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Department of Health and Mental Hygiene

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519th MEETING OF THE HEALTH SERVICES COST REVIEW COMMISSION
May 13, 2015

EXECUTIVE SESSION
12:15 p.m.
(The Commission will begin in public session at 12:15 p.m. for the purpose of, upon motion and approval, adjourning into closed session. The open session will resume at 1PM.)

1. **Status of Medicare Data Submission and Reconciliation – Authority General Provisions Article, § 3-104**
2. **Update on Contract and Modeling of the All-payer Model vis-a-vis the All-Payer Model Contract – Authority General Provisions Article, § 3-104, and 3-305(b)(7)**

PUBLIC SESSION OF THE
HEALTH SERVICES COST REVIEW COMMISSION
1:00 p.m.

1. **Review of the Minutes from the Executive Session and Public Meeting on April 15, 2015**
2. **Executive Director's Report**
3. **New Model Monitoring**
4. **Docket Status – Cases Closed**
   2294A - Johns Hopkins Health System **2295A – Johns Hopkins Health System**
5. **Docket Status – Cases Open**
   2296A - Johns Hopkins Health System **2297A – University of Maryland Medical Center**
6. **Draft Update Factors Recommendations for FY 2016**
7. **Final Recommendation on Uncompensated Care Policy for FY 2016**
8. **Draft Recommendation for Shared Saving Program for Rate Year 2016**
9. **Update on Market Shift Adjustment**
10. **Final Recommendation for Ongoing Funding Support of CRISP in FY 2016 for HIE Operations and Reporting Service Activities**
11. **Report on Regional Partnerships for Health System Transformation Awards**
12. **Draft Recommendation for Continued Support of the Maryland Patient Safety Center**

13. **Draft Recommendation on Changes to the Relative Value Units Scale for Radiation Therapy Services**

14. **Legal Report**

15. **Hearing and Meeting Schedule**

Closed Session Minutes
Of the
Health Services Cost Review Commission

April 15, 2015

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

1. Status of Medicare Data Submission and Reconciliation;
2. Contract and modeling of the All-payer Model and legal consultation on potential alternative Medicare payment for hospital services vis-à-vis the All-payer Model Contract;
3. Personnel matters.

The Closed Session was called to order at 12:02 p.m. and held under authority of - §§ 3-104 and 3-305(b)(7) of the General Provisions Article.

In attendance, in addition to Chairman Colmers, were Commissioners Bone, Jencks, Keane, Loftus, Mullen, and Wong.

In attendance representing Staff were Donna Kinzer, David Romans, Steve Ports, Sule Calikoglu, Jerry Schmith, and Dennis Phelps.

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

Item One

David Romans, Director-Payment Reform and Innovation, presented and the Commission discussed an updated analysis of Medicare per beneficiary data. Authority: General Provisions Article, § 3-104.

Item Two

The Chairman and Executive Director updated the Commission and the Commission discussed Potential Alternative Medicare Payment for Hospital Services vis-à-vis the All-Payer Model Contract – Authority General Provisions Article, §§ 3-104, and 3-305.

Item Three

The Executive Director updated and the Commission discussed various personnel resource issues. – Authority General Provisions Article, § 3-305(b)(1)(i)(ii)

The Closed Session was adjourned at 12:41 p.m.

MINUTES OF THE
518th MEETING OF THE
HEALTH SERVICES COST REVIEW COMMISSION

April 15, 2015

Chairman John Colmers called the public meeting to order at 12:00 pm. Commissioners George H. Bone, M.D., Stephen F. Jencks, M.D., MPH, Jack C. Keane, Bernadette C. Loftus, M.D., Thomas Mullen, and Herbert S. Wong, Ph.D. were also in attendance. Upon motion made by Commissioner Jencks and seconded by Commissioner Bone, the meeting was moved to Executive Session. Chairman Colmers reconvened the public meeting at 1:01 pm.

REPORT OF THE APRIL 15, 2015 EXECUTIVE SESSION

Dennis Phelps, Associate Director-Audit & Compliance, summarized the minutes of the April 15, 2015 Executive Session.

ITEM I
REVIEW OF THE MINUTES FROM MARCH 11, 2015 EXECUTIVE SESSION AND PUBLIC MEETING

The Commission voted unanimously to approve the minutes of the March 11, 2015 Executive Session and Public Meeting.

ITEM II
EXECUTIVE DIRECTOR'S REPORT

Ms. Donna Kinzer, Executive Director, updated the Commission on the staff's activities over the past month. These activities consisted of:

- Developing draft recommendations:

    1. The uncompensated care policy update for rate year 2016;
    2. Ongoing funding support in FY 2016 for CRISP/HIE operations and supporting services.
- Developing a planned approach to update global budgets for rate year 2016 for estimated utilization increases related to the Medicaid expansion.
- Preparing the draft report from the care coordination work group;
- Preparing final recommendation for 2014 Budget Reconciliation and Financing Act (BRFA) funding for FY 2015;
- Developing an overview of the balance update calculations (staff still working on this).

For the months of April and May, Ms. Kinzer noted that staff will focus on:

- Providing a draft recommendation for the rate year 2016 balanced update;
- Continuing to work on the market shift adjustment
- Developing a draft recommendation for continued funding support of the Maryland Patient Safety Center;
- Reviewing of regional planning grants proposals together with the Department of Health and Mental Hygiene and review team.

Ms. Kinzer noted that the care coordination work group will be presenting its report to the Commission at this meeting. Ms. Kinzer emphasized that the results of this report must be discussed with hospital leadership and stakeholders around the State. HSCRC has an interest in this discussion, because it affects the success of the All-Payer Model.

Ms. Kinzer noted that staff sent out an ICD-10 survey to be completed by hospitals. Once these surveys are returned, staff will focus on the need to begin further work on this topic.

Ms. Kinzer noted that the BRFA regional planning applications are due today. Staff is appreciative of the efforts of hospitals, community organizations, and others in putting forth proposals. Staff is hopeful that regional planning will help accelerate effective approaches to care coordination and optimize resources, resulting in more effective patient centered approaches.

ITEM III
NEW MODEL MONITORING

Mr. David Romans, Director Payment Reform and Innovation, stated that Monitoring Maryland Performance (MMP) for the new All-Payer Model for the month of February will focus on fiscal year (July 1 through June 30) as well as calendar year results.

Mr. Romans reported that for the eight months ended February 28, 2015, All-Payer total gross revenue increased by 0.90% over the same period in FY 2014. All-Payer total gross revenue for Maryland residents increased by 1.52%; this translates to a per capita growth of 0.87%. All-Payer gross revenue for non-Maryland residents decreased by 5.10%.

Mr. Romans reported that for the two months of the calendar year ended February 28, 2015, All-Payer total gross revenue decreased by 1.83% over the same period in FY 2014. All-Payer total gross revenue for Maryland residents decreased by 1.26 %; this translates to a per capita growth of (1.81%). All-Payer gross revenue for non-Maryland residents decreased by 7.85%.

Mr. Romans reported that for the eight months ended February 28, 2015, Medicare Fee-For-Service gross revenue increased by 1.60% over the same period in FY 2014. Medicare Fee-For-Service for Maryland residents increased by 2.42%; this translates to a per capita growth of (0.79%). Maryland Fee-For-Service gross revenue for non-residents decreased by 7.15%.

Mr. Romans reported that for the two months of the calendar year ended February

28, 2015, Medicare Fee-For-Service gross revenue increased by 0.44%. Medicare Fee-For-Service for Maryland residents increased by 1.43%; this translates to a per capita growth of (1.99 %). Maryland Fee-For-Service gross revenue for non-residents decreased by 10.96%.

According to Mr. Romans, for the eight months of the fiscal year ended February 28, 2015, unaudited average operating profit for acute hospitals was 2.80%. The median hospital profit was 3.51%, with a distribution of 1.65% in the 25th percentile and 7.14% in the 75th percentile. Rate Regulated profits were 5.05%.

Dr. Alyson Schuster, Associate Director Data & Research, presented a quality report update on the Maryland Hospital Acquired Conditions program based upon readmission data on discharges through December 2014.

Potentially Preventable Complications

- The All-Payer risk adjusted PPC rate was 0.93 for December 2014 YTD. This is a decrease of 25.97% from the December 2013 YTD risk adjusted PPC rate.
- The Medicare Fee for Service risk adjusted PPC rate was 1.02 for December 2014 YTD. This is a decrease of 29.07% from the December 2013 risk adjusted PPC rate.
- These preliminary PPC results indicate that hospitals are on track for achieving the annual 6.89% PPC reduction required by CMMI to avoid corrective action.

Readmissions

- The All-Payer risk adjusted readmission rate was 12.00 % for December 2014 YTD. This is a decrease of 4.16% from the December 2013 risk adjusted readmission rate.
- The Medicare Fee for Service risk adjusted readmission rate was 12.95% for December 2014 YTD. This is a decrease of 2.25% from the December 2013 YTD risk adjusted readmission rate.
- Based on the New-Payer 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 6.76% during CY 2014 compared to CY 2013. Currently, only 15 out of 46 hospitals have reduced their risk adjusted readmission rate by more than 6.76%.

ITEM IV
DOCKET STATUS CASES CLOSED

2288R- MedStar Southern Maryland Hospital Center
2289R- MedStar Franklin Square Hospital Center
2290A- University of Maryland Medical Center
2291A- Johns Hopkins Health System
2292A- Johns Hopkins Health System
2293A- Johns Hopkins Health System

ITEM V
2294A- Johns Hopkins Health System

Johns Hopkins Health System filed an application on March 30, 2015 on behalf of its member hospitals (the "Hospitals") requesting approval to continue to participate in a global rate arrangement for solid organ and bone marrow transplant services with Cigna Health Corporation for one year beginning May 1, 2015.

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 one year beginning May 1, 2015, and that the approval be contingent upon the execution of the standard Memorandum of Understanding.

The Commission voted unanimously to approve staff's recommendation. Chairman Colmers recused himself from the discussion and vote.

2295A- John Hopkins Health System

John Hopkins Health System filed an application on March 30, 2015 on behalf of its member hospitals (the "Hospitals") requesting approval to continue to participate in a global rate arrangement for solid organ and bone marrow transplant services with Aetna Health, Inc. for one year beginning May 1, 2015.

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 one year beginning May 1, 2015, and that the approval be contingent upon the execution of the standard Memorandum of Understanding.

The Commission voted unanimously to approve staff's recommendation. Chairman Colmers recused himself from the discussion and vote.

ITEM VI
REPORT OF THE CARE COORDINATION WORK GROUP

Mr. Jack Meyer and Greg Vachon of Health Management Associates presented recommendations of the Care Coordination Work Group that are intended to accelerate efforts to improve patient care and patient experience and reduce costs. (See "Care Coordination Workgroup- Care Coordination to Support Integrated Value Based Patient Centered Care" on the HSCRC website).

The Care Coordination Work Group recommends these immediate next steps:

- Engage Maryland healthcare leadership;
- Develop specific budget estimates and implementation plan;
- Initiate data process;

- Tap CRISP to organize data;
- Build data infrastructure and identify target population;
- Designate CRISP to identify consistent information that can be shared among providers and support different care management platforms;
- Designate CRISP to create a consistent care management platform;
- Design standardized care profiles;
- Establish consumer outreach strategy; and
- Develop a plan for sustainability of care coordination infrastructure.

ITEM VII
FINAL RECOMMENDATION ON INCREASING RATES IN FY 2015 TO IMPLEMENT 2014 BUDGET RECONCILIATION AND FINANCING ACT (BFRA) PROVISION

Mr. Steve Ports, Deputy Director Policy and Operations, presented the staff's final recommendation for funding of statewide infrastructure and planning of regional partnerships for health system transformation. (See "Final Recommendation: FY 2015 Rate Adjustment to Implement the 2014 Budget Reconciliation and Financing Act (BRFA) Provisions" on the HSCRC website).

Staff's final recommendations were:

That hospital rates be increased in FY 2015 beginning May 1, 2015 to provide up to $15 million to support:

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- Planning grants for regional partnerships for health system transformation (up to $2.5 million) – Rates will be increased only for those hospitals that are part of a collaborative RFP chosen by the review committee and approved by the Department and the Commission pursuant to the process outlined in the RFP.
- Common care coordination infrastructure to provide support on a statewide basis for specific opportunities to improve care coordination and chronic condition management (up to $12 million) – Rates will be increased for all hospitals to support this activity.
- The existing engagement of resources to assist (in conjunction with stakeholders) in further evaluation and planning of possible statewide infrastructure and approaches for care coordination and provider alignment ($1 million) – Rates will be increased for all or a subset of hospitals to support this activity.

The Commission voted unanimously to approve staff's recommendations.

ITEM VIII
DRAFT RECOMMENDATION FOR ONGOING FUNDING SUPPORT OF CRISP IN FY 2016 FOR HIE OPERATIONS AND REPORTING SERVICE ACTIVITIES

Mr. Ports presented staff's draft recommendations for FY 2016 funding to support Health

Information Exchange (HIE) Operations and the Chesapeake Regional Information System for our Patients (CRISP) (See "Draft Recommendation: Maryland's Statewide Health Information Exchange, the Chesapeake Regional Information System for our Patients: FY 16 Funding to Support HIE Operations and CRISP Reporting Services" on the HSCRC website).

In accordance with its statutory authority to approve alternative methods of rate determination consistent with the All-Payer Model and the public interest (Health- General Article, Section 19-219(c)), this recommendation is to provide continued funding support in FY 2016 in the amount of $3.19 million to CRISP, for the following purposes;

- HIE Operations; and
- Continuing CRISP reporting services to hospitals in the State.

Over the past six years, the Commission has approved funding to support the general operations of the CRISP and HIE through hospital rates.

In December 2013, the Commission approved continued funding support for CRISP during FYs 2015 through FY 2019 not to exceed $2.5 million in any year. At the May 2014 Commission meeting, staff reported that $1.65 million in funding support had been granted to CRISP for core operations in FY 2014.

In June of 2014, the Commission approved additional funding of $850,000 for specific CRISP functions related to the HSCRC's inter-hospital reporting capabilities. At that point, the Commission had approved a total of $2.5 million for HIE operations and CRISP Reporting Services.

In September of 2014, the Commission approved an additional $2 million (for a total of $4.5 million in FY 2015) to support expansion of its current monitoring capacity and engagement of resources to assist in further evaluation and planning of possible statewide infrastructure and approaches for care coordination and provider alignment, in conjunction with stakeholders.

For FY 2016, the staff is separating the funding request for HIE operations and standard CRISP reporting services from those relating to HIE connectivity expansion and ambulatory integration, statewide infrastructure needs, and related expanded reporting services, while further information can be gathered on potential needs and costs, The FY 2016 request for HIE operations and standard CRISP reporting services is $3.19 million, which exceeds the $2.5 million previously established maximum.

HSCRC and MHCC staff recommend that hospital rates be increased in FY 2016 by $3.19 million to continue to support the ongoing costs of CRISP/ HIE operations and reporting services. The FY 2016 budget for these functions is as follows:

- CRISP HIE Operations- $1,650,000 (consistent with funding in FY 2015);
- CRISP Reporting Services - $1,539,000 (compared to $1,850,000 in FY 2015).

As this is a draft recommendation, no Commission action is necessary.

ITEM IX
DRAFT RECOMMENDATION ON UNCOMPENSATED CARE POLICY FOR FY 2016

Mr. Romans presented staff's draft recommendation on the Uncompensated Care Policy for FY 2016 (See "Draft Report on Uncompensated Care Policy Recommendations" on the HSCRC website.

