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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**

Closed Session Minutes
Of the
Health Services Cost Review Commission

April 12, 2017

Upon motion made in public session, Chairman Sabatini called for adjournment into closed session to discuss the following items:

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

2. 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

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

The Closed Session was called to order at 11:11 p.m. and held under authority of §3-103, and §3-104 of the General Provisions Article.

In attendance were Commissioners Bayless, Bone, Colmers, Keane, and Wong. Also, Ms. Fran Phillips was in attendance in a non-voting ex-officio capacity as a Commissioner with the Maryland Health Care Commission.

In attendance representing Staff were Donna Kinzer, Katie Wunderlich, Chris Peterson, Jerry Schmith, Claudine Williams, Liz Fracica, Jess Lee, and Dennis Phelps.

Also attending were Eric Lindeman, Deborah Gracey, Commission Consultants, and Leslie Schulman, Commission Counsel.

Item One

Ms. Kinzer updated the Commission and the Commissioners discussed the progression of the negotiations and the anticipated timeline for bringing Phase II of the All-Payer Model to implementation in January 2019.

Item Two

Ms. Kinzer and Eric Lindeman, Commission Consultant, updated the Commission on Medicare data and analysis vis-a-vis the All-Payer Model Agreement.

Item Three

Ms. Kinzer and the Commissioners discussed various personnel matters.

The Closed Session was adjourned at 12:58 p.m.

Minutes of Public and Closed Sessions
Of the
Health Services Cost Review Commission

April 25, 2017

Upon motion made in public session, Chairman Sabatini called for adjournment into closed session to discuss the following item:

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

The Closed Session was conducted by conference call and was called to order at 11:35 p.m. and it was held under authority of §3-103, and §3-104 of the General Provisions Article.

Participating, in addition to Chairman Sabatini were Commissioners Bayless, Bone, Colmers, Keane, and Wong.

Participating representing Staff were Donna Kinzer, Katie Wunderlich, and Dennis Phelps.

Also participating were Stan Lustman and Leslie Schulman, Commission Counsel.

Item One

Commissioner Colmers summarized and the Commissioners and Ms. Kinzer, Executive Director, discussed selected potential provisions of the All-Payer Model Contract.

The Closed Session was adjourned at 12:31p.m.

MINUTES OF THE
539th MEETING OF THE
HEALTH SERVICES COST REVIEW COMMISSION
April 12, 2017

Chairman Nelson Sabatini called the public meeting to order at 11:11 p.m. Commissioners Victoria Bayless, George H. Bone, M.D., John Colmers, Jack C. Keane, Herbert Wong, Ph.D., and Fran Phillips, nonvoting ex-officio member and MHCC Commissioner, were also in attendance. Upon motion made by Commissioner Wong and seconded by Commissioner Colmers, the meeting was moved to Executive Session. Chairman Sabatini reconvened the public meeting at 1:04 p.m.

REPORT OF THE April 12, 2017 EXECUTIVE SESSION

Mr. Dennis Phelps, Associate Director, Audit & Compliance, summarized the minutes of the April 12, 2017 Executive Session.

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ITEM I
REVIEW OF THE MINUTES FROM THE MARCH 8, 2017 EXECUTIVE SESSION AND PUBLIC MEETING

Commissioner Keane pointed out that there was an error in the Public meeting minutes. Commissioner Keane stated the vote for Staff's recommendation for the Maryland Hospital Acquired Conditions (MHAC) policy for RY 2019 was 4-1 with Commissioner Antos abstaining from voting. The public meeting minutes showed the vote as 4-2. Upon correcting the error, the Commission voted unanimously to approve the minutes of the March 8, 2017 Public Meeting as amended, as well as the minutes of the March 8, 2017 Executive Session.

SULE GEROVICH

Ms. Donna Kinzer, Executive Director, noted that Dr. Sule Gerovich, former Deputy Director, has left the Commission, after eight years of stellar service. Ms. Kinzer, Chairman Sabatini, and the Commissioners expressed their admiration and appreciation for all of work performed for the HSCRC and the State of Maryland by Dr. Gerovich over the years and expressed their best wishes on her future endeavors. Dr. Gerovich was presented with a plaque in recognition of her achievements.

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ITEM II
EXECUTIVE DIRECTOR'S REPORT

Ms Kinzer stated that Staff and the Department of Health and Mental Hygiene (DHMH) have been discussing the All-Payer Model Progression Plan and the Maryland Comprehensive Primary Care Model with the Center for Medicare and Medicaid Innovation (CMMI) and federal administration. Ms Kinzer noted that there has been significant progress with these efforts.

Ms Kinzer reported that Staff has shared the draft of the Care Redesign Amendment and

Participation Agreement with potential shareholders and is anticipating comments. Staff expects to have a final version of these documents shortly.

Ms Kinzer reported that Staff has begun working on the FY 2018 annual update. The Staff and CMS have been working together to reconcile readmissions after the ICD-10 conversion and Electronic Health Records (EHR) implementations. Staff is focused on MHAC, readmissions, and market shift data for the year ended on December 31, 2016, which will be used in the reward/penalty calculations for FY 2018 rates. Staff is working to determine the possible impact of EHR implementation and the ICD-10 conversion on policy settlements since enhanced coding may affect case mix and DRG assignments.

Ms Kinzer updated the Commission on several workgroups:

1. Total Cost of Care Workgroup--This workgroup is focused on implementation requirements for the Care Redesign amendment, as well as the development of the Medicare Performance Adjuster (formerly the value based modifier) that links hospital payments with total cost of care, similar to other quality based programs.
2. Population Health Measures-- DHMH Office of Population Health has been working on a plan with performance goals for the State. It is expected that goals from this plan will play a role in Phase Two of the All Payer Model.
3. Payment Models Workgroup--This workgroup began its annual deliberations and will be meeting regularly through the completion of the update. The office of the actuary (OACT) has not yet released figures for estimated growth in hospital costs and total cost of care (TCOC) that we use in our evaluation process.
4. Performance Measurement Workgroup--This work group is meeting to update policies. The draft recommendation for the Readmission Reduction Incentive Program is being finalized with the workgroup. The workgroup will also be reviewing Mathematica's analysis on the impact of the ICD-10 transition for RY 2018 and a revised in-hospital mortality model that includes palliative care for RY 2019. A behavioral health subgroup is focusing on performance measures to use for the psychiatric hospitals—e.g., readmissions or other measures.

Ms Kinzer reported that DHMH will present an updated Medicaid working capital recommendation at the May Public meeting.

Ms. Kinzer indicated that staff priorities include discussions of the Progression Plan with CMMI, annual updates to the quality based programs, settlement calculations of quality programs and market shift for CY 2016, and preparing for the annual update.

SUMMARY OF MEDICARE PERFORMANCE ADJUSTMENT

Mr. Chris Peterson, Director of Center for Clinical and Financial Information, presented a summary of the Medicare Performance Adjustment (see "Summary of Medicare Performance Adjustment" on the HSCRC website).

The Medicare Performance Adjustment (MPA) was formerly known as the Value-Based Modifier (VBM). MPA is a scaled adjustment for each hospital based on its performance relative to a Medicare Total Cost of Care (TCOC) benchmark.

MPA objectives are as follows:

- Allow Maryland to step progressively toward developing the systems and mechanisms to control TCOC, by increasing hospital specific responsibility for Medicare TCOC (Part A and B) over time.
- Provide a vehicle that links non-hospital costs to the All-Payer Model, allowing participating clinicians to be eligible for bonuses under Medicare Access and CHIP Reauthorization Act (MACRA).

MPA current design process is as follows:

- Based on a hospital's performance on the Medicare TCOC measure, the hospital will receive a scaled bonus or penalty.
- Scaling approach includes a narrow band to share statewide performance and minimize volatility risk.
- MPA will be applied to Medicare Hospital spending, starting at 0.5% Medicare revenue at risk (which translates to approximately 0.2% of hospital all-payer spending).

Potential options for the calculation of hospital-level TCOC

- Geographic Approach – TCOC for Medicare beneficiaries living within a hospital's geography

  Primary service areas would cover 90% of Maryland's Medicare TCOC

- Episodic Approach – TCOC for Medicare beneficiaries during and following a hospital encounter for a specified time amount (i.e. 30 days)

  Episodes alone would cover 66% of Maryland's Medicare TCOC

- Attribution Approach – Assignment of Medicare beneficiaries based on utilization and residence.

Mr. Peterson noted Staff will hold meetings in 2017 and will present the draft RY 2019 MPA Policy to the Commission in November 2017. The final policy will be presented to the Commission in December 2017 and begin on January 1, 2018.

ITEM III
NEW MODEL MONITORING

Ms. Caitlin Grim, Rate Analyst, reported $71 million of Medicare total spending per beneficiary savings for the 12 months ending December 2016. Ms. Grim noted that both hospital and total

spending growth per Maryland Medicare beneficiary is projected to be above the nation in December. Non-hospital spending growth per Maryland Medicare beneficiary equaled the nation for the same period.

Ms. Grim stated that Monitoring Maryland Performance (MMP) for the new All-Payer Model for the month of February focuses on the fiscal year (July 1 through June 30) as well as calendar year results.

Ms. Grim reported that for the eight month period ended February 28, 2017, All-Payer total gross revenue increased by 0.70% over the same period in FY 2016. All-Payer total gross revenue for Maryland residents increased by 0.89%. All-Payer gross revenue for non-Maryland residents decreased by 1.25%.

Ms. Grim reported that for the two months of the calendar year ended February 28, 2017, All-Payer total gross revenue increased by 6.11% over the same period in CY 2016. All-Payer total gross revenue for Maryland residents increased by 5.74%. All-Payer gross revenue for non-Maryland residents decreased by 10.24%.

Ms. Grim reported that for the eight month period ended February 28, 2017, Medicare Fee-For-Service gross revenue increased by 0.95% over the same period in FY 2016. Medicare Fee-For-Service gross revenue for Maryland residents increased by 0.77 %. Maryland Fee-For-Service gross revenue for non-residents decreased by 3.13%.

Ms. Grim reported that for the two months of the calendar year ended February 28, 2017, Medicare Fee-For-Service gross revenue increased by 5.46% over the same period in CY 2015. Medicare Fee-For-Service gross revenue for Maryland residents increased by 4.40%. Maryland Fee-For-Service gross revenue for non-residents decreased by 18.85%.

According to Ms. Grim, for the eight months of the fiscal year ended February 28, 2017, unaudited average operating profit for acute hospitals was 2.15%. The median hospital profit was 3.01%, with a distribution of (0.19%) in the 25th percentile and 5.33% in the 75th percentile. Rate Regulated profits were 4.33%.

Dr. Alyson Schuster, PhD., Associate Director Performance Management, presented a quality report update on the Maryland Hospital Acquired Conditions program based upon potentially preventable complications (PPC) (through December 2016) and readmission data on discharges (through December 2016).

Readmissions

- The All-Payer risk adjusted readmission rate was 11.54% for December 2016 YTD. This is a decrease of 10.79% from the December 2013 risk adjusted readmission rate.
- The Medicare Fee for Service risk adjusted readmission rate was 12.41% for December 2016 YTD. This is a decrease of 9.92% from the December 2013 YTD risk adjusted readmission rate.

- Based on the New Model, hospitals must reduce Maryland's readmission rate to or below the national Medicare readmission rate by 2018. The Readmission Reduction incentive program has set goals for hospitals to reduce their adjusted readmission rate by 9.5% during CY 2016 compared to CY 2013. Currently, 28 out of 46 hospitals have reduced their risk adjusted readmission rate by more than 9.5%. An additional 8 hospitals are on track for achieving the attainment goal.

Potentially Preventable Complications

- The All-Payer risk adjusted PPC rate was 0.70% for December 2016 YTD. This is a decrease of 43.33% from the December 2013 YTD risk adjusted PPC rate.
- The Medicare Fee for Service risk adjusted PPC rate was 0.78% for December 2016 YTD.
  This is a decrease of 45.43% from the December 2013 risk adjusted PPC rate.

ITEM IV
DOCKET STATUS- CLOSED CASES

2373N – Bowie Emergency Center

ITEM V
DOCKET STATUS- OPEN CASES

2379A Johns Hopkins Health System

On February 28, 2017, the Johns Hopkins Health System ("System") filed an application on behalf of its member hospitals Johns Hopkins Hospital, Johns Hopkins Bayview Medical Center, and Howard County General Hospital (the "Hospitals") requesting approval from the HSCRC to participate in a global rate arrangement for Kidney Transplant, Pancreas Transplant, Joint Replacement, Blood and Bone Marrow Transplant, and cardiovascular services with Coventry Health Care of Delaware, Inc. The Hospitals request that the Commission approve the arrangement for one year effective April 1, 2017.

The staff recommends that the Commission approve the Hospitals' application for an alternative method of rate determination for Kidney Transplant, Pancreas Transplant, Joint Replacement, Blood and Bone Marrow Transplant, and cardiovascular services for one year beginning April 1, 2017, and that this approval be contingent upon the execution of the standard Memorandum of Understanding with the Hospitals for the approved contract.

The Commissioners unanimously approved Staff's recommendation. Commissioner Colmers recused himself from the discussion and vote.

2380A University of Maryland Medical Center

University of Maryland Medical Center (the Hospital) filed an application with the HSCRC on March 24, 2017 for an alternative method of rate determination. The Hospital requests approval from the HSCRC to continue to participate in a global rate arrangement for liver, kidney, lung, and blood and bone marrow transplants for a period of one year with Cigna Health Corporation

beginning June 1, 2017.

The staff recommends that the Commission approve the Hospital's application for an alternative method of rate determination for liver, kidney, lung, and blood and bone marrow transplant services, for a one year period commencing June 1, 2017, and that this approval be contingent upon the execution of the standard Memorandum of Understanding.

The Commissioners unanimously approved Staff's recommendation.

2381A Johns Hopkins Health System

On March 30, 2017, Johns Hopkins Health System ("System") filed an alternative rate application on behalf of its member hospitals, Johns Hopkins Hospital, Johns Hopkins Bayview Medical Center, and Howard County General Hospital (the "Hospitals"). The application requests approval from the HSCRC to continue to participate in a global rate arrangement with Global Medical Management, Inc., formally known as the Corporate Medical Network, for cardiovascular procedures, solid organ, stem cell, and to add bariatric surgery, pancreatic cancer surgery, and joint replacement services to the arrangement. The Hospitals request that the Commission approve the arrangement for one year beginning May 1, 2017.

The staff recommends that the Commission approve the Hospitals' application for an alternative method of rate determination for cardiovascular procedures, solid organ transplants, stem cell transplant, bariatric surgery, pancreatic cancer surgery, and joint replacement services for one year beginning May 1, 2017, and that this approval be contingent upon the execution of the standard Memorandum of Understanding.

The Commissioners unanimously approved Staff's recommendation. Commissioner Colmers recused himself from the discussion and vote.

2382A Johns Hopkins Health System

On March 30, 2017, Johns Hopkins Health System ("System") filed a renewal application on behalf of its member hospitals, Johns Hopkins Hospital, Johns Hopkins Bayview Medical Center, and Howard County General Hospital (the "Hospitals") requesting approval to continue to participate in a revised global price arrangement with Life Trac (a subsidiary of Allianz Insurance Company of North America) for solid organ and bone marrow transplants and cardiovascular services. The Hospitals request that the Commission approve the arrangement for one year beginning May 1, 2017.

The staff recommends that the Commission approve the Hospitals' application for an alternative method of rate determination for solid organ and bone marrow transplant and cardiovascular services for the period beginning May 1, 2017, and that this approval be contingent upon the execution of the standard Memorandum of Understanding.

The Commissioners unanimously approved Staff's recommendation. Commissioner Colmers recused himself from the discussion and vote.

ITEM VI
CONFIDENTIAL DATA REQUEST

Ms. Claudine Williams, Associate Director Policy Analysis, presented Staff's final recommendation on the Johns Hopkins Health System's confidential data request (See "Final Staff Recommendation on the Johns Hopkins Health System Request to Access HSCRC Confidential Patient Level Data" on the HSCRC website).

The Johns Hopkins Health System (JHHS) is requesting access to a limited confidential dataset to construct a diagnostic dashboard for internal quality assessment and improvement (QA/QI).

To accomplish this research, JHHS will be using limited variables from the confidential inpatient and outpatient datasets to develop a QA/QI dashboard to reduce diagnostic errors in ambulatory care settings, particularly in the emergency department and primary care. The limited dataset will include confidential variables such as the JHHS patient medical record number, dates of service, as well as location for patients seen at any JHHS regulated-space entity. JHHS will provide International Classification of Diseases codes to CRISP, and CRISP will identify all JHHS patients in the case mix data that meet the criteria. Investigators received approval from Johns Hopkins Medicine, Office of Human Subjects Research Institutional Review Board on February 27, 2017. These data will not be used to identify individual hospitals or patients. The data will be retained by JHHS until January 24, 2022; at that time, the files will be destroyed and a Certification of Destruction will be submitted to the HSCRC.

Staff's final recommendation is as follows:

1. HSCRC staff recommends that the request for the limited inpatient and outpatient confidential data files for Calendar Year 2011 through 2015 be approved.

2. This access will be limited to identifiable data for JHHS patients meeting certain criteria.

The Commissioners unanimously approved Staff's recommendation. Commissioner Colmers recused himself from the discussion and vote.

ITEM VII
FINAL RECOMMENDATION ON CHANGES TO THE RELATIVE VALUE UNITS SCALE FOR IMAGING

Mr. Chris Konsowski, Chief- Audit & Compliance, presented a recommendation for final adoption of revisions to the Relative Value Unit (RVU) scale for Radiology Diagnostic, Nuclear Medicine, CAT scanner, Magnetic Resonance and Electroencephalography services to be effective July 1, 2017.

The Commission voted unanimously to approve staff's recommendation.

ITEM VIII
DRAFT RECOMMENDATION TO UPDATE THE READMISSION REDUCTION INCENTIVE PROGRAM FOR RY 2019

Dr. Schuster presented Staff's draft recommendation on the Readmission Incentive Program for FY 2019 (see "Draft Recommendation For the Readmissions Reduction Incentive Program For Rate Year 2019"- on the HSCRC website).

The United States healthcare system currently experiences an unacceptably high rate of preventable hospital readmissions. These excessive readmissions generate considerable unnecessary costs and substandard care quality for patients. A readmission is defined as an admission to a hospital within a specified time period after a discharge from the same or another hospital. Historically, Maryland's readmission rates have been high compared with the national levels for Medicare. Under authority of the Affordable Care Act, the Centers for Medicare & Medicaid Services (CMS) established its Medicare Hospital Readmissions Reduction Program (HRRP) in federal fiscal year (FFY) 2013.

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 HRRP. Instead, the HSCRC implements various Maryland-specific quality-based payment programs, which provide incentives for hospitals to improve their quality performance over time.

Maryland entered into a new All-Payer Model Agreement with CMS effective January 1, 2014. One of the requirements under this new agreement is for Maryland's hospital readmission rate to be equal to or below the national Medicare readmission rate by calendar year (CY) 2018. Maryland must also make scheduled, annual progress toward this goal. In order to meet this requirement, the HSCRC established the Readmissions Reduction Incentive Program (RRIP) in April 2014.

The purpose of this draft recommendation is to make recommendations for updating the RRIP for the state rate year (RY) 2019 methodology.

The draft recommendation updates the readmission reduction targets for RY 2019 in order to align with the All-Payer Model's readmission reduction target for Calendar Year (CY) 2018, and also includes the following policy elements:

- Updates the base period for the RY 2019 RRIP to fall under the International Classification of Disease, 10th Edition (ICD-10) time period;

- Evaluates Calendar Year 2016 year-to-date (YTD) performance versus the All Payer Agreement requirements, and recommends Medicare improvement targets to ensure continued progress; and

- Develops all-payer targets for attainment and improvement with established preset rewards/penalties scales for RY 2019 RRIP hospital revenue adjustments.

HSCRC staff recommends the following updates to the RRIP program for RY 2019:

1. The RRIP policy should continue to be set for all-payers.

2. Hospital performance should continue to be measured as the better of attainment or improvement.

3. Due to ICD-10, RRIP should have a one-year improvement target (CY 2017 over CY 2016), and will add this one-year improvement to the achieved improvement CY 2016 over CY 2013, to create a modified cumulative improvement target.

4. The attainment benchmark should be set at 10.83 percent.

5. The reduction benchmark for CY 2017 readmissions should be -4.0 percent from CY 2016 readmission rates.

Commissioner Keane asked why we have an all-payer readmission target when we know nothing about national readmission rates. He further noted that there is no proven correlation between the all-payer readmission rates and Medicare readmission rates.

Ms. Kinzer noted that the same issue came up last year when discussing the RY 2018 RRIP policy. Ms. Kinzer stated that CMMI strongly encouraged the Commission to have the RRIP policy be based on readmission rates for all payers. Medicaid also indicated that if the Commission could not set all payer readmission target that it would need to set a Medicaid specific readmission target.

Commissioner Bone asked if the Commission staff can verify the Maryland Medicare readmission rate projections against CMMI's Maryland Medicare readmission rate projection.

Dr. Schuster noted that the Commission staff was working with CMMI to identify the differences in the projections. HSCRC's methodology is somewhat different than the national methodology for calculating Medicaid readmission rates, but in general Staff has tried to mirror the national Medicare readmission rate calculation.

Mr. Robert Murray, CareFirst Consultant, noted that there are significant uncertainties in the readmission rates in FY 2017 and FY 2018 due to the following:

- The continued use of an All-Payer target and the need to extrapolate from the desired Medicare target.

- That the nation's Medicare Readmission rate declines have accelerated.

- That the growing number of Medicare, self-pay, uncompensated and dually eligible patient population are more likely to be readmitted. RRIP policy should consider including a factor to account for the impact for these patients.

Ms Traci LaValle, Vice President, Rate Setting, Maryland Hospital Association, stated that the hospitals support continuing to measure readmissions on an attainment versus improvement scale, the attainment benchmark, and the conceptual concept of a modified cumulative

improvement target. Ms LaValle noted that MHA is still reviewing the annual improvement target of -4%.

No Commission action is required as this is a draft recommendation.

ITEM IX
DRAFT RECOMMENDATION FOR CONTINUED SUPPORT FOR THE MARYLAND PATIENT SAFETY CENTER

Ms. Katie Wunderlich, Director Engagement and Alignment, presented staff's draft recommendations for continued support of the Maryland Patient Safety Center (MPSC or Center) (See "Draft Recommendations on Continued Financial Support for the Maryland Patient Safety Center for FY 2018" on the HSCRC website).

In 2004, the HSCRC adopted recommendations that made it a partner in the initiation of the MPSC by providing seed funding through hospital rates. The initial recommendations provided funding to cover 50% of the reasonable budgeted costs of the Center. The Commission receives a briefing and documentation annually on the progress of the MSPC in meeting its goal as well as an estimate of expected expenditures and revenues for the upcoming fiscal year.

Based on information presented to the Commission, and after evaluating the reasonableness of the budget items presented, staff provides the following draft recommendations on the MPSC funding support policy:

- HSCRC provide funding support for the MPSC in FY 2018 through an increase in hospital rates in the amount of $831,060, a $43,740 (5%) reduction from FY 2017;
- The MPSC continues to aggressively pursue other sources of revenue, including from other provider groups that benefit from the programs of the MPSC, in order to help support the Center into the future and maintain reasonable cash reserves;
- Going forward, HSCRC continues to decrease the dollar amount of support by a minimum of 10% per year, contingent upon:

    1. How well the MPSC initiatives align with a broader statewide plan and activities for patient safety; and
    2. Whether new MPSC revenues should offset HSCRC funding support.

Chairman Sabatini asked if there was any quantifiable data to support the spending request. The Chairman stated that the Commissioners would like to see quantifiable data that demonstrates improved quality and cost savings as a result of services provided by MPSC.

No Commission action required as this is a draft recommendation.

ITEM X
SUMMARY OF GLOBAL BUDGET INFRASTRUCTURE REPORTS

Ms. Andrea Zumbrum, Policy Analyst, presented an overview of the hospital's Global Budget infrastructure investment reporting (see "GBR Infrastructure Investment- FY 2016" on the HSCRC website)

Ms Zumbrum stated that 46 hospitals submitted reports detailing more than 700 investments in infrastructure and totaling $199 million in spending for FY 2016. Infrastructure spending for GBR hospitals for FY 2016 was $163 million.

Ms. Zumbrum noted that community based care coordination, disease management, and post discharge and transitional care were the top three categories of infrastructure investments, accounting for over 40% of all investment.

Ms Zumbrum indicated that hospitals reported nearly a 20% decline in dollars spent on the hiring of additional physicians in unregulated areas in FY 2016.

Ms. Zumbrum stated that Staff is considering suspending the GBR investment reporting for FY 2017. Staff is requesting Commissioner guidance on the proposed suspension.

Ms. Kinzer suggested that stakeholders provide feedback on the proposed suspending of reporting on GBR investment spending.

Chairman Sabatini and Commissioner Colmers stated that they were in favor of suspending the GBR infrastructure reporting since it will reduce the regulatory burden on hospitals.

Commissioner Bone noted that GBR infrastructure was important in determining future policies. He stated that it is not clear that the current GBR infrastructure reporting is focusing on the right elements.

Mike Robbins, MHA's Senior Vice President, Rate Setting, thanked HSCRC staff for its consideration to suspend the required GBR investment reporting, and suggested allowing hospital representatives to present their population health and care redesign investments to the Commission in future meetings.

ITEM XI
DISCLOSURE OF THE HOSPITAL FINANCIAL AND STAISTICAL DATA FOR FISCAL YEAR 2016

Mr. Dennis Phelps, Associate Director, Audit & Compliance, summarized the annual disclosure of financial and statistical data for Maryland hospitals for FY 2015 (See "Disclosure of Hospital Financial and Statistical Data: Fiscal Year 2016" on the HSCRC website). Major highlights of the report were:

- Gross all-payer per capita hospital revenues from services provided to Maryland residents grew by 2.31 percent, slower than the per capita growth in the Maryland economy, which was about 4.02 percent in FY 2015.
- Over the performance period of the Model, the State must achieve aggregate savings in the Medicare per beneficiary total hospital expenditures for Maryland resident Medicare fee-for-service (FFS) beneficiaries of at least $330 million. For Performance Year 2 (CY 2015), the State achieved $135 million in Medicare savings. The cumulative savings for CY 2014 and CY 2015 is $251 million.
- Over the Model's performance period, the State must shift at least 80 percent of all regulated hospital revenue for Maryland residents into population-based payment arrangements. The State successfully shifted 96 percent of hospital revenue into population-based payments through hospital global budgets.
- Over the Model's performance period, the State must reduce the aggregate Medicare 30-day readmission rate for Medicare FFS beneficiaries to be less than or equal to the national readmission rate. The gap in the readmission rate between Maryland and the nation decreased by 0.70 percent over the first two first performance years.
- Over the performance period of the Model, the State must achieve an aggregate 30 percent reduction for all payers in 65 potentially preventable complications (PPCs) as part of Maryland's Hospital Acquired Conditions program. The State achieved a 34.1 percent reduction in PPCs in 2015 compared to 2014.
- Hospital profits on regulated activities increased from $1.1 billion to $1.2 billion.
- Hospital operating profits from regulated and unregulated activities decreased from $532 million to $512 million.
- Excess profits total profits from all activities operating and non-operations decreased from $530 million to $362 million
- Maryland hospitals incurred $756 million in uncompensated care, amounting to approximately five cents of uncompensated care cost for every dollar of gross patient revenue.
- Gross regulated revenue from potentially avoidable utilization (PAU) readmissions fell from $1.153 billion in FY 2015 to $1.134 billion in FY 2016. The percentage of gross regulated revenue associated with total PAUs declined from 11.30 percent in FY 2015 to 10.95 percent in FY 2016, a decrease of 3.1 percent.
- The case-mix adjusted PPC rate declined from 0.90 percent in FY 2015 to 0.73 percent in FY 2016, a decrease of 19.2 percent. These declines reflect improvement in the quality of care delivered in Maryland hospitals, where readmission rates declined faster than the national levels for Medicare, and the State achieved the 30 percent PPC reduction goal.
- Total direct graduate medical education expenditures increased from $300 million in FY 2014 to $328 million in FY 2016, an increase of 9.42 percent.

ITEM XII
LEGISLATIVE UPDATE

Ms. Wunderlich, presented a summary of the legislation of interest to the HSCRC (see "2017 Legislative Session Wrap Up- April 128, 2017" on the HSCRC website).

The Bills of interest that passed included: 1) House Bill 403/Senate Bill 369- Maryland Patient Referral Law – Compensation Arrangements under Federally Approved Programs and Models, 2) House Bill 150/ Senate 170 – Budget Bill (Fiscal 2018), 3) House Bill 150- Fiscal 2017 Deficiency Appropriation, 4) House Bill 150-Fiscal 2018 Operating Budget, 5) House Bill 152 - Budget Reconciliation and Financing Act of 2017, and 6) Senate Bill 571- Maryland Health Insurance Coverage Protection Act.

The Bills of interest that failed included: 1) Senate Bill 1020- Maryland Health Care Regulatory Reform Act of 2017, 2) Senate Bill 379/House Bill 921- Hospitals- Changes in Status – Hospital Employee Retraining and Economic Impact Statements, 3)) House Bill 1053 – Integrated Community Oncology Reporting Program, 4) Senate Bill 623/House Bill 932 – Hospitals – Community Benefit Report – Disclosure of Tax Exemptions, 5) House Bill 189 – Hospitals – Substance Use Treatment Demonstration Program – Requirements, 6) House Bill 515 – Hospitals – Establishment of Substance Use Treatment Program – Requirements, 7) Senate Bill 682/House Bill 1459 – Civil Actions – Noneconomic Damages, 8) Senate Bill 877/ House Bill 1347- Maryland No-Fault Birth Injury Fund and, 9) House Bill 736 – Workgroup to Recommend Possible Reforms to Maryland's Health Care System.

ITEM XIII
CRISP UPDATE

Dr. Mark Kelemen, Vice Chairman, and Mr. David Finney, Chief of Staff, reported on CRISP activities to support hospitals' collective care coordination efforts, and shared statewide trends in the number of high utilizers with a care plan and primary care provider.

The four activities that they are focusing on for the remainder of fiscal year 2017 include helping all hospitals to do the following:

- Flagging patient care management relationships, including sharing contact information for the patient, care coordinator, and primary care provider.
- Appropriately sharing care planning data whenever care management information is created or updated for a participating patient.
- Creating an "in-context alert" within hospitals' electronic health records to alert clinicians when a person who is in care management presents to the hospital.
- Expanding use of CRISP reports, especially among population health teams.

LIZ FRACICA

Ms. Kinzer stated that Liz Fracica, Health Policy Analyst, was leaving the Commission and going back to medical school. Ms. Kinzer express her appreciation for all of the important work Liz has performed on the care coordination and progression plan.

ITEM XII
HEARING AND MEETING SCHEDULE

May 10, 2017	Times to be determined, 4160 Patterson Avenue HSCRC Conference Room
June 14, 2017	Times to be determined, 4160 Patterson Avenue HSCRC Conference Room

There being no further business, the meeting was adjourned at 3:48 pm.

Executive Director's Report

May 10, 2017

All Payer Model Update

DHMH and HSCRC are continuing to discuss the Progression Plan and the Maryland Comprehensive Primary Care Model with CMMI and the federal Administration. We are also having conversations with stakeholders.

The Care Redesign Amendment has been signed by the Governor. Chris Peterson is leading our efforts to work with CRISP and stakeholders to access the tools that can be used to support care redesign efforts.

Rate Year 2018 settlement calculations

HSCRC staff has completed calculations for most Rate Year 2018 settlements and adjustments--market shift, MHAC, readmissions, PAU savings, and uncompensated care. These calculations are being sent out for verification. This has been a difficult year as we have had to navigate the use of three different groupers and the movement from ICD-9 to ICD-10. We are also dealing with EPIC conversions. Thank you to Denise Johnson, Nduka Udom, Claudine Williams, Alyson Schuster, and others who have contributed to this tremendous effort.

Work group updates

Total cost of care workgroup--This workgroup is continuing to focus on implementation requirements for the Care Redesign amendment, as well as the development of a value based payment that links hospital payments with total cost of care. At the last meeting, MHA made a presentation regarding linking Medicare beneficiaries to hospitals. Chris Peterson, Laura Mandel, and others are leading this work for HSCRC.

Population health measures-- DHMH Office of Population Health has been working with HSCRC staff on population health goals and measures that will play a role in the Phase 2.0 of the All-Payer Model. Alyson Schuster, Laura Mandel and others are leading this work for HSCRC.

Payment models workgroup—The staff will present a preliminary update factor recommendation today. Jerry Schmith is leading this work, along with Cait Grimm and Deon Joyce.

Performance measurement workgroup--This workgroup continues to update policies and review draft calculations. Alyson Schuster, Dianne Feeney, Andi Zumbrum, Laura Mandel and others have been leading these efforts.

Consumer Standing Advisory Council-- This Council represents the joint efforts of DHMH and HSCRC. CRISP presented to the Council at the most recent meeting on May 3, 2017 on its latest efforts to connect providers and engage consumers. DHMH and HSCRC also updated the Council on the State's progress with CMS to negotiate the All-Payer Model and Maryland Comprehensive Primary Care program, as well as solicited critical consumer feedback on transformation efforts. Katie Wunderlich, Dianne Feeney, and Andi Zumbrum have been leading these efforts.

Jessica Lee

We want to recognize Jessica Lee, who has spent the last two years working on the progression plan, as well as working with CMMI and on the negotiations. Jess has made a tremendous contribution to Maryland. We are grateful to her for all of her work, and for deferring medical school for a year to support us in transformation efforts. She will be leaving next week to enter medical school. We are fortunate that Jess will be attending University of Maryland to become a primary care physician in our state.

New Staff

We welcome new staff to HSCRC. Joining us today is Allan Pack, Adrianne Kappauf and Madeline Jackson. Allan will be taking on leadership of the Center for Population Health Methodologies. Adrianne will be taking on the role of work group coordinator, and Maddie will be taking on the role of CMS liaison. A warm welcome back to Dianne Feeney.

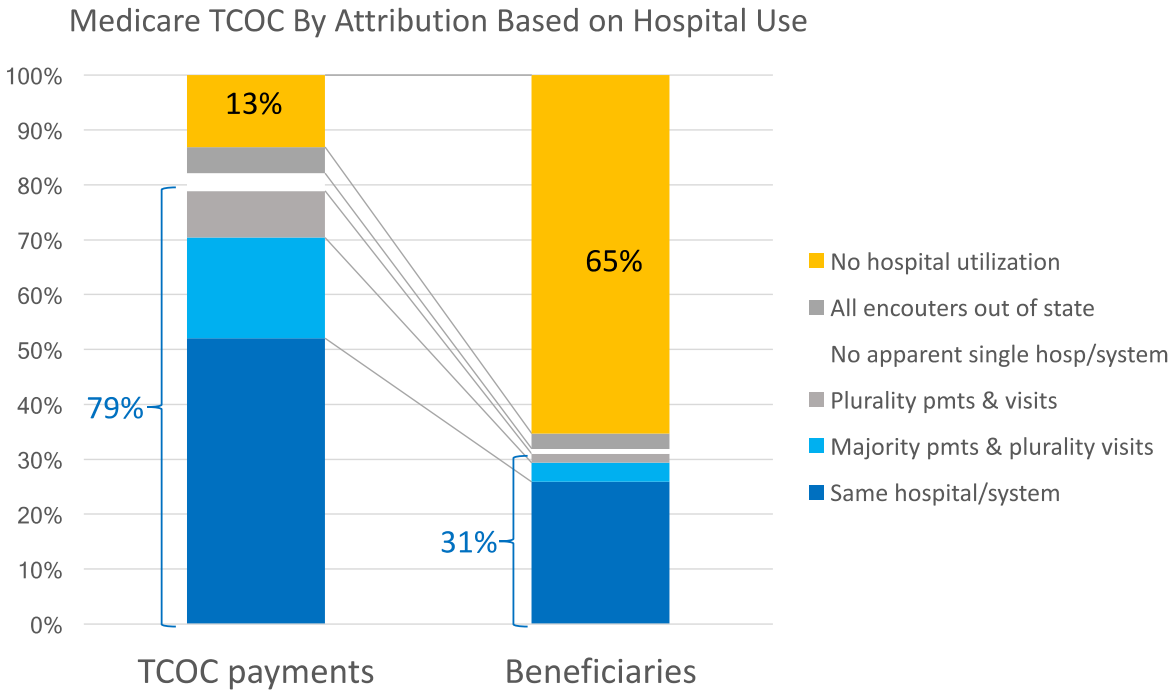
Johns Hopkins

Jerry Schmith will present a staff update on various rate matters with Johns Hopkins, and will ask the Commission to affirm several actions undertaken by staff in consultation with Commissioners.

Emergency department update

Katie Wunderlich will be provide an update today on emergency services bypass and performance statistics. HSCRC, DHMH, and MIEMSS are meeting to discuss emergency department overcrowding and diversion issues.

Majority of TCOC Occurs Among Beneficiaries with Hospital Use



Source: Draft methodology presented by MHA to TCOC Work Group, April 26, 2017

Recommendation for Resolution of Rate Related Issues with The Johns Hopkins Hospital

May 10, 2017

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

BACKGROUND

The HSCRC staff has become increasingly concerned, since early in fiscal year (FY) 2016, about multiple problems regarding the accuracy of the data submissions of The Johns Hopkins Hospital (JHH) and the reliability and compliance of its charging practices with HSCRC rate orders and regulations. These problems have included repeated variations in charges, rate order compliance issues, unexplained changes in units, and problematic data submissions. Despite numerous discussions, JHH and HSCRC staffs have not been able to satisfactorily resolve the data and charge issues.

In addition, JHH has communicated concerns that the cost and service delivery challenges it faces, including some that are driven by its role as a nationally and internationally renowned academic medical center (AMC), may not be sufficiently or appropriately recognized under the All Payer Model. In response to these requests, the HSCRC has made multiple adjustments to JHH's Global Budget Revenue (GBR) agreement including modifications for out-of-state patients, transplants, experimental cancer cases and drugs. Most recently, the HSCRC allowed JHH to bring the revenue associated with out-of- state cases back under JHH's GBR.

JHH has informed the HSCRC staff that it is facing significant difficulties in staff retention and recruitment and in cost control, especially in the area of high cost drugs; that it has incurred extraordinary costs associated with implementation of the EPIC system; that its projections of increased out-of-state volume have not been realized; and that these factors and others have imposed significant financial strains on JHH for which it is seeking temporary rate relief from the HSCRC. JHH has also asked the HSCRC staff to consider modifications to rate setting methodologies which would appropriately respond to JHH's expressed concerns.

The HSCRC has a statutory mandate to keep informed as to whether a hospital has sufficient resources to meets its reasonable financial requirements and to find solutions to any identified resource and solvency problems in the form of greater efficiency and/or modified rate levels.

In this recommendation, the HSCRC staff proposes a pathway to resolution of the various issues and concerns that have been described above.

RESOLUTION STRATEGY AND APPROACH

The proposed approach, which consists of two components which are described below, is designed to be consistent with the parameters and constraints of the All-Payer Model and with the legitimate interests of JHH, the public, and other hospitals.

Temporary Rate Relief

In order to address JHH's near-term financial concerns, the HSCRC staff proposes to provide JHH with $75 million of rate relief, in the form of a one-time, temporary, non-permanent adjustment, subject to specified terms and conditions.

1. JHH will be permitted to charge an additional $75 million, relative to its otherwise approved "Total Approved Regulated Revenue" (i.e., its regulated GBR and

regulated non-GBR revenue), during the remainder of rate year (RY) 2017 (i.e., by June 30, 2017). This temporary increase will be reversed July 1, 2017.

2. JHH will be required to remove the additional $75 million through prospective rate reductions on the following schedule: $35 million by December 31, 2017; $25 million by December 31, 2018; and $15 million by December 31, 2019. These rate reductions will be made through rate reductions relative to JHH's Total Approved Regulated Revenue for these periods.

3. JHH will submit its preliminary internal budgets, and any budgets submitted to its Board of Trustees, in advance to the HSCRC, as requested, to enable the HSCRC to ascertain whether the budgets provide for the required payback and include any other adjustments, including operating efficiency improvements that are identified as needed under the Review Agreement described below.

4. The prospective rate reductions are subject to acceleration by the HSCRC at any time for cause, including non-compliance with the purposes, steps, and objectives of the Review Agreement. Additionally, if the State is required to take corrective action under its Agreement with CMS, the prospective rate reductions may be accelerated by the HSCRC.

