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NOTICE OF WRITTEN COMMENT PERIOD

Notice is hereby given that the public and interested parties are invited to submit written comments to the Commission on the staff draft recommendation that will be presented at the October 14, 2020 Public Meeting:

1. Draft Recommendation on the Regional Partnership Catalyst Grant Program Awards
2. Draft Recommendation on the Maryland Hospital Acquired Condition Program for RY 2023
3. Draft Recommendation on the Integrated Efficiency Policy

WRITTEN COMMMENTS ON THE AFOREMENTIONED STAFF DRAFT RECOMMENDATIONS ARE DUE IN THE COMMISSION'S OFFICES ON OR BEFORE OCTOBER 21, 2020, UNLESS OTHERWISE SPECIFIED IN THE RECOMMENDATION.

4. Draft Recommendation on the Medicare Performance Adjustment for RY 2022

WRITTEN COMMMENTS ON THE AFOREMENTIONED STAFF DRAFT RECOMMENDATION IS DUE IN THE COMMISSION'S OFFICES ON OR BEFORE NOVEMBER 4, 2020, UNLESS OTHERWISE SPECIFIED IN THE RECOMMENDATION.

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577th Meeting of the Health Services Cost Review Commission
October 14, 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 September 9, 2020

2. Docket Status – Cases Closed
   2523N – McNew Family Health Center 2528A – Johns Hopkins Health System
   2529A – Johns Hopkins Health System

3. Docket Status – Cases Open
   2530N – McNew Family Health Center 2531A – Johns Hopkins Health System
   2532A – Johns Hopkins Health System 2533A – Johns Hopkins Health System
   2534A – Johns Hopkins Health System 2535A – University of Maryland Medical Center

4. Confidential Data Request for New York University Marron Institute of Urban Management (NYU)

5. Draft Recommendation on Regional Partnership Catalyst Grant Program Awards

6. Draft Recommendation on Maryland Hospital Acquired Conditions (MHAC) Program for RY 2023

7. Draft Recommendation on Integrated Efficiency Component

8. Draft Recommendation on Medicare Performance Adjustment for RY 2022

9. Policy Update and Discussion

a. Model Monitoring
b. TCOC Model Update and Big Picture Discussion

10. Hearing and Meeting Schedule **Next Meeting is Thursday, November 12, 2020**

Cases Closed

The closed cases from last month are listed in the agenda

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

AS OF OCTOBER 2, 2020

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
2530N	McNew Family Health Center	8/26/2020	9/25/2020	1/23/2021	AMB & ANCILARIES	WH	OPEN
2531A	Johns Hopkins Health System	8/19/2020	N/A	N/A	ARM	DNP	OPEN
2532A	Johns Hopkins Health System	7/22/2020	N/A	N/A	ARM	DNP	OPEN
2533A	Johns Hopkins Health System	7/22/2020	N/A	N/A	ARM	DNP	OPEN
2534A	Johns Hopkins Health System	9/29/2020	N/A	N/A	ARM	DNP	OPEN
2535A	University of Maryland Medical System	10/1/2020	N/A	N/A	ARM	DNP	OPEN

PROCEEDINGS REQUIRING COMMISSION ACTION - NOT ON OPEN DOCKET

None

IN RE: THE PARTIAL RATE	*	**BEFORE THE HEALTH SERVICES**	
APPLICATION OF THE	*	**COST REVIEW COMMISSION**	
J. KENT McNEW	*	**DOCKET:**	**2020**
FAMILY MEDICAL CENTER	*	**FOLIO:**	**2340**
ANNAPOLIS, MARYLAND	*	**PROCEEDING:**	**2530N**

Staff Recommendation
October 14, 2020

Introduction

On August 13, 2020, J. Kent McNew Family Medical Center ("the Hospital") submitted a partial rate application to the Commission requesting a rebundled rate for Emergency Services (EMG), Operating Room (OR), Operating Room Clinic Services (ORC), Same Day Surgery (SDS), CT Scanner (CAT), Interventional Radiology/Cardiovascular (IRC), Pulmonary (PUL), Magnetic Resonance Imaging (MRI), and Observation (OBV). The Hospital has a growing population that is in need of these services that are not provided at the Hospital. In order to appropriately care for these patients, the Hospital transports these patients from McNew to Anne Arundel Medical Center to receive necessary acute care services. The Hospital is requesting Anne Arundel Medical Center rates for these services. The rebundled rates enable the Hospital to bill for services provided to its patients. The effective date for these services is September 1, 2020.

Staff Evaluation

Under COMAR 10.37.03.09, an approved rebundled rate must be equal to or less than the statewide median. 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. Hence, staff compared the statewide median with the Anne Arundel Medical Center rate for EMG, OR, ORC, SDS, CT, IRC, PUL, MRI and OBV.

Revenue Center	Service Unite	FY21 Statewide Median Rate	FY21 Anne Arundel Medical Center Rate
Emergency Services	RVU	**$112.48**	$125.05
Operating Room	Minutes	**$40.63**	$42.55
Operating Room Clinic Services	Minutes	**$17.71**	**17.71**
Same Day Surgery	Per Patient	**$884.88**	$1,073.97
CT Scanner	RVU	$4.44	**$2.77**
Interventional Radiology-Therapeutic	RVU	$69.91	**$68.52**
Pulmonary	RVU	$8.34	**$4.90**
MRI Scanner	RVU	$11.01	**$5.77**
Obervation	Hour	**$79.02**	$85.91

Recommendation

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

1. That the Commission waive its requirement (COMAR 10.37.10.07) that a hospital file a rate application at least 60 days before the operational opening of a new hospital, a revenue center, or a new service;
2. That an EMG rate of $112.48 per RVU, the statewide median, be approved effective September 1, 2020;
3. That an OR rate of $40.63 per minute, the statewide median, be approved effective September 1, 2020;
4. That an ORC rate of $17.71 per minute, the Anne Arundel Medical Center rate, be approved effective September 1, 2020;
5. That a SDS rate of $884.88 per patient, the statewide median, be approved effective September 1, 2020;
6. That a CT Scanner rate of $2.77 per RVU, the Anne Arundel Medical Center rate, be approved effective September 1, 2020;
7. That an IRC rate of $68.52 per RVU, the Anne Arundel Medical Center rate, be approved effective September 1, 2020;
8. That a PUL rate of $4.90 per RVU, the Anne Arundel Medical Center rate, be approved effective September 1, 2020;
9. That a MRI rate of $5.77 per RVU, the Anne Arundel Medical Center rate, be approved effective September 1, 2020;
10. That an OBV rate of $79.02 per hour, the statewide median, be approved effective September 1, 2020; and
11. That EMG, OR, ORC, SDS, CT, IRC, PUL, MRI and OBV as rebundled services not be rate realigned.

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:**	**2341**
BALTIMORE, MARYLAND	*	**PROCEEDING:**	**2531A**

Staff Recommendation

October 14, 2020

I. INTRODUCTION

Johns Hopkins Health System (the "System") filed an application with the HSCRC on August 19 cardiovascular services, spine procedures, and kidney services with Global Medical Management, Inc., 2020 on behalf of Johns Hopkins Hospital and Johns Hopkins Bayview Medical Center (the "Hospitals") and on behalf of Johns Hopkins HealthCare, LLC (JHHC) for an alternative method of rate determination, pursuant to COMAR 10.37.10.06. The System requests approval from the HSCRC to participate in a global rate arrangement for cardiovascular services, spine procedures, and kidney services with Global Medical Management, Inc. (GMMI), for a period of one year beginning October 1, 2020.

II. OVERVIEW OF APPLICATION

The contract will be held and administered by 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 updated global rates was developed by calculating mean historical charges for patients receiving similar procedures 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 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 continues to hold 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 believes that the hospitals can achieve favorable experience under this arrangement because they have had ben successful with similar arrangements in the past.

VI. STAFF RECOMMENDATION

The staff recommends that the Commission approve the Hospitals' application for an alternative method of rate determination for cardiovascular services, spine procedures, and kidney services with Global Medical Management, Inc. for a one year period commencing October 1, 2020. 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:**	**2342**
BALTIMORE, MARYLAND	*	**PROCEEDING:**	**2532A**

Staff Recommendation

October 14, 2020

I. INTRODUCTION

Johns Hopkins Health System ("System') filed an application with the HSCRC on July 22, 2020 on behalf of its member hospitals (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 a global arrangement to provide solid organ and bone marrow transplants services with Cigna Health Corporation. The System requests approval of the arrangement for a period of one year beginning October 1, 2020.

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 Hospitals and bear all risk relating to regulated services associated with the contract.

III. FEE DEVELOPMENT

The hospital portion of the new global rates for solid organ transplants 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 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 risk of potential losses.

V. STAFF EVALUATION

Staff found that the experience under the arrangement for the last year has been favorable.

VI. STAFF RECOMMENDATION

The staff recommends that the Commission approve the Hospitals' request for participation in an alternative method of rate determination for bone marrow and solid organ transplant services, for a one year period commencing October 1, 2020, and that this approval be contingent upon the execution of the standard Memorandum of Understanding ("MOU"). 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:**	**2343**
BALTIMORE, MARYLAND	*	**PROCEEDING:**	**2533A**

Staff Recommendation

October 14, 2020

I. INTRODUCTION

Johns Hopkins Health System ("System") filed an application with the HSCRC on July 22, 2020 on behalf of its member hospitals, Johns Hopkins Hospital, Johns Hopkins Bayview Medical Center, and Howard County General Hospital (the "Hospitals") and on behalf of Johns Hopkins HealthCare, LLC (JHHC) for an alternative method of rate determination, pursuant to COMAR 10.37.10.06. The System and JHHC request approval from the HSCRC to continue to participate in a global rate arrangement for bariatric surgery, bladder cancer surgery, anal and rectal cancer surgery, cardiovascular services, joint replacement surgery, pancreatic cancer surgery, spine surgery, and thyroid and parathyroid surgery with BridgeHealth Medical, Inc. for a period of one year beginning October 14, 2020.

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 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.

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 risk of potential losses.

V. STAFF EVALUATION

The experience under this arrangement for the last 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 bariatric surgery, bladder cancer surgery, anal and rectal cancer surgery, cardiovascular services, joint replacement surgery, pancreatic cancer surgery, spine surgery, and thyroid and parathyroid surgery for a one year period commencing October 1, 2020. 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:**	**2344**
BALTIMORE, MARYLAND	*	**PROCEEDING:**	**2534A**

Staff Recommendation

October 14, 2020

I. INTRODUCTION

Johns Hopkins Health System (the "System") filed an application with the HSCRC on September 28, 2020 on behalf of its member Hospitals (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 a global rate arrangement for cardiovascular, joint replacement services and oncology evaluation services with Health Design Plus, Inc. The Hospitals request approval for a period of one year beginning October 1, 2020.

II. OVERVIEW OF APPLICATION

The contract will 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 updated global rates was developed by calculating mean historical charges for patients receiving similar joint replacement 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 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

The staff found that the actual experience under this arrangement for the last 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, joint replacement, and oncology evaluation services for a one year period commencing October 1, 2020. 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**	
UNIVERSITY OF MARYLAND	*	**DOCKET:**	**20**
MEDICAL CENTER	*	**FOLIO:**	**2345**
BALTIMORE, MARYLAND	*	**PROCEEDING:**	**2535A**

Staff Recommendation

October 14, 2020

I. INTRODUCTION

The University of Maryland Medical Center ("Hospital") filed an application with the HSCRC on October 1, 2020 requesting approval to continue its participation in a global rate arrangement with BlueCross and BlueShield Association Blue Distinction Centers for solid organ and blood and bone marrow transplant services for a period of one year beginning November 1, 2020.

II. OVERVIEW OF APPLICATION

The contract will continue to be held and administered by University Physicians, Inc. (UPI), which is a subsidiary of the University of Maryland Medical System. UPI will continue to manage all financial transactions related to the global price contract including payments to the Hospital and bear all risk relating to services associated with the contract.

III. FEE DEVELOPMENT

The hospital portion of the global rates was developed by calculating 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 Hospital will continue to submit bills to UPI for all contracted and covered services. UPI is responsible for billing the payer, collecting payments, disbursing payments to the Hospital at its full HSCRC approved rates, and reimbursing the physicians. The Hospital contends that the arrangement between UPI and the Hospital holds the Hospital harmless from any shortfalls in payment from the global price contract.

V. STAFF EVALUATION

The 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 Hospital's application for an

alternative method of rate determination for blood and bone marrow transplant services, for a one year period commencing November 1, 2020. The Hospital 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 Hospital for the approved contract. This document would formalize the understanding between the Commission and the Hospital, and would include provisions for such things as payments of HSCRC-approved rates, treatment of losses that may be attributed to the contract, quarterly and annual reporting, confidentiality of data submitted, penalties for noncompliance, project termination and/or alteration, on-going monitoring, and other issues specific to the proposed contract. The MOU will also stipulate that operating losses under the contract cannot be used to justify future requests for rate increases.

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Final Staff Recommendation for a Request to Access HSCRC Confidential Patient Level Data from The New York University (NYU), Marron Institute of Urban Management

Health Services Cost Review Commission

4160 Patterson Avenue, Baltimore, MD 21215

October 14, 2020

This is a final recommendation for Commission consideration at the October 14, 2020 Public Commission Meeting.

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SUMMARY STATEMENT

The New York University (NYU) Marron Institute of Urban Management is requesting access to Health Services Cost Review Commission (HSCRC) Inpatient and Outpatient Hospital data containing limited confidential information ("the Data") to investigate the impact of the Air Quality Index (AQI) on health outcomes and improve the design of the AQI.

OBJECTIVE

In the United States, the AQI provides local, daily reports on air pollution risk; however, this index has not been evaluated against health data on a national scale. This environmental epidemiology research project aims to: 1) reveal the association between AQI and respiratory morbidity, and how that varies across regions and age groups; and 2) better interpret AQI values and give insights to policy makers on how to improve the design of AQI. Investigators received approval from the NYU Institutional Review Board (IRB) on February 2, 2018 and from the Maryland Department of Health (MDH) IRB on July 15, 2020. The Data will not be used to identify individual hospitals or patients. The Data will be retained by NYU until May 25, 2025; at that time, the Data will be destroyed, and a Certification of Destruction will be submitted to the HSCRC.

REQUEST FOR ACCESS TO THE CONFIDENTIAL PATIENT LEVEL DATA

All requests for the Data are reviewed by HSCRC Confidential Data Review Committee ("the Review Committee"). The Review Committee is comprised of representatives from HSCRC and the Prince George's County and the Montgomery County Departments of Health and Behavioral Health Administrations. The role of the Review Committee is to determine whether the study meets the minimum requirements described below and to make recommendations for approval to the HSCRC at its monthly public meeting.

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

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

STAFF RECOMMENDATION

1. HSCRC staff recommends that the request by NYU for the Data for Calendar Year 2013 through 2018 be approved.

2. This access will include limited confidential information for subjects meeting the criteria for the research.

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Regional Partnership Catalyst Grant Program

Draft Funding Recommendation

October 2020

This is a draft recommendation.

Written public comments will be accepted from October 7, 2020 – October 21, 2020.

Comments should be submitted to hscrc.rfp-implement@maryland.gov.

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Policy Overview

Policy Objective	Policy Solution	Effect on Hospitals	Effect on Payers/Consumers
The Total Cost of Care Model aims to improve quality and cost across both hospital and non-hospital settings, including population health improvement and chronic disease management.	The Regional Partnership Catalyst Grant provides investments to further the goals of the Statewide Integrated Health Improvement Strategy and fosters collaboration between Maryland hospitals and community partners.	Hospitals that are awarded grants under this grant program will receive a one-time adjustment in their GBR. The funding is temporary and is not intended to be included in the hospital's base on an ongoing basis.	The Regional Partnership Catalyst Grant program funds were included in the calculations for the FY 2021 annual update factor and thus does not increase the overall total cost of care. Consumers will benefit from additional community programs focused on diabetes and behavioral health.

Overview

The Maryland Health Services Cost Review Commission ("HSCRC," or "Commission") staff have prepared the following draft funding recommendation for the Regional Partnership Catalyst Grant Program. Under this grant program, hospitals and their community partners will collaborate on interventions and infrastructure investments to support the *Statewide Integrated Health Improvement Strategy* (SIHIS) that is part of the State's Total Cost of Care Agreement with the Centers for Medicare and Medicaid Services (CMS). As part of the SIHIS, the State will establish population health goals and develop interventions to reduce the impact of diabetes and opioid use disorder in the State. The Regional Partnership Catalyst Grant Program is intended to fund activities that will support SIHIS population health goals including the implementation or expansion of diabetes and behavioral health crisis programs. The new grant program will become effective January 1, 2021.

To develop this recommendation, the HSCRC staff launched a competitive Request for Proposals (RFP) process. Further, the staff formed an evaluation committee with State agency resources and subject matter experts to review the eighteen proposals received for this grant program. Based on the evaluation committee's review process, staff recommends funding for nine of the proposals received. If approved, the grant would represent a total investment of $165.4 million on these population health priority areas over the five-year grant period. Of this amount, $86.3 million would be applied to diabetes prevention and

management activities and $79.1 million would be applied to behavioral health crisis services. The remainder of funding will be applied to other State defined health priorities areas.

Background

The HSCRC created the Regional Partnership Transformation Grant Program in 2015 with the goal of achieving All-Payer Model reductions in potentially avoidable utilization (PAU), reductions in per capita costs, and a positive return on investment demonstrated through savings to Medicare. There were fourteen hospital-led partnerships created and funded through the grant program that include 41 of Maryland's acute care hospitals serving both rural and urban areas across the State. The interventions performed by Regional Partnerships under the Transformation Grant Program were diverse and included a variety of behavioral health integration, care transitions, home-based care, mobile health, and patient engagement/education strategies that were focused primarily on high-need and high-risk Medicare patients.

The Transformation Grant Program expired on June 30, 2020. Given this, the Commission authorized a new competitive grant program to be established effective January 1, 2021. The new *Regional Partnership Catalyst Grant Program* was designed to build upon the original vision of this grant program and enable hospitals to continue working with community resources to create infrastructure needed to sustainably support the population health goals of the Total Cost of Care Model SIHIS activities.

The Regional Partnership Catalyst Grant Program is a five-year competitive grant program. The grants will be used to fund hospital-led teams that work across statewide geographic regions to develop interventions to address the key health priorities identified as part of the SIHIS Population Health domain. As part of the grant program, hospitals will partner with neighboring hospitals and/or diverse community organizations including local health departments, provider organizations, community health workers, and behavioral health resources to implement interventions that are intended to aid in improving population health.

The HSCRC Grant Philosophy

The new Regional Partnership Catalyst Grant Program is based on the HSCRC grant philosophy that the funding is designed to a) foster collaboration between hospitals and community partners and b) enable the creation of infrastructure to disseminate evidence-based interventions. The following core principles will apply to the new Regional Partnership Catalyst Grant Program:

- *Eliminate duplication* – Given Maryland's shift from the All-Payer Model to the Total Cost of Care Model, care must be taken to ensure both interventions and grant funds are not duplicative with other new elements of the Model and other funding opportunities.

- *Ensure alignment with State priorities* – Funded interventions must support the goals of the Total Cost of Care Model and priority conditions identified under the Statewide Integrated Health Improvement Strategy.
- *Ensure broad collaboration* – There must be widespread engagement of local resources with a common agenda and mutually reinforcing activities to implement interventions more effectively.
- *Leverage evidence-based practices* – Funded interventions should be based on evidence that a model being proposed will achieve success.
- *Identify impact* – As a condition of funding, impact will be measured through the achievement of scale targets and progress goals, health improvement, and/or return on investment (ROI).
- *Ensure sustainability* – Funded interventions must have a plan for sustainability that includes both a plan to integrate successful interventions into hospital operations and a financial plan to ensure there is a permanent source of funding to continue the intervention after the grant expires.
- *Revamp grant oversight* – The HSCRC will leverage grant-making best practices and will provide additional oversight resources to ensure there is visibility, shared learning opportunities, and compliance with the intended purpose of the grant program.
- *Communicate & collaborate with stakeholders* – The HSCRC will continue the culture of collaboration with grantees to ensure information is clear, sensitive to concerns, and timely.

Competitive Regional Partnership Catalyst Grants

The new Regional Partnership Catalyst Grant program required hospitals to competitively bid on funding that will begin January 1, 2021. Funding is intended to be narrowly focused to support interventions that align with goals of the Total Cost of Care Model and support the Memorandum of Understanding that Maryland established with CMS for SIHIS. The Regional Partnership Catalyst Grant Program includes allocations of funds called “funding streams” that are designed to encourage focus on the key state priorities. The three funding streams are as follows:

- **Funding Stream I: “Diabetes Prevention & Management Programs”** – This funding stream would award grants to Regional Partnerships to support implementation of CDC-recognized Lifestyle Change programs for diabetes prevention and evidence-based diabetes management programs. Approximately 40% of the overall funding will be applied to this funding stream.
- **Funding Stream II: “Behavioral Health Crisis Services”** – This funding stream would award grants to Regional Partnerships to support the implementation and expansion of behavioral health crisis management models as described in the “Crisis Now: Transforming Services is Within Our Reach” action plan developed by the National Action Alliance for Suicide Prevention.

The goal is to improve access to crisis intervention, stabilization, and treatment referral programs. Approximately 40% of the overall funding available will be applied to this funding stream.

- **Funding Stream III: "Population Health Priority Area #3"** – For fiscal year 2021, the Commission authorized the amount in this funding stream to be reallocated to the COVID-19 Long-Term Care Partnership Grant Program to address statewide issues associated with COVID-19. For fiscal year 2021 and beyond, funding will be available should the State identify a third population health priority area. Approximately 20% of the overall funding available will be applied to this funding stream.

The Commission approved the new Regional Partnership Catalyst Grant Program with an annual investment of 0.25 percent of statewide all-payer hospital revenue (approximately $45 million annually). Given the time needed to sufficiently build partnerships and infrastructure, including workforce and implementation of interventions, the grant period was approved to run for five years. The grant amounts will be added to hospital annual rates as temporary adjustments for the following five-year period:

- Year 1: CY2021 (January 1, 2021 – December 31, 2021)
- Year 2: CY2022 (January 1, 2022 – December 31, 2022)
- Year 3: CY2023 (January 1, 2023 – December 31, 2023)
- Year 4: CY2024 (January 1, 2024 – December 31, 2024)
- Year 5: CY2025 (January 1, 2025 – December 31, 2025)
- Grant funding will end on December 31, 2025

Collaboration Requirements

Because grant funding is being issued through the rate setting system, only hospitals were eligible to apply for funding. Despite this, Regional Partnership Catalyst Grant hospital applicants were required to demonstrate that widespread collaboration would be part of their proposed model. Partnerships had to include a variety of resources that could influence population health including but not limited to Local Health Improvement Coalitions, Local Health Departments, community-based organizations, local behavioral health authorities, social service organizations, provider organizations, etc.