Since it first began setting rates, the HSCRC has recognized the cost of uncompensated care (charity care and bad debt) within Maryland's unique hospital rate setting system. As a result, patients who cannot pay for care are still able to access hospital services, and hospitals are credited for reasonable level of uncompensated care provided to those patients.

Under the current HSCRC policy, uncompensated care is funded by a statewide pooling system in which regulated Maryland hospitals draw funds from the pool if they experience a greater than average level of uncompensated care, and pay into the pool if they experience a less than average level of uncompensated care . This ensures that the cost of uncompensated care is shared equally across the hospitals in the system.

The HSCRC must determine the total amount of the uncompensated care that will be placed in hospital rates for FY 2016 and the amount of funding that will be available for the uncompensated care pool. Additionally, HSCRC must review the methodology for distributing these funds among hospitals.

Based on staff's analysis, the following draft recommendations are made:

- The uncompensated care provision in rates be reduced from 6.14% to 5.25% effective July 1, 2015;
- The combined results of the regression model and two years of historical data underpinning the FY 2015 uncompensated care policy be reused for FY 2016:

    1. No update to the regression results
    2. Combine the regression results with the same two years of actual data (FY 2012 and FY 2013) incorporated into the FY 2015 policy.
    3. Subtract the ACA driven decline in self pay/charity charges from CY 2013 and CY 2014 from the modeled uncompensated care result for each hospital to derive its final percentage for determining its contribution or withdrawal from the uncompensated care pool. Appendix II shows the result of this calculation.

- The Charity Care Adjustment be suspended indefinitely and not be reinstituted in FY 2016 rates;
- Data continued to be collected on write offs to guide future development of uncompensated care regression models and uncompensated care policies;

- Data continued to be collected on outpatient denials, in addition to data already collected on inpatient denials, to understand the continuing trends in denials under the new All-Payer model; and
- A new uncompensated care policy be developed for FY 2017 that reflects the patterns in uncompensated care experience, which are observed in FY 2015 and projected for FY 2016,

As this is a draft recommendation no Commission action is necessary.

ITEM X
GLOBAL BUDGET UPDATE: MEDICAID UTILIZATION ADJUSTMENT

Mr. Roman presented staff's update on the Medicaid utilization adjustment in regards to the hospital global budgets (See "Impact of ACA's Medicaid Expansion on Hospital Utilization Planned Adjustments per Global Contracts Provisions" on the HSCRC website)

On January 1, 2014, the Maryland Medicaid Program extended full coverage to adults with incomes up to 138% of the poverty level who previously were ineligible for Medicaid or qualified for a limited benefit through the Primary Adult Care (PAC) Program. The coverage expansion authorized by the federal Patient Protection and Affordable Care Act of 2010 (ACA) enrolled more than 200,000 people during CY 2014.

Global budgets for FY 2015 were prospectively adjusted to capture a portion of the expected decline in uncompensated care resulting from the Medicaid expansion. No adjustments were made to capture the potential impact on volume of uninsured and underinsured individuals increasing their utilization of hospital services after enrolling in Medicaid. Global budget contracts did, however, include a provision indicating the Commission would review the impact of the Medicaid expansion on volumes and adjust funding as appropriate.

Mr. Romans noted that this report includes the results of the analysis and planned FY 2016 adjustments to rates to capture the ongoing impact of the Medicaid expansion on hospital utilization.

Based on Staff's analysis, the following adjustments will be made to the Global Budget and Total Patient Revenue agreements:

- Increase rates for FY 2016 by $57 million (0.36%) to capture the outgoing uptick in volumes associated with the calendar 2014 Medicaid expansion
- Allocate the additional funding across hospitals based on the actual growth in charges associated with the expansion population in CY 2014. Each hospital will receive about 26% of the growth in adjusted charges associated with people who enrolled in the expansion in the 1st quarter of 2014
- Continue to monitor the utilization rate of expansion enrollees and report back to Commission in six months regarding the ongoing trends

ITEM XI
WORK GROUP UPDATE

Mr. Romans updated the Commission on the activities of the Payment Models Work Group, including the review of a template Staff will use to develop the annual update factor. Dr. Sule Calikoglu, Deputy Director, Research and Methodology, outlined staff's activities to finalize the market shift policy (See "Update on Work Groups" on the HSCRC website).

ITEM XII
LEGISLATIVE REPORT

Mr. Ports presented a summary of the legislation of interest to the HSCRC (see "Legislative Update- April 15, 2015" on the HSCRC website).

The Bills included: 1) House Bill - 72 Budget Reconciliation Act of 2015; 2) Senate 513/House Bill 613 - Rate Setting- Participation in 340B Program Under the Federal Public Health Service Act; 3) Senate 585/House Bill 553 - Maryland No-Fault Birth Injury Fund; 4) Senate 479/ House Bill 398 - Civil Actions- Noneconomic Damages- Catastrophic Injury; 5) Senate 469/ House Bill 367- Public Health- Maryland Behavior Health Crisis Response System; 6) Senate 572/ House Bill 1006- Hospitals - Designation of Caregivers; 7) Senate 539/ House Bill 944 Patient Referrals - Oncologists- Radiation Therapy Services and Nondiagnostic Computer Tomography Scan Services; 8) House Bill 683- Health Occupations - Magnetic Resonance Imaging Services and Computed Tomography Services- Patient Referrals; 9) Senate 870/House Bill 1261- Garrett County – Memorial Hospital – Board of Governors.

ITEM XIII
HEARING AND MEETING SCHEDULE

May 13, 2015	Times to be determined, 4160 Patterson Avenue HSCRC Conference Room
June 10, 2015	Times to be determined, 4160 Patterson Avenue HSCRC Conference Room

There being no further business, the meeting was adjourned at 2:55 pm.

Executive Director's Report

Health Services Cost Review Commission

May 13, 2015

Staff Focus

Today, staff will present:

- A draft recommendation for the rate year 2016 balanced update
- Status of the market shift adjustment
- Selected BRFA regional planning grant proposals for affirmation by the Commission
- Draft of shared savings adjustment recommendation
- Final recommendations regarding UCC adjustments
- Final recommendation regarding CRISP funding

Staff completed rate order updates to incorporate the BRFA funding approved at the April Commission meeting and will release all of the BRFA rate order updates after the Commission affirms the regional planning grant awards.

For May and June, staff will be focused on:

- Finalizing the updates for rate year 2016 and preparing rate setting files for the rate orders.
- Completing the market shift adjustments.
- Focusing on the implementation of the care coordination report and moving forward on activities relative to alignment.

Planning and Implementation of Care Coordination and Alignment Activities

Similar to the initial implementation of global budgets, we are now in a timeframe of model implementation whereby the staff needs to increase its communications with the Commission, hospitals, and other stakeholders.

- Over these next 3 meetings, the staff will be presenting information to the Commission about more detailed plans, timelines, and execution approaches for care coordination infrastructure and regional and local planning activities, alignment activities, and

consumer engagement activities. These are partnership activities being conducted together with other State agencies and with stakeholder leadership.

BRFA funds were placed in rates on May 1 to provide for the collection of $15 million during rate year 2015 for using in implementing initiatives to support the success of the All Payer Model. An initial funding of $1 million was provided to CRISP, Maryland's designated Health Information Exchange, for consulting and other resources to support work group activities aimed at accelerating care coordination and alignment. $2.5 million will be retained by hospitals for implementation of regional planning grants. The remaining $11.5 million will be provided to CRISP to fund additional planning and start up costs of expanded IT and analytic infrastructure and continued consulting support for implementation of care coordination and alignment activities. The responsibilities of CRISP and the use of these funds will be defined and directed under a Memorandum of Understanding with HSCRC, and with oversight of MHCC, who administers the funds with the support of HSCRC. An initial budget of $495,000 has been submitted and reviewed by MHCC and HSCRC for a 90 day intense planning process for state level infrastructure. This budget has been incorporated into the Memorandum of Understanding. A second budget related to alignment and care coordination activities is in process and will be reported at the June HSCRC meeting. At the end of the 90 day process, we will receive a more refined budget and funding requirements for the remaining activities associated with planning and implementing the proposed state level IT infrastructure and alignment and care coordination planning support outlined in the Care Coordination work group report.

Proposed Rate Update for Infrastructure Funding

All hospitals in Maryland have adopted a global revenue budget system, either under the Global Budget Revenue (GBR) system or under the Total Patient Revenue (TPR) system. Both arrangements have provided funding for investment in interventions to reduce Potentially Avoidable Utilization (PAU). TPR agreements, which were implemented in FY 2011, contained incentive payments that were intended, in part, for this purpose. Most GBR hospitals were previously given a .65% infrastructure adjustment, 1/2 during rate year 2014, and the second half during rate year 2015 during the initial adoption of the GBR.

The proposed rate update for rate year 2016 (beginning July 1, 2016) includes an infrastructure adjustment for GBR hospitals of .4%. The proposed rate update also includes an allowance of .25% that would be made available under a competitive process. All hospitals will be invited to submit proposals for this funding.

The purpose of providing these funds in rates is to accelerate the process of investing in and gaining the benefit of care coordination and integration, population health, and alignment initiatives. While hospitals performed well during the initial year of implementation, it is critical to continue an accelerated scaling and implementation of additional resources and interventions to sustain and augment the results that are needed under the All Payer Model. The investments are expected to improve care delivery but also to generate a return on investment. Hospitals will be held accountable for these outcomes as prospective quality adjustments are applied for reductions in PAU over time. HSCRC staff will also be able to examine process measures, if desired, to evaluate the levels of care coordination activities in place. If these rate increases contribute to an erosion of Medicare savings below Medicare expectations, hospitals could face an acceleration of PAU adjustments to meet the requirements of the All Payer Model contract with CMS. While staff is not currently projecting this outcome, the Medicare savings requirements is based on a dynamic comparison to national rates of increase in payments, and the rates of increase may change as CMS implements payment policies or as utilization levels vary from projected levels.

Ebola Adjustment

In fall 2014, the Maryland Department of Health and Mental Hygiene (DHMH) worked closely with the Maryland Hospital Association and the three major health systems, Johns Hopkins, University of Maryland and MedStar to designate three Ebola treatment centers to serve Maryland. At DHMH's request, the health systems identified The Johns Hopkins Hospital, University of Maryland Medical Center and MedStar Washington Hospital Center as Maryland's Designated Ebola Treatment Centers (DETCs). Recognizing the requirements to prepare, HSCRC rate funding was identified as a source to complement federal support.

The DETCs incurred one-time start-up expenses ranging from $5.3 million to $6.3 million per hospital. These costs reflect building renovations, building system upgrades, personal protective equipment, training expenses and management costs. The Ebola treatment centers may receive up to $1 million of federal funding for start-up costs. HSCRC staff is making an adjustment to reflect the one-time costs, net of $1 million of potential federal funding for each DETC. Net of federal funding, the adjustments for the three systems are approximately $4.3 million to $5.3 million per hospital, plus markup. Staff is increasing FY2015 GBR targets and underlying rates, to be reversed out in FY2016. The total adjustment is approximately $15 million. The MedStar Washington Center Hospital funding is placed in other MedStar system hospitals' GBRs, and those hospitals will pay for the start up expenses at the MedStar Washington Hospital Center.

This is the resolution of this matter, which was discussed with the Commission in prior meetings.