Review Agreement

JHH and HSCRC staff, in consultation with Chairman Sabatini and Commissioner Keane, have developed a Review Agreement that specifies that JHH will work cooperatively with the HSCRC staff, and with an independent Review Entity that will be engaged by the HSCRC staff, and which will report directly to the HSCRC staff, for the purpose of resolving the data and charge practice and compliance issues; benchmarking JHH's efficiency levels; and identifying appropriate methodologic changes that would address issues and concerns raised by JHH regarding the GBR model in ways consistent with the constraints of the All Payer Model and the legitimate interests of other hospitals, purchasers, and consumers. The Review Entity will begin work as soon as possible. Chairman Sabatini has asked Commissioner Keane to help oversee the review process.

RECOMMENDATION

The HSCRC staff is hereby recommending that the HSCRC should take the following actions:

1. Provide JHH with $75 million of rate relief in the form of a one-time, temporary, non-permanent adjustment. This rate relief, to be provided during the remainder of Rate Year 2017 (i.e., by June 30, 2017), will be reversed July 1, 2017 with the conditions described above.

2. Ratify the actions of the staff taken in consultation with commissioners to undertake a review to resolve data and charge issues and address concerns raised by JHH regarding the GBR model, as well as managing the terms of the temporary rate relief.

Emergency Department Performance in Maryland

May 10, 2017

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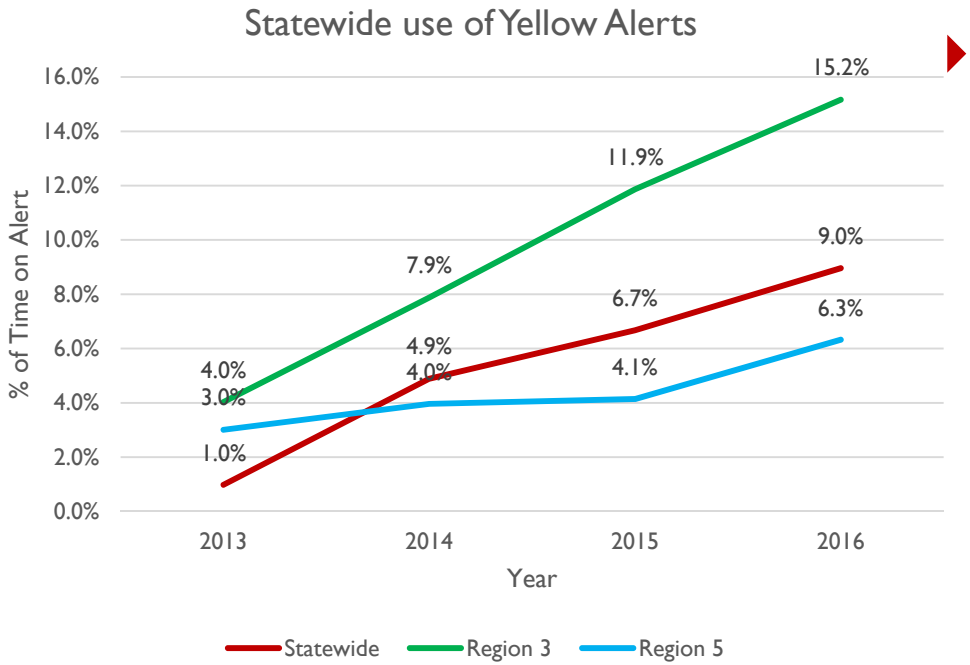
Health Services Cost Review Commission

Statewide Trends – ED Diversion Over Time

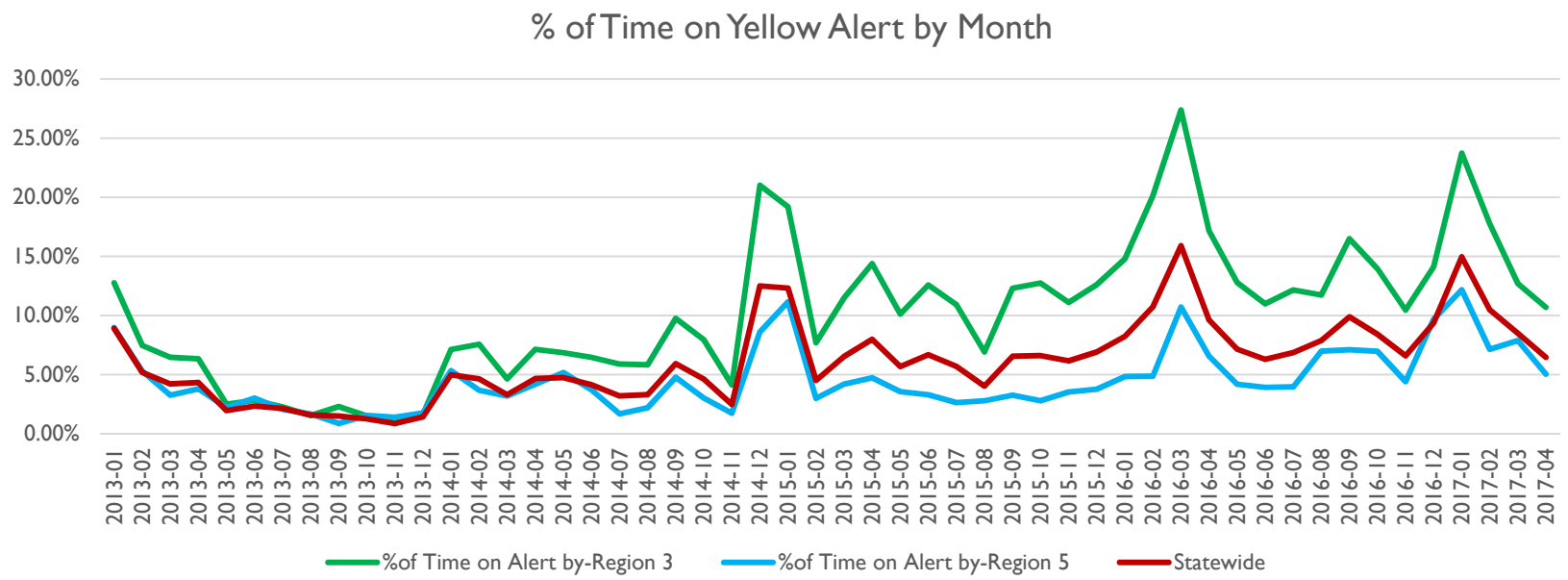


- ED Diversion is increasing in Maryland, but particularly in:
  - Region 3 (Baltimore City/County and Central MD)
  - Region 5 (DC suburbs and southern MD)
- Diversion remains a critical issue across the country, not just Maryland.

Yellow Alert: The ED temporarily requests that it receive absolutely no patients in need of urgent medical care. Yellow Alert is initiated because the ED is experiencing a temporary overwhelming overload such that priority II and III patients may not be managed safely. Prior to diverting pediatric patients, medical consultation is advised for pediatric patient transports when EDs are on yellow alert.

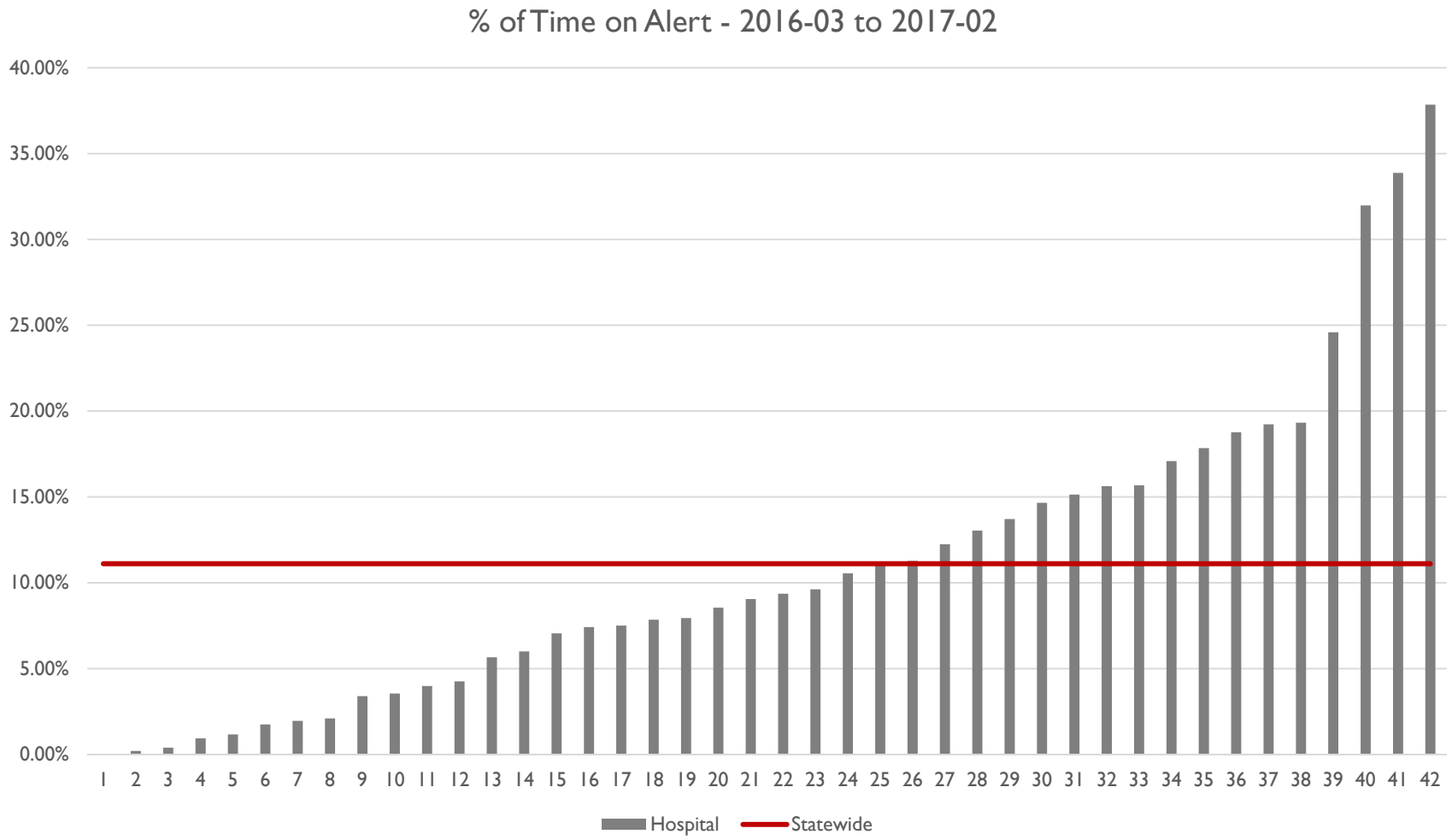
Data Source: Md. Institute for EMS Systems (MIEMSS)

Statewide Trends – ED Diversion Over Time



Data Source: Md. Institute for EMS Systems (MIEMSS)

Statewide Overview – 2016-03 through 2017-02 (Yellow Alert)



Data Source: MIEMSS

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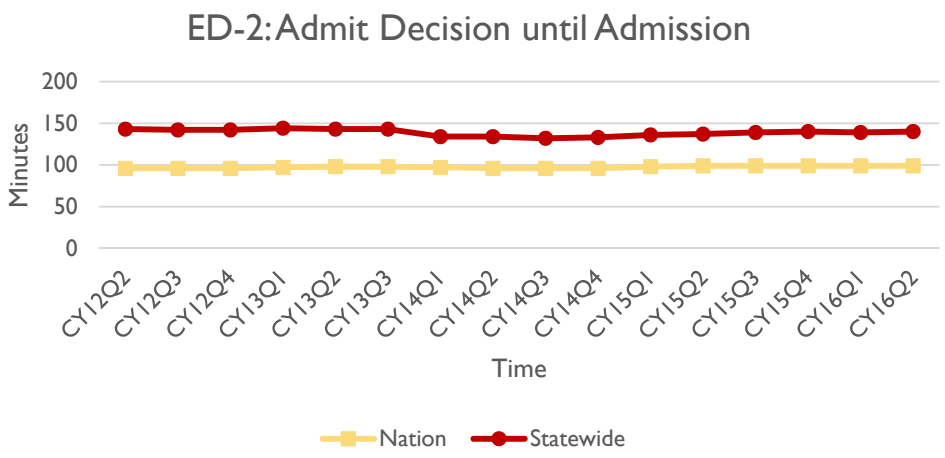
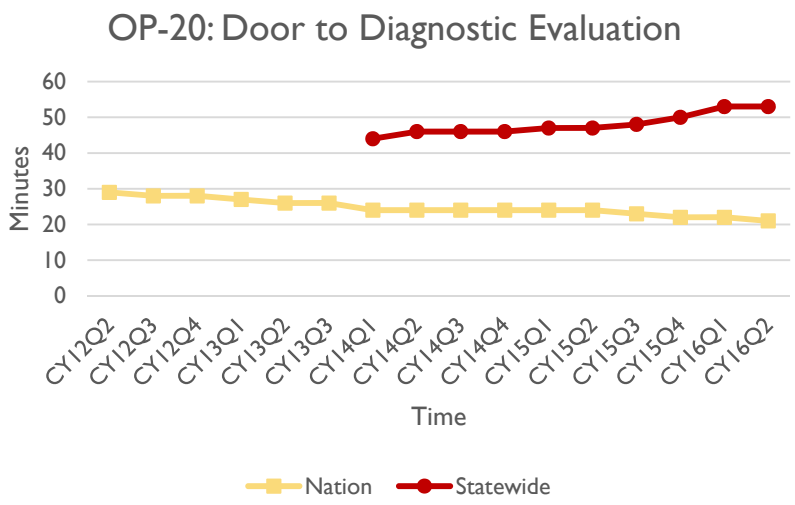
Statewide Trends – ED Wait Times Over Time

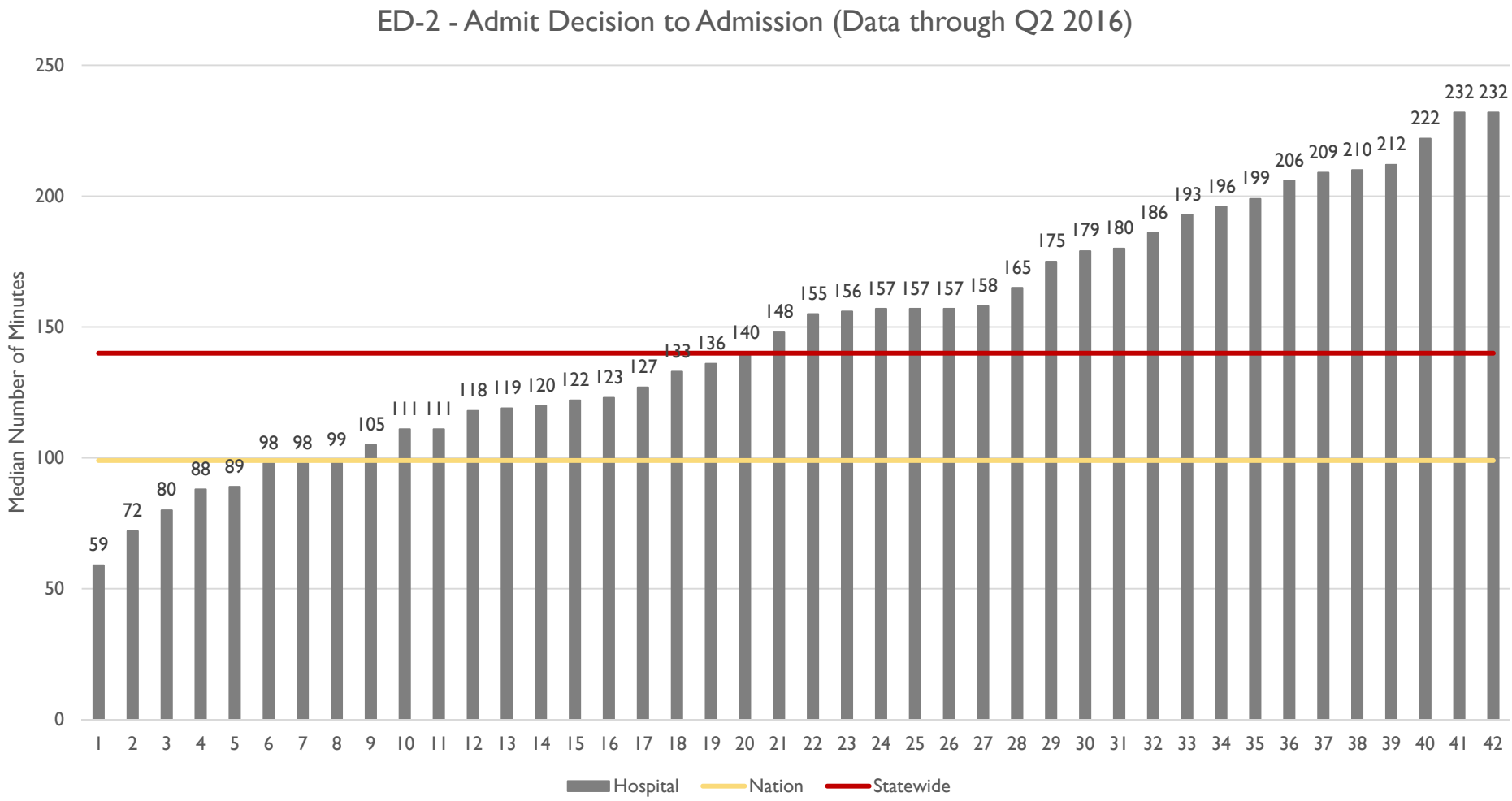




- ED-2 – Admit Decision until Admission
  - Some physicians concerned that "boarding" is reducing ED throughput efficiency and increasing wait times.
  - Boarding is associated with increased mortality rates and length of stay.
- OP-20 – Door to Diagnostic Evaluation
  - This measure is most accessible to consumers and was presented in recent local news story.

Data Source: CMS Hospital Compare

Statewide Overview – FY 2016 – ED-2



Data Source: CMS Hospital Compare

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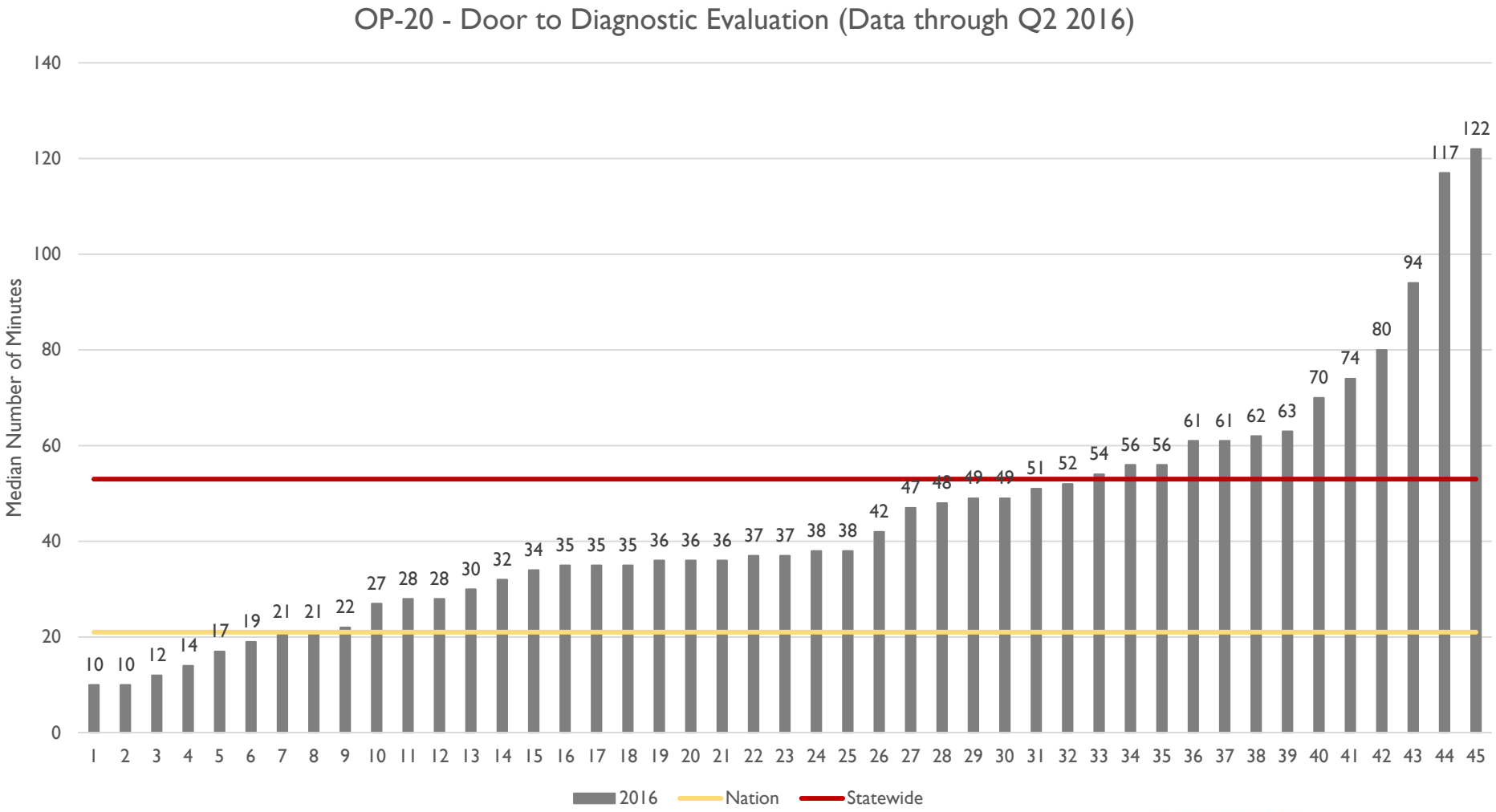
Statewide Overview – FY 2016 – OP-20



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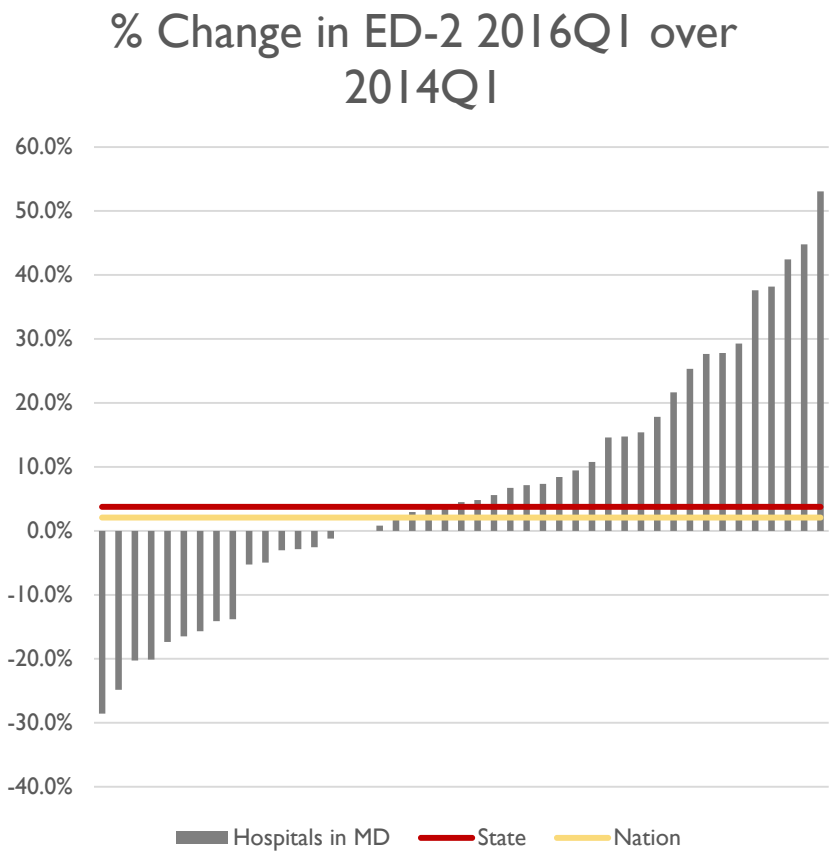
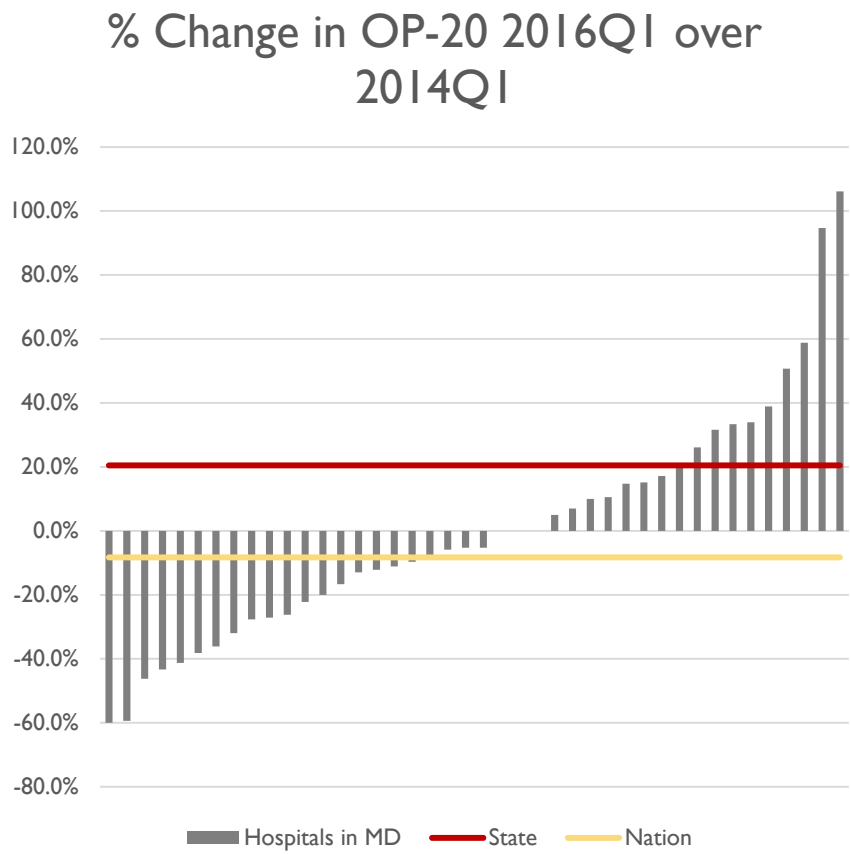
% Change Wait Times





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Next Steps

- HSCRC is evaluating the feasibility of including select ED wait time measures in RY 2020 QBR program.
- Hospital Overload and Emergency Department Strategic Workgroup convened in May 2017 to evaluate ED diversion trends in Maryland.
  - Participants include Maryland Institute for Emergency Medical Services Systems (MIEMSS), HSCRC, DHMH, and Maryland Hospital Association.
  - Report to the Legislature due in December 2017.
- Staff is working with MIEMSS to capture additional data on ED diversion to better inform market shift adjustments.

Monitoring Maryland Performance
Medicare Fee-for-Service (FFS)

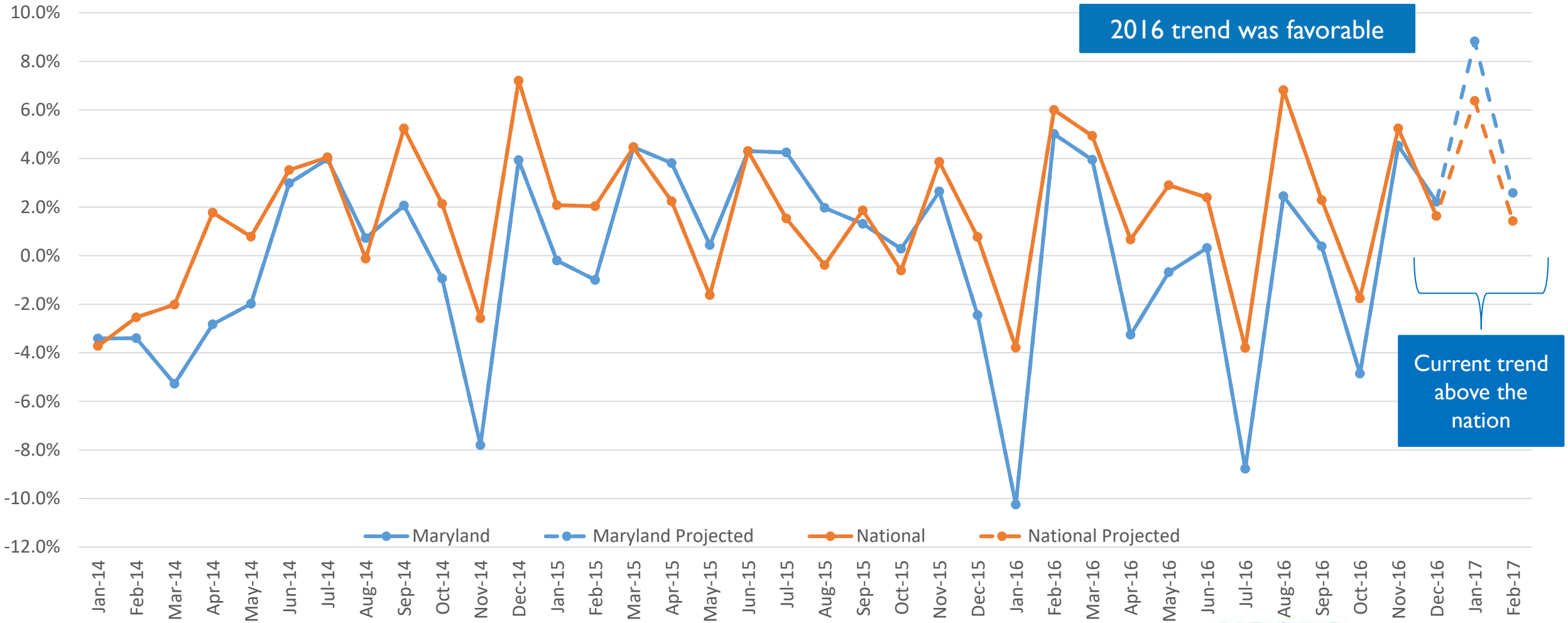
Data through February 2017– Claims paid through March
Source: CMMI Monthly Data Set

Disclaimer:

Data contained in this presentation represent analyses prepared by HSCRC staff based on data summaries provided by the Federal Government. The intent is to provide early indications of the spending trends in Maryland for Medicare FFS patients, relative to national trends. HSCRC staff has added some projections to the summaries. This data has not yet been audited or verified. Claims lag times may change, making the comparisons inaccurate. ICD-10 implementation and EMR conversion could have an impact on claims lags. These analyses should be used with caution and do not represent official guidance on performance or spending trends. These analyses may not be quoted until public release.

Medicare Hospital Spending per Capita

Actual Growth Trend (CY month vs. prior CY month)



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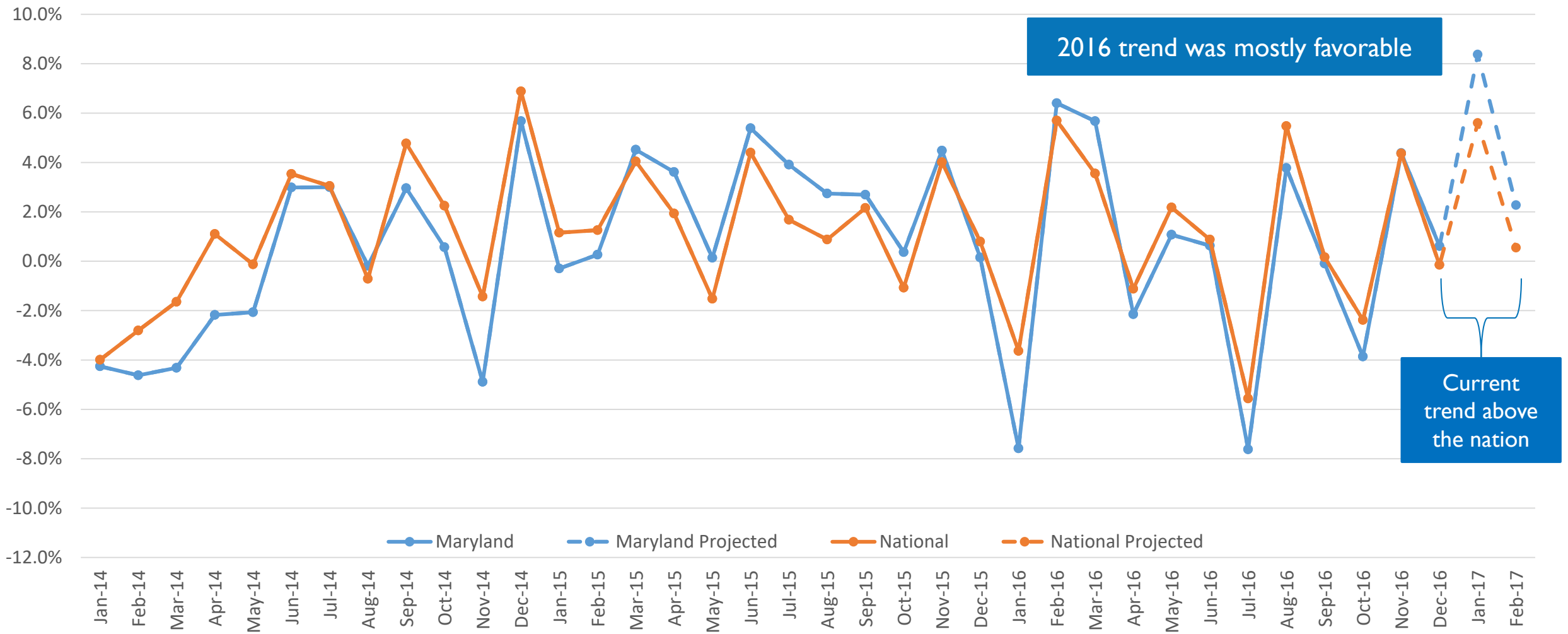
Medicare Total Cost of Care per Capita

Actual Growth Trend (CY month vs. prior CY month)



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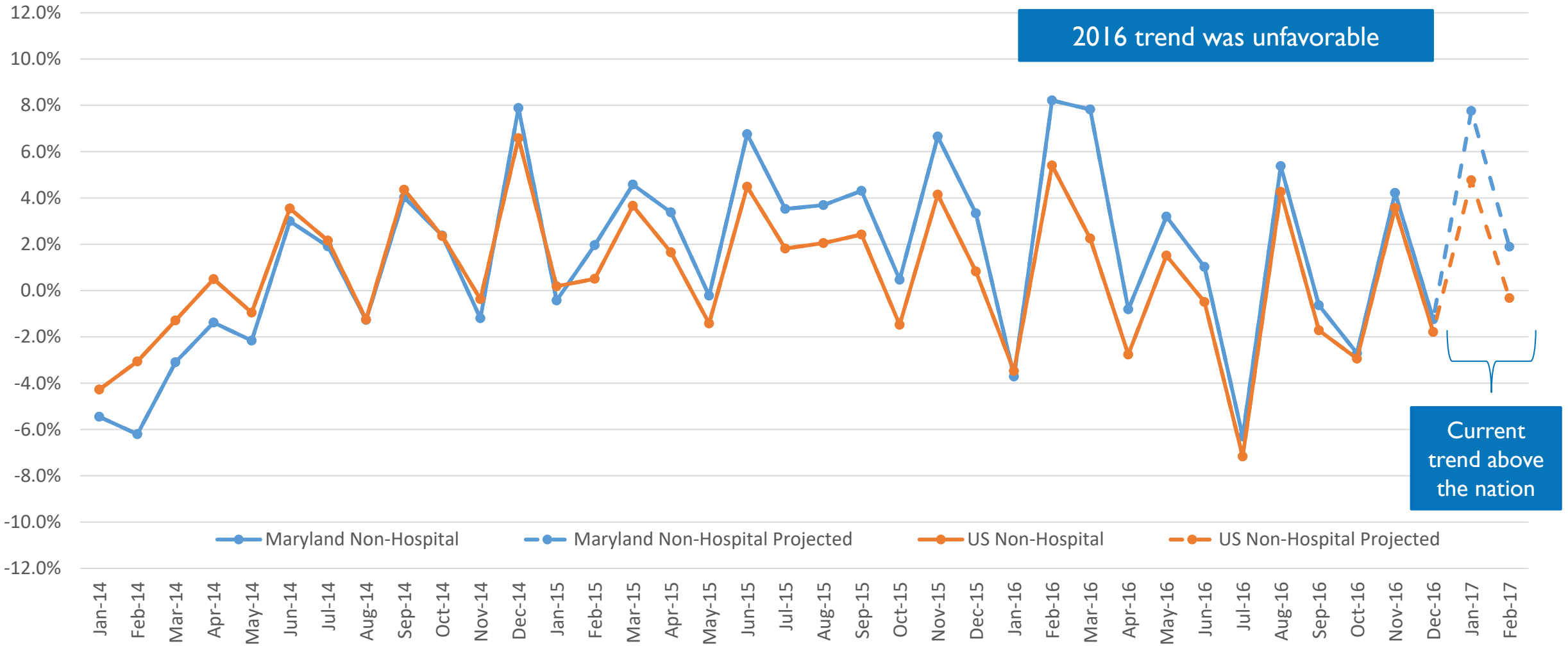
Medicare Non-Hospital Spending per Capita

Actual Growth Trend (CY month vs. prior CY month)



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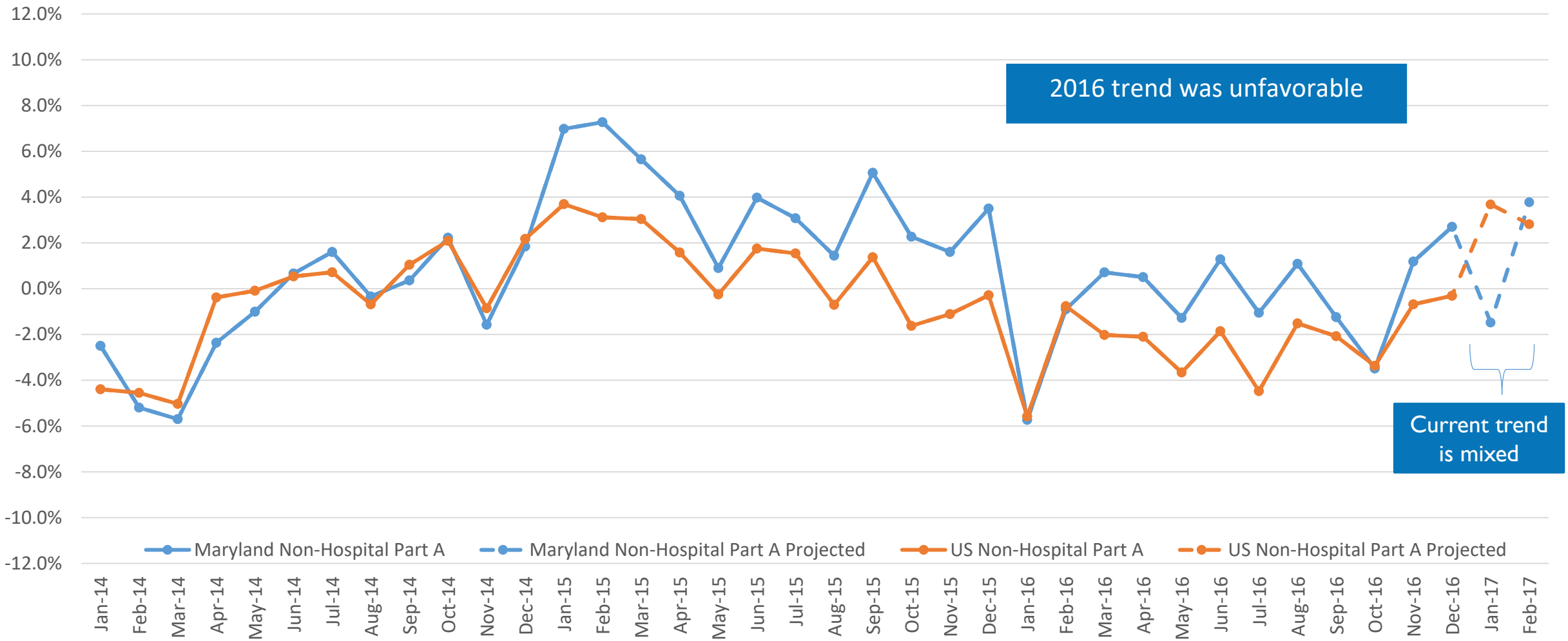
Medicare Non-Hospital Part A Spending per Capita

Actual Growth Trend (CY month vs. prior CY month)



