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Department of Health and Mental Hygiene

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540th MEETING OF THE HEALTH SERVICES COST REVIEW COMMISSION
May 10, 2017

EXECUTIVE SESSION
10:30 a.m.
(The Commission will begin in public session at 11:00 a.m. for the purpose of, upon motion and approval, adjourning into closed session. The open session will resume at 1:00 p.m.)

1. **Update on Contract and Modeling of the All-payer Model vis-a-vis the All-Payer Model Contract – Administration of Model Moving into Phase II - Authority General Provisions Article, §3-103 and §3-104**

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

3. **Personnel Matters – Authority General Provisions Article, §3-305 (b) (1)**

PUBLIC SESSION
1:00 p.m.

1. **Review of the Minutes from the Public Meeting and Executive Session on April 12 & 25, 2017**
2. **Executive Director's Report, including Recommendation for Resolution of Rate Related Issues with Johns Hopkins Hospital**
3. **New Model Monitoring**
4. **Docket Status – Cases Closed**
   2379A – Johns Hopkins Health System **2380A - University of Maryland Medical Center**
   2381A – Johns Hopkins Health System **2382A – Johns Hopkins Health System**
5. **Docket Status – Cases Open**
   2371R – MedStar Franklin Square Medical Center **2372A - Doctors Community Hospital**
   2383A – Johns Hopkins Health System
6. **Presentation by Greater Baltimore Medical Center**
7. **Final Recommendation to Update the Readmissions Reduction Incentive Program for RY 2019**
8. **Final Recommendation for Continued Support for the Maryland Patient Safety Center for FY 2018**
9. **Final Recommendation on Medicaid Current Financing for CY 2017**

10. **Draft Recommendation for PAU Savings for RY 2018**
11. **Draft Recommendation for Maximum Revenue Guardrail for Quality Programs for RY 2019**
12. **Draft Recommendation for Nursing Support Program II**
13. **Draft Recommendation for Update Factor for FY 2018**
14. **Fiscal Year 2016 Community Benefits Report**
15. **Hearing and Meeting Schedule**

Executive Director's Report

The Executive Director's Report will be distributed during the Commission Meeting

New Model Monitoring Report

The Report will be distributed during the Commission Meeting

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 MAY 2, 2017

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
2371R	MedStar Franklin Square Medical Center	12/23/2016	5/10/2017	5/22/2017	Capital	GS	OPEN
2372A	Doctors Community Hospital	1/5/2017	N/A	N/A	ARM	DK	OPEN
2382A	Johns Hopkins Health System	4/26/2017	N/A	N/A	ARM	DNP	OPEN

PROCEEDINGS REQUIRING COMMISSION ACTION - NOT ON OPEN DOCKET

IN RE: THE APPLICATION FOR	*	BEFORE THE MARYLAND HEALTH	
ALTERNATIVE METHOD OF RATE	*	SERVICES COST REVIEW	
DETERMINATION *		COMMISSION	
JOHNS HOPKINS HEALTH	*	DOCKET:	2017
SYSTEM	*	FOLIO:	2193
BALTIMORE, MARYLAND	*	PROCEEDING:	2383A

Staff Recommendation

May 10, 2017

I. INTRODUCTION

Johns Hopkins Health System ("System") filed an application with the HSCRC on April 26, 2017 on behalf of Johns Hopkins Hospital and Johns Hopkins Bayview Medical Center ("the Hospitals") for renewal of a renegotiated alternative method of rate determination arrangement, pursuant to COMAR 10.37.10.06. The System requests approval from the HSCRC to continue to participate in a revised global rate arrangement for solid organ and bone marrow transplant services with Blue Cross Blue Shield Blue Distinction Centers for Transplants for a period of one year beginning June 1, 2017.

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II. OVE RVIEW OF APPLICATION

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

III. FEE DEVELOPMENT

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

IV. IDENTIFICATION AND ASSESSMENT OF RISK

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

V. STAFF EVALUATION

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

VI. STAFF RECOMMENDATION

The staff recommends that the Commission approve the Hospitals' application for an alternative method of rate determination for solid organ and bone marrow transplant services for a one year period commencing June 1, 2017. 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.

Greater Baltimore Medical Center Presentation

Representatives from GBMC will present materials at the Commission meeting.

RRIP Final Recommendation to be added as soon as completed.

Final Recommendations on Continued Financial Support for the Maryland Patient Safety Center for FY 2018

May 3, 2017

Health Services Cost Review Commission
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LIST OF ABREVIATIONS

Delmarva	Delmarva Foundation for Medical Care
DHMH	Department of Health and Mental Hygiene
FY	Fiscal Year
HQI	Hospital Quality Initiative
HSCRC	Health Services Cost Review Commission
MHA	Maryland Hospital Association
MHCC	Maryland Health Care Commission
MPSC	Maryland Patient Safety Center
NAS	Neonatal Abstinence Syndrome
RFP	Request for Proposals

INTRODUCTION

In 2004, the Maryland Health Services Cost Review Commission (HSCRC or Commission) adopted recommendations to provide seed funding for the Maryland Patient Safety Center (MPSC) through hospital rates. The initial recommendations funded 50 percent of the reasonable budgeted costs of the MPSC. The HSCRC collaborates on MPSC projects as appropriate, and receives an annual briefing and documentation on the progress of the MPSC in meeting its goals, as well as an estimate of expected expenditures and revenues for the upcoming fiscal year. Based on staff experience and the annual information provided by the MPSC, staff evaluates the reasonableness of the budget items presented and makes continued financial support recommendations to the Commission.

Over the past 12 years, the HSCRC increased the rates of eight Maryland hospitals by the following amounts in order to provide funding to cover the costs of the MPSC. Funds are transferred on a biannual basis (by October 31 and March 31 of each year).

- FY 2005 - $762,500
- FY 2006 - $963,100
- FY 2007 - $1,134,980
- FY 2008 - $1,134,110
- FY 2009 - $1,927,927
- FY 2010 - $1,636,325
- FY 2011 - $1,544,594
- FY 2012 - $1,314,433
- FY 2013 - $1,225,637
- FY 2014 - $1,200,000
- FY 2015 - $1,080,000
- FY 2016 - $972,000
- FY 2017 - $874,800

In February 2017, the HSCRC received the MPSC program plan update for fiscal year (FYs) 2017 and 2018 (see Appendix I). The MPSC is requesting a total of $831,060 in funding support from the HSCRC for FY 2018, a 5 percent decrease over the previous year. However, as explained in the report below and the recommendations that follow, staff believes that the funding for the MPSC should be reduced by 10 percent as it has in previous years.

BACKGROUND

The 2001 General Assembly passed the Patients' Safety Act of 2001,[1] charging the Maryland Health Care Commission (MHCC)—in consultation with the Maryland Department of Health and Mental Hygiene (DHMH)—with studying the feasibility of developing a system for reducing the number of preventable adverse medical events in Maryland, including a system of reporting such incidences. The MHCC subsequently recommended the establishment of the MPSC to improve patient safety in Maryland.

In 2003, the General Assembly endorsed this concept by including a provision in legislation to allow the MPSC to have medical review committee status, thereby making the proceedings, records, and files of the MPSC confidential and not discoverable or admissible as evidence in any civil action.[2]

The MHCC selected the Maryland Hospital Association (MHA) and the Delmarva Foundation for Medical Care (Delmarva) through the State's Request for Proposals (RFP) procurement process to establish and operate the MPSC in 2004, with an agreement that the two organizations would collaborate in their efforts. MHA and Delmarva jointly operated the MPSC from 2004 to 2009. The MPSC was then reorganized as an independent entity and was re-designated by the MHCC as the state's patient safety center starting in 2010 for two additional five-year periods. The MPSC's current designation extends through December 2019.

ASSESSMENT

Strategic Priorities and Partnerships

The MPSC's vision is to be a center of patient safety innovation, convening health care providers to accelerate understanding of, and implement evidence-based solutions for preventing avoidable harm. Its mission is to make healthcare in Maryland the safest in the nation.

The MPSC's goals are to:

- Eliminate preventable harm for every patient, with every touch, every time
- Develop a shared culture of safety among patient care providers
- Be a model for safety innovation in other states

To accomplish its vision, mission, and goals, the MPSC established and continues to build new strategic partnerships with an array of key private and public organizations. The organizations represent a broad array of interests and expertise, including

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[1] Chapter 318, 2001 Md. Laws.
[2] MD. CODE. ANN., Health-Gen. § 1-401(b)(14);(d)(1).

policymakers and providers across the continuum of healthcare quality, safety, and learning and education. See Appendix I for more details on the MPSC's priorities and partnerships.

Maryland Patient Safety Center Activities, Accomplishments, and Outcomes

Below are highlights of the MPSC's key accomplishments for FY 2017 (more fully outlined in Appendix I):

MPSC Members and Partnerships

- The MPSC included 43 dues-paying member hospitals
- The Mid-Atlantic Patient Safety Organization, a component of the MPSC, included 37 facilities
- The MPSC included 12 strategic partners

Initiatives

- Began marketing of the Caring for the Caregiver program, with strong interest from hospitals in Maryland, New York, South Carolina, and California
- Initiated the Primary Cesarean-Section program in July 2016
- Initiated the Neonatal Abstinence Syndrome program in October 2016, which includes 31 birthing hospitals
- Recruited 18 hospitals, 3 long-term care facilities, and 5 ambulatory surgical centers to the Clean Collaborative initiative
- Continued the decrease in sepsis mortality through the Sepsis Collaborative program
- Served as a consultant to the Hospital Quality Institute (HQI) on the long-term care sepsis collaborative, which includes 35 Maryland long-term care facilities

Educational Programs and Conferences

- Customized educational programs for MPSC members driven by changing needs of members and the healthcare industry
- Expanded the reach of the MPSC and increased participation levels of member hospitals through educational opportunities
- Convened the Annual Maryland Patient Safety Center Conference, which is the MPSC's signature event providing awareness, education, and information regarding best practice solutions
- Convened the Annual Medication Safety Conference, which concentrates on the prevention of medication errors

FY 2018 Quality and Safety Initiatives

The MPSC has a number of ongoing multi-year quality and safety initiatives, as well as new initiatives that will commence in FY 2018. Ongoing initiatives include the following:

- **Improving Sepsis Survival Collaborative:** This initiative is designed to reduce sepsis mortality at Maryland hospitals by working with participating hospitals to share successes, challenges, experiences, and ideas through facilitated meetings, calls, and webinars. The goal of the collaborative is to reduce sepsis mortality by ten percent at participating hospitals, with an ultimate goal of sharing best practices to reduce sepsis mortality statewide. Currently, 21 hospitals participate in two cohorts (Cohort I contains 10 hospitals and Cohort II contains 11 hospitals). The hospitals self-report monthly mortality data for patients with severe sepsis and septic shock and submit a quarterly status report. The MPSC is also in discussion with HSCRC staff about an expanded multi-year sepsis initiative.
- **Clean Collaborative:** In order to reduce healthcare associated infections, the MPSC contracted with CleanHealth Environmental to lead the Clean Collaborative initiative. Teams from hospitals, long-term care facilities, and ambulatory surgical centers are provided with both in-person and virtual opportunities to convene panels of experts to share best management practices for cleaning and disinfecting facility-wide surface areas, as well as opportunities to facilitate team collaboration. Currently, 18 hospitals, 3 long-term care facilities, and 5 ambulatory surgical centers participate in the collaborative. All participating healthcare facilities utilize clean validation technology at no cost. Participating facilities submit monthly sample results from targeted patient care and public areas. The MPSC's Clean Collaborative began in March 2016 and will end data collection in April 2017. The goal of the collaborative is to reduce the number of relative light units sampled in each facility by ten percent in order to reduce the number of healthcare associated infections in the State.
- **Neonatal Abstinence Syndrome (NAS) Collaborative:** The MPSC is facilitating a collaborative to improve the care of infants with NAS, which contributes to a significant amount of health care costs and resources and is increasing with the opioid epidemic. Participants include 31 birthing hospitals in Maryland, as well as the Mt. Washington Pediatric Hospital. The NAS Collaborative aims to standardize care for infants with NAS by providing hospitals with evidence-based best practices and education. Ultimately, the goal of the collaborative is to reduce length of stay, 30-day readmissions, and transfers to higher levels of care for infants with NAS. This collaborative began in October 2016 and will finish by September 2018.
- **Reducing Primary Cesareans and Supporting Intended Vaginal Births:** Since July 2016, the MPSC has partnered with the Alliance for Innovation in Maternal Health (AIM) to conduct the Reducing Primary Cesareans and Supporting

Intended Vaginal Births initiative. The initiative uses emerging scientific, clinical, and patient safety advances to reduce primary (first time) cesarean rates in singleton, vertex term deliveries by ten percent.

- **Adverse Event Reporting:** Initiated in July 2016, the Adverse Event Reporting initiative is a Patient Safety Organization that identifies trending patient safety issues, such as medication errors, at select Maryland hospitals. Data collected on adverse events help to determine future programming and educational needs for Maryland hospitals.

Three new initiatives will commence in FY 2018:

- **Medication Reconciliation**: A multi-disciplinary study group will explore potential opportunities to improve the process of medication reconciliation to improve patient safety.
- **Diagnostic Errors**: A study group will explore the role that the MPSC could take in the emerging work on diagnostic errors.
- **Opioid Misuse**: In response to the statewide opioid addiction epidemic, the MPSC has partnered with MHA and MedChi to propose a patient-centered statewide public awareness campaign aimed at educating consumers on opioid use. Topics will include reasonable pain management expectations, the pros and cons of opioid use, opioid prescription storage and disposal, and important questions to ask when being prescribed an opioid medication.

FY 2018 Projected Budget

The MPSC continued to work with its partners to secure program-specific funding for FY 2018 and estimated the amounts it will secure for FY 2018 in the proposed budget outlined in Figure 1 below, which includes the requested level of funding from the HSCRC. As illustrated below, significant parts of the budget are reduced over the prior year, including cash contributions from MHA, Delmarva, individual hospitals, and long-term care facilities. While hospitals and long-term care facilities will now pay annual member dues, the member dues do not completely offset the lost revenue from FY 2017.

The MPSC is also working on bolstering other revenue streams, such as the training and licensing of the Caring for the Caregiver program. Diversifying the revenue stream for MPSC is crucial to the long-term sustainability of the Center in order to create stability in fiscal planning and to move away from the reliance on rate setting funds.

Figure 1. Proposed MPSC Revenue and Expenses

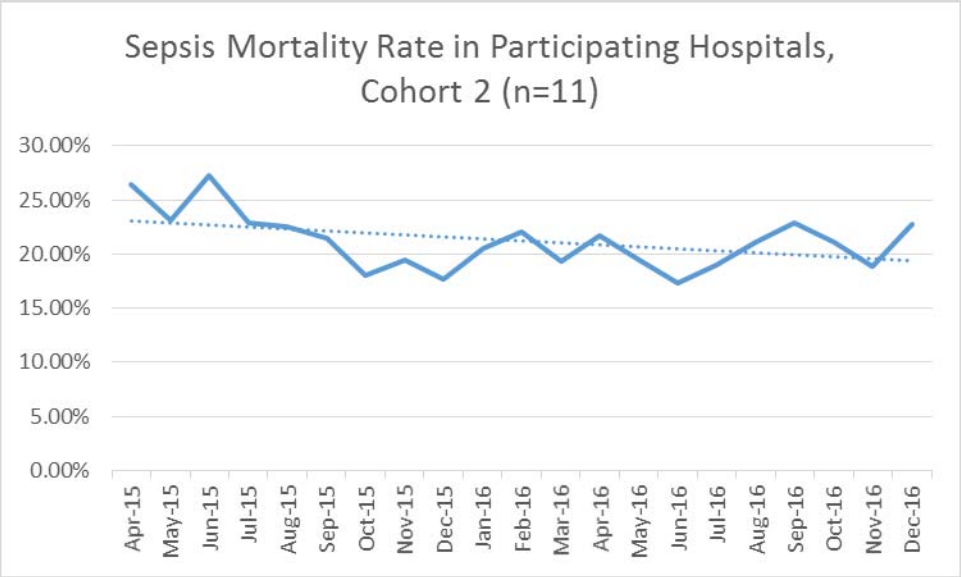
	FY 2017			FY 2018		
Revenue			**Budget**			**Budget**
Cash Contributions from MHA/Delmarva			100,000			-
Cash Contributions from Hospitals			30,000			-
Cash Contributions for Long-term Care			25,000			-
HSCRC Funding			874,800			831,060
Membership Dues			350,000			375,000
Education Session Revenue			14,000			9,000
Conference Registrations-Annual MedSafe Conference			2,000			2,000
Conference Registrations-Annual Patient Safety Conference			75,000			30,000
Sponsorships			140,000			170,000
Program Sales			60,000			60,000
Patient Safety Certification Revenue			85,000			25,000
DHMH Grant			200,000			200,000
Other Grants/Contributions			50,000			50,000
Total Revenue			**2,005,800**			**1,752,060**
	FY 2017			**FY 2018**		
Expenses	**MPSC**	**Consultants**	**Total**	**MPSC**	**Consultants**	**Total**
Administration	581,750		581,750	578,826		578,826
Outpatient Dialysis (previously committed)	-		-	-		-
Programs			-			-
Education Sessions		69,000	69,000		65,000	65,000
Annual Patient Safety Conference		370,500	370,500		289,500	289,500
MEDSAFE Conference		33,250	33,250		19,250	19,250
Caring for HC	93,400	50,000	143,400	65,890	40,000	105,890
Patient/Family Centered Care	-	-	-	-	-	-
Safety Initiatives-Perinatal/Neonatal	206,850	-	206,850	218,156	-	218,156
Safety Initiatives-Hand Hygiene	-	-	-	-	-	-
Safety Initiatives-Safe from Falls	-	-	-	-	-	-
Safety Initiatives-Adverse Event Reporting	25,100	40,000	65,100	41,700	-	41,700
Patient Safety Certification	132,300	15,000	147,300	46,500	-	46,500
Sepsis	38,200	47,150	85,350	44,960	15,000	59,960
Clean Environment	61,300	97,900	159,200	49,600	58,000	107,600
Patient Family Bundle	22,700	-	22,700	-	-	-
Med Rec	19,500	-	19,500	33,600	-	33,600
Surgical	19,500	-	19,500	-	-	-
Diagnosis Errors	19,500	-	19,500	39,400	5,000	44,400
Opioid Misuse	-	-	-	118,000	5,000	123,000
Total Expenses	**1,220,100**	**722,800**	**1,942,900**	**1,236,632**	**496,750**	**1,733,382**
Net Income (Loss)			**62,900**			**18,678**

MPSC Return on Investment

As noted in the last several Commission recommendations, the All-Payer Model provides funding for the MPSC with the expectation that there will be both short- and long-term reductions in Maryland healthcare costs, particularly related to such outcomes as reduced mortality rates, lengths of stay, patient acuity, and malpractice insurance costs. The MPSC must continue to collect data on its programs in order to show quantifiable improvements in patient safety and outcomes and to share best practices.

