pay per service administered at the hospital.

In the future through a potential hospital-centered capitated model, whereby all lives in a given region are attributed to a hospital to determine its global budget revenue, hospitals could be directly responsible for all TCOC, but in the interim staff had to wrestle with incorporating TCOC performance to reflect hospital's

accountability but not broad scale responsibility. The approach staff is putting forward uses various TCOC attainment and growth standards in a multi-step algorithm, which is expressed in terms of absolute attributed TCOC dollars and weighted by a hospital's statewide share of TCOC responsibility by payer. The output of this algorithm is then used to modify a hospital's ICC cost-per-case efficiency assessed revenue, i.e. the revenue level the ICC methodology yields for an efficient and effective hospital to remain solvent.

Each hospital has a different TCOC standard because each hospital has a slightly different group of national peers, although significant overlap does exist since the TCOC benchmark assessments are based on demography as opposed to hospital comparisons. While the comparison peers for each hospital are different, the standard relative to each hospital's peer group is consistent in the proposed methodology. The exhibit below outlines the standards that affect a hospital's ICC cost-per-case efficiency assessed revenue:

**Exhibit 4 TCOC Standards Influence on Rate Application**

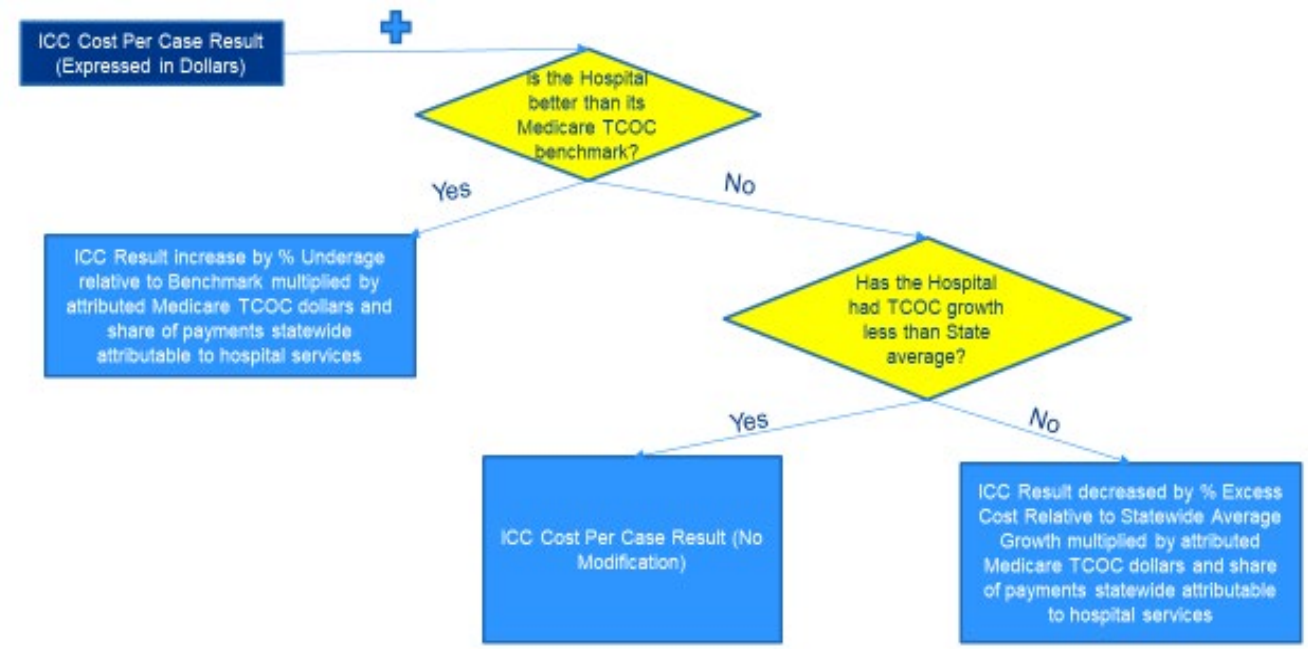
| TCOC Performance | Reward/Penalty Modification to ICC |
|---|---|
| Better than Medicare Benchmark | Reward |
| Better than Medicare Benchmark AND Average of Top Half of Commercial Performance | Additional Reward |
| Worse than Medicare Benchmark but better than average State TCOC growth | No action |
| Worse than Medicare benchmark and worse than average State TCOC growth | Penalty |
| Worse than Commercial Benchmark | Additional Penalty |
| All Rewards Capped so that a Hospital Does not Exceed Medicare Benchmark | |

Unlike the proposed Integrated Efficiency Policy, which expresses cost-per-case and TCOC efficiency in terms of a percentage relative to a standard and in so doing does not consider the size of TCOC attributed dollars (nor the size of the hospital budget), the Full Rate Application Policy directly acknowledges the extent of TCOC attributed dollars by modifying a hospitals' ICC cost-per-case efficiency assessed revenue by a hospital's performance in TCOC expressed in absolute dollars. In effect, the more care for which a hospital is accountable the greater the size of the reward they can earn.

It is important to note, however, that all additional rewards and penalties are first weighted by Maryland hospital's share of statewide TCOC responsibility, 54 percent for Medicare and 30 percent for commercial. Thus, there is a limit to how much risk a hospital can be rewarded or penalized for. Moreover, TCOC