Monitoring Maryland Performance

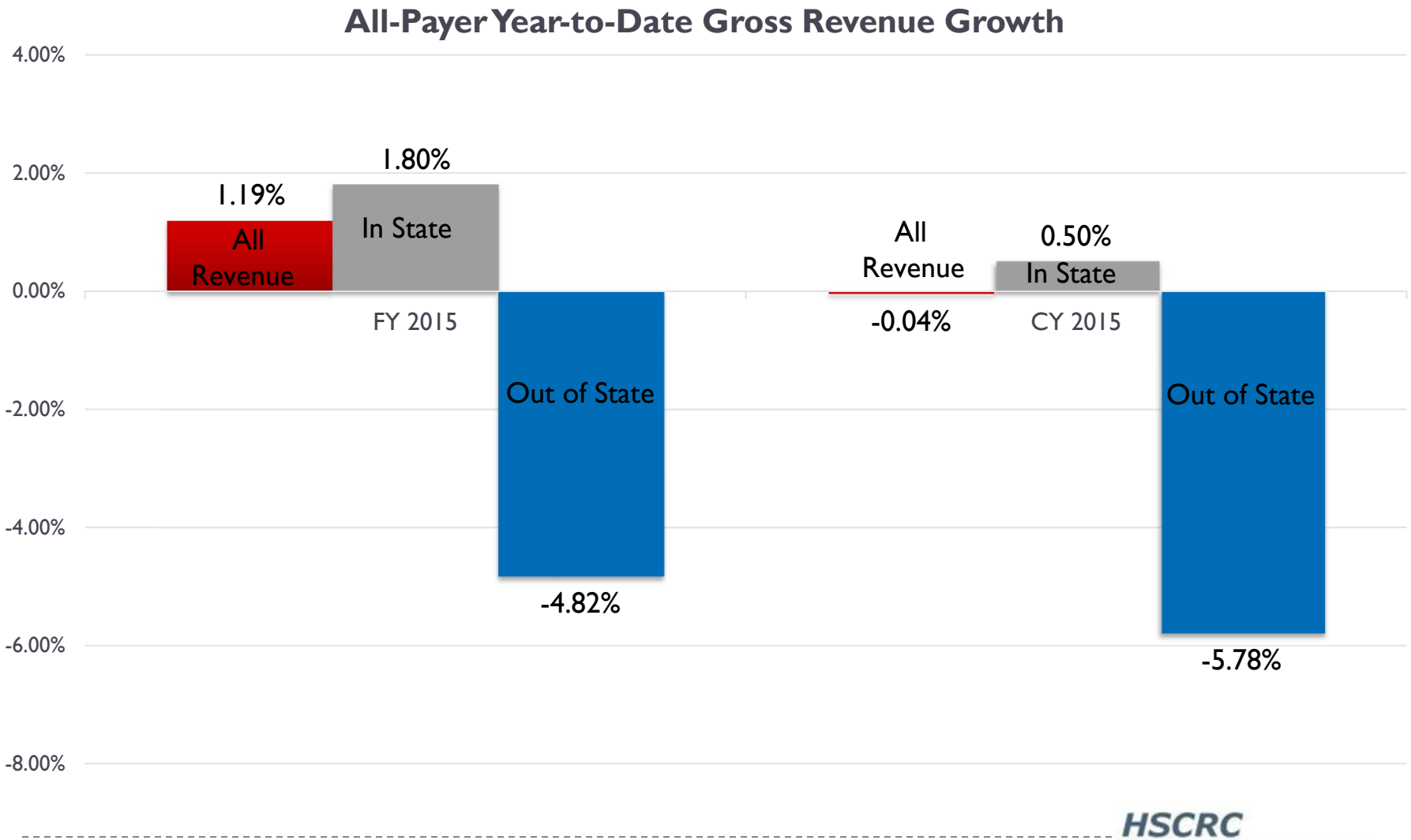
Financial Data

Year to Date thru March 2015

HSCRC
Health Services Cost Review Commission

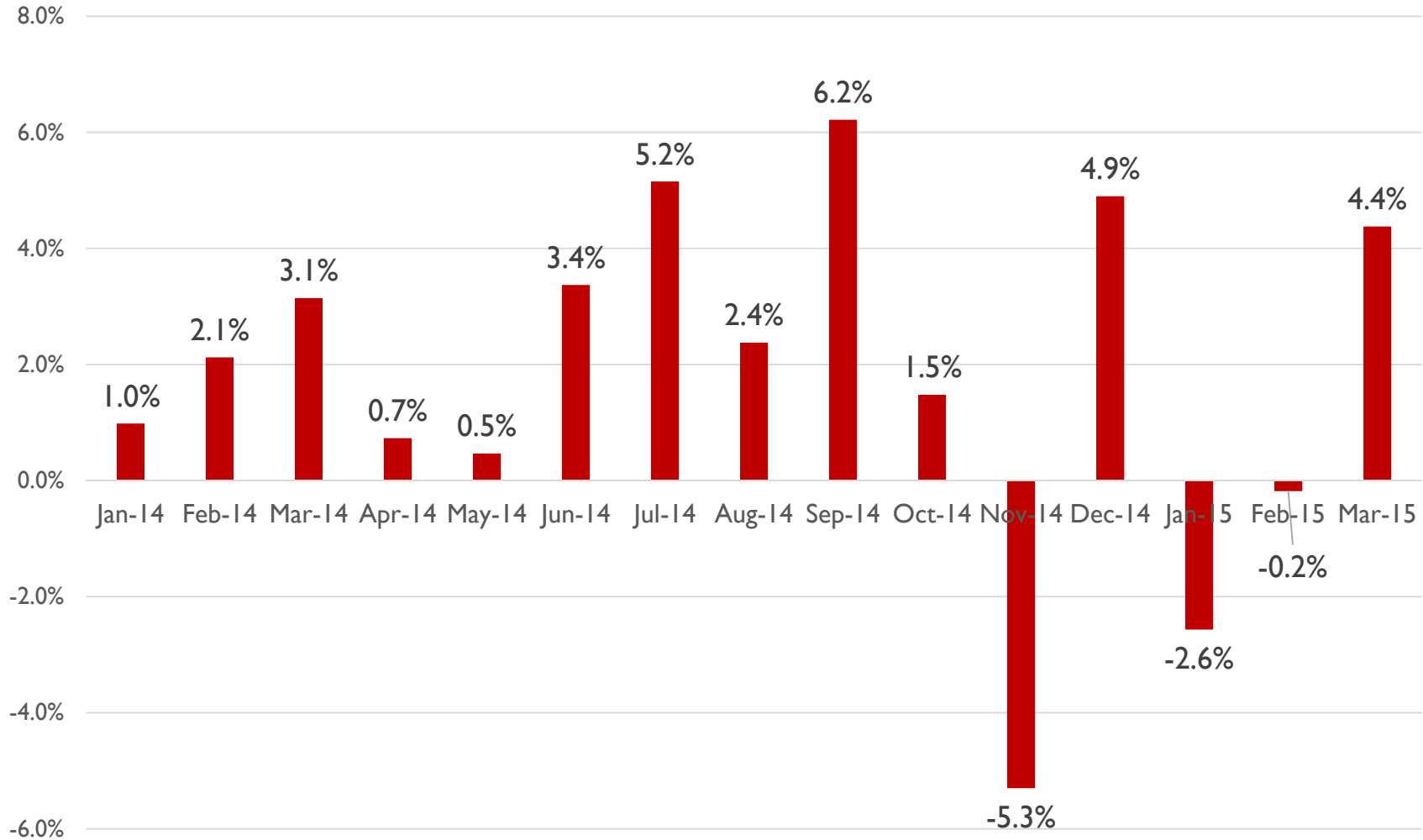
Gross All Payer Revenue Growth

Year to Date (thru March 2015) Compared to Same Period in Prior Year



HSCRC
Health Services Cost Review Commission

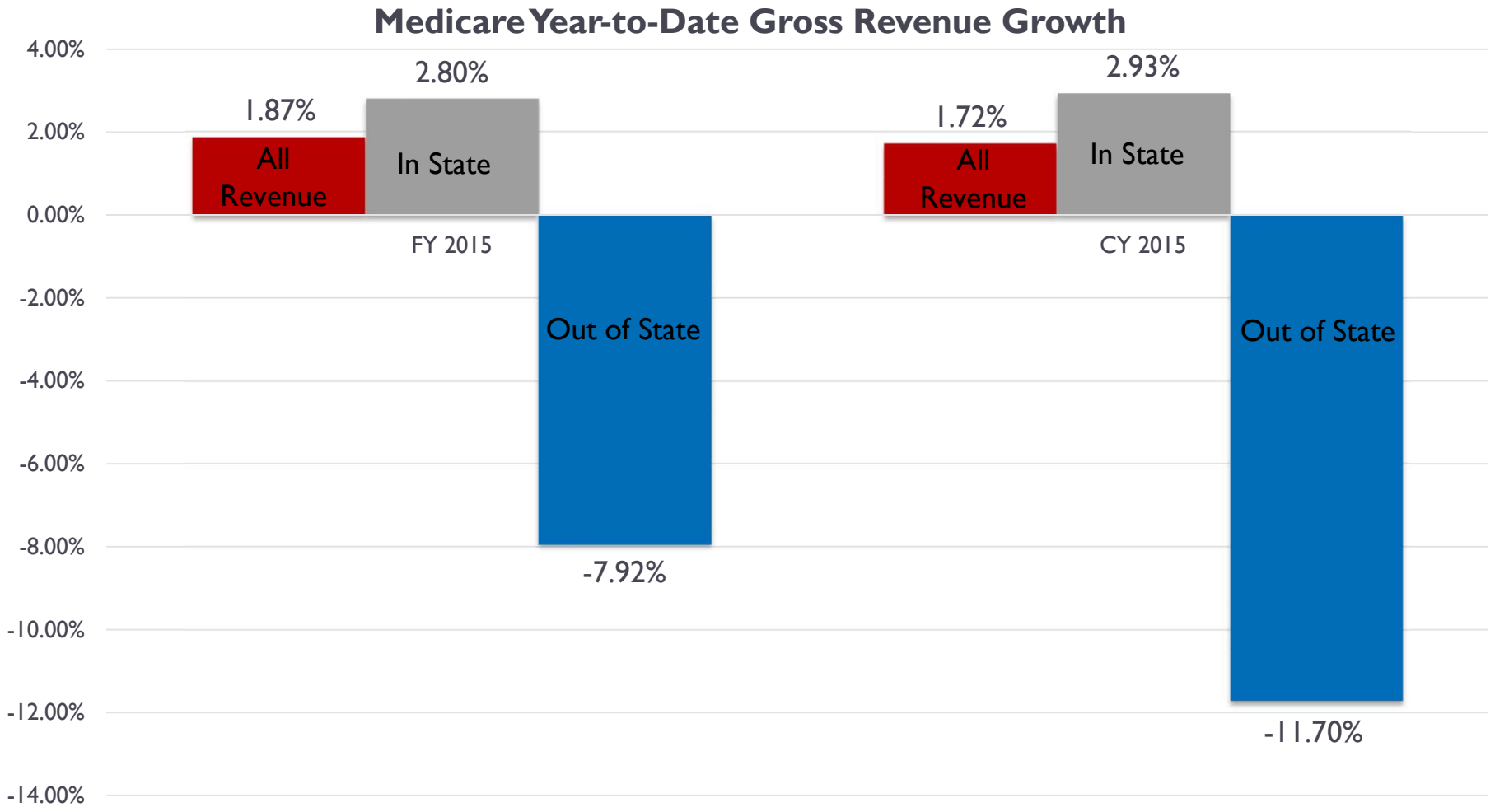
Gross All-Payer In-State Hospital Revenue
% Change from Same Month in Prior Year



HSCRC
Health Services Cost Review Commission

Gross Medicare Fee-for-Service Revenue Growth

Year to Date (thru March 2015) Compared to Same Period in Prior Year



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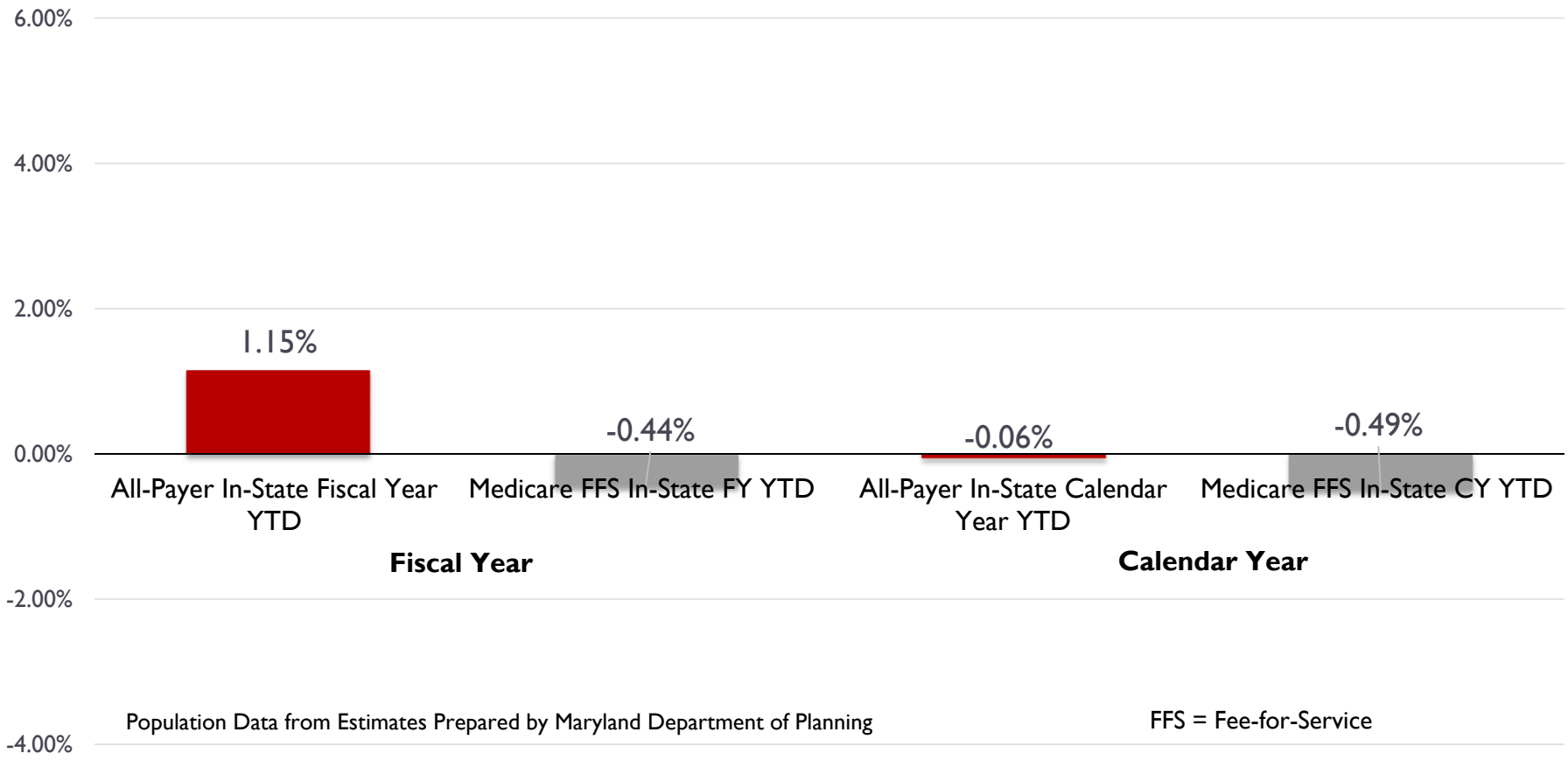
Per Capita Growth Rates
Fiscal Year 2015 and Calendar Year 2015

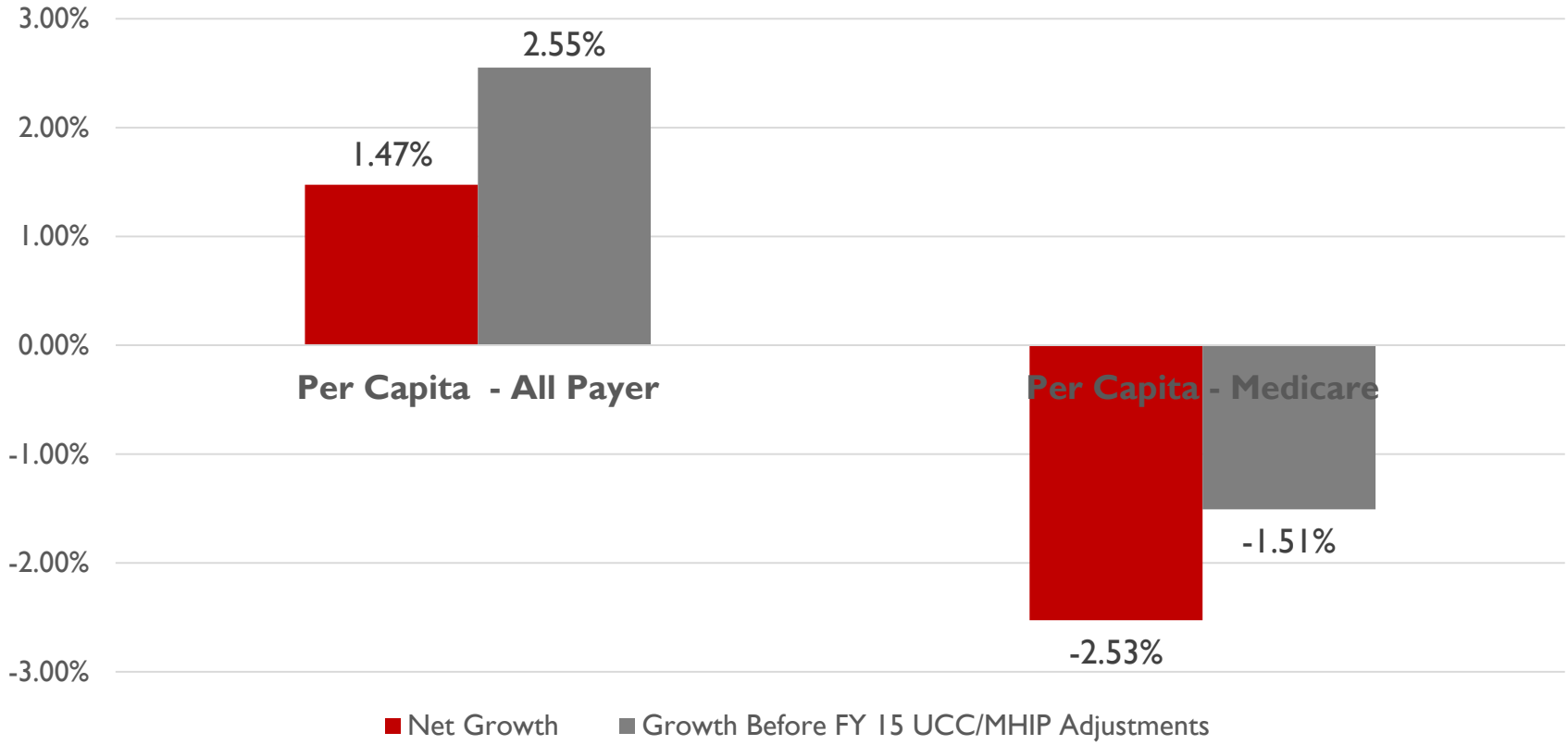


- **Calendar and Fiscal Year trends to date are below All-Payer Model Guardrail for per capita growth.**