Based on the data generated and reported by the MPSC (e.g., a 13 percent reduction in sepsis mortality in cohort II and a 20 percent reduction in sepsis mortality at all Maryland hospitals), HSCRC staff believes that some of the MPSC programs align with the goals of the All-Payer Model and have the opportunity to assist hospitals with meeting key metrics. Figure 2 shows reduction in sepsis mortality for the hospitals participating in MPSC's sepsis initiative, as reported by the MPSC in its FY 2017 Update and FY 2018 Program Plan.

Figure 2. Sepsis Mortality Rate



Additional data on all of the MPSC's programs is needed to ensure that the limited dollars available for MPSC funding creates meaningful improvements in quality and outcomes at facilities in Maryland – particularly outcomes that are consistent with the requirements under the All-Payer Model.

RECOMMENDATIONS

Quality and safety improvements are the primary drivers of the State's All-Payer Model in order to achieve the goals of reduced potentially avoidable utilization and reduced complications in acute care settings. For these reasons, it is important to continue to support hospitals in

identifying and sharing best practices to improve patient quality and outcomes. While individual hospitals across the State are experimenting with strategies to improve care coordination, enhance processes for better care, and advance systems and data sharing to maximize the efficiency and effectiveness of care, the MPSC is in a unique position in the State to convene healthcare providers to share best practices that have been identified through multi-provider collaborative testing and change. The key stakeholders that are involved with the MPSC include hospitals, patients, physicians, long-term care and post-acute providers, ambulatory care providers, and pharmacy – all groups that are critical to the success of the All-Payer Model. The MPSC is in a favorable position in the State to develop and share best practices among this group of key stakeholders.

In light of the information presented above, HSCRC staff provides the following recommendations for the MPSC funding support policy for FY 2018:

1. The HSCRC should maintain current Commission policy (of an annual 10 percent reduction) by providing funding support for the MPSC in FY 2018 through an increase in hospital rates in the amount of $787,320, a 10 percent reduction from FY 2017.
2. In order to receive future funding from the hospital rate setting system, the MPSC should report quarterly on data that it has collected from hospitals and other facilities that participate in its quality and safety initiatives and demonstrate, to the extent possible, the ways in which MPSC initiatives are producing measurable gains in quality and safety at participating facilities. Prior to quarterly reporting, the MPSC should work in consultation with HSCRC to identify the appropriate reporting measures that are consistent with the requirements of the All-Payer Model.
3. Going forward, the HSCRC should decrease the amount of support by 10 percent per year, or a greater amount contingent upon:
    a. How well the MPSC initiatives align with a broader statewide plan and activities for patient safety; and
    b. Whether new MPSC revenues offset HSCRC funding support.
4. The MPSC should continue to pursue strategies to achieve long-term sustainability through other sources of revenue, including identifying other provider groups that benefit from MPSC programs.

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MARYLAND Patient Safety CENTER

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May 3, 2017

Nelson J. Sabatini
Chairman
Health Services Cost Review Commission
4160 Patterson Avenue
Baltimore, MD 21215

Dear Chairman Sabatini:

As Chair of the Maryland Patient Safety Center Board of Directors, I am writing to support the staff recommendation with regard to funding for the Maryland Patient Safety Center.

The Maryland Patient Safety Center is committed to supporting our provider community in the delivery of safe, quality healthcare. We accomplish this through developing and disseminating evidenced-based best practices through collaboratives, conferences, training classes, seminars, patient safety forums and "safe table" discussions. We collect and analyze outcome and adverse event data in order to best determine program direction.

Our programming, which is approved by the Board of Directors, is determined based on our strategic areas of focus to include: Innovation, Elimination of Harm, and a Shared Patient Safety Culture Among Providers. Additionally, we strongly consider how our programs support and move forward the Maryland All-Payer Model. Further, we require our programs to be applicable throughout the provider continuum and be relevant related to patient/family centered care. Our process begins with a comprehensive study by staff to determine issues germane to today's patient safety environment, continuing with an examination and recommendation from the Strategic Planning Committee to the full Board. The programs that we intend to pursue in FY 2018 address the most important issues of today, including the opioid crisis, diagnosis errors, continued reduction of healthcare associated infection (HAI's) and medication reconciliation. The list of possible programs is extensive, which requires us to be judicious in our selections as we are limited in both human and financial resources.

We are very proud of what the organization has accomplished in our fourteen years and how we continue to support the All-Payer Model. To that end, our programs have led to lower utilization rates, decreased HAI rates, lower falls rates, a reduced incidence of harm to mothers and babies, significant cost savings and lives saved in addition to an improved overall culture of patient safety. Some highlights of these successes are as follows:

- 203 fewer first time C-sections
- 8,100 fewer Early Elective deliveries
- 113 fewer cases of Clostridium-difficile
- 19% decline in deaths due to sepsis
- 54% decrease in acute care falls w/ injury
- 18% decrease in Long Term Care falls w/ injury
- $18.4 million in total cost savings

I hope this gives you a strong sense of the importance of the Maryland Patient Safety Center and the very important work that we do. It is on that basis that I, along with my fellow Board members, ask for the Commission's support of the staff recommended funding level.

Sincerely,

James Rost, MD

Gerald Abrams, Director
Abrams, Foster, Nole & Williams, PA

Eugene A. Friedman
Former Corporate Counsel, 1st Mariner Bank

Kelly Corbi
Chief Operating Officer
Northwest Hospital

Paul Fronstin, PhD
Employee Benefit Research Institute

Joseph DeMattos, Jr., MA
Health Facilities Association of Maryland

David Horrocks, President
CRISP

Barbara Epke, Vice President
LifeBridge Health, Inc. & Sinai Hospital of Baltimore

Andrea M. Hyatt, President
Maryland Ambulatory Surgery Association

E. Robert Feroli, Jr., PharmD, FASHP, FSMSO
Johns Hopkins Hospital

Robert Imhoff, President & CEO
Maryland Patient Safety Center

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Maryland State Senate

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David B. Mayer, MD, Corporate VP Quality & Safety
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Dimensions Health

Del. Sheree Sample-Hughes
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Barbara Tachovsky, MSN, RN, NEA-BC, FACHE

Michael R. Yochelson, MD, MBA, FACHE
MedStar National Rehabilitation Network

cc: Herbert S. Wong, Ph.D., Vice Chairman
Joseph Antos, Ph.D.
Victoria W. Bayless
George H. Bone, M.D.
John M. Colmers
Jack C. Keane
Donna Kinzer, Executive Director

CRISP

Connecting Providers with Technology to Improve Patient Care

May 2, 2017

Nelson J. Sabatini, Chairman
Donna Kinzer, Executive Director
Health Services Cost Review Commission
4160 Patterson Avenue
Baltimore, MD 21215

Dear Chairman Sabatini:

As a member of the Maryland Patient Safety Center Board of Directors, I write to make the case that support of the Center is a worthy investment for the Health Services Cost Review Commission. I will caveat up front that some portion of the good work at MPSC, such as the patient safety certification program and the regional educational conference, are worthy undertakings which should be supported by stakeholders other than the HSCRC. The commission is probably not best equipped to assess effectiveness and value of that work.

Yet, another portion of MPSC work is unique and highly, highly relevant to issues on which HSCRC is focused. Specifically, some efforts to address poor outcomes such as are measured in MHACs, and some efforts to rethink potentially avoidable utilization, are best attacked cooperatively. It can be, for instance, difficult for a single hospital to impose new processes or requirements on, by way of example, its affiliated OBGYNs. Clinicians may resist such mandates, questioning the rational, and viewing them through the lens of an out-of-touch bureaucracy.

By contrast, the MPSC is very good at convening clinicians to cooperatively develop, adopt, and monitor improved processes and standards of care. No one hospital is going it alone, and the clinicians themselves are engaged from the beginning. This multi-stakeholder and multi-organization approach has demonstrated impressive results in a number of prior initiatives. MPSC is a very efficient and effective mechanism for collaborative improvement, and sometimes the collaborative approaches are best.

The Maryland all-payer model is, of course, uniquely suited to motivate improvements, collaboration, and care redesign. HSCRC's support of MPSC creates a vehicle in which these motivated parties can accomplish great things together. The baseline funding HSCRC provides to MPSC is essential for monitoring and maintaining improvements that have been achieved, and the funding provides some capacity to develop new initiatives.

If anything, I would suggest that HSCRC should, in addition to a baseline funding for MPSC, consider additional funding on a case-by-case basis for specific worthy projects that are closely aligned with statewide aims. When such projects are supported, MPSC could work with its participants to make regular reports on progress to HSCRC, giving commissioners a sense along the way of the return on those investments.

Lastly, as a board member I view your request for a better accounting of MPSC accomplishments to be fully justified and a healthy discipline for our organization. My expectation is that you will be pleased with what you learn of the accomplishments to date.

David Horrocks

President & CEO, CRISP
Vice Chair, MPSC Board

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KATHERINE KLAUSMEIER
Legislative District 8
Baltimore County

Finance Committee

Executive Nominations Committee

Chair
Rules Committee

Vice Chair
Baltimore County Senate Delegation

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4100 Walter Avenue
Baltimore, Maryland 21236

April 24, 2017

Nelson J. Sabatini
Chairman
Health Services Cost Review Commission
4160 Patterson Avenue
Baltimore, MD

Dear Chairman Sabatini:

I am writing in support of the Maryland Patient Safety Center and their annual funding request. As a Board member and a member of the Maryland legislature, I am very much aware of the valuable assistance MPSC provides our hospitals and other healthcare providers in their efforts to provide safe care for all the citizens of Maryland.

In my role as a member of the Board of Directors, I see first-hand the very deliberative and committed work of the organization in putting forward relevant programming that addresses today's patient safety issues. Their work in supporting providers as they advance the Maryland All Payer model is invaluable.

I am more than satisfied that the Maryland Patient Safety Center has and continues to fulfill the role we intended when the legislation creating the organization was passed in 2003.

Thank you for your consideration and I urge the Commission to vote in favor of MPSC's request.

Sincerely,

Kathy Klausmeier

Kathy Klausmeier
State Senator

cc: Herbert S. Wong, Ph.D., Vice Chairman
Joseph Antos, Ph.D.

Victoria W. Bayless
George H. Bone, M.D.
John M. Colmers
Jack C. Keane
Donna Kinzer, Executive Director

SHEREE SAMPLE-HUGHES
Legislative District 37A
Dorchester and Wicomico Counties

Health and Government
Operations Committee

The Maryland House of Delegates
6 Bladen Street, Room 221
Annapolis, Maryland 21401
410-841-3427 · 301-858-3427
800-492-7122 *Ext.* 3427
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Sheree.Sample.Hughes@house.state.md.us

THE MARYLAND HOUSE OF DELEGATES
ANNAPOLIS, MARYLAND 21401

April 24, 2017

Nelson J. Sabatini, Chairman
Health Services Cost Review Commission
4160 Patterson Avenue
Baltimore, MD

Dear Chairman Sabatini:

As a member of the Health and Government Operations Committee of the Maryland House of Delegates and the Maryland Patient Safety Center Board of Directors, I am writing to express my support for the annual funding request made by the Maryland Patient Safety Center.

In 2003 the Maryland legislature saw the need for an organization to advance patient safety throughout the state of Maryland; hence, the establishment of the Maryland Patient Safety Center. Since its inception MPSC has put forward programming that helps ensure the delivery of safe, quality healthcare for all Marylanders. These programs have been directly responsible for many safety and quality improvements and have saved lives and millions of healthcare dollars. Were the Maryland Patient Safety Center forced to significantly reduce its programming offerings or worse, cease to exist, I am all but certain that there would be a considerable void resulting in a far less safe healthcare environment.

It is for these reasons that I strongly urge a Health Services Cost Review Commission vote in favor of the funding request, and thank you for your attention in this matter and for your support.

Sincerely,

Sheree Sample-Hughes
Delegate, District 37A

cc: Herbert S. Wong, Ph.D., Vice Chairman
Joseph Antos, Ph.D.
Victoria W. Bayless
George H. Bone, M.D.
John M. Colmers
Jack C. Keane
Donna Kinzer, Executive Director

JOHNS HOPKINS
MEDICINE

Ronald R. Peterson

President
Johns Hopkins Health System

Executive Vice President
Johns Hopkins Medicine

April 28, 2017

Nelson J. Sabatini
Chairman
Health Services Cost Review Commission
4160 Patterson Avenue
Baltimore, MD 21215

Dear Chairman Sabatini:

As the Commission is soon to vote on the annual funding for the Maryland Patient Safety Center, please accept this as notice of our strong support for their request.

Through the Armstrong Institute, we have collaborated on several projects and consider MPSC an important resource not just for Johns Hopkins, but for all providers in the state of Maryland. As I am sure you are aware, Johns Hopkins regards patient safety as our highest priority. Having an organization in the state with a similar commitment is of significant benefit to patients and providers alike.

Our goal of providing the safest and highest quality healthcare possible is made easier when we all work together. The ability of MPSC to serve as a facilitator in this regard is what makes them both unique and a valuable asset.

Thank you, in advance, for your support of this request as well as that of the Commission.

Sincerely,

Ronald R. Peterson

cc: Herbert S. Wong, Ph.D., Vice Chairman
Joseph Antos, Ph.D.
Victoria W. Bayless
George H. Bone, M.D.
John M. Colmers
Jack C. Keane
Donna Kinzer, Executive Director

733 North Broadway, MRB 104, Baltimore, Maryland 21205, 410-955-9540 phone, 410-955-0856 fax, rpeters@jhmi.edu

LIFEBRIDGE
HEALTH

Sinai Hospital
Northwest Hospital
Carroll Hospital
Levindale Hebrew Geriatric Center and Hospital

Neil M. Meltzer
President and Chief Executive Officer

April 27, 2017

Nelson J. Sabatini
Chairman
Health Services Cost Review Commission
4160 Patterson Avenue
Baltimore, MD 21215

Re: Maryland Patient Safety Center, Support and Funding

Dear Chairman Sabatini:

LifeBridge Health embraces patient safety in our mission and in all that we do every day. It is from this perspective that I would like to recognize and support the Maryland Patient Safety Center and the value of this organization to Maryland hospitals. LifeBridge Health is a high utilizer of MPSC programs and services. Northwest Hospital and Levindale Hebrew Geriatric Center and Hospital have achieved Certification in Patient Safety through the MPSC pilot program this year.

MPSC has focused on key issues that pertain to Maryland hospitals' quality performance--sepsis, appropriate use of C-sections, neonatal abstinence, decreasing early elective deliveries, controlling infections and fall safety, among others. We are enthusiastic participants in the Clean Collaborative, Improving Sepsis Survival, as well as all of the collaboratives associated with Obstetrics, and our improving quality outcomes show the benefit of participation. The MPSC collaboratives offer access to best practices from Maryland hospitals as well as the literature, education, and coaching. The dynamic change focus of these initiatives in these key areas cannot be found elsewhere in Maryland.

There is representation from LifeBridge Health on the Maryland Patient Safety Center Board of Directors, and we feel that hospitals have had a voice in choosing the most relevant areas that show opportunity for improvement in Maryland. Hospitals truly see patient safety as a priority, but the collaboration and resources offered by MPSC are a vital component in seeing improvements statewide.

The LifeBridge MPSC Board representatives tell me that MPSC is a well run and efficient organization, and is fiscally responsible. The annual conference is an excellent vehicle for hospitals to stay current. It is my hope that funding to keep MPSC thriving remains constant. The investment of the Maryland hospitals is evidence of this support. I or my team are available to discuss our support of the MPSC further as needed.

Sincerely,

Neil M. Meltzer
President and Chief Executive Officer

cc: Herbert S. Wong, Ph.D., Vice Chairman
Joseph Antos, Ph.D.
Victoria W. Bayless
George H. Bone, M.D.
John M. Colmers
Jack C. Keane
Donna Kinzer, Executive Director

Staff Recommendation

Medicaid Current Financing Methodology

May 10, 2017

Background

The Medical Assistance Program (MAP) requested at the Commission's April 13, 2016 public meeting to continue a modified current financing formula for CY 2016, i.e., increasing its CY 2015 current financing deposits being held by hospitals by the HSCRC's final update factor for FY 2016.

The Commission approved MAP's request with the caveat that it develop a revised current financing methodology or be required to use the standard current financing methodology applicable to commercial payers for its CY 2017 deposit calculation.

MAP's CY 2017 Request

On May 2, 2017, MAP submitted a request for the Commission to approve its use of the standard current financing methodology with the modification that excludes claims when Medicaid eligibility is retroactive. This methodology would provide an additional $16.4 million in current financing deposits for CY 2017. However, MAP pointed out in its request that it had not yet received approval from the Department of Budget and Management for the additional funds.

Staff Recommendation

After review, staff recommends approval of MAP's revised methodology for its CY 2017 and future current financing calculations. However, if because of the pressure of the State's continuing budget crisis the additional funding is not approved for CY 2017, staff would support as an alternative that the use of the new revised methodology be postponed for one year and that for CY 2017 MAP be permitted to increase its current financing deposits at hospital by the final HSCRC FY 2017 update factor of 2.72%.