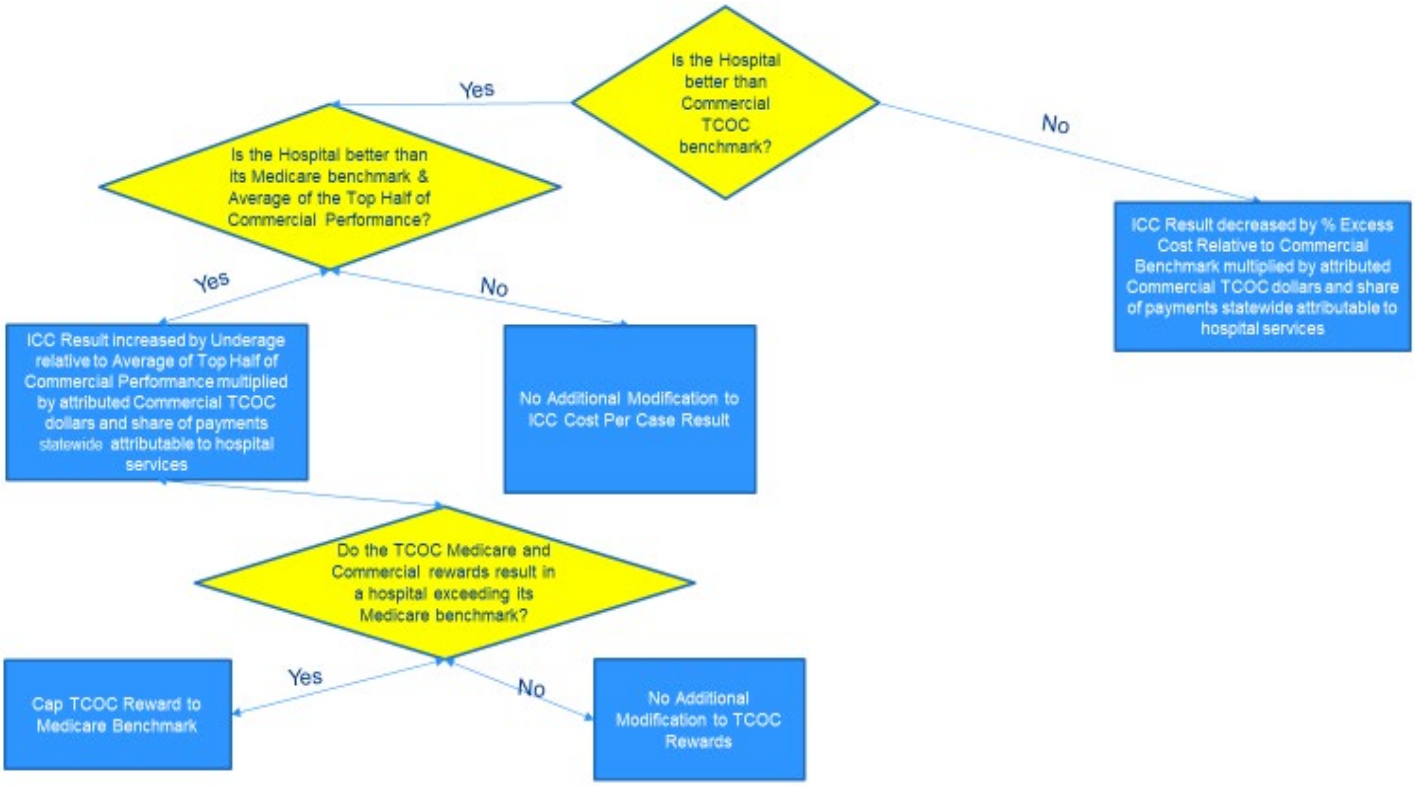
rewards that may modify a hospital's ICC cost-per-case efficiency assessed revenue are capped such that a hospital does not exceed its Medicare benchmark. , which staff proposes is not a desirable outcome in a TCOC Model that seeks to retain higher governmental hospital reimbursement in exchange for better TCOC performance.[7] For a complete review of the proposed ICC algorithm, see exhibit 5a + b below:

**Exhibit 5a Visual Representation of Efficiency Algorithm (Phase 1 – Medicare)**




[7] If a hospital is efficient such that it qualifies for a revenue enhancement solely through the ICC and there are no TCOC penalties associated with its assessment in the Full Rate Application methodology, the hospital will not have its available funding capped by its relationship to the Medicare benchmark.

**Exhibit 5b Visual Representation of Efficiency Algorithm (Phase 2 - Commercial)**




# Efficiency Assessment

## Examples of TCOC Modifications

To better understand how TCOC affects a hospital rate application, Exhibit 6 displays examples that cover most of the variations in which TCOC may influence a full rate application determination:

**Exhibit 6 Examples of TCOC Influence on Rate Application**

| ICC and TCOC Scenario | ICC Performance Relative to Standard | 2018 Share of Medicare TCOC Spend Attributable to Hospital Services Statewide | 2018 Medicare FFS Attributed Dollars (Part A and Part B) | 2018 Medicare TCOC Relative to Benchmark | Medicare TCOC Attainment Credit | 2013-2018 Medicare TCOC Growth (State Avg = 7.31%) | Excess Medicare TCOC Growth Penalty | 2018 Share of Commercial TCOC Spend Attributable to Hospital Services Statewide | 2018 Commercial Attributed Dollars | 2018 Commercial TCOC Relative to Benchmark | Commercial TCOC Attainment Penalty | 2018 Commercial Average of Top Half | Commercial TCOC Attainment Credit | Total TCOC Credit / Penalty | Full Rate Application Recommendation |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| A | B | C | D | E | F=C*D*E*-1 | G | H=(G-7.31%)*C*D*-1 | I | J | K | L=I*J*K*-1 | M | N=I*J*M*-1 | O = Lessor of (F+H+L+N) and E | P($)=B($)+O |
| Did not meet ICC Standard but better on Medicare & Commercial Benchmark | -4.92% (Reduction of $16.9 M) | 53.82% | $379.6 M | -10.14% ($38.5 M under benchmark) | $20.7 M | 12.37% | NA | 29.90% | $608 M | -36.06% | NA | -29.72% | $54 million | $38.5 M | 6.30% (Increase of $21.6 M resulting in $364.8 M) |
| Met ICC Standard but excess Medicare TCOC growth | 4.23% (Increase of $23.7 M) | 53.82% | $189.9 M | 17.56% ($33.4 M over benchmark) | NA | 9.23% | -$1.9 M | 29.90% | $180.2 M | -19.96% | NA | -14.15% | NA | -$1.9 M | 3.88% (Increase of $21.7 M resulting in $581 M) |
| Met ICC Standard but excess Medicare TCOC Growth and Poor Commercial TCOC Performance | 7.08% (Increase of $4.4 M) | 53.82% | $49.8 M | 7.79% ($3.8 M over benchmark) | NA | 19.96% | -$3.4 M | 29.90% | $56.1 M | 3.01% | -$0.5 M | 13.62% | NA | -$3.9 M | 0.87% (Increase of of $0.5 M resulting in $63.3 M) |