HSCRC
Health Services Cost Review Commission

Per Capita Growth – Actual and Underlying Growth

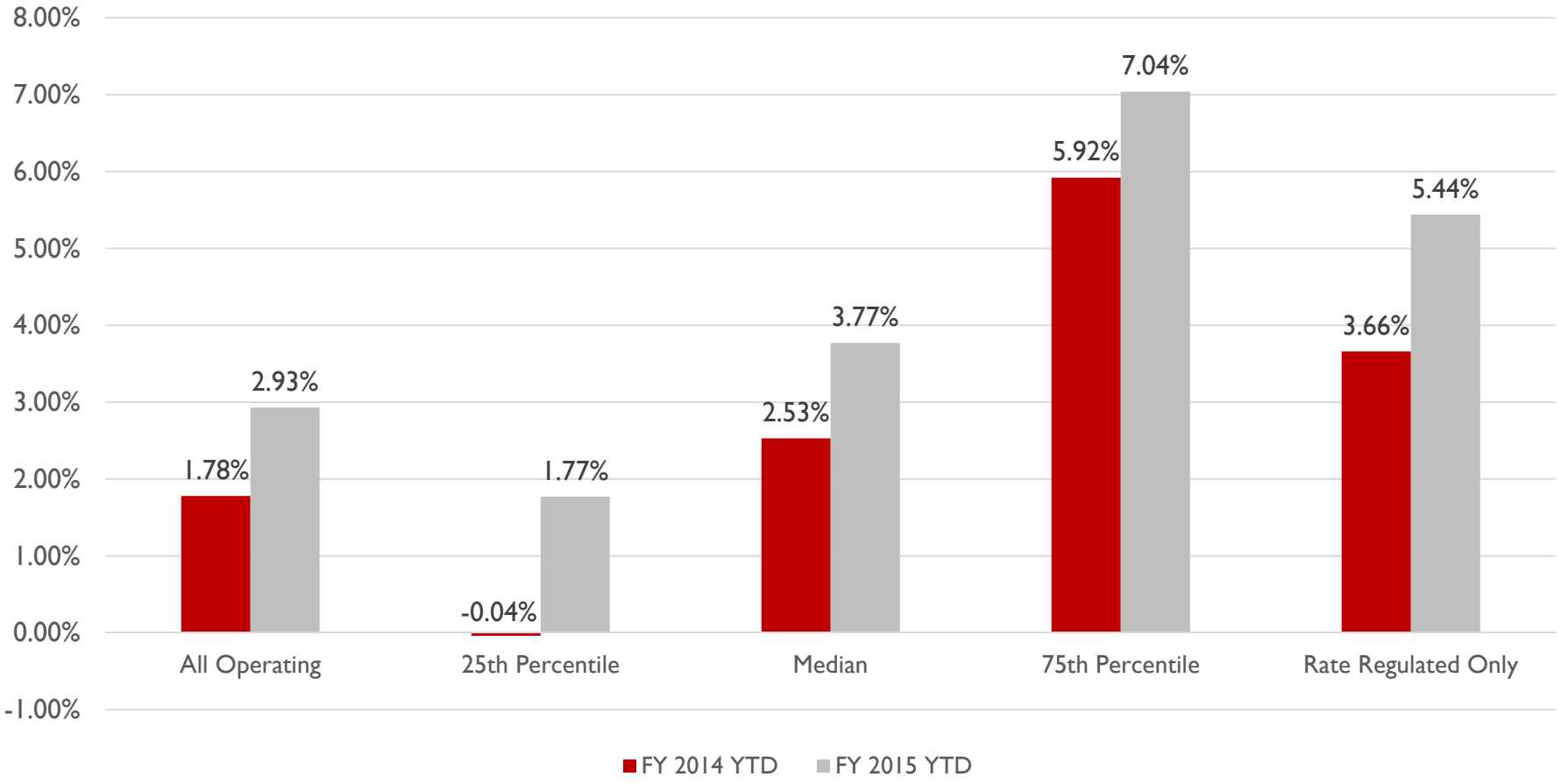
CY 2015 Year to Date Compared to Same Period in Base Year (2013)



- Per capita growth rates distorted by the availability of only two months of CY 2015 data.
- Underlying growth reflects adjustment for FY 15 revenue decreases that were budget neutral for hospitals. 1.09% revenue decrease offset by reduction in MHIP assessment and hospital bad debts.

HSCRC
Health Services Cost Review Commission

Operating Profits: Fiscal 2015 Year to Date (July-March) Compared to Same Period in FY 2014

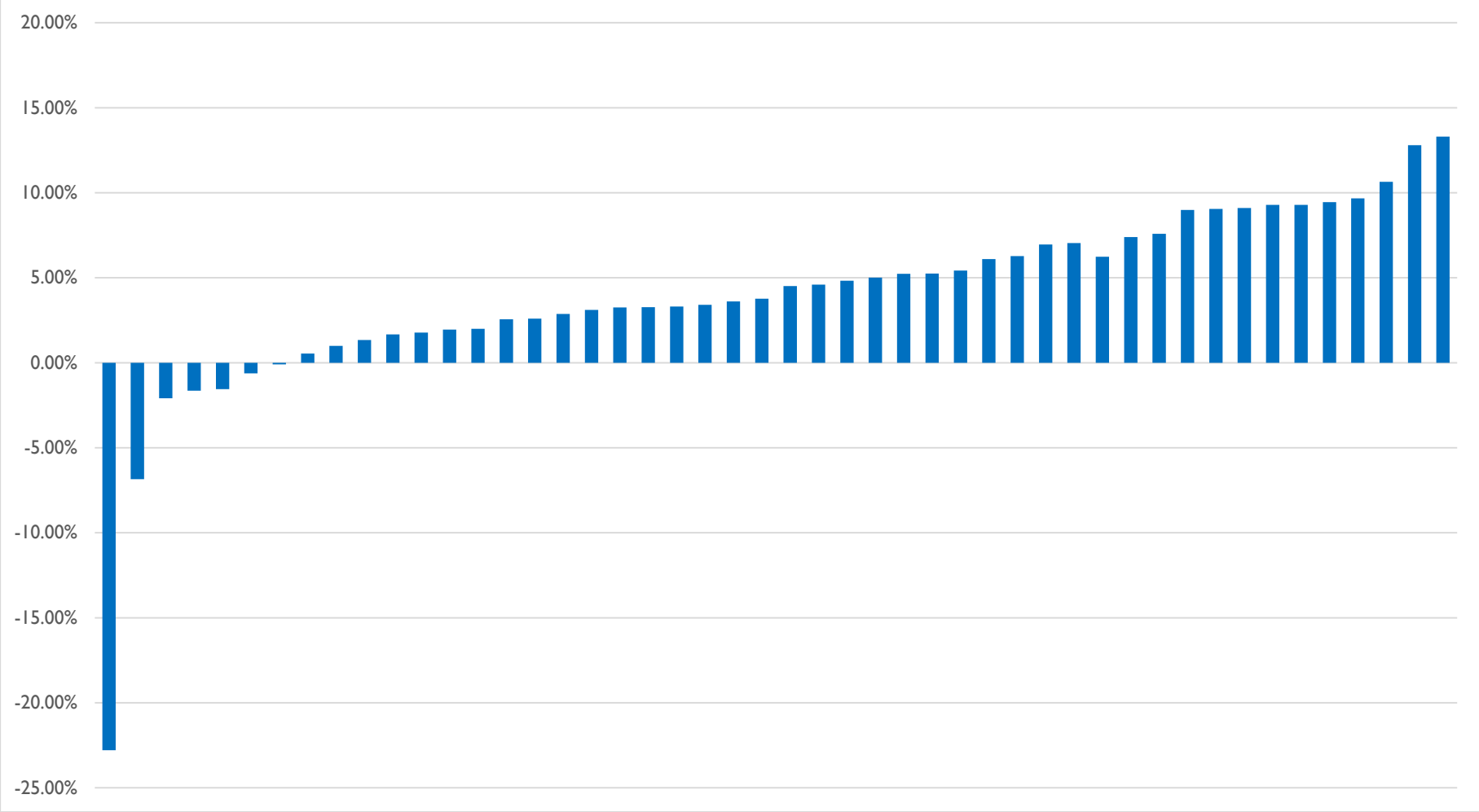


- Year-to-Date FY 2015 hospital operating profits improved compared to the same period in FY 2014.

HSCRC
Health Services Cost Review Commission

Operating Profits by Hospital

Fiscal Year to Date (July – March)



HSCRC
Health Services Cost Review Commission

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

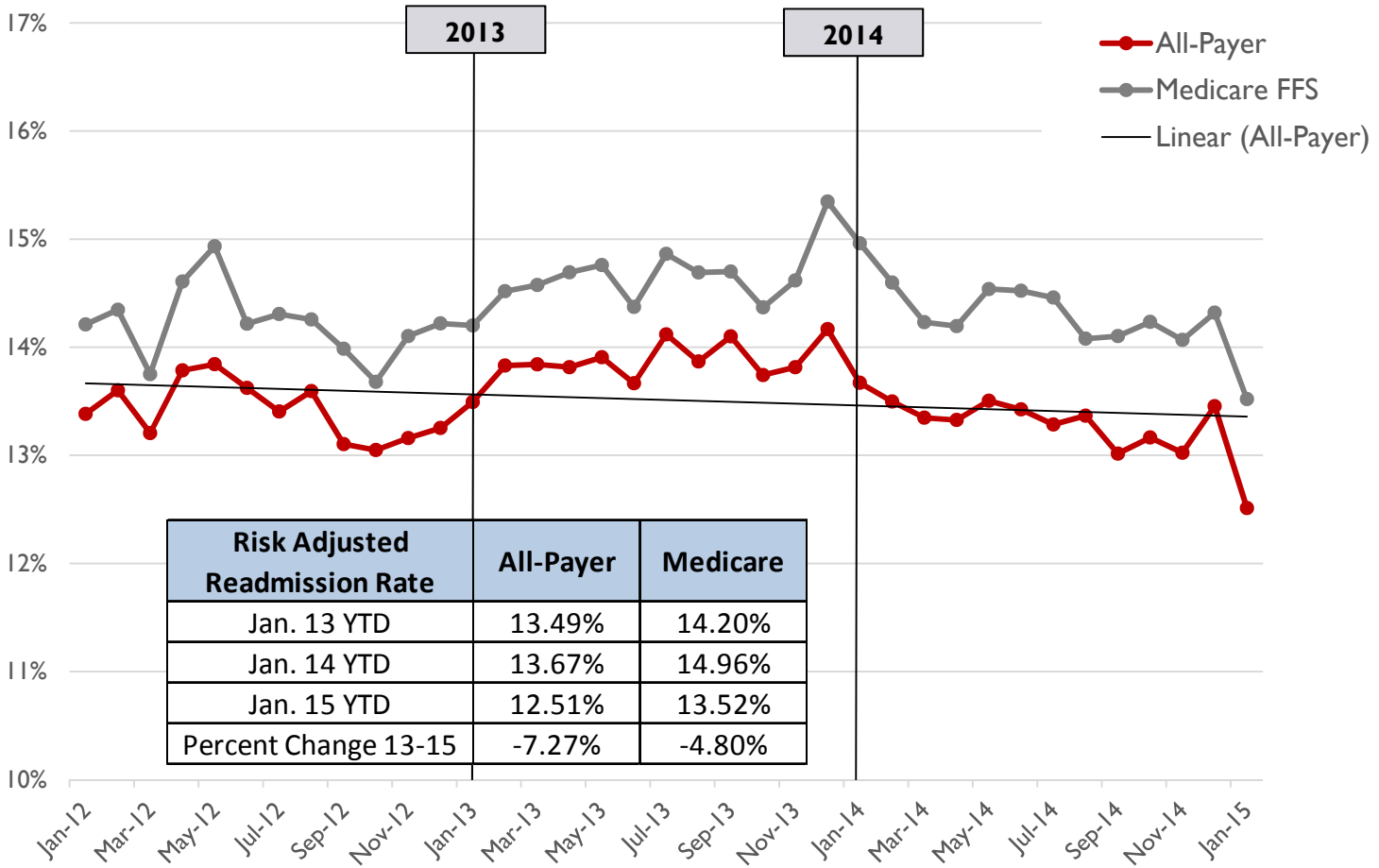
- Data revisions are expected.
- For financial data if residency is unknown, hospitals report this as a Maryland resident. As more data becomes available, there may be shifts from Maryland to out-of-state.
- Many hospitals are converting revenue systems along with implementation of Electronic Health 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 2015 rely on Maryland Department of Planning projections of population growth of .64% for FY 15 and .56% for CY 15. Medicare per capita calculations use actual trends in Maryland Medicare beneficiary counts as reported monthly to the HSCRC by CMMI.

Monitoring Maryland Performance
Quality Data

May 2015 Commission Meeting Update

HSCRC
Health Services Cost Review Commission

Monthly Risk-Adjusted Readmission Rates

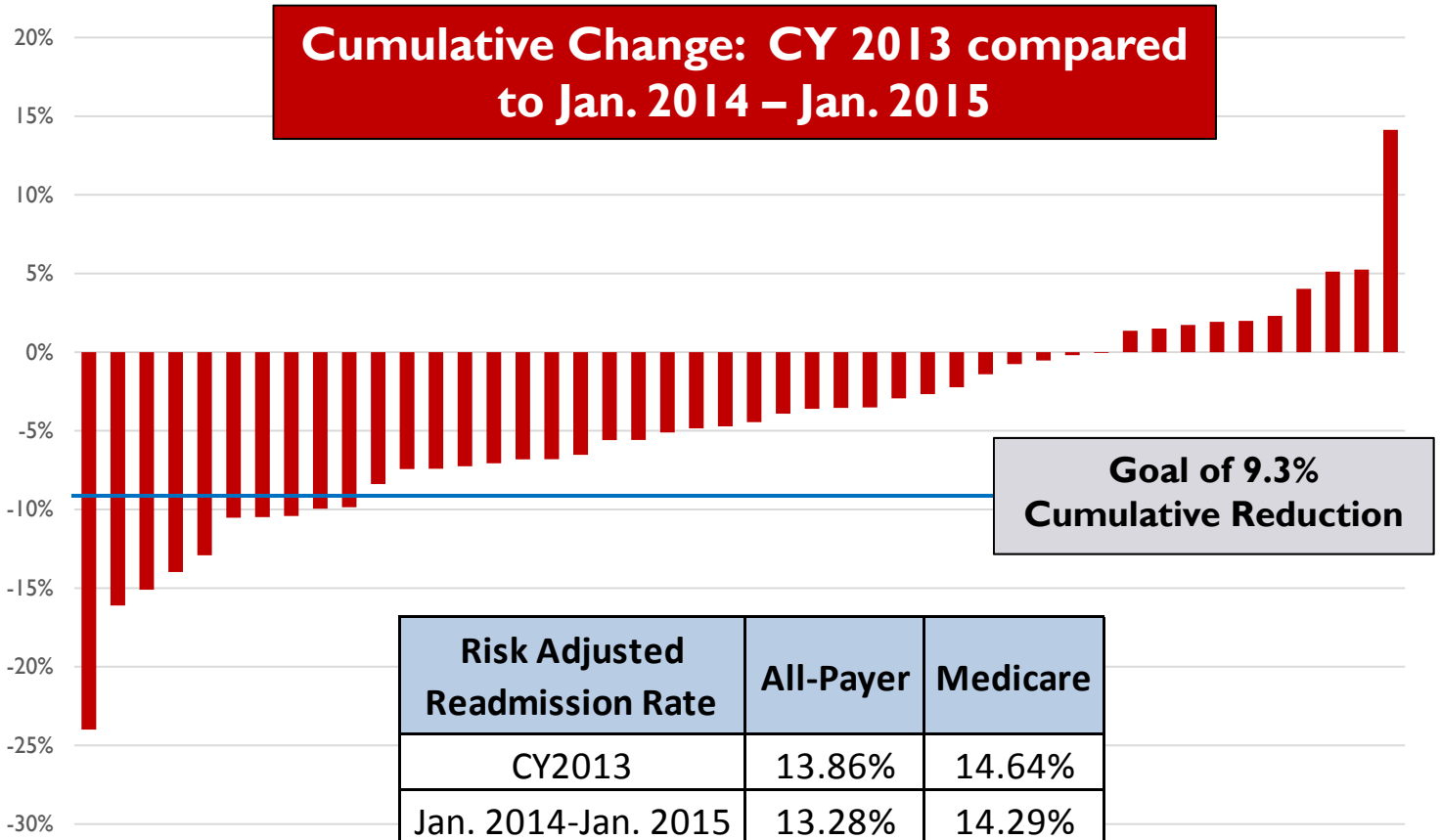


Risk Adjusted Readmission Rate	All-Payer	Medicare
Jan. 13 YTD	13.49%	14.20%
Jan. 14 YTD	13.67%	14.96%
Jan. 15 YTD	12.51%	13.52%
Percent Change 13-15	-7.27%	-4.80%

Note: Based on final data for January 2012 - December 2014, and preliminary data through February 2015.