Draft Recommendation for the Potentially Avoidable Utilization Savings Policy for Rate Year 2018

May 10, 2017

Health Services Cost Review Commission
4160 Patterson Avenue
Baltimore, Maryland 21215
(410) 764-2605
FAX: (410) 358-6217

This document contains the draft staff recommendations for implementing the Potentially Avoidable Utilization Savings Policy for Rate Year 2018. Please submit comments on this draft to the Commission by Friday, May 26, 2017, via hard copy mail or email to hscrc.quality@maryland.gov

Table of Contents

LIST OF ABBREVIATIONS

ADI	Area deprivation index
ARR	Admission-Readmission Revenue Program
CMS	Centers for Medicare & Medicaid Services
CY	Calendar year
DRG	Diagnosis-related group
ECMAD	Equivalent case-mix adjusted discharge
FFY	Federal fiscal year
FY	Fiscal year
GBR	Global budget revenue
HSCRC	Health Services Cost Review Commission
IPPS	Inpatient prospective payment system
PAU	Potentially avoidable utilization
PQI	Prevention quality indicators
RRIP	Readmissions Reduction Incentive Program
RY	Rate year
SOI	Severity of Illness
TPR	Total patient revenue

INTRODUCTION

The Maryland Health Services Cost Review Commission (HSCRC or Commission) operates a potentially avoidable utilization (PAU) savings policy as part of its portfolio of value-based payment policies. This policy was formerly known as the readmission shared savings policy, but its name changed to account for the expanded definition of avoidable utilization. The PAU savings policy is an important tool to maintain hospitals' focus on improving patient care and health through reducing PAU and its associated costs. The PAU savings policy is also important for maintaining Maryland's exemption from the Centers for Medicare & Medicaid Services (CMS) quality-based payment programs, as this exemption allows the state to operate its own programs on an all-payer basis.

In this recommendation, staff is proposing to continue the PAU methodology used in rate year 2017, to increase the level of savings derived from the policy, and to specify the calculations and application of the policy in conjunction with the state fiscal year (FY) 2018 update. The purpose of this report is to present background information and supporting analyses for the PAU savings recommendation for rate year (RY) 2018.

BACKGROUND

The United States ranks behind most countries on many measures of health outcomes, quality, and efficiency. Physicians face particular difficulties in receiving timely information, coordinating care, and dealing with administrative burden. Enhancements in chronic care— with a focus on prevention and treatment in the office, home, and long-term care settings—are essential to improving indicators of healthy lives and health equity. As a consequence of inadequate chronic care and care coordination, the healthcare system currently experiences an unacceptably high rate of preventable hospital admissions and readmissions. Maryland's new All-Payer Model was approved by CMS effective January 1, 2014. This Model aims to demonstrate that an all-payer system with accountability for the total cost of hospital care is an effective model for advancing better care, better health, and reduced costs.

HSCRC, together with stakeholders, has adapted and developed a series of policies and initiatives to improve care and care coordination, with a particular focus on reducing PAU.

Under the state's previous Medicare waiver, the Commission approved a savings policy on May 1, 2013, which reduced hospital revenues based on case-mix adjusted readmission rates using specifications set forth in the HSCRC's Admission-Readmission Revenue (ARR) Program.[1] Nearly all hospitals in the state participated in the ARR program, which incorporated 30-day readmissions into a hospital episode rate per case, or in the Total Patient Revenue (TPR) system, a global budget for more rural hospital settings. With the implementation of the ARR and the

[1] A readmission is an admission to a hospital within a specified time period after a discharge from the same or another hospital.

advent of global budgets, the HSCRC created a Savings policy to ensure that payers received savings that would be similar to those that would have been expected from the federal Medicare HRRP. Unlike the federal HRRP which provides savings to payers by avoiding readmissions, the Maryland system "locks in" those savings into the hospital budget, so a separate savings policy is necessary. Under the new All-Payer Model, the Commission continued to use the savings adjustment to ensure a focus on reducing readmissions, ensure savings to purchasers, and to meet the exemption requirements for "revenue at-risk" under Maryland's value-based programs.

For RYs 2014 and 2015, the HSCRC calculated a case-mix adjusted readmission rate based on ARR specifications for each hospital for the previous calendar year.[2,3] The statewide savings percentage was converted to a required reduction in readmission rates, and each hospital's contribution to savings was determined by its case-mix adjusted readmission rates. Based on 0.20 percent annual savings, the total reduction percentage was 0.40 percent of total revenue in RY 2015.

In RY 2016, the HSCRC updated the methodology for calculating the savings reduction to use the case-mix adjusted readmission rate based on the specifications for the Readmissions Reduction Incentive Program (RRIP).[4] Based on 0.20 percent annual savings, the total reduction percentage was 0.60 percent of total revenue in RY 2016.

In RY 2017, the Commission expanded the savings policy to align the measure with the potentially avoidable utilization (PAU) definition used in the market shift adjustment, incorporating readmissions, as well as admissions for ambulatory care sensitive conditions as measured by the Agency for Health Care Research and Quality's Prevention Quality Indicators (PQIs).[5] Aligning the readmissions measure with the PAU definition changed the focus of the readmissions measure from "sending" hospitals to "receiving" hospitals. In other words, the updated PAU methodology calculated the percentage of revenue associated with readmissions that occur at the hospital, regardless of where the original (index) admission occurred. Assigning readmissions to the receiving hospital should incentivize hospitals to work within their service areas to reduce readmissions, regardless of where the index stay took place. Additionally, the savings associated with readmission reductions will accrue to the receiving hospital. Finally, aligning the readmission measure with the PAU definition enabled the measure to include observation stays that are longer than 23 hours in the calculation of both readmissions and PQIs. In RY 2017, the Commission increased the total reduction percentage to 1.25% of total revenue.

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[2] Only same-hospital readmissions were counted, and stays of one day or less and planned admissions were excluded.

[3] The case-mix adjustment was based on a total of observed readmissions vs. expected readmissions, which is calculated using the statewide average readmission rate for each diagnosis-related group (DRG) severity of illness (SOI) cell and aggregated for each hospital.

[4] This measures 30-day all-cause, all hospital readmissions with planned admission and other exclusions.

[5] PQIs measure inpatient admissions for ambulatory care sensitive conditions. For more information on these measures, see http://www.qualityindicators.ahrq.gov/modules/pqi_overview.aspx .

Exemption from CMS Quality-Based Payment Programs

Section 3025 of the Affordable Care Act established the federal Medicare Hospital Readmission Reduction Program in federal fiscal year (FFY) 2013, which requires the Secretary of the U.S. Department of Health and Human Services to reduce payments to inpatient prospective payment system (IPPS) hospitals with excess readmissions for patients in fee-for-service Medicare.[6,7] According to the IPPS rule published for FFY 2015, the Secretary is authorized to exempt Maryland hospitals from the Medicare Hospital Readmissions Reduction Program if Maryland submits an annual report describing how a similar program in the State achieves or surpasses the nationally measured results for patient health outcomes and cost savings under the Medicare program. As mentioned in other HSCRC quality-based payment recommendations reports, the new All-Payer Model changed the criteria for maintaining exemptions from the CMS programs. As part of the new All-Payer Model Agreement, the aggregate amount of revenue at-risk in Maryland quality/performance-based payment programs must be equal to or greater than the aggregate amount of revenue at-risk in the CMS Medicare quality programs. The PAU savings adjustment is one of the performance-based programs used for this comparison. In contrast to HSCRC's other quality programs that reward or penalize hospitals based on performance, the PAU Savings policy is intentionally designed to assure savings to payers.

ASSESSMENT

A central focus of the new All-Payer Model is the reduction of PAU through improved care coordination and enhanced community-based care. While hospitals have achieved significant progress in transforming the delivery system to date, there needs to be a continued emphasis on care coordination, improving quality of care, and providing care management for complex and high-needs patients. For this reason, staff suggests that the HSCRC continue to focus the savings program on PAU, defined to include both readmissions and PQIs.

Potentially Avoidable Utilization Performance

Calendar year (CY) 2017 trends indicate that readmission improvement is accelerating, while progress in reducing PQIs remains limited. Figure 1 below shows trends in readmissions and PQIs since CY 2013. While the CY 2016 equivalent case-mix adjusted readmission discharges (ECMADs) declined by 5.08 percent over CY 2013, PQIs declined by 0.97 percent, which was preceded by a 0.68 percent PQI increase in CY 2015. Appendix I shows more detailed information on specific PQI trends. PQI trends between CY 2015 and CY 2016 should be interpreted with caution due to differences in PQI logic because of ICD-10 implementation.

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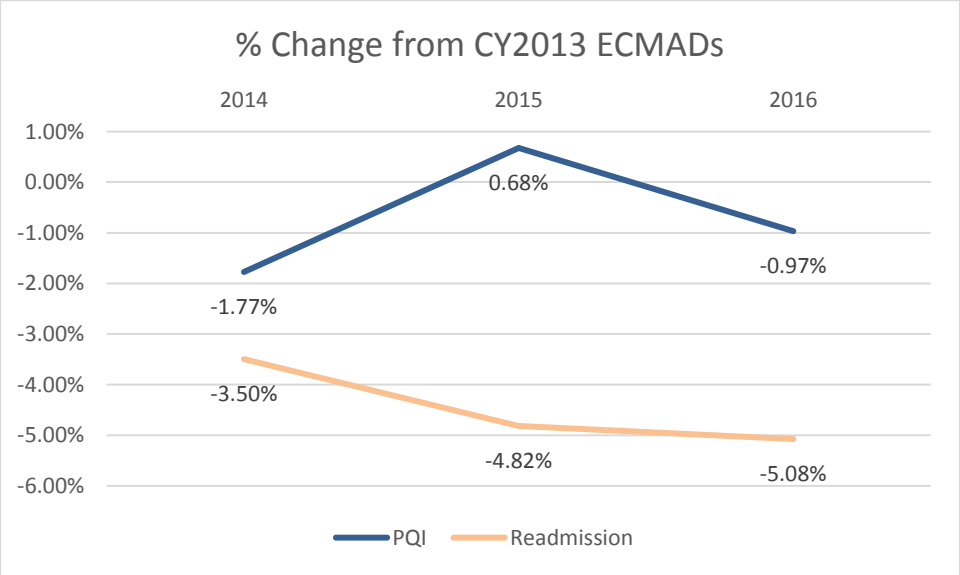
[6] Patient Protection and Affordable Care Act, 124 Stat. 119 (2010) (codified as amended at 42 U.S.C. § 1395ww(q) (Supp. 2010)).

[7] For more information on this program, see https://www.cms.gov/Medicare/Medicare-Fee-for-Service-Payment/AcuteInpatientPPS/Readmissions-Reduction-Program.html.

Because the PAU Savings Policy is based on current year data and does not rely on previous years of data, the policy itself is not affected by these changes.

Figure 1. Changes in Maryland's Readmission and PQI Rates over CY 2013



Proposed Required Revenue Reduction

HSCRC staff proposes to adjust the annual savings amount from last year's annual reduction of 0.65% to an annual reduction of 0.20%, which will result in a statewide PAU savings adjustment of 1.45 percent of total hospital revenue. Because last year's statewide savings reduction of 1.25 percent is added back into rates, this represents an incremental reduction of 0.20 percent. Figure 2 shows that total and net revenue reduction associated with the PAU reduction of 1.45%.

Figure 2. Proposed RY 2018 Statewide Savings

Statewide Results	**Formula**	**Value**		
RY 2017 Total Approved Permanent Revenue	A	$15.8 billion		
Total RY18 PAU %	B	10.86%		
Total RY18 PAU $	C	$1.7 billion		
Statewide Total Calculations	**Formula**	**Total**	**Last year**	**Net**
Proposed RY 2018 Revenue Adjustment %	D	-1.45%	-1.25%	-0.20%
Proposed RY 2018 Revenue Adjustment $	E=A*D	-$228.4 million	-$194.4 million	-$34.0 million
Percent Revenue Adjustment of Total RY18 PAU $	F=C/E	-13.35%		

As previously mentioned, efforts to improve care and health and reduce PAU are essential to the success of the All-Payer Model. The RY 2018 recommendation continues to emphasize Maryland hospitals' commitment to these goals, while providing PAU savings to purchasers. This year's proposal also helps ensure that Maryland quality programs continue to meet or exceed the revenue at-risk in Medicare quality programs.

The PAU savings adjustment has a number of advantages, including the following:

- All Maryland hospitals contribute to the statewide PAU savings of 1.45%; however, each hospital's reduction is proportional to the hospital's amount of revenue associated with PAU in the most recent year. See Appendix II for more information on PAU by hospital.
- The PAU savings adjustment amount is not related to year-over-year improvement in PAU during the rate year, hence providing an incentive for all hospitals to reduce PAU. Hospitals that reduce their PAU beyond the savings benchmark during the rate year will retain 100 percent of the difference between their actual reduction and the savings benchmark.
- As the PAU Savings policy is applied prospectively, the HSCRC sets a targeted dollar amount for savings, and thus guarantees a fixed amount of savings.

Hospital Protections

The Commission and stakeholders wish to ensure that hospitals that treat a higher proportion of disadvantaged patients have the needed resources for care delivery and improvement, while not excusing poor quality of care, or inadequate care coordination, for these patients. Staff proposes to continue to apply the methodology used in last year's PAU Savings Policy and to cap the PAU savings contributions at the state average if a hospital has a high proportion of disadvantaged populations. The measure includes the percentage of Medicaid and Self-pay or Charity ECMADs for inpatient and observation cases with 23 hours or longer stays, with protection provided to those hospitals in the top quartile. For RY 2019, HSCRC staff is developing risk-adjustment approaches for measuring hospital PAU revenue with Commission contractor Mathematica Policy Research.

Appendix III provides the results of the PAU savings policy based on the proposed 0.20 percent annual (1.45 percent total) reduction in total patient revenues with and without these protections.

Future Expansion of PAU

Staff will continue to consider additional categories of admissions to the PAU measures. Areas of future focus for additional PAU measures include sepsis and other avoidable admissions from long-term care and post-acute settings, unplanned medical admissions through the emergency department setting, and readmissions that occur in a 60-day or 90-day period after index admission.

RECOMMENDATIONS

Based on this assessment, staff recommends the following for the PAU savings policy for RY 2018:

1. Set the value of the PAU savings amount to 1.45 percent of total permanent revenue in the state, which is a 0.20 percent net reduction in RY 2018.

2. Cap the PAU savings reduction at the statewide average reduction for hospitals with higher socioeconomic burden.

3. Evaluate further expansion of PAU definitions for RY 2019 to incorporate additional categories of unplanned admissions.

APPENDIX I. ANALYSIS OF PQI TRENDS

PQIs—developed by the Agency for Healthcare Research and Quality—measure inpatient admissions for ambulatory care sensitive conditions. The following figure presents an analysis of the change in PQI rates between CYs 2015 and 2016. However, overall total PQI trends and trends for PQI 08 and 13 should be interpreted with caution due to the impact of ICD-10 and AHRQ PQI version changes.[8] From 2015 to 2016, there were improvements in the rates of PQI 03 (diabetes long-term complications), 07 (hypertension), 05 (chronic obstructive pulmonary disease or asthma in older adults), and 11 (bacterial pneumonia) However, there were continuing increases in PQI 10 (dehydration) and 14 (uncontrolled diabetes).

Appendix I. Figure 1. PQI Trends, CY 2015-CY 2016

PQI Admission Rate	CY 2015 PQI COUNT	CY 2016 PQI COUNT	CY 2015-2016 %CHANGE	CY 2015-2016 PQI Count	CY 2016 % CONTRIBUTION
	A	B	C=B/A-1	D=B-A	
PQI 01 Diabetes Short-Term Complications	2,971	2,993	0.74%	22	0.98%
PQI 02 Perforated Appendix	1,071	1,207	12.70%	136	6.06%
PQI 03 Diabetes Long-Term Complications	4,324	3,525	-18.48%	- 799	-35.62%
PQI 05 COPD or Asthma in Older Adults	13,489	13,043	-3.31%	- 446	-19.88%
PQI 07 Hypertension	2,897	2,319	-19.95%	- 578	-25.77%
PQI 08 Heart Failure *	14,720	11,402	-22.54%	- 3,318	-147.93%
PQI 10 Dehydration	5,245	7,342	39.98%	2,097	93.49%
PQI 11 Bacterial Pneumonia	9,649	9,179	-4.87%	- 470	-20.95%
PQI 12 Urinary Tract Infection	7,683	7,712	0.38%	29	1.29%
PQI 13 Angina Without Procedure*	880	1,780	102.27%	900	40.12%
PQI 14 Uncontrolled Diabetes	965	2,192	127.15%	1,227	54.70%
PQI 15 Asthma in Younger Adults	1,078	927	-14.01%	- 151	-6.73%
PQI 16 Lower-Extremity Amputation among Patients with Diabetes	704	782	11.08%	78	3.48%
Total PQI, Unduplicated	**65,114**	**62,871**	**-3.44%**	**- 2,243**	**100.00%**

[8] AHRQ updated to PQI software version 6 in October 2016. The major changes in version 6 include the retirement of PQI 13 (Angina without Procedure), and a correction to an incorrect decrease in PQI 08 (Heart Failure) under ICD-10.

APPENDIX II. PERCENT OF REVENUE IN PAU BY HOSPITAL

The following figure presents the total non-PAU revenue for each hospital, total PAU revenue by PAU category (PQI, readmissions, and total), total hospital revenue, and PAU as a percentage of total hospital revenue for CY 2016. Overall, PAU revenue comprised 10.86 percent of total statewide hospital revenue.