## Results

In the proposed full rate application methodology, there are two hospitals that qualify for a revenue enhancement by strictly looking at the ICC cost-per-case efficiency assessed revenue. These two hospitals, Garrett County Memorial Hospital and Mercy Medical Center, would qualify for a 7.08 percent and 4.23 percent revenue enhancement, respectively. Once TCOC performance is factored into the assessment, these same two hospitals would still qualify for a revenue enhancement, albeit reduced from the ICC evaluation (0.87 percent and 3.88 percent revenue enhancement, respectively), and two additional hospitals (Suburban Hospital and Fort Washington Medical Center) would also qualify (6.30 percent and 1.99 percent revenue enhancement respectively). This would mean a little over 9 percent of the hospitals

evaluated in the proposed Full Rate Application Policy (4 out of 43) would qualify for additional revenue. Please note these results may change based on future development work to assess the validity of peer groups and the number of allowed medical residents in the ICC methodology. For a list of current results of the proposed methodology, which would only be employed if a hospital filed a rate application, see exhibit 7 below:

**Exhibit 7 Results of Full Rate Application Methodology[8]**

| | 2% Productivity Adjustment | | No Productivity Adjustment | |
|---|---|---|---|---|
| Hospital Name | Full Rate Application Recommendation ($) | Full Rate Application Recommendation (%) | Full Rate Application Recommendation ($) | Full Rate Application Recommendation (%) |
| Suburban Hospital | 21,976,492 | 6.40% | 28,531,522 | 8.31% |
| Mercy Medical Center | 13,152,665 | 2.35% | 24,187,879 | 4.32% |
| Fort Washington Medical Center | 1,168,428 | 2.23% | 2,200,044 | 4.20% |
| Garrett County Memorial Hospital | 711,755 | 1.13% | 2,066,488 | 3.29% |
| Anne Arundel Medical Center | (9,170,536) | -1.42% | 2,938,213 | 0.45% |
| Howard County General Hospital | (5,269,115) | -1.70% | 767,471 | 0.25% |
| Atlantic General Hospital | (2,217,411) | -1.97% | (34,345) | -0.03% |
| Johns Hopkins Hospital | (119,451,299) | -4.68% | (84,031,835) | -3.30% |
| Holy Cross Hospitals | (29,884,450) | -4.70% | (17,596,402) | -2.76% |
| Johns Hopkins Bayview Medical Center | (39,405,139) | -5.59% | (27,817,689) | -3.94% |
| MedStar Union Memorial Hospital | (25,160,227) | -5.88% | (17,267,838) | -4.04% |
| Greater Baltimore Medical Center | (33,399,984) | -6.89% | (24,957,520) | -5.15% |
| University of Maryland Baltimore Washington Medical Center | (34,858,317) | -7.68% | (26,372,910) | -5.81% |
| Peninsula Regional Medical Center | (38,289,258) | -8.32% | (29,792,923) | -6.47% |
| Meritus Medical Center | (32,527,523) | -8.46% | (25,741,352) | -6.69% |
| Doctors Community Hospital | (22,090,031) | -8.49% | (17,501,345) | -6.73% |
| MedStar Harbor Hospital Center | (16,528,213) | -8.58% | (13,043,196) | -6.77% |
| University of Maryland Medical Center | (163,676,439) | -10.13% | (143,928,596) | -8.91% |
| MedStar St. Mary's Hospital | (19,703,982) | -10.25% | (16,340,985) | -8.50% |
| Upper Chesapeake Medical Center | (34,681,540) | -10.75% | (28,731,179) | -8.91% |
| Frederick Memorial Hospital | (40,998,182) | -11.36% | (34,481,732) | -9.55% |
| Western Maryland Regional Medical Center | (41,397,715) | -12.26% | (35,730,809) | -10.58% |
| University of Maryland St. Joseph Medical Center | (50,197,103) | -12.84% | (43,107,860) | -11.03% |
| Sinai Hospital | (127,293,696) | -15.02% | (115,354,728) | -13.61% |
| Prince Georges Hospital Center | (54,939,361) | -15.78% | (49,335,358) | -14.17% |
| MedStar Franklin Square Hospital Center | (90,976,174) | -15.98% | (82,231,335) | -14.45% |
| University of Maryland Charles Regional Medical Center | (25,974,289) | -16.54% | (23,205,308) | -14.78% |
| Shady Grove Adventist Hospital | (80,409,975) | -17.16% | (72,694,610) | -15.51% |
| Carroll Hospital Center | (43,340,017) | -18.33% | (39,378,130) | -16.65% |
| St. Agnes Hospital | (79,470,128) | -18.54% | (72,819,948) | -16.99% |
| Calvert Memorial Hospital | (28,334,791) | -18.55% | (25,913,790) | -16.96% |
| Harford Memorial Hospital | (20,921,342) | -19.33% | (19,139,779) | -17.68% |
| Washington Adventist Hospital | (59,172,716) | -19.66% | (54,248,865) | -18.02% |
| MedStar Southern Maryland Hospital Center | (56,211,837) | -20.06% | (52,037,452) | -18.57% |
| University of Maryland Shore Medical Center at Easton | (48,639,396) | -21.39% | (45,209,411) | -19.89% |
| University of Maryland Shore Medical Center at Dorchester | (10,003,063) | -21.66% | (9,267,430) | -20.07% |
| Northwest Hospital Center | (62,383,958) | -22.82% | (58,189,525) | -21.28% |
| University of Maryland Rehabilitation & Orthopaedic Institute | (29,418,804) | -23.07% | (27,783,412) | -21.79% |
| MedStar Good Samaritan Hospital | (64,340,168) | -23.71% | (60,194,601) | -22.18% |
| University of Maryland Medical Center Midtown Campus | (54,737,824) | -24.39% | (51,712,115) | -23.04% |
| Union Hospital of Cecil County | (42,919,589) | -25.47% | (40,377,887) | -23.96% |
| MedStar Montgomery Medical Center | (47,110,649) | -26.04% | (44,398,197) | -24.55% |
| University of Maryland Shore Medical Center at Chestertown | (17,877,317) | -33.72% | (17,183,046) | -32.41% |

[8] Results reflect removal of 2% Productivity Adjustment and differs from the Draft Recommendation because $54 million was removed from Sinai Hospital's ICC analysis to recognize the Bon Secours merger and its associated volume that had not yet occurred in the performance period.

## Future Policy Considerations

While staff believe the efficiency methodologies and implementation proposal are sound, staff acknowledges that ongoing work will refine and improve the ICC and total cost of care analyses. Staff describes below various work streams to improve the efficiency methodologies.