HSCRC
Health Services Cost Review Commission

Change in All-Payer Risk-Adjusted Readmission Rates by Hospital



Risk Adjusted Readmission Rate	All-Payer	Medicare
CY2013	13.86%	14.64%
Jan. 2014-Jan. 2015	13.28%	14.29%
Percent Change	-4.22%	-2.38%

Note: Based on final data for January 2012 - December 2014, and preliminary data through February 2015.

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 6, 2015

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
2296A	Johns Hopkins Health System	4/23/2015	N/A	N/A	N/A	DNP	OPEN
2297A	University of Maryland Medical Center	4/27/2015	N/A	N/A	N/A	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:**	**2015**
SYSTEM	*	**FOLIO:**	**2106**
BALTIMORE, MARYLAND	*	**PROCEEDING:**	**2296A**

Staff Recommendation

May 13, 2015

I. INTRODUCTION

Johns Hopkins Health System ("System") filed an application with the HSCRC on April 23, 2015, on behalf of its member hospitals, Johns Hopkins Hospital, Johns Hopkins Bayview Medical Center, and Howard County General Hospital (the "Hospitals") for an alternative method of rate determination, pursuant to COMAR 10.37.10.06. The System requests approval from the HSCRC to continue to participate in a revised global rate arrangement for heart failure services and solid organ and bone marrow transplants with Optum Health, a division of United HealthCare Services, for a period of one year beginning July 1, 2015.

II. OVERVIEW OF APPLICATION

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

III. FEE DEVELOPMENT

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

IV. IDENTIFICATION ANDASSESSMENT OF RISK

The Hospitals will continue to submit bills to JHHC for all contracted and covered services. JHHC is responsible for billing the payer, collecting payments, disbursing payments to the Hospitals at their full HSCRC approved rates, and reimbursing the physicians. The System contends that the arrangement among JHHC, the Hospitals, and the physicians holds the Hospitals harmless from any shortfalls in payment from the global price contract. JHHC

maintains it has been active in similar types of fixed fee contracts for several years, and that JHHC is adequately capitalized to bear risk of potential losses.

V. STAFF EVALUATION

The staff reviewed the experience under this arrangement and found the experience for the last year to be favorable.

VI. STAFF RECOMMENDATION

The staff recommends that the Commission approve the Hospitals' application for an alternative method of rate determination for heart failure, solid organ and bone marrow transplant services for a one year period commencing July 1, 2015. The Hospitals will need to file a renewal application for review to be considered for continued participation.

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

IN RE: THE APPLICATION FOR	*****	**BEFORE THE MARYLAND HEALTH**	
ALTERNATIVE METHOD OF RATE	*****	**SERVICES COST REVIEW**	
DETERMINATION	*****	**COMMISSION**	
UNIVERSITY OF MARYLAND	*****	**DOCKET:**	**2015**
MEDICAL CENTER	*****	**FOLIO:**	**2107**
BALTIMORE, MARYLAND	*****	**PROCEEDING:**	**2297A**

Staff Recommendation

May 13, 2015

I. INTRODUCTION

University of Maryland Medical Center (the Hospital) filed an application with the HSCRC on April 27, 2015 for an alternative method of rate determination, pursuant to COMAR 10.37.10.06. 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, 2015.

II. OVERVIEW OF APPLICATION

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

III. FEE DEVELOPMENT

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

IV. IDENTIFICATION AND ASSESSMENT OF RISK

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

V. STAFF EVALUATION

The staff found that the Hospital's experience under this arrangement for the previous year was favorable.

VI. STAFF RECOMMENDATION

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, 2015. The Hospital will need to file a renewal application to be considered for continued participation.

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

Draft Recommendations for Balanced Update

May 13, 2015

HSCRC
Health Services Cost Review Commission

Balanced Update Model

Components of Revenue Change Linked to Hospital Cost Drivers/Performance

			Weighted Allowance
Adjustment for inflation/policy adjustments	A		2.40%
Adjustment for volume	B		0.57%
-Demographic Adjustment			
-Transfers ($1 M -$5 M impact)		0.1%	
-Categoricals			
-Market share adjustments ($4 M est. impact)			
Utilization Impact of Medicaid Expansion ($60 M)	C		0.38%
Infrastructure allowance provided	D		0.59%
- 0.40% included in GBR rates on 7/1/15 (Net .34% adjustment since TPR & non-global revenues are excluded))			
- Upto another 0.25% allocated via a competitive process in January 2016			
CON adjustments-			
-Opening of Holy Cross Germantown Hospital	E		0.21%
Net increase before adjustments	F =	A + B+ C+ D + E	4.15%
Other adjustments (positive and negative)			
-Set aside for unknown adjustments	G		0.50%
-Reverse prior year's shared savings reduction	H		0.40%
-Positive incentives (Readmissions and Other Quality)	I		0.15%
-Shared savings/negative scaling adjustments	J		-0.60%
Net increase attributable to hospitals	K =	F + G + H + I+ J	4.60%
Per Capita	L =	(1+K)/(1+0.57%)	4.00%

Components of Revenue Change - Not Hospital Generated

-Uncompensated care reduction, net of differential	M		-0.84%
-MHIP (Assumes $0 MHIP in 2016)/2015 BRFA adjustment	N		-0.57%
Net decreases	O =	M + N	-1.41%
Net revenue growth	P =	K + O	3.19%
Per capita revenue growth	Q =	(1+P)/(1+0.57%)	2.61%

Proposed Update Maintains Compliance with All-Payer Test

Compliance with All-Payer Test	A	B	C	D=(1+A)*(1+B)*(1+C)
	Actual Jan to June 2014	Staff Est. FY 2015	Proposed FY 2016	Cumulative Thru FY 2016
Maximum Per Capita Revenue Growth Allowance (E)	1.79%*	3.58%	3.58%	**9.21%**
Per Capita Growth for Period	0.57%**	1.99%	2.61%	**5.24%**
Per Capita Growth with Savings from Uncompensated Care and MHIP Declines (that do not adversely impact hospital bottom lines) removed (F)	0.57%	3.07%	4.00%	**7.80%**
Per Capita Difference Between Cap & Projection (G = E–F)				**1.41%**

Proposed Update is Aligned with FY 2016 Medicare Savings Goal

Comparison of Medicare Savings Goal to Staff Recommendation

Comparison to Modeled Requirements	All-Payer Maximum to Achieve Medicare Savings	Staff Recommended All-Payer Growth	Difference
Revenue Growth	3.45%	3.19%	-0.26%
Per Capita Growth	2.87%	2.61%	-0.26%

Summary of Recommendations

- Base Update
  - 2.4% for revenues under global budgets
  - 1.6% for revenues subject to waiver but excluded from global budgets
  - 1.9% for psychiatric hospitals and Mt. Washington Pediatric Hospital

- Infrastructure
  - Require all hospitals to submit multi-year plans for improving care coordination, chronic care, and provider alignment by December 1, 2015
  - 0.4% adjustment to FY 2016 GBR budgets to provide new infrastructure funding
  - Upto an additional 0.25% available through competitive awards to hospitals implementing or expanding innovative care coordination, physician alignment, and population health strategies.

- Medicaid Deficit Assessment
  - Calculate for FY 2016 at same total amount as FY 2015 and apportion it between hospital funded and rate funded in same total amounts as FY 2015.

Draft Update Factors Recommendations for FY 2016

Health Services Cost Review Commission
4160 Patterson Avenue Baltimore, MD 21215
(410) 764-2605

May 13, 2015

Draft Recommendations on Update Factors

INTRODUCTION

Overview

On July 1 of each year, the HSCRC updates hospitals' rates and approved revenues to account for inflation, policy adjustments, and other adjustments related to performance and settlements from the prior year.

On January 10, 2014, the Center for Medicare & Medicaid Innovation (CMMI) approved the implementation of a new All-Payer Model for Maryland. The All-Payer Model has a three part aim of promoting better care, better health, and lower cost for all Maryland patients. In contrast to the previous Medicare waiver that focused on controlling increases in Medicare inpatient payments per case, the new All-Payer Model focuses on controlling increases in total hospital revenue per capita. The Model establishes both an All-Payer limit of 3.58% cumulative annual per capita growth for Maryland residents for the first three years of the Model and a Medicare savings target of $330 million over the initial five-year period of the Model.

The update process needs to take into account all sources of hospital revenue that will contribute to the growth of total Maryland hospital revenues for Maryland residents in order to meet the requirements of the All-Payer Model and assure that the annual update approved by the HSCRC will not result in a revenue increase beyond the limit. In addition, HSCRC needs to consider the effect of the update on the Model's Medicare savings requirement and the total hospital revenue at risk for quality, care delivery, and value enhancement. While rates and global budgets are approved on a fiscal year basis, the All-Payer Model revenue limits and the Medicare savings are determined on a calendar year basis. Therefore, it is necessary to account for both calendar year and fiscal year revenues in establishing updates for the fiscal year.

There are three categories of hospital revenue under the All-Payer Model. The first two categories are under full rate setting authority of HSCRC. The third category of hospital revenue includes hospitals where HSCRC sets rates, but Medicare does not pay on the basis of those rates. The three categories are:

1. Hospitals/revenues under global budgets, including the Global Budget Revenue (GBR) agreements and Total Patient Revenue (TPR) agreements for 10 hospitals that were renewed July 1, 2013 for their second three-year term.
2. Hospital revenues that are not included under global budgets but are subject to rate regulation on an All-Payer basis by HSCRC, including hospital revenues excluded from a

global budget, such as revenues for non-residents at certain hospitals and the start-up years for Holy Cross Germantown Hospital.

3. Hospital revenues for which HSCRC sets the rates paid by non-governmental payers and purchasers, but where CMMI has not waived Medicare's rate setting authority to Maryland. This includes psychiatric hospitals and Mount Washington Pediatric Hospital.

This report includes draft recommendations for FY 2016 updates.

STAKEHOLDER INPUT

HSCRC staff has worked with the Payment Models work group to provide input and review of its draft recommendations regarding the FY 2016 updates.

ANALYSIS

Calculation of Update Factors for Revenue Categories 1-3

In this draft staff recommendation, we are focused on recommending the update factor that will be provided for inflation/trend for hospitals or revenues in each of the three categories. There are separate staff reports that provide recommendations on uncompensated care and shared savings relative to readmissions. The Commission was briefed at its April 15th meeting on a FY 2016 global contract adjustment to capture the ongoing impact of the Affordable Care Act's Medicaid expansion on hospital volumes.

The inflation/trend adjustment for Category 1 and Category 2 revenues starts by using the actual blended statistic of 2.40% growth, derived from combining 91.2% of Global Insight's FY 2016 market basket growth of 2.5% with 8.8% of the capital growth estimate of 1.4%. For those revenues that are not subject to global budgets, subtractions are made to reflect productivity and an additional reduction provided under the Affordable Care Act for Medicare. The 0.6% reduction for productivity is equivalent to the amount used in Medicare's proposed inpatient prospective payment system update for FY 2016, but Medicare makes other adjustments (e.g. -0.8% for coding) that have not been applied. As a result, the proposed rate adjustment would be as follows:

Table 1

	Global Revenues	Non-Global Revenues
Proposed base update	2.40%	2.40%
Productivity adjustment		-0.60%
ACA adjustment		-0.20%
Proposed update	2.40%	1.60%

For psychiatric hospitals and Mt. Washington Pediatric Hospital, we turn to the proposed psychiatric facility update for Medicare. Medicare applies a 0.6% reduction for productivity and 0.2% reduction for ACA savings mandates to a market basket update of 2.7% to derive a net amount of 1.9%. HSCRC staff recommend adopting the same factor and net adjustments for the Maryland psychiatric hospitals and Mt. Washington Pediatric Hospital.

Summary of Other Policies Impacting FY 2016 Revenues

The update factor is just one component of the adjustments to hospital global budgets for FY 2016. In considering the system-wide update for the All-Payer Model, staff sought balance amongst the following conditions: 1) meeting requirements of the All-Payer Model agreement; 2) providing hospitals with the necessary resources to keep pace with changes in inflation and population; 3) ensuring hospitals have adequate resources to invest in the care coordination and population health strategies necessary for long-term success under the All-Payer model; 4) taking into account factors outside of the Model such as the Medicaid coverage expansion under the Affordable Care Act (ACA).

Table 2 summarizes the net impact on global revenues of staff proposals for inflation, volume, shared savings, infrastructure investments, uncompensated care, and the MHIP assessment. The proposed adjustments provide hospitals with net revenue growth of 3.19% and per capita growth of 2.61% for FY 2016. Descriptions and policy considerations are discussed for each step in the text following the table.

Table 2

Balanced Update Model		
Components of Revenue Change Linked to Hospital Cost Drivers/Performance		
		Weighted Allowance
Adjustment for inflation/policy adjustments	A	2.40%
Adjustment for volume	B	0.57%
-Demographic Adjustment		
-Transfers ($1 M -$5 M impact)		
-Categoricals		0.1%
-Market share adjustments ($4 M est. impact)		
Utilization Impact of Medicaid Expansion ($60 M)	C	0.38%
Infrastructure allowance provided	D	0.59%
- 0.40% included in GBR rates on 7/1/15 (Net .34% adjustment since TPR & non-global revenues are excluded))		
- Upto another 0.25% allocated via a competitive process in January 2016		
CON adjustments-		
-Opening of Holy Cross Germantown Hospital	E	0.21%
Net increase before adjustments	F = A + B+ C+ D + E	4.15%
Other adjustments (positive and negative)		
-Set aside for unknown adjustments	G	0.50%
-Reverse prior year's shared savings reduction	H	0.40%
-Positive incentives (Readmissions and Other Quality)	I	0.15%
-Shared savings/negative scaling adjustments	J	-0.60%
Net increase attributable to hospitals	K = F + G + H + I+ J	4.60%
Per Capita	L = (1+K)/(1+0.57%)	4.00%
Components of Revenue Change - Not Hospital Generated		
-Uncompensated care reduction, net of differential	M	-0.84%
-MHIP (Assumes $0 MHIP in 2016)/2015 BRFA adjustment	N	-0.57%
Net decreases	O = M + N	-1.41%
Net revenue growth	P = K + O	3.19%
Per capita revenue growth	Q = (1+P)/(1+0.57%)	2.61%

Components of Revenue Change Linked to Hospital Cost Drivers/Performance

A number of factors linked to hospital costs and performance are accounted for including:

- **Adjustments for Volume:** A 0.57% adjustment is proposed equal to the Maryland Department of Planning's estimate of population growth. Hospital specific adjustments will vary based on changes in the demographics of each hospital's service area. The net cost of market share and transfer policy adjustments will be absorbed within this volume

allowance. Growth in revenue associated with unique (categorical exclusions) volumes such as transplants will also be funded from the 0.57% adjustment.