Impact Measurement

Under the Total Cost of Care Model, the State must systematically work to reduce the cost of care for Medicare beneficiaries while also improving statewide population health for all Marylanders. Regional Partnership Catalyst Grants were designed to help develop infrastructure for long term achievement of these goals. The Catalyst Grant funds remain important mechanisms to foster partnerships across the State and to mobilize diverse community resources under a unified agenda with mutually reinforcing

activities. This collaboration should contribute to the State's progress toward Total Cost of Care Model long-term population health goals.

The HSCRC staff have developed *scale targets* to ensure progress is made toward building the infrastructure needed to support long-term grant funding return on investment. Scale targets are pre-determined targets that Regional Partnerships will need to achieve during the grant period to receive continued funding. The targets have been set by HSCRC so that progress can be independently verifiable and objectively measured between Regional Partnerships. Regional Partnerships will *not* be accountable for a specific total cost of care savings goal under this grant program but instead will be held accountable to achieve scale targets related to program development progress and ultimately health outcome measures by the end of the grant period.

Evaluation Committee Process

The HSCRC staff established a competitive bidding process for the Regional Partnership Catalyst Grant Program that required interested hospitals and their partners to submit proposals describing how funding would be used. An unbiased evaluation committee was formed to review the grant proposals and make recommendations on ones that should be funded. Additionally, the HSCRC staff engaged key subject matter experts with diabetes prevention/management and behavioral health crisis management expertise to assist in the review and evaluation of grant proposals.

The evaluation committee was made up of stakeholders from across the following State agencies and partners:

- HSCRC
- Maryland Health Care Commission
- Maryland Department of Health, Public Health Services
- Maryland Department of Health, Office of Minority Health and Health Disparities
- Maryland Department of Health, Behavioral Health Administration
- Maryland Department of Health, Medicaid
- Maryland Department of Health, MDPCP Project Management Office
- Opioid Operational Command Center
- Community Health Resources Commission
- Chesapeake Regional Information System for our Patients (CRISP)

Additionally, subject matter experts from the American Diabetes Association and the National Association of State Mental Health Program Directors were engaged to provide expertise on best practices for designing and implementing diabetes and behavioral health crisis management services.

Eighteen proposals were received and reviewed by the evaluation committee. Nine of these were for the diabetes funding stream and the remaining nine were for the behavioral health crisis services funding stream. The total value of the eighteen proposals far exceeded the funding that was approved by the HSCRC Commissioners. The original requests were more than $100 million over the allowable .25 percent of statewide hospital all-payer revenue. To identify the proposals that should be recommended for funding, the evaluation committee used the following evaluation criteria that was included in the grant RFP:

- Alignment with Total Cost of Care Model Goals and population health priorities
- Widespread Engagement & Collaboration
- Evidence-Based Approach
- Outreach and Engagement Approaches
- Innovation
- Implementation Plan
- Sustainability Plan
- Budget

The evaluation committee met numerous times throughout August to review and discuss all proposals. Each proposal was scored by a minimum of ten evaluation committee members. Individual evaluator scores were then compiled to develop an average overall score for each proposal. Next, proposals were ranked from highest to lowest overall scores within each of the funding streams. Because the Regional Partnership Catalyst Grant Program was structured as a competitive process, not all of the meritorious applicants could be recommended for an award. Only the top-ranking proposals that are within the overall funding limit for the grant program are being recommended for approval.

Recommendations

Based on its review of all proposals received, the Review Committee recommends nine grant proposals for the Regional Partnership Catalyst Grant Program 2021 – 2025 funding. Table 1 below lists the recommended awardees, the award amount, and the hospitals affected. Appendix A includes a summary of each recommended proposal.

Table 1. Recommended Awardees

Funding Stream	Partnership Name	Region	Recommended Awards	Hospitals in Proposal
Diabetes	Saint Agnes & Lifebridge	Baltimore City/County	$5,962,333	Saint Agnes, Sinai Hospital, Grace Medical Center
	Baltimore Metropolitan Diabetes Regional Partnership	Baltimore City	$43,299,986	Johns Hopkins Hospital, Johns Hopkins Bayview Medical Center, University of Maryland Medical Center Downtown, UMMC Midtown, Howard County General Hospital, Suburban Hospital
	Nexus Montgomery	Montgomery County	$11,876,430	Holy Cross Hospital, Holy Cross Germantown Hospital, MedStar Montgomery Medical Center, Shady Grove Medical Center, Suburban Hospital, White Oak Medical Center
	Totally Linking Care	Charles, Prince George's, St. Mary's counties	$7,379,620	University of Maryland Capital Region Health, MedStar Southern Maryland Hospital, MedStar St. Mary's Hospital, Adventist HealthCare, Fort Washington Medical Center, Luminis Doctors Community Hospital
	Trivergent	Allegany, Frederick, Washington Counties	$15,717,413	Frederick Health Hospital, Meritus Medical Center, and University of Pittsburgh Medical Center Western Maryland
	UM Charles Regional	Charles County	2,214,862	University of Maryland Charles Regional Medical Center

Behavioral Health Crisis Services	Greater Baltimore Region Integrated Crisis System	Baltimore City/County	$44,862,000	Saint Agnes Hospital, Howard County General Hospital, Johns Hopkins Bayview Medical Center, Johns Hopkins Hospital and Health System, Grace Medical Center, Sinai Hospital, Northwest Hospital, Carroll Hospital, MedStar Good Samaritan Hospital, MedStar Harbor Hospital, MedStar Union Memorial Hospital, MedStar Franklin Square Medical Center, University of Maryland Medical Center,Univ. of Maryland-St. Joseph Medical Ctr, Univ. of Maryland Medical Center-Midtown Campus, Mercy Medical Center, Greater Baltimore Medical Center
	Total Linking Care	Prince George's, Southern, MD	$22,889,722	Adventist HealthCare Fort Washington Medical Center, MedStar Southern Maryland Hospital Center, University of Maryland Prince George's Hospital Center, University of Maryland Laurel Medical Center
	Peninsula Regional	Lower Eastern Shore	$11,316,332	Peninsula Regional Medical Center, Atlantic General Hospital
TOTAL :			**$165,428,698**	**Diabetes – 28 Member Hospitals** **Behavioral Health – 39 Member Hospitals**

Appendix A - Summary of Grant Proposals Recommended for Award

Diabetes

Saint Agnes and Lifebridge -$5,962,333

- Expand evidence-based diabetes education and Diabetes Prevention Program by recruiting, training, and supporting twelve Certified DPP LifeStyle coaches within the community.
- Improve access to healthy food for individuals with prediabetes/diabetes by expanding virtual supermarket access to food insecure patients.

Baltimore Metropolitan Diabetes Regional Partnership-$43,299,986

- Establish centralized management services for their Diabetes Prevention Program and Diabetes Self-Management Training.
- Build partnerships with community stakeholders such as faith-based, senior citizen centers, community engagement centers.
- Expand DSMT sites beyond the hospital outpatient clinics.
- Integrate social needs wrap around services including food security and transportation.
- Build technology infrastructure for information transfer throughout the State

Nexus Montgomery-$11,876,430

- Improve the supply of DPP & DSMT Providers and Programs by increasing capacity support and process improvement.
- Increase the demand for DPP & DSMT Programs through public outreach campaigns to raise program awareness.
- Ensuring Diabetes outcomes through Referral and Case Management

Totally Linking Care -$7,379,620

- Expansion of the number of DPPs and DSMTs operating in the target region
- Expansion of outreach, screening, and referrals to DPPs and DSMTs
- Expansion of wrap around services to support engagement and retention in and completion of DPPs or DSMTs programs.
- Establish training and technical assistance to healthcare and social service providers to support DPP and DSMT programs.

Trivergent - $15,717,413

- Increase the number of certified leaders, participant recruitment and retention, and class offerings for DPP
- Rapidly expand virtual, in-person and hybrid capabilities of DSMT
- Implement and expand evidence-based nutrition and physical activity programs into current patient practice and coordinate external partners
- Integrate mental health screenings into patient intake
- Partner with community based organizations and deploy Community Health Workers to engage communities in social need screening and resource navigation

UM Charles Regional - $2,124,862

- Expand Diabetes Self-Management Training services by hiring a full time RN CDCES and full-time Dietician.
- Offer wrap around services including medical nutrition therapy, home visits, telehealth, pulmonary exercise, on demand transportation, patient support groups, and medication delivery.
- Utilize Community Health Workers, Lifestyle coaches, nurse navigators and pharmacist technicians to provide social support for patients, increase participation and engagement.

Behavioral Health Crisis Services

Greater Baltimore Region Integrated Crisis System-$44,862,000

- Establish a regional Care Traffic Control system by implementing a single hotline to take and manage calls from people struggling with substance abuse and/or experiencing a mental health crisis.
- Expand Mobile Crisis Teams (MCT) to help create diversion opportunities for patients who go to the ED but do not require a high-level intervention.
- Expand access to immediate-need behavioral health services by piloting the Same Day Access (SDA) program

Totally Linking Care-$22,889,722

- Enhance Prince George's County Response System through technological enhancements.
- Expand mobile crisis teams throughout Prince George's County.

- Establish a crisis receiving facility accepting individuals in crisis 24/7/365 on a walk-in self-referred basis

Peninsula Regional - $11,316,332

- Increase behavioral health crisis care for individuals by establishing a regional behavioral healthcare urgent care center (BHUCC).
- Centralize and regionalize 2 mobile crisis programs with the BHUCC.

Appendix B - Regional Partnership Community Partners

Funding Stream	Regional Partnership	Community Collaborators
Diabetes	**Saint Agnes and LifeBridge**	Catholic Charities/My Brother's Keeper
		Baltimore Medical System
		Healthcare for the Homeless
		Baltimore City Health Department
		Meals on Wheels
		Moveable Feast
		Hungry Harvest
		Northwest Faith Based Partnership
		Comprehensive Housing Assistance Incorporated
		Central Baptist Church
		Enterprise Community Development
		UEmpower Maryland "The Food Project"
Diabetes	**Baltimore Metropolitan Diabetes Regional Partnership**	Baltimore City Health Department
		American Diabetes Association
		American Heart Association
		The Johns Hopkins Brancati Center for Advancement of Community Care
		Walgreens
		University of Maryland, Baltimore Community Engagement Center
		Health Resources Community Collaboration
		Johns Hopkins Community Physicians
		Masjid ul Haqq, Inc
		Perkins Square Baptist Church

		Chase Brexton
		Johns Hopkins Centro Sol
		Priority Partners
		Baltimore CONNECT
		Hungry Harvest/Produce in a Snap
		Lyft
		Bethesada Newtrition and Wellness Solutions
		Manna Food Center
		Foer's Pharmacy
		Roundtrip
		Potomac Physicians Associates
		Villages of Montgomery County
		Montgomery County Senior Recreation Centers
		Health Montgomery
		Columbia Medical Practice
Diabetes	**Nexus Montgomery**	One Quality Health CTO
		Holy Cross Health CTO
		Medstar Accountable Care
		Potomac Physicians Associates
		Privia Health
		Maryland Collaborative Care
		Kaiser Permanente
		Johns Hopkins Medical Alliance
		YMCA
		Bethesada Newtrition and Wellness Solutions
		Health Care Dynamics Inc

		Giant Food
		Montgomery County DHHS
		Maryland National Capital Park and Planning Commission
		AARP
		American Diabetes Association
		The Johns Hopkins Brancati Center for Advancement of Community Care
		Primary Care Coalition
Diabetes	**Totally Linking Care**	Prince George's County Health Department
		Prince George's County Local Health Improvement Coalition
		Charles County Health Department
		Charles County Local Health Improvement Coalition
		St. Mary's County Health Department
		St. Mary's County Health Improvement Coalition
		MedChi
		Maryland Center for Health Equity
		Nutrition and Diabetes Education Center LLC
		HCD International
		Diabetes Self Care Management Institute, LLC
		Community Health Education and Research Corp.
		Vibrant Health and Wellness Foundation
		PGC AoA Living Well Program/Medical Mall Services of Maryland
		Medical Office of Rodney Ellis, MD, PC
		Health Quality Innovators

		UMD School of Pharmacy P3 Pharmacy Network
		Prince George's Healthcare Alliance, Inc
		Access Health
		UMD School of Public Health
		Maryland Rural Health Association
		Institute of Public Health Innovation
		Giant Foods
		Lifestyles of Maryland Foundation
		Southern Maryland Tri-County Community Action Committee
		Uber Health
		Lyft Grocery Access
		Southern Management Corporation
		Dr. Shameka Fairbanks
		ClinicMax Inc.
		The Coordinating Center
Diabetes	**Trivergent**	Frederick County Health Department
		Maintaining Active Citizens/Living Well Center for Excellence
		YMCA
		Frederick Integrated Healthcare Network
		Frederick City and County Housing Authority
		Share Food Network
		Frederick Food Bank
		Frederick County Chamber of Commerce
		Frederick County Health Improvement Coalition
		The Mission of Mercy

		Frederick County Fire and Rescue
		Commission on Aging
		Washington County Health Department
		Boys and Girls Club
		Maryland Area Health Education Center West
		Allegany County Health Department
		Associated Charities
		Western Maryland Food Bank
		Human Resources Development Council
		Aramark
		Allegany County Health Planning Coalition
Diabetes	**UM Charles Regional**	UMMS
		Charles County Health Department
		Greater Baden Medical Services
		Health Partners
		Charles County United Way FLINT
		Charles County Mobile Integrated Healthcare
		UM Charles Regional Medical Endocrinologist PCP Group
		Lyft Health Concierge Services
Behavioral Health Crisis Services	**Greater Baltimore Region Integrated Crisis System**	Carroll Hospital
		Grace Medical System
		Greater Baltimore Medical System
		Howard County General Hospital
		Johns Hopkins Bayview Medical Center
		Johns Hopkins Hospital

	MedStar Franklin Square Medical Center
	MedStar Good Samaritan Hospital
	MedStar Harbor Hospital
	MedStar Union Memorial Hospital
	Mercy Medical Center
	Northwest Hospital
	Siani Hospital
	Saint Agnes Hospital
	University of Maryland Medical Center
	University of Maryland Medical Center Midtown
	University of Maryland St. Joseph Medical Center
	Baltimore City Health Department
	Baltimore County Health Department
	Behavioral Health System of Baltimore
	Carroll County Health Department
	Collaborative Planning and Implementation Committee for Baltimore City Consent Decree
	Howard County Executive's Office
	Howard County Police Department
	Howard County Department of Fire and Rescue/911
	Howard County Department of Community Resources and Services
	Howard County Health Department
	Howard County Local Health Improvement Coalition
	Horizon Foundation of Howard Co, Inc.
	AARP Maryland
	Bmore Clubhouse

		FreeState Justice
		Maryland Citizens' Health Initiative /Health Care for All!
		MedChi, The Maryland Medical Society
		The Mental Health Association of Maryland
		National Alliance on Mental Illness (NAMI) Howard County
		On Our Own
		The Trill Foundation/Greg Riddick Sr.
		Baltimore City Community College
		Carroll County Community College
		Howard County Public School System
		Carefirst
		Cigna
		Kaiser Permenente
		Mid Atlantic Business Group on Health
Behavioral Health Crisis Services	**Totally Linking Care**	Prince George's County Health Department
		Behavioral Health Advisory Group of the Prince George's County Health Action Coalition
		American Society of Addiction Medicine
		Optum Maryland
		The Local Behavioral Health Authority
		CASA
		Prince George's County Department of Corrections
		Aetna
		Prince George's County Public Schools

		Prince George's County Park and Planning
		Bowie State University
		University of Maryland College Park
		iMind Behavioral Health
		Mary's Center
		NAMI
		PG Co Healthcare Alliance
		Prince George's County Department of Social Services
		Prince George's County Office of the County Executive
		Affiliated Sante Group
		Mindoula
		Volunteers of America
		Safe Journey House
		Prince George's County Police Department
		Prince George's County Office of the Sheriff
		Prince George's County District Court
		Prince George's County Department of Social Services
		Prince George's Healthcare Alliance, Inc
		Behavioral Health Services and Systems Management, LLC
Behavioral Health Crisis Services	**Peninsula Regional**	Chesapeake Health Services
		Life Crisis Center
		Lower Shore Clinic
		Recovery Resource Center

		Sante Mobile Crisis
		National Alliance on Mental Illness (NAMI)
		Somerset County Health Department
		Wicomico County Health Department
		Worcester County Health Department

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Draft Recommendation for the Maryland Hospital Acquired Conditions Program for Rate Year 2023

October 14, 2020

This document contains the draft staff recommendations for the Maryland Hospital Acquired Conditions Program for RY 2023. Comments on the draft policy may be submitted by email to hscrc.quality@maryland.gov and are due by October 21, 2020.

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List of Abbreviations

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

Key Methodology Concepts and Definitions

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

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

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

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

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

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

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

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

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

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

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Policy Overview

Policy Objective	Policy Solution	Effect on Hospitals	Effect on Payers/Consumers
The quality programs operated by the Health Services Cost Review Commission, including the Maryland Hospital Acquired Conditions (MHAC) program, are intended to ensure that any incentives to constrain hospital expenditures under the Total Cost of Care Model do not result in declining quality of care. Thus, HSCRC's quality programs reward quality improvements and achievements that reinforce the incentives of the Total Cost of Care Model, while guarding against unintended consequences and penalizing poor performance.	The MHAC program is one of several pay-for-performance quality initiatives that provide incentives for hospitals to improve and maintain high-quality patient care and value over time.	The MHAC policy currently holds 2 percent of hospital revenue at-risk for complications that may occur during a hospital stay as a result of treatment rather than the underlying progression of disease. Examples of the types of hospital acquired conditions included in the current payment program are respiratory failure, pulmonary embolisms, and surgical-site infections.	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.

Recommendations

The MHAC policy was redesigned in Rate Year (RY) 2021 to modernize the program for the new Total Cost of Care Model. This RY 2023 draft recommendation, in general, maintains the measures and methodology that were developed and approved for RY 2022.[1]

These are the draft recommendations for the RY 2023 Hospital-Acquired Conditions (MHAC) policy:

1. Continue to use 3M Potentially Preventable Complications (PPCs) to assess hospital acquired complications.
    a. Maintain a focused list of PPCs in the payment program that are clinically recommended and that generally have higher statewide rates and variation across hospitals.
    b. Monitor all PPCs and provide reports for hospitals and other stakeholders.
        i. Evaluate PPCs in "Monitoring" status that worsen and consider inclusion back into the MHAC program for RY 2024 or future policies.
2. Use more than one year of performance data for small hospitals (i.e., less than 20,000 at-risk

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

discharges and/or 20 expected PPCs). The performance period for small hospitals will be CY 2021 plus the to be determined performance period for RY 2022 (i.e., January-June 2020 data will not be used).

3. Continue to assess hospital performance on attainment only.
4. Continue to weigh the PPCs in the payment program by 3M cost weights as a proxy for patient harm.
5. Maintain a prospective revenue adjustment scale with a maximum penalty at 2 percent and maximum reward at 2 percent and continuous linear scaling with a hold harmless zone between 60 and 70 percent.
6. Adjust the MHAC 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 and evaluate the reliability and validity of the data for July-December 2020 to determine feasibility of its use for the RY 2022 payment adjustments.
    b. For RY 2023 (CY 2021 performance period)
        i. Update PPC Grouper to v38 and include COVID-19 positive cases consistent with the clinical updates to the grouper.
        ii. Retrospectively evaluate impact of inclusion of COVID-19 patients on case-mix adjustment.

Introduction

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

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

With the commencement of the Total Cost of Care (TCOC) Model Agreement with CMS on January 1, 2019, the performance standards and targets in HSCRC's portfolio of quality and value-based payment programs are being reviewed and updated. This is in response to stakeholder requests that these policies be reviewed to ensure they remain in line with the goals of the Model and that they maintain methodological validity. Additionally, because the State must also request annual exemptions from the CMS Hospital Acquired Conditions (HAC) program as well as the other quality programs in the State, another key aspect of these reviews is to demonstrate that Maryland's program results continue to be aggressive and progressive, i.e., meeting or surpassing those of the nation. In CY 2018, staff focused on the MHAC program redesign and convened a Clinical Adverse Events Measure (CAEM) subgroup with clinical and measurement expertise who made recommendations that were then further evaluated by the Performance Measurement Workgroup (PMWG) and approved by the Commission.

The major accomplishments of the MHAC program redesign were focusing the payment incentives on a narrower list of clinically significant complications, moving to an attainment only system given Maryland's sustained improvement on complications, adjusting the scoring methodology to better differentiate hospital performance, and weighting complications by their associated cost weights as a proxy for patient harm. The redesign also assessed how hospital performance is converted to revenue adjustments, and

ultimately recommended maintaining the use of a linear prospective revenue adjustment scale with a hold harmless zone.

Due to the recent MHAC program redesign and the ongoing COVID-19 Public Health Emergency (PHE), this RY 2023 draft MHAC policy does not propose major changes to the program. Furthermore, the assessment section focuses on 2019 data because CMS has suspended use of claims-based data from January to June 2020. The RY 2022 policy will therefore need to be amended to reflect the exclusion of six months of the planned performance period.[2] However, as we are still under the COVID-19 PHE, and just recently able to review July 2020 and onward data, it is too early for staff to propose comprehensive changes to the RY 2022 quality policies. COVID-19 positive patients are more likely to experience a respiratory PPC, and 3M will exclude these PPCs for COVID patients from their grouper logic in the newly released PPC Grouper version 38. Staff has worked with 3M and proposes to exclude COVID-19 positive patients from the RY 2022 pay-for-performance program, which uses PPC grouper version 37 that assigns respiratory PPCs to COVID positive patients. The HSCRC staff anticipates bringing amended RY 2022 policies to the Commission in February 2021 at the earliest, upon review of the data from the second half of CY 2020. While the PHE is ongoing, the HSCRC remains committed to ensuring that inpatient quality for all patients seeking care remains high. Analysis of June and July 2020 inpatient volumes suggests that the inpatient volume has mostly returned to pre-COVID levels, and so we will propose a RY 2023 MHAC policy here, with the understanding that we will revisit this policy if the PHE trends change.

Background

Exemption from Federal Hospital-Acquired Condition Programs

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

Because of the State's unique all-payer hospital model and its population based revenue system, Maryland does not directly participate in the federal pay-for-performance programs. Instead, the State administers the Maryland Hospital Acquired Conditions (MHAC) program, which relies on quality indicators validated for use with an all-payer inpatient population. However, the State must submit an

[2] CMS Announces Relief for Clinicians, Providers, Hospitals and Facilities Participating in the Quality Reporting Programs in Response to COVID-19

annual report to CMS demonstrating that Maryland's MHAC program targets and results continue to be aggressive and progressive, i.e. that Maryland's performance meets or surpasses that of the nation. Specifically, the State must ensure that the improvement in complication rates observed under the All-Payer Model is maintained. CMS granted Maryland exemption from the federal pay-for-performance programs (including the HAC Reduction Program) for Federal Fiscal Year 2021 on September 29, 2020.