1) Short term - Staff is engaging an outside contractor to review the validity of its ICC peer groups to consider potential modifications and to also consider using a statewide regression analysis to account for additional cost variation that the peer groups ostensibly address, namely costs associated with teaching, urbanicity, and rurality, the latter of which is not currently addressed in the ICC. This task should be completed in January 2021 and can be accounted for in future full rate application recommendations.

2) Short term – Staff is also engaging an outside contractor to review the adequacy of current physician supply by specialty by region. This analysis will incorporate out-year demand projections, inclusive of Maryland's role as a net exporter of medical professionals, and will be used to determine the allowed residents in the ICC analysis. This task should be completed in January 2021 and can be accounted for in future full rate application recommendations.

3) Short term – Staff is also engaging in a process to review the benchmarking methodology with stakeholders in an effort to increase understanding and transparency of the methodology. Should any inconsistencies or inaccuracies be uncovered during this review, staff would make the appropriate changes and account for those changes in a future full rate application recommendation.

4) Medium term - Staff will work to include national analyses that were completed for inpatient efficiency evaluations of the State's two major academic medical centers. Staff plans to complement these analyses by incorporating them into an outpatient-only ICC that will effectively evaluate the State's two academics both on a national level for inpatient services and on a Maryland peer group level for outpatient services. Completion of this task is contingent upon submission from Johns Hopkins Hospital and University of Maryland Medical Center, per the agreement put forward in the Innovation Policy and prior Update Factor recommendations. This task should be completed in the Summer of 2021.

5) Long term - Staff will continue the work to quantify the investments hospitals are making in unregulated settings that are in line with the incentives of the Total Cost of Care Model, thereby providing a path for hospitals to acquire credit in the ICC evaluation when retained revenues are used to improve health outcomes.

In terms of total cost of care, staff will focus on maintaining the total cost of care analyses and updating them each year with new data. Additionally, staff will explore developing Medicaid benchmark analyses, but it should be noted that data nationally on Medicaid total cost of care is far less robust than Medicare and commercial data.

## Stakeholder Comments

Staff received comment letters from four stakeholders and several verbal comments from Commissioners. Most comments were focused on the following topics and will be discussed together:

- TCOC Benchmarking (Appropriate Vetting, Proprietary Information, Value in Rate Review Process )
- Expanding scope of TCOC Improvement
- ICC Cost Allowances (Productivity Adjustment, Profits, Population Health Investments)
- Value of proposed rate application process
- Future Refinement

| Topic | Maryland Hospital Association | Johns Hopkins Health System | CareFirst | Luminis Health |
|---|---|---|---|---|
| Appropriate Vetting | The benchmarking logic is proposed in the efficiency policy, the full rate application policy, and the MPA. Though it is very technical, the decision to compare spending attributed to Maryland hospitals with non-Maryland hospitals is a major policy step. Historically, core methodologies of this magnitude would be vetted before the commission. | JHHS believes that the benchmarking methodology needs further evaluation by the hospital industry and Commissioners. | | |
| Proprietary Information | The ability to replicate methods and calculations, from start to finish, has always been a cornerstone of Maryland's rate setting system. The commercial benchmarking data is proprietary and much be purchased | | | |
| Value of TCOC Assessment | MHA appreciates HSCRC staff's intent to measure total spending per capita because it is a key incentive of the Model. They pledge to work with the staff as the COVID 19 surge concludes to review and refine the methodology. | JHHS believe that it is appropriate to have both a price efficiency component as well as a Total Cost of Care (TCOC) component included as part of the methodology | CareFirst supports the hybrid framework presented in this recommendation to implement a new full rate application process and methodology | It is not clear that the use of TCOC benchmarks fits directly with the full rate review process. The full rate review process is designed to address the adequacy of an applicant hospital's rate structure – if the rates are sufficient for an efficient and effective hospital to operate successfully. While the TCOC benchmarks are an important policy tool for managing the Model, they do not clearly address that fundamental question which is at the heart of the full rate review process. |

**Staff Response:** Staff recognized that the release of the final benchmarks was delayed as part of the slowdown due to the COVID crisis. However, the fundamental process has been discussed for almost 2 years and peer groups and preliminary results were released in late 2019. Peer groups have not changed,

and results were similar to those in the final version, which was released August 31st including extensive supporting data.

In the months since the data release, no specific technical issues have been raised, and the HSCRC did not receive any comments on peer groups or the approach used following data shared in late 2019. Staff would also note that due to the delay in Integrated Efficiency policy, per Commissioners' directive, across the board revenue adjustments based on this methodology will be made in July of 2021, giving hospitals sufficient time to understand the payment implications of the benchmarking.

In terms of proprietary information, driving to an analysis of all-payer TCOC requires use of a commercial data set. The source of the national commercial TCOC data is Milliman, who is an industry leader. The hospitals have free access to extensive detail behind the commercial benchmarks.

Finally, staff disagrees with the assertion in the Luminis letter that it is not clear if the use of TCOC benchmarks fits in with the full rate process and concurs with all other stakeholder letters that recognize the importance of assessing TCOC performance in a full rate application. Staff also notes that failure to evaluate TCOC performance during a full rate application in a TCOC Model, thereby solely focusing on hospital cost/price efficiency, could lead to a very undesirable cost outcome and potentially an incentive to increase hospital volume in order to improve cost per case efficiency.

**Staff Response:** Staff remains concerned about the reliability of TCOC improvement statistics to determine relative efficiency for the following reasons:

| Topic | Maryland Hospital Association |
|---|---|
| Greater Emphasis on TCOC Improvement | Given the uncertainty of comparing service area spend per capita in benchmarking methodology, HSCRC might consider expanding the inclusion of growth performance. Comparing spending per capita in different service areas is difficult without applying multiple adjustment factors to address different conditions. Comparing spending growth per capita assigned to a hospital, provided the assignment or service area is unchanged from the base, could be a more stable option. |

- Hospitals with smaller attributed TCOC dollars have very unstable growth statistics;
- Improvement fails to recognize the initial low cost of hospital service areas;
- Greater emphasis on improvement advantages hospitals with initial higher cost service areas that have greater opportunity to improve TCOC performance since 2014;
- Rewarding hospitals for TCOC improvement will already be recognized in TCOC attainment assessments; and
- Staff does not currently have the ability to account for commercial TCOC growth prior to the baseline year of 2017