- **Impact of Medicaid Expansion:** As discussed in the staff's April report to the Commission, enrollees in the Affordable Care Act's Medicaid expansion are using more hospital services than they did prior to the expansion. Much of the increase reflects a temporary surge in demand for surgical procedures. The ongoing portion of the utilization uptick, after applying a 50% variable cost factor, is about $60 million

- **Infrastructure Adjustments:** Infrastructure adjustments of 0.325% in FY 2014 and an additional 0.325% in FY 2015 were included in global budgets to enable the successful transition to the new model. These adjustments recognized the need for investments in care management, population health improvement, and other requirements of global models. Successful care management and population health efforts will require hospitals to maintain and enhance their investments in addressing needs of complex patients, improving and coordinating care for individuals with chronic conditions, integrating and coordinating care with other hospital and non-hospital providers, and investing in IT, analytics, human resources, training, and alignment models to support these efforts. Recognizing the substantial scaling of infrastructure required, staff propose an additional 0.4% infrastructure investment in all GBR hospitals for FY 2016 No additional infrastructure funding is proposed for TPR hospitals. Generally, TPR hospitals were provided forward funding incentives considerably higher than the .65% infrastructure initially provided to GBR hospitals[1].

  Hospitals should expect to spend a small portion of the new infrastructure funding to expand and enhance CRISP's ability to facilitate care coordination through the collection and sharing of data. A budget for CRISP's FY 2016 activities will be presented to the Commission at a future meeting.

  Staff propose providing up to an additional 0.25% for competitive grants to hospitals to fund implementation of innovative care coordination, provider alignment, and population health strategies. All hospitals – including TPR and specialty hospitals – are eligible to compete for the funds. Grant proposals would be due December 1, 2015 with awards in January 2016 (Despite the mid-year award date, the amount of funding available for awards will amount to a full year of 0.25% to provide adequate seed money to launch each initiative). The amount of the grant awards would be a permanent 0.25% adjustment to hospital rates.

[1] Garrett Hospital was not provided an incentive funding amount, and should be provided infrastructure allowances consistent with GBR hospitals.

The performance requirements of the All-Payer Model contract necessitate the wise investment of infrastructure dollars in FY 2016 and future years. To provide the Commission with assurances that each hospital is engaged in the long-term success of the Model Contract, staff recommends that the Commission require each acute care hospital to submit a plan by December 1, 2015 summarizing its short-term and long-term strategies and incremental investment plans for improving care coordination and chronic care, reducing potentially avoidable utilization, and aligning with non-hospital providers. Continued receipt of the new FY 2016 infrastructure funding is contingent upon submission of a comprehensive plan.

Once the investment plans are received and evaluated, the Commission will be in a better position to assess future needs, investment requirements, expected return on investment, etc.

- **Certificate of Need (CON) Adjustments:** Holy Cross Germantown Hospital opened in the Fall of 2014. The FY 2016 increase annualizes last year's adjustment.

- **Other Adjustments:**

  - **Set-Aside for Unforeseen Adjustments:** Staff recommends a 0.5% set-aside to fund unforeseen adjustments during the year. A similar allowance was made for FY 2015.

  - **Reversal of Prior Year's Shared Savings Reduction:** The total FY 2015 shared savings adjustment is restored to the base for FY 2016, with a new adjustment (see below) to reflect the shared savings reduction for FY 2016.

  - **Shared Savings Reduction and Negative Scaling Adjustment:** The FY 2015 shared savings are continued and an additional 0.2% savings is targeted for FY 2016. A separate recommendation on this item will be made for the Commission's consideration.

  - **Positive Incentives:** Positive incentives of 0.15% are expected to be paid in FY 2016 for performance on readmission and other quality metrics.

<u>Components of revenue change – not hospital generated</u>

Several changes will decrease the revenues for FY 2016. These include:

a) **UCC Reductions:** The FY 2016 policy is the subject of a separate recommendation to the Commission.

b) **MHIP/BRFA Adjustment:** The General Assembly's FY 2016 budget actions assume a zero assessment for the fiscal year. The FY 2015 assessment was 1% for the first quarter and 0.3% for the remainder of the year. This item also includes the removal of $15 million in one-time funding for care coordination and regional planning that was authorized in the Budget Reconciliation of Financing Act (BRFA) of 2014.

While Table 2 enumerates the central provisions leading to a balanced update for All-Payer Model overall, there are additional variables to consider such as 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.

Medicare's Proposed National Rate Update for FY 2016

Proposed updates to federal Medicare inpatient rates for 2016 have just been published in the Federal Register and are presented in the table below. The update will not be finalized for several months and could change. The base update provides growth of 1.1%, about half the 2.4% inflation/trend update proposed by the HSCRC. Additional adjustments including value based purchasing, hospital acquired conditions, readmissions, and the Disproportionate Share Hospitals reduce the expected growth in payments to 0.3%. These CMS projections do not include a provision for volume changes.

Table 3

Federal FY 2016	Proposed IP	Estimated OP based on IP
Base Update		
Market Basket	2.70%	
Productivity	-0.60%	
ACA	-0.20%	
Coding	-0.80%	N/A
	1.10%	1.90%
Other Changes		
Disproportionate Share	-1.00%	
Other Adjustments	0.20%	
	-0.80%	
Net Change to Payments	**0.30%**	

Applying the inpatient assumptions about market basket, productivity, and mandatory ACA savings to outpatient, staff estimate a 1.9% Medicare outpatient update effective January 2016. The estimated blended inpatient/outpatient Medicare increase for 2016 updates is about 0.7%.

Discussion of FY 2016 Balanced Update

The staff proposal properly increases the resources available to hospitals to account for rising inflation and upward pressure on volumes from population growth and the ACA expansion. Almost $100 million of the new funding is included for the development of the care coordination and population health infrastructure necessary for continued success. This new funding brings the total ongoing commitment for infrastructure over the period FY 2014 to FY 2016 to about $180 million for GBR hospitals - - an amount approaching the ongoing operating costs that the consultants supporting the care coordination workgroup pegged as an estimated level to fund care coordination across the State.

The proposed adjustments coupled with the ongoing incentives to reduce potentially avoidable utilization inherent to the model should allow the hospital industry to make significant additional investments while maintaining operating profits. Median operating profits year-to-date are about 3.5% with statewide profits at 2.8%. As discussed below, the proposed update is also within the financial parameters of the All-Payer agreement.

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 caps the average annual growth rate for All-Payer per capita revenues for Maryland residents at 3.58%. Compliance with this test is measured by comparing the cumulative growth in revenues from the calendar 2013 base period to a ceiling calculated assuming annual per capita growth of 3.58%. This concept is illustrated in Table 4 below. As shown in the table, the maximum cumulative growth allowed through calendar 2016 is 11.13%.

Table 4
Calculation of Cumulative Allowable Growth
Per Capita All-Payer Revenues for Maryland Residents

	CY 14	CY 15	CY 16	Cumulative Growth
	A	B	C	D = (1+A)*(1+B)*(1+C)
Calculation of Revenue Cap	3.58%	3.58%	3.58%	11.13%

For the purpose of evaluating im pact of the recommended update factor on compliance with the All-Payer test, staff have calcu lated the m aximum cumulative growth that is allowable throug h the end of FY 2016 (the first 30 months of the waiver). As shown in Table 5, cumulative growth of 9.21% growth is p ermitted though FY 2016. St aff project actual cum ulative growth through FY 2016 of 5.24%. This estimate reflects:

- Actual CY 2014 experience;
- The assum ption that hospitals will use the full charge capac ity available through their global budgets for the final six months of FY 2015 (January to June 2015); and
- The staff recommended update for FY 2016.

A decline in both uncompensated care and the MHIP assessm ent in FY 2015 and again in FY 2016 contribute to the magnitude of the gap between the maximum allowable cumulative growth and the projected growth. If not for these declines, per capita charges would grow by a cumulative 7.91% through FY 2016. Under eith er approach, the pr oposed update keeps Maryland within the limits of the All-Payer test.

Table 5
Proposed Update Leaves Maryland in Compliance with All-Payer Test Per Capita All-Payer Revenues for Maryland Residents

	A Actual Jan to June 2014	B Staff Est. FY 2015	C Proposed FY 2016	D=(1+A)*(1+B)*(1+C) Cumulative Thru FY 2016
Maximum Per Capita Revenue Growth Allowance	**1.79%***	**3.58%**	**3.58%**	**9.21%**
Per Capita Growth for Period	0.57%**	1.99%	2.61%	5.24%
Savings from Uncompensated Care & MHIP declines that do not adversely Impact Hospital Bottom Line		1.09%	1.41%	2.52%
Per Capita Growth with UCC/MHIP Savings Removed	**0.57%**	**3.07%**	**4.00%**	**7.80%**
Per Capita Difference Between Cap & Projection				**1.41%**

*3.58% annual growth divided by 2 to capture half year.
**1.13% growth divided by 2 to capture half year

Medicare Financial Test

The second key financial test under the model is to generate $330 million of Medicare fee-for-service savings over five years. The savings figure for the five-year period was calculated assuming Medicare fee-for-service costs per Maryland beneficiary would grow about 0.5% per year slower than national per beneficiary Medicare fee-for-service costs after the first year..

Preliminary calendar 2014 data currently under review by HSCRC contractors show a gap of nearly two percentage points between the Maryland (-1.5%) and national (+0.5%) per capita growth rates. If these numbers are correct, Maryland savings will exceed $100 million in year one of the model. While the first year savings are favorable, staff recommend maintaining the model contract goal of growing Maryland costs per beneficiary about 0.5% slower than the nation in FY 2016. Attainment of this goal will both maintain any ongoing savings from prior periods (retention of ongoing savings requires Maryland to limit its growth rate to the national rate in FY 2016) and grow those savings by roughly $30 million (from holding the Maryland growth rate below that of the nation again in FY 2016).

A commitment to continue the success of year one is critical to building long-term support for Maryland's model and to build a cushion against adverse performance in future years (for example from increased inflation or utilization expansion from the aging population).

The initial savings generated under the model contract could be adversely affected by:

- Modest projections for future national Medicare growth. As shown in Table 6 below, the CMS Office of the Actuary is forecasting just 0.3% growth in Medicare per beneficiary hospital spending in CY 2015 and 2.4% growth in CY 2016. Federal inpatient charge growth is constrained in the near term by modest inflation updates and steep decreases in disproportionate share payments. More robust outpatient growth is forecast due to increases in volumes. The out-year projections likely overstate this growth as recent announcements by Secretary Burwell indicate that Medicare will rapidly shift to alternative payment models for doctors and hospitals over the next few years in an effort to refocus financial incentives from growing volume to improving quality.

- Increasing Maryland's rates to cover more infrastructure may affect the savings levels in the short term, but should contribute to sustainability of the model and help limit future growth in utilization and costs.

Table 6
Per Capita Medicare Hospital Spending Projections
Office of the Actuary

	Per Capita Trend		
CY	Inpatient	Outpatient	Total Hospital
2013			
2014	-1.4%	11.0%	1.5%
2015	-2.0%	6.9%	0.3%
2016	1.4%	5.1%	2.4%
2017	2.5%	6.3%	3.5%
2018	4.5%	6.4%	5.0%

- A recent pattern of lower than expected growth in national Medicare costs. Projections of national per capita hospital trends by Medicare's Office of the Actuary have overstated the actual experience over the last couple of years as shown in Table 7 below. Even the February 2015 estimate of CY 2014 growth appears to overstate the actual trend as nearly real time data provided to Maryland though the waiver shows national CY 2014 spending growing at a rate of about 0.5% compared to the official estimate of 1.5%. The instability of the estimates creates risk for the State in establishing savings targets.

Table 7
Per Capita Medicare Hospital Spending Projections
February 2014 and February 2015 Estimates Compared
Office of Actuary

CY	Feb-14 Estimate	Feb-15 Estimate	% Point Difference
2014	1.70%	1.5%*	-0.2%
2015	1.70%	0.3%	-1.4%
2016	2.30%	2.4%	0.1%
2017	3.30%	3.5%	0.2%
2018	5.20%	5.0%	-0.2%

*Medicare fee-for-service data received by HSCRC shows national growth at 0.5% for CY 2014.

Allowable Growth

If the projections from the CMS Office of the Actuary for calendar 2015 and calendar 2016 are correct, national Medicare per capita hospital spending will increase by 1.35% in State FY 2016. The staff goal of limiting Maryland's Medicare per capita growth to 0.5 percentage points below the national rate results in a maximum allowable Medicare per capita growth of 0.85%.

For the purpose of evaluating the maximum All-Payer growth that will allow Maryland to meet the per capita Medicare fee-service growth target, the Medicare target must be translated to an All-Payer growth limit (Table 8). During deliberations on the FY 2015 update, CareFirst developed a "difference statistic" of two percentage points that was added to the Medicare target to calculate an All-Payer target. As shown in Appendix 1, Maryland's All-Payer per capita spending rose faster than Medicare fee-for-service per capita spending in each of the last six years and is on pace to do so again in FY 2015. The actual FY 2014 experience and the year-to-date experience for FY 2015 support the continued use of a two percentage point difference statistic.

Using the difference statistic, staff calculate that the maximum All-Payer per capita growth that will allow the State to realize the desired FY 2016 Medicare savings is 2.87%. The staff recommended update will produce the desired savings if national actuarial projections are accurate and the difference statistic correctly translates the Medicare growth to All-Payer growth (Table 9).

Table 8
Maximum All-Payer Increase that will Still Produce Desired FY 2016 Medicare Savings

Maximum Increase that Can Produce Medicare Savings		
Medicare		
Two year average of Medicare growth (CY 2015 + CY 2016)/2	A	1.35%
Savings Goal for FY 2016	B	-0.50%
Maximum growth rate that will achieve savings (A+B)	C	0.85%
Conversion to All-Payer		
Difference statistic between Medicare and All-Payer	D	2.00%
Conversion to All-Payer growth per resident (1+C)*(1+D)-1	E	2.87%
Converstion to total All-Payer revenue growth (1+E)*(1+0.57%)-1	F	3.45%

Note: National Medicare growth projection 0.3% for CY 2015 and 2.4% for CY 2016 from CMS Office of Actuary, February 2015 analysis.

Table 9

Comparison of Medicare Savings Goal to Model Results			
Comparison to Modeled Requirements	All-Payer Maximum to Achieve Medicare Savings	Staff Recommended All-Payer Growth	Difference
Revenue Growth	3.45%	3.19%	-0.26%
Per Capita Growth	2.87%	2.61%	-0.26%

Medicaid Deficit Assessment

The Medicaid deficit assessment for FY 2016 is unchanged from FY 2015, and the hospital funded portion and rate funded portion will remain at the same level and be apportioned to hospitals in a similar manner as FY 2015.

RECOMMENDATIONS

The final recommendations of the HSCRC Staff are as follows and are offered on the assumption that the other policy recommendations that affect the overall targets are approved (including the shared savings adjustment for readmissions and the uncompensated care and MHIP reductions):

1) Provide update for the three categories of hospitals and revenues as follows:
   a) Revenues under global budgets--2.4% with an additional 0.4% provided for care coordination and population heath infrastructure investments;
   b) Revenues not under global budgets but subject to Medicare rate setting waiver--1.6%;
   c) Revenues for psychiatric hospitals and Mt. Washington Pediatric Hospital— 1.9%.

2) Require all acute hospitals to submit multi-year plans for improving care coordination, chronic care, and provider alignment by December 1, 2015.

3) Provide an additional 0.25% for competitive awards to hospitals to implement or expand innovative care coordination, provider alignment and population health strategies.

4) Calculate the Medicaid deficit assessment for FY 2016 at the same total amount as FY 2015 and apportion it between hospital funded and rate funded in the same total amounts as FY 2015.