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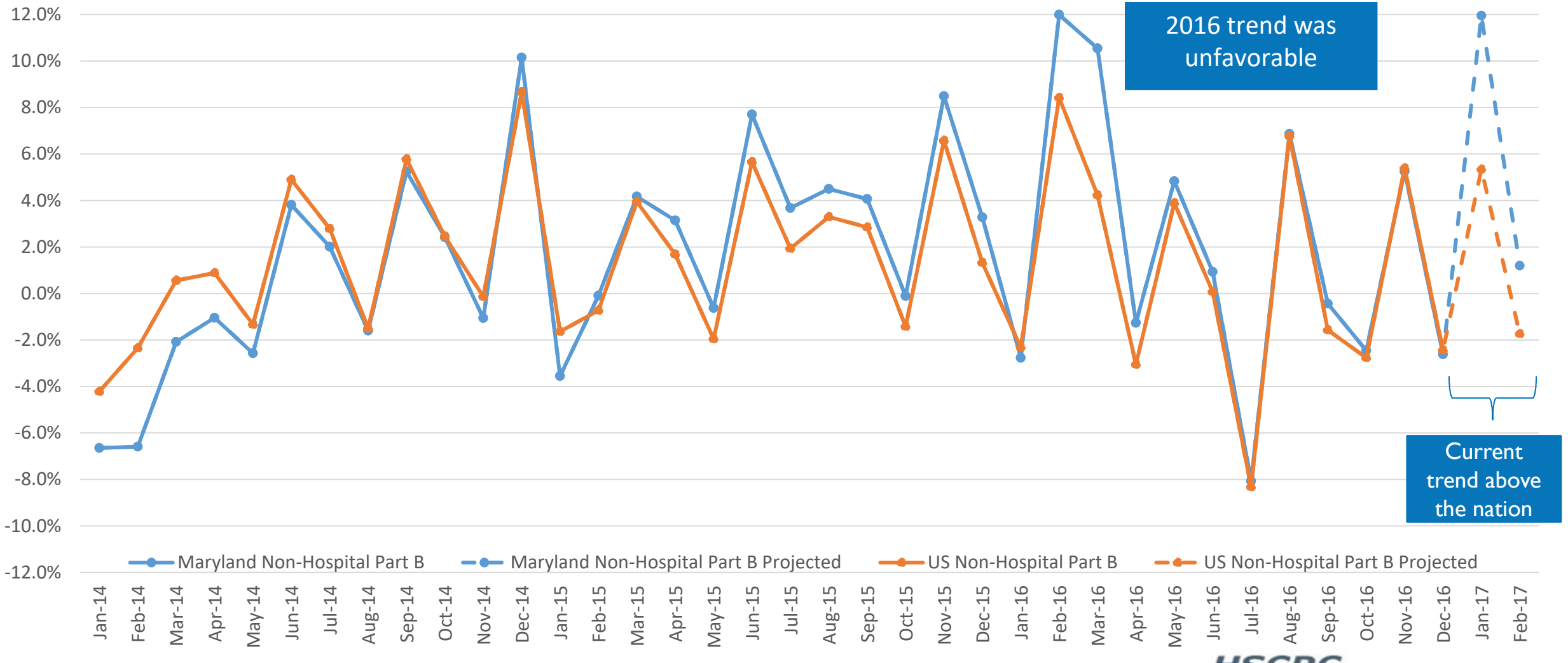
Medicare Non-Hospital Part B Spending per Capita

Actual Growth Trend (CY month vs. prior CY month)



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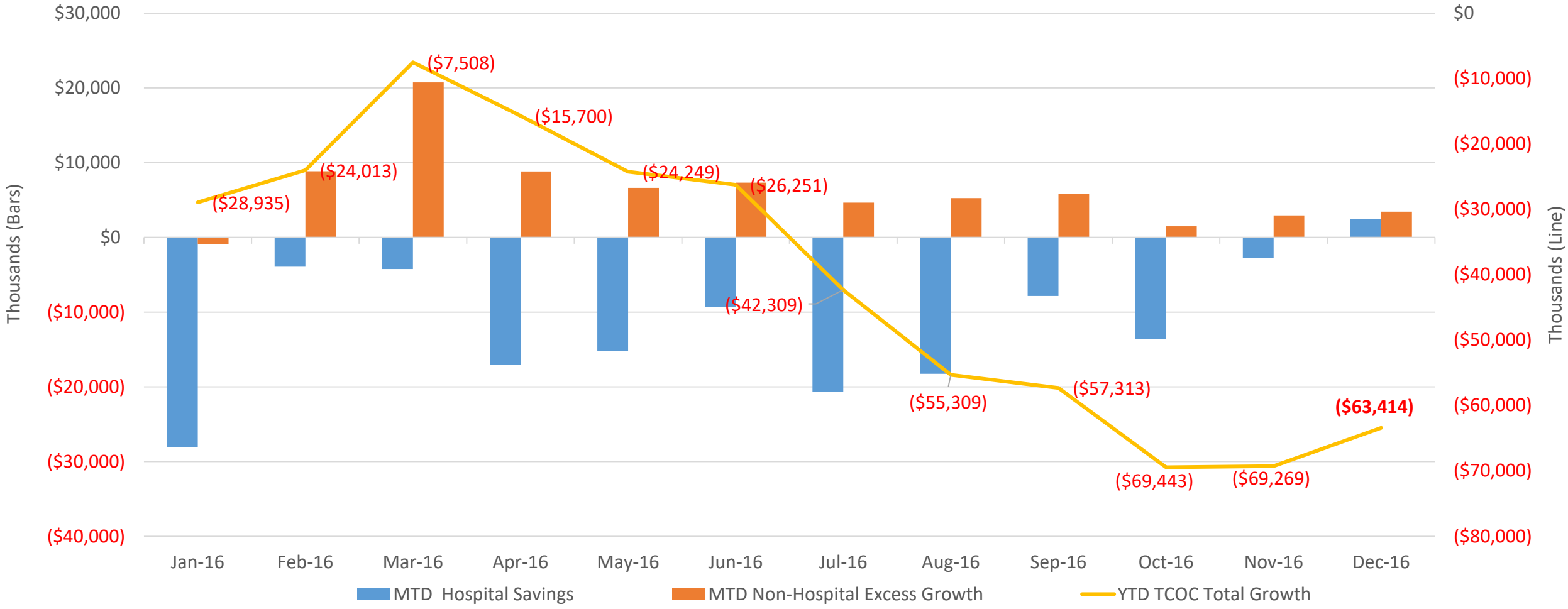
Medicare Hospital & Non-Hospital Growth

CYTD through December 2016



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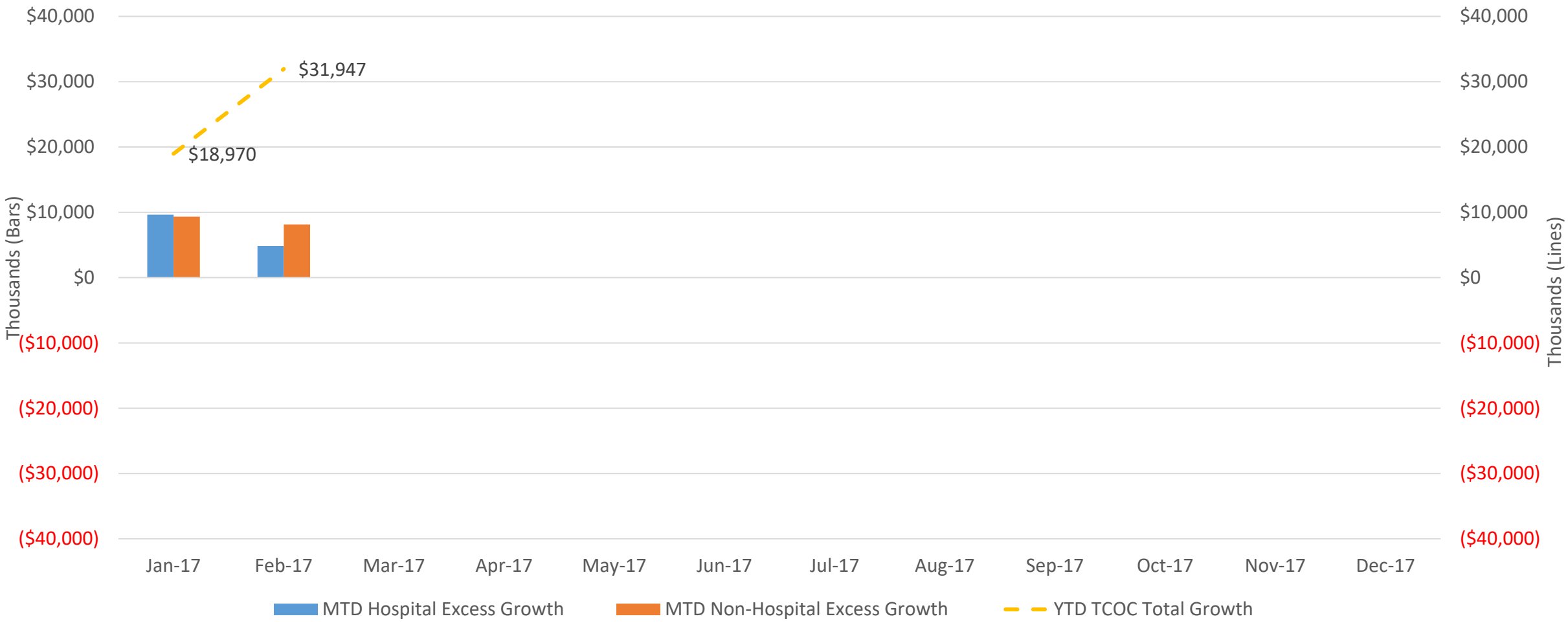
Medicare Hospital & Non-Hospital Growth

(with completion) CYTD through February 2017



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Health Services Cost Review Commission

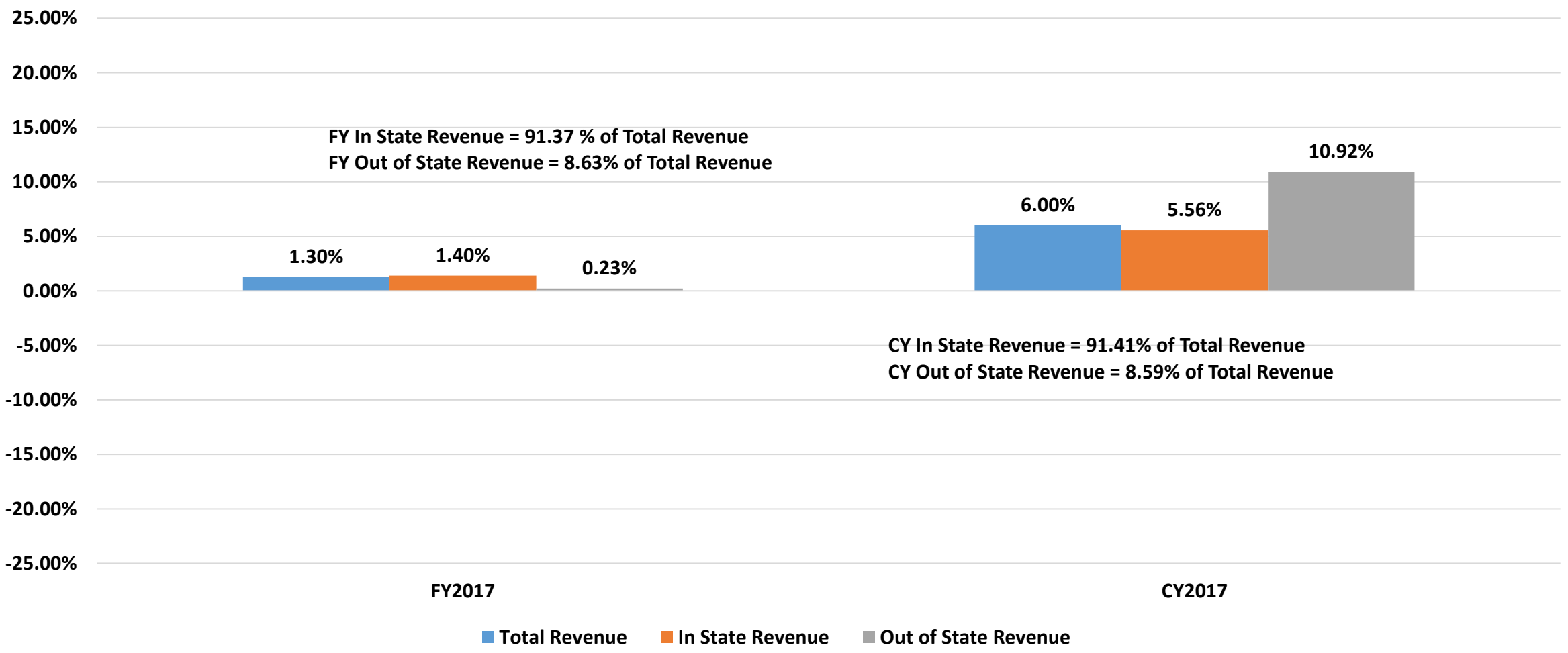
Monitoring Maryland Performance
Financial Data

Year to Date through March 2017

Source: Hospital Monthly Volume and Revenue and Financial Statement Data
Run: May 2017

Gross All Payer Revenue Growth

FY 2017 (Jul 2016-March 2017 over Jul 2015-March 2016) and CY 2017 (Jan-March 2017 over Jan-March 2016)

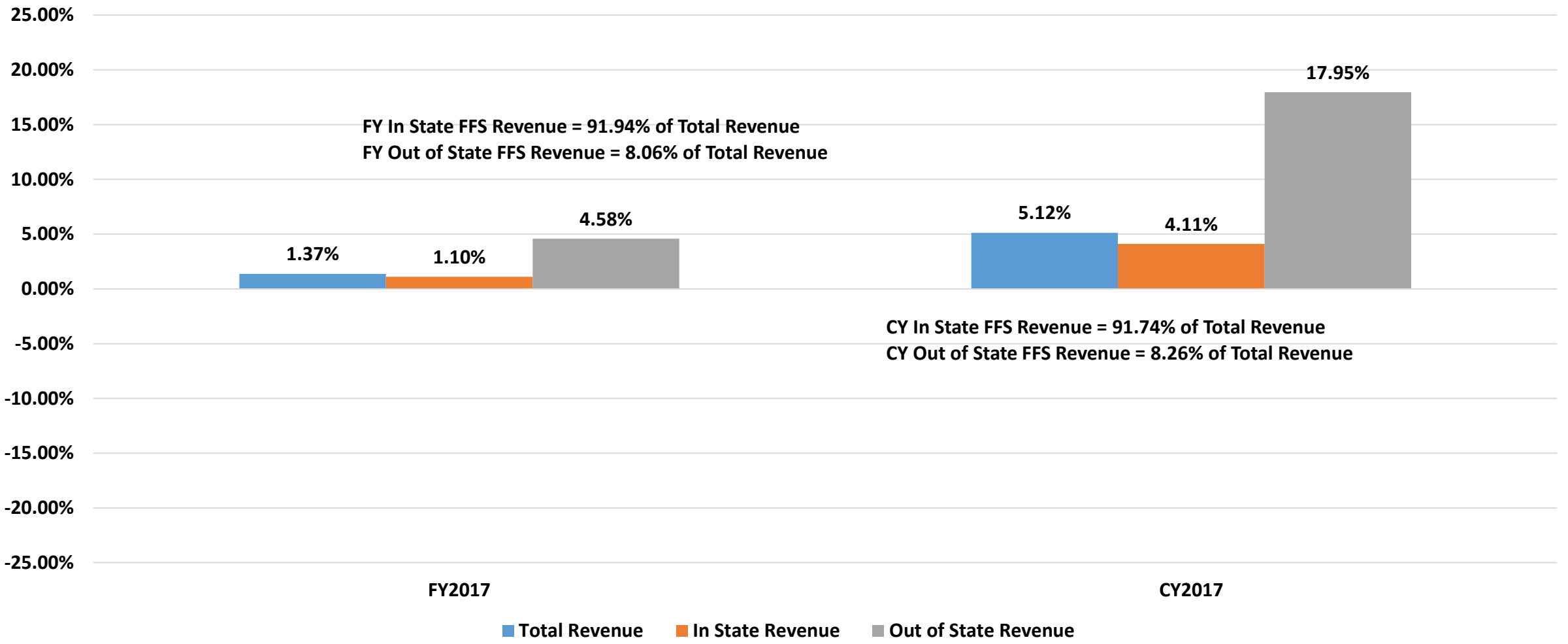


The State's Fiscal Year begins July 1

HSCRC
Health Services Cost Review Commission

Gross Medicare Fee for Service Revenue Growth

FY 2017 (Jul 2016 - March 2017 over Jul-March 2015) and CY 2016 (Jan-March 2017 over Jan-March 2016)



The State's Fiscal Year begins July 1

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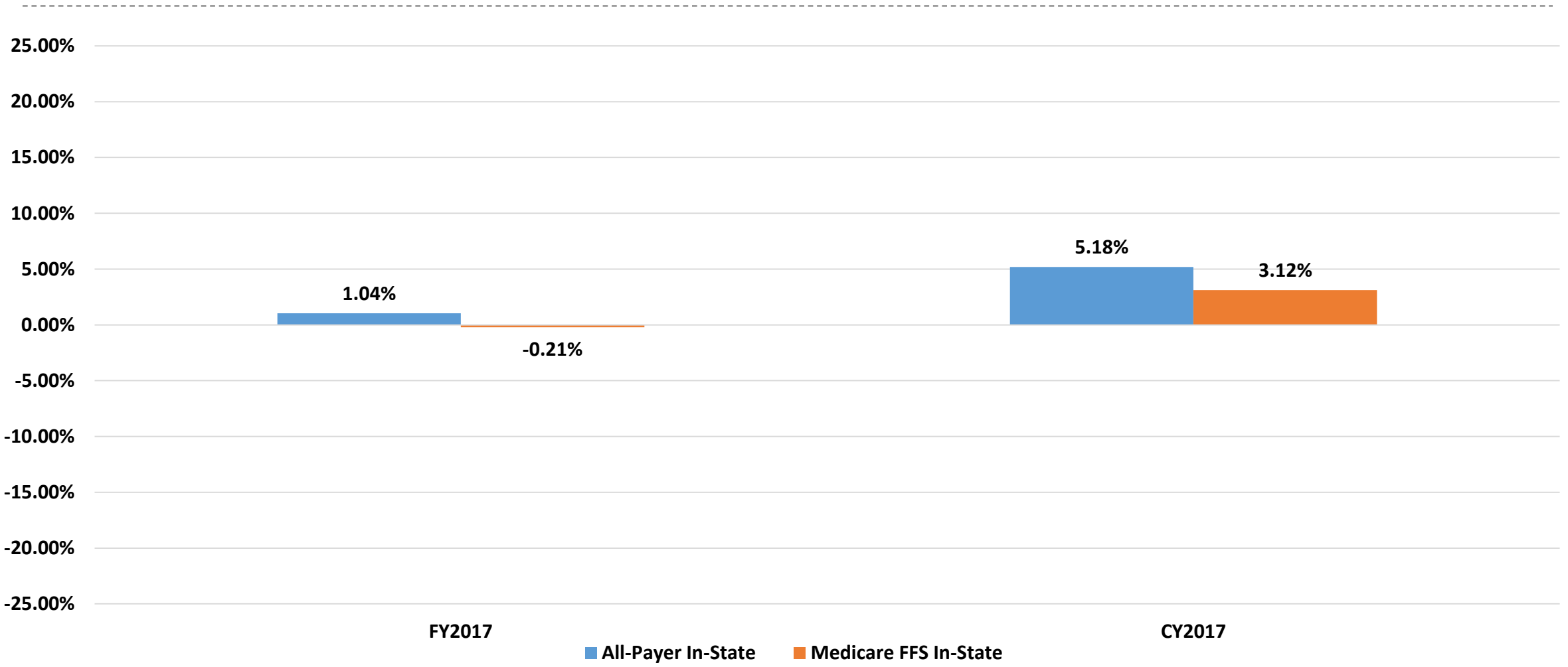
Hospital Revenue Per Capita Growth Rates

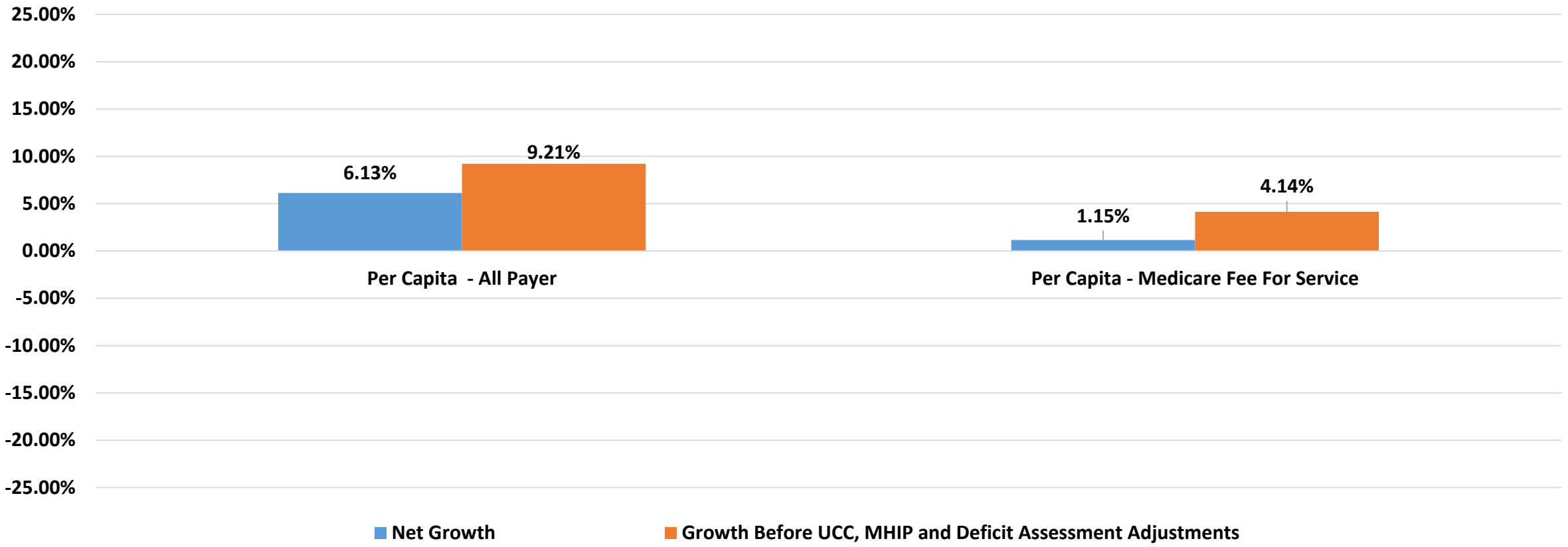
FY 2017 (Jul 2016 – March 2017 over Jul 2015 – March 2016) and CY 2017 (Jan-March 2017 over Jan-March 2016)



The State's Fiscal Year begins July 1

Hospital Revenue Per Capita: Actual and Underlying Growth

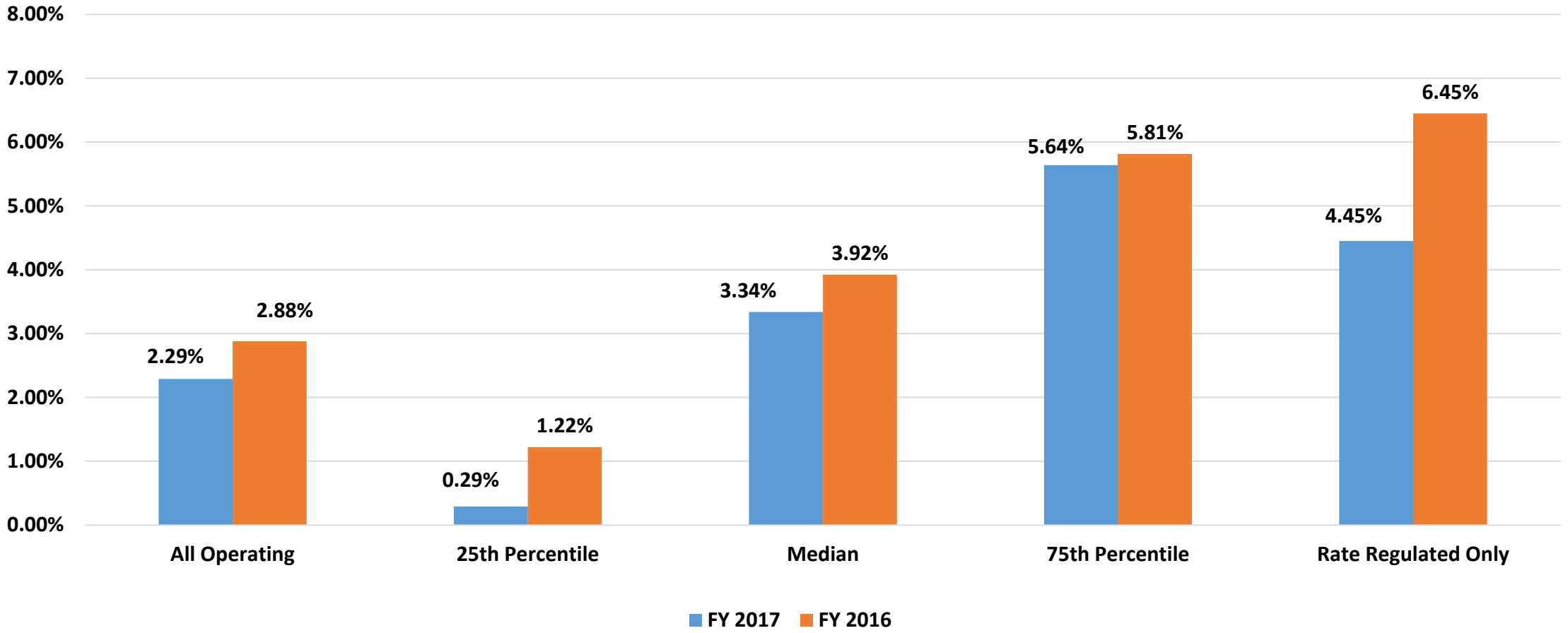
CY 2017 (Jan-March) over Base Year CY 2013 (Jan-March)



- Four year All Payer per capita growth rate is well below maximum allowable growth rate of 15.11% (growth of 3.58% per year)
- Underlying growth reflects adjustments for FY16 revenue decreases that were budget neutral for hospitals. 2.52% hospital bad debts, and elimination of MHIP assessment and FY17 revenue decreases of .49% UCC and 0.15% deficit assessment.

Operating Profits

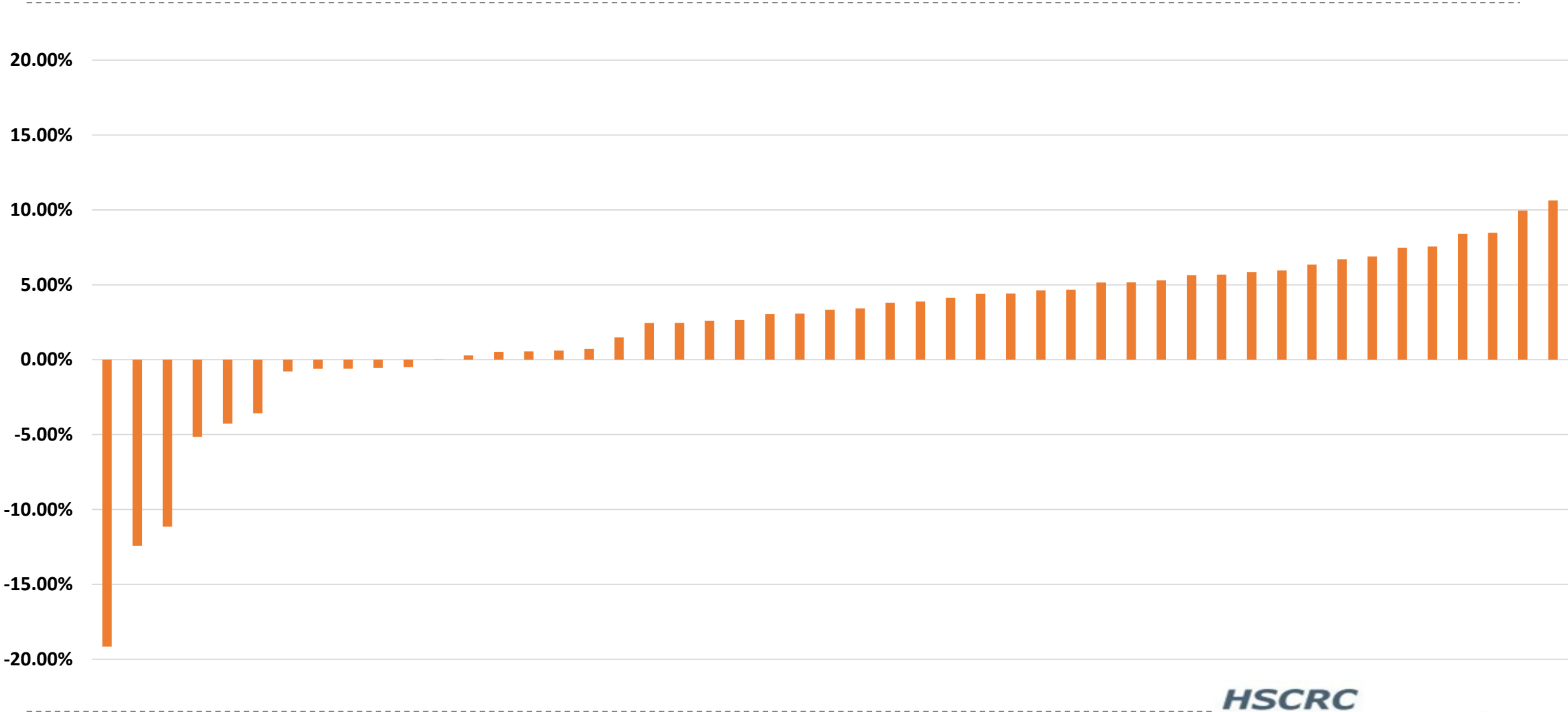
Fiscal Year 2017 (Jul 2016-March 2017) Compared to Same Period in Fiscal Year 2016 (Jul 2015 - March 2016)



FY 2017 unaudited hospital operating profits to date show a .59 percentage point decrease in total profits compared to the same period in FY 2016. Rate regulated profits have decreased by 2 percentage points compared to the same period in FY 2016.

Total Operating Profits by Hospital

Fiscal Year 2017 (Jul 2016-March 2017)



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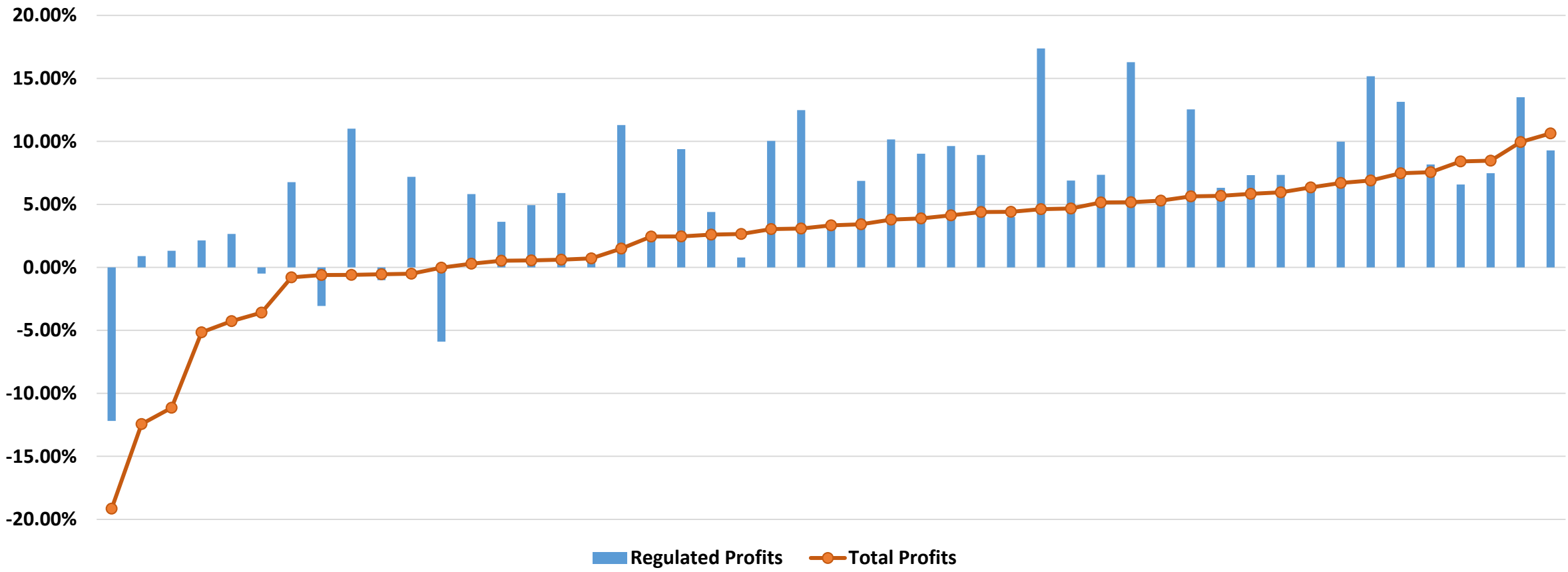
Regulated and Total Operating Profits

Fiscal Year 2017 (Jul 2016 – March 2017)



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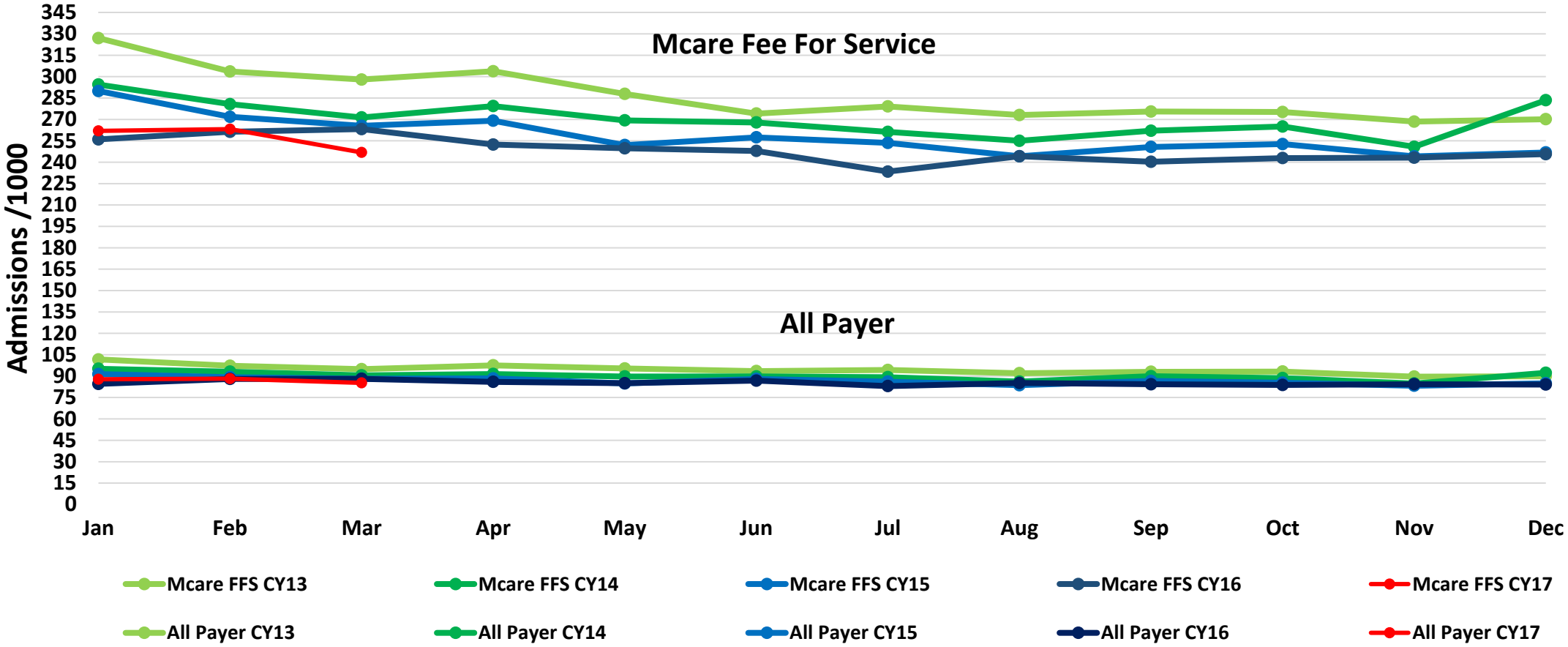
Monitoring Maryland Performance
Financial/Utilization Data

Year to Date through March 2017

Source: Hospital Monthly Volume and Revenue Data

Annual Trends for ADK Annualized Medicare Fee For Service and All Payer

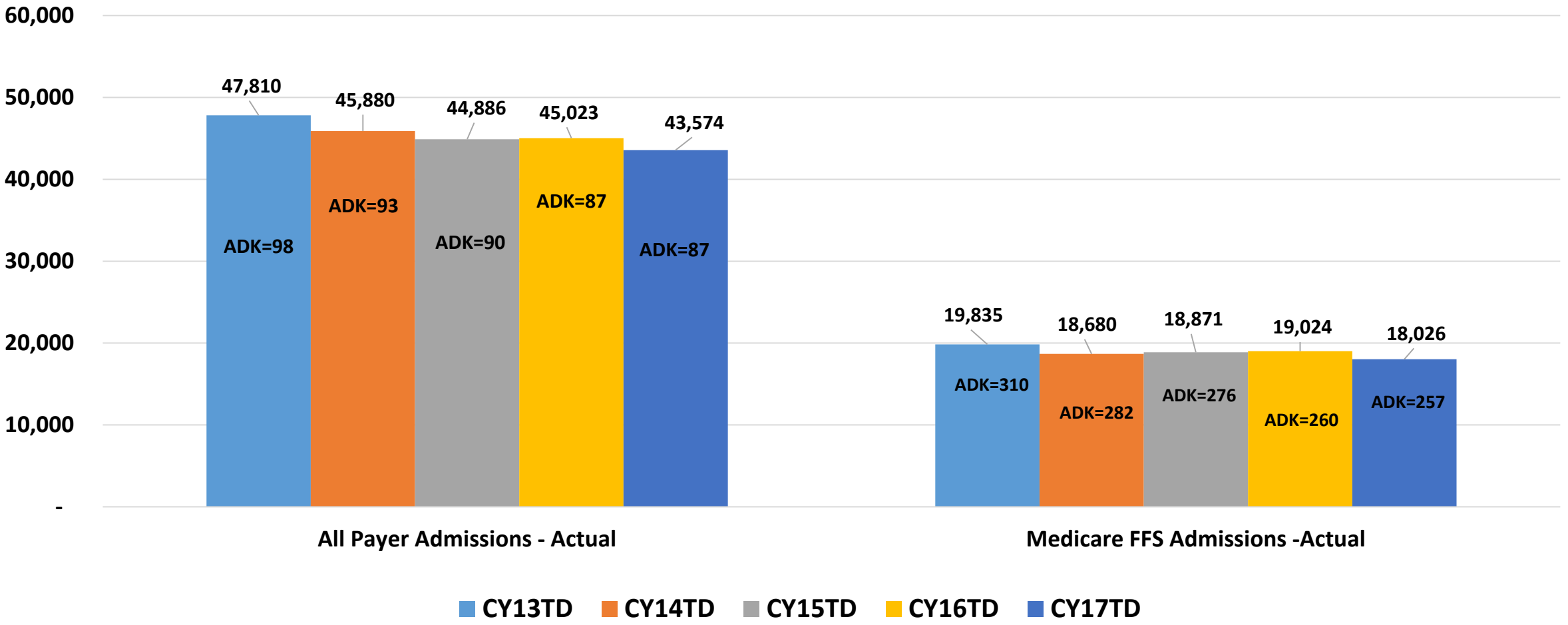
(CY 2013 through CY 2017 March)



*Note - The admissions do not include out of state migration or specialty psych and rehab hospitals.