Appendix II. Figure 1. PAU Percentage of Total Revenue by Hospital, CY 2016

Hosp ID	Hospital Name	Non-PAU Revenue A	Readmission Revenue B	PQI Revenue C	Total PAU Revenue D=B+C	Grand Total Hospital Revenue E=A+D	% Readmission F=B/E	% PQI G=C/E	% PAU H=F+G
210001	MERITUS	$283,289,310	$23,494,447	$17,431,874	$40,926,321	$324,215,631	7.25%	5.38%	12.62%
210002	UMMC	$1,435,191,399	$93,675,647	$20,684,230	$114,359,877	$1,549,551,276	6.05%	1.33%	7.38%
210003	PRINCE GEORGE	$246,688,579	$22,850,811	$14,644,428	$37,495,238	$284,183,818	8.04%	5.15%	13.19%
210004	HOLY CROSS	$449,274,541	$39,116,459	$19,456,706	$58,573,165	$507,847,706	7.70%	3.83%	11.53%
210005	FREDERICK MEMORIAL	$319,528,571	$22,787,248	$17,033,173	$39,820,420	$359,348,991	6.34%	4.74%	11.08%
210006	HARFORD	$84,734,904	$11,413,170	$7,405,362	$18,818,532	$103,553,436	11.02%	7.15%	18.17%
210008	MERCY	$488,967,333	$18,196,792	$8,910,342	$27,107,134	$516,074,467	3.53%	1.73%	5.25%
210009	JOHNS HOPKINS	$1,983,907,849	$149,286,161	$37,525,052	$186,811,213	$2,170,719,063	6.88%	1.73%	8.61%
210010	DORCHESTER	$37,560,890	$4,428,502	$4,790,869	$9,219,371	$46,780,260	9.47%	10.24%	19.71%
210011	ST. AGNES	$373,518,101	$34,126,243	$26,439,581	$60,565,824	$434,083,925	7.86%	6.09%	13.95%
210012	SINAI	$671,374,840	$46,429,824	$22,084,279	$68,514,103	$739,888,943	6.28%	2.98%	9.26%
210013	BON SECOURS	$90,243,822	$14,576,531	$6,427,626	$21,004,157	$111,247,979	13.10%	5.78%	18.88%
210015	FRANKLIN SQUARE	$434,451,376	$48,312,713	$28,450,630	$76,763,343	$511,214,718	9.45%	5.57%	15.02%
210016	WASHINGTON ADVENTIST	$230,211,335	$20,384,557	$12,259,135	$32,643,691	$262,855,026	7.76%	4.66%	12.42%
210017	GARRETT COUNTY	$47,907,285	$1,301,034	$2,951,330	$4,252,364	$52,159,649	2.49%	5.66%	8.15%
210018	MONTGOMERY GENERAL	$157,121,596	$13,179,066	$8,061,244	$21,240,310	$178,361,906	7.39%	4.52%	11.91%
210019	PRMC	$375,726,858	$27,944,511	$21,591,418	$49,535,929	$425,262,787	6.57%	5.08%	11.65%
210022	SUBURBAN	$268,526,295	$21,158,297	$11,703,782	$32,862,079	$301,388,373	7.02%	3.88%	10.90%

Hosp ID	Hospital Name	Non-PAU Revenue A	Readmission Revenue B	PQI Revenue C	Total PAU Revenue D=B+C	Grand Total Hospital Revenue E=A+D	% Readmission F=B/E	% PQI G=C/E	% PAU H=F+G
210023	ANNE ARUNDEL	$531,467,116	$28,422,056	$21,567,332	$49,989,388	$581,456,503	4.89%	3.71%	8.60%
210024	UNION MEMORIAL	$387,563,521	$27,863,344	$15,148,428	$43,011,772	$430,575,293	6.47%	3.52%	9.99%
210027	WESTERN MARYLAND	$292,514,732	$21,538,583	$13,559,716	$35,098,299	$327,613,031	6.57%	4.14%	10.71%
210028	ST. MARY	$165,372,543	$11,055,617	$10,236,061	$21,291,678	$186,664,221	5.92%	5.48%	11.41%
210029	HOPKINS BAYVIEW	$533,626,396	$51,181,366	$24,245,810	$75,427,176	$609,053,573	8.40%	3.98%	12.38%
210030	CHESTERTOWN	$45,378,104	$3,668,205	$4,218,472	$7,886,676	$53,264,780	6.89%	7.92%	14.81%
210032	UNION HOSPITAL OF CECIL COUNT	$139,474,644	$8,679,051	$11,444,321	$20,123,372	$159,598,016	5.44%	7.17%	12.61%
210033	CARROLL COUNTY	$207,735,335	$17,628,425	$16,110,880	$33,739,305	$241,474,641	7.30%	6.67%	13.97%
210034	HARBOR	$166,109,732	$15,972,533	$11,126,689	$27,099,222	$193,208,954	8.27%	5.76%	14.03%
210035	CHARLES REGIONAL	$127,077,125	$10,590,715	$10,156,771	$20,747,486	$147,824,611	7.16%	6.87%	14.04%
210037	EASTON	$176,562,941	$10,657,173	$12,058,895	$22,716,068	$199,279,009	5.35%	6.05%	11.40%
210038	UMMC MIDTOWN	$177,671,741	$23,608,371	$7,850,769	$31,459,140	$209,130,881	11.29%	3.75%	15.04%
210039	CALVERT	$124,008,743	$7,173,390	$8,766,775	$15,940,165	$139,948,908	5.13%	6.26%	11.39%
210040	NORTHWEST	$214,136,851	$22,904,526	$18,580,729	$41,485,254	$255,622,105	8.96%	7.27%	16.23%
210043	BALTIMORE WASHINGTON	$352,763,331	$36,132,870	$24,334,401	$60,467,272	$413,230,603	8.74%	5.89%	14.63%
210044	G.B.M.C.	$394,487,807	$22,088,927	$15,900,674	$37,989,601	$432,477,409	5.11%	3.68%	8.78%
210045	MCCREADY	$14,664,665	$527,671	$1,039,034	$1,566,705	$16,231,370	3.25%	6.40%	9.65%
210048	HOWARD COUNTY	$262,331,613	$21,701,488	$15,597,612	$37,299,100	$299,630,713	7.24%	5.21%	12.45%
210049	UPPER CHESAPEAKE	$291,541,981	$20,665,762	$14,816,885	$35,482,648	$327,024,629	6.32%	4.53%	10.85%
210051	DOCTORS	$193,700,410	$23,307,784	$16,057,893	$39,365,677	$233,066,087	10.00%	6.89%	16.89%
210055	LAUREL REGIONAL	$76,524,079	$8,204,956	$4,280,226	$12,485,181	$89,009,261	9.22%	4.81%	14.03%
210056	GOOD SAMARITAN	$249,052,413	$26,757,469	$16,434,629	$43,192,098	$292,244,511	9.16%	5.62%	14.78%
210057	SHADY GROVE	$349,193,037	$24,088,433	$14,101,319	$38,189,752	$387,382,790	6.22%	3.64%	9.86%
210058	REHAB & ORTHO	$101,744,779	$324,691		$324,691	$102,069,470	0.32%		0.32%

Hosp ID	Hospital Name	Non-PAU Revenue A	Readmission Revenue B	PQI Revenue C	Total PAU Revenue D=B+C	Grand Total Hospital Revenue E=A+D	% Readmission F=B/E	% PQI G=C/E	% PAU H=F+G
210060	FT. WASHINGTON	$41,152,352	$3,063,270	$4,465,871	$7,529,141	$48,681,493	6.29%	9.17%	15.47%
210061	ATLANTIC GENERAL	$97,618,544	$3,908,166	$4,882,142	$8,790,307	$106,408,852	3.67%	4.59%	8.26%
210062	SOUTHERN MARYLAND	$230,216,619	$24,002,657	$18,299,811	$42,302,468	$272,519,087	8.81%	6.72%	15.52%
210063	UM ST. JOSEPH	$367,993,303	$21,653,327	$12,826,818	$34,480,145	$402,473,448	5.38%	3.19%	8.57%
210064	LEVINDALE	$52,996,890	$4,390,825		$4,390,825	$57,387,715	7.65%		7.65%
210065	HOLY CROSS GERMANTOWN	$78,854,583	$6,919,516	$5,463,433	$12,382,949	$91,237,532	7.58%	5.99%	13.57%
	STATEWIDE	**$14,461,534,140**	**$1,121,343,178**	**$641,423,453**	**$1,762,766,631**	**$16,224,300,772**	**6.91%**	**3.95%**	**10.86%**

*Holy Cross Germantown is combined with Holy Cross Hospital for PAU Savings calculations.

APPENDIX III. Modeling Results Proposed PAU Savings Policy Reductions for RY 2018

The following figure presents the proposed PAU savings reduction policy for each hospital for RY 2018.

Appendix III. Figure 1. Proposed PAU Savings Policy Reductions for RY 2018, by Hospital

Hospital ID	Hospital Name	FY17 Permanent Total Revenue	CY16 PAU %	FY18 PAU Savings Adjustment	FY18 PAU Savings Adjustment Before Protections	CY 16 % ECMAD Inpatient Medicaid &SelfPay Charity	FY18 PAU Savings Adjust w/ Protection (%)	FY 18 PAU Savings with Protections Revenue Impact ($)	FY17 PAU Savings Adjustment with Protection ($)	Net Impact to RY 2018 Inflation Factor	Net RY 18 Revenue Impact
		A	B	C=B* -13.9[9]	D = A*C	E	F	G = A*F	H	K=(G-H)/A	L=K*C
210001	MERITUS	$314,827,422	12.62%	-1.75%	-$5,520,664	18.70%	-1.75%	-$5,520,664	-$4,350,206	-0.37%	-$1,170,528
210002	UMMC	$1,316,372,491	7.38%	-1.03%	-$13,498,782	30.64%	-1.03%	-$13,498,782	-$11,958,459	-0.12%	-$1,540,156
210003	PRINCE GEORGE	$286,573,599	13.19%	-1.83%	-$5,252,190	42.75%	-1.51%	-$4,324,396	-$3,608,563	-0.25%	-$715,861
210004	HOLY CROSS	$479,646,983	11.84%	-1.65%	-$7,893,731	22.24%	-1.65%	-$7,893,731	-$6,837,249	-0.22%	-$1,056,662
210005	FREDERICK MEMORIAL	$329,156,555	11.08%	-1.54%	-$5,067,592	7.36%	-1.54%	-$5,067,592	-$4,326,716	-0.23%	-$740,931
210006	HARFORD	$99,998,182	18.17%	-2.52%	-$2,524,681	18.01%	-2.52%	-$2,524,681	-$2,058,207	-0.47%	-$466,492
210008	MERCY	$502,208,027	5.25%	-0.73%	-$3,663,552	24.46%	-0.73%	-$3,663,552	-$3,375,724	-0.06%	-$287,765
210009	JOHNS HOPKINS	$2,229,450,835	8.61%	-1.20%	-$26,672,300	23.44%	-1.20%	-$26,672,300	-$23,369,402	-0.15%	-$3,301,817
210010	DORCHESTER	$48,094,357	19.71%	-2.74%	-$1,317,165	25.45%	-1.51%	-$725,744	-$1,202,307	0.99%	$476,567
210011	ST. AGNES	$416,466,586	13.95%	-1.94%	-$8,072,607	23.43%	-1.94%	-$8,072,607	-$6,807,387	-0.30%	-$1,265,225
210012	SINAI	$709,153,890	9.26%	-1.29%	-$9,124,538	24.01%	-1.29%	-$9,124,538	-$7,716,249	-0.20%	-$1,408,380
210013	BON SECOURS	$114,232,763	18.88%	-2.62%	-$2,996,761	59.97%	-1.51%	-$1,723,772	-$1,584,298	-0.12%	-$139,478
210015	FRANKLIN SQUARE	$492,402,641	15.02%	-2.09%	-$10,276,606	26.75%	-1.51%	-$7,430,356	-$6,318,376	-0.23%	-$1,111,845
210016	WASHINGTON ADVENTIST	$258,319,310	12.42%	-1.73%	-$4,457,978	30.47%	-1.51%	-$3,898,038	-$3,278,301	-0.24%	-$619,708

[9] Required % reduction in PAU revenue= [Savings (-1.45%) + the statewide impact of Medicaid Protection (-0.06%)] / % PAU (10.86%) = -13.90%.

Hospital ID	Hospital Name	FY17 Permanent Total Revenue	CY16 PAU %	FY18 PAU Savings Adjustment	FY18 PAU Savings Adjustment Before Protections	CY 16 % ECMAD Inpatient Medicaid &SelfPay Charity	FY18 PAU Savings Adjust w/ Protection (%)	FY 18 PAU Savings with Protections Revenue Impact ($)	FY17 PAU Savings Adjustment with Protection ($)	Net Impact to RY 2018 Inflation Factor	Net RY 18 Revenue Impact
		A	B	C=B* -13.9[9]	D = A*C	E	F	G = A*F	H	K=(G-H)/A	L=K*C
210017	GARRETT COUNTY	$53,507,634	8.15%	-1.13%	-$605,944	15.88%	-1.13%	-$605,944	-$484,974	-0.23%	-$120,981
210018	MONTGOMERY GENERAL	$169,927,186	11.91%	-1.65%	-$2,812,121	15.26%	-1.65%	-$2,812,121	-$2,351,779	-0.27%	-$460,333
210019	PENINSULA REGIONAL	$419,622,018	11.65%	-1.62%	-$6,792,718	18.01%	-1.62%	-$6,792,718	-$5,584,916	-0.29%	-$1,207,672
210022	SUBURBAN	$296,104,140	10.90%	-1.51%	-$4,484,669	8.47%	-1.51%	-$4,484,669	-$3,310,346	-0.40%	-$1,174,349
210023	ANNE ARUNDEL	$575,908,245	8.60%	-1.19%	-$6,881,944	11.90%	-1.19%	-$6,881,944	-$5,776,774	-0.19%	-$1,105,168
210024	UNION MEMORIAL	$414,710,552	9.99%	-1.39%	-$5,756,652	18.79%	-1.39%	-$5,756,652	-$5,370,044	-0.09%	-$386,510
210027	WESTERN MARYLAND	$316,661,093	10.71%	-1.49%	-$4,712,416	14.37%	-1.49%	-$4,712,416	-$3,839,345	-0.28%	-$873,035
210028	ST. MARY	$172,574,583	11.41%	-1.59%	-$2,736,037	19.47%	-1.59%	-$2,736,037	-$2,134,757	-0.35%	-$601,250
210029	HOPKINS BAYVIEW	$620,440,469	12.38%	-1.72%	-$10,672,844	29.09%	-1.51%	-$9,362,447	-$7,898,881	-0.24%	-$1,463,619
210030	CHESTERTOWN	$54,289,889	14.81%	-2.06%	-$1,117,206	12.33%	-2.06%	-$1,117,206	-$847,354	-0.50%	-$269,875
210032	UNION HOSP OF CECIL	$156,358,285	12.61%	-1.75%	-$2,739,652	26.43%	-1.51%	-$2,359,447	-$1,987,435	-0.24%	-$371,976
210033	CARROLL COUNTY	$223,662,684	13.97%	-1.94%	-$4,341,595	13.67%	-1.94%	-$4,341,595	-$3,958,120	-0.17%	-$383,582
210034	HARBOR	$190,469,979	14.03%	-1.95%	-$3,713,160	32.39%	-1.51%	-$2,874,192	-$2,461,177	-0.22%	-$412,939
210035	CHARLES REGIONAL	$143,723,289	14.04%	-1.95%	-$2,803,843	17.95%	-1.95%	-$2,803,843	-$2,386,640	-0.29%	-$417,229
210037	EASTON	$195,481,707	11.40%	-1.58%	-$3,096,495	17.25%	-1.58%	-$3,096,495	-$2,642,856	-0.23%	-$453,713
210038	UMMC MIDTOWN	$226,126,371	15.04%	-2.09%	-$4,725,616	42.15%	-1.51%	-$3,412,247	-$2,895,546	-0.23%	-$516,699
210039	CALVERT	$141,821,983	11.39%	-1.58%	-$2,244,537	16.25%	-1.58%	-$2,244,537	-$1,865,860	-0.27%	-$378,665
210040	NORTHWEST	$248,058,564	16.23%	-2.26%	-$5,594,125	21.22%	-2.26%	-$5,594,125	-$4,615,117	-0.39%	-$979,087
210043	BALTIMORE WASHINGTON	$398,733,080	14.63%	-2.03%	-$8,105,616	17.50%	-2.03%	-$8,105,616	-$7,057,541	-0.26%	-$1,048,269
210044	G.B.M.C.	$435,420,575	8.78%	-1.22%	-$5,312,059	10.34%	-1.22%	-$5,312,059	-$4,050,196	-0.29%	-$1,261,849
210045	MCCREADY	$15,530,984	9.65%	-1.34%	-$208,250	14.53%	-1.34%	-$208,250	-$121,592	-0.56%	-$86,663
210048	HOWARD COUNTY	$291,104,867	12.45%	-1.73%	-$5,035,913	15.50%	-1.73%	-$5,035,913	-$4,020,574	-0.35%	-$1,015,374

Hospital ID	Hospital Name	FY17 Permanent Total Revenue	CY16 PAU %	FY18 PAU Savings Adjustment	FY18 PAU Savings Adjustment Before Protections	CY 16 % ECMAD Inpatient Medicaid &SelfPay Charity	FY18 PAU Savings Adjust w/ Protection (%)	FY 18 PAU Savings with Protections Revenue Impact ($)	FY17 PAU Savings Adjustment with Protection ($)	Net Impact to RY 2018 Inflation Factor	Net RY 18 Revenue Impact
		A	B	C=B* -13.9[9]	D = A*C	E	F	G = A*F	H	K=(G-H)/A	L=K*C
210049	UPPER CHESAPEAKE	$325,619,300	10.85%	-1.51%	-$4,909,071	11.39%	-1.51%	-$4,909,071	-$4,286,879	-0.19%	-$622,258
210051	DOCTORS	$228,124,869	16.89%	-2.35%	-$5,353,794	18.75%	-2.35%	-$5,353,794	-$4,318,086	-0.45%	-$1,035,687
210055	LAUREL REGIONAL	$98,343,286	14.03%	-1.95%	-$1,917,175	29.37%	-1.51%	-$1,484,000	-$1,310,667	-0.18%	-$173,379
210056	GOOD SAMARITAN	$284,642,445	14.78%	-2.05%	-$5,845,659	20.39%	-2.05%	-$5,845,659	-$5,130,445	-0.25%	-$715,306
210057	SHADY GROVE	$376,694,222	9.86%	-1.37%	-$5,160,898	19.17%	-1.37%	-$5,160,898	-$4,461,883	-0.19%	-$699,144
210058	REHAB & ORTHO	$117,465,701	0.32%	-0.04%	-$8,357	24.04%	-0.01%	-$8,357	-$6,651	0.00%	-$1,762
210060	FT. WASHINGTON	$47,023,363	15.47%	-2.15%	-$1,010,796	18.46%	-2.15%	-$1,010,796	-$802,982	-0.44%	-$207,796
210061	ATLANTIC GENERAL	$102,841,659	8.26%	-1.15%	-$1,180,344	12.82%	-1.15%	-$1,180,344	-$1,032,629	-0.14%	-$147,681
210062	SOUTHERN MARYLAND	$269,769,528	15.52%	-2.16%	-$5,817,602	21.05%	-2.16%	-$5,817,602	-$5,253,518	-0.21%	-$564,088
210063	UM ST. JOSEPH	$388,253,807	8.57%	-1.19%	-$4,623,341	11.27%	-1.19%	-$4,623,341	-$3,595,241	-0.26%	-$1,028,096
210064	LEVINDALE	$57,520,942	7.65%	-1.06%	-$611,430	5.70%	-1.06%	-$611,430	-$435,119	-0.31%	-$176,302
210065	HOLY CROSS GERMANTOWN	$100,218,431	11.84%	-1.65%	-$1,649,332	21.98%	-1.65%	-$1,649,332	-$1,271,536	-0.38%	-$377,823
	STATEWIDE	**$15,753,659,372**	**10.86%**	**-1.51%**	-$237,722,720	**20.85%**		-$228,445,852		-0.22%	-$34,086,441
					Top Quartile=	24.14%					

Draft Recommendation for the Maximum Revenue Guardrail for Maryland Hospital Quality Programs for Rate Year 2019

May 10, 2017

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This document contains the DRAFT Staff recommendations for updating the Maryland "Maximum Revenue Guardrail Policy" for FY 2019. Please submit comments on this draft policy to the Commission by Friday, May 19, 2017, via hard copy or e-mail to hscrc.quality@maryland.gov.