Appendix 1

Difference Statistic

	All Payer	Medicare	Difference
FY 2009	5.4%	2.0%	3.40%
FY 2010	2.2%	-2.1%	4.30%
FY 2011	4.5%	2.9%	1.60%
FY 2012	5.0%	1.9%	3.10%
FY 2013	1.2%	-1.1%	2.30%
FY 2014	1.63%	-0.92%	2.55%
FY 2015 (thru Feb.)	0.87%	-0.79%	1.66%
Seven Year Average			2.70%
Average of FY 14 & FY 15			2.11%

For FY 2015, difference statistic of 2.0 percentage points was applied.

Transit Employees'

HEALTH AND WELFARE PLAN

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May 13, 2015

John Colmers
Chairman
Health Services Cost Review Commission
4160 Patterson Avenue
Baltimore, MD 21215

Donna Kinzer
Executive Director
Health Services Cost Review Commission
4160 Patterson Avenue
Baltimore, MD 21215

Re: HSCRC 2016 Hospital Update Factor

Dear Mr. Colmers and Ms. Kinzer:

I want to thank the commissioners and the Commission staff for allowing me the privilege of participating in the Payment Models Work Group and to provide comments on the staff recommendation to the Update Factors. The staff and the other members of the work group have been very patient with me as I gradually get up to speed with this rate setting process.

I am the Executive Director of the Transit Employees' Health and Welfare Fund. We are the entity that pays the health and other benefits for the 12,000 active and retired members of ATU Local 689 employed by the Washington Metropolitan Area Transit Authority, about 70% of METRO's workforce

I represent a minority voice in this process: the voice of those plan sponsors that write the checks that provide the funds for carriers like CareFirst, United Health Care and Kaiser to pay hospitals. We are the ones whose bottom lines take the hit from increasing health care costs. We are the ones who must deduct increasingly larger amounts from our employees' pay checks in order to pay those health care bills.

Employers and workers across Maryland have for decades absorbed increases in health care costs that far exceed the rate of inflation and the rate of growth in the economy. It is partly because these increases are unsustainable that Congress passed the Affordable Care Act and that Maryland embarked on this pioneering effort to restructure the way that hospitals are paid

I have often repeated to others the words of an early story in the Washington Post. This is the most significant state initiative in the country next to Vermont. Now that Vermont's efforts to evolve into a single payer system have unfortunately floundered, the eyes of the nation are on Maryland

Those on the Payment Models Work Group have heard me say that I think the 3.58% allowable growth rate is far too generous and I applaud the efforts of the hospitals in Maryland to come in well under that target in its first year under this new model. We in the plan sponsor community face cost pressures from several directions. Just this past year the cost of our prescription drug program increased nearly 30% from first quarter 2014 to fourth quarter of 2014.

Those increases are largely attributable to new specialty medications for Hepatitis C that are expected to reduce long term inpatient and outpatient treatment costs for that disease. We are warned that many more very expensive treatments and cures are in the pipeline. Next up is PCSK9 a revolutionary drug to treat high cholesterol.

If we are spending more money on medications to reduce long term hospital costs, then we expect to see reductions in hospital costs, not just slower increases. In a recent article in the Journal of the American Medical Association (JAMA)[1], Don Berwick challenged the provider community to become leaders in making the changes necessary to achieve the goals of the Triple Aim. And he very specifically challenged those leaders to bring total spending on health care to under 15% of GDP.

From where I sit, Maryland is doing an outstanding job of bringing the provider community to the table to assume a leadership role in this process. But allowing hospital costs to track the growth in the Maryland economy will not reduce per capita spending and will never allow it to do Maryland's part to get health care spending below 15% of GDP.

Additionally a major concern of the employer community is the impending excise tax on so called "Cadillac Plans". This 40% marginal tax rate will eventually hit every single employer in Maryland, including the state of Maryland, perhaps the largest single group health plan in the state – unless total spending is reduced to below the rate of inflation – something that I don't think has happened to employer health care costs in my life time. The only way employers can avoid this tax is by shifting point of service costs on to their employees. Discussions at the Payment Model Work Group reveal that hospitals are having difficulty collecting these higher patient out of pocket expenses and it is affecting their bottom lines and the rate setting process.

In the first year of the waiver the hospitals have done an outstanding job of reducing revenue, improving quality while also enhancing their bottom lines. Who could ask for more? I see no reason, therefore, why the full .59% infrastructure allowance is necessary and ask the Commissioners to reconsider its inclusion in the final rate setting factors. Maryland hospitals have proven that they can meet their cost and quality targets without the additional money. Countless publications have described overuse and inappropriate volume in the system. Reducing those related costs should be sufficient to fund the necessary infrastructure improvements.

I would call attention to a slide presented at the last meeting of the Commissioners in April that showed that the median profit margin for Maryland hospitals increased by 1.18% - double what the commissioners are being asked to add to the rates for 2016 infrastructure improvement. So why is this additional money necessary?

However, if the infrastructure allowance is allowed to remain, then I ask that the Commissioners and staff to be vigilant to ensure that it is used to actually lower per capita health care costs in Maryland. I ask the Commissioners and the staff to expand its scope of unnecessary and inappropriate admissions by looking at population based metrics and benchmarking themselves against the best in class elsewhere in the nation.

That is the only way that Maryland will truly get the attention it deserves.

Thank you and I do hope that you will continue to involve the voice of the plan sponsor community in this process as you move forward.

Sincerely,

James L. McGee, CEBS
Executive Director

[i] Berwick DM, Feeley D, Loehrer S. Change From the Inside Out: Health Care Leaders Taking the Helm. *JAMA*. 2015;313(17):1707-1708. doi:10.1001/jama.2015.2830.

Uncompensated Care

Summary of Recommendations

- Reduce uncompensated care provision in rates from 6.14% to 5.25% effective July 1, 2015.
- Re-use combined results of regression model and two years of historical data underpinning the FY 2015 UCC policy.
- Continue to collect data on write-offs and recoveries to better understand factors impacting UCC.
- Continue to collect data on outpatient denials to facilitate understanding of trends.
- Continue suspension of charity care adjustment indefinitely.
- Develop new UCC policy for FY 2017 that reflects patterns of uncompensated care observed in FY 2015 and projected for FY 2016.

Final Recommendations on Uncompensated Care Policy for 2016

Health Services Cost Review Commission
4160 Patterson Avenue Baltimore, MD 21215
(410) 764-2605

April 15, 2015

These final Staff recommendations were approved by the Commission on May 13, 2015.

Finals Recommendations on Uncompensated Care Policy for 2016

INTRODUCTION

Overview

Since it first began setting rates, the HSCRC has recognized the cost of uncompensated care (charity care and bad debt) within Maryland's unique hospital rate setting system. As a result, patients who cannot pay for care are still able to access hospital services, and hospitals are credited for a reasonable level of uncompensated care provided to those patients.

Under the current HSCRC policy, uncompensated care is funded by a statewide pooling system in which regulated Maryland hospitals draw funds from the pool if they experience a greater-than-average level of uncompensated care and pay into the pool if they experience a less-than-average level of uncompensated care. This ensures that the cost of uncompensated care is shared equally across all of the hospitals within the system.

The HSCRC must determine the total amount of uncompensated care that will be placed in hospital rates for FY 2016 and the amount of funding that will be made available for the uncompensated care pool. Additionally, HSCRC must review the methodology for distributing these funds among hospitals.

Traditionally the HSCRC prospectively calculates the rate of uncompensated care at each regulated Maryland hospital by combining historical uncompensated care rates with predictions from a regression model. For fiscal 2015, the HSCRC adjusted this methodology to incorporate a prospective yet conservative adjustment for the expected impact of the Affordable Care Act's (ACA) Medicaid expansion on uncompensated care. The results of the historic trend and regression model were adjusted down from 7.23% to 6.14% to capture the expected impact of the State extending the full Medicaid benefits to people previously enrolled in the Primary Adult Care (PAC) program. PAC offered limited health care coverage including the cost of primary care, family planning, prescriptions, mental health care and addiction services, and outpatient hospital emergency room services. However, PAC did not reimburse hospitals for inpatient or outpatient care beyond the emergency room.

ACA implementation will influence the FY 2016 update as the variables underlying regression model include Medicaid coverage and the actual Medicaid expansion enrollment far exceeded the participants in the PAC program.

This report discusses the factors influencing uncompensated care rates in Maryland and makes recommendations to adjust the total funds available in the uncompensated care pool, to again use the results of last year's regression model for allocation of those funds in lieu of updating the regression analysis, and to update last's year prospective ACA adjustment to capture the full impact of the Medicaid expansion on uncompensated care.

The changes recommended are necessary to recognize an appropriate level of uncompensated care at hospitals in the State and to share the cost of that care equally across all regulated Maryland hospitals.

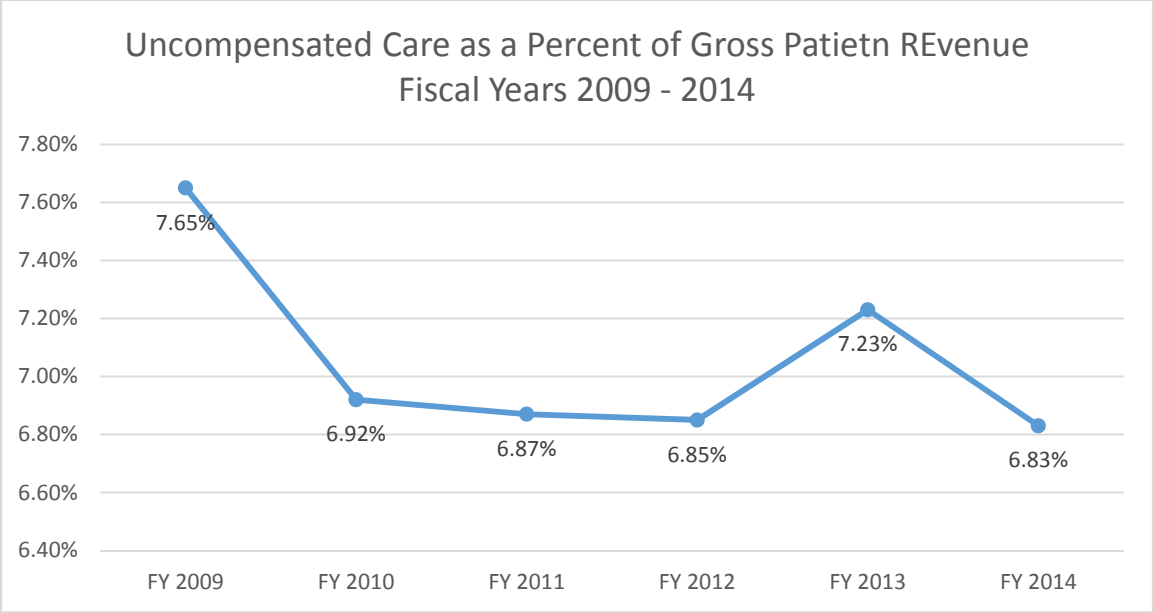
STAKEHOLDER INPUT

The conclusions in this report were reviewed with the Payment Models Workgroup and the Maryland Hospital Association's Financial Technical Issues workgroup. Several comments from the workgroups are incorporated in this staff report. Multiple iterations of hospital specific trends in self-pay and charity care were shared with each Maryland hospital. The overall analytic approach and figures for some hospitals were adjusted based on hospital feedback and additional analysis.

BACKGROUND

Recent Trends in Uncompensated Care

The chart below shows the actual total uncompensated care rate for all regulated Maryland hospitals between FY 2009 and FY 2014. Uncompensated care levels dropped between FY 2009 and FY 2012, before climbing slightly in FY 2013. Implementation of the ACA in mid-FY 2014 resulted in a decline in an overall uncompensated care for the year.



Current Uncompensated Care Policy

The Comm ission adopted the current uncom pensated care policies between 2007 and 2014. The policies create a s tatewide pool built into the rate stru cture of M aryland hospitals. H ospitals either pay into or withdraw from the pool depending on each hospital's p rospectively calcu lated rate of uncompensated care. Each year, the total amount of funds available in the pool is dete rmined by the total per cent of gross patient revenue due to uncom pensated care experien ced in regu lated Mary land hospitals during the previous year. For exam ple, if in 2014 the actual total cost of uncom pensated care were 6 percent, then in 2014 the pool would pr ospectively be set at 6 percent of the 2014 gross patient revenue.

For FY 2015, the p rospective un compensated care percentage for each hosp ital was computed by taking the average actual percent of uncompensated care experienced by the hospital over the past tw o years and combining that "actual" value with a predicted value of uncom pensated care determ ined by a re gression m odel. The annual uncom pensated care percentage for each hospital was weighted equally between the two-year average and the predicted regression value as shown in the formula below.

$$\frac{Average\ UCC\ Rate\ for\ Past\ 2\ Years + Regression\ Value}{2} = Annual\ UCC\ Percentage$$

Once the annual uncompensated care percentage s were calculated for each hospital, they were adju sted so th at the pooling system will rem ain revenue neutral. Appendix I illustrates this calculation.

The regression m odel used to determ ine the FY 2015 predicted uncom pensated care percentage for each hospital relied upon five explanatory variables:

- The proportion of a hospital's total charges from inpatient Medicaid admissions through the emergency room
- The proportion of a hospital's total ch arges from inpatient comm ercial insurance cases
- The proportion of a hospital's total charges from inpatient self-pay and charity cases
- The proportion of hospital's total charges from outpatient self-pay and charity emergency department charges
- The proportion of a hospital's total charges from inpatient self-pay and charity admission through the em ergency room from the 80th percentile of Medicaid undocumented immigrant enrollment zip codes

This model was applied to data f rom the two- year historical period used to generate the average actual uncompensated care percen tage described above. Three hospitals, Levindale Hospital, th e University of Maryland Rehabilitation & Orthopedic Ins titute (formerly Kernan Hospital), and the Shock Trauma Center were excluded from the regression calculation. U nder the current m odel, the HSCRC set the annual uncompensated care percen tages for these hospitals at their actual average uncompensated care percentage for the previous three years.

Enrollment under the Affordable Care Act (ACA)

A prim ary goal of the ACA was to expand coverage to uninsured or underinsured individuals. Counting both i ndividuals who have obtained Me dicaid coverage and those who have selected a private health plan through Maryland's insurance exchange, more than 370,000 Marylanders enroll ed in coverage through F ebruary 2015. This includes coverage of about 254,000 Mary landers through new Medicai d eligibility categories (including people previously covered unde r PAC) and about 120,000 through private health plans.

HSCRC st aff i s focusi ng i ts effort s on t he new categories of Medi caid enro llees who account for about 70% of people covered through ACA related expansions. A wealth of information on this populations ' u tilization of hospita l se rvices bef ore and af ter ACA

implementation is available due to the collaborative efforts of Medicaid and the Chesapeake Regional Information System for our Patients (CRISP).

ANALYSIS

Determining Appropriate Level of Uncompensated Care Funding in Rates

The HSCRC must determine the percentage of uncompensated care to recognize in hospitals' rates to enable funding of the uncompensated care pool.

Normally staff would begin by updating the regression model and examining the actual UCC rate for the last two or three years. Updating the regression model or the historical uncompensated care experience to include FY 2014 data is not recommended. Only six months of experience with the ACA expansion is captured in the FY 2014 data. This short a period is inadequate for assessing the impact of the Medicaid expansion on uncompensated care. Staff, instead, recommend continuing to use the historical experience from FY 12 and FY 13 and the results of last year's regression model.