Because of all these reasons and because staff has included a Medicare TCOC growth assessment into the full rate application methodology (downside risk only), staff believes the full rate application algorithm is correctly balanced

In the future staff will work to include commercial TCOC assessments in a similar fashion to the Medicare evaluation.

| Topic | Maryland Hospital Association | Johns Hopkins Health System | Luminis Health |
|---|---|---|---|
| Productivity Adjustment | | | The Commission's cost-less-productivity standard anticipated that a hospital would generate margins with expanded volume. In the era of global budgets, however, that avenue for generating margins is not available We would encourage the Commission to consider a standard that reflects the new realities of the global budget world, and consider an elimination of the 2% productivity adjustment. |
| Profit | Historically, HSCRC regulated prices, not revenue. When determining fair prices, 100% of regulated profit was removed from a hospital's cost base with the implicit understanding hospitals would retain marginal income from marginal volume growth. Beginning in 2014, volume growth incentives were replaced by lowering avoidable use to generate savings. Absent marginal volume growth, a small, reasonable margin must be included in the hospital's revenue base.. | Historically the ICC methodology has included both a productivity adjustment as well as a profit strip. These adjustments were both made when the system was still principally a fee-for-service based system. As we have now transitioned to a TCOC based system with a capped revenue model, these adjustments essentially set the hospital rates back to a breakeven amount, assuming the productivity can be achieved. We would request that staff consider adding back a reasonable level of profit to the hospital rates as part of the full rate setting methodology, consistent with the financial targets in the industry. | The Commission's cost-less-productivity standard anticipated that a hospital would generate margins with expanded volume. In the era of global budgets, however, that avenue for generating margins is not available. We would encourage the Commission to consider a standard that reflects the new realities of the global budget world, and consider an allowance for profits. |
| Population Health Investments | Maryland's Model has strong incentives to invest in services beyond those regulated by HSCRC. Hospitals must invest in population health initiatives, extensive care coordination, and services in the community. These activities are crucial to the success of the Model but are not regulated by HSCRC as hospital services. Removing all regulated profit in rate setting would render hospitals unable to reinvest in services beyond hospital walls and thus sustain both hospital savings and total cost of care savings. | | To meet the Model's goals, successful hospitals must invest in healthcare activities outside the hospital walls to prevent unnecessary hospital utilization and to improve population health. Yet these costs are not recognized in the ICC methodology. |

**Staff Response:** All three stakeholder comment letters on this subject requested adding back a level of profit to the ICC methodology to recognize that in the global budget system there is limited opportunity to generate a profit. Luminis also used this argument to support the elimination of the historical 2% productivity adjustment.

Staff notes that the statute does not require the Commission to establish hospital rates that guarantee profits, but rather a revenue structure that allows an effective and efficient hospital to operate on a solvent basis. Thus, staff does not support including an allotment for profits in the ICC methodology, as this would run counter to statute and would likely be arbitrary in nature.

Staff would also note that regulated hospital margins have increased by approximately 150% since the start of the All-Payer Model and total hospital margins have remained flat, because reducing avoidable utilization has replaced the margin generating practice of growing volume, albeit with greater variation in opportunity.

Staff does recognize, however, that hospitals are responsible for total cost of care under the Model and some investment is required to successfully contain costs and improve quality at hospital and non-hospital sites of care. Thus, staff recommends establishing an efficiency standard that does not include a 2% productivity adjustment to recognize those investments and the associated responsibilities that hospitals have under the TCOC Model. Staff recommends this serve as a temporary adjustment until additional reporting can be established to quantify:

- Physician costs intrinsic to the operation of acute care facility (as opposed to allowing all physician losses); and
- Population health investments.

| Topic | CareFirst | Luminis |
|---|---|---|
| Rate Application Process | CareFirst supports the flexibility provided in the recommendation to ensure that increases authorized under the methodology do not adversely impact the State's TCOC savings tests. CareFirst also believes that it is in the best interest of all stakeholders that the Total Cost of Care Model continues in Maryland and that staff's proposed rate application process is a prudent approach to ensure that approved rate increases do not negatively impact the TCOC goals. | The timing of increases from full reviews as discussed in the policy recommendation, seems to imply that the increases are difficult to manage and unpredictable. Under the general ICC formula, however, the staff should be able to predict the likely increases available to hospitals under the policy, and adjust annual update factors to reflect the likely increases from rate reviews each year. If a truly unexpected increase occurred, then the Commission could elect to phase in the revenue increase to protect TCOC growth under the Model's requirements as needed. This should be rare, however.<br><br>The recommendation also advocates voluntary agreements that would place time limits on hospitals in returning for further relief. A limit of 2 to 3 years for an additional request is arbitrary and may shut off relief for a hospital under unforeseen circumstances. |

**Staff Response:** Staff appreciates CareFirst's comments that the proposal for the rate application process is a prudent approach that ensures the policy does not negatively impact the TCOC goals of the Model.

While staff agrees with Luminis' general sentiment that rate increases will not be as unpredictable when a full rate application methodology is approved, staff notes that hospitals still have the ability to submit full rate applications with proposed revisions to their cost assessment, otherwise known as Phase 2 negotiations, and this can result in larger than anticipated rate increases that could imperil the Model's TCOC goals if not properly administered.

Staff appreciates Luminis' other comment that voluntary agreements between the Commission and hospitals arbitrarily limits how frequently a hospital may request a rate increase, but staff would note that:

- These agreements are mutually agreed upon;

- There are not many examples of unforeseen circumstances that would require more than one rate enhancement in a 2-3 year period and hospitals would not be prevented from requesting relief should such an event occur;
- Hospitals have historically agreed to these agreements when receiving rate enhancements; and
- Efficient hospitals can still avail themselves of the funding allotted in the Integrated Efficiency Policy.