Table of Contents

LIST OF ABBREVIATIONS

CMS	Centers for Medicare & Medicaid Services
CY	Calendar year
FFY	Federal fiscal year
FY	State fiscal year
HSCRC	Health Services Cost Review Commission
MHAC	Maryland Hospital-Acquired Conditions Program
PAU	Potentially avoidable utilization
PQI	Prevention quality indicator
QBR	Quality-based reimbursement
RRIP	Readmissions Reduction Incentive Program
RY	State rate year
VBP	Value-based purchasing

INTRODUCTION

The Maryland Health Services Cost Review Commission's (HSCRC's or Commission's) performance-based payment methodologies are important policy tools that provide strong incentives for hospitals to improve their quality performance over time. These performance-based payment programs hold amounts of hospital revenue at-risk directly related to specified performance benchmarks. Because of its long-standing Medicare waiver for its all-payer hospital rate-setting system, special considerations were given to Maryland, including exemption from the federal Medicare quality-based programs. Instead, the HSCRC implements various Maryland-specific quality-based payment programs, which are discussed in further detail in the background section of this report.

Maryland entered into a new All-Payer Model Agreement with the Centers for Medicare & Medicaid Services (CMS) on January 1, 2014. One of the requirements under this new agreement is that the proportion of hospital revenue that is held at-risk under Maryland's quality-based payment programs must be greater than or equal to the proportion that is held at-risk under national Medicare quality programs. The Model Agreement also requires Maryland to achieve specific reduction targets in potentially preventable conditions and readmissions, in addition to the revenue at-risk requirement. In an effort to meet these reduction targets, Maryland restructured its quality programs in such a way that financial incentives are established prior to the performance period in order to motivate quality improvement and the sharing of best practices while holding hospitals accountable for their performance.

The purpose of this report is to make a recommendation for the maximum amount one hospital can be penalized for RY 2019, otherwise known as the maximum revenue guardrail. For Rate Year (RY) 2019, the recommendations for the maximum penalties and rewards for each quality program are set forth in the individual policies rather than in an aggregate at-risk policy. At the time of this draft policy, final RY 2019 RRIP revenue at-risk and PAU savings adjustments have not been approved. Thus, this policy may be adjusted if there are any changes to those individual policies.

BACKGROUND

1. Federal Quality Programs

In developing the recommendation for the maximum revenue guardrail, the staff first analyzed the aggregate revenue at-risk for Maryland's quality-based payment programs compared to the amount at-risk for the following national Medicare quality programs:

- The Medicare Hospital Readmissions Reduction Program (HRRP), which reduces payments to inpatient prospective payment system hospitals with excess readmissions.[1]
- The Medicare Hospital-Acquired Condition Reduction (HAC) Program, which ranks hospitals according to performance on a list of hospital-acquired condition quality measures and reduces Medicare payments to the hospitals in the lowest performing quartile.[2]
- The Medicare Value Based Purchasing (VBP) Program, which adjusts hospitals' payments based on their performance on the following four hospital quality domains: clinical care, patient experience of care, safety, and efficiency.[3]

2. Maryland's Quality-Based Programs

As discussed in the introduction section of this report, Maryland is exempt from the federal Medicare hospital quality programs. Instead, Maryland implements the following quality-based payment programs:

- The Quality Based Reimbursement (QBR) program employs measures in several domains, including clinical care, patient experience, and safety. Originally, financial adjustments were been based on revenue neutral scaling of hospitals in allocating rewards and reductions based on performance.[4] The distribution of rewards/penalties was based on relative points achieved by the hospitals and were not known before the end of performance period. Starting in FY 2017, the QBR program revenue neutrality requirement was removed, and payment adjustments were linked to a preset scale instead of relatively ranking hospitals, which was designed to provide hospitals with more predictable revenue adjustments based. However, due to issues with setting the preset scale the commission approved changing the RY 2017 and RY 2018 program to adjust hospital revenue by relatively ranking hospitals and penalizing and rewarding hospitals below or above the statewide average; these revenue adjustments were not revenue neutral. In RY 2019, a modified full scaling approach was approved by the commission

[1] For more information on the Medicare Hospital Readmissions Reduction Program, see https://www.cms.gov/Medicare/Medicare-Fee-for-Service-Payment/AcuteInpatientPPS/Readmissions-Reduction-Program.html.
[2] For more information on the Medicare Hospital-Acquired Condition Reduction program, see https://www.cms.gov/Medicare/Medicare-Fee-for-Service-Payment/AcuteInpatientPPS/HAC-Reduction-Program.html.
[3] For information on the Medicare VBP program, see https://www.medicare.gov/hospitalcompare/Data/hospital-vbp.html.
[4] The term "scaling" refers to the differential allocation of a pre-determined portion of base regulated hospital revenue contingent on the assessment of the relative quality of hospital performance. The rewards (positive scaled amounts) or reductions (negative scaled amounts) are then applied to each hospital's revenue on a "one-time" basis (and not considered permanent revenue).

so that hospitals can estimate revenue adjustments; this new scale ensures that rewards will only be given out to hospitals that perform well compared to the nation.

- The Maryland Hospital Acquired Conditions (MHAC) program measures hospital performance using 3M's potentially preventable complications. HSCRC calculates observed-to-expected ratios for each complication and compares them with statewide benchmarks and thresholds. This program was modified substantially in the CY 2014 performance period to align with the All-Payer Model Agreement. Revenue adjustments are determined using a preset payment scale. For RY 2016 through RY 2018 the revenue at-risk and reward structure was based on a tiered approach that requires statewide targets to be met for higher rewards and lower reductions. Starting in RY 2019, the commission approved a single scale approach that is not contingent on statewide improvement.
- The Readmission Reduction Incentive Program (RRIP) establishes a readmissions reduction target, an attainment target, and a scale for rewards/penalties for hospitals. The statewide minimum improvement target is established to eliminate the gap between the national Medicare readmission rate and the Maryland Medicare readmission rate.
- In addition to the three programs described above, two additional performance-based payment adjustments are implemented to hospital revenues prospectively. The Potentially Avoidable Utilization (PAU) Savings Program reduces each hospital's approved revenues prospectively based on revenue associated with avoidable admissions and readmissions. The demographic PAU efficiency adjustment reductions are applied to global budgets to reduce allowed volume growth based on the percentage of revenue associated with PAU for each hospital. These adjustments are considered within the context of the update factor discussions, and measurement periods are based on a previous calendar year.

Figure 1 below provides the maximum penalties or rewards for the three CMS and Maryland quality programs for RY/FFY 2018 and RY/FFY 2019. In general, CMS programs relatively rank hospital performance when determining penalties or rewards, whereas Maryland's quality programs use preset scales. For RY 2018 and RY 2019 staff estimates that the Maryland quality programs have met or exceeded the National potential and realized risk, respectively. These estimates use the methodology that HSCRC and CMMI agreed upon, but final numbers are pending CMMI review. See Appendix A for additional details on the aggregate at-risk test.

Figure 1. 2018 Maximum Quality Penalties or Rewards for Maryland and The Nation

MD All-Payer	Max Penalty %	Max Reward %	National Medicare	Max Penalty %	Max Reward %
RY/FFY 2018					
MHAC	3%/1%	1.0%	HAC	1.0%	N/A
RRIP	2.0%	1.0%	HRRP	3.0%	N/A
QBR	2.0%	1.0%	VBP	2.0%	2.0%
RY/FFY 2019					
MHAC	2.0%	1.0%	HAC	1.0%	N/A
RRIP	2.0%	1.0%	HRRP	3.0%	N/A
QBR	2.0%	1.0%	VBP	2.0%	2.0%

ASSESSMENT

In order to develop the maximum revenue at-risk guardrail for RY 2019 quality programs, HSCRC staff considered CMS relevant policies, conducted analyses, and solicited input from the Performance Measurement Workgroup.[5] During its February meeting, the Performance Measurement Workgroup reviewed data comparing the amount of revenue at-risk in Maryland with the national Medicare programs. Again the RY 2019 aggregate at-risk amounts were approved as part of the actual quality program policies, and this report only presents a recommendation for the maximum revenue guardrail.

Maximum Revenue at-risk Hospital Guardrail

As the HSCRC increases the maximum revenue adjustments statewide, the potential for a particular hospital to receive significant revenue reductions has raised concerns that such penalties may generate unmanageable financial risk. As hospitals improve quality in the state, the variation between individual hospitals is expected to decline, increasing the chances of a single hospital receiving the maximum penalty for all quality programs. Similar to the risk corridors in other VBP programs, a maximum penalty guardrail may be necessary to mitigate the detrimental financial impact of unforeseen large adjustments in Maryland programs. Given the increases in risk levels in other programs, a hospital-specific guardrail will provide better protection than a statewide limit. In RY 2017 and RY 2018, the hospital maximum penalty guardrail was set at 3.50 percent of total hospital revenue. Staff used the Medicare aggregate amount at-risk total as the benchmark to calculate the hospital maximum penalty guardrail (e.g. 6 percent * 58 percent of inpatient revenue). This maximum revenue guardrail applies to QBR, MHAC, RRIP, and net PAU Savings. For RY 2018, the estimated maximum penalty for one hospital was 1.06 percent of total hospital revenue (which corresponds to 1.41 percent of inpatient revenue).

RECOMMENDATION

For RY 2019, the maximum penalty guardrail should continue to be set at 3.50 percent of total hospital revenue.

[5] For more information on the Performance Measurement Workgroup, see http://hscrc.maryland.gov/hscrc-workgroup-performance-measurement.cfm.

APPENDIX A. COMPARISON OF AGGREGATE REVENUE AT-RISK FOR MARYLAND QUALITY-BASED PAYMENT PROGRAMS COMPARED TO MEDICARE PROGRAMS

After discussions with CMS, HSCRC staff performed analyses of both "potential" and "realized" revenue at-risk. Potential revenue at-risk refers to the maximum amount of revenue that is at-risk in the measurement year. Realized risk refers to the actual amounts imposed by the programs. The comparison with the national amounts is calculated on a cumulative basis. Figure 1 compares the potential amount of revenue at-risk in Maryland with the amount at-risk in the national programs. The difference between the national Medicare and Maryland all-payer annual amounts are summed after each year's experience to compare the annual difference.

The top half of Figure 1 displays the percentage of potential inpatient revenue at-risk in Maryland for all payers for each of Maryland's quality-based payment programs for RYs 2014 through 2019. The bottom half of the figure displays the percentage of potential national Medicare inpatient revenue at-risk for quality-based payment programs for FFYs 2014 through 2019. These potential at-risk numbers are the absolute values of the maximum penalty or reward. Due to efforts to align Maryland's quality-based payment programs with the national programs and the increasing emphasis on value-based payment adjustments, Maryland has exceeded the national aggregate maximum at-risk amounts since RY 2016. Cumulatively, Maryland's maximum at-risk total would be 24.3 percent higher than the nation in FFY 2019. The Maryland RY 2019 RRIP and RY 2018 PAU savings numbers are pending final commission approval; the RY 2019 PAU savings and RY 2018/2019 demographic PAU efficiency adjustment numbers are estimated based on previous year.

Figure 1. Potential Revenue at-risk for Quality-Based Payment Programs, Maryland Compared with the National Medicare Programs, 2014-2019

% of MD All-Payer Inpatient Revenue	RY 2014	RY 2015	RY 2016	RY 2017	RY 2018	RY 2019
MHAC	2.0%	3.0%	4.0%	3.0%	3.0%	2.0%
RRIP*			0.5%	2.0%	2.0%	*2.0%*
QBR	0.5%	0.5%	1.0%	2.0%	2.0%	2.0%
Subtotal	2.5%	3.5%	5.5%	7.0%	7.0%	6.0%
PAU Savings*	0.4%	0.9%	1.4%	4.5%	*5.9%*	*5.9%*
Demographic PAU Efficiency Adjustment*	0.5%	0.9%	1.1%	1.3%	*1.2%*	*1.2%*
MD Aggregate Maximum At-risk	3.4%	5.2%	8.0%	12.8%	14.1%	13.1%

*Italicized numbers subject to change

% of National Medicare Inpatient Revenue	FFY 2014	FFY 2015	FFY2016	FFY2017	FFY2018	FFY2019
HAC		1.0%	1.0%	1.0%	1.0%	1.0%
Readmits	2.0%	3.0%	3.0%	3.0%	3.0%	3.0%
VBP	1.3%	1.5%	1.8%	2.0%	2.0%	2.0%

Medicare Aggregate Maximum At-risk	3.3%	5.5%	5.8%	6.0%	6.0%	6.0%
Annual MD-US Difference	**0.2%**	**-0.3%**	**2.2%**	**6.8%**	**8.1%**	**7.1%**

As Maryland's programs moved away from revenue neutral rewards and penalties and toward payment adjustments based on preset payment scales, the actual amounts imposed in quality-based programs differ from the maximum amounts established in the policies and none of the hospitals may be subject to the maximum penalty when the payment adjustments are implemented. On the other hand, the national Medicare programs may make payment adjustments only to the lowest performing hospitals, limiting the reach of the performance-based adjustments. CMMI and HSCRC staff worked on a methodology to compare the total actual payment adjustments by summing the absolute average payment adjustments across all programs, namely aggregate realized at-risk. Maryland is expected to meet or exceed both the potential and realized at-risk amounts of the national Medicare programs but final approval is pending CMMI confirmation. Figure 3 provides a comparison of the average adjustment amount between Maryland and national programs. Maryland's overall aggregate average adjustments were 4.66 percent of the total inpatient revenue in RY 2016, compared to 1.36 percent in the national Medicare programs in FFY 2018. The PAU savings revenue adjustments account for a large proportion of Maryland's higher realized risk. Of note, the RY 2017 QBR adjustments currently represent only the revenue amount that went into effect in January 2017, and the RY 2018 adjustment is simply the remainder of the adjustment. The actual RY 2018 QBR adjustments may be put into rates in January 2018, which will increase the QBR amounts.

Figure 2. Realized Revenue at-risk for Quality-Based Payment Programs, Maryland Compared with the National Medicare Programs, 2014-2018

% of MD All-Payer Inpatient Revenue	**RY 2014**	**RY 2015**	**RY 2016**	**RY 2017**	**RY 2018**
MHAC	0.22%	0.11%	0.18%	0.40%	0.50%
RRIP			0.15%	0.57%	0.61%
QBR*	0.11%	0.14%	0.30%	*0.26%*	*0.15%*
Subtotal	0.34%	0.25%	0.63%	1.23%	1.26%
PAU Savings*	0.29%	0.64%	0.93%	2.6%	3.1%
Demographic PAU Efficiency Adjustment*	0.28%	0.33%	0.39%	0.3%	0.3%
MD Aggregate Maximum At-risk	**0.90%**	**1.22%**	**1.95%**	**4.13%**	**4.66%**
*SFY 18 numbers pending final review and approval					
% of National Medicare Inpatient Revenue	**FFY 2014**	**FFY 2015**	**FFY2016**	**FFY2017***	**FFY2018***
HAC		0.22%	0.23%	0.24%	0.24%

Readmits	0.28%	0.52%	0.51%	0.61%	0.61%
VBP	0.20%	0.24%	0.40%	0.51%	0.51%
Medicare Aggregate Maximum At-risk	**0.47%**	**0.97%**	**1.14%**	**1.36%**	**1.36%**
Annual MD-US Difference	**0.43%**	**0.25%**	**0.81%**	**2.76%**	**3.30%**
*HSCRC estimated CMS numbers based on publicly available files and this is subject to change. FFY 2018 uses FFY 2017 estimates.					

In summary, staff estimate that Maryland outperformed the national programs in the potential and realized aggregate payment amounts. Maryland hospitals continued to improve their performance in reducing complications and readmissions. However, further reductions in revenue associated with PAU will be important for financial success under the new all-payer model. Finally, as additional performance-based revenue adjustments are implemented, such as the Medicare Performance Adjustment for total cost of care, the potential aggregate at-risk amounts for other programs may be reduced. Staff will continue to discuss the appropriate amounts for performance-based payment programs with the appropriate workgroups and other stakeholders.

See Figure 3 for hospital-level results.