Overview of the MHAC Policy

The MHAC program, which was first implemented for RY 2011, is based on a system developed by 3M Health Information Systems (3M) to identify potentially preventable complications (PPCs) using present-on-admission codes available in claims data. 3M originally developed specifications for 65 PPCs[3], which are defined as harmful events that develop after the patient is admitted to the hospital and may result from processes of care and treatment rather than from the natural progression of the underlying illness. For example, the program holds hospitals accountable for pulmonary embolisms and surgical-site infections that occur during inpatient stays. These complications can lead to 1) poor patient outcomes, including longer hospital stays, permanent harm, and death; and 2) increased costs. Thus, the MHAC program is designed to provide incentives to improve patient care by adjusting hospital budgets based on PPC performance.

MHAC Redesign

With the exception of maintaining the linear scaling with a hold harmless zone to determine hospital rewards and penalties, the MHAC policy was substantially overhauled for RY 2021. The policy updates included:

- Selecting a narrowed list of 14 PPC complication measures to focus on the most clinically meaningful and significant measures for use in the payment program.
- Using two years of data for establishing normative values to address case-mix concerns.
- Assessing hospital performance on attainment-only, rather than continuing to credit improvement.
- Modifying the scoring methodology to better differentiate hospital performance.
- Weighting complications using 3M cost weights as proxies for patient harm.

The approved RY 2022 policy maintained the above changes and was updated to include use of two

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

years of performance data for small hospitals (i.e., less than 20,000 at-risk discharges and/or 20 expected PPCs).

MHAC Methodology

Figure 1 provides an overview of the three steps in the RY 2022 MHAC methodology[4] that converts hospital performance to standardized scores, and then payment adjustments, as outlined below:

Step 1. For the PPCs identified for payment, global and hospital-level exclusions are determined.

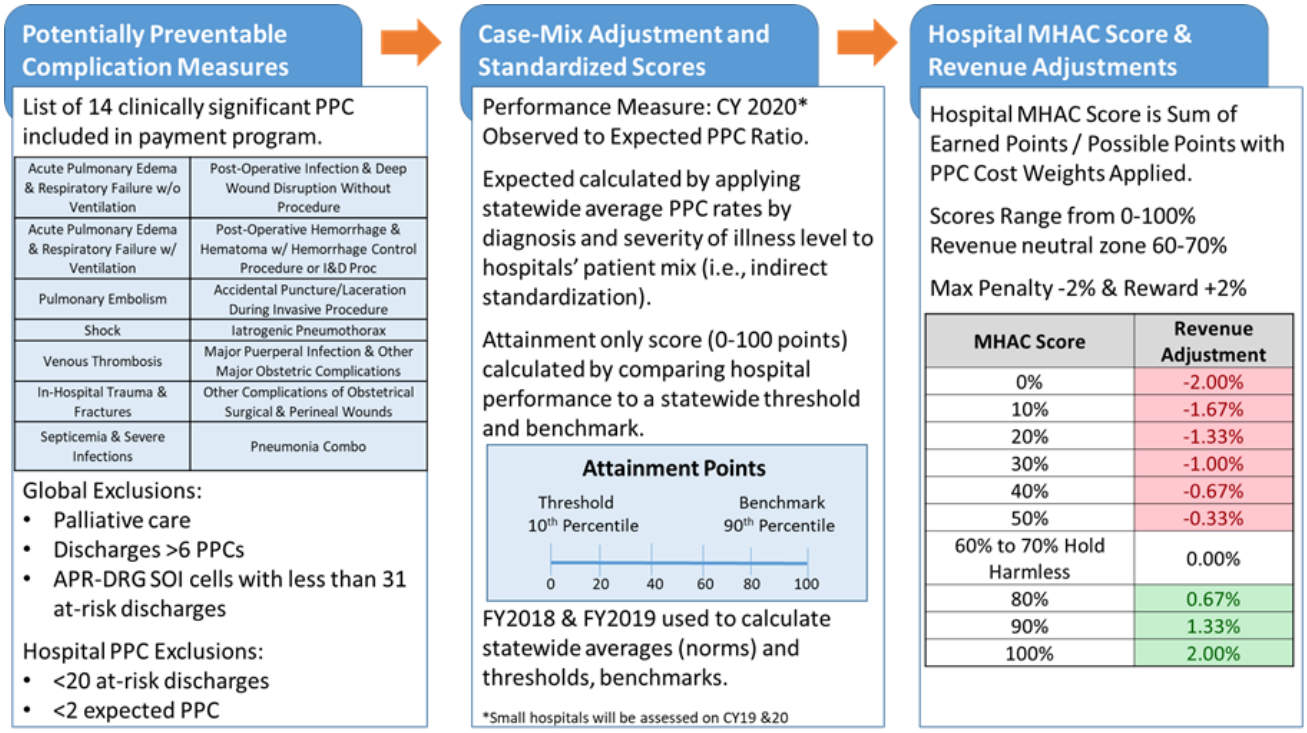
Step 2. Case-mix adjustment is used to calculate observed to expected ratios that are then converted to a standardized point based score (0-100 points) based on each hospital's attainment levels using the same scoring methodology that is used for CMS Value-Based Purchasing and Maryland QBR program.

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

Additional information on the current MHAC policy for RY 2022 can be found in Appendix II.

[4] Due to COVID-19 PHE, this methodology will need to be retrospectively adjusted, pending future CMS guidance, and to address any future surge in COVID cases.

Figure 1. Overview Rate Year 2022 MHAC Methodology



Assessment

In order to develop the RY 2023 MHAC policy, staff solicited input from the PMWG and other stakeholders. In general, stakeholders support the staff's recommendation to not make major changes to the RY 2023 MHAC program. This section of the report provides an overview of the data and issues discussed by the PMWG, including analysis of statewide PPC trends, estimated hospital scores, and revenue adjustment modelling.

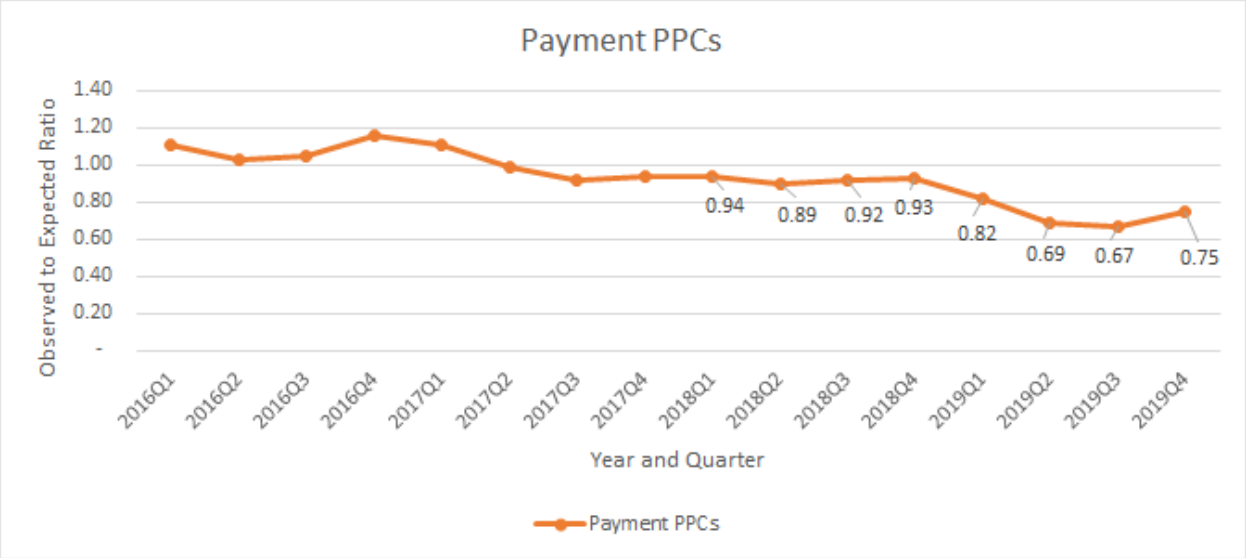
Statewide PPC Performance Trends

Complications Included in Payment Program

Under the All-Payer Model, Maryland hospitals saw a dramatic decline in complications and, as a State, well exceeded the requirement of a 30 percent reduction by the end of CY 2018. These reductions were achieved through clinical quality improvement, as well as improvements in documentation and coding. As mentioned previously, the MHAC redesign assessed which PPCs should be included in the pay-for-performance program based on criteria developed by the CAEM subgroup. The criteria included clinical significance, opportunity for improvement, sample size considerations, and variation across hospitals.

Under the TCOC Model, Maryland must maintain these improvements by not exceeding the CY 2018 PPC rates. Figure 2 below shows the statewide observed to expected (O/E) ratio from 2016 through CY 2019.[5] The O/E ratio presents the count of observed PPCs divided by the calculated number of expected PPCs (which is generated using normative values applied to the case-mix of discharges a hospital experiences). An O/E Ratio of greater than 1 indicates that a hospital experienced more PPCs than expected, and conversely, an O/E Ratio less than one indicates that a hospital experienced fewer PPCs than expected. The figure below also indicates how Maryland is performing relative to CY 2018, which is the time period that will be used to assess any backsliding on performance. Specifically, the CY 2019 performance data for payment program PPCs show that there has been about a 20 percent reduction in the observed to expected ratio (CY 2018 O/E ratio = 0.92 and CY 2019 O/E ratio = 0.73).

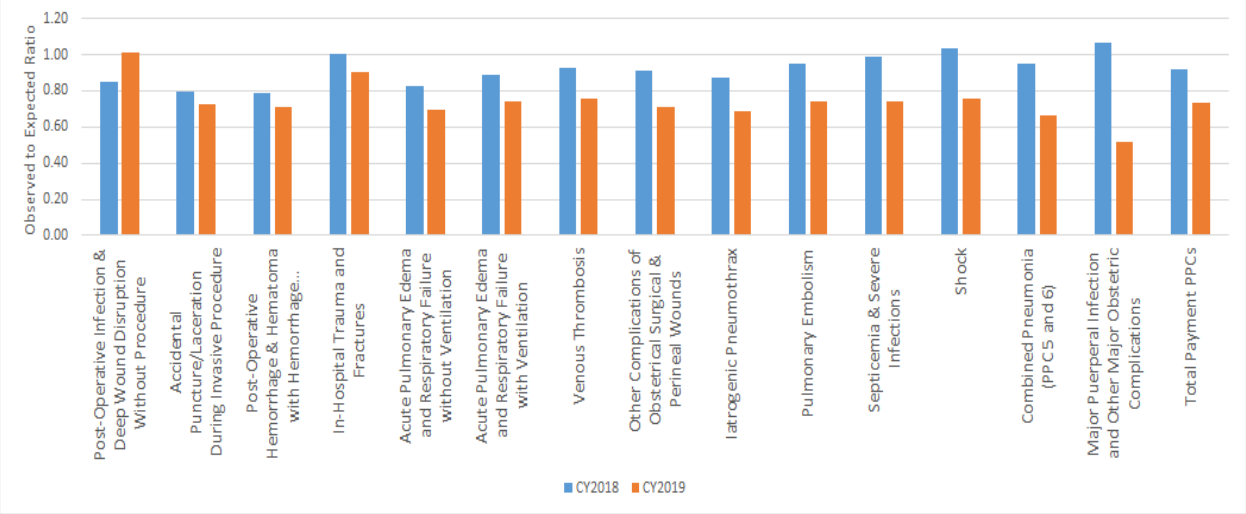
Figure 2. Payment Program PPCs Observed to Expected Ratios CY 2016 to CY 2019



In terms of specific improvements among the 14 payment PPCs, Figure 3 shows the O/E ratios for CY 2018 and CY 2019, sorted from greatest percent increase (on the left) to greatest decrease (on the right). The one PPC that experienced a worse (increased) O/E was PPC 37 - Post-Operative Infection and Deep Wound Disruption without Procedure. The three PPCs with the greatest decreases include PPC 60 - Major Puerperal Infection and Other Major Obstetric Complications, PPC 9 - Shock, and the combined Pneumonia PPC.

[5] Staff notes that, consistent with federal policies during the COVID Public Health Emergency, PPC data from January-June 2020 will not be used.

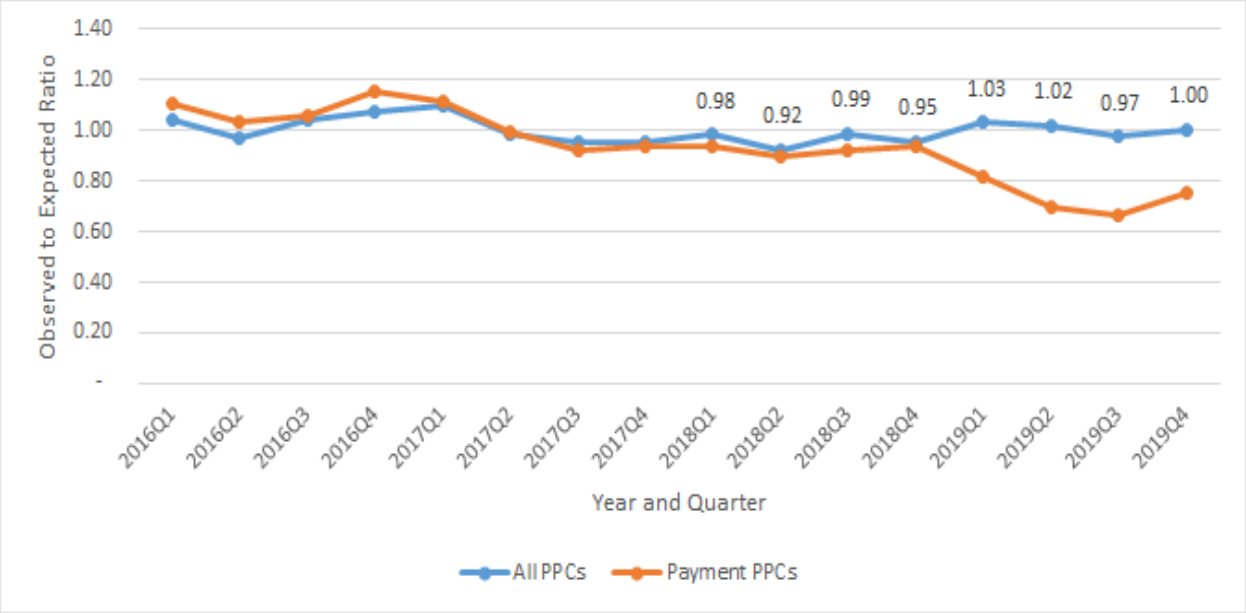
Figure 3. Payment Program PPC Observed to Expected Ratios CY 2018 and CY 2019



Monitored Complications

In addition to focusing on a narrowed list of PPCs for payment, the RY 2021 MHAC Policy included a recommendation to monitor the remaining PPCs. Staff fulfills this recommendation by monitoring all PPCs that are still considered clinically valid by 3M, and distinguishing between “Monitoring” and “Payment” PPCs, as in the analysis below. The overall PPC trend across all 54 PPCs shows that there has been a slight increase in the overall statewide O/E ratio from 0.96 in CY 2018 to 1.01 in CY 2019; the slight worsening in performance is driven primarily by increases in PPCs under monitoring status, and not increases in the payment program PPCs, as illustrated in Figure 4. As discussed in the RY 2022 policy, staff had reached out to hospitals with increases in monitoring PPCs and had been given several reasons for the increase unrelated to declining quality. Furthermore, staff had planned to analyze CY 2019 and 2020 data through June to determine whether any monitored PPCs needed to be placed back into the payment program. Due to the lack of valid and reliable data during the COVID-19 PHE, staff is not recommending any PPCs be moved back into the payment program for RY 2023, but will maintain the recommendation to monitor and possibly move PPCs back into the payment program in the future.

Figure 4. PPC O/E Ratio Trends CY 2016 Through CY 2019



COVID-19 Program Adjustments

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 programs, and furthermore, Maryland's decision must be made prior to CMS making their decision due to the prospective nature of our pay-for-performance 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 MHAC program 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: 1. Is 6-months data reliable? 2. What about seasonality?	• Use 6-months data, adjust base as needed for seasonality concerns • Merge 2019 and 2020 data together to create a 12 month performance period • Use 2019 data or revenue adjustments
Clinical concerns over inclusion of COVID patients (e.g., assignment of respiratory failure as an in-hospital complication)	• Remove COVID patients from CY 2020 PPC evaluation
Case-mix adjustment concerns: 1. Inclusion of COVID patients when not in normative values 2. Impacts on other DRG/SOI of COVID PHE	• Remove COVID patients from CY 2020 PPC evaluation • Use 2019 data or revenue adjustments

At this stage, staff believes the most appropriate approach for the MHAC program is to exclude the COVID-19 patients[6] if any CY 2020 data is used. Under v37.1 of the PPC grouper, some respiratory PPCs such as respiratory failure, or other COVID sequelae such as septicemia, may be assigned to COVID-19 positive patients. Over the coming months, staff will work to assess any case-mix adjustment 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 PPC grouper, which is updated with additional clinical exclusions for COVID-19 positive patients. For example, none of the respiratory failure or the septicemia PPC will be assigned to COVID-positive patients under this updated version. Staff will need to consider any additional modifications to address case-mix adjustment 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, as discussed below, staff will need to determine the extended performance period for small hospitals.

[6] COVID-19 cases are defined as those coded with the ICD10 code U07.1

Small Hospital Methodology

Hospital-specific PPC inclusion requirements were maintained in the RY 2022 policy, i.e., all hospitals are required to have at least 20 at-risk discharges and 2 expected PPCs in order for a particular PPC to be included in the payment program. Because of the volatility in performance scores for smaller hospitals, the Commission also approved the following policy updates in RY 2022:

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

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

For RY 2023, staff proposes to maintain the small hospital criteria and expected to utilize CY 2020 and CY2021 for the assessment of small hospitals. However, staff will need to reconsider this approach due to the COVID related suspension of data use for January to June of 2020. This same concern arises for calculating RY 2022 revenue adjustment. Thus, in the recommendations, staff are proposing that for small hospitals more than one year of data be used, and that the performance period will be CY 2021 plus yet to be determined performance period for RY 2022. For example, if the Commission decides to use July to December 2020 for RY 2022, then small hospitals for RY 2023 will be assessed on data from July 2020 through December 2020 and January to December 2021.

Hospital Scores and Revenue Adjustments

Given the lack of CY 2020 data and few proposed changes to the RY 2023 MHAC methodology, prospective modeling of hospital scores and revenue adjustments are not being included in this draft policy. However, for reference, staff are providing a summary of the RY 2021 hospital scores and revenue adjustments.

RY 2021 MHAC Scores

For the RY 2021 policy, the policy evolved to an attainment-only system with wider performance standards (i.e., 10th and 90th percentiles) to better differentiate hospital performance. Figure 6 provides descriptive statistics for the total hospital scores. For RY 2023, no changes are being proposed for how scores are calculated for each PPC or the total hospital score. The performance standards (i.e., normative values, benchmark, threshold) will be calculated using CY 2018 and CY 2019 (normally they

would be updated through FY 2020 but that would include the suppressed January to June performance period) under version 38. The performance period will be CY 2021, except as discussed for small hospitals where a longer time period will be used.

Figure 6. RY 2021 Hospital Scores

RY 2021 Hospital Scores	CY 2019 Performance
Median	73%
Average	74%
Min	46%
Max	100%
25th Percentile	64%
75th Percentile	86%

Revenue Adjustment Scale Modeling

Staff proposes to maintain the RY 2021 and RY 2022 preset scale for RY 2023. This scale ranges from 0 to 100 percent, with a hold harmless zone between 60 and 70 percent. Despite historical concerns regarding the lack of a continuous scale from some stakeholders, staff still believe that the hold harmless zone is reasonable given the lack of national benchmarks for establishing a cut-point. However, staff are still evaluating whether the hold harmless zone needs to be adjusted each year given the distribution of scores (i.e., median score of 73 percent means more than half of hospitals receive rewards). Figure 7 provides the count of hospitals in the penalty, hold harmless, and reward zones in RY 2021, alongside the statewide net revenue adjustments. Appendix III contains the by hospital scores and revenue adjustments. These scores and revenue adjustments do not include the RY 2022 change to use two years of data for small hospitals since this change will have a minimal impact on statewide adjustments. Statewide penalties totaled $3.3 million in RY2021, while Statewide rewards totaled $41.9 million.

Figure 7: RY 2021 Revenue Adjustments

RY 2021 Statewide Revenue Adjustments	$	%
Net	$38,638,052	0.38%
Penalties	-$3,257,770	-0.03%
Rewards	$41,895,822	0.41%
# Hospitals Penalized	10	
# Hospitals Revenue Neutral	8	
# Hospitals Rewarded	27	

Additional Future Considerations

For future years it will be important to continue to seek national comparison data to evaluate relative Maryland PPC performance. The AHRQ HCUP data, containing all-payer claims data from ~40 states, may provide such an opportunity, however, staff notes that the data lag is two years. Staff also intends to include the newly available all-payer Patient Safety Indicator (PSI) composite, the PSI-90 measure, in the RY 2023 QBR program. This PSI measure includes some complications that are similar to payment program PPCs in the MHAC program, and allows Maryland to compare its performance to that of the nation (e.g., respiratory failure). The PSI-90 composite also includes some safety indicators similar to monitoring-only PPCs, such as pressure ulcers, enabling Maryland to compare its performance to that of the nation on non-payment hospital complications.

Additionally, staff will monitor other safety measures in use or under consideration nationally for reporting or payment; these measures will be considered for possible inclusion in the MHAC program for FY 2024 or beyond. Staff further believes that the upcoming work group to modernize the QBR program in 2021 will also provide an opportunity to reevaluate complication measures and the respective roles of the QBR safety domain and MHAC program.

Finally, staff notes that patient race and ethnicity, social determinants of health, socioeconomic status, and neighborhood factors may be relevant to consider, as hospitals and the State of Maryland work to address disparities in health outcomes. Staff will plan to analyze the complication measures data to understand and target disparities in future years.