**Staff Response:** Staff is committed to the constant review and refinement of HSCRC methodologies and welcomes the opportunity to collaborate with stakeholders to improve Commission policies. However, staff respectfully disagrees with the Luminis proposal that the Commission fund teaching costs for new residency programs equal to the highest class count in the fifth year of the teaching program, in line with CMS policy, because the policy fails to recognize the actual physician supply and demand in Maryland, both in total as well as by region and specialty, and may result in unnecessary specialty programs. In fact, The American Academy of Family Physicians notes that: "As an "entitlement" system an urban community with no GME can build a very large multihospital GME system with a high cap fully funded by Medicare. The specialty mix of that system may have nothing to do with state/local needs for physicians. This is happening particularly in urban communities with new medical schools."[9] Moreover, Maryland does not have the same physician or residency shortage issues that other states experience and therefore new residency slots are not prima facie required.[10] Because this assessment may not hold at the county level, staff is engaging a contractor

[9] https://www.aafp.org/dam/AAFP/documents/events/rps_pdw/handouts/res18-80-medicare-gme-payments-background-and-basics.pdf
[10] https://dfsnow.github.io/ama_viz/exploratory_plots.html; https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3951373/figure/F1/

| Topic | Maryland Hospital Association | Johns Hopkins Health System | CareFirst | Luminis |
|---|---|---|---|---|
| Future Refinement | The benchmarking methodology needs further assessment | JHHS support the continued refinement of the full rate setting methodology as set out in the Future Policy Considerations section of the recommendation and are committed to working with HSCRC staff and the industry to continue to improve the existing rate setting methodologies. JHHS believes that this and all methodologies need to be reviewed and revisited on a regular basis to assure that the underlying methodologies are keeping in sync with the goals of the new model and to provide refinements where needed. | CareFirst are very encouraged by the fact that Staff has been able to come forth with a reasonable approach to assessing hospital efficiency on both cost per case and TCOC, and acknowledge that change may be necessary over time to refine the methodology. | As a system with a newly established teaching program, Lumnis asks the Commission to consider alignment with CMS guidelines for new teaching programs. This approach would provide an established methodology to provide credit to the limited number of hospitals that could establish new teaching programs in the State. Under the methodology, the teaching program cap would be established after 5 years of initial operation. |

to examine physician supply and demand by specialty and will develop a separate recommendation on residency caps in 2021.

## Recommendations

1 Formally adopt policies described herein to assess cost per case efficiency and total cost of care efficiency to determine the rate structure for hospitals[11] should:
   a. A hospital request a full rate application; or
   b. HSCRC open a full rate review on a hospital;
2 Use the Inter-Hospital Cost Comparison, including its supporting methodologies to compare cost-per-case for the above evaluations;
3 Use Total Cost of Care measures with a geographic attribution to evaluate per capita cost performance for the above evaluations;
4 Allow staff to include in full rate application recommendations the following:
   a. Implementation date for global budget enhancement that considers and comports with the State's TCOC savings tests; and
   b. Hospital specific, mutually agreed upon moratorium on full rate applications that extends beyond the regulatory limits. COMAR 10.37.10.03 allows a hospital to file a full rate application at any time provided there is no pending hospital-instituted case before the

[11] Total Cost of Care Assessments relative to attainment and growth standards performed by payer will be used to modify a hospital's cost per case efficiency analysis.

Commission or the subject hospital has not obtained permanent rates through the issuance of a Commission rate order within the previous 90 days.

Maryland
Hospital Association

December 9, 2020

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

Dear Chairman Kane:

On behalf of Maryland's 60 member hospitals and health systems, the Maryland Hospital Association appreciates the opportunity to comment on the proposed full rate application policies.

**A reasonable operating margin should be included during the "build-up" in the Inter-hospital Cost Comparison (ICC).**

We respectfully ask HSCRC to include a reasonable operating margin when setting hospital rates in a full rate application during ICC's "build-up" phase. This departure from historic policy is required for two important reasons.

First, the overarching goal of the Total Cost of Care Model and global budgets for regulated hospital services is to reduce avoidable hospital utilization. Historically, HSCRC regulated prices, not revenue. When determining fair prices, 100% of regulated profit was removed from a hospital's cost base with the implicit understanding hospitals would retain marginal income from marginal volume growth. Beginning in 2014, volume growth incentives were replaced by lowering avoidable use to generate savings. Absent marginal volume growth, a small, reasonable margin must be included in the hospital's revenue base.

Second, Maryland's Model has strong incentives to invest in services beyond those regulated by HSCRC. Hospitals must invest in population health initiatives, extensive care coordination, and services in the community. These activities are crucial to the success of the Model but are not regulated by HSCRC as hospital services. Removing all regulated profit in rate setting would render hospitals unable to reinvest in services beyond hospital walls and thus sustain both hospital savings and total cost of care savings.

**Consider including hospital-specific total cost of care growth performance.**

The full rate application methodology algorithm includes a small provision in the total cost of care comparison algorithm to address growth performance. Given the uncertainty of comparing service area spend per capita in benchmarking methodology (see below), HSCRC might consider expanding the inclusion of growth performance. Comparing spending per capita in different service areas is difficult without applying multiple adjustment factors to address different conditions. Comparing spending growth per capita assigned to a hospital, provided the assignment or service area is unchanged from the base, could be a more stable option.

**The benchmarking methodology needs further assessment.**

In December 2019, HSCRC staff proposed their benchmarking methodology—comparing Maryland hospitals' spend per Medicare beneficiary and spend per commercial enrollee—to hospital-specific service areas outside of Maryland. We appreciate HSCRC staff's intent to measure total spending per capita because it is a key incentive of the Model. We pledge to work with the staff as the COVID 19 surge concludes to review and refine the methodology.

The benchmarking logic is proposed in the efficiency policy, the full rate application policy, and the MPA. Though it is very technical, the decision to compare spending attributed to Maryland hospitals with non-Maryland hospitals is major policy step. Historically, core methodologies of this magnitude would be vetted before the commission.

The ability to replicate methods and calculations, from start to finish, has always been a cornerstone of Maryland's rate setting system. HSCRC staff have made the peer group comparison calculations available for hospitals but hospitals have not easily been able to assess potential alternative comparisons. We are still understanding whether the same underlying Medicare data are publicly available for the most recent time period. The commercial benchmarking data is proprietary and much be purchased.

Maryland's market for hospital services is very different than the nation—Medicare and Medicaid pay the actual cost of hospital care and are not subsidized by commercial insurance. Understanding these differences is important with a methodology of this magnitude. Differences in Medicare Part A or Part B only beneficiaries, Medicare Advantage penetration, commercial insurance negotiating clout, and the baseline differences in Medicare payments all factor into hospital positions.

Thank you again for your careful consideration of these matters. Maryland hospitals appreciate being able to work directly with HSCRC staff to shape hospital payment policies. If you have any questions, please contact me.