Actual Admissions by Calendar YTD March

(CY 2013 through CY 2017)



HSCRC
Health Services Cost Review Commission

Change in Admissions by Calendar YTD March

(CY 2013 through CY 2017)

Change in All Payer Admissions CYTD13 vs. CYTD14 = -4.04%
Change in All Payer Admissions CYTD14 vs. CYTD15 = -2.17%
Change in All Payer Admissions CYTD15 vs. CYTD16 = 0.30%
Change in All Payer Admissions CYTD16 vs. CYTD17 = -3.22%

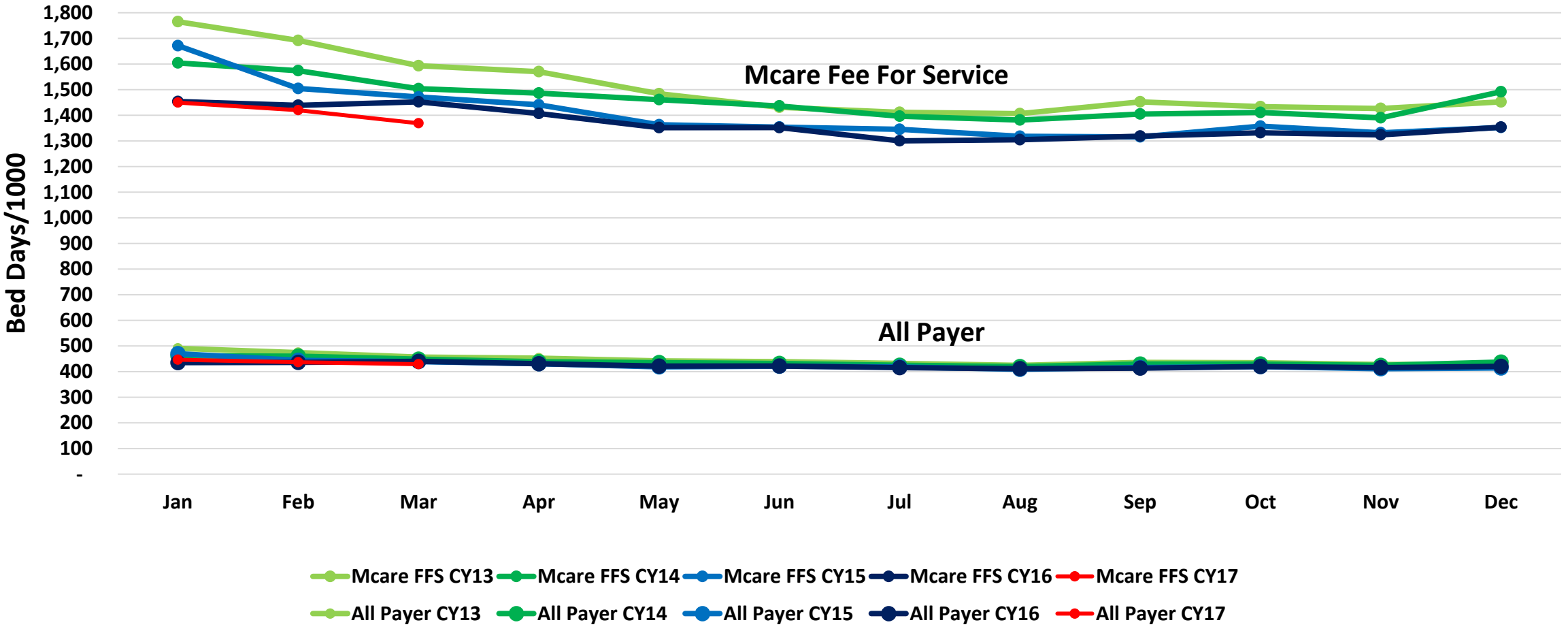
Change in ADK CYTD 13 vs. CYTD 14 = -5.16%
Change in ADK CYTD 14 vs. CYTD 15 = -3.55%
Change in ADK CYTD 15 vs. CYTD 16 = -3.10%
Change in ADK CYTD 16 vs. CYTD 17 = 0.22%

Change in Medicare FFS Admissions CYTD13 vs. CYTD14 = -5.82%
Change in Medicare FFS Admissions CYTD14 vs. CYTD15 = 1.02%
Change in Medicare FFS Admissions CYTD15 vs. CYTD16 = 0.81%
Change in Medicare FFS Admissions CYTD16 vs. CYTD17 = -5.24%

Change in Medicare FFS ADK CYTD 13 vs. CYTD 14 = -8.87%
Change in Medicare FFS ADK CYTD 14 vs. CYTD 15 = -2.25%
Change in Medicare FFS ADK CYTD 15 vs. CYTD 16 = -5.69%
Change in Medicare FFS ADK CYTD 16 vs. CYTD 17 = -1.38%

Annual Trends for BDK Annualized

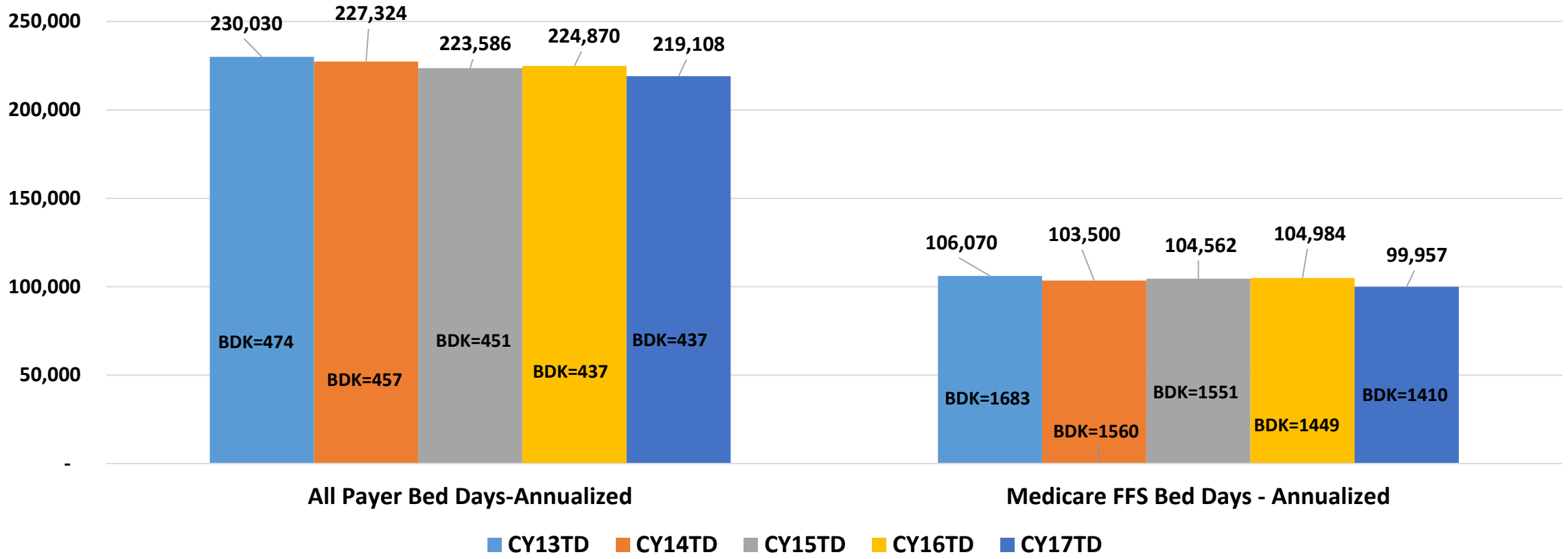
Medicare Fee For Service and All Payer (CY 2013 through CY 2017 March)



***Note - The bed days do not include out of state migration or specialty psych and rehab hospitals.**

Actual Bed Days by Calendar YTD March

(CY 2013 through CY 2017)



*Note - The bed days do not include out of state migration or specialty psych and rehab hospitals.

Change in Bed Days by Calendar YTD March
(CY 2013 through CY 2017)

Change in All Payer Bed Days CYTD13 vs. CYTD14 = -1.18%
Change in All Payer Bed Days CYTD14 vs. CYTD15 = -1.64%
Change in All Payer Bed Days CYTD15 vs. CYTD16 = 0.57%
Change in All Payer Bed Days CYTD16 vs. CYTD17 = -2.56%

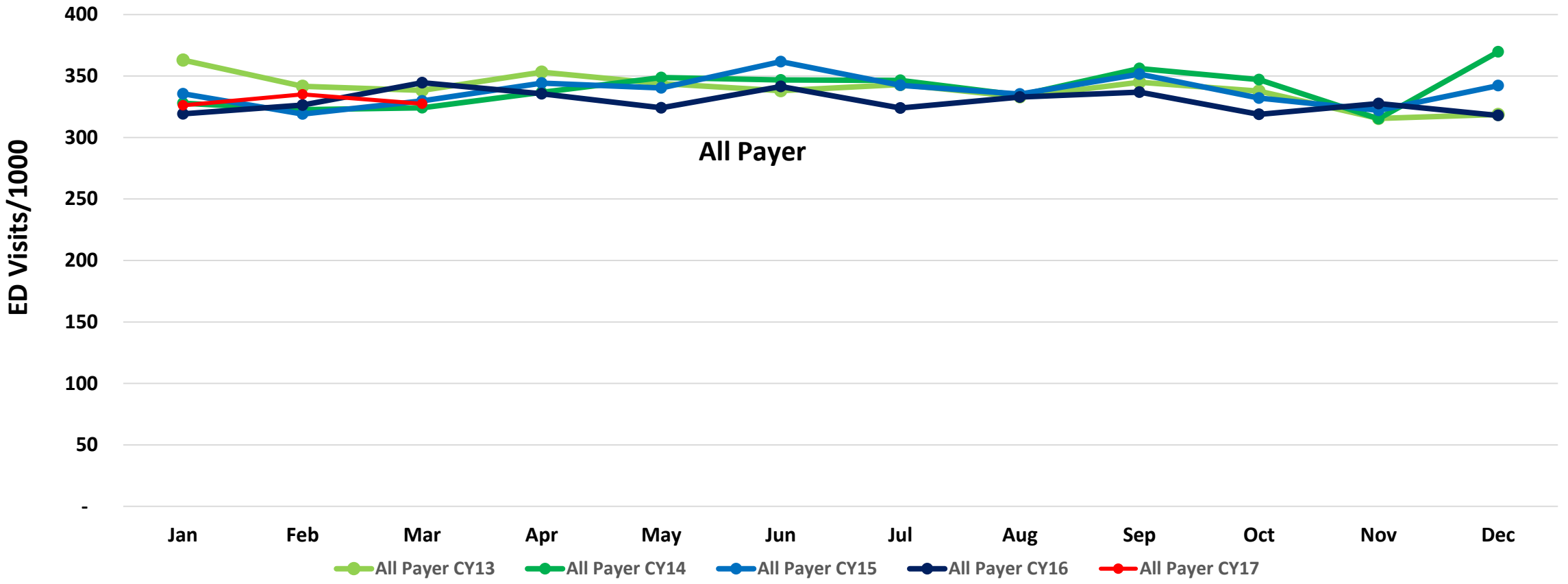
Change in BDK CYTD 13 vs. CYTD 14 = -3.60%
Change in BDK CYTD 14 vs. CYTD 15 = -1.19%
Change in BDK CYTD 15 vs. CYTD 16 = -3.17%
Change in BDK CYTD 16 vs. CYTD 17 = 0.06%

Change in Medicare FFS Bed Days CYTD13 vs. CYTD14 = -2.42%
Change in Medicare FFS Bed Days CYTD14 vs. CYTD15 = 1.03%
Change in Medicare FFS Bed Days CYTD15 vs. CYTD16 = 0.40%
Change in Medicare FFS Bed Days CYTD16 vs. CYTD17 = -4.79%

Change in Medicare FFS BDK CYTD 13 vs. CYTD 14 = -7.31%
Change in Medicare FFS BDK CYTD 14 vs. CYTD 15 = -0.61%
Change in Medicare FFS BDK CYTD 15 vs. CYTD 16 = -6.58%
Change in Medicare FFS BDK CYTD 16 vs. CYTD 17 = -2.69%

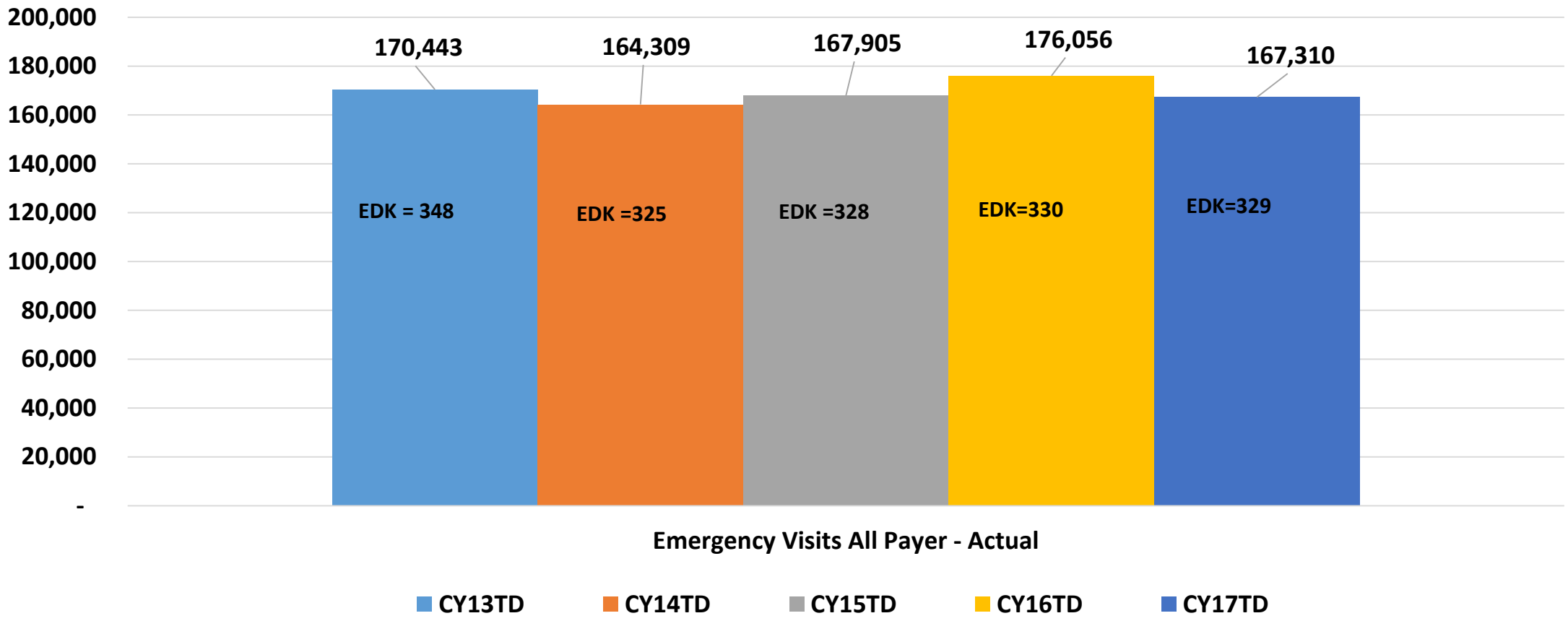
Annual Trends for EDK Annualized All Payer

(CY 2013 through CY2017 March)



*Note - The ED Visits do not include out of state migration or specialty psych and rehab hospitals.

Actual Emergency Department Visits by Calendar YTD March (CY 2013 through CY 2017)



*Note - The ED Visits do not include out of state migration or specialty psych and rehab hospitals.

Change in ED Visits by Calendar YTD March
(CY 2013 through CY 2017)

Change in ED Visits CYTD 13 vs. CYTD 14 = -3.60%

Change in ED Visits CYTD 14 vs. CYTD 15 = 2.19%

Change in ED Visits CYTD 15 vs. CYTD 16 = 4.85%

Change in ED Visits CYTD 16 vs. CYTD 17 = -4.97%

Change in EDK CYTD 13 vs. CYTD 14 = -6.57%

Change in EDK CYTD 14 vs. CYTD 15 = 1.06%

Change in EDK CYTD 15 vs. CYTD 16 = 0.51%

Change in EDK CYTD 16 vs. CYTD 17 = -0.22%

Purpose of Monitoring Maryland Performance

Evaluate Maryland's performance against All-Payer Model requirements:

All-Payer total hospital per capita revenue growth ceiling for Maryland residents tied to long term state economic growth (GSP) per capita

- 3.58% annual growth rate

- **Medicare payment savings** for Maryland beneficiaries compared to dynamic national trend. Minimum of $330 million in savings over 5 years
- **Patient and population centered-measures** and targets to promote population health improvement
  - Medicare readmission reductions to national average
  - 30% reduction in preventable conditions under Maryland's Hospital Acquired Condition program (MHAC) over a 5 year period
  - Many other quality improvement targets

Data Caveats

- Data revisions are expected.
- For financial data if residency is unknown, hospitals report this as a Maryland resident. As more data becomes available, there may be shifts from Maryland to out-of-state.
- Many hospitals are converting revenue systems along with implementation of Electronic Health Records. This may cause some instability in the accuracy of reported data. As a result, HSCRC staff will monitor total revenue as well as the split of in state and out of state revenues.
- All-payer per capita calculations for Calendar Year 2015 and Fiscal 2016 rely on Maryland Department of Planning projections of population growth of .52% for FY 16 and .52% for CY 15. Medicare per capita calculations use actual trends in Maryland Medicare beneficiary counts as reported monthly to the HSCRC by CMMI.

Data Caveats cont.

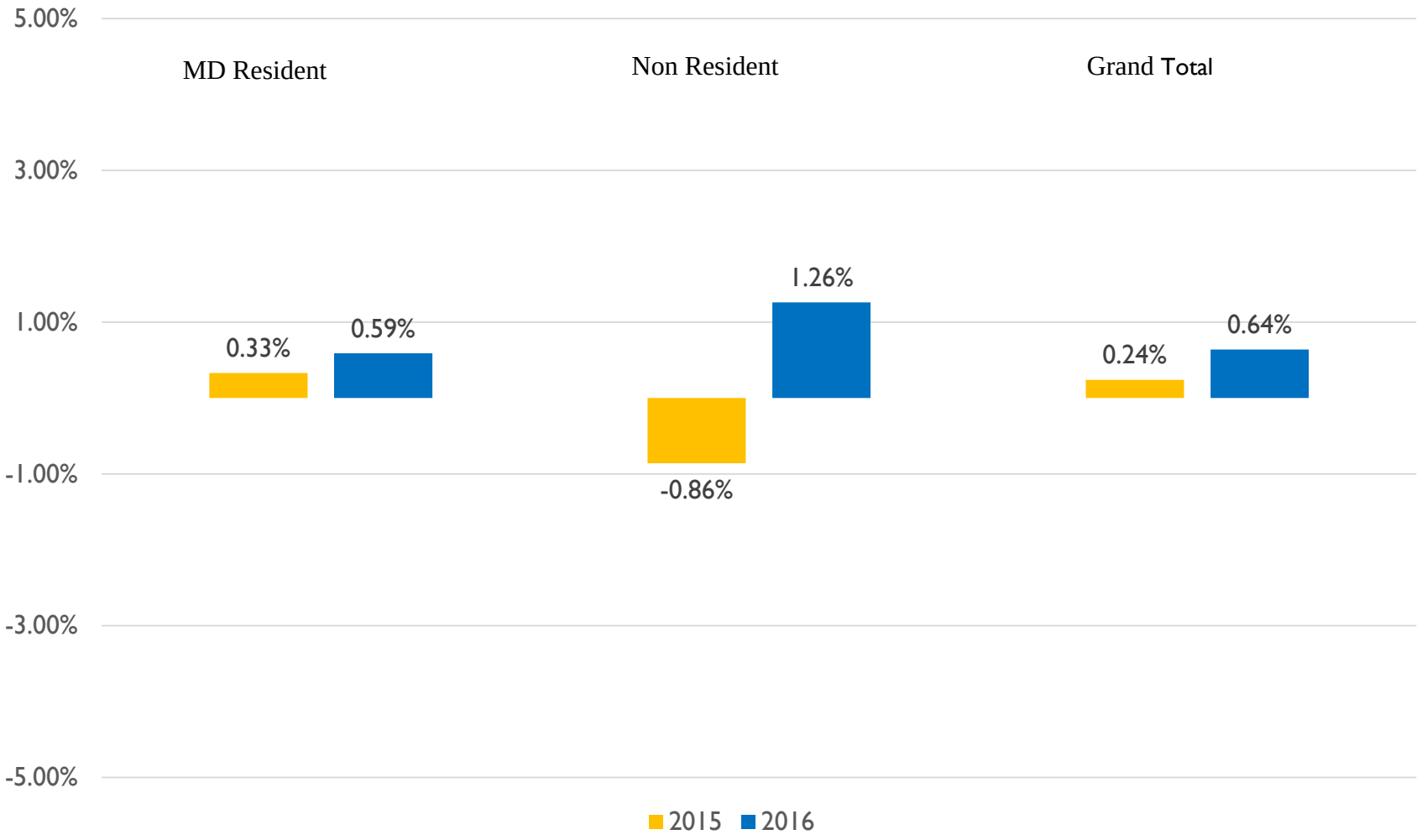
- The source data is the monthly volume and revenue statistics.
- ADK – Calculated using the admissions multiplied by 365 divided by the days in the period and then divided by average population per 1000.
- BDK – Calculated using the bed days multiplied by 365 divided by the days in the period and then divided by average population per 1000.
- EDK – Calculated using the ED visits multiplied by 365 divided by the days in the period and then divided by average population per 1000.
- All admission and bed days calculations exclude births and nursery center.
- Admissions, bed days, and ED visits do not include out of state migration or specialty psych and rehab hospitals.

Monitoring Maryland Performance
Preliminary Utilization Trends

2016 vs 2015
(January to December)

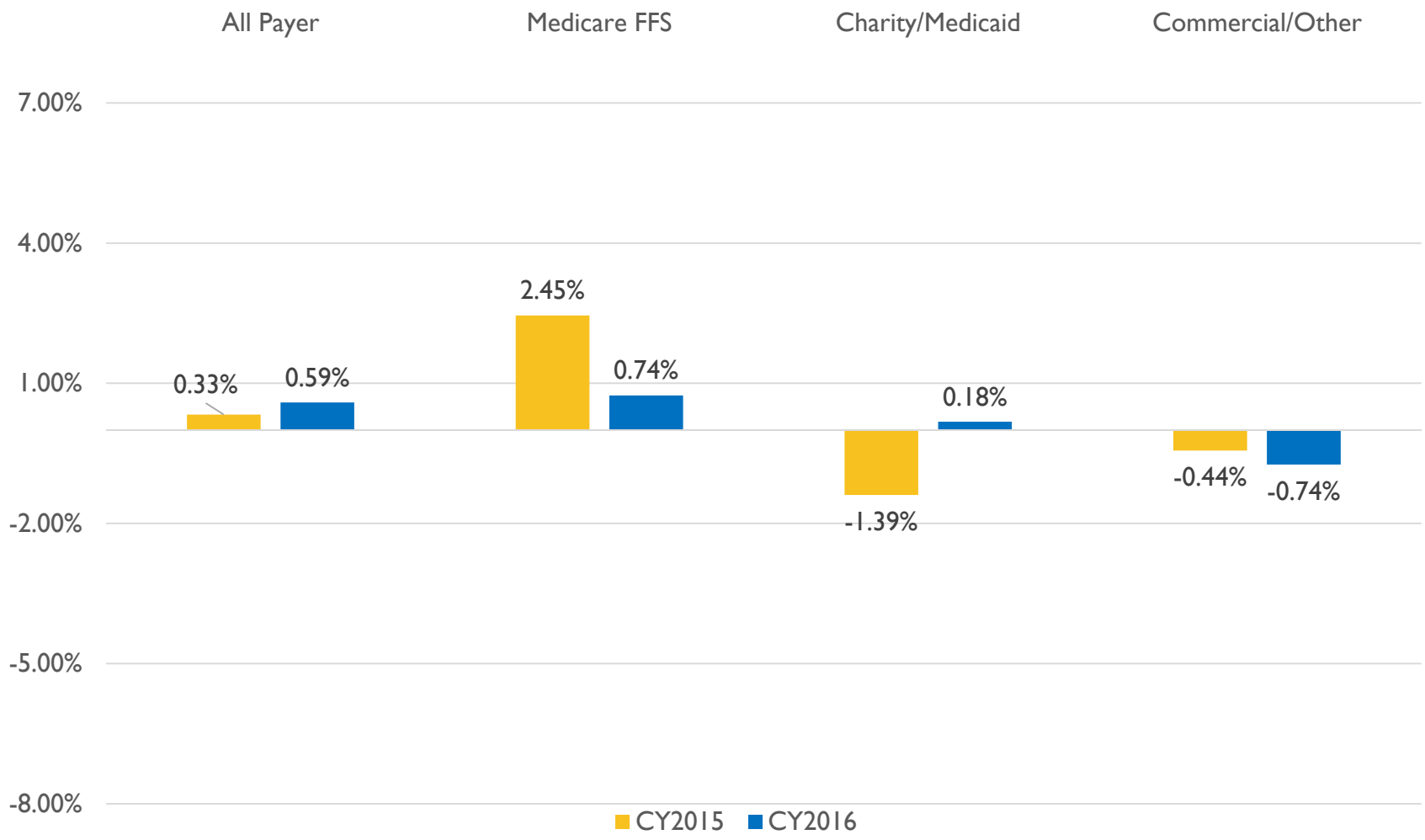
HSCRC
Health Services Cost Review Commission

All Payer ECMAD CYTD Annual Growth

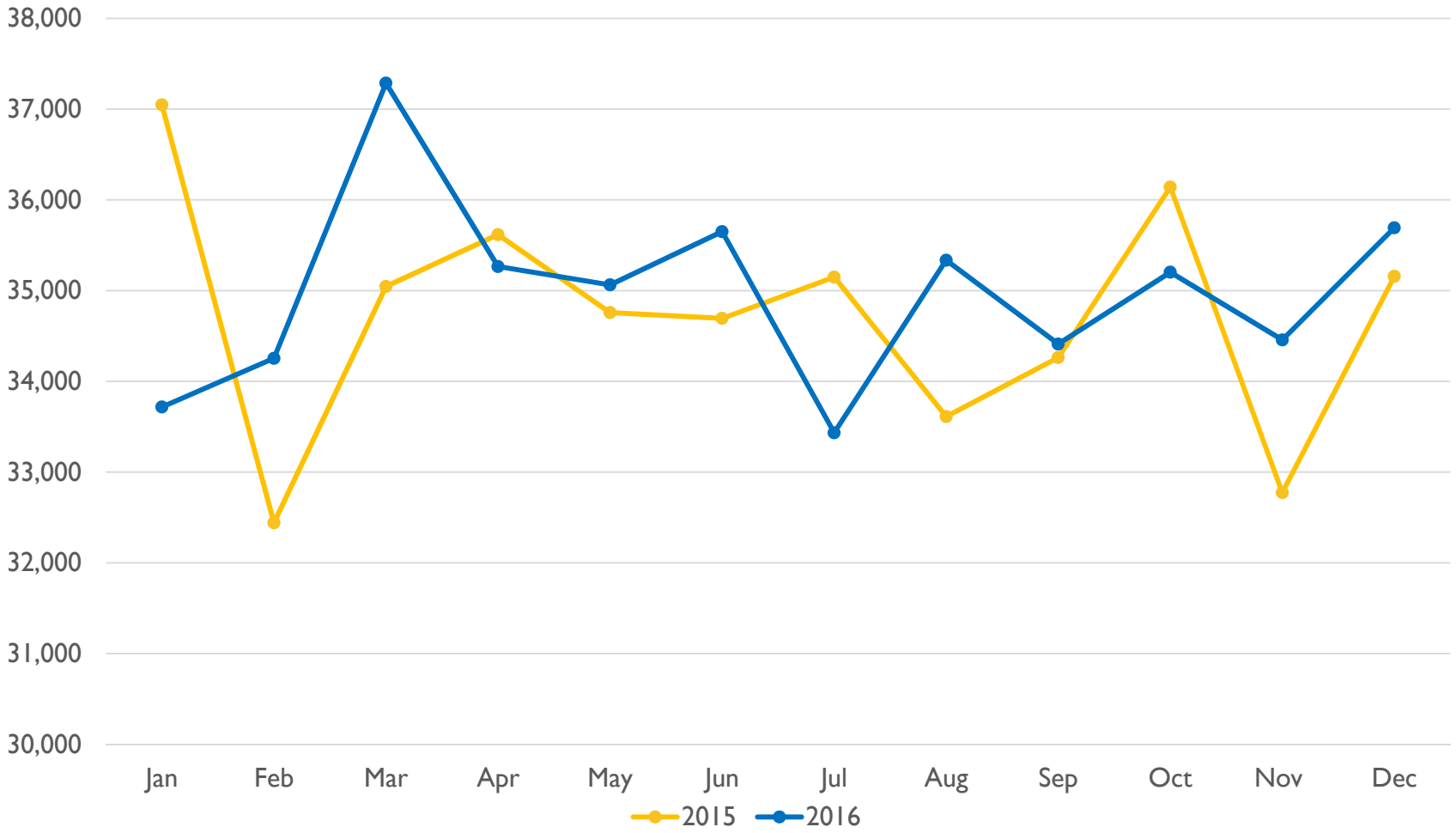


HSCRC
Health Services Cost Review Commission

MD Resident ECMAD CYTD Annual Growth

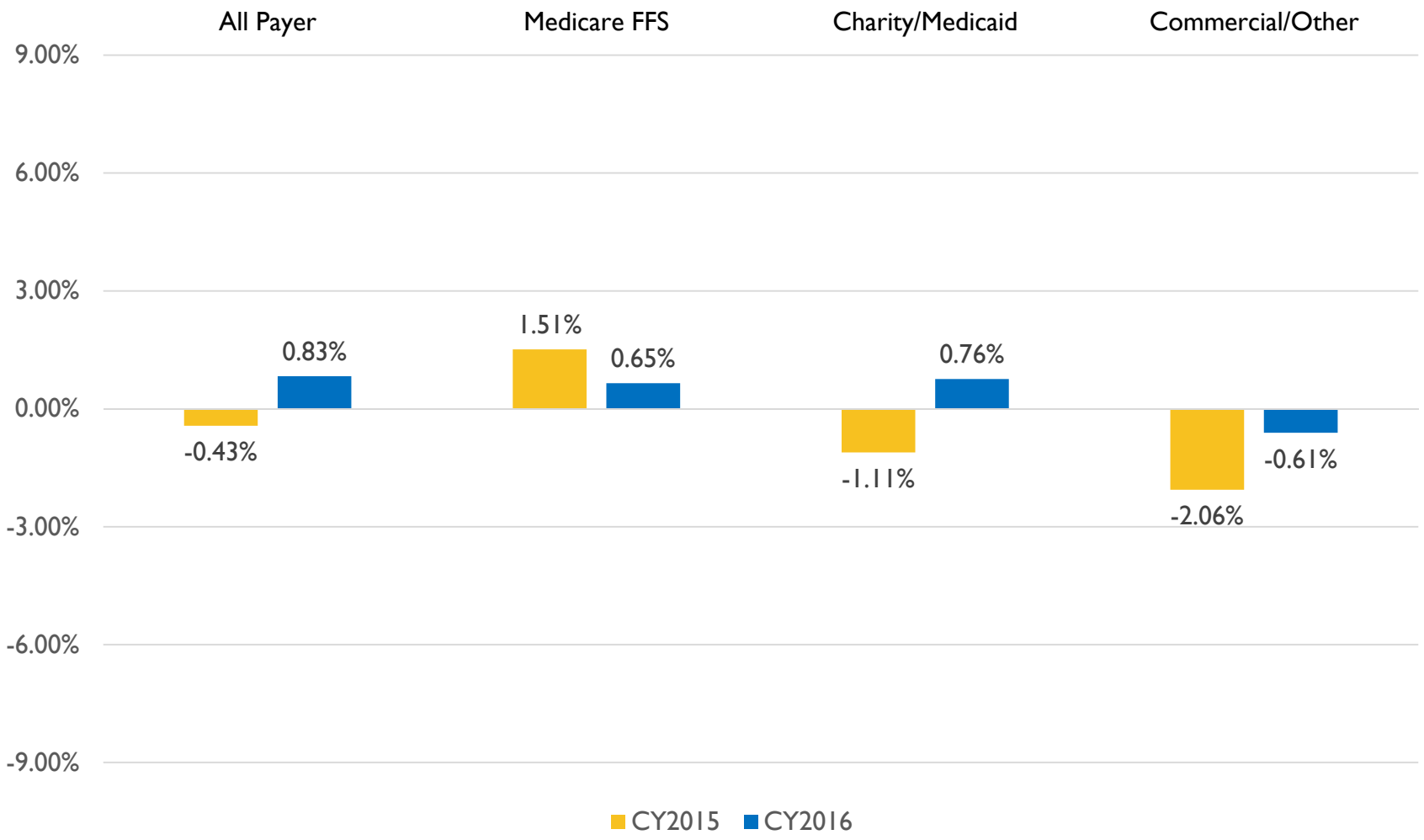


Medicare MD Resident ECMAD Annual Growth by Month



HSCRC
Health Services Cost Review Commission

MD Resident Inpatient ECMAD CYTD Annual Growth



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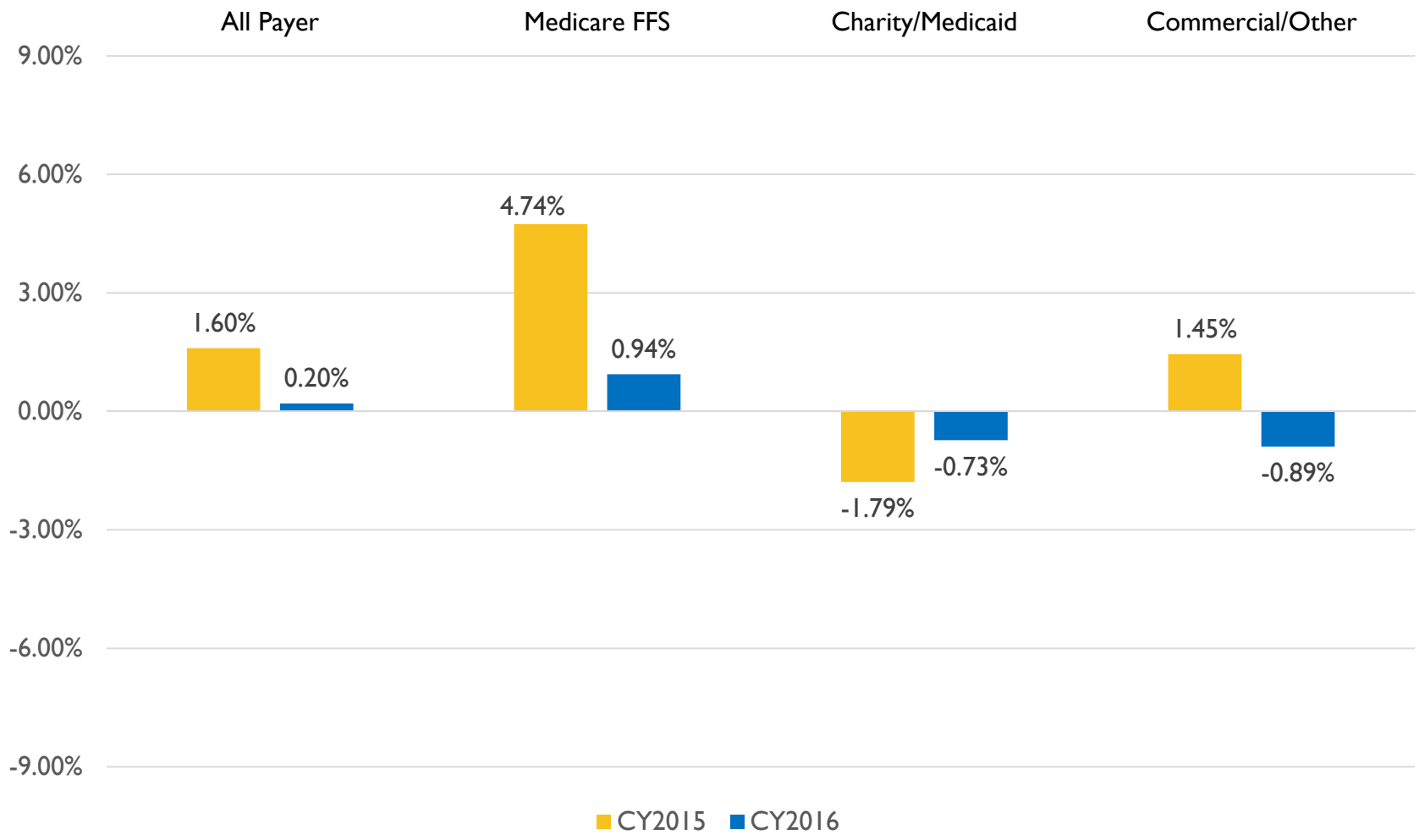
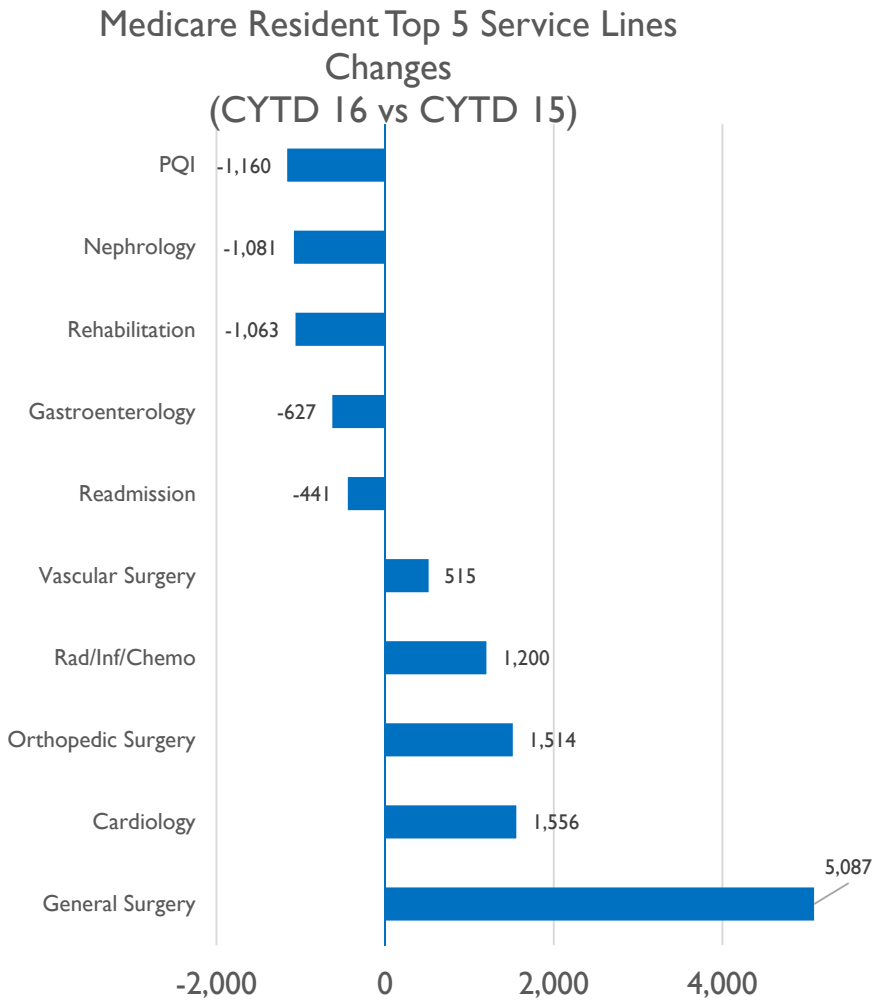
HSCRC
Health Services Cost Review Commission

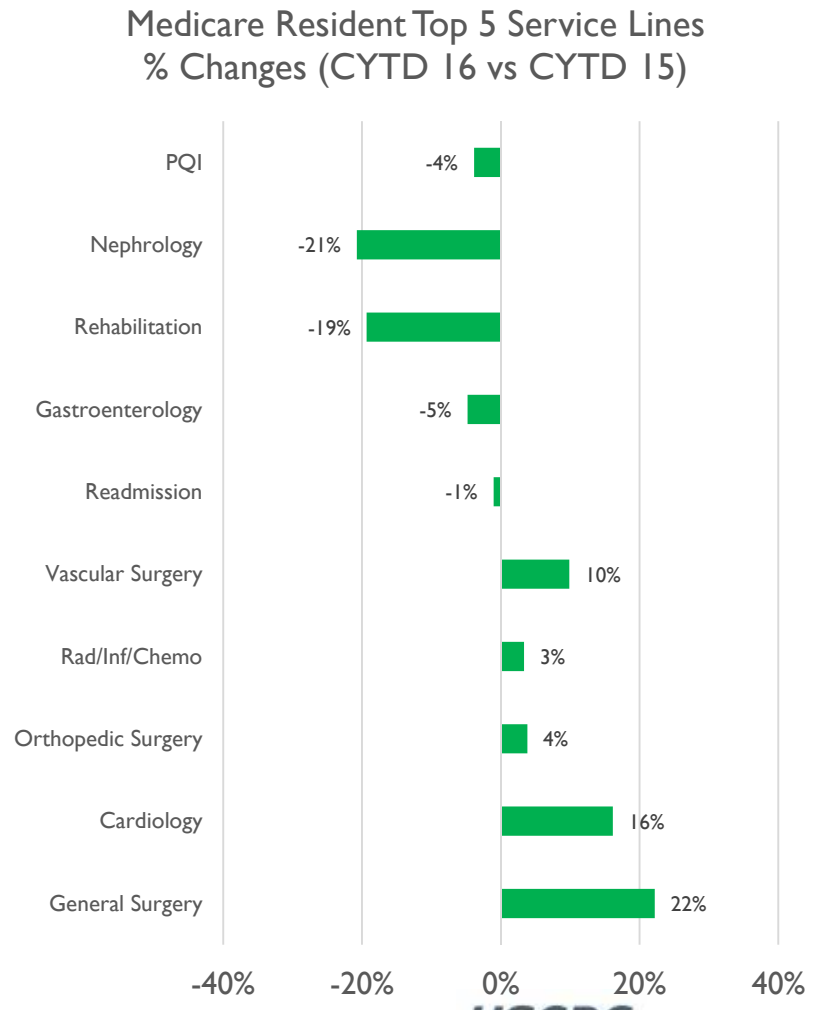
MD Resident Outpatient ECMAD CYTD Annual Growth



HSCRC
Health Services Cost Review Commission

Medicare MD Resident Top 5 Service Line Changes (Total ECMAD Increase = 3,071)





Note: General Surgery surge due to transition from ICD 9 to ICD 10 Coding

HSCRC
Health Services Cost Review Commission

Utilization Analytics – Data Notes

- Utilization as measured by Equivalent Case-mix Adjusted Discharges (ECMAD)
  - 1 ECMAD Inpatient discharge=1 ECMAD Outpatient Visit
- Observation stays with more than 23 hour are included in the inpatient counts
  - IP=IP + Observation cases >23 hrs.
  - OP=OP - Observation cases >23 hrs.
- Preliminary data, not yet reconciled with financial data
- Careful review of outpatient service line trends is needed

Service Line Definitions

- Inpatient service lines:
  - APR DRG (All Patient Refined Diagnostic Related Groups) to service line mapping
  - Readmissions and PQIs (Prevention Quality Indicators) are top level service lines (include different service lines)
- Outpatient service lines:
  - Highest EAPG (Enhanced Ambulatory Patient Grouping System) to service line mapping
  - Hierarchical classifications (Emergency Department, major surgery etc)
- Market Shift technical documentation

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.