Figure 3. Consolidated Adjustments for All Quality-Based Payment Programs for Rate Year 2018, by Hospital

Hospital Name	FY 17 Total Permanent Revenue	FY 17 Permanent Inpatient Revenue	MHAC % Inpatient	RRIP % Inpatient	QBR % Inpatient	PAU Savings % Inpatient	PAU Net Impact % Inpatient	PAU Demographic % Inpatient	Total Impact % Inpatient	Total Impact % Total Revenue
PRINCE GEORGE	$286,573,599	$215,010,869	0.41%	-0.84%	-0.65%	-2.01%	-0.33%	-0.39%	-1.41%	-1.06%
CHESTERTOWN	$54,289,889	$18,989,104	0.35%	-1.35%	0.00%	-5.88%	-1.42%	-0.62%	-2.42%	-0.85%
HARFORD	$99,998,182	$46,975,749	0.53%	-0.61%	-0.13%	-5.37%	-0.99%	-0.56%	-1.21%	-0.57%
UNION HOSPITAL OF CECIL COUNT	$156,358,285	$68,179,037	0.41%	-1.06%	0.00%	-3.46%	-0.55%	-0.55%	-1.19%	-0.52%
MCCREADY	$15,530,984	$2,930,574	1.00%	-0.80%		-7.11%	-2.96%	0.00%	-2.76%	-0.52%
SOUTHERN MARYLAND	$269,769,528	$163,339,853	0.38%	-0.19%	-0.69%	-3.56%	-0.35%	-1.00%	-0.84%	-0.51%
HOLY CROSS	$479,646,983	$339,593,506	0.88%	-0.59%	-0.60%	-2.32%	-0.31%	-0.28%	-0.62%	-0.44%
FRANKLIN SQUARE	$492,402,641	$287,510,180	0.62%	-0.53%	-0.40%	-2.58%	-0.39%	-0.22%	-0.70%	-0.41%
WASHINGTON ADVENTIST	$258,319,310	$150,097,509	0.06%	0.43%	-0.69%	-2.60%	-0.41%	-0.55%	-0.61%	-0.36%
WESTERN MARYLAND HEALTH SYSTEM	$316,661,093	$171,858,929	0.06%	0.02%	-0.20%	-2.74%	-0.51%	0.00%	-0.63%	-0.34%
SUBURBAN	$296,104,140	$189,851,798	0.41%	-0.14%	0.00%	-2.36%	-0.62%	-0.39%	-0.35%	-0.22%
HARBOR	$190,469,979	$107,761,881	0.47%	-0.28%	0.00%	-2.67%	-0.38%	-0.16%	-0.19%	-0.11%
BALTIMORE WASHINGTON MEDICAL CENTER	$398,733,080	$227,399,457	0.26%	0.37%	-0.27%	-3.56%	-0.46%	-0.39%	-0.09%	-0.05%
DOCTORS COMMUNITY	$228,124,869	$114,950,934	0.85%	0.09%	-0.13%	-4.66%	-0.90%	-1.23%	-0.09%	-0.05%
MERITUS	$314,827,422	$185,173,878	0.44%	0.23%	-0.07%	-2.98%	-0.63%	-0.15%	-0.03%	-0.02%
JOHNS HOPKINS	$2,229,450,835	$1,357,164,899	0.00%	0.30%	-0.07%	-1.97%	-0.24%	-0.14%	-0.01%	-0.01%
ANNE ARUNDEL	$575,908,245	$296,168,973	0.50%	0.32%	-0.40%	-2.32%	-0.37%	-0.30%	0.05%	0.02%

ST. AGNES	$416,466,586	$233,151,492	0.59%	0.37%	-0.33%	-3.46%	-0.54%	-0.32%	0.08%	0.05%
HOPKINS BAYVIEW MED CTR	$620,440,469	$348,529,477	0.74%	-0.23%	0.00%	-2.69%	-0.42%	-0.20%	0.09%	0.05%
PENINSULA REGIONAL	$419,622,018	$235,729,906	0.00%	0.60%	0.00%	-2.88%	-0.51%	-0.17%	0.09%	0.05%
HOWARD COUNTY	$291,104,867	$176,085,796	0.35%	0.37%	0.00%	-2.86%	-0.58%	-0.42%	0.15%	0.09%
SINAI	$709,153,890	$397,073,246	0.24%	0.68%	-0.40%	-2.30%	-0.35%	-0.15%	0.16%	0.09%
HOLY CROSS GERMANTOWN	$100,218,431	$62,086,212		0.78%		-2.66%	-0.61%	-0.48%	0.17%	0.11%
EASTON	$195,481,707	$100,000,562	0.62%	0.54%	-0.40%	-3.10%	-0.45%	-0.16%	0.30%	0.16%
NORTHWEST	$248,058,564	$125,696,184	0.74%	0.92%	-0.56%	-4.45%	-0.78%	-0.41%	0.32%	0.16%
UMMC MIDTOWN	$226,126,371	$132,931,890	1.00%	0.16%	-0.46%	-2.57%	-0.39%	-0.12%	0.31%	0.18%
CARROLL COUNTY	$223,662,684	$116,510,378	0.38%	0.35%	0.00%	-3.73%	-0.33%	-0.46%	0.40%	0.21%
G.B.M.C.	$435,420,575	$216,554,825	0.09%	0.94%	0.00%	-2.45%	-0.58%	-0.18%	0.45%	0.22%
UNIVERSITY OF MARYLAND	$1,316,372,491	$874,727,573	0.29%	0.23%	0.00%	-1.54%	-0.18%	-0.12%	0.35%	0.23%
UPPER CHESAPEAKE HEALTH	$325,619,300	$133,152,736	0.47%	0.67%	0.00%	-3.69%	-0.47%	-0.54%	0.67%	0.28%
MONTGOMERY GENERAL	$169,927,186	$79,298,762	0.71%	0.50%	0.00%	-3.55%	-0.58%	-0.60%	0.63%	0.29%
UNION MEMORIAL	$414,710,552	$231,121,787	0.62%	0.48%	-0.40%	-2.49%	-0.17%	-0.33%	0.53%	0.30%
REHAB & ORTHO	$117,465,701	$67,555,816	0.44%	0.16%		-0.01%	0.00%	-0.01%	0.60%	0.34%
CHARLES REGIONAL	$143,723,289	$68,387,041	0.44%	0.90%	0.00%	-4.10%	-0.61%	-0.68%	0.73%	0.35%
FT. WASHINGTON	$47,023,363	$19,371,986	1.00%	1.00%	0.00%	-5.22%	-1.07%	-1.04%	0.93%	0.38%
ST. MARY	$172,574,583	$77,346,008	1.00%	0.66%	0.00%	-3.54%	-0.78%	-0.46%	0.88%	0.40%

ATLANTIC GENERAL	$102,841,659	$38,966,012	0.62%	1.00%	0.00%	-3.03%	-0.38%	-0.28%	1.24%	0.47%
GARRETT COUNTY	$53,507,634	$21,836,267	0.82%	1.00%	0.00%	-2.77%	-0.55%	-0.06%	1.27%	0.52%
CALVERT	$141,821,983	$63,319,998	0.76%	1.00%	0.00%	-3.54%	-0.60%	-0.25%	1.17%	0.52%
FREDERICK MEMORIAL	$329,156,555	$178,853,951	0.38%	1.00%	0.00%	-2.83%	-0.41%	-0.40%	0.97%	0.53%
MERCY	$502,208,027	$216,281,427	0.50%	0.86%	0.00%	-1.69%	-0.13%	-0.15%	1.23%	0.53%
SHADY GROVE	$376,694,222	$219,319,153	0.24%	1.00%	0.00%	-2.35%	-0.32%	-0.34%	0.92%	0.53%
GOOD SAMARITAN	$284,642,445	$158,579,215	0.62%	0.81%	0.00%	-3.69%	-0.45%	-0.48%	0.98%	0.54%
LAUREL REGIONAL	$98,343,286	$59,724,224	0.85%	0.67%	-0.29%	-2.48%	-0.29%	-0.50%	0.94%	0.57%
BON SECOURS	$114,232,763	$62,008,295	0.35%	1.00%	0.00%	-2.78%	-0.22%	-0.05%	1.13%	0.61%
UM ST. JOSEPH	$388,253,807	$234,995,507	0.65%	0.88%	0.00%	-1.97%	-0.44%	-0.20%	1.09%	0.66%
LEVINDALE	$57,520,942	$54,805,171	0.41%	1.00%		-1.12%	-0.32%	-0.21%	1.09%	1.04%
DORCHESTER	$48,094,357	$24,256,573	0.47%	-0.37%	0.00%	-2.99%	1.96%	-0.22%	2.07%	1.04%
Statewide	**$15,753,659,372**	**$8,971,214,597**	**0.39%**	**0.30%**	**-0.17%**	**-2.55%**	**-0.38%**	**-0.28%**	**0.14%**	**0.08%**

NURSE SUPPORT PROGRAM II

FY 2018 COMPETITIVE INSTITUTIONAL GRANTS

Health Services Cost Review Commission

4160 Patterson Avenue, Baltimore, MD 21215

DRAFT

May 10, 2017

This is a draft recommendation for Commission consideration at the May 10, 2017 Public Commission Meeting. Please submit comments on this draft to the Commission by Thursday, June 1, 2017, via hard copy mail or email to Oscar.Ibarra@maryland.gov .

INTRODUCTION

This report presents the recommendations of the Nurse Support Program II (NSP II) Competitive Institutional Grant Review Panel for fiscal year (FY) 2018. The FY 2018 recommendations align with both NSP II and national-level nursing goals and objectives. The report and recommendations are submitted by the staff of the Maryland Higher Education Commission (MHEC) and the Maryland Health Services Cost Review Commission (HSCRC).

BACKGROUND

The HSCRC has funded programs to address the cyclical nursing workforce shortages since 1985. In July 2001, the HSCRC implemented the hospital-based NSP I program to address the nursing shortage impacting Maryland hospitals. The HSCRC implemented the NSP II program in May 2005 to respond to the faculty shortage and other limitations in nursing educational capacity underlying the nursing shortage. The Commission approved an increase of 0.1 percent of regulated gross hospital revenue to expand the pool of nurses in the state by increasing the capacity of nursing programs through institutional and nursing faculty interventions. The MHEC, coordinating board for all Maryland institutions of higher education, was selected by the HSCRC to administer the NSP II programs.

Maryland has made significant progress in alleviating the state's nursing shortage. However, Maryland remains the only state in the geographic region and 1 of only 16 states in the nation projected to have a nursing shortage in 2025 (HRSA, 2014). In 2015, at the conclusion of the program evaluation of the NSP II for FYs 2006 to 2015, the HSCRC renewed funding at 0.1 percent of hospital regulated gross patient revenue for FYs 2016 through 2020. In 2016, the NSP II statute was revised by the Maryland General Assembly to meet Maryland's current hospital and health systems' changing health care delivery models to be inclusive of all registered nurses (RNs) through Chapter 159 of the Acts of 2016 (SB108). The next program evaluation is due in FY 2020.

MARYLAND NURSING EDUCATION PROGRESS

Over the last five years, Maryland has seen an overall 18 percent increase in the number of entry-level (BSN) and baccalaureate completion (RN-BSN) graduates, from 1,486 graduates in 2012 to 1,815 graduates in 2016. In a snapshot of Academic Year (AY) 2016, 683 of these graduates were already working as registered nurses, continuing their education to complete the BSN degree either as part of a hospital employment agreement or professional development. In order to meet the demands of the future nursing workforce, Maryland nursing programs will need to increase enrollments and graduate additional new RNs each year.

With the impetus on a more highly educated workforce, more Master of Science in Nursing (MSN) and Doctoral prepared nurses are needed to teach the next generation. At the 19 nursing schools represented in the FY 2018 proposals, programs reported 40 full-time faculty and 12

part-time faculty vacancies due to resignations and retirements, lack of qualified applicants and budget constraints. Each new faculty member potentially increases institutional capacity to allow admission to 10 additional qualified applicants to nursing school. NSP II provides resources to Maryland's Deans and Directors of nursing programs to recruit and retain faculty through scholarships for graduate degrees, new nurse faculty fellowships and doctoral grant support. The NSP II Review Panel provided the highest recommendations to proposals that expanded educational capacity and were aligned with the two major goals of NSP II, i.e.: increasing nurse graduates and nurse faculty.

ACADEMIC AND PRACTICE PARTNERSHIP

An academic-hospital partnership funded by NSP II has assisted 130 staff nurses over the past decade to earn an MSN degree. Hospital-based nurses serve as clinical instructors, faculty, preceptors or mentors. The university-based program continues to recruit, support and prepare nurses through partnerships with18 Maryland acute-care hospitals. The Leadership Consortium and Maryland Clinical Simulation Resource Consortium were developed to provide opportunities across settings for academic nurse faculty and clinical practice nurses to work more closely together. Over a two year period, nurses from academia and practice were nominated by health systems at 15 hospitals and 24 nursing programs.

With the NSP II evaluation (2014), Chief Nursing Officers at Maryland hospitals identified the most difficult to fill nurse positions were emergency, critical care, operative/perioperative, nurse manager, director, and nursing professional development practitioner (hospital-based nurse educator). As a result, the guidelines and service commitment for the Hal and Jo Cohen Graduate Nurse Faculty Scholarship were revised to include hospital-based nurse educators, in addition to nursing program faculty. These opportunities are available to nurses identified by Chief Nursing Officers and Deans/Directors at both hospitals and schools of nursing through a nomination process. All programs are described in detail on the nursesupport.org website.

The NSP II is supporting an education focused approach to the nurse residency programs across the State amid nursing programs' efforts to bridge the gap in a rapidly evolving health care delivery model. With this cycle, an implementation grant was recommended for academic credit options for completion of Nurse Residency Programs, as well as a one year proposal to better align expectations of practice and academia with graduate competencies and nurse residency outcomes.

All grant recipient project directors are required to disseminate their grant supported work annually through publications in peer reviewed journals or presentations to fellow nurses in Maryland with opportunities at the Maryland Nurse's Association, Maryland Organization for Nurse Leaders, Maryland Action Coalition or other professional nursing conferences. Each year new citations are added to serve as resources on the website and complete program updates.

ACADEMIC PROGRESSION IN NURSING (APIN)

The *Maryland Nursing Articulation Education Agreement* for seamless academic progression for Licensed Practical Nursing to Associate Degree Nursing to Bachelor of Science Degrees in Nursing is being updated through the Maryland Higher Education Commission and Maryland's Nursing Deans and Directors to better align with the latest advancing academic progression in nursing (APIN) initiatives. One of the major recommendations from the Institute of Medicine's Future of Nursing Report (2010) was to increase the percentage of Registered Nurses with Bachelor of Science in Nursing (BSN) degrees up to 80% by 2020. About half of Maryland's new RNs continue to graduate from Associate Degree programs in Nursing at community colleges across the State.

One model of APIN, the Associate to Bachelor's Degree (ATB) model, provides a smooth pathway to the BSN. In the ATB Model, the student nurse at the community college can be dual enrolled to take specific university level courses and move forward to finish both an Associate and Bachelors in Nursing Degree within a 3 year period, minimizing educational cost and accelerating the time to completion of the BSN. Integrating nursing curriculum for two programs without redundancy is the major challenge. Many of the NSP II grant programs funded over the last few years have supported efforts to implement this ATB partnership model or alternate routes to the BSN with good results. As Tim Porter-O'Grady, chair of the American Nurses Foundation said in his call to bring dual enrollment partnerships to universities and community colleges, "It's not where you start, it's where you finish". Across Maryland, universities and community colleges are working together through funded projects to reach APIN goals.

FY 2018 COMPETITIVE GRANT PROCESS

In response to the FY 2018 request for applications (RFA), the NSP II Competitive Institutional Grant Review Panel received a total of 40 requests for funding, including 30 new competitive grants proposals, 9 resource grant requests and 1 continuation grant recommendation. The nine member review panel—comprised of former NSP II grant project directors, retired nurse educators, licensure and policy leaders, MHEC staff and HSCRC staff—reviewed the proposals. All new proposals received by the deadline were scored by the panel according to the rubric outlined in the FY 2018 RFA. The review panel convened and developed consensus around the most highly recommended proposals. As a result, the review panel recommends funding for 28 of the 40 total proposals. There were many deserving proposals and the Panel encouraged those not funded this year to resubmit next year.

The recommended proposals include one-year planning grants, three to five-year full implementation grants, continuation grants and nursing program resource grants for a total of $17.6 million. The proposals in this round that received the highest ratings for funding focused on nursing graduate outcomes with partnerships across community colleges, universities and hospital health systems. Table 1 lists the recommended proposals for FY 2018 funding.

Table 1. Final Recommendations for Funding for FY 2018			
Competitive Institutional Grants			
Grant #	**Institution**	**Grant Title**	**Proposed Funding**
18-101	Anne Arundel Community College	Academic Progression RN to BSN/MSN	$726,895
18-102	Baltimore City Community College	Planning with Coppin State University	$63,890
18-104	College of Southern Maryland	Associate to Bachelor's Pathway	$1,115,231
18-107	Frostburg State University	Nurse Practitioner Program	$3,840,422
18-109	Frostburg State University	Pathway to a DNP	$212,257
18-111	Johns Hopkins University	DNP/PhD Dual Degree	$1,530,263
18-113	Johns Hopkins University	Palliative Care Competencies	$1,264,039
18-114	Johns Hopkins University	Post NP- Pediatric Care	$810,488
18-115	Montgomery College	Academic to Practice Transition	$100,316
18-119	Notre Dame of Maryland	Preparing Leaders for Nursing	$493,593
18-120	Salisbury University	Communication for Nurse Leaders	$1,981,929
18-121	Salisbury University	Maryland Nurse Educator Career Portal	$1,793,292
18-122	Towson University	TU Collaborative Partnership Program	$1,266,250
18-123	University of Maryland	Preparing Nurses to Lead Primary Care	$147,922
18-125	University of Maryland	MDAC 2018 Summit on Academic Progression	$91,305
18-126	University of Maryland	Academic Credit for Nurse Residency II	$105,474
18-127	University of Maryland	Development of Clinical Faculty	$182,808
18-130	Wor-Wic Community College	Planning Associate to Bachelors	$55,991
18-201	Carroll Community College	Faculty Development 2018	$81,000
18-202	Cecil Community College	Expand Clinical Simulation	$98,693
18-203	College of Southern Maryland	Enhanced Simulation Project	$99,991
18-204	C. College of Baltimore County	Enhancing Capacity in Simulation	$100,000
18-205	Hagerstown Community College	Enhanced Simulation Lab Capacity	$99,958
18-206	Montgomery College	Accreditation and MCSRC Resources	$85,645
18-207	Morgan State University	Accreditation and Simulation Resources	$99,999
18-208	Towson University	Simulation Resources	$97,727
18-209	University of Maryland	Student Tracking and Evaluation System	$99,300
18-301	Allegany College of Maryland	Nurse Managed Wellness	$946,000
		TOTAL	**$17, 590, 678**

STAFF RECOMMENDATIONS

The recommended proposals represent the NSP II's commitment to increasing nursing degree completions and academic practice partnerships across Maryland. The most highly recommended proposals include:

- Supporting nursing undergraduate degree completions at Towson University with collaborative hospital partnerships with Howard County Hospital, Johns Hopkins Hospital, Sinai Hospital Center, St. Joseph's Medical Center and University of Maryland Medical Center;
- A planning grant at Baltimore City Community College for Associate to Bachelor of Science in Nursing degrees at Coppin State University;

- Implementation of a new Nurse Practitioner degree program in Western Maryland at Frostburg State University;
- A post-doctorate Adult and Gerontological Primary Care Nurse Practitioner Certificate at the University of Maryland;
- A continuation of the Allegany College of Maryland's Nurse Managed Wellness, and
- Developing web-based Leadership and Communication toolkits on the Eastern Shore of Maryland at Salisbury University with hospital partners Atlantic General Hospital, Peninsula Regional Medical Center and University of Maryland Shore Regional Health.