Recommendations

The MHAC policy was redesigned in Rate Year (RY) 2021 to modernize the program for the new Total Cost of Care Model. This RY 2023 draft recommendation, in general, maintains the measures and methodology that were developed and approved for RY 2022.[7]

These are the draft recommendations for the RY 2023 Hospital-Acquired Conditions (MHAC) policy:

1. Continue to use 3M Potentially Preventable Complications (PPCs) to assess hospital acquired complications.
    a. Maintain a focused list of PPCs in the payment program that are clinically recommended and that generally have higher statewide rates and variation across hospitals.
    b. Monitor all PPCs and provide reports for hospitals and other stakeholders.
        i. Evaluate PPCs in "Monitoring" status that worsen and consider inclusion back into the MHAC program for RY 2024 or future policies.
2. Use more than one year of performance data for small hospitals (i.e., less than 20,000 at-risk discharges and/or 20 expected PPCs). The performance period for small hospitals will be CY 2021 plus the to be determined performance period for RY 2022 (i.e., January-June 2020 data will not be used).
3. Continue to assess hospital performance on attainment only.
4. Continue to weigh the PPCs in the payment program by 3M cost weights as a proxy for patient harm.
5. Maintain a prospective revenue adjustment scale with a maximum penalty at 2 percent and maximum reward at 2 percent and continuous linear scaling with a hold harmless zone between 60 and 70 percent.
6. Adjust the MHAC 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 and evaluate the reliability and validity of the data for July-December 2020 to determine feasibility of its use for the RY

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

2022 payment adjustments.

b. For RY 2023 (CY 2021 performance period)

i. Update PPC Grouper to v38 and include COVID-19 positive cases consistent with the clinical updates to the grouper.

ii. Retrospectively evaluate impact of inclusion of COVID-19 patients on case-mix adjustment.

Appendix I. Background on Federal Complication Programs

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

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

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

Hospital-Acquired Condition Reduction Program

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

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

Recalibrated Patient Safety Indicator (PSI) measure:^ ● PSI 03 – Pressure Ulcer Rate ● PSI 06 – Iatrogenic Pneumothorax Rate ● PSI 08 – In-Hospital Fall with Hip Fracture Rate ● PSI 09 – Perioperative Hemorrhage or Hematoma Rate ● PSI 10 – Postoperative Acute Kidney Injury Requiring Dialysis Rate ● PSI 11 – Postoperative Respiratory Failure Rate ● PSI 12 – Perioperative Pulmonary Embolism or Deep Vein Thrombosis Rate ● PSI 13 – Postoperative Sepsis Rate ● PSI 14 – Postoperative Wound Dehiscence Rate ● PSI 15 – Unrecognized Abdominopelvic Accidental Puncture/Laceration Rate
Central Line-Associated Bloodstream Infection (CLABSI)^*
Catheter-Associated Urinary Tract Infection (CAUTI)^*
Surgical Site Infection (SSI) – colon and hysterectomy^*
Methicillin-resistant Staphylococcus aureus (MRSA) Bacteremia^*
Clostridium Difficile Infection (CDI)^*

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

For more information on the DRA HAC program POA Indicator, please refer to:
https://www.cms.gov/Medicare/Medicare-Fee-for-Service-Payment/HospitalAcqCond/index

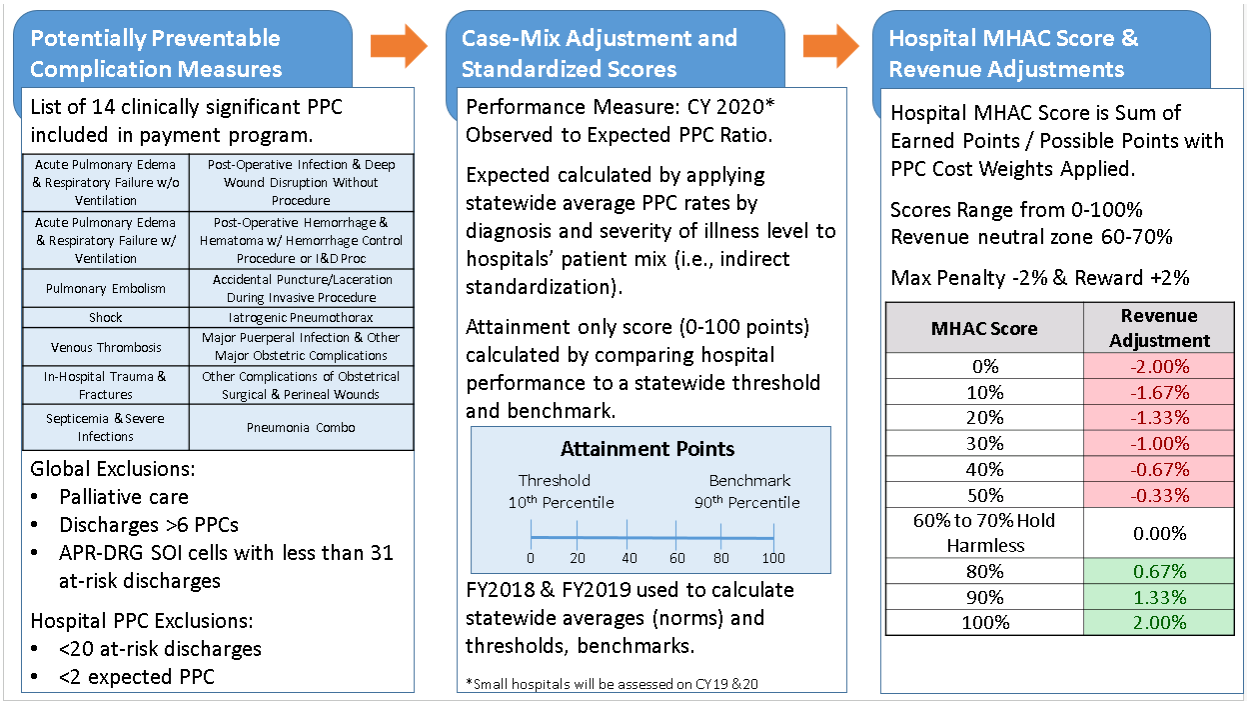
For more information on the DRA HAC program, please refer to:
https://www.cms.gov/Medicare/Medicare-Fee-for-Service-Payment/HospitalAcqCond/Downloads/FAQ-DRA-HAC-PSI.pdf

For more information on the HAC Reduction program, please refer to:
https://www.cms.gov/Medicare/Medicare-Fee-for-Service-Payment/AcuteInpatientPPS/HAC-Reduction-Program

Appendix II: RY 2022 MHAC Program Methodology

Figure 1 below provides a summary overview of the RY 2022 MHAC methodology.

Figure 1. Overview of RY 2022 MHAC Methodology



Performance Metric

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

Observed and Expected PPC Values

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

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

The expected number of PPCs is calculated using a technique called indirect standardization. For illustrative purposes, assume that every hospital discharge is considered "at-risk" for a PPC, meaning that all discharges would meet the criteria for inclusion in the MHAC program. All discharges will either have

no PPCs, or will have one or more PPCs. In this example, each discharge either has at least one PPC, or does not have a PPC. The unadjusted PPC rate is the percent of discharges that have at least one PPC.

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

Let:

N = norm

P = Number of discharges with one or more PPCs

D = Number of "at-risk" discharges

i = A diagnosis category and severity level

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

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

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

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

Figure 2. Expected Value Computation Example for one Diagnosis Category

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

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

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

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

PPC Exclusions

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

For each hospital, discharges will be removed if:

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

For each hospital, PPCs will be removed if during FY 2018 and FY 2019:

- The number of cases at-risk is less than 20; and
- The expected number of PPCs is less than 2.

The PPCs for which a hospital will be assessed are determined using the FY 2018 and FY 2019 data and not reassessed during the performance period. This is done so that scores can be reliably calculated during the performance period from a pre-determined set of PPCs. The MHAC summary workbooks provide the excluded PPCs for each hospital.

Combination PPCs

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

Hospital Exclusions

For RY 2022, McCready and UM-Chestertown are removed because they do not have sufficient volume to have at least 20 at-risk and 2 expected for any payment program PPC.

Benchmarks and Thresholds

For each PPC, a threshold and benchmark value are calculated using the FY 2018 and FY 2019 data. In previous rate years when improvement as also assessed, the threshold was set at the statewide median of 1 and the benchmark was the O/E ratio for the top performing hospitals that accounted for 25% of discharges. For RY 2021 under an attainment only methodology, staff adapted the MHAC points system to allow for greater performance differentiation by moving the threshold to the value of the observed to expected ratio at the 10th percentile of hospital performance, moving the benchmark to the value of the observed to expected ratio at the 90th percentile of hospital performance, and assigning 0 to 100 points for each PPC between these two percentile values. Figure 3 provides the thresholds and benchmarks under this revised methodology based on FY 2018 and FY 2019 data.

Figure 3: RY 2022 Thresholds and Benchmarks for all 14 Payment Program PPCs

PPC Number	PPC Description	Threshold	Benchmark
3	Acute Pulmonary Edema and Respiratory Failure without Ventilation	1.8882	0.3348
4	Acute Pulmonary Edema and Respiratory Failure with Ventilation	1.4274	0.4933
7	Pulmonary Embolism	1.5660	0.3091
9	Shock	1.6965	0.3727
16	Venous Thrombosis	1.7715	0.1242
28	In-Hospital Trauma and Fractures	1.5749	0.4468
35	Septicemia & Severe Infections	1.5732	0.3891
37	Post-Operative Infection & Deep Wound Disruption Without Procedure	1.9911	0.4162
41	Post-Operative Hemorrhage & Hematoma with Hemorrhage Control Procedure or I&D Proc	2.4933	0.4362
42	Accidental Puncture/Laceration During Invasive Procedure	2.1677	0.3735
49	Iatrogenic Pneumothrax	1.6971	0.3351
60	Major Puerperal Infection and Other Major Obstetric Complications	1.6266	0
61	Other Complications of Obstetrical Surgical & Perineal Wounds	1.8975	0
67	Combined Pneumonia (PPC 5 and 6)	1.6422	0.3986

Attainment Points (possible points 0-100)

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

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

If the PPC ratio is between the threshold and benchmark, the hospital scores partial points for attainment. The formula to calculate the Attainment points is as follows:

- Attainment Points = [99 * ((Hospital's performance period score - Threshold)/ (Benchmark – Threshold))] + 0.5

Calculation of Hospital Overall MHAC Score

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

Appendix III: RY 2021 Hospital Revenue Adjustments

Hospital ID	Hospital Name	RY20 estimated Permanent Inpatient Revenue	RY 2021 MHAC score	% Adjustment	$ Adjustment
210001	MERITUS	$216,047,620	0.67	0.00%	$0
210002	UNIVERSITY OF MARYLAND	$1,233,326,321	0.82	0.80%	$9,866,611
210003	PRINCE GEORGE	$263,362,395	0.56	-0.13%	-$351,150
210004	HOLY CROSS	$364,173,616	0.87	1.13%	$4,127,301
210005	FREDERICK MEMORIAL	$234,941,977	0.52	-0.27%	-$626,512
210006	HARFORD	$54,600,073	0.72	0.13%	$72,800
210008	MERCY	$245,183,638	0.71	0.07%	$163,456
210009	JOHNS HOPKINS	$1,537,015,348	0.72	0.13%	$2,049,354
210010	DORCHESTER	$20,517,421	0.96	1.73%	$355,635
210011	ST. AGNES	$249,225,510	0.59	-0.03%	-$83,075
210012	SINAI	$443,754,886	0.73	0.20%	$887,510
210015	FRANKLIN SQUARE	$308,852,743	0.56	-0.13%	-$411,804
210016	WASHINGTON ADVENTIST	$179,748,715	0.82	0.80%	$1,437,990
210017	GARRETT COUNTY	$23,013,699	1.00	2.00%	$460,274
210018	MONTGOMERY GENERAL	$84,740,050	0.48	-0.40%	-$338,960
210019	PENINSULA REGIONAL	$259,801,805	0.88	1.20%	$3,117,622
210022	SUBURBAN	$217,601,944	0.74	0.27%	$580,272
210023	ANNE ARUNDEL	$319,692,560	0.78	0.53%	$1,705,027
210024	UNION MEMORIAL	$258,558,976	0.54	-0.20%	-$517,118
210027	WESTERN MARYLAND HEALTH SYSTEM	$175,599,914	0.64	0.00%	$0
210028	ST. MARY	$79,305,037	0.87	1.13%	$898,790
210029	HOPKINS BAYVIEW MED CTR	$387,945,804	0.73	0.20%	$775,892
210030	CHESTERTOWN	$12,714,284	0.51	-0.30%	-$38,143
210032	UNION HOSPITAL OF CECIL COUNT	$68,136,813	0.46	-0.47%	-$317,972
210033	CARROLL COUNTY	$148,800,274	0.81	0.73%	$1,091,202
210034	HARBOR	$122,188,828	0.52	-0.27%	-$325,837
210035	CHARLES REGIONAL	$81,088,630	0.65	0.00%	$0
210037	EASTON	$109,482,743	0.93	1.53%	$1,678,735
210038	UMMC MIDTOWN	$107,704,022	0.77	0.47%	$502,619
210039	CALVERT	$70,993,520	0.69	0.00%	$0
210040	NORTHWEST	$140,549,546	0.89	1.27%	$1,780,294
210043	BALTIMORE WASHINGTON MEDICAL CENTER	$266,416,072	0.79	0.60%	$1,598,496
210044	G.B.M.C.	$247,198,765	0.57	-0.10%	-$247,199
210048	HOWARD COUNTY	$186,112,399	0.69	0.00%	$0
210049	UPPER CHESAPEAKE HEALTH	$157,270,395	0.84	0.93%	$1,467,857
210051	DOCTORS COMMUNITY	$148,830,231	0.87	1.13%	$1,686,743
210056	GOOD SAMARITAN	$161,237,653	0.84	0.93%	$1,504,885
210057	SHADY GROVE	$284,505,304	0.64	0.00%	$0
210058	REHAB & ORTHO	$72,597,733	0.72	0.13%	$96,797
210060	FT. WASHINGTON	$21,696,655	0.96	1.73%	$376,075
210061	ATLANTIC GENERAL	$40,634,326	0.91	1.40%	$568,881
210062	SOUTHERN MARYLAND	$175,194,855	0.64	0.00%	$0
210063	UM ST. JOSEPH	$251,546,336	0.80	0.67%	$1,676,976
210064	LEVINDALE	$59,673,579	0.69	0.00%	$0
210065	HC-Germantown	$70,744,547	0.99	1.93%	$1,367,728
	State Total	**$10,162,327,560**		**State Total**	**$38,638,052**
				Penalty	**-$3,257,770**
				% Inpatient	**-0.03%**
				Reward	**$41,895,822**
				% Inpatient	**0.41%**

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Draft Recommendation on Integrated Efficiency Policy for RY 2021: Withholding Inflation for Relative Efficiency Outliers and Potential Global Budget Revenue Enhancements

October 14, 2020

This document contains the draft staff recommendations for creating an Integrated Efficiency Policy for the purposes of withholding inflation for outlier hospitals and awarding Global Budget Revenue enhancements for high performing hospitals. Comments for this policy are due by October 21, 2020.

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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. Volume Adjusted Inter-hospital Cost Comparison (ICC) - A version of the ICC that incorporates hospitals' reduction in potentially avoidable utilization, as defined by the Potentially Avoidable Utilization Shared Savings Program and additional proxies for avoidable utilization. Volumes from this analysis, both negative and positive, amend a hospital's final ICC calculated cost base – not the peer group cost standard - as well as the hospital's position relative to the ICC Cost Standard.

4. Efficiency Matrix – A combined ranking of a hospital's performance in the Inter-hospital Cost Comparison and Total Cost Care. Total Cost of care 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-adjusted basis. Both measures are weighting equally and hospitals are arrayed into quartiles to determine overall efficiency.

Policy Overview

Policy Objective	Policy Solution	Effect on Hospitals	Effect on Payers/Consumers
The GBR approach explicitly rewards hospitals by allowing them to retain revenue as volume declines. While this incentive remains fundamental to the model it has the potential side effect of masking hospitals that operate inefficiently.	This policy penalizes significantly inefficient hospitals and rewards significantly efficient ones by evaluating them on a normalized cost per case basis. To avoid penalizing hospitals that are effectively reinvesting savings from lower utilization in improving population health the cost per case measure is balanced with a measure of total cost of care.	Hospitals that run efficiently and effectively manage total cost of care in their service areas will be entitled to additional revenue. Those that are inefficient and are not effectively managing total cost of care will lose revenue. Only clear outliers will be impacted, most hospitals will not be affected.	By incenting both efficiency and effective total cost of care management this policy will control unit level cost inflation faced by the direct healthcare consumer while also improving the effectiveness of the healthcare delivery for all residents.

Recommendations

Since 2018, staff has been working with Commissioners and stakeholders to develop a formulaic and transparent methodology that identifies and addresses relative efficiency outliers in order to bring those outlier hospitals closer to peer average standards over time. The purpose of this exercise is to update the HSCRC's efficiency measures to be in line with the incentives of Maryland's Total Cost of Care (TCOC) Model, so that objective standards are in place when the Commission adjusts hospitals' permanent rate structure and to address and correct maldistribution of global revenues. In July 2019, a staff draft recommendation was brought before the Commission that recommended the following policy components:

- Formally adopt policies to
    a. Determine relative efficiency outliers;
    b. Evaluate Global Budget Revenue enhancement requests
- Use the Inter-Hospital Cost Comparison, including its supporting methodologies to compare relative cost-per-case for the above evaluations;
- Use Total Cost of Care measures with a geographic attribution to evaluate per capita cost performance for the above evaluations;
- Withhold the Medicare and Commercial portion of the Annual Update Factor for efficiency outlier hospitals based on criteria described herein; and
- Use set aside outlined in the Annual Update Factor and funding secured from withhold from outlier hospitals to fund potential Global Budget Enhancement Requests.

During the course of review following the publication of the July draft recommendation, a number of concerns were identified by staff, Commissioners, and stakeholders regarding a) the casemix adjustment for rehabilitation cases, b) use of a growth calculation in lieu of a benchmark attainment analysis for total cost of care performance, and c) general concerns that the policy should identify larger amounts of inappropriately retained revenue. In light of these concerns, staff has a) implemented a change to its casemix adjustment that reduces the variability of rehab case groupings; b) incorporated total cost of care benchmark performance into the Efficiency matrix; and c) arrayed hospitals into quartiles instead of quintiles and incorporated Commercial benchmark performance to expand the extent of revenue redistributed through this policy. As such, staff is bringing forward the aforementioned recommendations for Commission approval.

Introduction

In response to Commissioner directives to incorporate per capita efficiency measures into overall efficiency analyses in line with the TCOC Model, staff developed an integrated efficiency methodology that uses and equally weights Volume Adjusted Interhospital Cost Comparisons (ICC) and Total Cost of Care benchmark performance, together referred to as the Efficiency Matrix. Incorporating the traditional cost-per-case analysis with total cost of care performance ensures that the HSCRC still adheres to its statutory mandate to ensure that total costs are reasonable and that aggregate charges are reasonably related to aggregate costs, while at the same time incorporating new population based measures of reasonable cost in line with the per capita goals of the Total Cost of Care Model.

While much work has been done to improve the Commission's efficiency methodologies, staff has not yet deployed them in an integrated and formulaic fashion across all hospitals. To date, the HSCRC has addressed efficiency concerns that excess revenues were being inappropriately retained by hospitals by making over $80 million in adjustments for services that shifted to unregulated settings, including adjustments for oncology and infusion drugs shifted to unregulated settings. This figure also includes the first year of a negotiated revenue reduction plan for one outlier hospital, whose cost performance had been affected by service discontinuation and deregulation. Staff will continue to make adjustments for shifts to deregulated settings based on hospital disclosures and annual reviews. However, in order to expedite the process of adjusting revenues for high cost outlier hospitals, the HSCRC staff proposes a more formulaic approach to reduce excessive revenue by limiting rate updates for all cost efficiency outliers.

To implement formulaic revenue reductions, staff proposes to withhold the Medicare and Commercial portion of the RY 2021 Update Factor (73% of 2.77% inflation), effective July 1, 2020 but implemented on January 1, 2021, on the basis of the combined Volume Adjusted ICC cost-per-case results and Medicare and Commercial Total Cost of Care benchmark performance, as evaluated through the Efficiency Matrix. It should be noted that only Medicare fee-for-service and Commercial data was used in this evaluation as equivalent total cost of care data is

not currently available for Medicaid. In acknowledgement of this limitation, staff proposes that any impact from this policy should be limited to the Medicare and Commercial portion of a hospital's revenue (73% statewide), but the modification to a hospital's global revenue will be shared among all payers.

To limit the extent of this policy to true outliers, staff proposes to only identify hospitals in the worst quartile of performance on these three metrics. Staff also proposes limiting reductions to hospitals that exceed one standard deviation of average Volume Adjusted ICC performance (1.22 times the ICC cost standard). This is in keeping with the UMMC Midtown revenue reduction agreement put in place during RY 2019 and is a statistically sound approach to identify true outliers given the normal distribution of hospital ICC performance. Over time, this policy, which is envisioned to be implemented each year in concert with the Annual Update Factor Recommendation, will bring outlier hospitals more in line with average statewide performance.

Finally, in response to concerns about requests for GBR modifications, staff also proposes in the policy to outline the metrics by which GBR enhancement requests will be evaluated. Staff proposes to similarly utilize the Efficiency Matrix to identify hospitals that perform the best in a combined evaluation of cost-per-case and Medicare and Commercial total cost of care benchmark performance. Specifically, staff propose that hospitals will only be deemed eligible for potential GBR enhancements if they perform better than one standard deviation from average Volume Adjusted ICC performance (1.05 times the ICC Standard) and are in the best quartile of performance in the Efficiency Matrix. In this capacity, the HSCRC will create a symmetric policy that clearly and prospectively outlines the standards by which hospitals may potentially receive additional funding outside of a full rate review.

This report outlines the ICC and TCOC methodology to be used in Integrated Efficiency Policy and the proposed approach to implementing formulaic revenue reductions for outlier hospitals as well as identifying hospitals eligible for potential GBR enhancements.

Future efficiency policy recommendations will address the processes for full rate applications as well as modifications to the current efficiency tools, most notably potential changes in the ICC for peer groupings, special allowances for critical access hospital status, 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 rankings.

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 hospitals' global revenues,[1] 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

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

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 relative cost-per-case efficiency.

As aforementioned, one of the principal changes to the ICC evaluation was the modification to the casemix methodology, a methodology that provides more weights to services that are greater in clinical intensity and serves as the basis for the volume statistic used in the ICC. Prior iterations of the HSCRC casemix methodology had two major problems in the development of outpatient weights. First, the methodology did not account for differences in hospital billing behavior, for example cycle billing once a month versus billing for each patient visit. This led to unreliable weights for services that had a higher proportion of recurring visits (oncology, clinic, rehabilitation). The second flaw was that emergency room visits were given the same weights as clinic visits, even though emergency room visits are more costly. As a result of these concerns, 12.75 percent of revenue statewide was excluded from the RY 2018 ICC evaluation.