.

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.

GBMC HealthCare System

Greater Baltimore Medical Center
HSCRC Discussion #2
DRAFT #3

Population Health Update to the Health Services Cost Review Commission

May 10, 2017

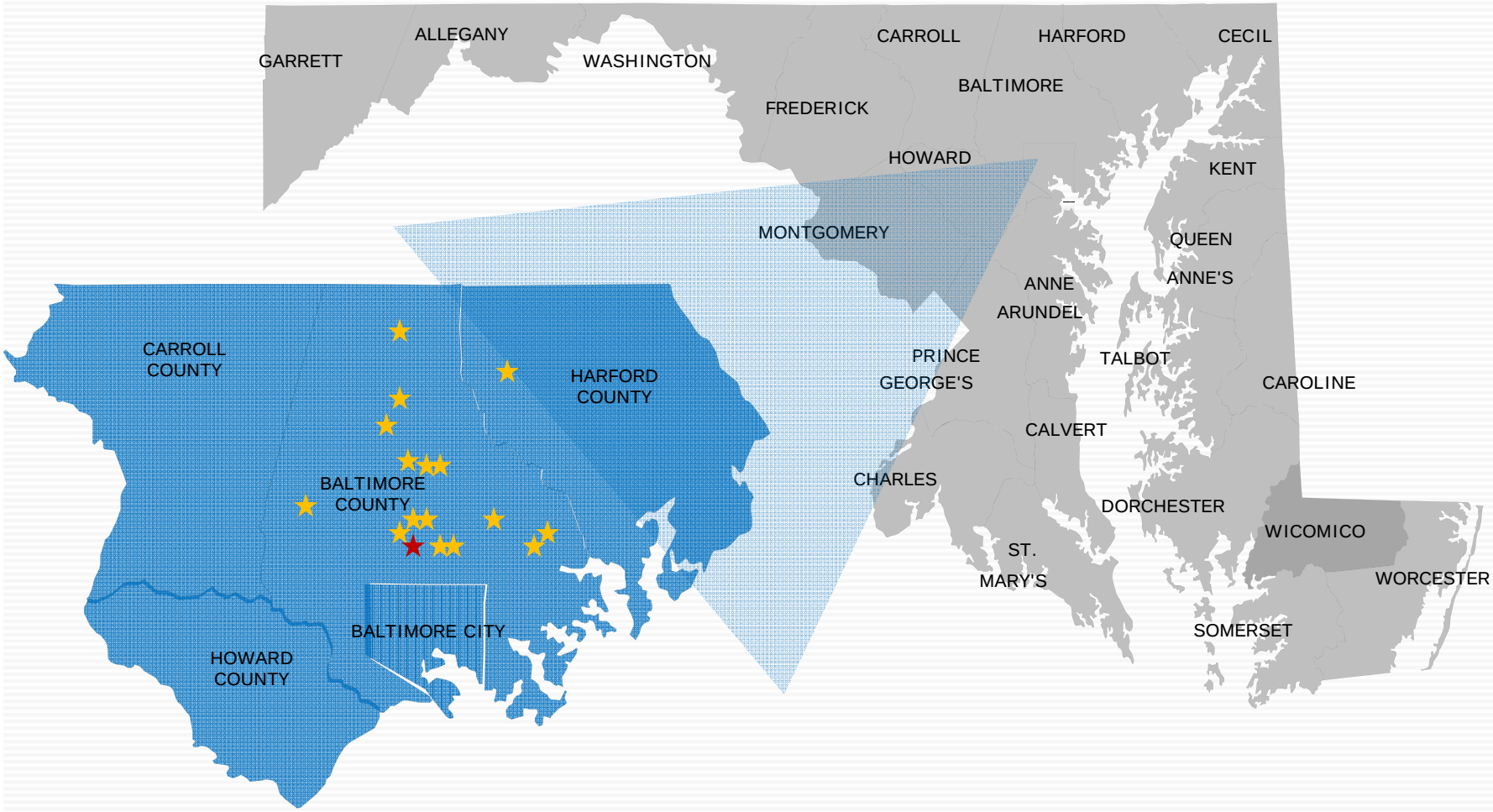
GBMC

"To every patient, every time, we will provide the care that we would want for our own loved ones"

The GBMC HealthCare System

- **Greater Baltimore Health Alliance (GBHA)**
  - Private practicing physicians
  - Greater Baltimore Medical Associates (GBMA)
- **GBMC Medical Center**
- **Gilchrist**
  - Hospice: 800 patients/day
  - Eldercare: including palliative care

GBMC HealthCare System



"To every patient, every time, we will provide the care that we would want for our own loved ones."

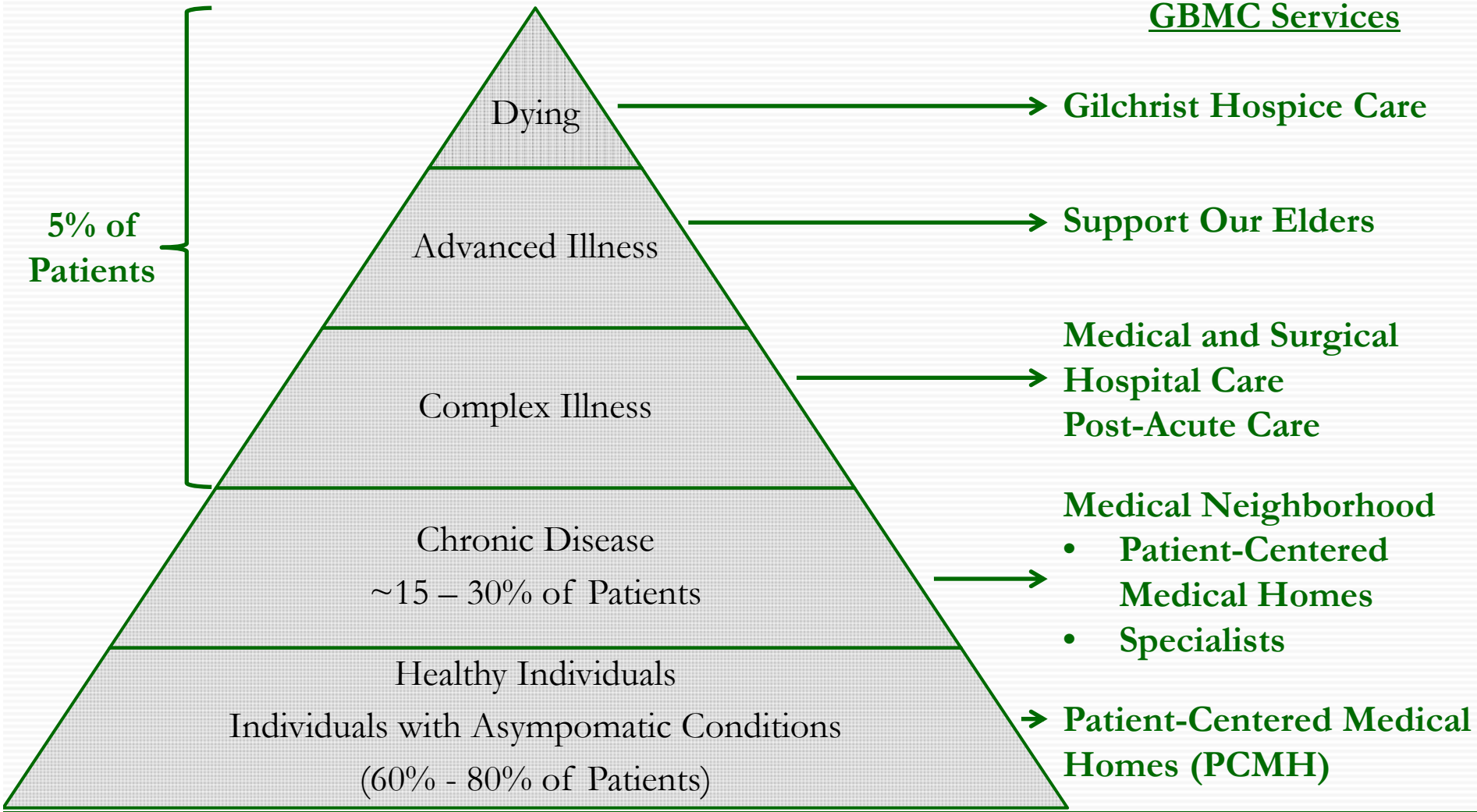
GBMC

GBMC and Population Health

- Board Visioning Retreat 2010
  - Create a **true system** to drive the three-part aim **(better health and better care at lower cost)**

- Since FY2012 we have invested more than $70.5 million in population health
  - Primary Care centered
    - Patient-Centered Medical Homes (12)
    - Accountable Care Organization (ACO) in FY2012
  - Hospital centered
    - Expansion of networks for home health and post acute services

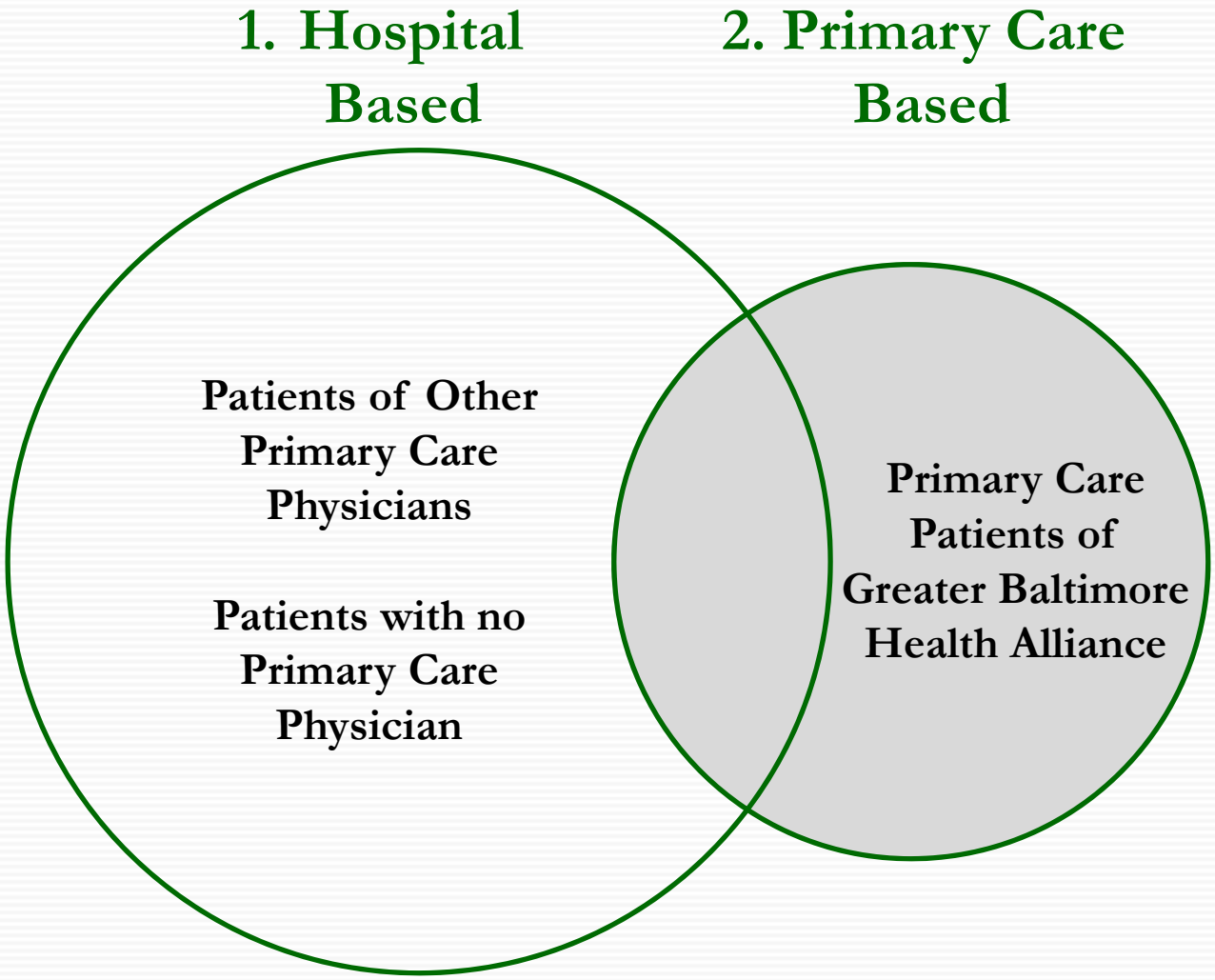
GBMC's Systematic Approach to Caring for a Population of Patients



"To every patient, every time, we will provide the care that we would want for our own loved ones."

GBMC

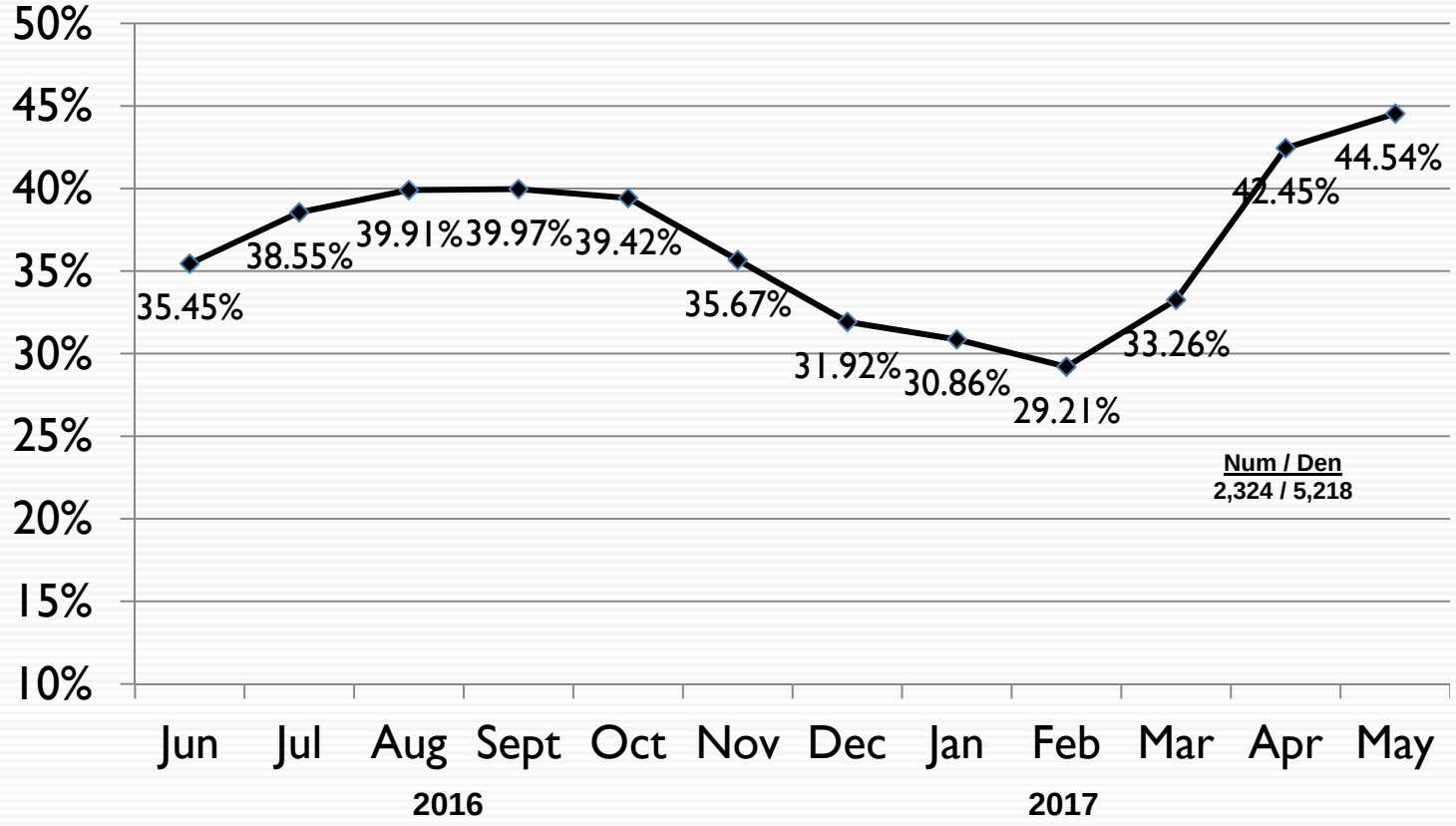
GBMC's Two Foci of Care Management



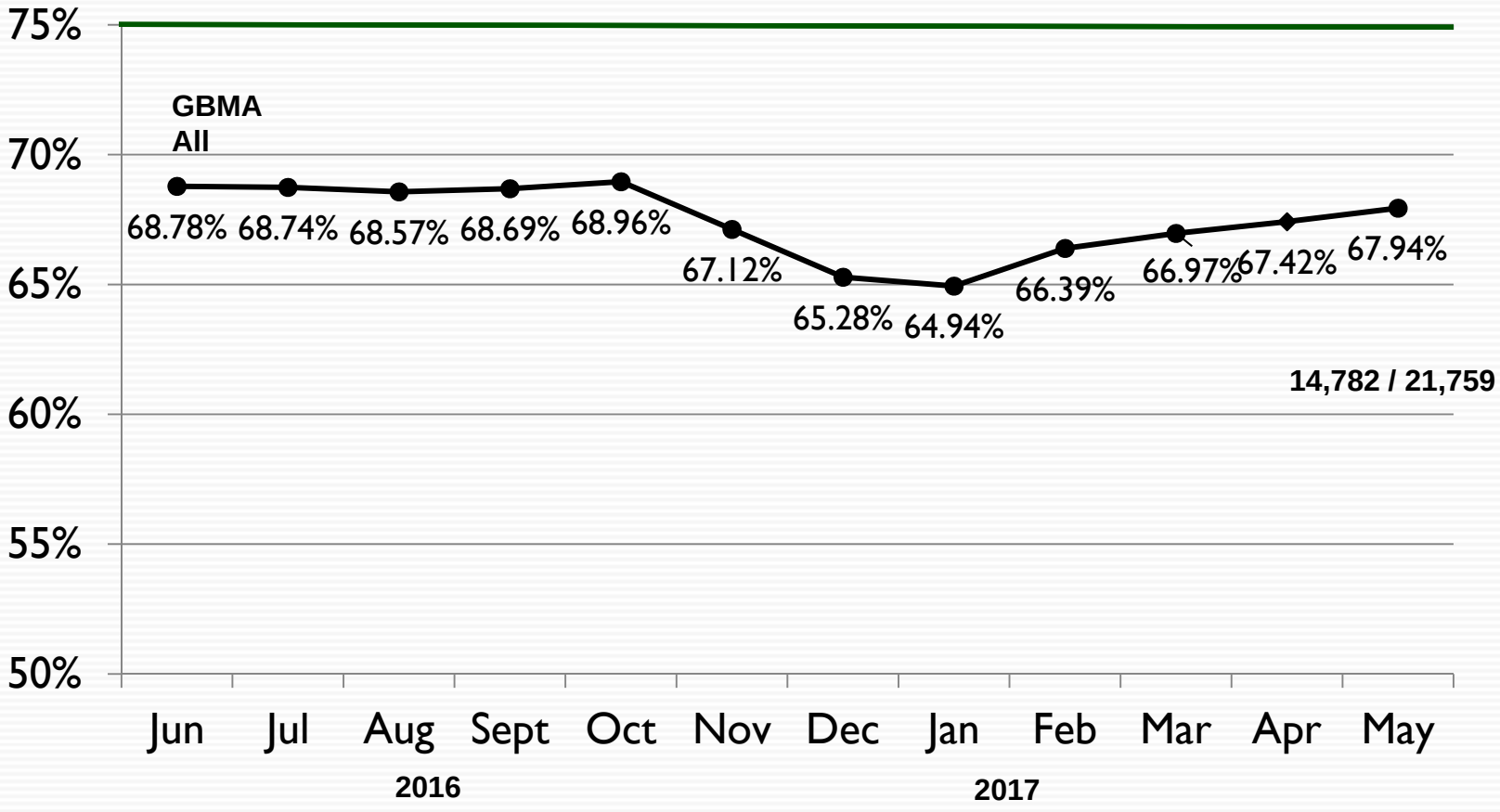
Advanced Primary Care: The Patient Centered Medical Home

- It is not about visits…it is about accountability for better health and better care at lower cost
- Expanded hours of operation: 7AM to 7PM or 9 PM; Saturdays, Sundays and Holidays
  - We don't believe in urgent care – we do it in primary care
- Embedded nurse care managers and care coordinators who work with the physicians and use disease-state registries
- ***Embedded psychiatrists, behavioral specialists, and substance abuse providers….thank you!***
- Daily downloads from CRISP
- Connecting to non-employed specialists through CRISP

Evidence-Based Diabetic Eye Exam



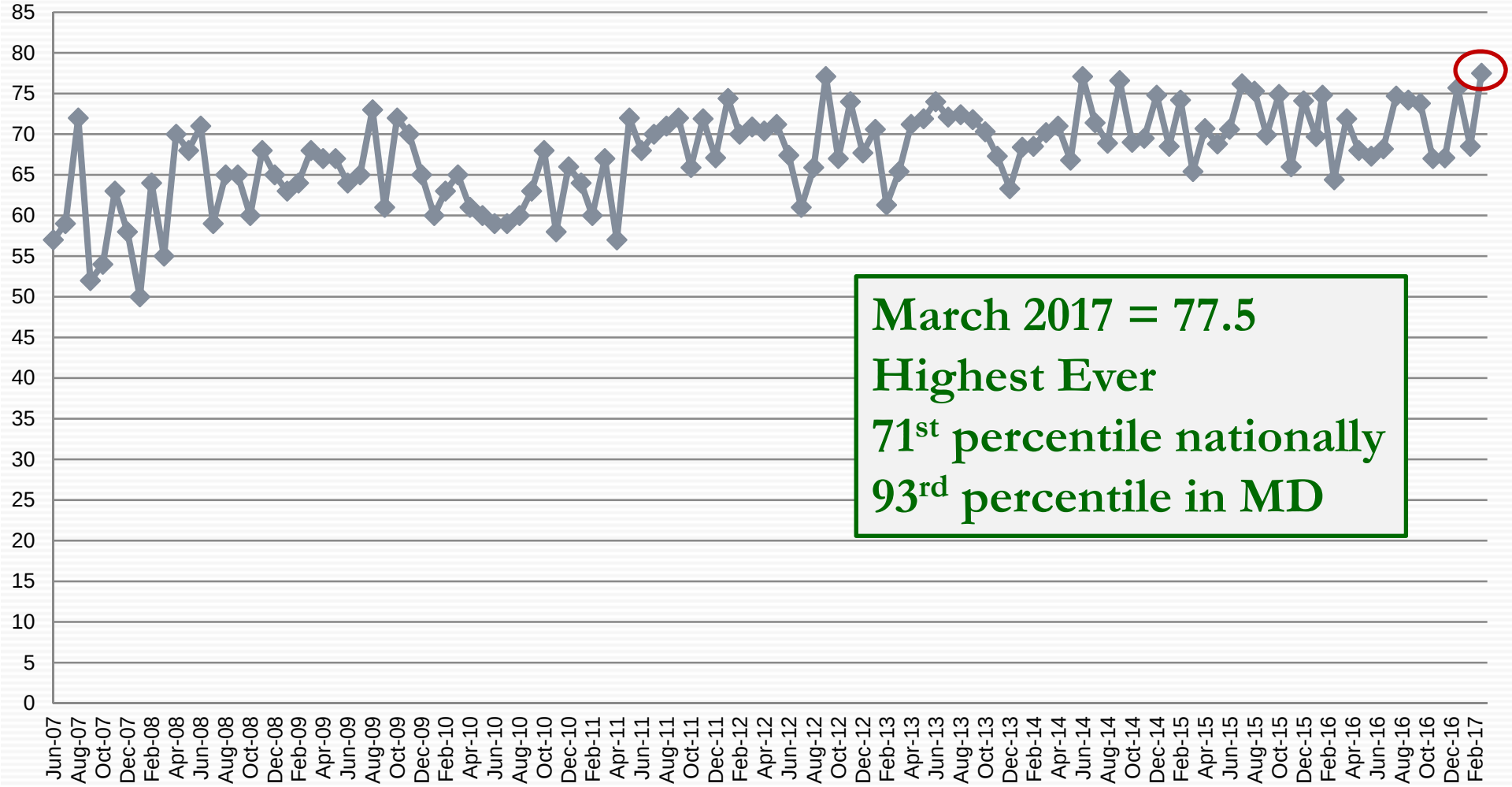
Evidence-Based Colon Cancer Screening



"To every patient, every time, we will provide the care that we would want for our own loved ones."

GBMC

Monthly Overall Inpatient HCAHPs



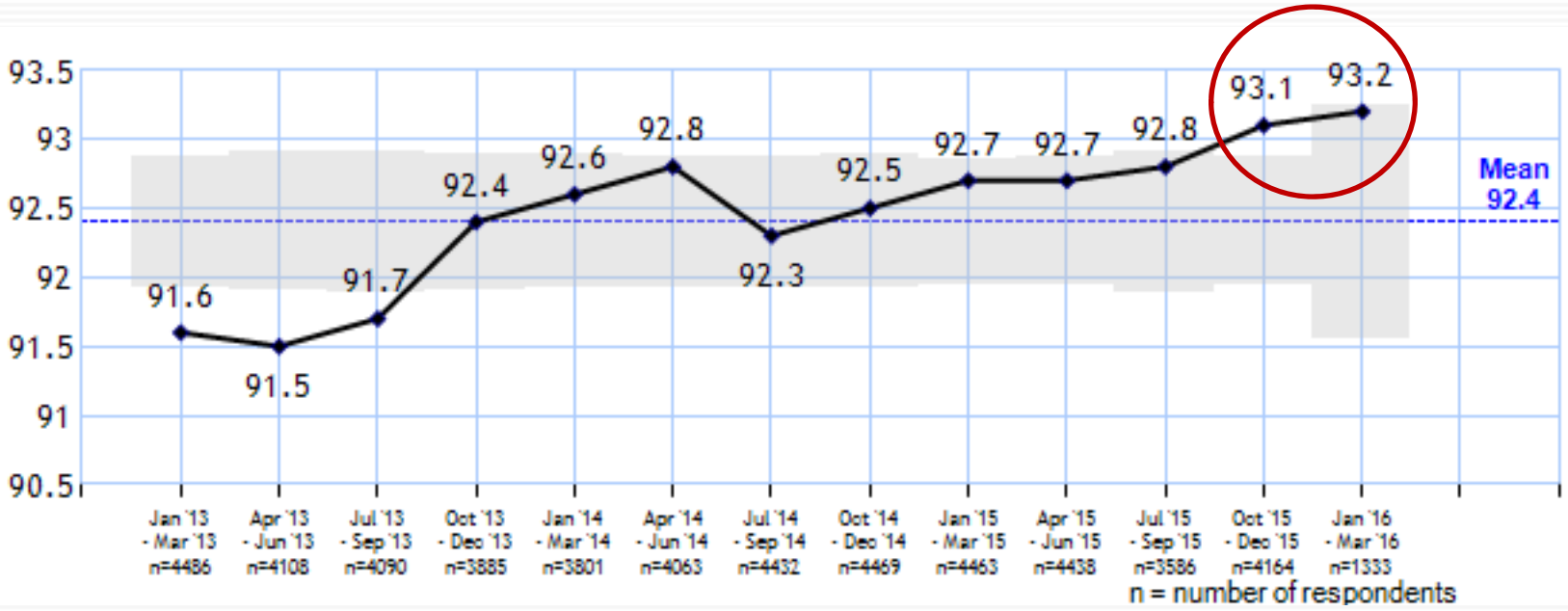
March 2017 = 77.5
Highest Ever
71st percentile nationally
93rd percentile in MD

"To every patient, every time, we will provide the care that we would want for our own loved ones."

GBMC

GBMA – Overall Satisfaction Score

85th National Percentile



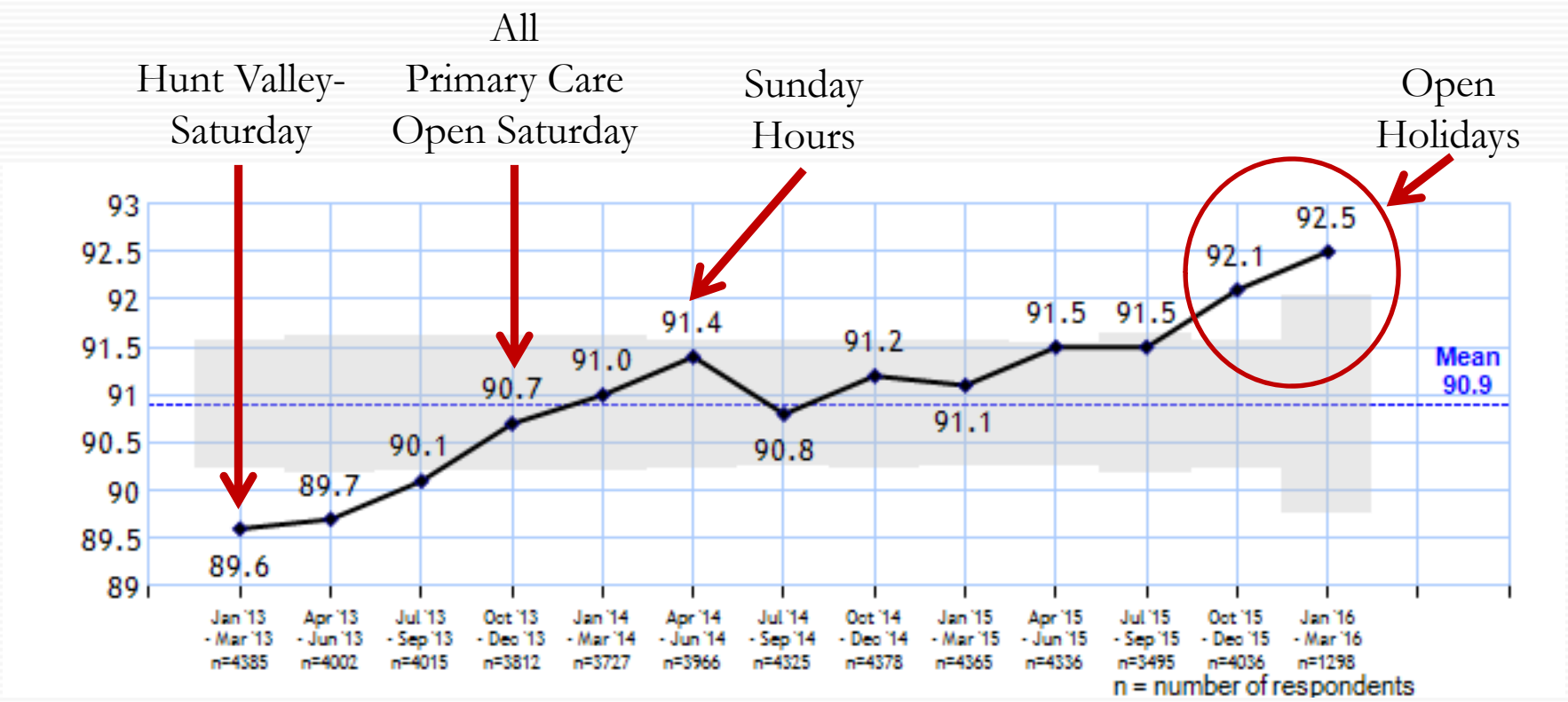
All My Sites

Higher is Better

GBMC

GBMA – Convenience of our Office Hours

92nd National Percentile

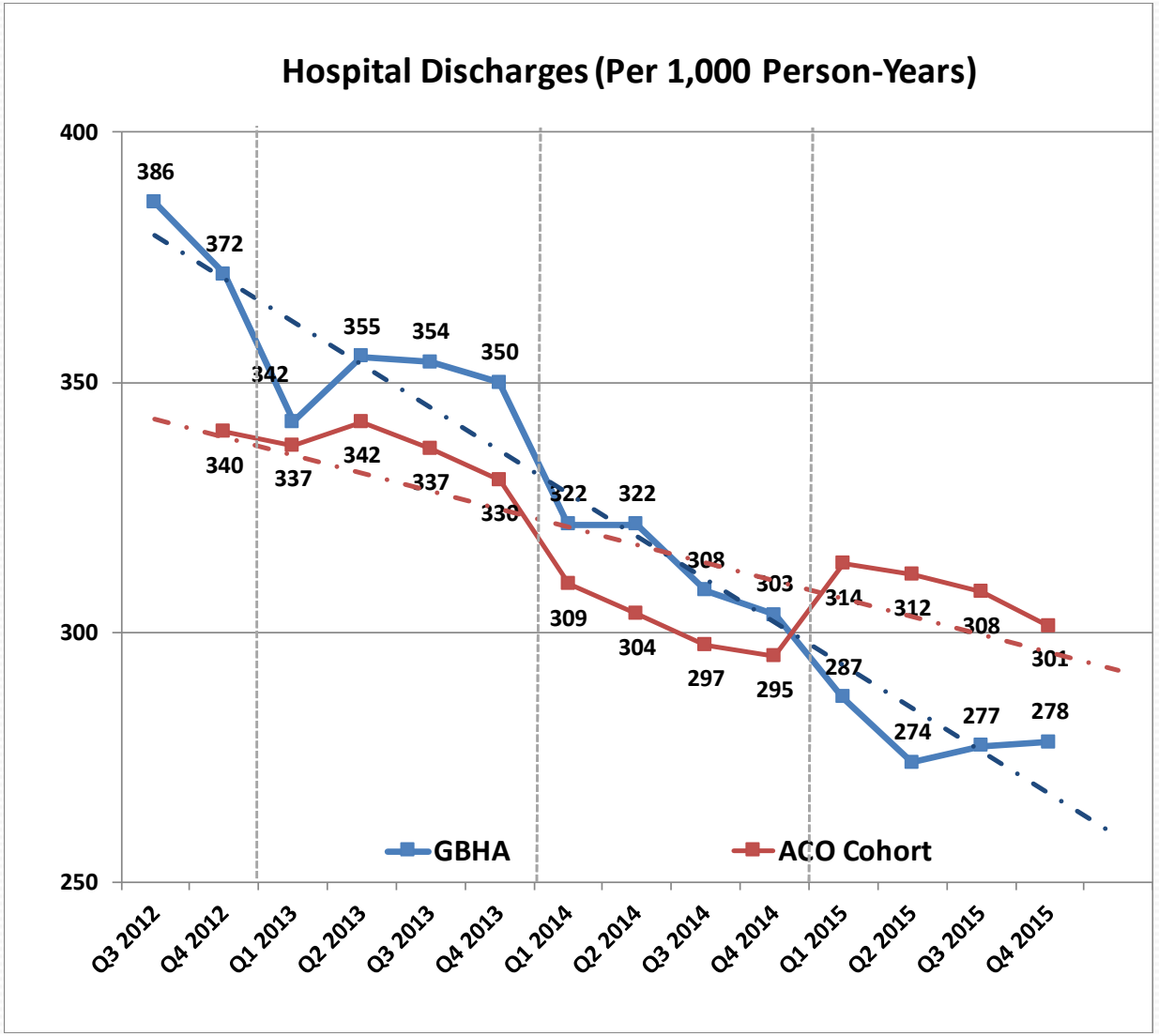


Higher is Better

GBMC

MSSP Expenditures/Utilization – Trends

Hospital Discharges
GBHA – 27.98% Decrease (Δ 108)
ACO Cohort – 11.39% Decrease (Δ 39)



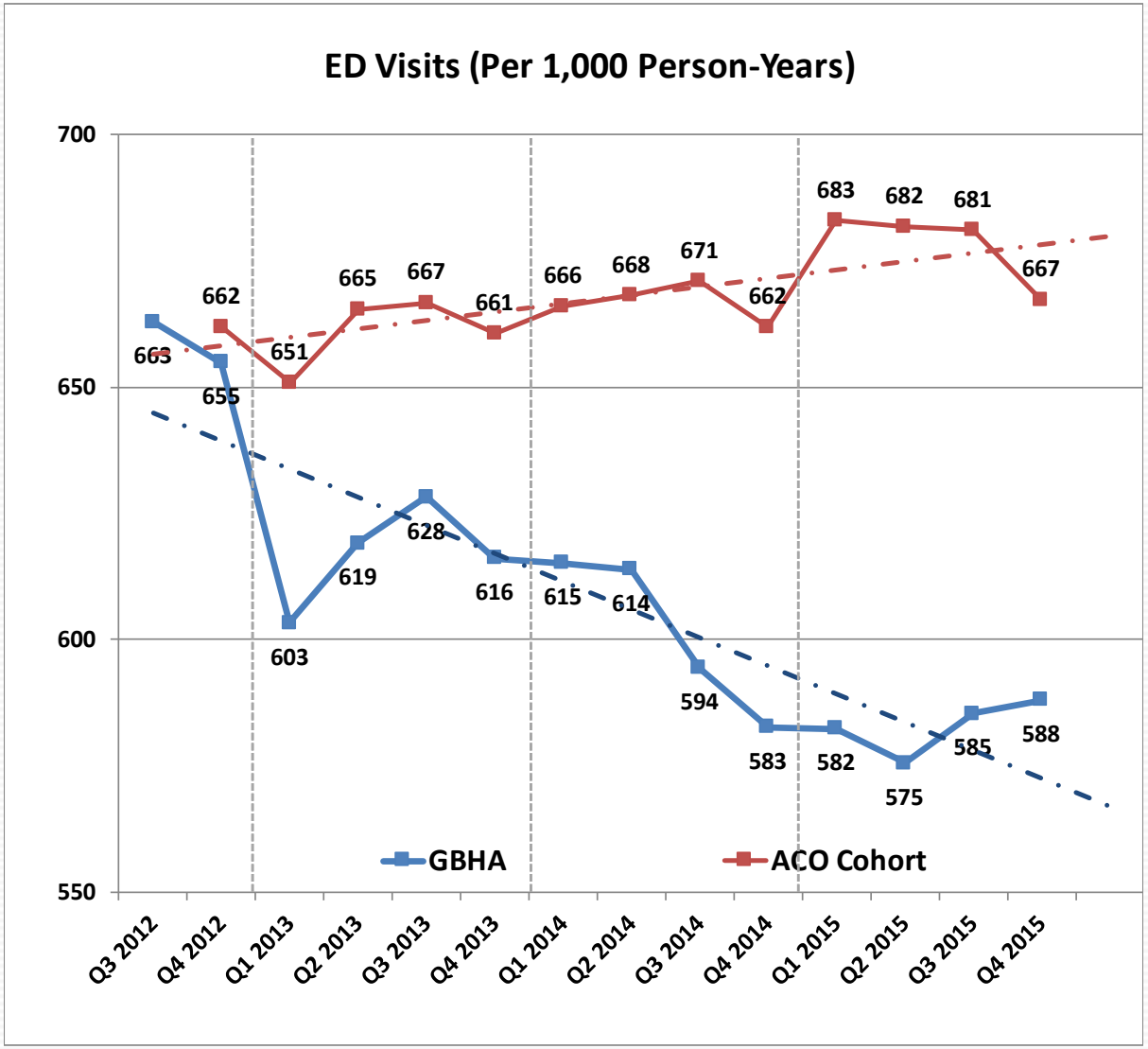
GREATER BALTIMORE HEALTH ALLIANCE

"To every patient, every time, we will provide the care that we would want for our own loved ones."