Sincerely,

Brett McCone
Senior Vice President, Health Care Payment

cc: Joseph Antos, Ph.D., Vice Chairman
Victoria W. Bayless
Stacia Cohen, RN
John M. Colmers
James N. Elliott, M.D.
Sam Malhotra
Katie Wunderlich, Executive Director
Allan Pack, Principal Deputy Director

**Maria Harris Tildon**
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December 9, 2020

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

Dear Chairman Kane:

CareFirst appreciates the opportunity to comment on the "Draft Recommendation on the Full Rate Application Policy". It has been several years since the Commission has had an approved policy to evaluate hospitals relative to a reasonable efficiency standard when hospitals request additional funding, primarily due to the fact that there has not been an approved method to evaluate hospitals on their individual contributions to reducing total cost of care (TCOC) in the State.

We support the hybrid framework presented in this recommendation to implement a new full rate application process and methodology, and we echo the comments we made on the Integrated Efficiency Policy recommendation that the policy should be refined over time. We also appreciate that the methodology takes into account hospital efficiency performance relative to both Medicare beneficiaries and individuals with commercial insurance.

**Implementation of Rate Enhancements and TCOC**

In particular, we support the flexibility provided in the recommendation to ensure that increases authorized under the methodology do not adversely impact the State's TCOC savings tests. The recommendation establishes procedures for administering a global budget enhancement as follows:

- A rate increase may be provided immediately if there are no potential concerns about State TCOC performance;
- A revenue increase may be provided immediately but inflation will be reduced across the board for all hospitals due to State TCOC performance limitations;
- Provide a portion of a revenue increase immediately and provide the remaining revenue when State TCOC can be accounted for; or
- Delay revenue increase until TCOC can be accounted for.

We believe that it is in the best interest of all stakeholders that the Total Cost of Care Model continues in Maryland and this is a prudent approach to ensure that approved rate increases do not negatively impact the TCOC goals.

**Methodology Development**

As with any complex methodology, it is essential that stakeholders remain open to refinement over time to ensure that it remains fair and equitable. Some of the areas that should be evaluated over time are:

- The efficacy of using quartiles and one standard deviation of average volume adjusted ICC performance (or 1.22 times the ICC cost standard) as thresholds.
- Whether coding improvement influences hospitals' positions on the results.
- Whether the threshold policies create a "stuck hospital" phenomenon where there is little opportunity for hospitals to get to the next quartile or level.

We are very encouraged by the fact that Staff has been able to come forth with a reasonable approach to assessing hospital efficiency on both cost per case and TCOC, and we acknowledge that change may be necessary over time to refine the methodology. We are grateful for the opportunity to provide input and look forward to working with you on continued development of the policy.

Sincerely,

Maria Harris Tildon

Cc: Joseph Antos, Ph.D., Vice Chairman
Victoria Bayless
Stacia Cohen, R.N.
John Colmers
James N. Elliott, M.D.
Sam Malhotra
Katie Wunderlich, Executive Director

**Ed Beranek**
**Vice President of Revenue Management**
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December 9, 2020

Allan Pack
Principal Deputy Director, Population-Based Methodologies
Health Services Cost Review Commission
4160 Patterson Avenue
Baltimore, MD 21215

Dear Mr. Pack:

On behalf of the Johns Hopkins Health System (JHHS), we appreciate the opportunity to comment on the commission's Draft Recommendation on Full Rate Application Policy.

JHHS generally supports the staff recommendation to modify the full rate application methodology for Maryland hospitals. We support the need for staff to formally adopt policies to assess cost per case efficiency and total cost of care efficiency to determine a hospitals ability to request a rate adjustment under a full rate application. We also support the HSCRC's ability to initiate a full rate review if it is warranted. We also believe that it is appropriate to have both a price efficiency component as well as a Total Cost of Care (TCOC) component included as part of the methodology. Measuring efficiency in a fixed revenue environment is challenging, and we appreciate the HSCRC staff's approach to balance price efficiency with hospital specific, per capita TCOC performance.

**Inter-Hospital Cost Comparison (ICC)**

Historically the ICC methodology has included both a productivity adjustment as well as a profit strip. These adjustments were both made when the system was still principally a fee -for-service based system. As we have now transitioned to a TCOC based system with a capped revenue model, these adjustments essentially set the hospital rates back to a breakeven amount, assuming the productivity can be achieved. We would request that staff consider adding back a reasonable level of profit to the hospital rates as part of the full rate setting methodology, consistent with the financial targets in the industry.

**Total Cost of Care Measures**

Consistent with our comments on the Efficiency Methodology, JHHS believes that the benchmarking methodology needs further evaluation by the hospital industry and Commissioners.

Finally, we support the continued refinement of the full rate setting methodology as set out in the Future Policy Considerations section of the recommendation and are committed to working with HSCRC staff and the industry to continue to improve the existing rate setting methodologies. We believe that this and all methodologies need to be reviewed and revisited on a regular basis to assure that the underlying

methodologies are keeping in sync with the goals of the new model and to provide refinements where needed.

Thank you again for your consideration and thanks to the HSCRC staff for all of their efforts in crafting a policy on this very complex matter. If you have any questions, please feel free to contact me.

Sincerely,

Ed Beranek

Ed Beranek
Vice President, Revenue Management and Reimbursement
Johns Hopkins Health System

Luminis Health

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December 10, 2020

Mr. Adam Kane
Chairman
Health Services Cost Review Commission

Dear Chairman Kane:

On behalf of Luminis Health, thank you for the opportunity to provide written comments on the Full Rate Application Policy from Health Services Cost Review Commission (HSCRC) staff.

The full rate application process was designed to be a systematic process to assess the reasonableness of a hospital's rates. It has been a foundational policy for the Commission, given its legislative charge to establish rates that are reasonable to maintain the financial solvency of efficient and effective hospitals in the State. The Inter-hospital Cost Comparison (ICC) is still the basic methodology the staff uses during a full rate review. The methodology essentially determines what a reasonable per-case standard would be during the full rate review. The subject hospital is compared to a group of peer hospitals based on per-case costs after adjusting for differences in patient acuity and social costs recognized within the rate-setting system.