During the course of the summer of 2018, staff engaged stakeholders to address both of these problems with the casemix methodology. Staff decided to parse out all outpatient visits and associated Current Procedural Terminology (CPT) codes, rather than continuing to bundle all of the services contained in each patient bill. By unbundling cycle billed claims into visits, the HSCRC moved away from bundling claims based on unique hospital billing practices in favor of standard fixed length episodes. Furthermore, staff created additional summary categories by which ubiquitous CPTs were evaluated and weighted, i.e., CPT's that occur in multiple settings were separated based both on rate center charges and grouper categories and were weighted independent of one another.[2] This ensured greater homogeneity of weight development. As a result of the improvements in the reliability of the casemix methodology, the excluded outpatient

[2] For more details on the revised casemix methodology see Appendix 1 and Appendix 2.

revenue was reduced from over 12.75 percent to 6.98 percent of total revenue.[3] Most recently, staff has also improved the reliability of rehab casemix weights by no longer mapping all rehab cases to one grouping but still isolating rehab cases from regular acute care services.[4]

Additional modifications to the November 2017 ICC include creating a differential cost estimate for indirect medical education costs of major academic medical centers versus other residency programs, limiting the resident and intern cost strip to the state average cost per resident, updating the input values to reflect RY 2020 revenue and RY 2019 casemix volume, and adjusting the ICC for changes in Volume, all of which will be discussed in greater detail in the *ICC Calculation* section below. As discussed in the *Introduction* section, staff plans, in line with the historical practice of always refining methodologies, to potentially update the ICC further, including modernizing the hospital peer groupings, permitting a greater level of inefficiency for hospitals deemed to be similar to critical access hospitals, replacing the academic medical center IP evaluation with a national cost-per-case efficiency analysis, and establishing an appropriate number of allowed medical residents based on a statewide physician supply and demand analysis.

In terms of Medicare total cost of care, staff originally had two established tools for analysis, total cost of care growth relative to 2013 (the base year for the All-Payer Model) based on a strictly geographic attribution and total cost of care growth relative to 2015 based on the attribution in the Medicare Performance Adjustment (MPA), which incorporates patient and physician matching. Although both of these approaches yield similar results when the performance period is the same, both have limitations in determining absolute efficiency because both are dependent upon the date by which growth is evaluated, i.e., the base year, and typically growth calculations are not as reliable year over year as attainment analyses. For these reasons, staff has developed total cost of care "attainment" benchmarks calculations into the final

[3] Please note that due to a staff proposed modification to the ICC methodology to include drug overhead costs in the ICC permanent revenue, which is discussed in the *Overview of ICC Calculation* subsection, the percentage of revenue excluded declines to 5.07%.

[4] For more details on the new methods for calculating rehab weights and the resulting reliability improvements see Appendix 3.

efficiency determinations, inclusive of Commercial performance, that will be discussed in the Overview of the *Total Cost of Care Calculation* section.

Efficiency Implementation

Withholding Inflation from Outlier Hospitals

In prior applications of the HSCRC efficiency methodologies, hospitals' revenues were reduced under spend-down agreements if they were deemed to have cost-per-case beyond a set level. In another application of efficiency measures, hospitals with favorable hospital cost per case positions were given higher annual updates than those hospitals with poor relative costs per case. However, all of these prior iterations of efficiency analyses were based on fee-for-service mechanisms and did not have to account for relative cost efficiency in a per capita system. In a per capita system, a hospital aligned with the Total Cost of Care Model will reduce utilization by improving the health of the population, retain a portion of the revenue associated with the reduced utilization, and potentially appear to be less cost efficient in a cost-per-case analysis. Moreover, hospitals can confound this analysis in the global revenue era by reducing utilization through shifting services to non-hospital providers (referred to as deregulation), eliminating services outright, or by simply continuing to pursue additional volume growth beyond population and demographic driven changes. Despite these complexities, the HSCRC must still establish charges that are reasonably related to costs, which in turn should be reasonable themselves, while also properly incentivizing hospitals to reduce unnecessary utilization and total cost of care.

For these reasons, staff cannot evaluate hospital cost-per-case or total cost of care analyses independently, and any combination of tools will not precisely identify hospitals' efficiency ranking, especially near the mid-range of performance. Thus, staff will continue to focus on outliers and recommend that high cost outliers have a portion of their Annual Update Factor withheld, based on a 50/50 weighting of a Volume adjusted cost-per-case and geographic Medicare and Commercial total cost of care attainment calculations. Based on updated analysis and recommendations, hospitals in the worst quartile of performance and in excess of one

standard deviation of average Volume Adjusted ICC performance, or 1.22 times the ICC standard, will be deemed outliers.

Staff notes that this policy would be the first incremental step towards creating a formulaic use of efficiency methodologies in the per capita and global revenue era. Over time this policy will bring outlier hospitals more in line with average cost-per-case and total cost of care performance.

Global Budget Revenue Enhancements

Staff's original efficiency outlier proposals were limited to the application of the policy to poor performing outlier hospitals. Positive revenue adjustments would be addressed through an additional policy on the evaluation of rate applications once total cost of care benchmarks were developed. However, concerns regarding GBR enhancement requests have prompted staff to also outline a methodology for evaluating excellent performing hospitals and describe a process by which additional revenue may be requested outside of a full rate application.

Specifically, staff proposed that all GBR revenue enhancements outside of a full rate application be limited to hospitals that are among the best performers in cost-per-case, as measured by a Volume Adjusted ICC, and Medicare and Commercial total cost of care, as measured through a geographic benchmark attainment analysis. This evaluation will mirror the analysis performed for determining poor performing outliers. For hospitals to receive a GBR enhancement outside of a full rate review, they must be in the best quartile of performance as evaluated in the Efficiency Matrix; they must be better than one standard deviation from average Volume Adjusted ICC performance (1.05 times the ICC standard) and they must submit a formal request to the HSCRC that outlines either: a) how a previous methodology disadvantaged the hospital; or b) a spending proposal that aligns with the aims of the Total Cost of Care Model. All revenue enhancements will be capped by the funding made available by the set aside in the Annual Update Factor approved by the Commission each year (.25% or ~$45 million in RY 2021) and the funding derived from withholding inflation from poor performing outliers.

This process and proposed budget cap does not restrict hospitals from submitting a formal rate application request, which will be evaluated at this time by using Medicare and Commercial total

cost care benchmark performance and an ICC that does not adjust for volume performance. A future policy recommendation on a full rate application methodology will brought to the Commission in November.

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 Tables 1a and 1b.

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

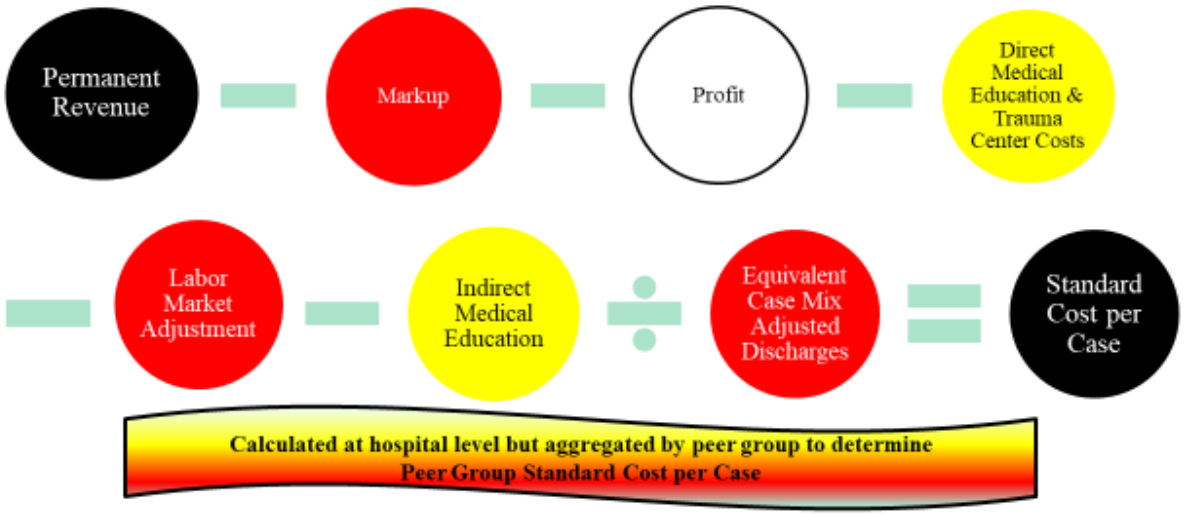
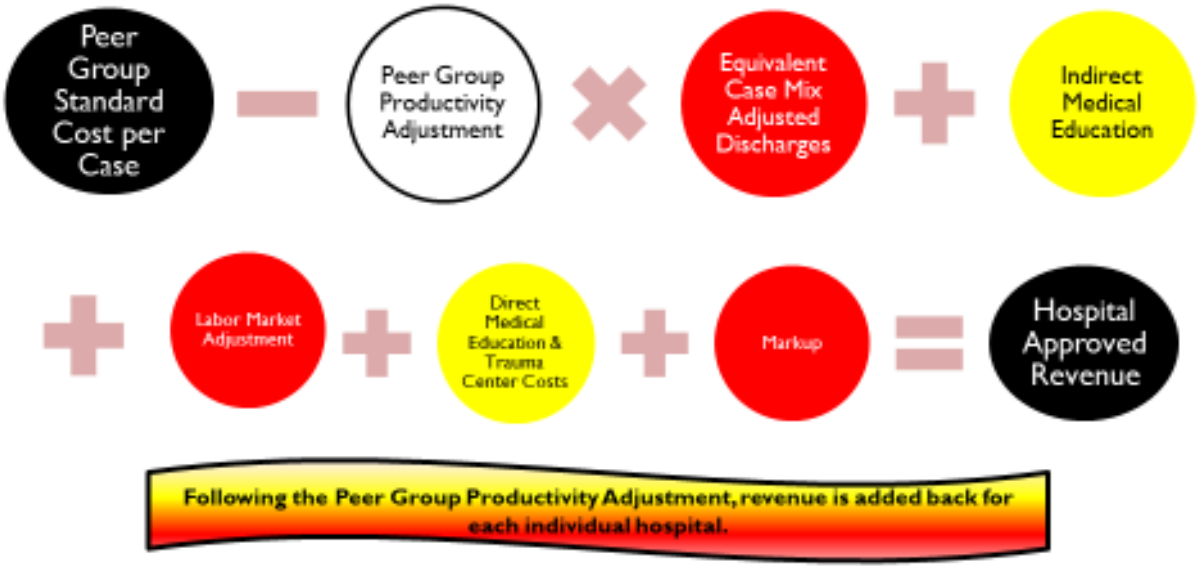


Table 1b: Overview of ICC Cost Comparison Calculation Determining Total Revenue (Building Back Up)



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.[5]

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

[5] 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.

medical education costs versus the IME costs per resident of other teaching hospitals.[6] The criteria staff used for defining these two peer groups were as follows:

Table 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[7] and a regression that controlled for the other factors commonly associated with costs, such as hospitals' average patient severity and indigent care burden[8], 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.

[6] 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.
[7] 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.
[8] 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.

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.

Table 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.

[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 helps 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 this policy, 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 is recommending returning to the historical 2% productivity adjustment.

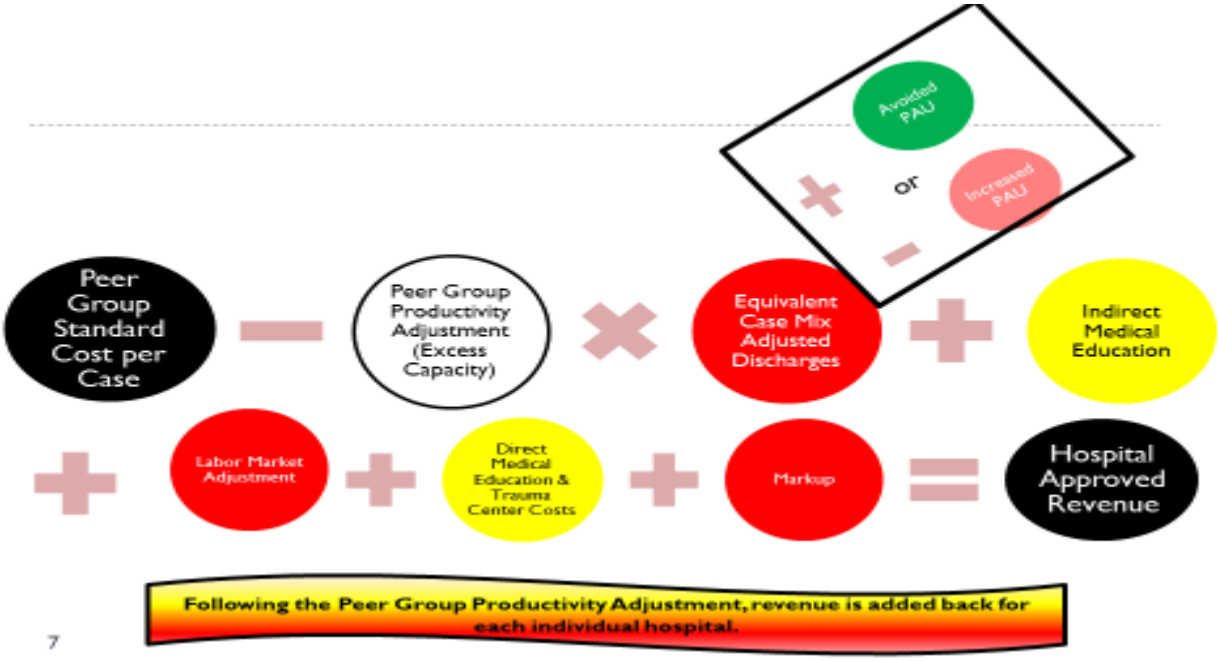
Step 4- Building Up a Hospital's Permanent Revenue

A. Volume Adjustment

In iterations of the ICC that relatively rank hospitals for the purpose of identifying efficiency outliers, staff proposes to volume adjust the ICC because there exists an inverse correlation of (.53), whereby reductions in potentially avoidable utilization result in worse ICC performance. To correct for this, growth rates for potentially avoidable utilization, as defined by the PAU Shared Savings program,[9] will be assessed from CY 2013 to RY 2019. The inverse of PAU growth rates, both positive and negative, will be multiplied by a hospital's PAU ECMADS, thereby adding or subtracting volume used in the final calculation of a hospital's ICC approved revenue. That is, if a hospital reduced PAU over the course of the All-Payer Model, the volume will be added to its evaluation, thereby making the hospital appear more efficient in a cost-per-case analysis. Conversely, if a hospital increased PAU, volume will be removed from the ICC evaluation, thereby making the hospital less efficient.

[9] In the PAU Shared Savings program, there are two volume measurements: readmissions that are specified as 30-day, all-payer, all-cause readmissions at the receiving hospital with exclusions for planned admissions; and hospitalizations for ambulatory-care sensitive conditions as determined by the Agency for Health Care Research and Quality's Prevention Quality Indicators (PQIs).

Table 4: Overview of ICC Cost Comparison Calculation Determining Total Revenue (Building Back Up) with Volume Adjustment



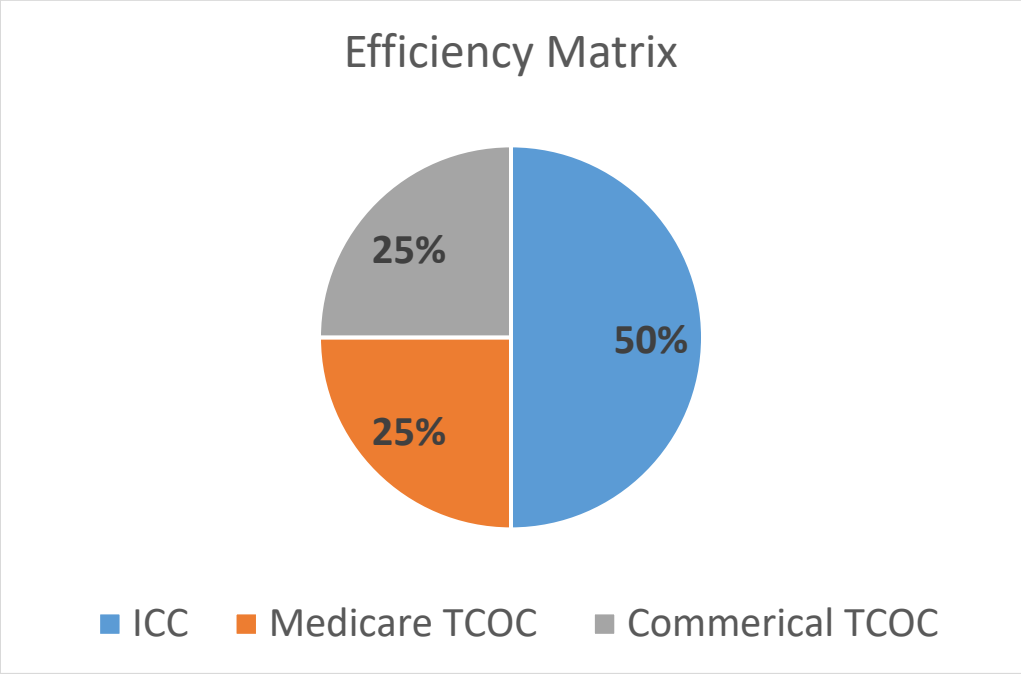
Overview of Medicare Total Cost of Care Calculations

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.

Hospitals' TCOC performance will be ranked by percentage variance from the Medicare benchmark performance (or average of similar demographic national peers) and this same approach will be applied to Commercial performance. The score from this ranking will be added to the ranking from the ICC and will comprise 50% of the evaluation – Medicare and Commercial performance will comprise an even share of the total cost of care evaluation (25% each) as both represent approximately the same share of hospital payments statewide. This statewide weighting approach ensures that total of care is heavily influential to the efficiency

analysis and ensures that hospitals with more favorable payer mixes, i.e. more commercial purchasers, are not artificially advantaged.

Table 5: Efficiency Matrix Weighting



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.

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). The PSAP is the service area selected by the hospital in their GBR agreement with any shared zip codes split based on ECMAD share and any unassigned zip codes assigned to a hospital based on travel distance. With these modifications the PSAP methodology attributes 100% of Maryland's population to a hospital.

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. 75th percentile) while removing the impact of medical education, beneficiary risk, benefits and demographics from the comparison.

Efficiency Assessment

Withholding Inflation from Outlier Hospitals

In this section, staff provides the results of the Volume Adjusted ICC for RY 2020 permanent revenue as well as results for 2018 Medicare and Commercial Total Cost of Care benchmark performance. Using these three statistics and weighting them respectively as 50%, 25%, and 25%, hospitals are arrayed into quartiles, such that hospitals in the bottom quartile will be considered to be the most costly relative to hospital peers. Staff will furthermore remove hospitals that have a ratio of less than 1.22 of revenue versus the ICC cost standard. Based on this analysis, staff ultimately recommends that the remaining hospitals that are in worst quartile of performance, as outlined above, and are in excess of the 1.22 times the ICC cost standard, should have their Medicare and Commercial portion of the RY 2021 update factor withheld, effective January 1, 2021.

Global Budget Revenue Enhancements

In this section, the best performing quartile for Volume Adjusted ICC and Medicare Total Cost of Care growth from 2013 to 2018 is also listed. Staff removed hospitals that are not better than one standard deviation from average Volume Adjusted ICC performance or 1.05 times the ICC Cost Standard. The remaining hospitals will be considered favorably when submitting requests for GBR enhancements.

ICC Results

As aforementioned, the difference between the Volume Adjusted ICC evaluated revenue figure, the revenue that was actually inputted into the ICC methodology, and the Volume Adjusted ICC calculated value is a hospital's measure of efficiency relative to the ICC cost standard. Table 6 below demonstrates this measure of efficiency as both a dollar value and a percentage. The table is ranked in order of most favorable to least favorable.