GBMC

MSSP Expenditures/Utilization – Trends

ED Visits
GBHA –11.30% Decrease (Δ 75)
ACO Cohort – 0.83% Increase (Δ 6)



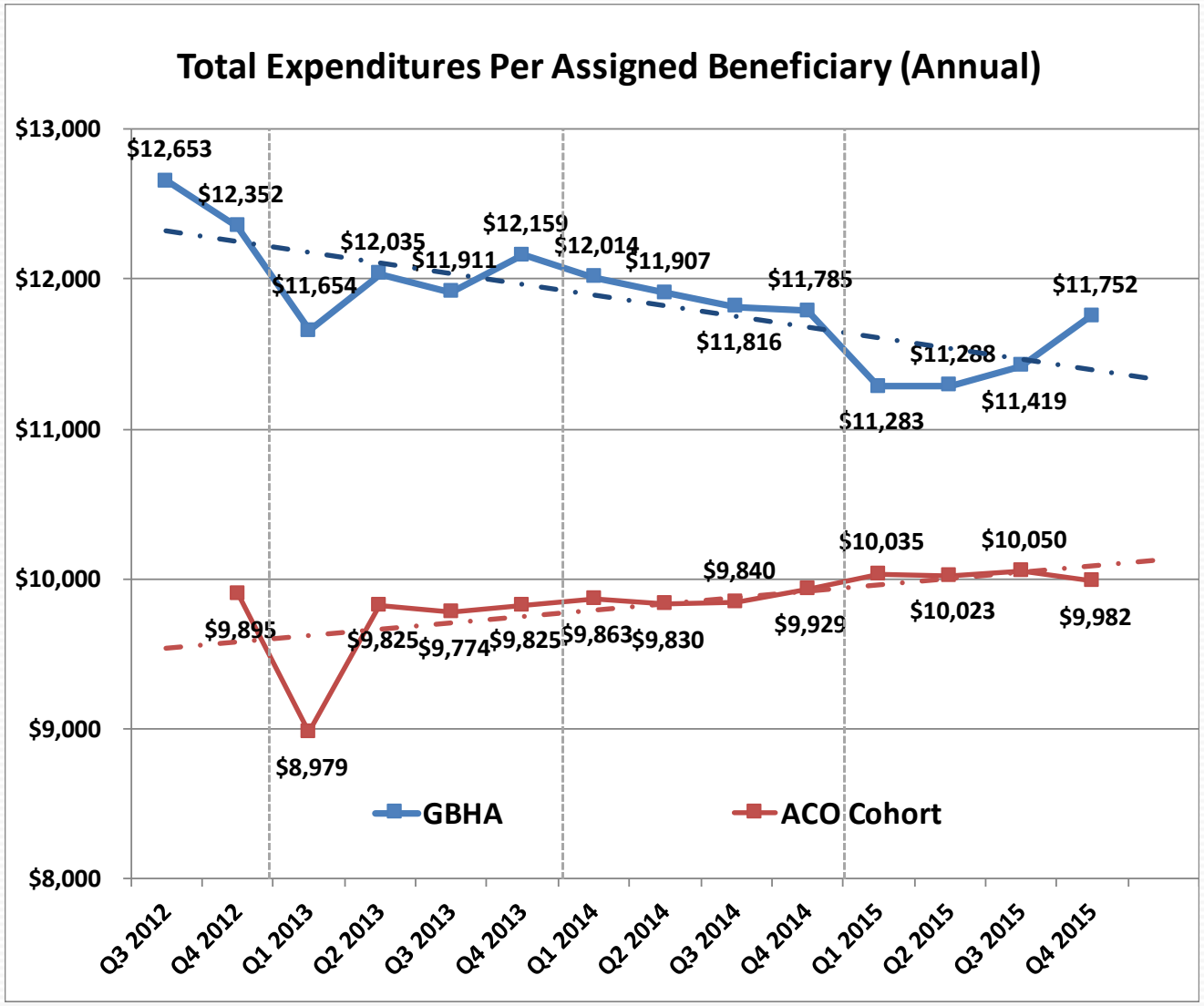
GREATER BALTIMORE HEALTH ALLIANCE

"To every patient, every time, we will provide the care that we would want for our own loved ones."

GBMC

MSSP Expenditures/Utilization – Trends

Total Expenditures
GBHA – 7.12% Decrease (Δ $901)
ACO Cohort – 0.88% Increase (Δ $87)



GREATER BALTIMORE HEALTH ALLIANCE

"To every patient, every time, we will provide the care that we would want for our own loved ones."

GBMC

Final Recommendation for the Readmissions Reduction Incentive Program for Rate Year 2019

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 final staff recommendations for updating the Maryland Hospital Readmissions Reduction Incentive Program (RRIP), for RY 2019, ready for Commission action. Final recommendations are updated from the draft recommendations presented at the April 2017 Commission meeting.

Table of Contents

LIST OF ABBREVIATIONS

ACA	Affordable Care Act
APR-DRG	All-patient refined diagnosis-related group
ARR	Admission-Readmission Revenue Program
CMS	Centers for Medicare & Medicaid Services
CMMI	Center for Medicare and Medicaid Innovation
CRISP	Chesapeake Regional Information System for Our Patients
CY	Calendar year
FFS	Fee-for-service
FFY	Federal fiscal year
HRRP	Hospital Readmissions Reduction Program
HSCRC	Health Services Cost Review Commission
ICD-10	International Classification of Disease, 10th Edition
PAU	Potentially avoidable utilization
PQI	Prevention quality indicator
RRIP	Readmissions Reduction Incentive Program
RSSP	Readmissions Shared Savings Program
RY	Rate year
SOI	Severity of illness
YTD	Year-to-date

INTRODUCTION

The purpose of this report is to make recommendations for updating the Readmissions Reduction Incentive Program (RRIP) for the state rate year (RY) 2019 methodology.

The final recommendation updates the readmission reduction targets for RY 2019 in order to align with the All-Payer Model's readmission reduction target for Calendar Year (CY) 2018, and also includes the following policy elements:

- Updates the base period for the RY 2019 RRIP to fall under the International Classification of Disease, 10th Edition (ICD-10) time period;
- Evaluates Calendar Year 2016 year-to-date (YTD) performance versus the All Payer Agreement requirements, and recommends Medicare improvement targets to ensure continued progress; and
- Develops all-payer targets for attainment and improvement with established preset rewards/penalties scales for RY 2019 RRIP hospital revenue adjustments.

BACKGROUND

Medicare Hospital Readmissions Reduction Program

The United States health care system currently has an unacceptably high rate of preventable hospital readmissions. These excessive readmissions generate considerable unnecessary costs and substandard care quality for patients. A readmission is defined as an admission to a hospital within a specified time period after a discharge from the same or another hospital. Under authority of the Affordable Care Act (ACA), the Centers for Medicare & Medicaid Services (CMS) established its Medicare Hospital Readmissions Reduction Program (HRRP) in federal fiscal year (FFY) 2013. Under this program, CMS calculates the average risk-adjusted, 30-day hospital readmission rates for patients with certain conditions using claims data. If a hospital's risk-adjusted readmission rate for such patients exceeds that average, CMS penalizes it in the following year for all Medicare admissions; the penalty is in proportion to the hospital's rate of excess readmissions. Penalties under the HRRP were first imposed in FFY 2013, during which the maximum penalty was 1 percent of the hospital's base inpatient claims. The maximum penalty increased to 2 percent for FFY 2014 and 3 percent for FFY 2015 and beyond. CMS uses three years of previous data to calculate each hospital's readmission rate. For penalties in FFYs 2013 and 2014, CMS focused on readmissions occurring after initial hospitalizations for three conditions: heart attack, heart failure, and pneumonia. For penalties in FFY 2015, CMS included two additional conditions: chronic obstructive pulmonary disease and elective hip or knee replacement. In the future, CMS intends to continue with these conditions and will add the

assessment of performance following initial diagnosis of coronary artery bypass graft surgery to the list for FFY 2017.[1]

Overview of the Maryland RRIP Program

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 HRRP. The ACA requires Maryland to have a similar program, and to achieve the same or better results in costs and outcomes in order to maintain this exemption. The Health Services Cost Review Commission (HSCRC, or "Commission") made an initial attempt to encourage reductions in unnecessary readmissions when it created the Admission-Readmission Revenue (ARR) program in RY 2012. The ARR program, which was adopted by most Maryland hospitals, established "charge per episode" constraints on hospital revenue, providing strong financial incentives to reduce hospital readmissions. In RY 2014, global budgets supplanted the charge per case system, and the ARR program was replaced with a Readmissions Shared Savings Policy (RSSP). The RSSP was adopted to achieve savings that would be approximately equal to those that would have been expected from the federal Medicare HRRP. From RY 2014 to RY 2016, the HSCRC RSSP decreased hospital inpatient revenues by an average annual savings of 0.20 percent of total revenue, resulting in a cumulative average savings of 0.60 percent of total revenue through RY 2016. In RY 2017, the Commission expanded the savings policy to include potentially avoidable utilization (PAU), and increased the total reduction percentage to 1.25% of total revenue.[2]

The All-Payer Model Agreement with CMS replaced the requirements of the ACA by establishing two sets of requirements to maintain exemptions from federal programs for readmissions and hospital-acquired conditions. One set of requirements established performance targets for readmissions and complications, while the second set of requirements ensured that the amount of revenue adjustments in Maryland's quality-based programs matches CMS levels in aggregate. For readmissions, Maryland's Medicare fee-for-service (FFS) statewide hospital readmission rate must be equal to or below the national Medicare readmission rate by Calendar Year (CY) 2018. Maryland must also make annual progress toward this goal.

In order to meet the new Model requirements, the Commission approved a new readmissions program in April 2014—the RRIP—to further bolster the incentives to reduce unnecessary readmissions. The Performance Measurement Work Group established the following guiding principles for the RRIP:

- The measurements used for performance linked with payment must include all patients, regardless of payer.

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

2 The PAU savings adjustment is the percentage of hospital inpatient revenue the state expects to save through reducing potentially avoidable utilization, defined as readmissions and Prevention Quality Indicators (PQIs)

- The measurements must be fair to hospitals.
- Annual targets must be established to reasonably support the overall goal of meeting or outperforming the national Medicare readmission rate by CY 2018.
- The measurements used should be mostly consistent with the CMS readmissions measure.
- The approach must include the ability to track progress.

The RRIP provided a positive increase of 0.50 percent of inpatient revenues in RY 2016 for hospitals that were able to meet or exceed a pre-determined reduction target for readmissions in CY 2014 relative to CY 2013. Readmission rates are adjusted for case-mix using all-patient refined diagnosis-related group (APR-DRG) severity of illness (SOI) (see Appendix I for details of indirect standardization method). The readmissions reduction target was set at 6.76 percent of for all-payer case-mix adjusted readmission rates.[3] The HSCRC did not impose penalties in the first year of the RRIP program.

The RRIP methodology was updated for RY 2017 to include higher potential rewards for hospitals that achieved or exceeded the readmission reduction target and established penalties for hospitals that did not achieve the required readmission reductions. Rewards and payment reductions were allocated along a linear scale commensurate with hospital improvement rates. The readmission reduction target for RY 2017 was set at 9.30 percent from CY 2013 all-payer case-mix adjusted readmission rates.[4] In RY 2018, staff updated the policy to include an attainment target to reward hospitals that achieve readmission rates lower than the 25th percentile of statewide rates, which in RY 2018 was projected to be 11.85 percent.[5] The reduction target for RY 2018 was set at 9.50 percent from CY 2013 all-payer case-mix adjusted readmission rates.[6] The cumulative 9.50% reduction target in readmissions CY 2016 over CY 2013 is less than the Commission initially expected it to be, since national readmissions *increased* in CY 2014, declined back to CY 2013 levels in CY 2015, and only began improving more quickly in CY 2016.

ASSESSMENT

In order to refine the methodology for RY 2019, the HSCRC has solicited input from the Performance Measurement Workgroup, and staff has worked extensively with contractors to

[3] This target was based on the excess levels of Medicare readmissions in Maryland in CY 2013 (8.78 percent), divided by five (representing each year of the Model Agreement performance period), plus an estimate of the reduction in Medicare readmission rates that would be achieved nationally (5.00 percent)
[4] The target was updated based on remaining national Medicare readmission rates and a projected 1.34 percent decline in the national Medicare readmission rates in CY 2015.
[5] The All-Payer Casemix-Adjusted Readmission Rate used in the Attainment Target calculation is adjusted for out-of-state readmissions. This attainment benchmark was also retrospectively applied to RY 2017 RRIP policy.
[6] The target was updated based on remaining Medicare readmission rates and a projected 0.80% decline in the national Medicare readmission rates in CY 2016 (see Figure 3 of RY 2018 RRIP policy).

model the readmission rate improvement needed to achieve the All-Payer Model Waiver Test. The Workgroup has discussed pertinent issues and potential changes to Commission policy for RY 2019, and reviewed the preliminary performance data. This final recommendation has been updated with the most recent case-mix and CMMI readmissions data, both of which now include final data with run-out for all of CY 2016.

Maryland's Performance to Date

Medicare Waiver Test Performance

At the onset of the All-Payer Model Agreement, HSCRC and CMS staff worked to refine the Medicare readmission measure specifications used to determine contract compliance. These changes narrowed the gap between the Maryland and national Medicare readmission rates to 7.93 percent for CY 2013 (or 1.22 percentage points), as the original estimates included planned admissions. The original logic also included specially-licensed rehabilitation and psychiatric beds for Maryland, but not for the nation (see Appendix II for details). Final calculations indicate that Maryland's Medicare readmission rate was 16.60 percent, compared with the national rate of 15.38 percent for CY 2013.

Using the revised final measurement methodology, Maryland performed better than the nation in reducing readmission rates in both CY 2014 and CY 2015, as well as CY 2016. The Model Agreement requires Maryland to make annual progress by reducing the gap by one-fifth each year, while keeping up with national reductions, to ensure Maryland's readmission rates are at or below the national level by the end of CY 2018. Figures 1 and 2 provide the calculations for this test and present results for CY 2014, CY 2015, and CY2016.

This final recommendation uses CMMI data for the full CY 2016 with run-out. During these 12 months, Maryland continued to reduce readmissions more rapidly than the nation. However, the nation reduced its readmissions rate more rapidly in CY 2016 than in prior years. Therefore, Maryland will need to factor this more rapid readmission reduction into its improvement target.

Figure 1 shows the calculations for determining the annual reduction required to close the gap between the Maryland and national Medicare readmission rates, as required by the All-Payer Model Agreement. Figure 2 shows the calculations for determining Maryland's progress in meeting the readmissions reduction target. Maryland is required to close the gap by 0.24 percentage points each year. For CY 2016 (three years into the readmissions test) the gap between Maryland and the nation must be equal to or less than 0.49 percentage points; according to most recent CY 2016 data, Maryland met this goal, as the gap is estimated to be 0.29 percentage points.[7]

[7] The stated 0.29% gap in the national-state readmission rates is current as of data received from CMMI on April 21, 2017.

Figure 1. All-Payer Model Maryland Medicare Readmissions Test – Gap Closure Requirement

CY 2013 National Medicare Readmission Rate	A	15.38%
CY 2013 MD Medicare Readmission Rate	B	16.60%
MD vs National Difference*	C=B-A	1.22%
Annual Reduction needed to Close the Gap	D=C/5	0.24%

Figure 2. All-Payer Model Maryland Medicare Readmissions Test – Maryland Progress to-Date

Calendar Year	National Rate	MD-National Required Difference	MD Required Rate	MD Actual Rate	MD-National Difference
E	**F**	**G=C -(D*Year X)**	**H=F+G**	**I**	**J=I-F**
CY 2014	15.49%	**0.98%**	16.47%	16.46%	**0.97%**
CY 2015	15.42%	**0.74%**	16.15%	15.95%	**0.53%**
CY 2016	15.31%	**0.49%**	15.80%	15.60%	**0.29%**

*Percentages are rounded up to two decimal points in the tables.

All-Payer Performance

While the CMS readmission waiver test is based on the unadjusted readmission rate for Medicare patients, the RRIP incentivizes performance improvement on the all-payer case-mix adjusted readmission rate. The All-Payer readmission rate reduction incentives align with the guiding principles and all-payer approach used in pay-for-performance programs in Maryland. The RRIP measure incorporates many of the elements of the CMS Medicare measure specifications (e.g., planned admissions), but also retains some differences (e.g., inclusion of psychiatric patients). See Appendix I for more details on the RRIP methodology.

Based on final CY 2016 data, the State achieved a 10.75% reduction in the all-payer case-mix adjusted readmission rate in CY 2016 compared to CY 2013, and 28 hospitals achieved the hospital improvement benchmark of at least a 9.50 percent readmission rate reduction. Since the incentive program also includes an attainment target, an additional 8 hospitals achieved the

attainment goal of a readmission rate lower than 11.85 percent.[8] Appendix III provides final hospital-level improvement rates for CY 2016.

CMMI and HSCRC Readmission Rate Differences

Beginning in CY 2016, and concurrent with the ICD-10 transition, HSCRC Medicare FFS readmissions improvement trends began to diverge from CMS Medicare FFS readmissions data. In understanding the ICD-10 impact, HSCRC and CMS noted that CMS' rehab exclusion was no longer properly excluding rehab cases under ICD-10. CMS revised the methodology for identifying rehab cases for exclusion; however, this update did not fully rectify the CMS-HSCRC divergence.

HSCRC staff has also tried to replicate the Center for Medicare and Medicaid Innovation (CMMI) methodology with the HSCRC data (e.g., removing psychiatric admissions and transfer logic differences). While the differences between the trends are attenuated, a substantial difference in readmission rate improvement trends remains. HSCRC staff and contractors continue to research potential reasons for this divergence, but the data discrepancy adds an additional layer of uncertainty to current projections.

To understand this discrepancy, the HSCRC has worked extensively with stakeholders, staff, and contractors. As presented during the April 2017 Commission meeting, year over year improvement of HSCRC and CMMI readmissions were trending in opposite directions in the early part of CY 2016. Modeling with HSCRC data using the CMMI readmission logic reduces the data discrepancy, and staff believes that the improvement and attainment targets are set high enough to take into account remaining data discrepancies. Staff will continue to examine readmission logic differences and investigate data discrepancies. These results will be reviewed with the performance measurement workgroup and other stakeholders, and if any substantive issues are found staff may revisit RY 2019 targets with the Commission.

All-Payer versus Medicare Readmissions

Each year, staff examines the trends in readmissions using the HSCRC case-mix data for all-payers and Medicare FFS. During the update of the RRIP policy for RY 2017, there were extensive discussions with stakeholders about the correlation between the all-payer and the Medicare FFS readmission rate in CY 2014 (in CY 2014, Maryland experienced much larger improvement in all-payer readmissions than Medicare).

As in the past, some stakeholders are advocating for changing RRIP to a Medicare only program due to the difficulties in converting the Medicare test to an all-payer target, and because of the importance of maintaining Maryland's waiver from Medicare HRRP. HSCRC staff continues to maintain that one of the defining features of Maryland's quality programs is that they are all-

[8] Again, the All-Payer Casemix-Adjusted Readmission Rate used in the Attainment Target calculation is adjusted for out-of-state readmissions.

payer, and believes it is an important benefit from the perspective of the CMMI, consumers, and other stakeholders. Specifically, hospitals continue to support that the RRIP be maintained on an all-payer basis and other payers (notably Medicaid) are very interested in the continuation of an All-Payer RRIP policy (see comment letters from the Maryland Hospital Association and DHMH Medicaid in Appendices VIII and IX).

Improvement Target Calculation Methodology for Rate Year 2019

As previously stated, Maryland is required to close one-fifth of the gap between the national and Maryland readmission rates, and to match the national decline in Medicare readmission rates each year. Although one-fifth of the National-Maryland gap in CY 2013 is 0.24 percentage points, it is challenging to predict national readmission rates and to set targets for the state prospectively. Furthermore, additional adjustment factors are necessary to convert the Medicare unadjusted readmission target to an all-payer case-mix adjusted target. HSCRC contractor Mathematica Policy Research modeled different specifications to predict national readmission rates. The target calculation models for CY 2017 assume that Maryland would match the annual decline in the national Medicare readmission rate, close half of the remaining gap between the Maryland and national rates, and then converts the target from an unadjusted Medicare readmission rates to an all-payer case-mix adjusted readmission rate.

Due to the transition to ICD-10, HSCRC is shifting the base period forward, so that both base period (CY 2016) and the performance period (CY 2017) are under ICD-10 coding. As such, a hospital improvement target will be calculated for CY 2017 compared to CY 2016. However, a re-based annual target could improperly shift improvement incentives from the hospitals that made early investments to reduce readmissions. Therefore, the CY 2016-2017 annual improvement target will be added to the final, cumulative statewide improvement in readmissions achieved in CY 2013-CY 2016 (RY 2018 case-mix adjusted readmission improvement) to calculate a **modified cumulative target**. Under a modified cumulative target, some hospitals that have already achieved substantial improvements in readmissions rates may have less incentive to continue to improve. However, staff notes that the statewide improvement target is based on all hospitals continuing to improve, and under the proposed targets, nearly all hospitals will have incentive to improve in order to maximize their reward.

The State will plan to reduce the remaining gap evenly over the last two years of the Model period. The targeted gap between the national and Maryland Medicare readmission rates by the end of CY 2017 would therefore be 0.15 percentage points (see Figure 3).

Figure 3. Calculation of the Readmissions Target Gap for CY 2017

CY 2016 National Medicare Readmission Rate	A	15.31%
CY 2016 MD Medicare Readmission Rate	B	15.60%
MD vs. National Difference	C=B-A	0.29%
Annual Gap Reduction needed to Close the Gap	D=C/2	0.15%
CY 2017 Target Gap	E=C-D	0.15%

Next, staff and their contractors considered different assumptions for estimating the National Medicare readmission rates in CY 2017 and CY 2018. Mathematica modeled multiple projections of the national reduction rate including average annual change, change from 2015 to 2016, and 12- and 24-month moving averages (Appendix VI). Maryland only has two years left to reach the national readmissions rate, and must keep up with any national reduction in addition to eliminating the remaining gap. Staff will therefore assume that the most conservative of the Mathematica models (i.e., the largest decrease) will represent the National Medicare readmission rate. Based on this model, the national readmission rate is projected to decline by 0.70 percent annually; however, Mathematica also modeled projections using a 1 percent and 1.5 percent decline due to fluctuations over the last three months in the CY 2016 decline (which was 1.06 percent based on data through September). Figure 4 calculates the MD Medicare Readmission Target Rate (Column D) and Reduction Target (Column E) based on these three estimates of the projected decline in the national readmission rate. Based on these projections of the National rate, the required Maryland Medicare readmission reduction ranges from 1.61 to 2.37 percent in CY 2017 compared to CY 2016.

Figure 4. Calculation of Required Maryland Medicare FFS Rate for CY 2017

Estimated National Decline	National	MD-National Target Gap	MD Readmission Rate	MD Annual Readmission Target
A	B=15.31%*(1+A)	C	D=B+C	E=D/15.60-1
-0.71%	15.20%	0.15%	15.35%	-1.61%
-1.00%	15.16%	0.15%	15.31%	-1.88%
-1.50%	15.08%	0.15%	15.23%	-2.37%

The final step in calculating the RRIP target, illustrated in Figure 5, is to convert the Medicare target to an all-payer reduction target. The all-payer adjustment was previously modeled using the simple difference between the change over time in the Medicare and all-payer readmission rates (Method 1 in Figure 5 below). Mathematica has also modeled the Medicare to All-Payer conversion using the simple ratio of the difference between the rates of change of the Medicare and All-Payer rates (Method 2), as well as using a monthly regression model of the ratios of change (Method 3). Figure 5 below presents the All-Payer reduction targets for the 3 options, assuming a National Medicare reduction of -0.71%, -1.0%, and -1.5%. For more details on how these reduction targets are calculated, please refer to Appendix VI.

Given the variability in these projections, staff is proposing an improvement target that is an approximate midpoint of the various projections presented in Figure 4. Staff is proposing a reduction target of -3.75% in the case-mix adjusted readmission rate, CY 2017 over CY 2016. Staff is further recommending that this improvement target be added to hospitals' previous improvement of 10.75%, for an aggregated improvement target of -14.50% through CY 2017.

Figure 5. Calculations for Converting the Medicare Reduction Target to an All-Payer Target

Projected National Reduction Rate for CY 2017	**-0.71%**	**-1.00%**	**-1.50%**
	All-Payer Reduction Needed in CY 2017 to Meet Waiver Test		
Method 1: Add difference in rates of change to FFS target (-4.73%**)**	**-6.38%**	**-6.65%**	**-7.15%**
Method 2: Use ratio of changes in rates to scale FFS target (0.5604)	**-2.95%**	**-3.43%**	**-4.32%**
Method 3: Use regression-based factor (.61) to scale FFS Target	**-2.71%**	**-3.15%**	**-3.97%**

Setting the Improvement Target

Some stakeholders expressed concerns that the -4.0% annual target presented in the draft policy marked a substantial increase compared to historical improvement targets, which were relatively more modest. Specifically, the MHA comment letter recommends that the annual improvement target should be set closer to -3.25 percent. Staff analyzed updated CY 2016 data (which showed a reduction in the National improvement for CY 2016), and considered stakeholder concerns, and now proposes an annual improvement target of -3.75%.

In establishing a one-year improvement target for the RRIP for RY 2019 (CY 2017 over CY 2016), staff notes that it is important to strike a reasonable balance between the desire to set a target that is not unrealistically high and the need to conform to the requirements of the Model Agreement. While some stakeholders have expressed concerns regarding the increase in the target from 9.5% to 14.5%, staff believe that with each passing year, underachievement in any particular year becomes increasingly hard to offset in the remaining years. Again, the consequence for not achieving the minimum annual reduction would be a corrective action plan and potentially the loss of the waiver from the Medicare HRRP. The consequences of not meeting the target are stated in the Model Agreement as follows:

> *If, in a given Performance Year, Regulated Maryland Hospitals, in aggregate, fail to outperform the national Readmissions Rate change by an amount equal to or greater than the cumulative difference between the Regulated Maryland Hospitals and national Readmission Rates in the base period divided by five, CMS shall follow the corrective action and/or termination provisions of the Waiver of Section 1886(q) as set forth in Section 4.c and in Section 14.*

Requiring Maryland to conform to the national Medicare HRRP would reduce our ability to design, adjust, and integrate our reimbursement policies consistently across all payers based on local input and conditions. In particular, the national program is structured as a penalty-only system based on a limited set of conditions, whereas the Commission prefers to have the flexibility to implement much broader incentive systems that reflect the full range of conditions and causes of readmissions on an all-payer basis.

Attainment Target Calculation Methodology for RY 2019

In RY 2018, staff added a new component to the RRIP methodology to provide rewards or penalties using the level of readmission rates, based on a statewide readmission attainment target (benchmark), similar to the current policy which sets an improvement target. Individual hospitals' performance relative to the statewide target would be tied to specific payment adjustment amounts, and hospitals would be evaluated on both attainment and improvement. The hospital's final payment adjustment would be based on the "better of" the two adjustments.

In the RY 2018 RRIP policy, staff set the attainment benchmark at the unweighted lowest 25th percentile for the year prior to the performance period, and prospectively adjusted this percentile downward to account for the continuous improvement needed to achieve the All-Payer Model waiver test. Consistent with RY 2018 attainment rate calculations, the lowest 25th percentile for CY 2016 Case-Mix Adjusted Readmissions Rates (adjusted for Out-of-State Readmissions) is 11.05%. Mirroring the 2% improvement factor from RY 2018, staff decreased the 11.05% by an additional 2 percent to further incentivize the continuous improvement needed to meet the All-Payer Model Waiver test. This 2 percent reduction yields an attainment target of 10.83% for CY 2017. Figure 6 provides the distribution of CY 2016 readmission rates.

Figure 6. CY 2017 All-Payer Readmission Rates and Estimated National Average

		CY 2016 Case-Mix Adjusted Readmission Rates Adjusted for Out-of-State Readmissions
Lowest Readmission Rate	A	7.19%
Lowest 25th percentile	B	11.05%
State Average	C	11.92%
Highest 25th percentile	D	12.57%
Highest Readmission Rate	E	14.97%

* Medicare out-of-state readmission ratios are used for adjustments.

Out-of-State Adjustment

As a continuation from the RY 2018 RRIP policy, staff worked with the Performance Measurement Workgroup to account for out-of-state readmissions, so as to account for readmission rates for border hospitals. Without such an adjustment, border hospitals appear to have lower readmissions that do not include readmissions to non-Maryland hospitals. Each month, HSCRC uses data from CMMI to create a ratio of out-of-state readmissions (Total Readmissions/In-State Readmissions), based on the most recent 12 months of data. Then, this ratio is applied to the case-mix adjusted readmissions rates to estimate an adjusted readmission rate that more accurately estimates border hospital readmissions.

Risk-Adjusting of Attainment Target

As in previous years, some stakeholders have raised concerns with the RRIP case-mix adjustment. In particular, some stakeholders feel the current model does not adequately risk-

adjust for socioeconomic status disparities (see Carefirst comment letter in Appendix VII). At this time, the HSCRC maintains that the State's case-mix adjustment sufficiently addresses case-mix differences among hospitals. Furthermore, the HSCRC staff continue to be concerned about adjusting for socio-demographic factors, which may accept lower quality of care for hospitals with greater socioeconomic disparities. Staff believe that under the current policy, the improvement target allows hospitals with higher socio-demographic burden to achieve favorable improvement results, and that these hospitals are therefore not being unduly penalized by the policies. Staff will evaluate further changes in policies, including sociodemographic adjustments, as it develops policies for RY 2020 and beyond.

Prospective Scaling for RY 2019 Policy

As always, staff carefully considered projected score distribution and reduction target feasibility to determine a prospective scale for both improvement and attainment targets for RY 2019. These scales are subject to change in the final RY 2019 RRIP policy, and have been built upon improvement and attainment targets using the most recent data modeling. The scaling models use the improvement and attainment targets as the inflection point, where hospitals that score exactly the improvement or attainment target will not experience a revenue adjustment. The improvement scale calculates maximum reward using the RY 2018 scale slope and the RY 2019 improvement target. For the attainment scale, the 10th percentile readmission rate for CY 2016 (with a 2% improvement adjustment) is used as the threshold for the maximum 1 percent reward. Based on the two data points (the inflection point of zero revenue adjustments, and the maximum reward), the rest of the scaling is extrapolated using a linear scale to reach the rates at which the maximum penalties of -2% are applied.

Improvement Scale

The current improvement scale uses an inflection point of the -14.50% modified cumulative improvement target, and provides potential negative revenue adjustments up to 2 percent and potential positive adjustments up to 1 percent.

Figure 7. RY 2019 Abbreviated Cumulative Improvement Scale

All Payer Readmission Rate Change CY13-CY17	Over/Under Target	RRIP % Inpatient Revenue Payment Adjustment
A	B	C
LOWER		1.0%
-25.0%	-10.5%	1.0%
-19.8%	-5.3%	0.5%
-14.5%	0.0%	0.0%
-9.2%	5.3%	-0.5%
-4.0%	10.5%	-1.0%
1.3%	15.8%	-1.5%

6.5%	21.0%	-2.0%
Higher		-2.0%

Attainment Scale

The current attainment scale uses an inflection point of the 10.83% attainment target, and provides potential negative revenue adjustments up to 2 percent and potential positive adjustments up to 1 percent.

Figure 8. RY 2019 Abbreviated Attainment Scale

All Payer Readmission Rate CY17	Over/Above Target From Target	RRIP % Inpatient Revenue Payment Adjustment
A	**B**	**C**
LOWER		1.0%
9.83%	-1.0%	1.0%
10.33%	-0.5%	0.5%
10.83%	0.0%	0.0%
11.33%	0.5%	-0.5%
11.83%	1.0%	-1.0%
12.33%	1.5%	-1.5%
12.83%	2.0%	-2.0%
Higher		-2.0%

RECOMMENDATIONS

Based on this assessment, HSCRC staff recommends the following updates to the RRIP program for RY 2019:

1. The RRIP policy should continue to be set for all-payers.
2. Hospital performance should continue to be measured as the better of attainment or improvement.
3. Due to ICD-10, RRIP should have a one-year improvement target (CY 2017 over CY 2016), which will be added to the actual improvement from CY 2016 over CY 2013, to create a modified cumulative improvement target.
4. The attainment benchmark should be set at 10.83 percent.
5. The reduction benchmark for CY 2017 readmissions should be -3.75% percent from CY 2016 readmission rates.
6. Hospitals should be eligible for a maximum reward of 1 percent, or a maximum penalty of 2 percent, based on the better of their attainment or improvement scores.

7. Staff will continue to work with CMS to review readmission logic and data discrepancies, and an update will be provided to the Commission if any substantive issues are found that warrant revisiting RY 2019 targets.

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APPENDIX I. HSCRC CURRENT READMISSIONS MEASURE SPECIFICATIONS

1) Performance Metric

The methodology for the Readmissions Reduction Incentive Program (RRIP) measures performance using the 30-day all-payer all hospital (both intra and inter hospital) readmission rate with adjustments for patient severity (based upon discharge all-patient refined diagnosis-related group severity of illness [APR-DRG SOI]) and planned admissions.

The measure is similar to the readmission rate that will be calculated for the new All-Payer Model with some exceptions. The most notable exceptions are that the HSCRC measure includes psychiatric patients and excludes oncology admissions. In comparing Maryland's Medicare readmission rate to the national readmission rate, the Centers for Medicare & Medicaid Services (CMS) will calculate an unadjusted readmission rate for Medicare beneficiaries. Since the Health Services Cost Review Commission (HSCRC) measure is for hospital-specific payment purposes, adjustments had to be made to the metric that accounted for planned admissions and SOI. See below for details on the readmission calculation for the RRIP program.

2) Adjustments to Readmission Measurement

- Planned readmissions are excluded from the numerator based upon the CMS Planned Readmission Algorithm V. 4.0. The HSCRC has also added all vaginal and C-section deliveries and rehabilitation as planned using the APR-DRGs rather than principal diagnosis (APR-DRGs 540, 541, 542, 560, 860). Planned admissions are counted in the denominator because they could have an unplanned readmission.
- Discharges for newborn APR-DRG are removed.
- Oncology cases are removed prior to running readmission logic.
- Rehabilitation cases as identified by APR-860 (which are coded after under ICD-10 based on type of daily service) are marked as planned admissions and made ineligible for readmission after readmission logic is run.
- Admissions with ungroupable APR-DRGs (955, 956) are not eligible for a readmission but can be a readmission for a previous admission.
- Hospitalizations within 30 days of a hospital discharge where a patient dies is counted as a readmission, however the readmission is removed from the denominator because there cannot be a subsequent readmission.
- Admissions that result in transfers, defined as cases where the discharge date of the admission is on the same or next day as the admission date of the subsequent admission, are removed from the denominator counts. Thus, only one admission is counted in the denominator, and that is the admission to the transfer hospital. It is this discharge date that is used to calculate the 30-day readmission window.
- Discharges from rehabilitation hospitals (provider IDs Chesapeake Rehab 213028, Adventist Rehab 213029, and Bowie Health 210333) are removed.
- Holy Cross Germantown 210065 (attainment only) and Levindale 210064 are included in the program; and
- Starting Jan 2016, HSCRC is receiving information about discharges from chronic

beds within acute care hospitals with the same data submissions. These discharges were excluded from RRIP for RY 2018.

- In addition, the following data cleaning edits are applied:
  - Cases with null or missing Chesapeake Regional Information System for our Patients (CRISP) unique patient identifiers (EIDs) are removed.
  - Duplicates are removed.
  - Negative interval days are removed.
  - HSCRC staff is revising case-mix data edits to prevent submission of duplicates and negative intervals, which are very rare. In addition, CRISP EID matching benchmarks are closely monitored. Currently, hospitals are required to make sure 99.5 percent of inpatient discharges have a CRISP EID.

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

Data Source:
To calculate readmission rates for RRIP, inpatient abstract/case-mix data with CRISP EIDs (so that patients can be tracked across hospitals) are used for the measurement period, plus an additional 30 days. To calculate the case-mix adjusted readmission rate for CY 2016 base period and CY 2017 performance period, data from January 1 through December 31, plus 30 days in January of the next year are used.

SOFTWARE: APR-DRG Version 34 (ICD-10) for CY 2016-CY 2017.

Calculation:

$$\text{Risk-Adjusted Readmission Rate} = \frac{\text{(Observed Readmissions)}}{\text{(Expected Readmissions)}} * \text{Statewide Readmission Rate}$$

Numerator: Number of observed hospital-specific unplanned readmissions.

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

Risk Adjustment Calculation:

- Calculate the Statewide Readmission Rate without Planned Readmissions.
  - Statewide Readmission Rate = Total number of readmissions with exclusions removed / Total number of hospital discharges with exclusions removed.

- For each hospital, calculate the number of observed, unplanned readmissions.
- For each hospital, calculate the number of expected unplanned readmissions based upon discharge APR-DRG SOI (see below for description). For each hospital, cases are removed if the discharge APR-DRG and SOI cells have less than two total cases in the base period data (CY 2016).
- Calculate the ratio of observed (O) readmissions over expected (E) readmissions. A ratio of > 1 means that there were more observed readmissions than expected, based upon a hospital's case-mix. A ratio of < 1 means that there were fewer observed readmissions than expected based upon a hospital's case-mix.
- Multiply the O/E ratio by the statewide rate to get risk-adjusted readmission rate by hospital.

Expected Values:

The expected value of readmissions is the number of readmissions a hospital would have experienced had its rate of readmissions been identical to that experienced by a reference or normative set of hospitals, given its mix of patients as defined by discharge APR-DRG category and SOI level. Currently, HSCRC is using state average rates as the benchmark.

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

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

Let:

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

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

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

Once a set of norms has been calculated, the norms can be applied to each hospital. In this example, the computation presents expected readmission rates for an individual APR-DRG category and its SOI levels. This computation could be expanded to include multiple APR-DRG categories or any other subset of data, by simply expanding the summations.

Consider the following example for an individual APR DRG category.

Expected Value Computation Example

1 Severity of Illness Level	2 Discharges at Risk for Readmission	3 Discharges with Readmission	4 Readmissions per Discharge	5 Normative Readmissions per Discharge	6 Expected # of Readmissions
1	200	10	.05	.07	14.0
2	150	15	.10	.10	15.0
3	100	10	.10	.15	15.0
4	50	10	.20	.25	12.5
Total	**500**	**45**	**.09**		**56.5**

For the APR-DRG category, the number of discharges with a readmission is 45, which is the sum of discharges with readmissions (column 3). The overall rate of readmissions per discharge, 0.09, is calculated by dividing the total number of discharges with a readmission (sum of column 3) by the total number of discharges at risk for readmission (sum of column 2), i.e., 0.09 = 45/500. From the normative population, the proportion of discharges with readmissions for each SOI level for that APR-DRG category is displayed in column 5. The expected number of readmissions for each SOI level shown in column 6 is calculated by multiplying the number of discharges at risk for a readmission (column 2) by the normative readmissions per discharge rate (column 5) The total number of readmissions expected for this APR-DRG category is the sum of the expected numbers of readmissions for the 4 SOI levels.