HSCRC and MHEC staff members recommend the 28 proposals presented in Table 1 for FY 2018 Competitive Institutional Grant funding.

REFERENCES

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Draft Recommendations on the Update Factors for FY 2018

May 10, 2017

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Table of Contents

LIST OF ABBREVIATIONS

ACA	Affordable Care Act
ACO	Accountable Care Organization
CMS	Centers for Medicare & Medicaid Services
CY	Calendar year
FFS	Fee-for-service
FFY	Federal fiscal year
FY	Fiscal year
GBR	Global budget revenue
HSCRC	Health Services Cost Review Commission
MACRA	Medicare Access and CHIP Reauthorization Act
PAU	Potentially avoidable utilization
RY	Rate year
UCC	Uncompensated care

INTRODUCTION AND BACKGROUND

The Maryland Health Services Cost Review Commission (HSCRC or Commission) has been setting hospital payment rates for all payers since 1997. As part of this process, the HSCRC updates hospitals' rates and approved revenues on July 1 of each year to account for factors such as inflation, policy adjustments, and other adjustments related to performance and settlements from the prior year.

On January 1, 2014, the Centers for Medicare & Medicaid Services (CMS) approved the implementation of a new All-Payer Model in Maryland. The All-Payer Model aims to promote better care, better health, and lower costs for all Maryland patients. In contrast to Maryland's previous Medicare waiver that focused on controlling increases in Medicare inpatient payments per case, the All-Payer Model (Model) focuses on controlling increases in total hospital revenue per capita. The Model established a cumulative annual limit on per capita growth of 3.58 percent and a Medicare savings target of $330 million over the initial five-year period of the Model.

In order to meet the requirements of the All-Payer Model and assure that the annual update will not result in a revenue increase beyond the 3.58 percent limit, the update process needs to account for all sources of hospital revenue that will contribute to the growth of total Maryland hospital revenues for Maryland residents. In addition, the HSCRC needs to consider the effects of the update on the Model's $330 million Medicare savings requirement and the total hospital revenue that is set at risk for quality-based programs. While rates and global budgets are approved on a fiscal year basis, the All-Payer Model revenue limits and Medicare savings are determined on a calendar year basis. Therefore, the HSCRC must account for both calendar year and fiscal year revenues in establishing the updates for the fiscal year.

It is important to note that the proposed updates incorporate both price and volume adjustments for revenues under global budgets. Thus, the proposed updates should not be compared to a rate update that does not control for volume changes. It is also important to view the revenue updates in the framework of gross and net revenue. During the past three years, the expansion of Medicaid and other Affordable Care Act (ACA) enrollment has reduced uncompensated care (UCC), resulting in the State reducing several revenue assessments. The associated rate reductions for UCC and assessment reductions implemented by HSCRC decrease gross revenues, but they do not decrease net revenues. Therefore, the net revenue increases are higher than gross revenue increases during these periods.

For rate year (RY) 2017, there were three categories of hospital revenue. One category included out-of-state revenues for several Johns Hopkins hospitals. However, this revenue was brought under the global budget during RY 2017. As a result, there are only two remaining categories of hospital revenue under the All-Payer Model:

1. Hospitals under Global Budget Revenues, which are under the HSCRC's full rate-setting authority.

2. Hospital revenues for which the HSCRC sets the rates paid by non-governmental payers and purchasers, but where CMS has not waived Medicare's rate-setting authority to Maryland and thus Medicare does not pay on the basis of those rates. This includes psychiatric hospitals and Mount Washington Pediatric Hospital.

The purpose of this report is to present analyses and make recommendations for the update factors for RY 2018 for global revenues and non-global revenues.

ASSESSMENT

Overview of Preliminary Update Factors Recommendations

Since the initiation of the All Payer Model effective January 1, 2014, Maryland hospitals in the aggregate have been provided revenue budgets that allow for investments in care coordination and other infrastructure to implement care improvement and population health initiatives. During the first two years of the Model, hospitals also experienced increased profitability from regulated revenues. That improvement in financial condition can be credited, in large measure, to the successes of hospitals in rapid adoption of global budget models, adoption of interventions that have moderated or decreased potentially avoidable utilization, implementation of cost controls, and increases in revenues provided by the HSCRC for care coordination and infrastructure. Additionally, actual inflation estimates turned out to be lower than the amount provided in rate updates for the initial two years of the Model. This higher inflation in rates allowed for additional investments in care coordination and population health.

In RY 2017, there were large declines in the federal Medicare update factor for the federal fiscal year (FFY) 2017 under the ACA and limited Maryland hospital savings in calendar year (CY) 2015 relative to the national Medicare growth. As a result, the HSCRC approved an update that lowered approved revenues for PAU by an additional 0.45 percent. As a result of this reduction, as well as higher inflation and other factors, hospital margins declined. Medicare hospital savings have again increased in CY 2016.

As described in detail below, for RY 2018, HSCRC staff is proposing a preliminary update of 3.02 percent per capita for global revenues and a preliminary update of 2.18 percent for non-global revenues for RY 2018. Staff has not yet received the estimates of Medicare growth per beneficiary from the Office of the Actuary for FFY 2018. Depending on those results, the final staff recommendation may change.

Calculation of the Inflation/Trend Adjustment for Global and Non-Global Revenues

The calculation of the inflation/trend adjustment Global Revenues and Non-Global Revenues, including psychiatric hospitals and Mt. Washington Pediatrics, starts by using the gross blended statistic of 2.68 percent growth, which was derived from combining 91.2 percent of Global Insight's First Quarter 2017 market basket growth of 2.80 percent with 8.80 percent of the

capital growth estimate of 1.40 percent, which calculates to 2.68 percent. The proposed inflation/trend adjustment would be as follows:

Table 1. RY 2018 Proposed Inflation/Trend Adjustment

	Global Revenues	Psych & Mt. Washington
Proposed Base Update (Gross Inflation)	2.68%	2.68%
Productivity Adjustment		-0.50%
Proposed Update	2.68%	2.18%

For psychiatric hospitals and Mt. Washington Pediatric Hospital, staff is proposing to use a productivity adjustment of 0.50 percent. This results in a proposed update of 2.18 percent. Additionally, these hospitals get a volume adjustment rather than a population adjustment. HSCRC staff is currently working on implementing quality measures for future rate years.

Summary of Other Policies Impacting RY 2018 Revenues

The inflation/trend adjustment is just one component of the adjustments to hospital global budgets for RY 2018. Therefore, in considering the system-wide update for the hospital global budgets under the All-Payer Model, HSCRC staff sought balance among the following conditions: 1) meeting the requirements of the All-Payer Model agreement; 2) providing hospitals with the necessary resources to keep pace with changes in inflation and demographic changes; 3) ensuring that hospitals have adequate resources to invest in the care coordination and population health strategies necessary for long-term success under the All-Payer Model; and 4) incorporating quality performance programs.

Table 2 summarizes the net impact of the HSCRC staff's current proposals for inflation, volume, PAU savings, UCC, and other adjustments on global revenues. The proposed adjustments provide for an estimated net revenue growth of 3.52 percent and per capita growth of 3.15 percent for RY 2018, before accounting for reductions in UCC and assessments. After accounting for those factors, the revenue growth is estimated at 3.39 percent with a

corresponding per capita growth of 3.02 percent for RY 2018. Descriptions of each step and the associated policy considerations are explained in the text following the table:

Table 2. Net Impact of Adjustments on Hospital Global Revenues, RY 2018

Balanced Update Model for Discussion			
Components of Revenue Change Linked to Hospital Cost Drivers/Performance			
			Weighted Allowance
Adjustment for Inflation			2.40%
- Total Drug Cost Inflation for All Hospitals*			0.28%
Gross Inflation Allowance	A		2.68%
Care Coordination			
-Rising Risk With Community Based Providers			
-Complex Patients With Regional Partnerships & Community Partners			
-Long Term Care & Post Acute			
	B		
Adjustment for volume	C		0.56%
-Demographic Adjustment (0.36%)			
-Transfers			
-Categoricals			
- Drug Population/Utilization (.2%**)			
Other adjustments (positive and negative)			
- Set Aside for Unknown Adjustments	D		0.40%
- Medicare Performance Adjustment (Future Use)	E		0.00%
Net Other Adjustments	F =	Sum of D thru E	0.40%
- Reversal of one-time adjustments for drugs	G		-0.10%
-Reverse prior year's PAU savings reduction	H		1.25%
-PAU Savings	I		-1.45%
-Reversal of prior year quality incentives	J		-0.12%
-QBR, MHAC, Readmissions			
-Positive incentives & Negative scaling adjustments	K		0.30%
Net Quality and PAU Savings	L =	Sum of G thru K	-0.12%
Net increase attributable to hospitals	M =	Sum of A + B + C + F + L	3.52%
Per Capita	N =	(1+M)/(1+0.36%)	3.15%
Components of Revenue Offsets with Neutral Impact on Hosptial Finanical Statements			
-Uncompensated care reduction, net of differential	O		-0.13%
-Deficit Assessment	P		0.00%
Net decreases	Q =	O + P	-0.13%
Revenue growth, net of offsets	R =	M + Q	3.39%
Per capita revenue growth	S =	(1+R)/(1+0.36%)	3.02%

* Provided Based on proportion of drug cost to total cost (drug index 5.2% X 5.4% national weight)

**Prospective adjustment 0.10 percentfor new outpatient infusion and chemotherapy drugs (50% of estimated input in rates the beginning of FY)
The second 0.10 percent will be earmarked for new outpatient infusion and chemotherapy drugs (50% of actual input in rates mid-year)

For RY 2017, the HSCRC split the approved revenue for the year into two targets, a mid-year target and a year-end target. Through this process, the HSCRC deferred a portion of the update from CY 2016 into CY 2017. This deferral was meant to address a particularly low federal Medicare update for FFY 2017, and also better matched the historic volume patterns incurred by hospitals with higher volumes through the winter months of January through March. Because this revenue split matched historical volumes better, the HSCRC staff plans to continue this split. The staff will apply 49.7 percent of the Total Approved Revenue to determine the mid-year target and the remainder of revenue will be applied to the year-end target. Of note, there are a few hospitals that do not follow this seasonal pattern, particularly Atlantic General Hospital. Thus, HSCRC staff will adjust the revenue split to accommodate their normal seasonality.

Also, in the first half of RY 2017, hospitals undercharged the global budgets by approximately 1.0 percent. To recover this undercharge, hospitals will need to increase revenues in the second half of the RY 2017. This will contribute to an increase in the total cost of care for CY 2017. HSCRC has made CMMI aware of this undercharge, and its implications for CY 2017 data.

Central Components of Revenue Change Linked to Hospital Cost Drivers/Performance

HSCRC staff accounted for a number of factors that are central provisions to the update process and are linked to hospital costs and performance. These include:

- **Adjustments for Volume**: Staff proposes a 0.36 percent adjustment that is equal to the Maryland Department of Planning's estimate of population growth for CY 2017[1]. In the previous year, staff used an estimate based on five-year population growth projections. For the last two years (i.e., RYs 2016 and 2017), the actual growth estimate has been lower than the forecast. Hospital-specific adjustments will vary based on changes in the demographics of each hospital's service area. In the past, a portion of the adjustment was set aside to account for growth in highly specialized services. For RY 2018, the staff proposes to provide the full value of the 0.36 percent growth for the demographic adjustment to hospitals.
- **Rising Cost of New Drugs**: The rising cost drugs, particularly of new physician-administered drugs in the outpatient setting, continues to be a growing concern among hospitals, payers, and consumers. Not all hospitals provide these services, and some hospitals have a much larger proportion of costs devoted to these services. To address this situation, staff recommends earmarking 0.28 percent of the inflation allowance to fund increases in the cost of drugs and to provide this allowance to the portion of total hospital costs that were comprised of drug costs in FY 2016. Staff also proposes to provide a prospective volume adjustment of 0.10 percent to fund a portion of the rising cost of new outpatient physician-administered drugs, which will be provided on a hospital-specific basis. Each hospital with regulated oncology drugs reported drug costs for outpatient infusion, chemotherapy, and biological drugs that accounted for at least

[1] See http://planning.maryland.gov/msdc/.

80 percent of drugs billed for RY 2016. Staff will spread the 0.10 percent adjustment among those hospitals based on their 2016 actual costs that were submitted for RY 2016. In addition, staff will collect similar data for RY 2017, and will provide an update of an estimated 0.10 percent effective with the mid-year 2018 update. In doing so, staff will provide a 0.20 percent volume adjustment for drugs, together with a 0.28 percent inflation allowance for drugs. During RY 2017, staff provided a retrospective and prospective volume adjustment for drugs, each of approximately 0.10 percent. The one-time adjustment portion will be reversed. The HSCRC staff expects to continue to refine the policies as it receives additional cost and use information.

- **Set-Aside for Unforeseen Adjustments**: Staff recommends a 0.40 percent set-aside to fund unforeseen adjustments during the year. This amount was reduced from 0.50 percent in RY 2017 to provide funding for a drug adjustment in RY 2018.
- **Reversal of the Prior Year's PAU Savings Reduction and Quality Incentives**: The total RY 2017 PAU savings and quality adjustments are restored to the base for RY 2018, with new adjustments to reflect the PAU savings reduction and quality incentives for RY 2018.
- **PAU Savings Reduction and Scaling Adjustments**: The RY 2018 PAU savings will be continued, and an additional 0.20 percent savings is targeted for RY 2018. Staff have provided preliminary estimates for both positive and negative quality incentive programs, which have been changed so that they are no longer revenue neutral. However, staff is still working on finalizing these figures.

Central Components of Revenue Offsets with Neutral Impact on Hospital Financial Statements

In addition to the central provisions that are linked to hospital costs and performance, HSCRC staff also considered revenue offsets with neutral impact on hospital financial statements. These include:

- **UCC Reductions**: The proposed UCC reduction for FY 2018 will be -0.13 percent. The amount in rates was 4.69 percent in RY 2017, and the proposed amount for RY 2018 is 4.56 percent.
- **Deficit Assessment**: The legislature did not reduce the deficit assessment for FY 2018. Therefore, this line item is set at 0 percent.

Additional Revenue Variables

In addition to these central provisions, there are additional variables that the HSCRC considers, as mentioned in Table 2. These additional variables include one-time adjustments, as well as revenue and rate compliance adjustments and price leveling of revenue adjustments to account for annualization of rate and revenue changes made in the prior year. Notable factors include the PAU savings adjustment and investments in care coordination, as described in additional detail below.

PAU Savings Adjustment

Maryland is now in its fourth performance year of the All-Payer Model. The Model is based on the expectation that an All-Payer approach and global or population-based budgets will result in more rapid changes in population health, care coordination, and other improvements, which in turn will result in reductions in PAUs. To that end, the Commission approved budgets that did not offset Medicare's ACA and productivity adjustments, and provided infrastructure investment funding to support care coordination and population health activities. For RYs 2015 and 2016, the HSCRC applied a PAU savings adjustment with an incremental revenue reduction averaging 0.20 percent to allocate and ensure savings for purchasers of care. In RY 2017, there was an incremental increase in the PAU adjustment of 0.45 percent. For RY 2018, staff is proposing an increase in the PAU saving adjustment of 0.20 percent, similar to RYs 2015 and 2016.

Investments in Care Coordination and Implementation of Care Interventions

Investments

The HSCRC provided funding for some initial investments in care coordination resources. Staff believes that several categories of investments for implementation are critical to the success of the Model. Multiple workgroups have identified the need to focus on high needs patients, complex patients, and patients with chronic conditions and other factors that place them at risk of requiring extensive resources. Of particular concern are Medicare patients, who have more extensive needs, but fewer system supports. Additionally, there are several major opportunities with post-acute and long-term care that are important to address. There is significant variation in post-acute care costs, and hospitals need to work with partners to address this variation. There are also potentially avoidable admissions and readmissions from post-acute and long-term care facilities. There are documented successes in reducing these avoidable admissions, both in Maryland and nationally. These improvements require partnerships and coordination among hospitals and long-term and post-acute care providers. As hospitals continue to implement these approaches in FY 2017, declines in utilization may free up resources to make additional investments (if there is not a corresponding increase in non-hospital costs). The HSCRC staff has completed an amendment to the All-Payer Model to provide data and additional flexibility in implementing care redesign together with physicians and community-based partners. Also, the State has proposed a Maryland Comprehensive Primary Care Model (MCPCM) to CMS, which it hopes to initiate in early 2018. The MCPCM will provide care management resources to participating primary care practices.

Implementation of the care redesign and population health improvement will require additional investments. It will be important to reinvest hospital resources and to identify aligned resources outside of hospitals to make these efforts successful.