**Proposed Revisions to the ICC**

The Commission has made numerous revisions to the ICC methodology over the years, but, in our opinion, the basic formula has remained the same. Our concerns with the ICC relate to what has not yet been addressed in the current calculation. The HSCRC staff has noted that there are several issues on the list to address in subsequent revisions to be considered. Some of those unaddressed items are also key points raised in AAMC's most recent rate request to the Commission – they include peer groups, allowances for non-hospital investment, the productivity adjustment, allowance for profits, and graduate medical education.

While the adjusted cost per case structure has persisted under the current version of the ICC, there are changes that are overdue, given the shift to a global budget environment. In the past, the methodology established peer group costs - less a productivity adjustment - as a stringent standard for comparison for hospitals seeking rate relief. This methodology applied to a fee-for-service environment where hospitals could generate additional efficiencies by expanding volume to generate economies of scale and take advantage of a high variable cost factor. The Commission's cost-less-productivity standard anticipated that a hospital would generate margins with expanded volume. In the era of global budgets, however, that avenue for generating margins is not available. Further, to meet the Model's goals, successful hospitals must invest in healthcare activities outside the hospital walls to prevent unnecessary hospital utilization and to improve population health. Yet these costs are not recognized in the ICC methodology. We are pleased that the staff is examining some of these issues. We would encourage the Commission to consider a standard that reflects the new realities of the global budget world, and consider an allowance for profits and elimination of the 2% productivity adjustment.

As a hospital with a newly established teaching program, we also ask the Commission to consider alignment with CMS guidelines for new teaching programs. This approach would provide an established methodology to provide credit to the limited number of hospitals that could establish new teaching programs in the State. Under the methodology, the teaching program cap would be established after 5 years of initial operation.

**Timing**

The recommendation discusses the timing of increases from full reviews, with policy options for the Commission to follow under various circumstances. This discussion seems to imply the increases are difficult to manage and unpredictable. Under the general ICC formula, however, the staff should be able to predict the likely increases available to hospitals under the policy, and adjust annual update factors to reflect the likely increases from rate reviews each year. If a truly unexpected increase occurred, then the Commission could elect to phase in the revenue increase to protect TCOC growth under the Model's requirements as needed. This should be rare, however.

Additionally, the recommendation advocates limits to the frequency with which hospitals could seek rate relief. The recommendation advocates voluntary agreements that would place time limits on hospitals in returning for further relief. If the methodology operates adequately in setting a reasonable rate base, it is unlikely that a hospital would be able to gain relief under the ICC formula in a short period of time. If the methodology delivers rates that are not sufficient, however, the hospital should have the opportunity to ask the Commission for further consideration under the rules established by Commission policy. A limit of 2 to 3 years for an additional request is arbitrary and may shut off relief for a hospital under unforeseen circumstances.

**TCOC Benchmarking**

HSCRC staff has developed a methodology to benchmark geographies in Maryland against national peers for both Medicare and Commercial TCOC per beneficiary. The goal is to use these metrics to introduce a Medicare TCOC attainment as a metric into the CY2021 Medicare Performance Adjustment (MPA). Major components of the national benchmarking methodology include setting TCOC benchmarks per beneficiary for a hospital's Primary Service Area against "like populations" nationwide (adjusting for case mix, teaching, and socioeconomic factors). These benchmarks are set differently for the hospital's Medicare and commercial populations. The Medicare calculation is a county-level TCOC per beneficiary calculation based on county-level comparisons. The commercial benchmark is based on metropolitan statistical areas (MSAs).

We have several concerns regarding this benchmarking approach and methodology that we discussed in our letter to the Commission regarding the integrated efficiency proposal. We will not repeat them in detail here, but those concerns remain. Beyond the technical details of the benchmarking process, it is not clear that the use of TCOC benchmarks fits directly with the full rate review process. The full rate review process is designed to address the adequacy of an applicant hospital's rate structure – if the rates are sufficient for an efficient and effective hospital to operate successfully. While the TCOC benchmarks are an important policy tool for managing the Model, they do not clearly address that fundamental question which is at the heart of the full rate review process.

**Conclusion**

We continue to be supportive of the HSCRC Commissioners' and staffs' efforts to develop financial and quality policies that incentivize care delivery changes while maintaining a reasonable price structure for the populations that we serve. We would welcome additional discussion regarding ways to improve them as we share the same overall goals.

Thank you for the opportunity to provide comments on this policy.

Sincerely,

Sherry B. Perkins, PhD, RN, FAAN
President, Anne Arundel Medical Center

Deneen Richmond, MHA, RN
President, Doctors Community Medical Center

**Policy Update Report and Discussion**

Staff will present materials at the Commission Meeting.

**BRIAN E. FROSH**
*Attorney General*

**ELIZABETH F. HARRIS**
*Chief Deputy Attorney General*

**CAROLYN QUATTROCKI**
*Deputy Attorney General*

**KATHLEEN A. ELLIS**
*Principal Counsel*

**DEBORAH DONOHUE**
*Deputy Counsel*

**NICOLE LUGO CLARK**
*Deputy Counsel*

*Assistant Attorneys General*

**STATE OF MARYLAND**

**OFFICE OF THE ATTORNEY GENERAL**

Maryland Department of Health

MEMORANDUM

TO: Adam Kane, Chairman

FROM: Thomas Werthman, AAG, HSCRC

RE: Final Regulation for January 13 Meeting

DATE: January 4, 2021

CC: Katie Wunderlich, Executive Director

Please be advised that the staff will be requesting that the Commission take final action on the amendment to Commission regulation COMAR 10.37.01.02 at the January Public Meeting. This regulation concerns the Commission's Accounting and Budget Manual ("Manual") which has been incorporated by reference into the regulations. As occurs annually, the proposed regulation amendment represents the compilation of technical changes made to the Manual over the course of the year. This is supplement number 26. Following approval of the proposed version of the regulation by the Commission at the Public Meeting of September 2020, notice of the proposed regulation was published in the Maryland Register on October 23, 2020. Public comments were to be received by Commission staff until November 23, 2020. No comments were received. The staff now brings the amendment back to the Commission for final action. If approved, the amendment will become effective February 8, 2021.

maryland
health services
cost review commission

**TO**: HSCRC Commissioners

**FROM**: HSCRC Staff

**DATE**: January 13, 2020

**RE**: Hearing and Meeting Schedule

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February 10, 2021 To be determined - GoTo Webinar

March 10, 2021 To be determined - GoTo Webinar

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

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