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

APR-DRGs by SOI categories are excluded from the computation of the actual and expected rates when there are only zero or one at risk admission statewide for the associated APR-DRG by SOI category.

APPENDIX II. CMS MEDICARE READMISSION TEST MODIFICATIONS - VERSIONS 5 AND 6

In last year's policy, HSCRC included an itemized list of changes in version 5 of the CMS Medicare Readmission Test. These changes are listed below as a reminder. Beginning in CY 2016, the rehabilitation discharges are identified using UB codes to account for definition changes under ICD-10.

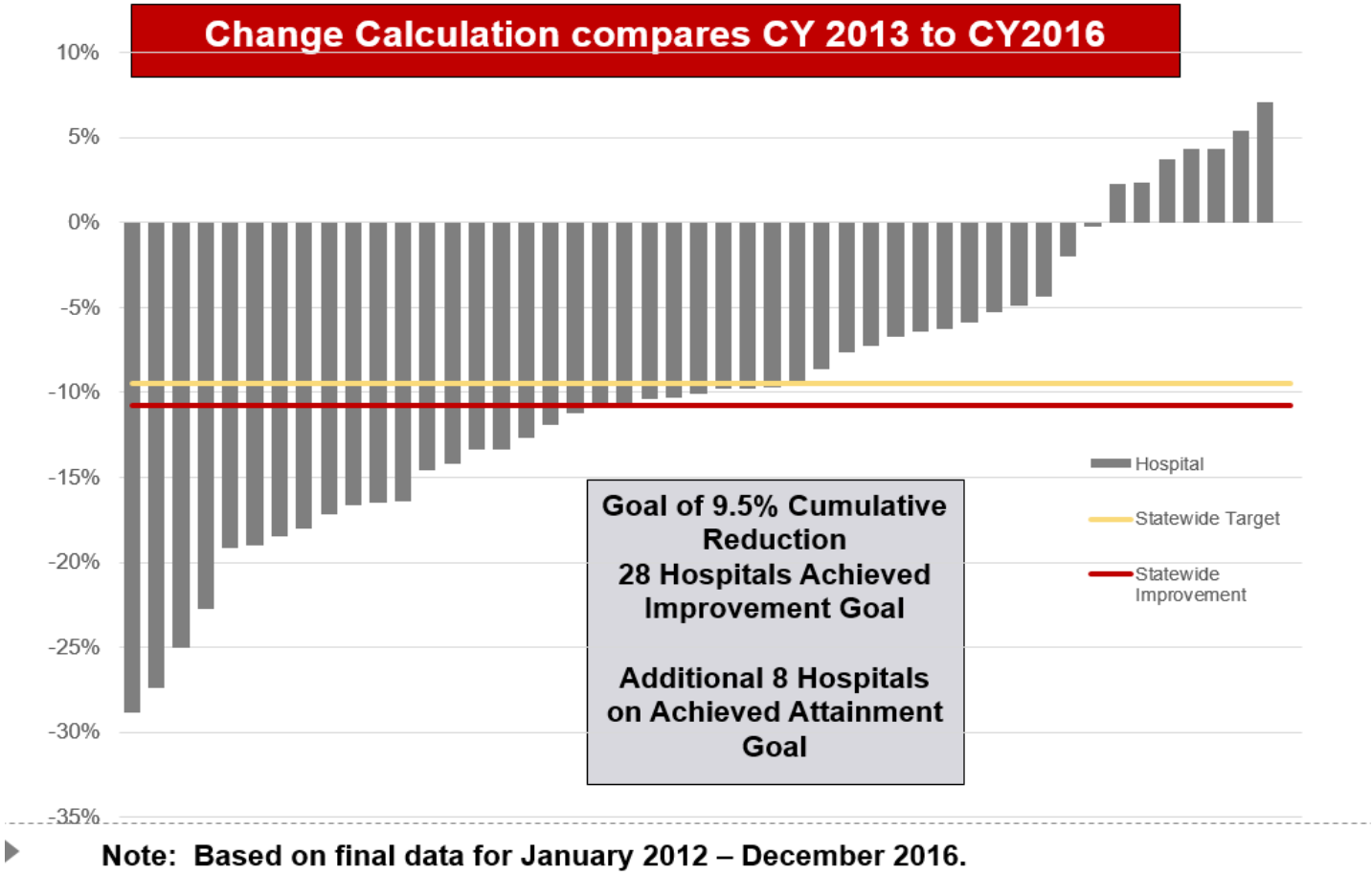
Below are the specification changes made to allow an accurate comparison of Maryland's Medicare readmission rates with those of the nation.

- Requiring a 30-day enrollment period in fee-for-service (FFS) Medicare after hospitalization to fully capture all readmissions.
- Removing planned readmissions using the CMS planned admission logic for consistency with the CMS readmission measures.
- Excluding specially-licensed rehabilitation and psychiatric beds from Maryland rates due to inability to include these beds in national estimates due to data limitations. In contrast, the HSCRC includes psychiatric and rehabilitation readmissions in the all-payer readmission measure used for payment policy.
    - Version 6 of the CMS measure changed to using UB codes to identify rehabilitation discharges due to ICD-10.
- Refining the transfer logic to be consistent with other CMS readmission measures.
- Changing the underlying data source to ensure clean data and inclusion of all appropriate Medicare FFS claims (e.g., adjusting the method for calculating claims dates and including claims for patients with negative payment amounts).

APPENDIX III. ALL-PAYER HOSPITAL-LEVEL READMISSION RATE CHANGE CY 2013-2016

The following figure presents the change in all-payer case-mix adjusted readmissions by hospital between CY 2013 and CY 2016.

Case-Mix Adjusted All-Payer Readmission Rate Change, CY 2013-2016, by Hospital



Note: Based on final data for January 2012 – December 2016.

APPENDIX IV. RY 2019 IMPROVEMENT AND ATTAINMENT SCALING – MODELED RESULTS

The following figure presents the proposed RY 2019 model scaling, using RY 2018 readmission rate results. Columns A and B show the hospital's actual case-mix adjusted readmission rates for CYs 2013 and 2016 respectively; column C shows the actual case-mix adjusted rate with out-of-state adjustment for CY 2016. Column D shows the percent change in in-state actual case-mix adjusted readmission rates between CY 2016 and CY 2013. Columns E through H present the scaling results using the proposed RY 2019 cumulative improvement methodology, and columns I through L present the scaling results using the proposed RY 2019 attainment methodology. Column K had an error in the Draft policy, which has been corrected below. Column M shows the revenue adjustment that is the better of attainment or improvement. (FY 2017 Permanent Global Budgets and Readmission Rates, used to calculate the revenue adjustments, may be updated in the final recommendation). The modeled results for RY 19 using CY 2016 actual data show an overall negative adjustment. This result is expected, since the proposed policy requires an improvement beyond the actual CY 2016 results.

					Improvement Scaling				Attainment Scaling				Final
HOSPITAL NAME	CY 13 Case-Mix Adjusted Rate	CY 16 Case-Mix Adjusted Rate	CY 16 Case-Mix Adjusted Rate Adjusted for Out of State	13-16 % Change In Case-Mix Adjusted Rate	Target	Over/ Under Target	FY 18 Scaling	FY 18 Adjustment	Target	Over/ Under Target	FY 18 Scaling	FY 18 Adjustment	FY18 Better of Attainment/ Improvement
	A	B	C	D =B/A- 1	E	F = D-E	G	H	I	J	K	L	M = (H or L)
ANNE ARUNDEL	12.10%	10.95%	11.45%	-9.50%	-14.5%	5.0%	-0.48%	-$1,409,163	10.83%	0.6%	-0.62%	-$1,839,782	-$1,409,163
ATLANTIC GENERAL	11.91%	8.93%	9.93%	-25.02%	-14.5%	-10.5%	1.00%	$389,660	10.83%	-0.9%	0.90%	$351,732	$389,660
BALTIMORE WASHINGTON	14.16%	12.27%	12.45%	-13.35%	-14.5%	1.2%	-0.11%	-$249,607	10.83%	1.6%	-1.62%	-$3,690,963	-$249,607
BON SECOURS	19.10%	14.75%	14.96%	-22.77%	-14.5%	-8.3%	0.79%	$488,677	10.83%	4.1%	-2.00%	-$1,242,136	$488,677
CALVERT	9.82%	8.83%	10.04%	-10.08%	-14.5%	4.4%	-0.42%	-$266,459	10.83%	-0.8%	0.79%	$501,708	$501,708
CARROLL COUNTY	12.18%	11.13%	11.41%	-8.62%	-14.5%	5.9%	-0.56%	-$652,382	10.83%	0.6%	-0.58%	-$677,061	-$652,382
CHARLES REGIONAL	11.79%	9.55%	11.03%	-19.00%	-14.5%	-4.5%	0.43%	$293,032	10.83%	0.2%	-0.20%	-$137,037	$293,032
CHESTERTOWN	13.21%	13.70%	14.95%	3.71%	-14.5%	18.2%	-1.73%	-$329,313	10.83%	4.1%	-2.00%	-$380,385	-$329,313

					Improvement Scaling				Attainment Scaling				Final
HOSPITAL NAME	CY 13 Case-Mix Adjusted Rate	CY 16 Case-Mix Adjusted Rate	CY 16 Case-Mix Adjusted Rate Adjusted for Out of State	13-16 % Change In Case-Mix Adjusted Rate	Target	Over/ Under Target	FY 18 Scaling	FY 18 Adjustment	Target	Over/ Under Target	FY 18 Scaling	FY 18 Adjustment	FY18 Better of Attainment/ Improvement
	A	B	C	D =B/A- 1	E	F = D-E	G	H	I	J	K	L	M = (H or L)
DOCTORS COMMUNITY	12.78%	11.45%	12.55%	-10.41%	-14.5%	4.1%	-0.39%	-$448,102	10.83%	1.7%	-1.72%	-$1,980,962	-$448,102
DORCHESTER	11.38%	11.87%	12.28%	4.31%	-14.5%	18.8%	-1.79%	-$434,442	10.83%	1.5%	-1.45%	-$352,397	-$352,397
EASTON	10.56%	10.81%	11.18%	2.37%	-14.5%	16.9%	-1.61%	-$1,606,430	10.83%	0.4%	-0.35%	-$350,676	-$350,676
FRANKLIN SQUARE	12.94%	12.38%	12.51%	-4.33%	-14.5%	10.2%	-0.97%	-$2,785,381	10.83%	1.7%	-1.68%	-$4,839,469	-$2,785,381
FREDERICK MEMORIAL	10.60%	9.56%	10.15%	-9.81%	-14.5%	4.7%	-0.45%	-$798,656	10.83%	-0.7%	0.68%	$1,219,805	$1,219,805
FT. WASHINGTON	13.06%	9.48%	12.57%	-27.41%	-14.5%	-12.9%	1.00%	$193,720	10.83%	1.7%	-1.74%	-$337,721	$193,720
G.B.M.C.	11.19%	10.49%	10.68%	-6.26%	-14.5%	8.2%	-0.79%	-$1,700,350	10.83%	-0.1%	0.15%	$325,793	$325,793
GARRETT COUNTY	7.04%	5.83%	8.37%	-17.19%	-14.5%	-2.7%	0.26%	$55,890	10.83%	-2.5%	1.00%	$217,645	$217,645
GOOD SAMARITAN	14.46%	11.85%	11.92%	-18.05%	-14.5%	-3.5%	0.34%	$536,117	10.83%	1.1%	-1.09%	-$1,731,841	$536,117
HARBOR	13.02%	12.14%	12.40%	-6.76%	-14.5%	7.7%	-0.74%	-$794,479	10.83%	1.6%	-1.57%	-$1,695,118	-$794,479
HARFORD	11.53%	12.15%	12.56%	5.38%	-14.5%	19.9%	-1.89%	-$889,286	10.83%	1.7%	-1.73%	-$814,245	-$814,245
HOLY CROSS	11.32%	11.58%	12.53%	2.30%	-14.5%	16.8%	-1.60%	-$5,432,468	10.83%	1.7%	-1.70%	-$5,784,203	-$5,432,468
HOLY CROSS GERMANTOWN		10.50%	10.88%		-14.5%				10.83%	0.1%	-0.05%	-$50,206	-$50,206
HOPKINS BAYVIEW	15.30%	14.19%	14.56%	-7.25%	-14.5%	7.2%	-0.69%	-$2,404,886	10.83%	3.7%	-2.00%	-$6,981,663	-$2,404,886
HOWARD COUNTY	11.80%	11.22%	11.39%	-4.92%	-14.5%	9.6%	-0.91%	-$1,607,369	10.83%	0.6%	-0.56%	-$987,979	-$987,979
JOHNS HOPKINS	14.69%	12.83%	13.88%	-12.66%	-14.5%	1.8%	-0.18%	-$2,376,105	10.83%	3.1%	-2.00%	-$27,186,416	-$2,376,105
LAUREL REGIONAL	13.89%	11.60%	12.38%	-16.49%	-14.5%	-2.0%	0.19%	$113,003	10.83%	1.6%	-1.55%	-$927,508	$113,003
LEVINDALE	13.73%	9.77%	9.77%	-28.84%	-14.5%	-14.3%	1.00%	$575,209	10.83%	-1.1%	1.00%	$573,320	$575,209

					Improvement Scaling				Attainment Scaling				Final
HOSPITAL NAME	CY 13 Case-Mix Adjusted Rate	CY 16 Case-Mix Adjusted Rate	CY 16 Case-Mix Adjusted Rate Adjusted for Out of State	13-16 % Change In Case-Mix Adjusted Rate	Target	Over/ Under Target	FY 18 Scaling	FY 18 Adjustment	Target	Over/ Under Target	FY 18 Scaling	FY 18 Adjustment	FY18 Better of Attainment/ Improvement
	A	B	C	D =B/A- 1	E	F = D-E	G	H	I	J	K	L	M = (H or L)
MCCREADY	11.93%	12.77%	12.77%	7.04%	-14.5%	21.5%	-2.00%	-$58,611	10.83%	1.9%	-1.94%	-$56,963	-$56,963
MERCY	14.61%	11.91%	12.22%	-18.48%	-14.5%	-4.0%	0.38%	$819,911	10.83%	1.4%	-1.39%	-$3,012,099	$819,911
MERITUS	11.80%	11.04%	11.56%	-6.44%	-14.5%	8.1%	-0.77%	-$1,421,310	10.83%	0.7%	-0.73%	-$1,354,372	-$1,354,372
MONTGOMERY GENERAL	12.45%	10.68%	11.23%	-14.22%	-14.5%	0.3%	-0.03%	-$21,383	10.83%	0.4%	-0.40%	-$317,806	-$21,383
NORTHWEST	15.07%	12.18%	12.39%	-19.18%	-14.5%	-4.7%	0.45%	$559,907	10.83%	1.6%	-1.56%	-$1,964,635	$559,907
PENINSULA REGIONAL	11.02%	10.44%	11.10%	-5.26%	-14.5%	9.2%	-0.88%	-$2,073,714	10.83%	0.3%	-0.27%	-$637,696	-$637,696
PRINCE GEORGE	10.67%	10.64%	12.82%	-0.28%	-14.5%	14.2%	-1.35%	-$2,911,624	10.83%	2.0%	-1.99%	-$4,286,953	-$2,911,624
REHAB & ORTHO	7.70%	6.88%	7.34%	-10.65%	-14.5%	3.9%	-0.37%	-$39,639	10.83%	-3.5%	1.00%	$107,734	$107,734
SHADY GROVE	10.89%	9.83%	10.39%	-9.73%	-14.5%	4.8%	-0.45%	-$995,563	10.83%	-0.4%	0.44%	$967,860	$967,860
SINAI	14.27%	11.89%	12.00%	-16.68%	-14.5%	-2.2%	0.21%	$823,774	10.83%	1.2%	-1.17%	-$4,654,700	$823,774
SOUTHERN MARYLAND	11.92%	11.01%	13.82%	-7.63%	-14.5%	6.9%	-0.65%	-$1,068,052	10.83%	3.0%	-2.00%	-$3,271,987	-$1,068,052
ST. AGNES	13.85%	12.00%	12.11%	-13.36%	-14.5%	1.1%	-0.11%	-$253,713	10.83%	1.3%	-1.28%	-$2,990,084	-$253,713
ST. MARY	12.69%	10.61%	12.78%	-16.39%	-14.5%	-1.9%	0.18%	$139,286	10.83%	2.0%	-1.95%	-$1,511,151	$139,286
SUBURBAN	11.14%	10.92%	12.01%	-1.97%	-14.5%	12.5%	-1.19%	-$2,264,685	10.83%	1.2%	-1.18%	-$2,244,564	-$2,244,564
UM ST. JOSEPH	11.76%	10.55%	10.75%	-10.29%	-14.5%	4.2%	-0.40%	-$942,418	10.83%	-0.1%	0.08%	$188,553	$188,553
UMMC MIDTOWN	16.69%	14.82%	14.97%	-11.20%	-14.5%	3.3%	-0.31%	-$417,240	10.83%	4.1%	-2.00%	-$2,662,861	-$417,240
UNION HOSPITAL OF CECIL COUNT	9.80%	10.22%	13.08%	4.29%	-14.5%	18.8%	-1.79%	-$1,219,802	10.83%	2.3%	-2.00%	-$1,365,747	-$1,219,802

					Improvement Scaling				Attainment Scaling				Final
HOSPITAL NAME	CY 13 Case-Mix Adjusted Rate	CY 16 Case-Mix Adjusted Rate	CY 16 Case-Mix Adjusted Rate Adjusted for Out of State	13-16 % Change In Case-Mix Adjusted Rate	Target	Over/ Under Target	FY 18 Scaling	FY 18 Adjustment	Target	Over/ Under Target	FY 18 Scaling	FY 18 Adjustment	FY18 Better of Attainment/ Improvement
	A	B	C	D =B/A- 1	E	F = D-E	G	H	I	J	K	L	M = (H or L)
UNION MEMORIAL	14.35%	12.26%	12.50%	-14.56%	-14.5%	-0.1%	0.01%	$14,189	10.83%	1.7%	-1.67%	-$3,867,164	$14,189
UMMC	14.39%	12.67%	13.10%	-11.95%	-14.5%	2.5%	-0.24%	-$2,122,052	10.83%	2.3%	-2.00%	-$17,522,342	-$2,122,052
UPPER CHESAPEAKE	11.59%	10.91%	11.02%	-5.87%	-14.5%	8.6%	-0.82%	-$1,094,753	10.83%	0.2%	-0.19%	-$253,477	-$253,477
WASHINGTON ADVENTIST	11.33%	10.11%	11.31%	-10.77%	-14.5%	3.7%	-0.36%	-$533,508	10.83%	0.5%	-0.48%	-$721,855	-$533,508
WESTERN MARYLAND	12.41%	11.20%	12.08%	-9.75%	-14.5%	4.7%	-0.45%	-$777,424	10.83%	1.3%	-1.25%	-$2,152,372	-$777,424
STATE	**12.93%**	**11.54%**		**-10.75%**	-14.5%			**-$37,397,991**				**-$112,382,446**	**-$24,833,670**

Total Penalties	-31,900,092
Total Rewards	8,475,585

APPENDIX V. OUT-OF-STATE MEDICARE READMISSION RATIOS

The following figure presents calculation of out-of-state ratio adjustments using the Medicare readmission information from CMMI. The table is sorted by column G. Garrett County Hospital has the largest proportion of their readmissions occurring at hospitals outside of Maryland, which is equal to 44 percent of their in-state readmissions. These ratios are updated each month with the most recent 12 months of CMMI data.

HospName	Total Admissions	Total Readmissions	Readmissions Out of Maryland	Readmission Rate	MD Readmission Rate	**Out-of-State (OOS) Ratio**	Case-Mix Adjusted Readmission Rate	Case-Mix Adjusted Rate with OOS Adjustment
210001 - MERITUS	6293	1127	51	17.91%	17.10%	1.05	11.04%	11.56%
210002 - UNIVERSITY OF MARYLAND	6532	1219	40	18.66%	18.05%	1.03	12.67%	13.10%
210003 - PRINCE GEORGE	2670	477	81	17.87%	14.83%	1.20	10.64%	12.82%
210004 - HOLY CROSS	4600	781	59	16.98%	15.70%	1.08	11.58%	12.53%
210005 - FREDERICK MEMORIAL	5676	726	42	12.79%	12.05%	1.06	9.56%	10.15%
210006 - HARFORD	1652	307	10	18.58%	17.98%	1.03	12.15%	12.56%
210008 - MERCY	3905	474	12	12.14%	11.83%	1.03	11.91%	12.22%
210009 - JOHNS HOPKINS	11241	2122	160	18.88%	17.45%	1.08	12.83%	13.88%
210010 - DORCHESTER						1.03	11.87%	12.28%
210011 - ST. AGNES	4981	787	7	15.80%	15.66%	1.01	12.00%	12.11%
210012 - SINAI	5986	966	9	16.14%	15.99%	1.01	11.89%	12.00%
210013 - BON SECOURS	636	142	2	22.33%	22.01%	1.01	14.75%	14.96%
210015 - FRANKLIN SQUARE	7192	1314	14	18.27%	18.08%	1.01	12.38%	12.51%
210016 - WASHINGTON ADVENTIST	2911	433	46	14.87%	13.29%	1.12	10.11%	11.31%
210017 - GARRETT COUNTY	833	79	24	9.48%	6.60%	1.44	5.83%	8.37%
210018 - MONTGOMERY GENERAL	2934	410	20	13.97%	13.29%	1.05	10.68%	11.23%
210019 - PENINSULA REGIONAL	7767	1083	64	13.94%	13.12%	1.06	10.44%	11.10%

HospName	Total Admissions	Total Readmissions	Readmissions Out of Maryland	Readmission Rate	MD Readmission Rate	**Out-of-State (OOS) Ratio**	Case-Mix Adjusted Readmission Rate	Case-Mix Adjusted Rate with OOS Adjustment
210022 - SUBURBAN	5702	715	65	12.54%	11.40%	1.10	10.92%	12.01%
210023 - ANNE ARUNDEL	9289	1146	50	12.34%	11.80%	1.05	10.95%	11.45%
210024 - UNION MEMORIAL	4420	580	11	13.12%	12.87%	1.02	12.26%	12.50%
210027 - WESTERN MARYLAND HEALTH SYSTEM	4986	753	55	15.10%	14.00%	1.08	11.20%	12.08%
210028 - ST. MARY	2799	406	69	14.51%	12.04%	1.20	10.61%	12.78%
210029 - HOPKINS BAYVIEW MED CTR	6669	1476	38	22.13%	21.56%	1.03	14.19%	14.56%
210030 - CHESTERTOWN	949	155	13	16.33%	14.96%	1.09	13.70%	14.95%
210032 - UNION HOSPITAL OF CECIL COUNT	2333	366	80	15.69%	12.26%	1.28	10.22%	13.08%
210033 - CARROLL COUNTY	4296	605	15	14.08%	13.73%	1.03	11.13%	11.41%
210034 - HARBOR	2116	329	7	15.55%	15.22%	1.02	12.14%	12.40%
210035 - CHARLES REGIONAL	2611	380	51	14.55%	12.60%	1.16	9.55%	11.03%
210037 - EASTON	4561	629	21	13.79%	13.33%	1.03	10.81%	11.18%
210038 - UMMC MIDTOWN	1196	303	3	25.33%	25.08%	1.01	14.82%	14.97%
210039 - CALVERT	1976	290	35	14.68%	12.90%	1.14	8.83%	10.04%
210040 - NORTHWEST	4604	750	13	16.29%	16.01%	1.02	12.18%	12.39%
210043 - BALTIMORE WASHINGTON MEDICAL CENTER	7256	1224	18	16.87%	16.62%	1.01	12.27%	12.45%
210044 - G.B.M.C.	4658	561	10	12.04%	11.83%	1.02	10.49%	10.68%
210045 - MCCREADY	167	29	0	17.37%	17.37%	1.00	12.77%	12.77%
210048 - HOWARD COUNTY	5587	871	13	15.59%	15.36%	1.02	11.22%	11.39%
210049 - UPPER CHESAPEAKE HEALTH	5346	734	7	13.73%	13.60%	1.01	10.91%	11.02%

HospName	Total Admissions	Total Readmissions	Readmissions Out of Maryland	Readmission Rate	MD Readmission Rate	**Out-of-State (OOS) Ratio**	Case-Mix Adjusted Readmission Rate	Case-Mix Adjusted Rate with OOS Adjustment
210051 - DOCTORS COMMUNITY	4254	750	66	17.63%	16.08%	1.10	11.45%	12.55%
210055 - LAUREL REGIONAL	1094	238	15	21.76%	20.38%	1.07	11.60%	12.38%
210056 - GOOD SAMARITAN	4113	664	4	16.14%	16.05%	1.01	11.85%	11.92%
210057 - SHADY GROVE	4988	616	33	12.35%	11.69%	1.06	9.83%	10.39%
210058 - REHAB & ORTHO	242	16	1	6.61%	6.20%	1.07	6.88%	7.34%
210060 - FT. WASHINGTON	1085	183	45	16.87%	12.72%	1.33	9.48%	12.57%
210061 - ATLANTIC GENERAL	1918	228	23	11.89%	10.69%	1.11	8.93%	9.93%
210062 - SOUTHERN MARYLAND	3615	688	140	19.03%	15.16%	1.26	11.01%	13.82%
210063 - UM ST. JOSEPH	6170	701	13	11.36%	11.15%	1.02	10.55%	10.75%
210064 - LEVINDALE	157	30	0	19.11%	19.11%	1.00	9.77%	9.77%
210065 - HOLY CROSS GERMANTOWN	1106	173	6	15.64%	15.10%	1.04	10.50%	10.88%

APPENDIX VI. MATHEMATICA POLICY RESEARCH – RRIP MODELING

1. Analyze current data trends in National and Maryland Medicare Readmission Rates, as well as Maryland All-Payer Readmission Rates

Actual Readmissions Rates	National Medicare FFS Rate	MD Medicare FFS Rate	All Payer Rate
CY 13	15.38%	16.60%	**12.93%**
CY14	15.49%	16.46%	12.43%
CY 15	15.42%	15.95%	12.02%
CY16 (RY 2018)	15.31%	15.60%	11.54%

2. Project the CY 2017 and CY 2018 National Medicare Readmission Rate, based on multiple projection methods

Projections of National Rate	National Medicare FFS Rate
CY17 - Based on Average Annual Change 2013 - 2016	15.28%
CY17 - Based on Change from 2015 to 2016	15.20%
CY17 - Based on 12 month moving average	15.30%
CY17 - Based on 24 month moving average	15.35%
CY18 - Based on Average Annual Change 2013 - 2016	15.26%
CY18- Based on Change from 2015 to 2016	15.09%
CY18 - Based on 12 month moving average	15.30%
CY18 - Based on 24 month moving average	15.33%

3. Use the lowest projected National Medicare rate for CY 2017 and CY 2018 (observed trend CY 2015-CY2016). Given fluctuations in the data trends, also consider two more rapid decreases in the National Rate.

Use Projection that Yields Lowest National Rate	2015-2016 Trend (.71% Decrease) Observed	1.0% Annual Decrease	1.5% Annual Decrease
CY 2017	15.20%	15.16%	15.08%
CY 2018	15.09%	15.01%	14.85%

4. Calculate the % Cumulative Change in Maryland Medicare Rate that will be needed to meet the National Rate by the end of CY 2018. Calculate this % change on an annual basis.

Translate National Medicare Readmission Reduction to Maryland Medicare Readmission Reduction	**2015-2016 Trend (.71% Decrease) Observed**	**1.0% Annual Decrease**	**1.5% Annual Decrease**
% Cumulative Change in Maryland Medicare Rate Needed to Meet Target in 2018	-3.28%	-3.81%	-4.78%
Per Year Reduction Required in MD Medicare FFS Rate	**-1.65%**	**-1.92%**	**-2.42%**

5. Translate the unadjusted Medicare Target to a case-mix adjusted All-Payer Target through three methods using the rates of change in Maryland Medicare (-6.02%) and the rates of change in Maryland All-Payer (-10.75%).

    1. A Simple Difference between the rates of change, CY 2013-CY 2016. This yields a 4.73% difference.

    2. A Ratio of the rates of change, CY 2013-CY2016. This yields a ratio factor of 0.5604.

    3. A Regression-based factor, taking into account additional rates of change over the same time period. This yields a ratio factor of 0.61.

Projected National Reduction Rate for CY 2017	**-0.71%**	**-1.00%**	**-1.50%**
	All-Payer Reduction Needed in CY 2017 to Meet Waiver Test		
Method 1: Add difference in rates of change to FFS target (-4.73%**)**	**-6.38%**	**-6.65%**	**-7.15%**
Method 2: Use ratio of changes in rates to scale FFS target (0.5597)	**-2.95%**	**-3.43%**	**-4.32%**
Method 3: Use regression-based factor (.61) to scale FFS Target	**-2.71%**	**-3.15%**	**-3.97%**

APPENDIX VII. STAKEHOLDER COMMENT LETTER – CAREFIRST

M. Bruce Edwards
Senior Vice President
Networks Management

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April 10, 2016

Chairman Nelson Sabatini
Executive Director Donna Kinzer
Health Services Cost Review Commission
4201 Patterson Avenue
Baltimore, Maryland 21215

Dear Mr. Sabatini and Ms. Kinzer:

The purpose of this letter is to provide general comments regarding the Health Services Cost Review Commission (HSCRC) staff draft recommendation on modifications to the Commission's Readmission Reduction Incentive Program (RRIP) Policy for RY2019. CareFirst is strongly supportive of the HSCRC's efforts to incentivize hospitals to reduce their rates of unnecessary readmissions. Success in this area will both improve the overall quality of care provided by Maryland Hospitals and help the State meet the readmission performance standards as required by the Demonstration agreement with the Centers for Medicare/Medicaid Innovation (CMMI).

We recognize that since the beginning of the Demonstration, Maryland hospitals have met their annual readmission reduction targets and appear to be on track to meet the State's overall requirement to be below the Medicare national readmission rate by the end of CY 2018. However, there are several reasons to be cautious and conservative in establishing targets for RY2019. Despite the State's gradual improvement versus the U.S. over the past 3 years, there are several forecasting uncertainties as well as recognition of the national acceleration in readmission reductions that should be taken into consideration. There are 3 areas we suggest further consideration:

1. **Divergence of CMMI and HSCRC Readmission Data**: As noted in the staff draft recommendation, the remaining substantial divergence in Maryland Medicare readmission rates reported by the HSCRC and the CMMI "adds an additional layer of uncertainty to current projections, and may need to be accounted for in the improvement target." We agree that this should be further investigated.

2. **Continued use of an All Payer Target and the need to "Extrapolate" from the Desired Medicare Target**: The use of an All Payer readmission target requires an extrapolation from the desired level of Maryland Medicare readmission rates to the All Payer readmission rate targets. It is the All Payer target that provides the basis for the improvement incentive structure applied in the RRIP. In past years, the relationship between All Payer readmission rate performance and Maryland Medicare readmission rate performance has varied considerably, as has the method used by staff to extrapolate from the Medicare target to the All Payer target. The current extrapolation methodology utilizes many different statistics, which are subject to variation, and as we have seen in the past has failed to accurately predict the relationship between All Payer and Medicare readmission performance. The predictability of this forecasting is heightened due to the acceleration of readmission reductions nationally. If the relationship between these two targets changes again, and the targets are not rigorous enough to

incentivize Maryland hospitals to achieve its targeted Medicare readmission reductions, the State will fail to meet its readmission requirement under the Demonstration.

3. **U.S. Medicare Readmission Rate Declines have accelerated**: Much of the State's improvement thus far has been due to the fact that national Medicare readmission rates were initially flat in CY's 2014 and 2015. Recently, the nation has experienced moderate reductions in its Medicare readmission rates (declining by a rate of 1.06% in CY 2016 over CY 2015). This most recent decline is the basis for the various forecasts of U.S. performance in CY 2017 used by Mathematica to forecast the expected national Medicare readmission rate decline in CY 2017 and 2018 (i.e., a forecasted decline ranging from 0.8% to 1.5% per year). Staff characterizes this forecasting approach as "conservative." However, we would note that setting targets based on the most recent U.S. performance would likely be inadequate to induce the required reductions in Maryland Medicare readmission rates should the U.S. return to the rates of decline experienced in CY's 2012 and 2013 (3.36% and 2.40% respectively). In this context, we do not see the forecasting methodology as sufficiently conservative to establish readmission rate reduction targets and associated incentives necessary to ensure success.

Given these forecasting uncertainties coupled with the recently national improvement levels, CareFirst recommends the establishment of a more rigorous standard than the 15.0% cumulative reduction target currently recommended by staff.

Finally, CareFirst believes that the RRIP policy should consider including a factor to account for the impact of Socio-Economic Status (SES) of hospitals' patient populations in measuring readmission rate performance. In March, we presented to the Performance Measurement Workgroup what we believed was a sensible, coherent and empirically based approach to include such a factor. Our analysis found that statewide in CY 2015 our definition of "indigent" patients (i.e., patients with payer designations of Medicaid, Self-Pay, Charity and Dual Eligible) had a case mix adjusted readmission rate of 11.57% versus 8.65% for "non-indigent" patients (i.e., patients in all other payer classes), a difference of nearly 34%. Failure to include a factor in the RRIP to adjust for these differences disadvantages hospitals with high proportions of these patients. We are happy to continue to work with staff so that this important adjustment can be incorporated into the RRIP for RY 2019.

Sincerely,

APPENDIX VIII. STAKEHOLDER COMMENT LETTER – MARYLAND HOSPITAL ASSOCIATION

Maryland
Hospital Association

April 21, 2017

Alyson Schuster, Ph.D.
Associate Director, Performance Measurement
Health Services Cost Review Commission
4160 Patterson Avenue
Baltimore, Maryland 21215

Dear Ms. Schuster:

On behalf of the 64 hospital and health system members of the Maryland Hospital Association (MHA), we appreciate the opportunity to comment on the *Draft Recommendation for the Readmissions Reduction Incentive Program for Rate Year 2019.* We support the recommendation to maintain the "better of" improvement or attainment performance with the attainment target set in the same manner as last year – best quartile of the base period with an additional two percent reduction – and we support the staff's development of a modified cumulative target to handle the inconsistencies created by the ICD-10 transition.

Setting the annual all-payer improvement target involves making assumptions about two key elements: the national Medicare readmissions improvement and the ratio of Maryland all-payer change to Medicare change. Assumptions about how these key elements will change over the next year result in a range of possible targets. The 4 percent reduction target is within the range that is reasonable under different assumptions, although it is slightly more than statewide improvement over the last three years. Setting a target much beyond historic rates of improvement would likely have little effect on readmissions rates, but would simply increase penalties to hospitals.

All-Payer Targets

	Year	Change in All-Payer Readmissions Rate
Average Change = -3.86%	2013-2014	-4.02%
	2014-2015	-3.22%
	2015-2016	-4.33%

Our view is that the annual improvement target could be set closer to 3.25 percent, because the readmissions policy provides incentives for each hospital to outperform the targets. Achieving the improvement or attainment target merely gets the hospital out of the penalty zone, and hospitals can receive increasing positive rewards for outperforming the targets. Moreover, hospitals' care management and care delivery transformation activities have matured significantly over the three years of the model, and far exceed the activities of hospitals nationally. With Maryland's focus on potentially avoidable utilization, we have seen the rate of Medicare readmissions reduction approach the rate of all-payer reductions – another reason that

the target does not need to be as aggressive as in previous years. Maryland's hospitals are well positioned to continue the progress that has been made in meeting the demonstration target, could be below the national readmissions rate as soon as the end of this year, and will certainly surpass the national performance by the end of 2018.

We appreciate your consideration of our comments and the opportunity to continue working through these issues in the Performance Measurement Work Group.

Sincerely,

Traci La Valle
Vice President

cc: Nelson J. Sabatini, Chairman
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

APPENDIX IX. STAKEHOLDER COMMENT LETTER – DHMH MEDICAID

STATE OF MARYLAND
DHMH
Maryland Department of Health and Mental Hygiene
Larry Hogan, Governor - Boyd K. Rutherford, Lt. Governor - Dennis R. Schrader, Secretary

May 3, 2017

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

Dear Chairman Sabatini:

The Medicaid program has reviewed the draft recommendation of the Health Services Cost Review Commission's (HSCRC) Staff for the Readmissions Reduction Incentive Program (RRIP) for rate year (RY) 2019. We are writing in support of the Staff's draft recommendations, in particular the recommendation to continue to set the minimum required reduction benchmark on an all-payer basis.

The Maryland RRIP has proven to be a successful and iterative program that thoughtfully incorporates stakeholder inputs. While the national readmissions program conducted by the Centers for Medicare & Medicaid Services (CMS) focuses on Medicare only, Maryland stakeholders—represented through the HSCRC's Performance Measurement Workgroup—expressed the need for Maryland's program to include all patients, regardless of payer. In addition, for RY 2018, the HSCRC effected a significant policy change to the RRIP, updating the methodology to include an attainment target alongside the existing improvement approach.

The Medicaid program understands that the execution of the RRIP is confounded by several moving parts, including a discrepancy between CMS and Maryland data and the program's dependency on an unknown national trend, in addition to the calculation of a differential to set an all-payer target from the Medicare target. However, the Staff recommendation to stay the course and not effect major changes on the RRIP is indicative of the program's success. Based on calendar year (CY) 2016 annualized projections, Maryland is on track to achieve its contractual obligation to decrease its Medicare readmissions rate to equal or less than the national average rate by the end of the waiver. Preliminary CY 2016 data have shown a 10.79 percent reduction in the all-payer case-mix adjusted readmission rate compared to CY 2013. As of November 2016, 28 hospitals were on track to meet the hospital improvement benchmark of 9.5 percent reduction, with eight additional hospitals on track to achieving the attainment goal of 11.85 percent.

The Medicaid program applauds the HSCRC's foresight in implementing its quality programs to benefit all factions of Maryland's population. Strategies that focus only on Medicare ignore—and risk not addressing—the readmissions issues critical to Medicaid and other payers. Maintaining the all-payer approach to quality programs under the All-Payer Model will ensure the development of strategies that improve the health of all Marylanders while mitigating cost-shifting from Medicare to other payers.

Should the HSCRC change the RRIP to focus only on Medicare, the Department is prepared to develop a Medicaid-only readmissions program. Several other states—such as New York, Texas and Pennsylvania—have implemented Medicaid-only programs, ranging from payment adjustments to non-payment of readmissions.

The Medicaid program commends the HSCRC for its responsiveness to stakeholders and for the progress made to date. We look forward to working with the HSCRC and other stakeholders as the policy is finalized for RY 2019.

If you have any questions, please contact Tricia Roddy, Director for the Office of Planning at 410-767-5809 or tricia.roddy@maryland.gov.