Table 6: RY 2020 Volume Adjusted ICC Efficiency Rankings (Percentage and Dollar)*

	Relative Efficiency to ICC Standard %	Relative Efficiency to ICC Standard $		Relative Efficiency to ICC Standard $	Relative Efficiency to ICC Standard $
MERCY MEDICAL CENTER	4.65%	$25,047,058	WESTERN MARYLAND REGIONAL MEDICAL CENTER	-14.50%	($46,544,502)
GARRETT COUNTY MEMORIAL HOSPITAL	3.91%	$2,412,435	ST. AGNES HOSPITAL	-14.51%	($60,883,018)
ATLANTIC GENERAL HOSPITAL	-1.17%	($1,282,285)	MEDSTAR FRANKLIN SQUARE	-15.77%	($84,450,841)
MEDSTAR UNION MEMORIAL HOSPITAL	-2.71%	($11,573,812)	PRINCE GEORGES HOSPITAL CENTER	-16.57%	($57,655,843)
SUBURBAN HOSPITAL	-3.67%	($12,586,887)	SHADY GROVE ADVENTIST HOSPITAL	-18.49%	($86,042,194)
MEDSTAR HARBOR HOSPITAL CENTER	-4.31%	($8,271,539)	UM-SHORE REGIONAL HEALTH AT DORCHESTER	-18.61%	($8,592,972)
ANNE ARUNDEL MEDICAL CENTER	-4.64%	($27,835,418)	UM-HARFORD MEMORIAL HOSPITAL	-18.96%	($20,516,709)
JOHNS HOPKINS BAYVIEW MEDICAL CENTER	-4.74%	($30,850,824)	MEDSTAR GOOD SAMARITAN	-19.12%	($51,837,693)
JOHNS HOPKINS HOSPITAL	-5.60%	($127,331,707)	DOCTORS COMMUNITY HOSPITAL	-19.18%	($49,882,623)
FORT WASHINGTON MEDICAL CENTER	-5.94%	($3,111,462)	SINAI HOSPITAL	-19.40%	($154,393,541)

PENINSULA REGIONAL MEDICAL CENTER	-6.34%	($28,330,789)	CARROLL HOSPITAL CENTER	-19.90%	($47,061,057)
HOWARD COUNTY GENERAL HOSPITAL	-6.42%	($19,905,932)	WASHINGTON ADVENTIST HOSPITAL	-20.07%	($60,289,890)
Holy Cross Hospitals	-6.54%	($41,547,597)	UM-SHORE REGIONAL HEALTH AT EASTON	-21.53%	($46,927,614)
GREATER BALTIMORE MEDICAL CENTER	-7.42%	($33,977,247)	NORTHWEST HOSPITAL CENTER	-21.87%	($58,586,896)
UM-BALTIMORE WASHINGTON MEDICAL CENTER	-8.54%	($38,574,379)	UMMC MIDTOWN CAMPUS	-22.38%	($46,962,300)
MEDSTAR ST. MARY'S HOSPITAL	-9.44%	($17,267,364)	CALVERT MEMORIAL HOSPITAL	-22.56%	($33,047,104)
MERITUS MEDICAL CENTER	-9.55%	($35,209,106)	MEDSTAR MONTGOMERY MEDICAL CENTER	-22.68%	($39,695,294)
UNIVERSITY OF MARYLAND MEDICAL CENTER	-10.16%	($138,459,652)	UNION HOSPITAL OF CECIL COUNTY	-25.04%	($40,991,658)
UM-UPPER CHESAPEAKE MEDICAL CENTER	-11.49%	($37,065,424)	UM-REHABILITATION & ORTHOPAEDIC INSTITUTE	-25.70%	($29,004,615)
UM-ST. JOSEPH MEDICAL CENTER	-11.57%	($45,173,623)	MEDSTAR SOUTHERN MARYLAND HOSPITAL CENTER	-25.72%	($72,080,547)
FREDERICK MEMORIAL HOSPITAL	-12.17%	($43,900,347)	UM-SHORE REGIONAL HEALTH AT CHESTERTOWN	-32.07%	($16,643,496)
UM-CHARLES REGIONAL MEDICAL CENTER	-13.81%	($21,549,493)			

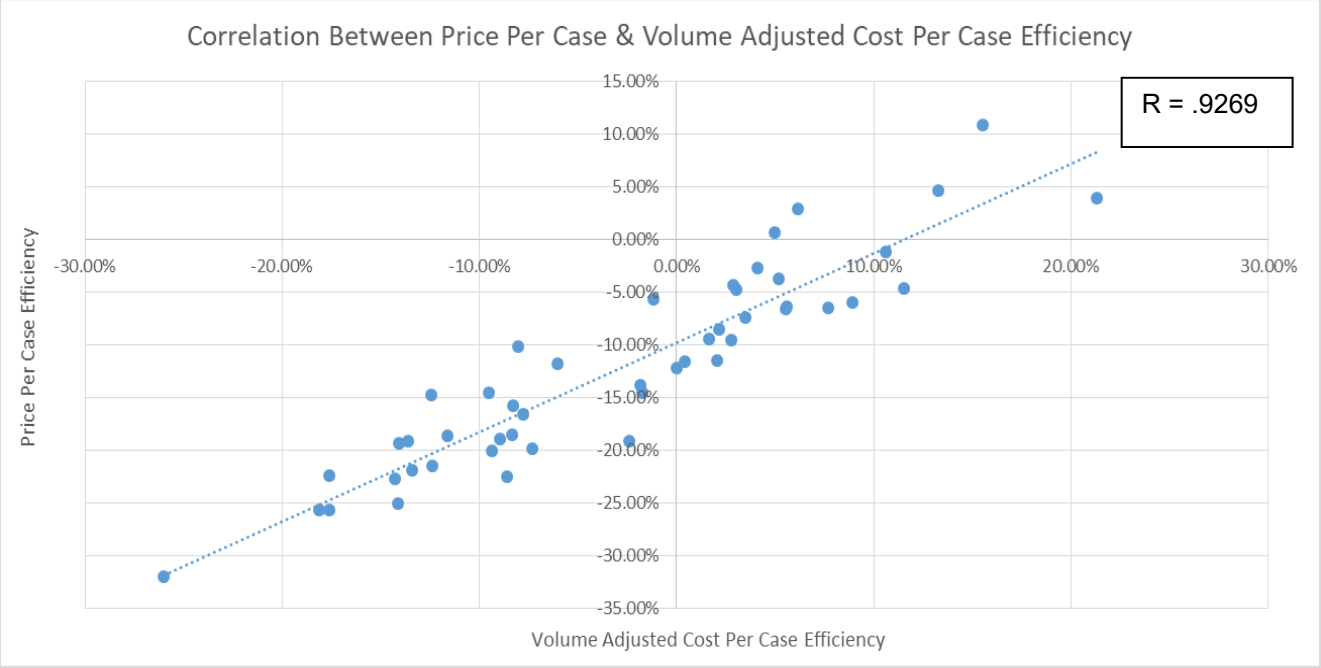
*Highlighted values represent hospitals that have an ICC calculated value in excess of standard deviation of average performance.

As shown, only two hospital are deemed more efficient than the ICC cost standard, but it is important to note that this is because the ICC standard has become more difficult to attain, since hospital profits have improved under the All-Payer Model and Total Cost of Care Models. This would not preclude other best performing hospitals from qualifying for a GBR enhancement and as will be demonstrated in the proposed Full Rate Application policy, more hospitals meet the standard when total cost of care directly influences the standard.

While total profit margins are lower because of unregulated losses, most notably physician subsidies, staff has not made adjustments to the profits stripped from hospitals' revenue base to account for these losses. This is consistent with the statutory authority of HSCRC, as the Commission does not regulate professional physician services. Future work outlined in the *Future Policy Considerations* section below does indicate that staff will attempt in subsequent iterations of the ICC to credit unregulated losses that are in line with the incentives of the Total Cost of Care Model, but at this point staff will make no modifications.

Critics of the ICC have noted that not accounting for unregulated losses does not accurately portray the new costs associated with providing care in a population-based per capita model. Staff agrees with this concern but notes that this is why the implementation of the efficiency policy incorporates total cost of care performance and only addresses outliers. Regardless of any imprecision in the ICC methodology, hospital prices per case grew in the global revenue era as volumes have declined or not risen. This is an expected outcome similar to the rise in per diem payments when length-of-stay initially fell under the DRG system. To ensure that charges do not become too high, especially given Medicare outpatient coinsurance that is already high due to the all-payer rate setting nature of the system, staff recommends using the combination of cost-per-case analyses and total cost of care to identify outliers. Moreover, staff notes that there is a high degree of correlation between high priced hospitals and high cost hospitals, as determined by the ICC (R=.9269). This suggests that the hospitals identified in the outlier analysis are not just inefficient in costs relative to their peers, but that they are also receiving reimbursement commensurate with their higher costs (see Table 7 below for the correlation analysis).

Table 7: Correlation between Hospital ICC Cost Efficiency and ICC Price Efficiency



TCOC Results

Using the geographic attribution described in the *Efficiency: Overview of Total Cost of Care Calculations* section, staff has determined that 7 hospitals perform better than their national geographic peers in Medicare total cost of care; 10 hospitals perform worse than national peers but better than average statewide performance relative to national benchmarks (11.5% statewide unweighted), and 26 hospitals perform worse than average statewide performance relative to national benchmarks. As one would expect due to the all-payer rate setting nature of the Maryland system, the results are quite different relative to national peers for commercial, as 40 hospitals perform better than national benchmarks, but quite interestingly the results on the two total cost of care metrics are correlated but not strongly (R = .5165). Table 8 below shows hospital total cost of care performance relative to national benchmarks, both in terms of percentage variance and statewide ranking based on percentage variance.

Table 8: Hospital Attributed Total Cost of Care Growth Performance

Hospital Name*	2018 Medicare TCOC Relative to Benchmark	2018 Medicare TCOC Rank	2018 Commercial TCOC Relative to Benchmark	2017 Commercial TCOC Rank
Suburban Hospital	-10.14%	1	-36.06%	1
MedStar Montgomery Medical Center	2.69%	9	-32.46%	2
Howard County General Hospital	-2.22%	5	-32.32%	3
Shady Grove Adventist Hospital	-2.05%	6	-31.64%	4
Anne Arundel Medical Center	-1.33%	7	-31.15%	5
Doctors Community Hospital	-4.86%	3	-31.06%	6
MedStar Southern Maryland Hospital Center	-6.70%	2	-28.54%	7
Holy Cross Hospitals	2.89%	11	-28.02%	8
Calvert Memorial Hospital	2.86%	10	-26.77%	9
University of Maryland Rehabilitation & Orthopaedic Institute	16.60%	29	-26.77%	9
Washington Adventist Hospital	2.03%	8	-26.22%	11
University of Maryland Medical Center	16.60%	29	-25.70%	12
MedStar Harbor Hospital Center	27.59%	42	-25.13%	13
Frederick Memorial Hospital	10.22%	17	-25.04%	14
University of Maryland Baltimore Washington Medical Center	10.19%	16	-24.27%	15
St. Agnes Hospital	14.13%	22	-23.55%	16
University of Maryland Shore Medical Center at Dorchester	11.60%	18	-23.21%	17
University of Maryland Medical Center Midtown Campus	19.01%	33	-23.21%	17
Upper Chesapeake Medical Center	19.30%	35	-22.89%	19
Prince Georges Hospital Center	5.39%	13	-22.23%	20
Peninsula Regional Medical Center	21.47%	38	-21.99%	21
University of Maryland Charles Regional Medical Center	6.02%	14	-21.83%	22
Fort Washington Medical Center	-3.80%	4	-21.35%	23
Carroll Hospital Center	15.88%	27	-21.25%	24
Johns Hopkins Hospital	14.42%	24	-20.79%	25
Greater Baltimore Medical Center	14.37%	23	-20.28%	26
Mercy Medical Center	17.56%	32	-19.96%	27
Harford Memorial Hospital	21.74%	39	-18.97%	28
University of Maryland St. Joseph Medical Center	16.58%	28	-18.03%	29
Johns Hopkins Bayview Medical Center	17.46%	31	-17.82%	30

Atlantic General Hospital	29.41%	43	-17.29%	31
Meritus Medical Center	14.45%	25	-16.75%	32
Northwest Hospital Center	23.86%	40	-16.30%	33
MedStar Franklin Square Hospital Center	19.24%	34	-16.15%	34
Sinai Hospital	20.99%	37	-14.56%	35
MedStar Union Memorial Hospital	13.87%	21	-13.68%	36
MedStar St. Mary's Hospital	5.28%	12	-13.24%	37
University of Maryland Shore Medical Center at Easton	11.60%	18	-12.07%	38
Western Maryland Regional Medical Center	24.36%	41	-12.05%	39
University of Maryland Shore Medical Center at Chestertown	13.29%	20	-12.02%	40
MedStar Good Samaritan Hospital	20.32%	36	-9.88%	41
Union Hospital of Cecil County	15.43%	26	-3.56%	42
Garrett County Memorial Hospital	7.79%	15	3.01%	43

*Dorchester Hospital receives the same TCOC performance as Easton; UMROI receives the same TCOC performance as Midtown Hospital.

Implementation of Efficiency Results

Withholding Inflation from Outlier Hospitals

Staff recognizes that any combination of cost-per-case and total cost of care tools does not precisely identify a hospital's efficiency rank order, especially near the median of performance, and staff believes that implementation of an efficiency policy should align with historical HSCRC policies to focus on outliers. Moreover, a central limitation in these analyses is that the total cost of care tools are Medicare and Commercial only.

Therefore, staffs recommends weighting equally the two rankings from the Volume Adjusted ICC and geographic total cost of care benchmark performance to array hospitals into quartiles, such that hospitals in the bottom quartile will be considered the least efficient and hospitals in the top quartile will be considered the most efficient relative to hospital peers. Staff furthermore recommends removing hospitals that have an index of revenue to the ICC cost standard of less than 1.22 from the revenue reduction proposal, to ensure that the HSCRC limits revenue reductions to outliers. Finally, staff recommends that the remaining hospitals, deemed outliers as outlined above, should have the Medicare and Commercial portion of their RY 2021 update factor withheld, because the total cost of care analyses were limited to Medicare and Commercial

assessments. Over time this policy will bring hospitals in line within the standard proposed for the spend-down limit.

In looking at the array of hospitals according to a 50/50 ranking of Volume Adjusted ICC and geographic total cost of care benchmark performance ranking, staff identified nine hospitals that met the initial categorization of outliers. See Table 9 for results:[10]

Table 9: Outlier Hospitals as Determined by ICC & Geographic TCOC Rankings – Efficiency Matrix

Hospital Name	Volume Adjusted ICC Result	ICC Rank (50%)	2018 Medicare TCOC Relative to Benchmark	2018 Medicare TCOC Rank (25%)	2018 Commercial TCOC Relative to Benchmark	2017 Commercial TCOC Rank (25%)	Total Rank Points (Low Score is Better)
MedStar Franklin Square Hospital Center	-15.77%	25	19.24%	34	-16.15%	34	59
University of Maryland Rehabilitation & Orthopedic Institute	-25.70%	41	16.60%	29	-26.77%	9	60
University of Maryland Medical Center Midtown Campus	-22.38%	37	19.01%	33	-23.21%	17	62
Harford Memorial Hospital	-18.96%	29	21.74%	39	-18.97%	28	63
University of Maryland Shore	-21.53%	35	11.60%	18	-12.07%	38	63

[10] For the complete array of hospitals based on ICC ranking and TCOC ranking, see Appendix 5

Medical Center at Easton							
Western Maryland Regional Medical Center	-14.50%	23	24.36%	41	-12.05%	39	63
Sinai Hospital	-19.40%	32	20.99%	37	-14.56%	35	63
MedStar Good Samaritan Hospital	-19.12%	30	20.32%	36	-9.88%	41	63
Northwest Hospital Center	-21.87%	36	23.86%	40	-16.30%	33	73
University of Maryland Shore Medical Center at Chestertown	-32.07%	43	13.29%	20	-12.02%	40	69
Union Hospital of Cecil County	-25.04%	40	15.43%	26	-3.56%	42	74

Of these hospitals, one was removed from consideration because it already had a preexisting arrangement with the HSCRC to address its cost inefficiencies, University of Maryland Medical Center Midtown Campus. Staff also removed MedStar Franklin Square, Harford Memorial Hospital Center, University of Maryland Medical Center at Easton, Western Maryland Regional Medical Center, Sinai Hospital, and MedStar Good Samaritan Hospital because these hospitals had an index of relative efficiency that was better than the 1.22 maximum level staff proposes for the application of formulaic revenue adjustments.

Of the remaining hospitals, staff calculated that withholding the Medicare portion of the RY 2021 Update Factor, which is measured by multiplying the inflationary factor of 2.77 percent by the statewide share of hospital's revenue attributable to Medicare fee for service and commercial (73 percent), would remove $12.6 million to be redistributed to excellent performing hospitals.

Of note, this would result in 4 hospitals permanently losing $12.6 million from their base as opposed to PAU Shared Savings program that removes ~$50 million from 48 hospitals and it would effectively eliminate 35 percent of the four outlier hospitals RY 2019 profit margins (range 13-87 percent).

Table 10: RY 2021 Medicare Update Factor Withhold for Outlier Hospitals

Hospital Name	A: RY 2020 Permanent Revenue	B: Update Factor	C: Statewide Weighting	D = A* B C: Withhold per Efficiency Matrix	E= D/RY19 Profit: % of RY 2019 Margins
University of Maryland Rehabilitation & Orthopedic Institute	$127,512,791	2.77%	73.21%	$2,585,744	73.96%
Northwest Hospital Center	$273,411,755	2.77%	73.21%	$5,544,328	13.62%
University of Maryland Shore Medical Center at Chestertown	$53,014,109	2.77%	73.21%	$1,075,036	87.17%
Union Hospital of Cecil County	$168,517,163	2.77%	73.21%	$3,417,243	24.69%
Total	$622,455,817	2.77%	73.21%	$12,622,350	35.24%

Global Budget Revenue Enhancements

As aforementioned, this recommendation also outlines the process by which hospitals will be evaluated when GBR enhancement requests are submitted to HSCRC staff. Specifically, for a hospital to receive a GBR enhancement, it must be in the best quartile of performance as evaluated in the Efficiency Matrix, it must be better than one standard deviation from average Volume Adjusted ICC performance (1.05 times the ICC standard) and it must submit a formal request to HSCRC staff that outlines either: a) how a previous methodology disadvantaged the hospital; or b) a spending proposal that aligns with the aims of the Total Cost of Care Model.

Because this recommendation still requires hospitals to submit a formal proposal to successfully receive a GBR enhancement, staff will not outline the exact amounts a hospital may receive under such a policy. However, in Table 11 below staff does outline the hospitals that currently would be eligible for a GBR enhancement:

Table 11: Hospitals Eligible for a GBR Enhancement in RY 2021

Hospital Name	Volume Adjusted ICC Result	ICC Rank (50%)	2018 Medicare TCOC Relative to Benchmark	2018 Medicare TCOC Rank (25%)	2018 Commercial TCOC Relative to Benchmark	2017 Commercial TCOC Rank (25%)	Total Rank Points (Low Score is Better)
Suburban Hospital	**-3.67%**	5	-10.14%	1	-36.06%	1	6
Anne Arundel Medical Center	**-4.64%**	7	-1.33%	7	-31.15%	5	13
Mercy Medical Center	**4.65%**	1	17.56%	32	-19.96%	27	31
Garrett County Memorial Hospital	**3.91%**	2	7.79%	15	3.01%	43	31
MedStar Union Memorial Hospital	**-2.71%**	4	13.87%	21	-13.68%	36	33
MedStar Harbor Hospital Center	**-4.31%**	6	27.59%	42	-25.13%	13	34

Future Policy Considerations

While staff believes the efficiency methodologies and implementation proposal are sound, staff acknowledges that more work is needed to refine 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 the University of Maryland to determine a potential special allowance for Chestertown Hospital that recognizes it is a unique model in Maryland most analogous to Medicare's designation of a Critical Access Hospital. An additional adjustment for this status will not exempt Chestertown from efficiency reviews but may reduce the extent of its current outlier status. Staff anticipates incorporating this adjustment in the Integrated Efficiency Final Recommendation.
2) Short 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.

3) Medium 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 of 2021.

4) Medium 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 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.

Short and medium term adjustments to the ICC may have effects on hospitals current efficiency rankings and who is eligible for revenue adjustments in the Integrated Efficiency policy, although it should be noted that prior modernization efforts, such as the overhaul of the casemix methodology, did not substantially alter results. Nevertheless, Commissioners should consider this when determining the implementation date for the Integrated Efficiency policy.

Recommendations

1) Formally adopt policies to
    a. Determine relative efficiency outliers;
    b. Evaluate Global Budget Revenue enhancement requests
2) Use the Inter-Hospital Cost Comparison, including its supporting methodologies to compare relative 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) Withhold the Medicare and Commercial portion of the Annual Update Factor for efficiency outlier hospitals based on criteria described herein
5) Use set aside outlined in the Annual Update Factor and funding secured from withhold from outlier hospitals to fund potential Global Budget Enhancement Requests.

Appendix 1: Revised Casemix Methodology Discussion

Fundamental to a sound efficiency methodology is a reliable volume statistic that accounts for acuity and expected cost differences, as not all services require the same level of care and resources. The HSCRC historically has had a reliable inpatient casemix adjusted volume statistic that outputs relative weights to measure the relative cost or resources needed to treat a mix of patients at a given Maryland hospital using specific APR-DRG/severity of illness levels.[11]

The calculation of relative weights used by Maryland hospitals, which in many respects is just creating ratios based on average charges (adjusted for price differences among hospitals), has been the following since the adoption of the APR-DRG Grouper in 2004 for all hospitals:

1) Use the outlier trim methodology to adjust charges for outlier cases so that the maximum charge equals the trim limit
2) Calculate an average charge per case in each APR-DRG/severity category.
3) Calculate a statewide average charge per case (CPC).
4) Divide the cell average by the statewide average to generate the cell weight.
5) Calculate hospital-specific relative weights as follows:
    a) For each hospital i, calculate the average charge per case-mix adjusted discharge: C(i).
    b) For the state as a whole, calculate the average charge per case-mix adjusted discharge: C.
    c) For each hospital, calculate a standardizing factor: S(i) = C(i) / C.
    d) For each hospital, adjust its charges to the state level by dividing by S(i).
    e) Recalculate the case-mix weights using the standardized charges.

[11] At a summary level the case-mix index (CMI), which is the average value of the relative weights for the patients at a given hospital, identifies how resource needs vary across groups of patients and hospitals.

f) Go back to step 6a and repeat until the changes in weights are minimal or non-existent.

7) Calculate the average weight per APR-DRG/severity category.

8) Adjust the weights in low volume cells (cells with less than 30 cases) by blending the average weight per APR-DRG/severity category in step 7 with the 3M National Relative Weights.

9) Adjust the weights to be monotonically increasing by severity of illness.

10) Normalize the weights to a statewide CMI of 1.00.

Despite the general consensus that the inpatient casemix methodology is sufficient, the HSCRC historically has had a less reliable outpatient casemix methodology. The first reason for this is because of cycle billed claims where unique hospital billing practices created inconsistent data for determining relative weights across hospitals. Additionally, procedures that can occur in multiple outpatient settings and are different in service intensity[12] were not separated from one another in weight development, thereby creating weights not indicative of the intensity of resources that must be applied in an emergency room versus a clinic..

These concerns mattered less for the first few years of the All-Payer model because the principal use of outpatient weights in HSCRC methodologies was the Market Shift Adjustment, a methodology that evaluates growth. If the inconsistent measurement were present in both the base and performance period for the Market Shift, the issue was of less concern as long as the billing method did not change at a hospital. However, because efficiency methodologies evaluate a single period of time and inter-hospital comparisons, the concerns over inconsistent and unreliable outpatient weights became more pressing once the moratorium on rate reviews was lifted in November of 2017.

[12] In the past, HSCRC applied special weighting differences on the coded severity levels 1 through 5 of an emergency room visits. However, multiple studies have documented coding variations and upcoding in the emergency room. As a result, HSCRC is using the standard method included in the outpatient grouper, which takes into account diagnoses and other coded information to assign emergency room cases to an EAPG. The EAPG grouper assigns medical cases based on diagnosis. In the most recent casemix iteration, HSCRC has separated emergency room and clinic cases to provide higher weights to emergency room cases given the higher resources that must be provided to patients presenting in the emergency room.

The Commission prioritized the need to develop a sufficient outpatient methodology for purposes of evaluating hospital cost efficiency and evaluating ongoing volume changes. Staff worked with industry and additional stakeholders to create a new outpatient weighting approach that utilized a similar methodology to the inpatients weighting system but also did the following:

(1) All claims, including cycle-billed claims (i.e. accounts where patients are billed monthly) were parsed out into visits, which allows accurate and consistent visit weights to be applied to oncology services, clinics, outpatient psychiatry, and physical therapy;

(2) Emergency room and clinic visits were given different weights, with higher weights allotted to emergency room patients, replacing an approach that used the same weight regardless of hospital site of service;

(3) All coded claims lines (i.e. all claims lines with a CPT or HCPCS code) were used to ensure more accurate weight development, replacing an approach where only 45 claim lines were used in weight development and Enhanced Ambulatory Patient Grouping ("EAPG")[13] assignment – possible because of enhanced computing power;

(4) Outpatient services within 5 days of one another that had similar care profiles were repackaged into visit episodes to ensure that all charges associated with an episode of care (e.g. supply charges for surgery) were not weighted independently of one another.

(5) Oncology and infusion drugs were removed from the oncology services portion of the claim, allowing oncology services to be weighted independent of oncology drugs, thereby allowing oncology services to be evaluated through Market Shift and oncology and infusion drugs to continue be evaluated through the CDS-A process.[14]

During the process of assessing the construct validity of new casemix methodology, the HSCRC employed Mathematica Policy Research (MPR). MPR concluded that improvements to the

[13] EAPGs are a 3M product, which results from the assignment of encounters to clinically meaningful outpatient groupings, similar to inpatient DRG groupings.