Additional resources could be beneficial for organizations that are prepared to implement:

- Care management for complex patients, in collaboration with regional partnerships and community partners

- Care coordination and chronic care improvement focused on rising risk patients as well as population health improvement, in collaboration with community partners
- Effective approaches to address post-acute and long-term care opportunities
- Other care redesign programs that engage physicians and other non-hospital providers in efforts aligned with the All-Payer Model

Interventions

As part of the FY 2017 update, each hospital in the State agreed to focus on total cost of care for Medicare, implement increased interventions and care coordination for high needs and rising needs patients, and to work with physicians relative to Medicare Access & CHIP Reauthorization Act (MACRA) opportunities. As discussed in the following section entitled Medicare Financial Test, for CY 2016, the State was successful in limiting the growth in Medicare total cost of care relative to national growth. Hospitals have been working with CRISP to share information on care coordination activities for high needs patients, and this information is being reviewed in the aggregate each month. As mentioned, the State has worked with stakeholders to secure a Care Redesign Amendment to the All-Payer Model. The clearance process for the Amendment took longer than anticipated, and the Amendment was just signed at the end of April 2017. Hospitals have also been participating in Accountable Care Organizations (ACOs). Additional effort is still needed to implement increasing levels of interventions for high needs patients and to engage physicians and other providers in aligned efforts. HSCRC staff are considering the importance and implications of these efforts on the Model's ongoing success. Staff is interested in Commissioners' and stakeholders' views on how progress on these efforts should be taken into account for the upcoming rate year.

Consideration of All-Payer Model Agreement Requirements

As described above, the staff proposal increases the resources available to hospitals to account for rising inflation, population changes, and other factors, while providing adjustments for performance under quality programs. Additionally, based on the staff calculations to date, the proposed update falls within the financial parameters of the All-Payer Model agreement requirements. However, staff does not yet have the updated cost per beneficiary estimates for CY 2017, and thus these calculations are subject to change. The staff's considerations in regards to the All-Payer Model agreement requirements are described in detail below.

All-Payer Financial Test

The proposed balanced update keeps Maryland within the constraints of the Model's all-payer revenue test. Maryland's agreement with CMS limits the annual growth rate for all-payer per capita revenues for Maryland residents at 3.58 percent. Compliance with this test is measured by comparing the cumulative growth in revenues from the CY 2013 base period to a ceiling calculated assuming an annual per capita growth of 3.58 percent. To evaluate the impact of the recommended update factor on the State's compliance with the all-payer revenue test, staff

calculated the maximum cumulative growth that is allowable through the end of CY 2018. As shown in Table 3, cumulative growth of 19.23 percent is permitted through CY 2018.

Table 3. Calculation of the Cumulative Allowable Growth in All-Payer per Capita Revenue for Maryland Residents

	CY 2014 A	CY 2015 B	CY 2016 C	CY 2017 D	CY 2018 E	Cumulative Growth F = (1+A)*(1+B)*(1+C)*(1+D)*(1+E)
Calculation of Revenue Cap	3.58%	3.58%	3.58%	3.58%	3.58%	19.23%

Table 4 below shows the allowed all-payer growth in gross revenues. Staff has removed adjustments due to reductions in UCC and assessments that do not affect the hospitals' bottom lines. Staff projects that the actual cumulative growth, excluding changes in UCC and assessments, through FY 2018 is 15.59 percent. The actual and proposed revenue growth is well below the maximum levels.

Table 4. Evaluation of the Proposed Update's Projected Growth and Compliance with the All-Payer Gross Revenue Test

	A Actual Jan- June 2014	B Actual FY 2015	C Actual FY 2016	D Staff Est. FY 2017	E Proposed FY 2018	F = (1+A)*(1+B)*(1+C)*(1+D)*(1+E) Cumulative Through FY 2018
Maximum Gross Revenue Growth Allowance	**2.13%**	**4.21%**	**4.06%**	**3.95%**	**3.95%**	**19.68%**
Revenue Growth for Period	0.90%	2.51%	2.47%	2.14%	3.39%	11.93%
Savings from UCC & Assessment Declines that do not Adversely Impact Hospital Bottom Line		1.09%	1.40%	0.69%	0.13%	3.35%
Revenue Growth with UCC & Assessment Savings Removed	0.90%	3.60%	3.87%	2.83%	3.52%	**15.59%**
Revenue Difference from Growth Limit						**4.09%**

"Maximum Gross Revenue Growth Allowance" includes the following population estimates: FY16/CY15 = 0.46%; FY17/CY16 = 0.36%

Note: The figures in the table above are different than the net revenue figures reported at the beginning of this section of the report. The figure above does not reflect actual UCC or include other adjustments between gross and net revenues such as denials. They reflect adjustments to gross revenue budgets.

Medicare Financial Test

The proposed balanced update also keeps Maryland within the constraints of the Model's Medicare savings test. This second test requires the Model to generate $330 million in Medicare fee-for-service (FFS) savings in hospital expenditures over five years. The savings for the five-year period were calculated assuming that Medicare FFS hospital costs per Maryland beneficiary

would grow about 0.50 percent per year slower than the Medicare FFS costs per beneficiary nationally after the first performance year (CY 2014).

Performance years one and two (CY 2014 and CY 2015) of the Model generated approximately $251 million in Medicare savings. Performance year three (CY 2016) savings have not yet been audited, but current staff projections show an estimated savings of $287 million, bringing the three-year cumulative savings to over $538 million. Under these calculations, the cumulative savings are ahead of the required savings of $132 million.

However, there continues to be a shift toward greater utilization of non-hospital services in the state relative to national rates of growth. When calculating savings relative to total cost of care, the three-year cumulative savings estimate is $364 million, still well above the required savings level. Maryland's All-Payer Model Agreement with CMS contains requirements relative to the total cost of care, which includes non-hospital cost increases. The purpose is to ensure that cost increases outside of the hospital setting do not undermine the Medicare hospital savings that result from the Model implementation. If Maryland exceeds the national total cost of care growth rate by more than 1.00 percent in any year or exceeds the national total cost of care growth rate in two consecutive years, Maryland is required to provide an explanation of the increase and potentially provide steps for corrective action.

Staff has estimated that the total cost of care growth is below the national growth for CY 2016. However, Maryland non-hospital cost growth exceeds the national growth rate for CY 2016. This difference appears to be driven by increases in Maryland's non-hospital Part B services, which include clinic and professional fees. Staff determined that the growth is primarily in professional fees and is conducting further assessments of the cause of these increases. A commitment to continue the success of the first three year is critical to building long-term support for Maryland's Model. Therefore, staff recommends maintaining the goal used in the RYs 2015, 2016 and 2017 updates of growing Maryland hospital costs per beneficiary about 0.50 percent slower than the nation for RY 2018. Attainment of this goal will maintain any ongoing savings from prior periods and help achieve savings in the total cost of care, as well as provide evidence of the model's continued success.

Consideration of National Cost Figures

Medicare's Proposed National Rate Update for FFY 2018

CMS published proposed updates to the federal Medicare inpatient rates for FFY 2018 in the Federal Register in mid-April 2017.[2] These updates are summarized in the table below. These updates will not be finalized for several months and are subject to change. In the proposed rule, CMS would increase rates by approximately 2.9 percent in FFY 2018 compared to FFY 2017,

[2] See https://www.cms.gov/Medicare/Medicare-Fee-for-Service-Payment/AcuteInpatientPPS/FY2018-IPPS-Proposed-Rule-Home-Page-Items/FY2018-IPPS-Proposed-Rule-Regulations.html?DLPage=1&DLEntries=10&DLSort=0&DLSortDir=ascending.

after accounting for inflation, a disproportionate share increase, and other adjustments required by law. The proposed rule includes an initial market basket update of 2.90 percent for those hospitals that were meaningful users of electronic health records in FFY 2016 and for those hospital that submitted data on quality measures, less a productivity cut of 0.40 percent and an additional market basket cut of 0.75 percent, as mandated by the ACA. This proposed update also reflects a proposed 0.4588 percentage point increase for documentation and coding required by the American Taxpayer Relief Act of 2012 and a proposed reduction of approximately 0.60 percentage points to remove the Two-Midnight rule payment increase made in FY 2017 that was deemed to be unlawful. Disproportionate share payment changes resulted in an increase of approximately 1.30 percent from FFY 2017.

Table 5. Medicare's Proposed Rate Updates for FFY 2018

	Inpatient	Outpatient
Base Update		
Market Basket	2.90%	2.90%
Productivity	-0.40%	-0.40%
ACA	-0.75%	-0.75%
Coding	0.46%	
Two Midnight Rule	-0.60%	
	1.61%	1.75%
Other Changes		
DSH	1.30%	0.00%
Outlier Adjustment	0.00%	0.00%
	1.30%	0.00%
	2.9%	1.8%

Applying the inpatient assumptions about market basket, productivity, and mandatory ACA outpatient savings, staff estimates a 1.80 percent Medicare outpatient update effective January 2018. This estimate is pending any adjustments that may be made when the final update to the federal Medicare outpatient rates is published.

Allowable Growth

The CMS Office of the Actuary has not yet released the projections of Medicare cost per beneficiary that are typically provided for the President's Budget. There has already been an extensive delay beyond the normal release time. If the figures are not released prior to the approval of the update, HSCRC staff will reference the most recent figures provided with the Medicare Trustees' Report as well as the Medicare Advantage update factor.

The HSCRC staff is currently estimating revenue growth for CY 2017 using the annual update model. Staff will complete this process prior to the next Commission meeting.

Stakeholder Input

HSCRC staff is working with the Payment Models Workgroup to review and provide input on the proposed FY 2018 updates.

RECOMMENDATIONS

Based on the currently available data and the staff's analyses to date, the HSCRC staff is providing the following preliminary recommendations for the FY 2018 update factors. This preliminary staff recommendation is subject to change pending the release of updated figures from the CMS Office of Actuary and evaluation of modeled update results.

For Global Revenues:

a) Provide an overall increase of 3.39 percent for revenue (net of offsets) and 3.02 percent per capita for hospitals under Global Budgets, as shown in Table 2. In addition, staff is proposing to split the approved revenue into two targets, a mid-year target and a year-end target. Staff will apply 49.7 percent of the Total Approved Revenue to determine the mid-year target and the remainder of revenue will be applied to the year-end target. Staff is aware that there are a few hospitals that do not follow this pattern of seasonality and will adjust the split accordingly.

b) Allocate 0.28 percent of the inflation allowance based on each hospital's proportion of drug cost to total cost. In addition to an adjustment for drug prices, staff is also proposing a 0.20 percent adjustment for drug volume/utilization, 0.10 percent prospectively allocated to hospitals using the FY 2016 outpatient oncology drug utilization and standard costs filed by hospitals, and the other 0.10 percent based on actual growth for FY 2017 over FY 2016. These adjustments will help fund the rising cost of new outpatient, physician-administered drugs.

c) Consider whether to differentiate hospital updates based on progress relative to high needs patients and other aligned efforts with physicians and other providers.

d) Evaluate the impact of the difference statistic to determine compliance with both the All-Payer Waiver Test and the Medicare Waiver Test.

Non-Global Revenues including psychiatric hospitals and Mt. Washington Pediatric Hospital:

a) Provide an overall update of 2.18 percent by using a productivity adjustment of 0.50 percent from the inflation factor of 2.68 percent.

b) Continue to focus on implementation of quality measures and value based programs for psychiatric facilities.

The Hilltop Institute

analysis to advance the health of vulnerable populations

FY 2016 Maryland Hospital Community Benefit Reporting

May 10, 2017

Laura Spicer

HSCRC May Meeting

UMBC

AN HONORS UNIVERSITY IN MARYLAND

Presentation Outline

- Highlights from the FY 2016 reports
- Proposed changes for reporting instructions

Maryland Community Benefit Reporting Requirements

- The HSCRC is required to collect hospital community benefit information and compile into a statewide, publicly available report.
- The HSCRC's community benefit reporting system has two components:
  - Community Benefit Collection Tool – a spreadsheet that inventories hospital community benefit expenses in various categories.
  - Narrative Report – intended to strengthen and supplement the quantitative community benefit data that hospitals report in their inventory spreadsheets.

FY 2016 Financial Report Summary

- 52 hospitals submitted financial reports
- $1.5 billion in community benefit expenditures, representing:
  - 9.3% of statewide hospital operating expenses
    - Ranging from 1.5% - 24.8% within hospitals
  - 9.2 million staff hours and 5.9 million encounters

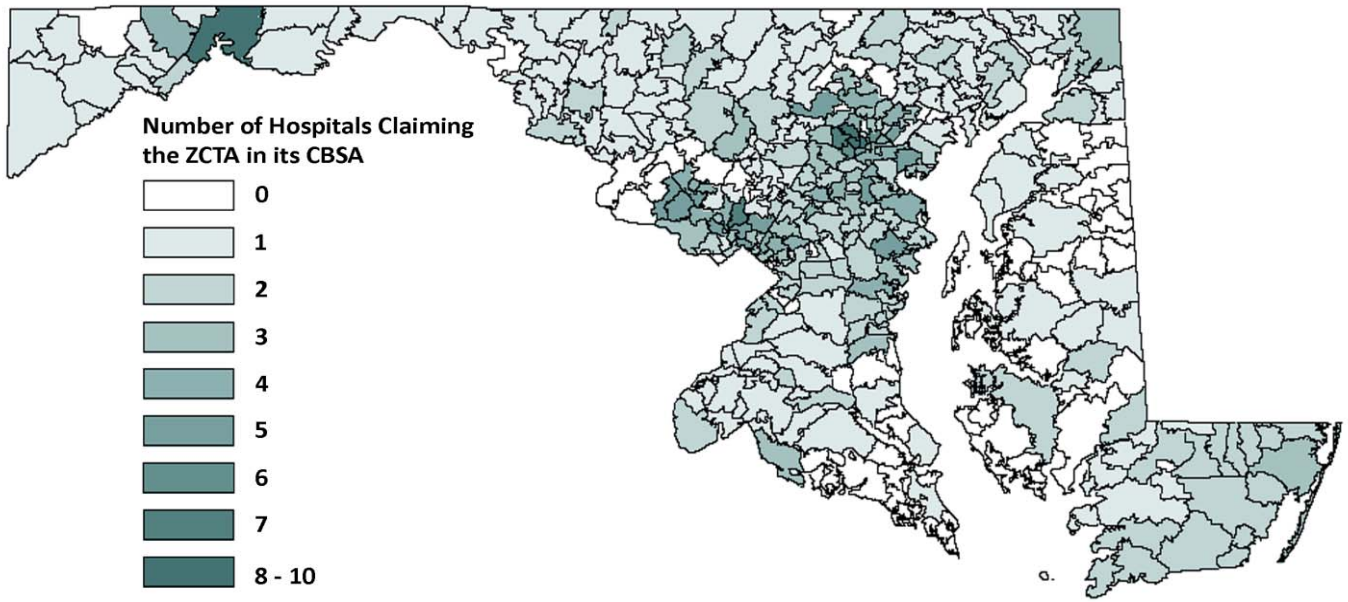
FY 2016 Hospital Community Benefit Expenditures by Category

Community Benefit Category	Net Community Benefit Expense	% of Total Community Benefit Expenditures	Net Community Benefit Expense Less: Rate Support	% of Total Community Benefit Expenditures w/o Rate Support
Unreimbursed Medicaid Cost	$56,475,883	3.71%	$56,475,883	6.82%
Community Health Services	$107,226,253	7.04%	$107,226,253	12.96%
Health Professions Education	$469,283,494	30.80%	$117,157,540	14.16%
Mission Driven Health Services	$492,748,329	32.34%	$492,748,329	59.53%
Research	$9,649,972	0.63%	$9,649,972	1.17%
Financial Contributions	$20,827,391	1.37%	$20,827,391	2.52%
Community Building	$24,739,540	1.62%	$24,739,540	2.99%
Community Benefit Operations	$13,417,597	0.88%	$13,417,597	1.62%
Foundation	$1,742,933	0.11%	$1,742,933	0.21%
Charity Care	$320,932,030	21.06%	($22,947,729)	-2.77%
ACA Medicaid Expansion Expense	$6,629,446	0.44%	$6,629,446	0.80%
Total	**$1,523,672,867**	**100%**	**$827,667,153**	**100%**

FY 2016 Narrative Report Demographics

- 52 hospitals submitted narrative reports; 40 were complete
- Hospitals reported 11,803 beds and over 600,000 inpatient admissions
- Percentage of uninsured patients ranged from 0 - 27%
- Percentage of patients enrolled in Medicaid ranged from 3 - 79%
- Percentage of patients enrolled in Medicare ranged from 11 - 79%

Community Benefit Service Areas (CBSAs)



- 186 ZIP codes are not part of any hospital's CBSA
- 3 zip codes are covered by 8 or more hospitals

Financial Assistance Policies

- Patients at or below 200% of the federal poverty level (FPL) qualify for free medically necessary care
  - 7 hospitals reported a higher/more generous threshold
- Patients 200-300% of the FPL qualify for reduced-cost, medically necessary care
  - 22 hospitals reported a more generous
- Patients below 500% of the FPL who have a financial hardship qualify for reduced-cost, medically-necessary care
  - 2 hospitals reported a more generous policy

Community Benefit External Collaboration

- Hospitals are required to report on partnerships with community stakeholders
- Local health departments and faith-based organizations were the most common type of external collaborators
  - Behavioral health organizations were the least frequent
- 90% participate in their Local Health Improvement Collaborative

Proposed Changes for FY 2018

- Developing an electronic reporting tool
- Pre-populating the report with data available from other sources where applicable, e.g., admission counts
- Simplifying the format by replacing some of the free text questions with response options
- Reviewing the measures and reporting requirements for other HSCRC reports, and editing questions and definitions accordingly
- Removing the requirement for hospitals to attach their mission, vision, and values statements, as this information is typically available online

Proposed Changes for FY 2018
continued

- Collecting additional information about the community health needs assessment
- Adding questions about community benefit decision-making authority within the hospital
- Adding questions about community benefit and population health staffing within the hospital
- Next Steps:
  - Refine the reporting instructions and tools in collaboration with the Community Benefit Workgroup
  - Review the ZIP codes that are not covered by any hospital's CBSA in more depth

Contact Information

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TO: **Commissioners**

FROM: **HSCRC Staff**

DATE: **May 10, 2017**

RE: **Hearing and Meeting Schedule**

June 14, 2017	To be determined - 4160 Patterson Avenue HSCRC/MHCC Conference Room
July 12, 2017	To be determined - 4160 Patterson Avenue HSCRC/MHCC Conference Room

Please note that Commissioner's binders will be available in the Commission's office at 11:45 a.m.

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/commission-meetings-2017.cfm.

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