Sincerely,

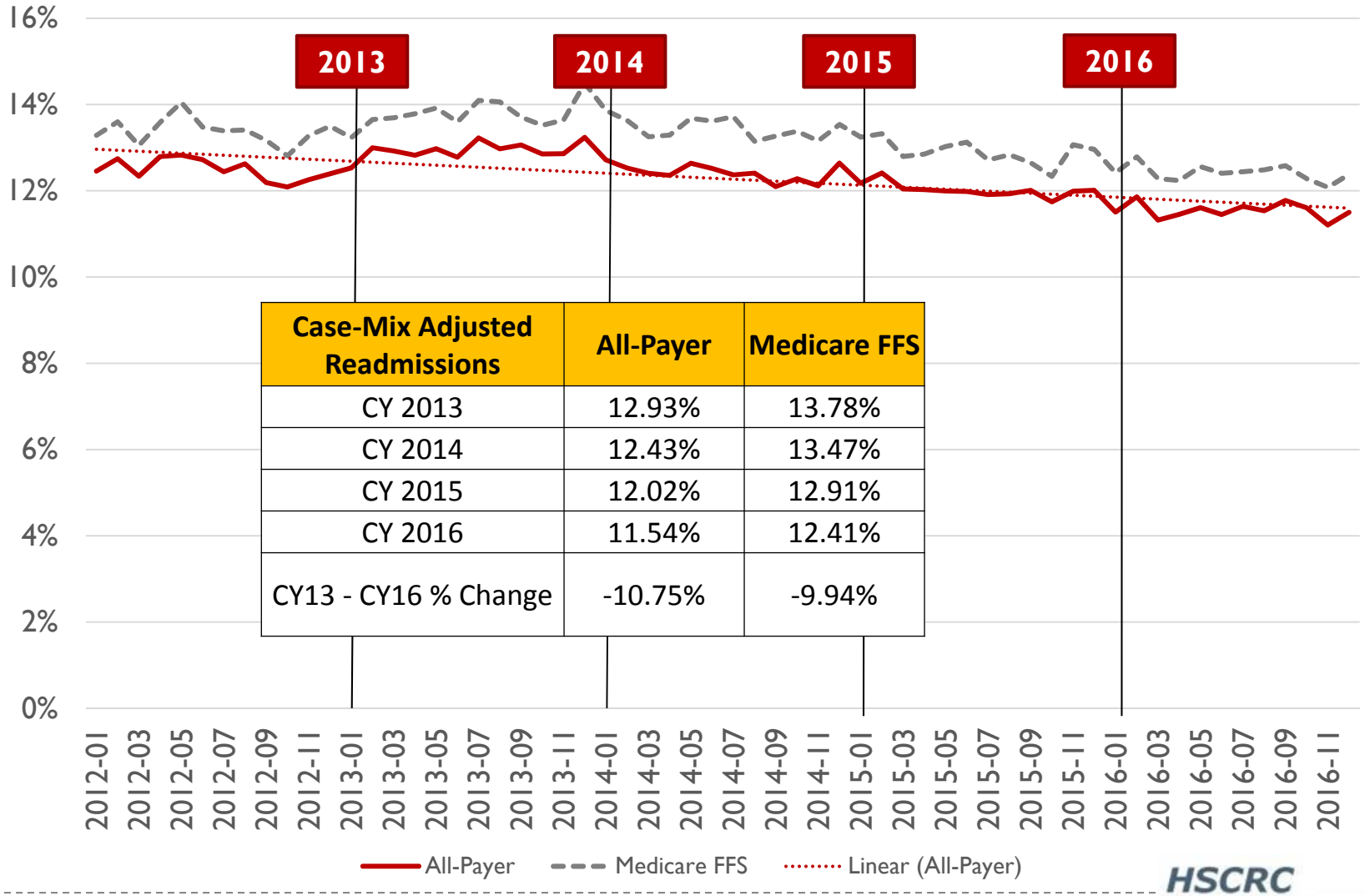
Shannon M. McMahon
Deputy Secretary for Health Care Financing

Readmission Reduction Analysis

May 2017

HSCRC
Health Services Cost Review Commission

Monthly Case-Mix Adjusted Readmission Rates

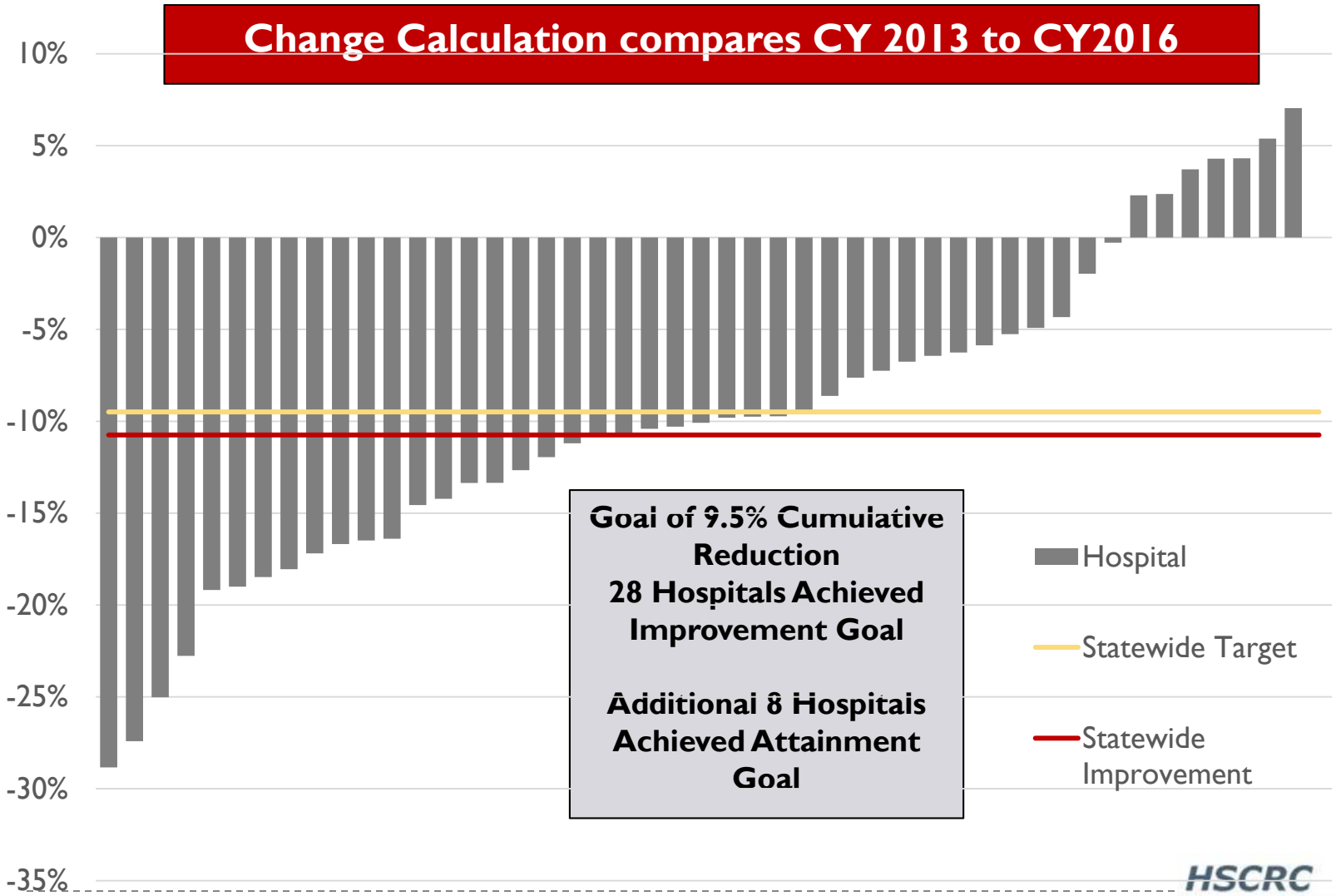


Case-Mix Adjusted Readmissions	All-Payer	Medicare FFS
CY 2013	12.93%	13.78%
CY 2014	12.43%	13.47%
CY 2015	12.02%	12.91%
CY 2016	11.54%	12.41%
CY13 - CY16 % Change	-10.75%	-9.94%

Note: Based on final data for January 2012 – December 2016

HSCRC
Health Services Cost Review Commission

Change in All-Payer Case-Mix Adjusted Readmission Rates by Hospital



 Note: Based on final data for January 2012 – December 2016.

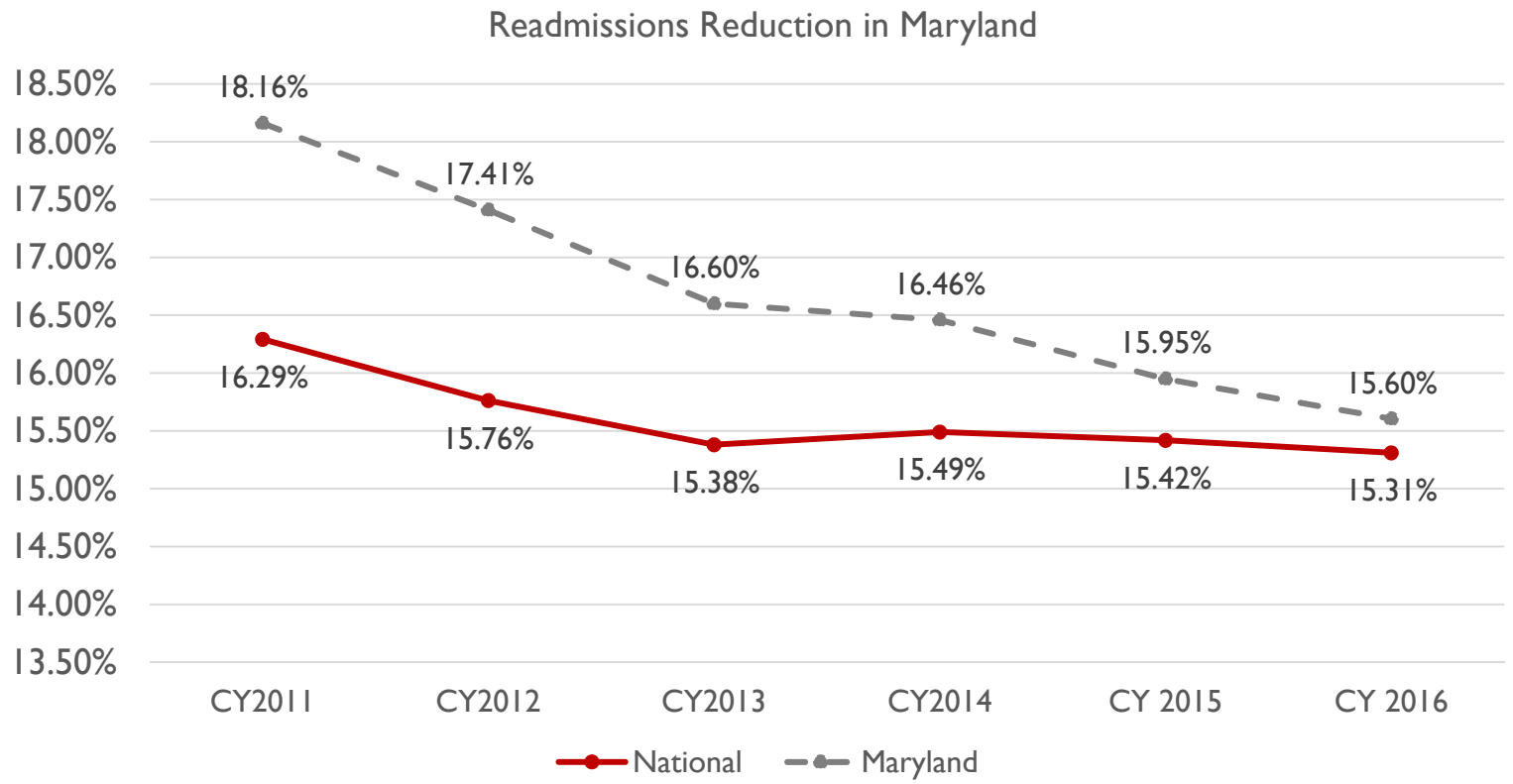
HSCRC
Health Services Cost Review Commission

Final RY 2019 RRIP Policy

HSCRC
Health Services Cost Review Commission

Medicare Test: At or below National Medicare Readmission Rate by CY 2018

Maryland is reducing readmission rate faster than the nation. Maryland reduced the gap from 1.22 percentage points in the base year to 0.29 percentage points in CY 2016. Our target for the gap for CY 2016 was a 0.49 percentage point difference.



RRIP proposal for RY 2019

- Continue to measure hospitals on the better of improvement or attainment
  - Use RY 2018 methodology to calculate updated Attainment Target
  - Continue to adjust readmission rate using Out-of-State readmission ratios calculated from Medicare data
- Update the policy to calculate improvement CY 2016 to CY 2017
  - Annual target ensures base and performance run under ICD-10
  - Add this improvement to CY 2013 to CY 2016 improvement (i.e., RY 2018 improvement) to calculate a **modified cumulative improvement rate**

Steps for Calculating Improvement Target

- Estimate National Medicare FFS Improvement for CY 2017 and CY 2018
  - Modeled 0.71% (actual CY 2015 to CY 2016 improvement), 1%, and 1.5%
- Calculate necessary Maryland Medicare FFS readmission rate to correspond with projected National Medicare readmission rate
  - CY 2017 target gap between MD and Nation is 0.15 percentage points
- Convert Maryland unadjusted Medicare FFS improvement to a case-mix adjusted All-Payer improvement
  - Multiple methods for this conversion were tested; with 1% national improvement trend these methods resulted in case-mix adjusted all-payer improvement targets ranging from 3.15% to 6.65%.

In this final recommendation, staff is proposing a 3.75% annual improvement target. This annual target is added to the actual statewide CY 2013 to CY 2016 improvement (10.75%) to get a 14.5% modified cumulative improvement target.

RY 2019 Proposed Revenue Adjustment Scales

- Improvement Scale

All Payer Readmission Rate Change CY13-CY17	Over/Under Target	RRIP % Inpatient Revenue Payment Adjustment
A	B	C
LOWER		1.0%
-25.0%	-10.5%	1.0%
-19.8%	-5.3%	0.5%
-14.5%	0.0%	0.0%
-9.2%	5.3%	-0.5%
-4.0%	10.5%	-1.0%
1.3%	15.8%	-1.5%
6.5%	21.0%	-2.0%
Higher		-2.0%

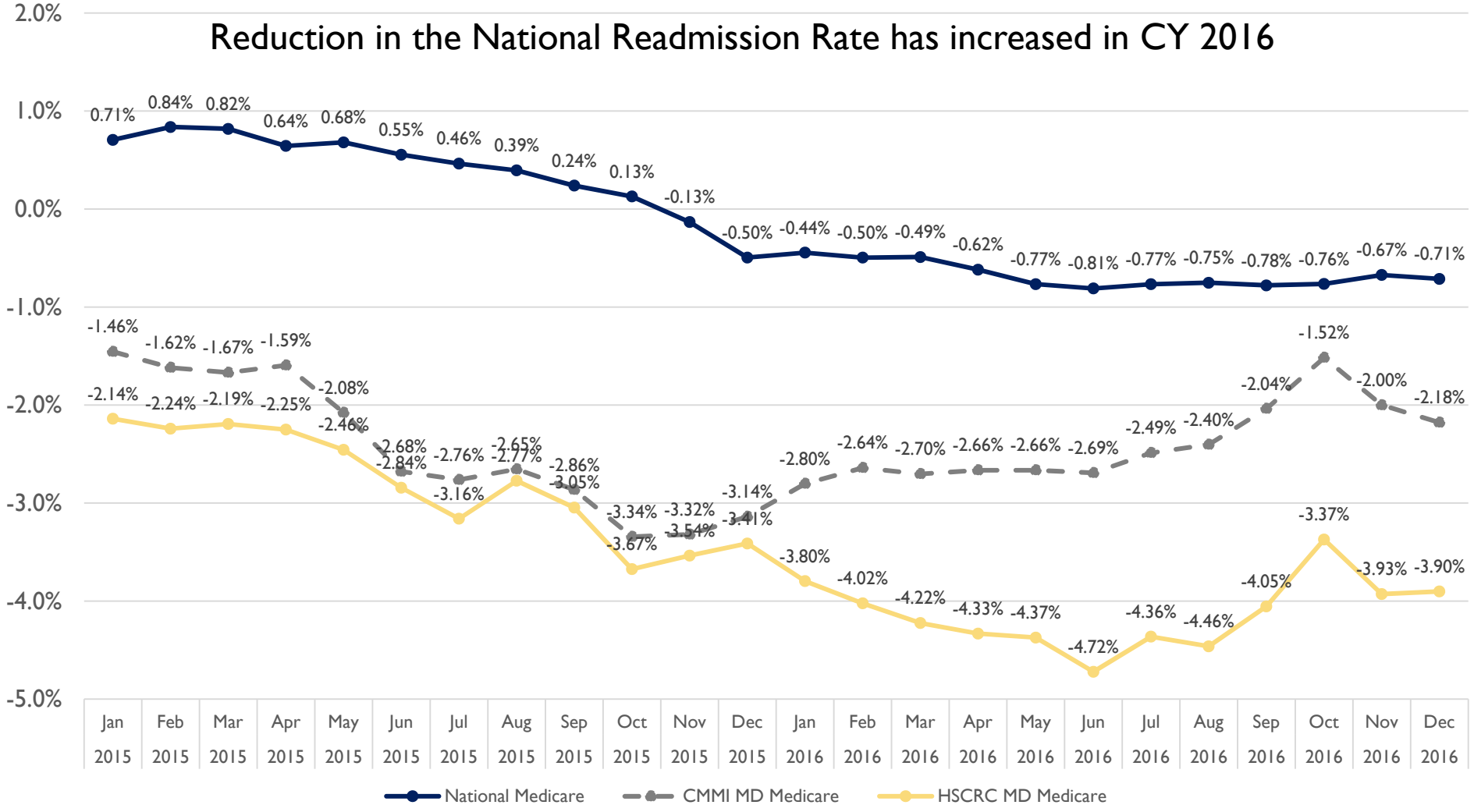
- The improvement scale uses the slope of the RY 2018 scaling, adjusted for the RY 2019 reward/penalty cut point.

- Attainment Scale

All Payer Readmission Rate CY17	Over/Above Target From Target	RRIP % Inpatient Revenue Payment Adjustment
A	B	C
LOWER		1.0%
9.83%	-1.0%	1.0%
10.33%	-0.5%	0.5%
10.83%	0.0%	0.0%
11.33%	0.5%	-0.5%
11.83%	1.0%	-1.0%
12.33%	1.5%	-1.5%
12.83%	2.0%	-2.0%
Higher		-2.0%

- The attainment scale calculates maximum rewards at the 10th percentile of performance for RY 2018, and maximum penalties are linearly scaled based on max reward and reward/penalty cut point.

Cumulative Readmission Rate Change by Rolling 12 Months (year over year): Maryland vs Nation



Final Recommendations for RY 2019 RRIP Policy

- The RRIP policy should continue to be set for **all-payers**.
- Hospital performance should continue to be measured as the **better of attainment or improvement**.
- Due to ICD-10, RRIP should have a **one-year improvement target (CY 2017 over CY 2016)**, and will add this one-year improvement to the achieved improvement CY 2016 over CY 2013, to create a **modified cumulative improvement target.**
- The attainment benchmark should be set at **10.83 percent.**
- The reduction benchmark for CY 2017 readmissions should be **-3.75 percent** from CY 2016 readmission rates.
- Hospitals should be eligible for a **maximum reward of 1 percent**, or a **maximum penalty of 2 percent**, based on the better of their attainment or improvement scores.
- Staff will continue to work with CMS to **review readmission logic and data discrepancies**, and an update will be provided to the Commission if any substantive issues are found that warrant revisiting RY 2019 targets.

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

May 3, 2017

Health Services Cost Review Commission
4160 Patterson Avenue
Baltimore, Maryland 21215
(410) 764-2605
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Table of Contents

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

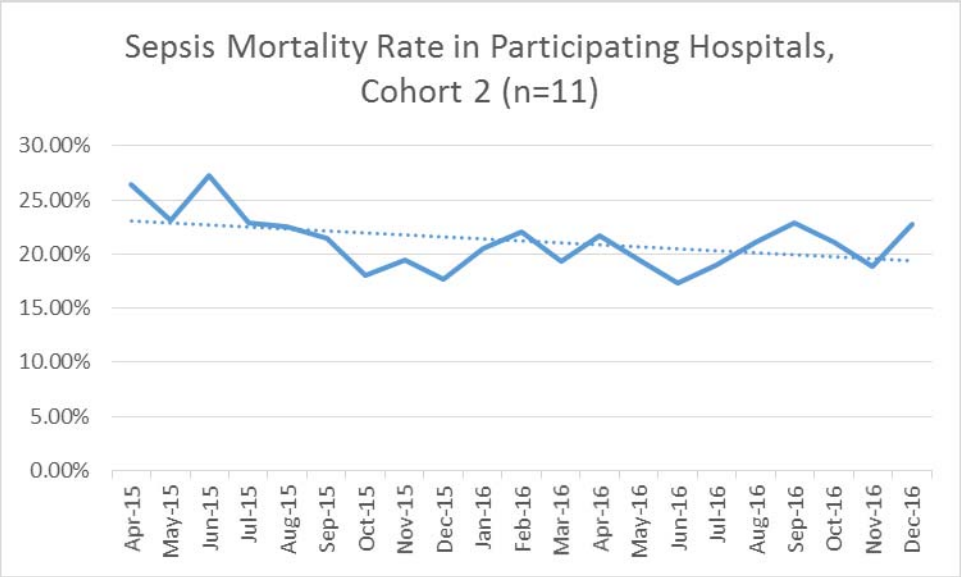
	FY 2017			FY 2018		
Revenue			**Budget**			**Budget**
Cash Contributions from MHA/Delmarva			100,000			-
Cash Contributions from Hospitals			30,000			-
Cash Contributions for Long-term Care			25,000			-
HSCRC Funding			874,800			831,060
Membership Dues			350,000			375,000
Education Session Revenue			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.

6820 Deerpath Road
Elkridge, MD 21075

MARYLAND Patient Safety CENTER

410.540.9210 (Phone)
410.540.9139 (Fax)

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

Sen. Katherine A. Klausmeier
Maryland State Senate

Lawrence S. Linder, MD, FACEP, FAAEM
President & CEO
University of Maryland Community Medical Group

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

Sherry Perkins, PhD, RN, FACHE
Executive Vice President & COO
Dimensions Health

Del. Sheree Sample-Hughes
Maryland House of Delegates

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

The Senate of Maryland

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Katherine.Klausmeier@senate.state.md.us

District Office
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

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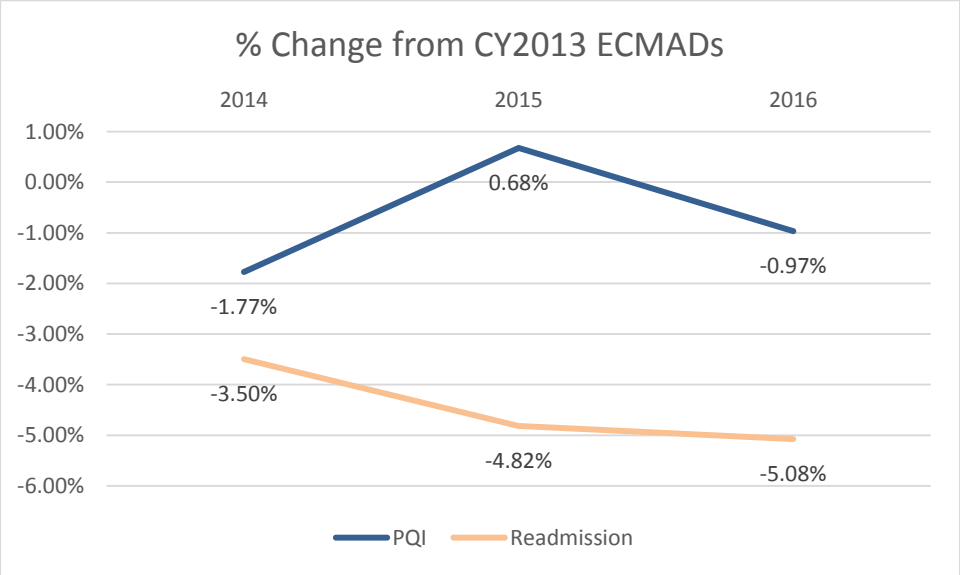
[6] Patient Protection and Affordable Care Act, 124 Stat. 119 (2010) (codified as amended at 42 U.S.C. § 1395ww(q) (Supp. 2010)).

[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

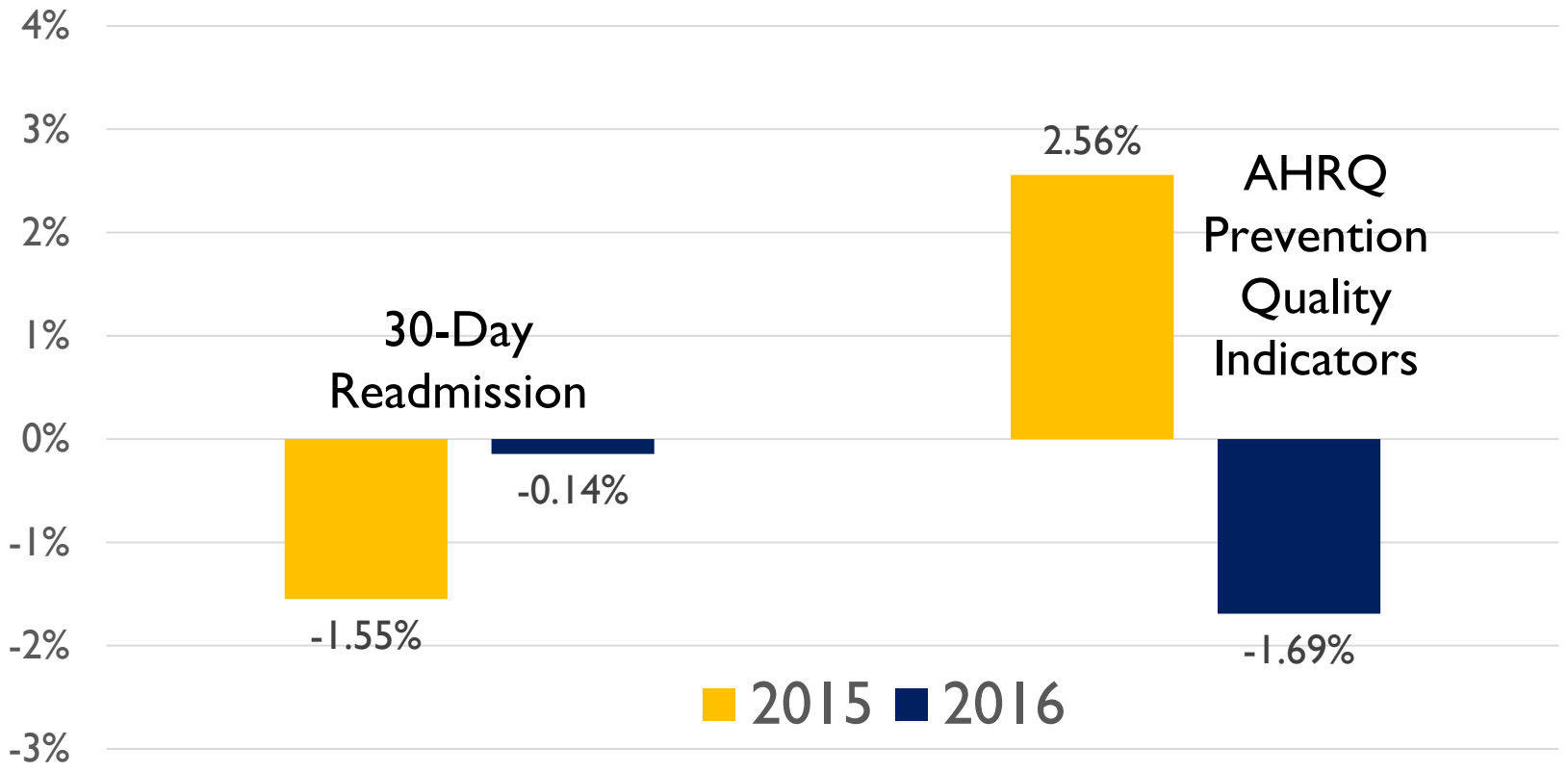
[9] Required % reduction in PAU revenue= [Savings (-1.45%) + the statewide impact of Medicaid Protection (-0.06%)] / % PAU (10.86%) = -13.90%.

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%					

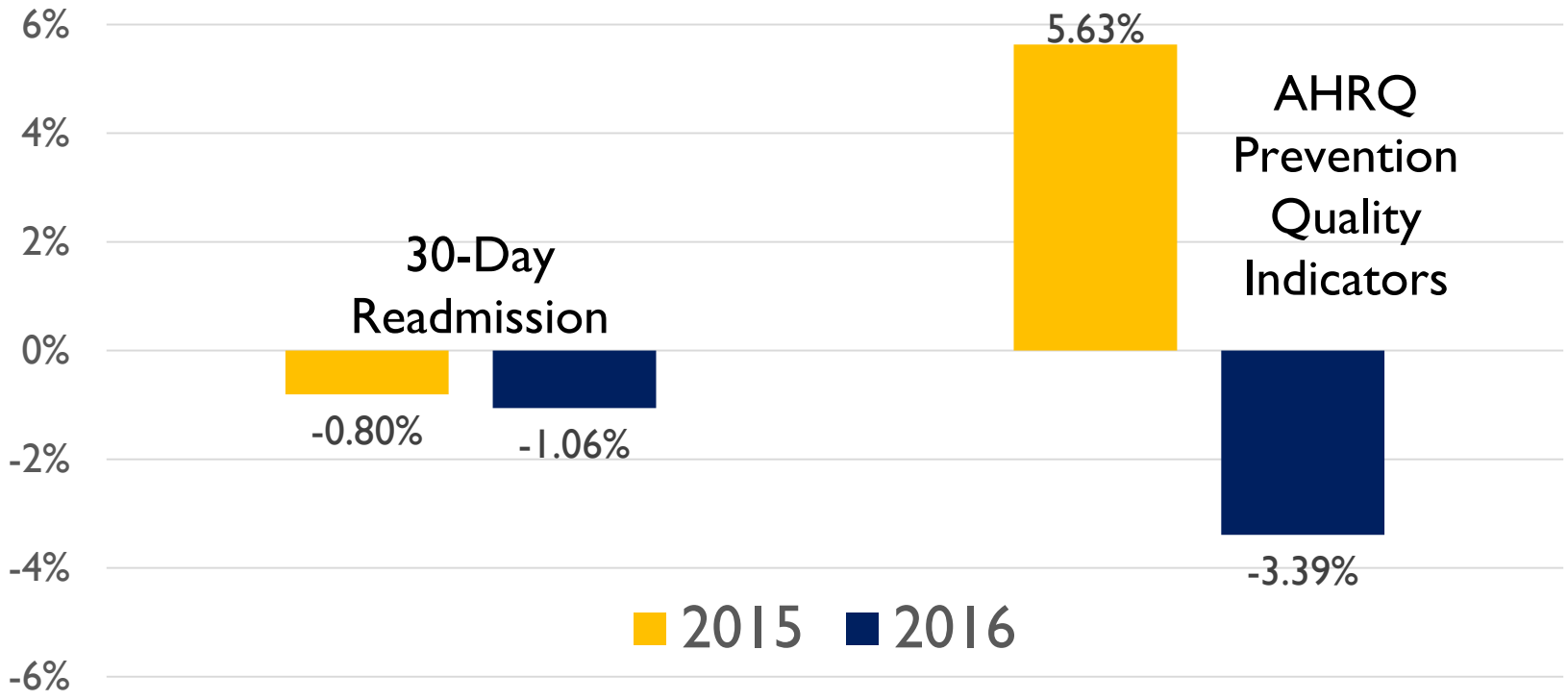
Potentially Avoidable Utilization (PAU) Analysis

All Payer Readmission and Prevention Quality Indicator ECMAD Annual Growth – CYTD Dec.



HSCRC
Health Services Cost Review Commission

Medicare FFS Readmission and Prevention Quality Indicator ECMAD Annual Growth – CYTD Dec.



HSCRC
Health Services Cost Review Commission

Rate Year (RY) 2018 Potentially Avoidable Utilization Savings Policy Draft Recommendation

HSCRC
Health Services Cost Review Commission

Background

- Ensure savings to the purchasers from incentive programs and satisfy exemption requirements from Medicare programs
- Started in RY 2014 in conjunction with the Admission Readmission Revenue (ARR) Program
- RY 2017 PAU Savings policy was updated to align the measure with the PAU definitions used in the market shift adjustment
  - Added Prevention Quality Indicators (PQI)*
  - Readmissions counted at the receiving hospital
  - Added observation stays lasting 23 hour or longer to inpatient discharges

*Developed by Agency For Health Care Quality and Research
http://www.qualityindicators.ahrq.gov/modules/pqi_overview.aspx
Also known as Ambulatory Care Sensitive Conditions, that is conditions for which good outpatient care can potentially prevent the hospitalization.

RY 2018 PAU Savings Draft Recommendations

- 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.
  - All hospitals contribute to the statewide PAU savings, however, each hospital's reduction is proportional to their percent PAU revenue.
- Cap the PAU savings reduction at the statewide average reduction for hospitals with higher socio-economic burden.
- Evaluate further expansion of PAU definitions for RY 2019 to incorporate additional categories of unplanned admissions.

RY 2018 PAU Savings State-Wide Calculation

Statewide Results		**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		**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%[a]		

[a]-13.90% with Medicaid Protections

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

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 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%**

Comparison of Aggregate At-Risk

Medicare vs Maryland Aggregate At-Risk Requirement

- Maryland must meet or exceed the aggregate percentage of revenue at-risk under national Medicare quality programs

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	3.0%	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%
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%	2.0%	VBP	2.0%	2.0%

Potential Risk: Absolute Max Penalty/Reward

% 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%
Readmissions	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%
*HSCRC estimated CMS numbers based on publicly available files and this is subject to change. FFY 2018 uses FFY 2017 estimates.						
Annual MD-US Difference	0.2%	-0.3%	2.2%	6.8%	8.1%	7.1%

Realized Risk: Absolute Average Revenue Adjustments

% 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 and 19 Estimated based on previous year.					
% 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.					

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

HSCRC
Health Services Cost Review Commission

Maximum Revenue Guardrail

- 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.
- Policy recommends the maximum penalty one hospital could receive in RY 2019 across QBR, MHAC, RRIP, and net PAU savings.
- RY 2018: Maximum penalty for one hospital was 1.06 percent of total hospital revenue (1.41percent of IP revenue).
- RY 2017/18: Staff used the Medicare aggregate amount at-risk total as the benchmark to calculate the hospital maximum penalty guardrail of 3.50 percent (e.g. 6% * 58 % of IP revenue).

Draft Recommendation

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

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.

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Draft Recommendations on the Update Factors for FY 2018

May 10, 2017

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This document contains the draft staff recommendations for the update factors for FY 2018. Any comments may be sent to Cait Grim at Caitlin.Grim@maryland.gov or Deon Joyce at Deon.Joyce@maryland.gov by COB on May 26, 2017.

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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 -QBR, MHAC, Readmissions	J		-0.12%
-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.

Chet Burrell
President and Chief Executive Officer

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May 9, 2017

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

Dear Mr. Sabatini and Ms. Kinzer:

The purpose of this letter is to provide CareFirst's comments on the HSCRC staff's "Draft Recommendations on the Update Factors for FY 2018." In short, we urge the Commission to reject the Staff's recommendation of 3.39% and to develop a new recommendation for the Commission's consideration. The reasons for this are outlined below.

CareFirst believes that the recommended Update Factor—if implemented—would jeopardize the State's prospects of meeting all three of the financial tests that are required under the Maryland Model Demonstration. Specifically, based on a forecasting methodology (the "Differential Statistic Methodology" or "DSM") that was accepted by the HSCRC staff, we estimate that if the 3.39% Update Factor is implemented, the following would occur:

1) Maryland's growth in all payer costs would (according to the DSM) rise to 5.4%, exceeding the 3.94% target. This percent is based on the fact that hospital revenues will dramatically increase in CY 2017—as detailed under the HSCRC's own projections. The 5.4% increase in CY2017 over CY2016 is the result of a lower CY2016 charge base (denominator) due to the $70M undercharge and the higher CY2017 period (numerator) driven, in part, by hospitals' upcharge to recover the previous year's undercharge.

2) Medicare savings would decrease by $93 million relative to savings that would occur had Maryland met the goal of growing at U.S. Medicare hospital per beneficiary growth less 0.5% in CY 2017. CareFirst projects that under the recommended Update Factor, Maryland Medicare Hospital Expenditures per Medicare Beneficiary would increase 3.75 percent, significantly greater than what CMS currently projects for the rest of the US. We estimate the US target to be 2.2 percent (after taking out 0.5 percent as is required). We ask how this estimate can be reconciled with the 3.75 percent presented for the State's Update Factor and given its focus on meeting the targets under the Demonstration.

3) Maryland would likely exceed the Medicare Total Cost of Care (TCOC) Test if non-hospital Medicare FFS expenditures continue to grow at a rate that exceeds the national U.S. non-hospital Medicare FFS increases per beneficiary by approximately 1.5%, as has been the average for the past two years. Under this assumption, we estimate that Medicare TCOC in Maryland would increase by 3.41—a level of 1.31 percentage points greater than the State's target.

Thus, it appears as though the staff recommendation has not taken into account the impact of the actual increases in hospital costs that will occur in CY 2017 on these three Demonstration targets, after a period of hospital undercharges in the second half of CY 2016.

At such a critical time when the State is negotiating the future of the Demonstration with the federal government, we believe it is imperative that the HSCRC consider an Update Factor that is more conservative. Considering that hospital revenue is projected to be 4.3% higher in the first half of 2017 than in 2016—due to deferrals and undercharges in the last half of 2016—a very low Update Factor is implied.

We would also point out that Maryland hospitals have consistently generated total operating margins that have hovered around 3.0% and operating margins from rate-regulated activities that have exceeded 8.0% during the term of the Demonstration. We also note that hospitals received $239 million in FY 2015 and FY 2016 for Care Management Infrastructure funding, with $200 million added to rates for every subsequent FY. To date, neither we nor anyone else to our knowledge has been able to determine how these funds were spent to improve care coordination or outcomes. It concerns us that recent HSCRC reporting seems to indicate that these funds were largely spent to subsidize Part B physician activities.

For these reasons we strongly urge the Commission to direct staff to develop a proposed Update Factor that better protects the State against failing to comply with the thresholds provided under the Demonstration and to make this proposal in time for the Commission to consider at its June meeting.

Sincerely,

Chet Burrell
President & CEO

Draft Recommendation on the Update Factor for FY 2018

May 10, 2017

HSCRC
Health Services Cost Review Commission

Balanced Update Model for Discussion

Components of Revenue Change Linked to Hospital Cost Drivers/Performance

			Weighted Allowance
Adjustment for Inflation			2.40%
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Components of Revenue Offsets with Neutral Impact on Hosptial Finanical Statements

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**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)

Proposed Update & Compliance with the All-Payer Per Capita & 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%**

Summary of Recommendations

- Update the two categories of hospitals & revenues:
  - 3.39% for revenues under global budgets (3.02% per capita)
    - Proposing to split the approved revenue into a mid-year and year-end target
  - 2.18% for psychiatric hospitals and Mt. Washington Pediatric Hospital
- Allocate 0.28% of the inflation allowance based on each hospitals proportion of drug cost to total cost
- Allocate 0.20% for drug population/utilization to fund rising cost of new outpatient physician-administered drugs

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

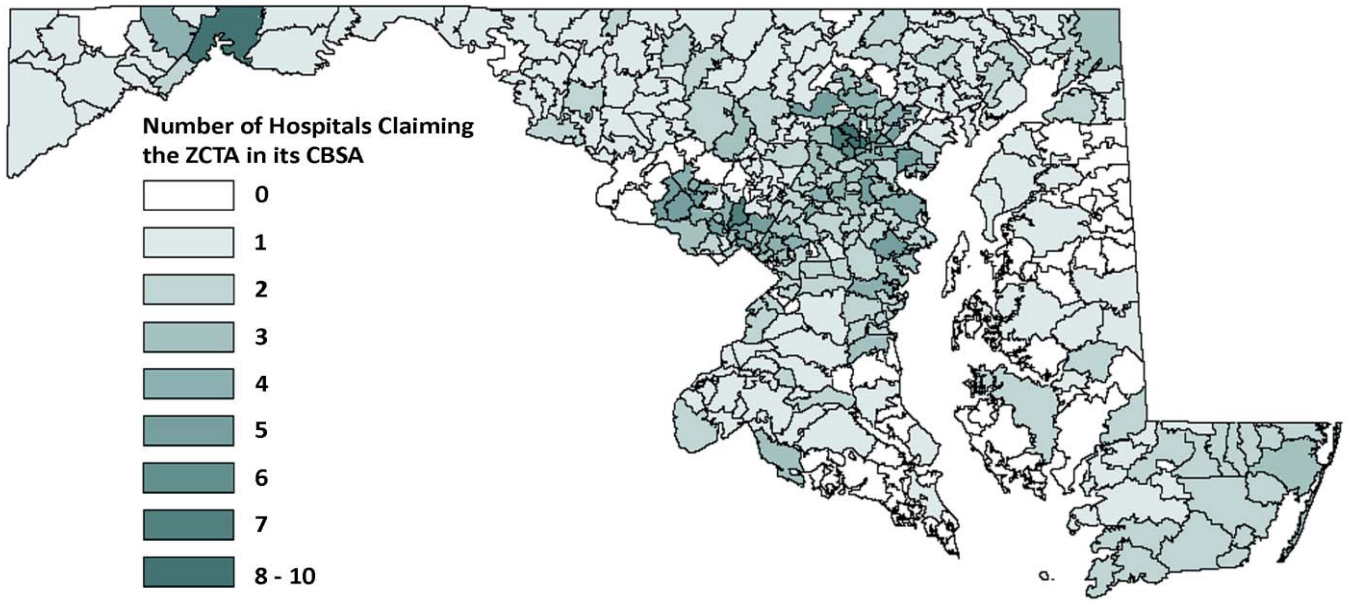
FY 2016 Hospital Community Benefit Expenditures by Category

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.