[14] The CDS-A accounts for usage changes in high cost oncology and infusion drugs, and provides a hospital specific adjustment based on 50 percent of estimated growth. The remainder of drug cost growth is provided through a targeted inflation adjustment. For additional detail on the new casemix methodology, please see Appendix 2.

casemix methodology resulted in better recognition of clinical severity, as evidenced by improved monotonicity and goodness of fit.

Specifically, to evaluate monotonicity, which means services of increasing complexity are assigned weights of increasing magnitude, MPR employed a clinical expert to conduct a review of the 564 EAPGs. The EAPGs were categorized and combined into 25 different clinically compatible service areas such as general medicine, gastroenterology, general surgery, and oncology. Within each service area, the EAPGs were then ranked by level of clinical complexity on a scale of 1 to 5, where 1 is least complex and 5 is most complex. For example, in the category of general medicine, a level one ranking includes vaccine administration and a level 5 ranking includes the treatment of AIDS. The rankings in each service area were then reviewed by another clinical expert to reach consensus.[15] Then using a fixed effects regression, MPR evaluated the weighting difference from level 5 to level 1. Table A below demonstrates that for each level the weight is significantly higher than the weight in the level below:[16]

Table A. Regression results for association between procedure groups and severity levels of ECMADs on EAPG weight (all ECMADs)

EAPG Weight	Number of EAPGs	Coefficient	Std Err	t	Difference	T of difference
Level 5 (omitted)	79	-	-	-	-	-
Level 4	110	-0.435*	0.133	3.27	-0.435*	3.27
Level 3	149	-0.936*	0.127	7.36	-0.501*	4.09
Level 2	179	-1.506*	0.125	12.02	-0.570*	4.66
Level 1	189	-1.873*	0.123	15.20	-0.367*	3.28

EAPG = enhanced ambulatory patient grouping; ECMAD = equivalent casemix adjusted discharge; Std Err = standard error; T = T-statistic

* Significantly different than 0, p<.05

Finally, to evaluate goodness of fit or the predictive accuracy of the outpatient weights, MPR evaluated Winsorized charges, i.e. removing charges below the 5th percentile and above the 95th

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16 MPR also estimated the proportion of EAPGs with weights within the range predicted by their severity level (1-5). The weight falls in the correct range when the ECMAD for a given EAPG is within the bounds of the predicted severity level. They found that 45.5 percent of EAPG high type combinations were within those bounds. They found that 70.7 percent were within the ECMAD range including EAPGs one level lower and one level higher.

percentile, and determined that the R2 was .726, suggesting that the new weighting system had a very high degree of explanatory power.

Appendix 2. Outpatient Casemix Methodology Steps

A. Group and Assign Outpatient Records a Principal EAPG Type & APG High Type

- ***Step 1: Group Data***
  - Outpatient data grouped using the EAPG grouper version 3.12 (change from the EAPG grouper version 3.8 previously used)
    - An EAPG is identified for every CPT that is coded in the record
    - Medical visits also use ICD-10 diagnosis codes for grouping
    - Each record can contain hundreds of EAPGs

- ***Step 2: Exclude Observation Cases***
  - If the Observation Rate Center units in any outpatient visit record are greater than 23 hours, the entire record is excluded from the outpatient weight assignment calculation.
  - Future consideration may be given to maintaining outpatient visits greater than 23 hours in the outpatient data set when developing weights for purposes of the ICC

- ***Step 3: Assign Principal Record Type***
  - A principal EAPG Type is assigned to all records
    - HSCRC applies a hierarchy based on EAPG Type
      - Each CPT code is linked to an EAPG, and each EAPG is linked to an EAPG Type
  - The records are categorized by APG High Type and assigned in hierarchy as follows:
    - Type 2: Oncology Related Services
    - Type 8: Oncology Drugs
    - Type 5: Rehab and Therapy
    - Type 6: Psychiatric Visits
    - Type 4: ED Visits
    - Type 1: Significant Procedures
    - Type 3: Non-ED Visits
    - Type 7: Other Visits

- ***Step 4: Consolidating cases into records - for APG High Type Oncology Related Services (ORS)***
  - All aggregated outpatient records per APG High Type are unbundled and parsed out by service dates
    - Each identified EAPG within the APG High Type has its own service date
    - Visits with a length of stay (LOS) 5 days or less are assigned the same service date as their corresponding APG High Type
  - Consolidate into one record all EAPGs associated with ORS occurring on the same service date

- ☐ Determine the EAPG with the highest weight within the record (Previously calculated weights are used as the preliminary weight for assigning the high weight)
- ☐ The high weight EAPG is the High Weight EAPG (HIWTAPG)
- ☐ Consolidate into the record any ancillary EAPGs occurring on the same service date as the EAPG with the highest weight within the ORS
- ☐ Any ancillary EAPGs not occurring within the same service date as the high weight EAPG within the ORS is appended back into the outpatient records

☐ ***Step 5: Calculate the total charge***

- ☐ The sum of all EAPG charges in the ORS record
- ☐ The HIWTAPG assumes all charges associated with that record i.e. the total charge

☐ **Step 6: Apply the Trim Logic to the APG High Type by HIWTAPG (Expected Charge)**

- ☐ Trim logic = (the statewide average expected charge by HIWTAPG * 2) or the (the statewide average expected charge by HIWTAPG + 10,000); whichever is greater
- ☐ The expected charge is usually the total charge except where a trim is applied, then the trim charge becomes the expected charge
- ☐ (Step 1-6 is repeated for each APG High Type)

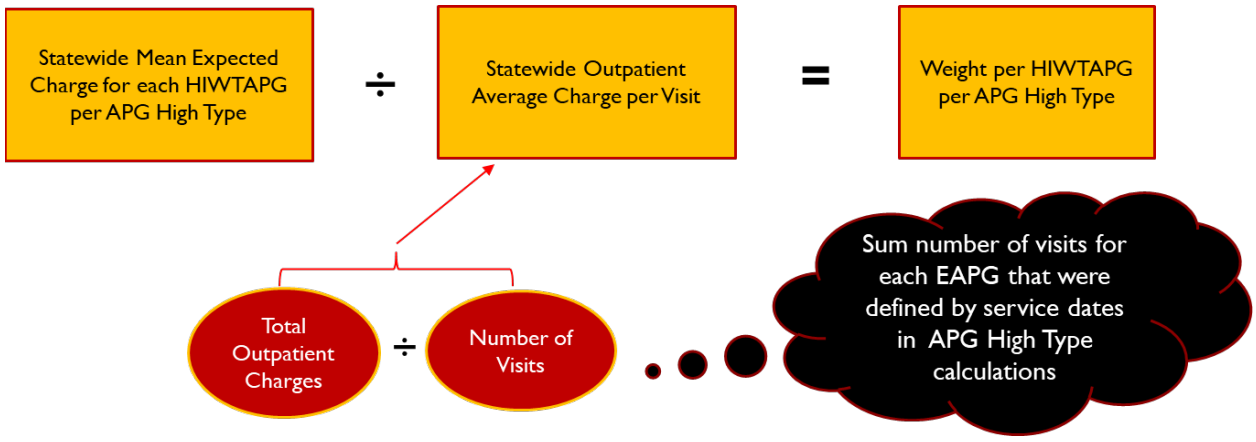
B. Merge all datasets and Calculate expected charges to outpatient categories

☐ ***Step 7: Merge all eight APG High Types and begin the iterative process of determining weights***

- ☐ **Step a: Calculate the statewide average charge per visit**
  - ☐ The mean of all trimmed charges as determined by the trim logic

- ☐ ***Step b: Calculate the Mean Statewide Expected Charge by APG High Type and HIWTAPG***
  - ☐ The mean of expected charges across all hospitals by APG High Type and HIWTAPG

☐ ***Step 8: Calculate initial weights for each APG High Type and HIWTAPG***



- ☐ ***Step 9: Normalize the Hospital HIWTAPG Expected Charge about the Mean Expected Charge Per Hospital***
  - ☐ ***Calculate Hospital Specific Average charge and casemix index (CMI) and hospital specific charge adjustment factor***
    - ***Hospital Specific average charge divided by the hospital specific average CMI = Hospital specific expected charge***
    - ***Hospital specific expected charge divided by the statewide average charge (as determined in step 7a) = Hospital Specific adjustment factor***
    - ***Recalculate the total charge by dividing the initial trim charge by the hospital charge adjustment factor***
  - ☐ Perform 31 Iterations as shown above until convergence (hospital specific adjustment factor equals1.00)
  - ☐ The final iteration determines the statewide expected charge (as described in step 7b) used for the **final weight calculation** (repeat step 8)

- ☐ ***Step 10: Assign Principal Record Type by High Weighted EAPG***

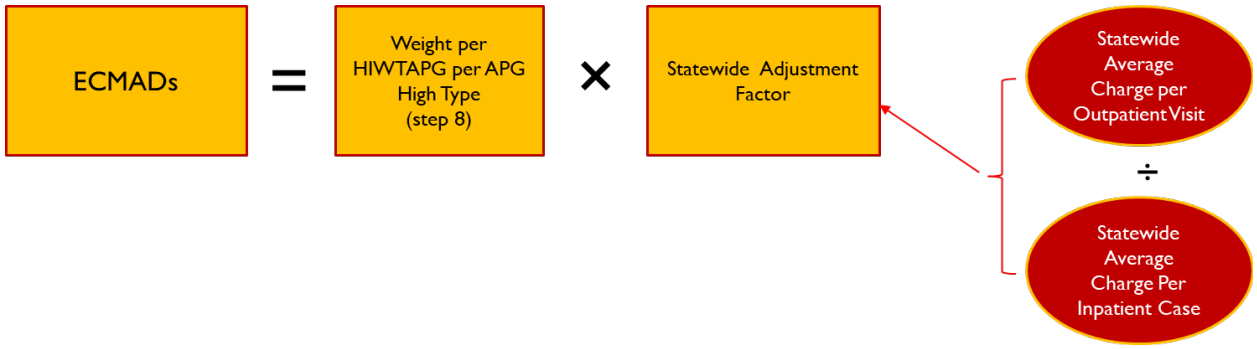
  - ☐ This overrides step number 3 because in many instances lower acuity services or ancillaries will garner all of the charges associated with that record, most notably within the Significant Procedures High Type.

  - ☐ Because weights are reassigned, they have to be checked again for monotonicity and normalized to 1.0.

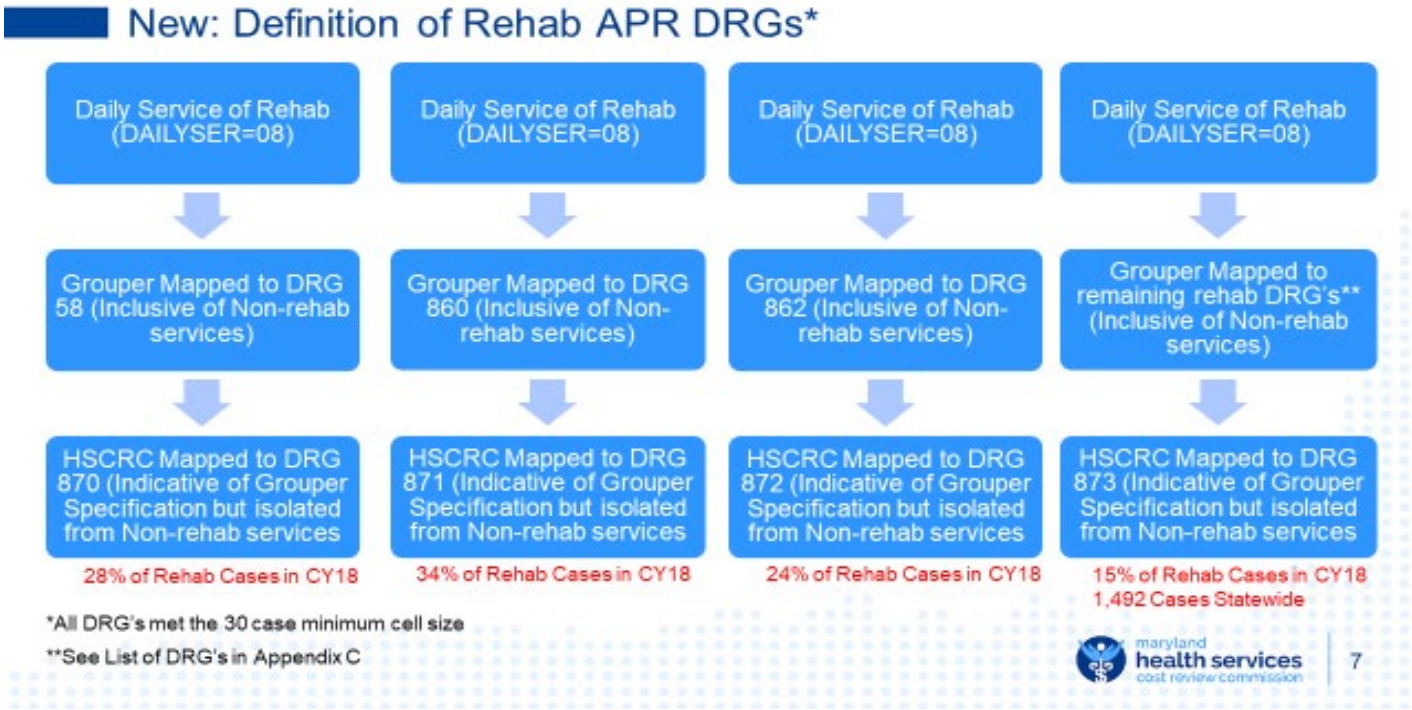
C. Calculate ECMAD

☐ ***Step 11: Calculate the Statewide Adjustment Factor*** **= Outpatient Charge per visit divided by Average charge per Inpatient case**

☐ ECMAD is defined as the normalized weight from Step 16 multiplied by the Statewide Charge Ratio Adjustment Factor



Appendix 3: Rehab Casemix Mapping and Reliability Results



DRG	Severity Level	# of Cases	Average LOS	Average Charge	Coefficient of Variation
58 - OTHER DISORDERS OF NERVOUS SYSTEM	1	354	12	$24,147	0.52
58 - OTHER DISORDERS OF NERVOUS SYSTEM	2	1,331	14	$28,866	0.57
58 - OTHER DISORDERS OF NERVOUS SYSTEM	3	958	17	$35,309	0.61
58 - OTHER DISORDERS OF NERVOUS SYSTEM	4	93	18	$40,232	0.74
860 - REHABILITATION	1	214	8	$18,310	0.51
860 - REHABILITATION	2	1,403	9	$20,070	0.54
860 - REHABILITATION	3	1,376	13	$28,295	0.71
860 - REHABILITATION	4	340	19	$41,478	0.84
862 - OTHER AFTERCARE & CONVALESCENCE	1	404	11	$21,732	0.46
862 - OTHER AFTERCARE & CONVALESCENCE	2	1,197	12	$26,037	0.59
862 - OTHER AFTERCARE & CONVALESCENCE	3	657	13	$30,003	0.71
862 - OTHER AFTERCARE & CONVALESCENCE	4	77	15	$35,958	0.64

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Appendix 5. Efficiency Matrix

Hospital Name	Volume Adjused ICC Result	ICC Rank (50%)	2018 Medicare TCOC Relative to Benchmark	2018 Medicare TCOC Rank (25%)	2018 Commercial TCOC Relative to Benchmark	2017 Commercial TCOC Rank (25%)	Total Rank Points (Low Score is Better)
Suburban Hospital	-3.67%	5	-10.14%	1	-36.06%	1	6
Anne Arundel Medical Center	-4.64%	7	-1.33%	7	-31.15%	5	13
Howard County General Hospital	-6.42%	12	-2.22%	5	-32.32%	3	16
Holy Cross Hospitals	-6.54%	13	2.89%	11	-28.02%	8	23
Fort Washington Medical Center	-5.94%	10	-3.80%	4	-21.35%	23	24
Mercy Medical Center	4.65%	1	17.56%	32	-19.96%	27	31
University of Maryland Baltimore Washington Medical Center	-8.54%	15	10.19%	16	-24.27%	15	31
Garrett County Memorial Hospital	3.91%	2	7.79%	15	3.01%	43	31
Shady Grove Adventist Hospital	-18.49%	27	-2.05%	6	-31.64%	4	32
MedStar Union Memorial Hospital	-2.71%	4	13.87%	21	-13.68%	36	33
MedStar Harbor Hospital Center	-4.31%	6	27.59%	42	-25.13%	13	34
Johns Hopkins Hospital	-5.60%	9	14.42%	24	-20.79%	25	34
Doctors Community Hospital	-19.18%	31	-4.86%	3	-31.06%	6	36
Frederick Memorial Hospital	-12.17%	21	10.22%	17	-25.04%	14	37
Johns Hopkins Bayview Medical Center	-4.74%	8	17.46%	31	-17.82%	30	39
Greater Baltimore Medical Center	-7.42%	14	14.37%	23	-20.28%	26	39
University of Maryland Medical Center	-10.16%	18	16.60%	29	-25.70%	12	39
Atlantic General Hospital	-1.17%	3	29.41%	43	-17.29%	31	40
University of Maryland Charles Regional Medical Center	-13.81%	22	6.02%	14	-21.83%	22	40
Peninsula Regional Medical Center	-6.34%	11	21.47%	38	-21.99%	21	41
MedStar St. Mary's Hospital	-9.44%	16	5.28%	12	-13.24%	37	41

Prince Georges Hospital Center	**-16.57%**	26	5.39%	13	-22.23%	20	43
St. Agnes Hospital	**-14.51%**	24	14.13%	22	-23.55%	16	43
Washington Adventist Hospital	**-20.07%**	34	2.03%	8	-26.22%	11	44
MedStar Montgomery Medical Center	**-22.68%**	39	2.69%	9	-32.46%	2	45
Meritus Medical Center	**-9.55%**	17	14.45%	25	-16.75%	32	46
University of Maryland Shore Medical Center at Dorchester	**-18.61%**	28	11.60%	18	-23.21%	17	46
Upper Chesapeake Medical Center	**-11.49%**	19	19.30%	35	-22.89%	19	46
MedStar Southern Maryland Hospital Center	**-25.72%**	42	-6.70%	2	-28.54%	7	47
Calvert Memorial Hospital	**-22.56%**	38	2.86%	10	-26.77%	9	48
University of Maryland St. Joseph Medical Center	**-11.57%**	20	16.58%	28	-18.03%	29	49
Carroll Hospital Center	**-19.90%**	33	15.88%	27	-21.25%	24	59
MedStar Franklin Square Hospital Center	**-15.77%**	25	19.24%	34	-16.15%	34	59
University of Maryland Rehabilitation & Orthopaedic Institute	**-25.70%**	41	16.60%	29	-26.77%	9	60
University of Maryland Medical Center Midtown Campus	**-22.38%**	37	19.01%	33	-23.21%	17	62
Harford Memorial Hospital	**-18.96%**	29	21.74%	39	-18.97%	28	63
Western Maryland Regional Medical Center	**-14.50%**	23	24.36%	41	-12.05%	39	63
University of Maryland Shore Medical Center at Easton	**-21.53%**	35	11.60%	18	-12.07%	38	63
Sinai Hospital	**-19.40%**	32	20.99%	37	-14.56%	35	68
MedStar Good Samaritan Hospital	**-19.12%**	30	20.32%	36	-9.88%	41	69
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Union Hospital of Cecil County	**-25.04%**	40	15.43%	26	-3.56%	42	74

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Medicare Performance Adjustment

Draft Recommendation

October 2020

This is a draft recommendation.

Written public comments are due on November 4, 2020. Comments should be submitted to hscrc.tcoc@maryland.gov.

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Draft Recommendations For CY 2021 MPA Policy

Staff recommend the following revisions to the MPA policy for calendar year 2021 (CY2021):

1. Revising the attribution algorithm to use a solely geographic attribution. While the existing primary care based attribution has its benefits, it involves significant complexity. Moreover, the benefits of primary care attribution are available through other policies (such as the Care Transformation Initiatives) and therefore staff recommends the simpler approach.

2. Adopt a 0.5 percent growth rate adjustment (the growth rate adjustment is the amount below national trend which has to be to achieve and MPA reward) and scale the adjustment based on the hospital's benchmarking results. Staff recommends that hospitals which have low per capita total cost of care (TCOC) in their service area relative to their peers have a lower growth rate adjustment while hospitals which have a high TCOC relative to their peers have a higher growth rate adjustment.

3. Calculate the MPA benchmark based a constant 2019 baseline updated by the national growth since the baseline year less the growth rate adjustment compounded annually. Currently, a hospital that beats its benchmark is rebased for the next year. Staff recommends setting a per capita TCOC target so that a hospital which exceeds its benchmark by a substantial amount may roll over that success into future years.

4. Maintain the existing scaling of rewards / penalties, revenue at risk, and quality adjustments in the MPA.

5. Reduce any penalties that the hospital receives under the traditional MPA based on the hospital's participation in the Care Transformation Initiatives (CTI) program. The CTI allows for more precise attribution of beneficiaries to hospitals and therefore provides an appropriate balance to the potential penalties under the more rigid base MPA attribution.

6. Create a new supplemental MPA adjustment to hold hospitals accountable for the TCOC of their affiliated NPIs who are participating in the Maryland Primary Care Program. The MPA adjustment will penalize hospitals that are less successful in MDPCP than the State average while rewarding hospitals that are more successful in MDPCP.

Policy Overview

Policy Objective	Policy Solution	Effect on Hospitals	Effect on Payers/Consumers
The Total Cost of Care (TCOC) Model Agreement requires the State of Maryland to implement a Medicare Performance Adjustment (MPA) for Maryland hospitals each year. The State is required to (1) Attribute 95 percent of all Maryland Medicare Beneficiaries to some Maryland hospital; (2) Compare the TCOC of attributed Medicare beneficiaries to some benchmark; and (3) Determine a payment adjustment based on the difference between the hospitals actual attributed TCOC and the benchmark.	This draft MPA recommendation fulfills the requirements to determine an MPA policy for CY 2021 and makes important improvements to attribution, the reward calculation methodology, and adds additional hospital flexibility through Care Transformation Initiatives.	The MPA policy serves to hold hospitals accountable for Medicare total cost of care performance. As such, hospital Medicare payments are adjusted according to their performance on total cost of care. Improving the policy improves the alignment between hospital efforts and financial rewards. These adjustments are a discount on the amount paid by the CMS and not on the amount changed by the hospital. In other words, this policy does not change the GBR or any other rate-setting policy that the HSCRC employs and – uniquely – is applied only on a Medicare basis.	This policy does not affect the rates paid by payers. The MPA policy incentivizes the hospital to make investments that improve health outcomes for Marylanders in their service area.

Staff recommend keeping the remaining aspects (calculation of rewards and penalties, quality adjustments, etc.) of the MPA unchanged. In addition, MDPCP related fees will be incorporated into the standard MPA reward as documented in the MPA Recommendation for Calendar Year 2020 (CY2020) and amended by the Commission in May 2020.

MPA Purpose

As stated in the Policy Overview, the Medicare Performance Adjustment (MPA) is a required element for the Total Cost of Care Model and is designed to increase the hospital's individual accountability for total cost of care (TCOC) in Maryland. Under the Model, hospitals bear substantial TCOC risk in the aggregate. However, for the most part, the TCOC is managed on a statewide basis by the HSCRC through its GBR policies. The MPA was intended to increase a hospital's individual accountability for the TCOC of Marylanders in their service area. In recognition of large risk borne by the hospitals collectively through the GBR, the MPA has a relatively low amount of revenue at risk (i.e. 1 percent of Medicare fee-for-service revenue).

Within the State, the MPA has been used to align the measurement of TCOC with hospital's clinical partners. The MPA allows hospitals' care partners under the Care Redesign Program to qualify as participation in an Advanced Alternative Payment Model – and therefore to earn additional payments from CMS. Additionally, the attribution model employed by the HSCRC has tried to increase the integration

between physicians and hospitals by replicating Accountable Care Organizations (ACOs) and other primary care-based attribution methods.

Historical MPA Policy

Historically, Commission policy with regard to the MPA has focused on two components: (1) a tiered attribution methodology; and (2) a growth rate adjustment. Over time, the MPA policy has grown to incorporate other care transformation efforts such as the Episode Care Improvement Program and the Care Transformation Initiatives. Those components are covered in other policies.

The MPA attribution methodology assigned beneficiaries to hospitals based on a hierarchical algorithm. First, beneficiaries are attributed based on participation in the Maryland Primary Care Program (MDPCP), second, under an ACO-like attribution where HSCRC replicates CMS's attribution for the Medicare Shared Savings Program (SSP) ACOs, and physicians voluntarily identified by hospitals as employed by their system. Third, any beneficiary not attributed based on the prior two attribution approach could be attributed under a referral relationship where HSCRC assigned physicians to hospitals based on where the plurality of their patients hospitalization occurred and then attributed any beneficiary who received to plurality of their primary care services from the physician to that hospital. Finally, any beneficiary not attributed under the previous approaches would be attributed to a hospital based on the hospital's geographic service area.

The MPA then penalized or rewarded hospitals based on their attributed TCOC. The HSCRC calculated a benchmark equal to the prior years attributed TCOC times the national Medicare TCOC growth rate minus an adjustment factor. Historically the adjustment factor was 0.33 percentage points. Results are calculated on a risk-adjusted basis.

This approach was a year-over-year comparison, based on each hospital's own improvement. The Commission has set a trend factor equal to national TCOC growth minus 0.33 percentage points . A hospital that beat its benchmark would receive a reward, while a hospital that failed to beat its benchmark would receive a penalty. The rewards / penalties are scaled so that each percentage point by which the hospital beats / exceeds its benchmark results in a 0.33 percentage point reduction in its Medicare fee-for-service revenue. The revenue at risk has been capped at 1 percent of the hospital's Medicare fee-for-service revenue.

MPA Review

In November 2019, the Commission directed staff to explore potential changes to the MPA based on feedback from the industry and other stakeholders via its Total Cost of Care Workgroup and other meetings. The review period focused on three issues: (1) analysis of the MPA attribution algorithm; (2) discussion of the financial methodology for determining the rewards & penalties for hospitals; and (3)

interactions between the traditional MPA and the Care Transformation Initiative policies. The conclusions of that review are summarized here.

Attribution

The multi-step attribution method has both strengths and weaknesses. Attribution based on primary care visits aligns with clinical relationships that, presumably, have significant influence over the TCOC of the attributed beneficiaries. However, the multi-step attribution method is complex. Hospitals and staff spend a significant amount of time and energy analyzing the MPA attribution and its complexity has led to questions about whether a hospital's performance is due to the hospital's efforts or due to the eccentricities of the attribution algorithm. In addition to the complexity, the attribution algorithm is volatile and unpredictable, meaning that a significant number of beneficiaries are attributed to different hospitals in successive years. This inhibits a hospital's ability to target interventions at the beneficiaries who will remain attributed to that hospital.

The current attribution algorithm was compared with simpler attribution methods, attribution methods based solely on geographic relationships. Geographic attribution performed just as well on a variety of measures as the current attribution algorithm for most hospitals. Geographic attribution performed particularly well for rural hospitals and performed significantly worse for the academic medical centers.

Financial Methodology

The current financial methodology compares a hospital's year-over-year change in TCOC to a national growth trend. This means that hospitals must continuously reduce the TCOC attributed to them, even if hospitals start from a low level of TCOC or make significant improvements in a single year. The year-over-year measurement creates some perverse incentives. Specifically, hospitals are incentivized to reduce the TCOC steadily but slowly, rather than deploying effective interventions as rapidly as possible.

The review discussed setting a stable per capita TCOC target for hospitals and scaling the target based on hospitals' level of TCOC relative to their peers. Establishing a stable TCOC target for hospitals has clear benefits but a longer and broader conversation is necessary before setting a long-term TCOC target for individual hospitals.

Interactions with CTI

Both the MPA and the CTI incentivize hospitals to reduce the TCOC. However, the two policies are different in terms of the flexibility that is available to hospitals. In the traditional MPA, the HSCRC creates a 'one-size-fits-all' attribution methodology. Additionally, the requirement that 95 percent of all Maryland beneficiaries be attributed to some hospitals requires a significantly complex attribution algorithm. Under the CTI, hospitals are able to create their own attribution rules that are tailored to the clinical interventions that the hospitals have deployed. Therefore, the CTI is better aligned with hospitals actual efforts to

reduce the TCOC while the MPA attribution recognizes the responsibility of hospitals for the TCOC of all beneficiaries they serve but draws a much looser connection between efforts and outcomes.

Recommendations for CY 2021

Based on the MPA review, staff recommends several changes to the MPA policy. Specifically:

1. Use a purely geographic approach to attribution
2. Scale the MPA growth rate adjustment based on the hospital's costs compared to their benchmark regions and peers
3. Adopt a cumulative TCOC target rather than a year-over-year improvement standard
4. Reduce the hospital's MPA penalties based on their CTI participation
5. Incorporate a supplemental MPA adjustment for hospitals affiliated with practices participating in the Maryland Primary Care Program (MDPCP)

Staff recommend keeping the remaining aspects (calculation of rewards and penalties, quality adjustments, etc.) of the MPA unchanged. In addition, MDPCP related fees will be incorporated into the standard MPA reward as documented in the MPA Recommendation for CY2020 and amended by the Commission in May 2020. The following discussion provides rationale and detail for each of these recommendations.

Revised Attribution

Staff recommends replacing the current 'tiered attribution' approach to the MPA with a purely geographic approach. The geographic attribution algorithm will be unchanged from the geographic tier in the current MPA algorithm. Under this approach beneficiaries and their costs will be assigned to hospitals based on their residency. Zip codes are assigned to hospitals based on hospital primary service areas (PSAs) listed in hospitals' Global Budget Revenue (GBR) agreements. Zip codes not contained in a hospital's PSA are assigned to the hospital with the greatest share of hospital use in that zip code, or, if that hospital is not sufficiently nearby, to the nearest hospital. Specifically, each zip code is assigned 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 in zip codes claimed by more than one hospital are allocated according to the hospital's share on equivalent case-mix adjusted Medicare discharges (ECMADs) for inpatient and outpatient discharges among hospitals claiming that zip code.
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 it 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.

Some zip codes are included in multiple hospitals' PSA. Beneficiaries that reside in those zip codes will be attributed to each hospital; however, the TCOC for those beneficiaries will be divided among those hospitals based on the hospitals' market share within those zip codes. Hospital zip code assignments under this approach are available in the benchmarking materials noted in footnote 1 and have not changed from the geographic approach used in the final tier of the current attribution algorithm.

Scaled Growth Rate Adjustment

Staff recommend modifying the growth rate adjustment so that it is scaled based on each hospitals' level of TCOC compared to a benchmark region. Over the prior two years, the HSCRC developed benchmarks for hospitals in Maryland with which to compare the hospitals' performance on a range of quality and cost metrics. The goal is to allow a comparison of Maryland hospitals' performance to national hospitals' performance while recognizing differences that drive legitimate variation. The results[1] show that the State as a whole is more expensive than similar areas elsewhere in the country. However, the extent to which Maryland exceeds its comparison region varies significantly by hospitals.

Some hospitals are in line to their comparison region costs while other hospitals are significantly more expensive, relative to their comparison group, than their peers. The MPA is designed to reduce the Medicare TCOC within the state but currently holds hospitals equally accountable for reducing the TCOC, without regard to the extent that individual hospitals contribute to the state's overall level of costs. Staff recommend scaling the TCOC growth rate adjustment so that hospitals which are relatively more expensive are more accountable for reducing the TCOC than hospitals which are relatively cheaper.

Staff recommend setting a target for the State to grow 0.5 percentage points slower than the national average TCOC. This is in line with the State's historical performance under the All-Payer Model and the early years of the TCOC Model. Staff then recommends scaling the growth rate adjustments by comparing each hospital to their comparison region and ranking each hospital's relative performance. Specifically, hospitals will be ranked according to the excess TCOC in their service areas (where service areas are defined consistently with the geographic approach above).. Hospitals that are in the top (most effective quintile) will not have a growth rate adjustment. These hospitals are already in line with their

[1] A discussion of the benchmarking methodology can be found in the draft Integrated Efficiency Policy released in October 2020 and the results of the benchmark analysis and a detailed description of the methodology is available on the HSCRC's website at the following link: https://hscrc.maryland.gov/Documents/August%202020%20Benchmarking%20Materials%208-31r%20Distribution.zip

comparison region costs and do not necessarily need to produce additional Medicare savings. The growth rate adjustment will be increased by 0.25 percentage points for each quintile, as shown in the table below.

Table 1: Scaled Growth Rate Adjustment

Hospital Performance vs. Benchmark	TCOC Growth Rate Adjustment
1st Quintile (-15% to + 1% Relative to Benchmark)	0.00%
2nd Quintile (+1% to +10% Relative to Benchmark)	-0.25%
3rd Quintile (+10% to +15% Relative to Benchmark)	-0.50%
4th Quintile (+15% to +21% Relative to Benchmark)	-0.75%
5th Quintile (+21% to +28% Relative to Benchmark)	-1.00%

Scaling the growth rate adjustment will more equitably distribute the incidence of their Medicare savings to hospitals that are more expensive relative to their comparison region. Scaling the growth rate adjustments requires lower-performing hospitals to improve more than their better-performing peers but does not penalize them the way a fixed attainment target would.

Staff also recommend that the Commission and the TCOC workgroup discuss whether the MPA should target a specific level of savings, rather than a policy of continuing to beat national TCOC growth. While a 0.5 percentage point reduction relative to the national growth rate reflects the State's historical performance, continuing this policy ad infinitum will eventually result in Maryland's TCOC being below the comparison group costs, which staff considers to be undesirable. As the TCOC Model progresses, the State needs to consider under what terms the TCOC Model should be expanded. Therefore, staff recommends discussing a targeted level of savings after which additional savings are not required.

Revised Total Cost of Care Targets

Staff recommend modifying the MPA's financial methodology to set a cumulative TCOC target, rather than a year-over-year growth rate target. Under the revised approach, each year a hospital will have a TCOC per capita target equal to the hospital's 2019 TCOC multiplied by the national growth rate since 2019 less their growth rate adjustment factor calculated on a compounded basis. Further, staff recommend that the future MPA targets continue to use a 2019 baseline so that hospitals can build on their historical successes rather than constantly rebasing their performance. The calculation of the MPA TCOC Target is explained in the table below.

Table 2: Calculation of the MPA Targets

Variable	Source
A = 2019 TCOC	Calculation from attributed beneficiaries
B = 2020 National TCOC Growth	Input from national data
C = 2021 National TCOC Growth	Input from national data
D = Growth Rate Adjustment Factor	From Growth Rate Table
E = MPA TCOC Target	A x (1 + B - D) x (1 + C - D)

Example Calculation of MPA Targets

Hospital	Quintile	Target Growth Rate	2019 TCOC	2020 MPA Target	2021 MPA Target
Hospital A	1	3% - 0.00% = 3.00%	$11,650	$12,000	$12,359
Hospital B	2	3% - 0.25% = 2.75%	$11,193	$11,501	$11,817
Hospital C	3	3% - 0.50% = 2.50%	$11,169	$11,448	$11,734
Hospital D	4	3% - 0.75% = 2.25%	$11,204	$11,456	$11,713
Hospital E	5	3% - 1.00% = 2.00%	$10,750	$10,965	$11,184

The cumulative TCOC target is designed to be more stable and predictable. Under the existing MPA methodology, a hospital that beats its TCOC target in one year would be required to repeat its performance in the next year as well. Under the recommended methodology, the hospital will have a stable target that they must achieve and receive credit for over-performance in prior years Moreover, the hospital's long term MPA targets will be more predictable. A hospital could predict its MPA target in future years, using reasonable assumptions based on the national TCOC growth.

Calculation of the MPA Reward / Penalty

Staff recommend maintaining the current methodology for calculating the hospital's reward or penalty based on their TCOC compared to the MPA target while incorporating the MDPCP fees as outlined in the CY2020 MPA recommendation as amended in May 2020. For each hospital, its TCOC performance will be compared to the MPA Target. As in prior years the rewards and penalties will be scaled such that the maximum reward or penalty is 1% which will be achieved at a 3% performance level. Essentially, each percentage point by which the hospital exceeds its TCOC benchmark results in a reward or penalty equal to one-third of the percentage.

The agreement with CMS also allows the State to cap the total amount of revenue at risk in the MPA. Staff continues to recommend that the maximum penalty be set at 1.0% and the maximum reward at 1.0% of hospital federal Medicare revenue. Furthermore, staff recommends that the MPA revenue at risk be included in the HSCRC's portfolio of value-based programs and be counted as part of the aggregate revenue at risk for HSCRC quality programs. The calculation of MPA performance is demonstrated in the table below.

Table 3: Example of MPA Reward & Penalty Calculations (excluding quality adjustments)

Variable	Input
E = MPA Target	See previous section
F = 2021 MPA Performance	Calculation
G = Percent Difference from Target	(E - F) / E
H = MPA Reward or Penalty	(G / 3%) x 1%
I = Revenue at Risk Cap	Greater / lesser of H and + / - 1%

Example MPA Performance Calculations				
Hospital	**MPA Target**	**MPA Performance**	**% Difference**	**Reward (Penalty)**
Hospital A	$12,359	$12,235	-1.0%	0.3%
Hospital B	$11,817	$11,905	0.8%	-0.3%
Hospital C	$11,734	$11,499	-2.0%	0.7%
Hospital D	$11,771	$12,124	3.0%	-1.0%
Hospital E	$11,184	$11,743	5.0%	-1.0%

In addition, the agreement with CMS requires that a quality adjustment be applied that includes the measures in the HSCRC's Readmission Reduction Incentive Program (RRIP) and Maryland Hospital-Acquired Conditions (MHAC). Staff recommends continuing the current policy of using the RRIP and MHAC all-payer revenue adjustments to determine these quality adjustments. Under the existing approach the reward or penalty before the quality adjustment is multiplied by 1 + the quality adjustment. Regardless of the quality adjustment, the maximum reward and penalty of ±1.0% will not be exceeded.

Weighting for CTI Participation

Staff recommends adjusting the hospitals' traditional MPA penalties based on the hospitals' participation in CTI. As discussed previously, the MPA is a one-size-fits-all approach that is unlikely to ever capture the full nuance of the hospital's clinical interventions; on the other hand, the CTIs are designed by the hospitals themselves in order to capture the impact of their clinical interventions. Therefore, staff consider the CTI a more precise measure of the hospital's efforts to reduce the TCOC that should recognized as we introduce attainment into the target setting.

Staff believes that the CTI weighting policy is an important complement to a purely geographic MPA attribution. The primary care-based tiers in the existing attribution serve the important purpose of linking the hospital's TCOC accountability to existing clinical relationships. However, hospitals have different clinical relationships that require different attribution approaches. The current MPA attribution does not allow for individually tailoring the algorithm to the individual hospital's clinical relationships. However, the CTI approach will allow hospitals to create CTIs that reflect the nuances of their own clinical relationships.

While CTI better reflects a hospital's clinical interventions, the traditional MPA ensures that hospitals are individually contributing to the State's collective responsibility for managing the TCOC and taking accountability for healthcare in their community. Hospitals' participation in CTI is variable and does not necessarily reflect the hospitals share of hospitals' Medicare revenues. In order to emphasize the importance of CTI while also holding hospital's accountable for their equitable share of the TCOC, staff recommend calculating a CTI weight equal to the ratio of TCOC covered by the CTI to the TCOC covered by the MPA. Any traditional MPA penalty will be reduced by the CTI weight. Examples of the calculation are shown below.[2]

Table 4: CTI Weighting Calculations

Variable	Input
F = 2021 MPA Performance	See Previous Section
I = CTI TCOC	Calculation based on CTI Data
J = CTI Weight	I / F
J = Final Reward / Penalty	H if positive or H x (1 - J)

Example of CTI Weights & MPA Penalties					
Hospitals	**2019 MPA Adjustment**	**2019 MPA TCOC**	**CTI TCOC**	**Weight**	**Weighted Adjustment**
Hospital A	$(1,820,852)	$406,361,826	$184,128,274	45%	$(995,798)
Hospital B	$(217,576)	$94,778,292.69	$21,828,897	23%	$(167,465)
Hospital C	$1,253,352	$211,943,753	$349,889,160	100%	$1,253,352

This policy allows hospitals to focus on the CTI, where they define their own attribution rules in order to tailor them to their clinical interventions; however, a hospital that is participating in CTI only nominally would still maintain a significant weight on the traditional MPA in order to ensure that hospitals remains accountable for their equitable share of the State's collective mission of reducing the TCOC. For example, a hospital that participates in enough CTI to exceed the TCOC attributed to them under the TCOC would

[2] Values are based on preliminary CTI participation. This table will be made publicly available once CTI submissions for 2021 are complete.

be able to focus exclusively on their CTI; a hospital that had only 50% of their MPA attributed dollars covered under a CTI would have a blend of traditional MPA and CTI performance.

Staff recommend that the CTI weight be applied solely to MPA penalties. A hospital that has successfully reduced its geographic TCOC and yet continues to participate in CTI should continue to be rewarded in both.

Supplemental MDPCP Accountability

The Commission directed staff to increase the accountability for managing the TCOC in the MDPCP. Therefore, staff recommend adding a supplemental MPA adjustment for hospitals that are affiliated with practices that are participating in MDPCP. HSCRC will measure the TCOC savings produced by the MDPCP and reward / penalize hospitals based on their performance relative to the State.

First, HSCRC will measure the 2019 TCOC per capita for all beneficiaries that CMMI attributed to the hospital-affiliated NPIs. Second, HSCRC will measure the 2021 TCOC per capita for all beneficiaries that CMMI attributed to the hospital-affiliated NPIs. Hospitals will be required to submit a list of the NPIs they are affiliated with for each performance year. For this purpose, “affiliated” will be defined as those NPIs employed by the regulated hospital entity, or an entity owned by the regulated hospital entity or its corporate parent or a sister entity also owned by its corporate parent. The NPIs that are participating in MDPCP may change over time; regardless, HSCRC will measure the TCOC attributed to the hospital based on the actual participation in MDPCP. Third, HSCRC will calculate the hospital’s per capita savings by comparing the difference in per capita costs between 2019 and 2021 for the assigned beneficiaries.

Once the hospital’s per capita savings is known, the HSCRC will calculate the difference between the Statewide average per capita savings on all MDPCP beneficiaries, and the hospital's individual savings. The supplemental MPA adjustment will be equal to the difference between the Stage average result and the hospital's individual result times the number of beneficiaries assigned to the hospital’s affiliated NPIs. The calculation and an example is shown below.

Table 5: Supplemental MDPCP Adjustment Calculations

Variable	Input
A = Statewide 2019 Per Capita TCOC	Calculation
B = Statewide 2021 Per Capita TCOC	Calculation
C = Hospital 2019 Per Capita TCOC	Calculation
D = Hospital 2021 Per Capita TCOC	Calculation
E = Hospital 2021 MDPCP Beneficiaries	CMMI Attribution List
F = Supplemental MPA Adjustment	((A - B) - (C - D)) x E
Example Supplemental MDPCP Adjustment for Hospital-Affiliated MDPCP Practices	

	Statewide		Hospital A		Hospital B	
	Baseline	**Performance Period**	**Baseline**	**Performance Period**	**Baseline**	**Performance Period**
Benes	250,000	300,000	20,000	25,000	30,000	40,000
Claims-Based Payments	$3,437 mil.	$4,017 mil.	$275 mil.	$326 mil.	$412 mil.	$542 mil.
Care Management Fees for Affiliated NPIs	$63 mil.	$108 mil.	$5 mil	$9 mil.	$7.6 mil.	$14 mil.
TCOC	$3,500 mil.	$4,125 mil.	$280 mi.	$335 mil.	$420 mil.	$556 mil.
TCOC per Capita	$14,000	$13,750	$14,000	$13,400	$14,000	$13,900
Per Capita Savings		$250		$600		$100
Savings in Excess of State		-		$350		$-150
Net Payments		-		$8.7 mil.		$-6 mil.

Staff recommends making the supplemental MPA adjustment based on savings relative to the state average for two reasons: (1) monies will be redistributed from hospitals that are underperforming in MDPCP to hospitals that are successful in MDPCP; and (2) hospitals will be encouraged to compete with one another to be the most successful in MDPCP – hopefully thereby increasing overall performance.

Staff recommend capping the MPA supplemental adjustment at the amount of the care management fees received by the hospital. For this purpose, care management fees received by the hospital would include both for their Affiliated NPIs included in the measurement above and fees received by the hospital for providing CTO services to non-Affiliated NPIs. MDPCP is an important part of the state's delivery system transformation. If the magnitude of the penalty exceeded the amount of the care management fees that the hospital receives, it would be a disincentive for hospitals to participate in an important delivery system transformation.

Rewards and penalties under this Supplemental MDPCP Accountability will not count towards the 1% maximum fees at risk described above and will be incremental to the standard MPA reward or penalty.

Policy Update Report and Discussion

Staff will present materials at the Commission Meeting.

maryland
health services
cost review commission

TO: HSCRC Commissioners

FROM: HSCRC Staff

DATE: October 14, 2020

RE: Hearing and Meeting Schedule

November 12, 2020 To be determined - 4160 Patterson Avenue
HSCRC/MHCC Conference Room
****Please note November meeting is on a Thursday****

September 9, 2020 To be determined – 4160 Patterson Avenue
HSCRC/MHCC Conference Room

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.