The only recommended change to the FY 2015 uncompensated care analysis is to update the prospective adjustment for the impact of Medicaid expansion for an analysis of the actual calendar 2014 impact of the Medicaid coverage expansion. The prospective adjustment made for FY 2015 was limited to an estimate of the impact of the PAC population gaining full Medicaid coverage. The adjustment for FY 2016 captures the actual calendar 2014 impact on uncompensated care from extending Medicaid coverage to the entire expansion population covered by Medicaid (PAC and non-PAC).

Changes in Self-Pay and Charity Charges

HSCRC staff has focused on quantifying the impact of the ACA's Medicaid expansion on uncompensated care. To evaluate the impact, staff initially compared the charges identified in the Commission's case mix data with a primary expected payer of self-pay or charity before and after the ACA expansion. Self-pay and charity were the focus of the analysis as they are the best indicators of charges incurred by the uninsured population. This assumption is supported by an analysis of write-off data that shows about 80% of self-pay/charity charges are written off at most hospitals.

The staff analysis compared total charges with a primary expected payer of self-pay/charity for the first six months of calendar 2013 (pre-Medicaid expansion) and calendar 2014 (post-Medicaid expansion). Only six months of data for each year were used as Medicaid enrollment files were required to verify the accuracy of some of the

data (see discussion below). Because Medicaid allows retroactive eligibility, incomplete enrollment data was available at the time of the analysis for the 2nd half of calendar 2014.

Hospitals advised that the trends from 2013 to 2014 were distorted by a lack of uniformity in the classification of charges identified as Medicaid pending (charges associated with cases where the patient was not already enrolled in Medicaid but may qualify for coverage). Until July 2014 when the Commission staff established a uniform policy, some hospitals reported Medicaid pending cases as self-pay while others reported these cases as Medicaid. To resolve this data issue, staff collaborated with Medicaid and CRISP. CRISP's master patient index was used to identify all the hospital charges associated with people with Medicaid coverage for the time of service. Commission staff used the results of the CRISP analysis to reassign charges between Medicaid and self-pay/charity:

- Charges identified in the case mix data as self-pay or charity but associated with a patient enrolled in Medicaid were re-assigned to the Medicaid category.

- Charges identified in the case mix data as Medicaid but associated with a patient who was not identified as CRISP as enrolled in Medicaid were re-assigned to the self-pay category.

The results of the revised analysis are provided in the table below. Combined self-pay/charity charges dropped by $150 million from the first half of calendar 2013 to the first half of calendar 2014. Annualizing the six-month trend produces a $299 million decline in self-pay/charity charges. This amount is $133 million more than the prospective adjustment of the Medicaid expansion to the PAC population incorporated into the HSCRC's FY 2015 uncompensated care policy.

Analysis of Self-Pay/Charity Charges First Half of 2013 to First Half of 2014
($ in Millons)

	CY 2013	CY 2014	$ Change	% Change
Self-Pay/Charity Charges in Case Mix Data	$357	$183		
Remove Self-pay/Charity in CRISP Medicaid	-75	-27		
Add MA as Payer Not in CRISP	165	140		
	$446	**$296**	**-$150**	-34%
Annualized Change			**-$299**	

The annualized $299 million change was then adjusted for:

- Increases in Out-of-State Medicaid charges that were reported with in-State Medicaid charges at certain hospitals. The analysis treated out-of-State Medicaid as self-pay/charity. As a result, calendar 2014 self-pay/charity charges at border hospitals with significant growth in out-of-State Medicaid charges were overstated.

- An overstatement of calendar 2014 self-pay/charity charges at one hospital that appears to have incorrectly classified expected payers in the case mix data.

- Price changes at five hospitals that experienced significant swings in prices from calendar 2013 to calendar 2014.

The net impact of the adjustments is to reduce self-pay/charity charges by $10 million in calendar 2014. As shown in the table below, the revised annualized change in self-pay charity charges from calendar 2013 to calendar 2014 is $310 million. Staff recommends using the CY 2014 decline in self-pay/charity charges, converted to a percentage to reduce the provision for UCC in hospitals' rates for FY 2016.

Adjustments to Analysis of Self-Pay /Charity Charges

$ in Millions

	CY 2013 1st 6 Months	CY 2014 1st 6 Months	$ Change
Self-Pay Charity Charges for First Half of Year	$446	$296	-$150
Out-of-State Medicaid	-14	-16	-2
Correct Data issue at one hospital		-4	-4
Price Leveling		1	1
Revised Totals	$432	$278	-$155
Annualized Change			-$310

The estimate for the reduction in UCC without any offsets for collections is 1.98 percent. It should be noted that Medicaid receives a differential of 6 percent; therefore, approximately 94 percent of the reduction of the uncompensated care will be recognized in hospital rates due to a corresponding increase that will occur in the mark up relative to the increase in the differential that will result from the higher proportion of Medicaid revenues. This mark-up change is a separate provision in the rate update process.

Based on these recommendations, the UCC in hospitals' rates would be set at 5.25 percent as shown below. This percent is nearly identical to the FY 2015 year-to-date figure of 5.23% reported by hospitals through February 2015.

	FY 15 UCC	FY 16 UCC
FY 15 Policy Before ACA Adjustment	7.23%	7.23%
ACA Impact*	-1.09%	-1.98%
Net	**6.14%**	**5.25%**

*FY 2015 Adjustment limited to PAC population.

Continuing Suspension of Charity Care Multiplier

HSCRC staff recommends continuing the suspension of the charity care multiplier indefinitely. The data have not improved and, furthermore, the expansion of coverage under the ACA will likely reduce charity care. This policy can be reevaluated in two to three years after the expansion and implementation of ACA have been completed.

Evaluation of Continuing Sources of Uncompensated Care

Last year the Commission directed staff to begin collecting data on write-offs to guide future development of uncompensated care regression models and uncompensated care policies. Hospitals have submitted information on write-offs and recoveries that occurred during calendar 2014. The data submitted cover claims for services incurred in calendar 2014 and prior years. The data, which are still being scrubbed, are summarized in the table below.

Write-off and Recovery Data Submitted During CY 2014

$ in Millions

	Write-Off Amount	Payer Share of Write-offs	Total Billed Amount	Write-off as % of Bill
Self-Pay/Charity/Medicaid	$586	58%	$1,229	48%*
Commercial	265	26%	1,630	16%
Medicare	116	11%	1,264	9%
Workers' Comp	14	1%	53	26%
Other	31	3%	84	37%
Total	**$1,012**		**$4,260**	

	Recovery	Recovery as % of Writeoff
Self-Pay/Charity/Medicaid	$104	18%
Commercial	128	48%
Medicare	44	38%
Workers' Comp	7	50%
Other	11	35%
Total	**$294**	29%

	Write-off Net of Recovery	Payer Share of Net	Total Billed Amount	Write-off as % of Bill
Self-Pay/Charity/Medicaid	$482	67%	$1,229	39%*
Commercial	$137	19%	1,630	8%
Medicare	$72	10%	1,264	6%
Workers' Comp	$7	1%	53	13%
Other	$20	3%	84	24%
Total	**$718**		**$4,260**	

*Most hospitals report write-offs as share of Medicaid, self-pay, charity bills at 75% to 80%. The state average is pulled down by a couple of outliers who report a substantial volume of charges and write-offs of about 20%. Staff are working with those hospitals to determine if there is a data reporting issue.

The majority (58%) of the write-offs were for charges with a primary expected payer of self-pay, charity, or Medicaid. Since Medicaid does not require enrollee cost sharing,

Medicaid write-offs are most likely cases where the person ultimately failed to qualify for Medicaid and lacked insurance.

About 26% of the write-offs are associated with a commercial payer with the average write-off representing 16% of total charges. With only one year of data available, it is too soon to determine the extent to which increasing deductibles are contributing to increases in uncompensated care. Continued collection of the data is recommended to enable analysis of multi-year trends and guide future development of uncompensated care regression models and policies.

Impact of Denials on All-Payer Model

In response to direction from the Commission during development of the FY 2015 uncompensated care policy, hospitals have begun submitting data on outpatient denials. Due to the uneven quality of initial submissions, insufficient data are available at this point to perform a meaningful analysis. Staff are working with hospitals to improve the uniformity of the data submissions and expect to release an initial analysis in September.

HSCRC staff recommend continued collection of this data to support development of trends analysis and a better understanding of the impact denials have on individual hospital revenues.

Future Uncompensated Care Policy

HSCRC staff notes that the changes to the uncompensated care policy laid out in this report should only be applied for FY 2016. Development of the FY 2017 uncompensated policy will occur in a less dynamic insurance market place and a more data rich environment. Almost two years of post-ACA implementation data including audited financial statements for FY 2015 will be available to update the regression model. With two years of data on write-offs also available, staff may be able to incorporate new variables into the regression model that better capture the continuing sources of uncompensated care.

RECOMMENDATIONS

Based on the preceding analysis, the HSCRC staff recommends that:

1. The uncompensated care provision in rates be reduced from 6.14% to 5.25%, effective July 1, 2015;

2. The combined results of the regression model and two years of historical data underpinning the FY 2015 uncompensated care policy be re-used for FY 2016:
    a. No update to the regression results.
    b. Combine the regression results with the same two years of actual data (FY 2012 and FY 2013) incorporated into the FY 2015 policy.
    c. Subtract the ACA driven decline in self-pay/charity charges from CY 2013 to CY 2014 from the modeled uncompensated care result for each hospital to derive its final percentage for determining its contribution or withdrawal from the uncompensated care pool. Appendix II shows the result of this calculation.
3. The Charity Care Adjustment be suspended indefinitely and not be reinstituted in FY 2016 rates;
4. Data continued to be collected on write-offs to guide future development of uncompensated care regression models and uncompensated care policies;
5. Data continued to be collected on outpatient denials, in addition to data already collected on inpatient denials, to understand the continuing trends in denials under the new All-Payer model; and
6. A new uncompensated care policy be developed for FY 2017 that reflects the patterns in uncompensated care experience, which are observed in FY 2015 and projected for FY 2016.

Appendix I: Calculation to Achieve a Revenue Neutral Policy

The HSCRC calculated the annual UCC percentage for each hospital by combining the average actual UCC percentage for each hospital for the past two years with a predicted UCC percentage from the regression model. The HSCRC then adjusted the annual UCC percentage for each hospital so that the total statewide UCC percentage was equal to the actual total statewide UCC percentage for 2013. This was done to achieve a revenue neutral system of pooling across all hospitals. This adjustment was done before any policy adjustments were made, such as the PAC reduction.

Revenue neutral adjustment factor:

$$= \frac{Total\ actual\ 2013\ UCC\ \% - Total\ calculated\ UCC\%\ for\ 2015}{Total\ actual\ \ 2013\ UCC\%} + 1$$

Adjusted UCC percentage for each hospital:

$$= revenue\ neutral\ adjustment\ factor * 2015\ UCC\%\ calculated\ for\ hospital\ 1$$

Appendix II: Proposed Uncompensated Care Levels by Hospital for FY 2016

	A	B	C		D	E
			C = A - B			E = A -D
	FY 2015 Policy Results Without PAC	FY 15 PAC Adjustment	FY 2015 Policy		FY 2016 ACA Expansion Adjustment	FY 2016 Policy
Meritus Medical Center	7.83%	1.66%	6.17%		3.08%	4.76%
Univ. of Maryland Medical Center	6.50%	1.85%	4.65%		3.69%	2.81%
Prince Georges Hospital	16.07%	1.09%	14.98%		1.09%	14.98%
Holy Cross Hospital of Silver Spring	8.84%	0.31%	8.53%		1.46%	7.39%
Frederick Memorial Hospital	6.33%	0.90%	5.43%		2.32%	4.02%
Harford Memorial Hospital	10.75%	1.51%	9.24%		2.00%	8.75%
Mercy Medical Center, Inc.	6.74%	1.34%	5.40%		1.02%	5.72%
Johns Hopkins Hospital	4.31%	0.78%	3.53%		1.21%	3.10%
UM Dorchester	8.25%	2.67%	5.58%		4.16%	4.09%
St. Agnes Hospital	8.13%	1.45%	6.69%		2.81%	5.33%
Sinai Hospital	5.83%	1.10%	4.73%		1.33%	4.50%
Bon Secours Hospital	17.59%	5.80%	11.79%		7.12%	10.47%
Franklin Square Hospital	7.74%	0.95%	6.80%		2.82%	4.92%
Washington Adventist Hospital	13.36%	0.59%	12.78%		1.16%	12.20%
Garrett County Memorial Hospital	10.10%	0.75%	9.36%		3.24%	6.86%
Montgomery General Hospital	7.02%	0.78%	6.25%		1.55%	5.47%
Peninsula Regional Medical Center	6.71%	1.30%	5.41%		1.84%	4.87%
Suburban Hospital Association,Inc	5.33%	0.28%	5.05%		1.25%	4.08%
Anne Arundel General Hospital	4.82%	0.54%	4.29%		1.45%	3.38%
Union Memorial Hospital	7.49%	1.45%	6.03%		2.39%	5.10%
Western Maryland	6.49%	1.06%	5.43%		2.88%	3.61%
St. Marys Hospital	7.41%	1.09%	6.32%		3.09%	4.32%
Johns Hopkins Bayview Med. Center	8.71%	1.73%	6.98%		3.22%	5.49%
UM Chestertown	9.01%	0.77%	8.24%		2.50%	6.51%
Union Hospital of Cecil County	8.25%	1.82%	6.43%		2.61%	5.64%
Carroll County General Hospital	5.23%	0.69%	4.53%		1.23%	3.99%
Harbor Hospital Center	9.12%	1.47%	7.65%		2.55%	6.57%
UM Charles Regional	8.15%	0.80%	7.35%		2.36%	5.79%
UM Easton	6.40%	0.83%	5.56%		1.58%	4.82%
UM Midtown	12.65%	3.52%	9.14%		4.14%	8.51%
Calvert Memorial Hospital	6.55%	1.05%	5.51%		2.17%	4.39%
Northwest Hospital Center, Inc.	8.47%	0.93%	7.54%		2.75%	5.73%
UM Baltimore Washington	8.82%	1.02%	7.80%		2.01%	6.81%
Greater Baltimore Medical Center	3.79%	0.38%	3.42%		0.41%	3.39%
McCready Foundation, Inc.	9.57%	2.76%	6.81%		3.54%	6.04%
Howard County General Hospital	6.33%	0.61%	5.72%		2.18%	4.15%
Upper Chesepeake Medical Center	5.71%	0.59%	5.12%		0.61%	5.10%
Doctors Community Hospital	9.10%	0.61%	8.49%		2.09%	7.01%
Laurel Regional Hospital	13.24%	0.94%	12.30%		1.74%	11.51%
Good Samaritan Hospital	7.33%	0.90%	6.43%		1.93%	5.40%
Shady Grove Adventist Hospital	7.24%	0.53%	6.71%		1.06%	6.17%
Fort Washington Medical Center	13.09%	0.86%	12.23%		1.34%	11.76%
Atlantic General Hospital	7.86%	1.42%	6.43%		1.26%	6.60%
Southern Maryland Hospital	7.54%	0.94%	6.60%		2.65%	4.89%
UM St. Joseph's	4.63%	0.72%	3.90%		0.68%	3.95%
UM Rehab and Ortho	5.80%	1.13%	4.67%		1.61%	4.19%
Univ. of Maryland (MIEMSS)	21.36%	0.25%	21.11%		-0.73%	22.09%
Levindale	1.83%	0.00%	1.83%		0.00%	1.83%
Statewide	**7.23%**	**1.09%**	**6.14%**		**1.98%**	**5.25%**
*University of Maryland and MIEMSS will have a combined rate of 5.35%						

Draft Recommendation for Shared Savings Program for Rate Year 2016

Health Services Cost Review Commission
4160 Patterson Avenue Baltimore, MD 21215
(410) 764-2605

Appendix I and II have been revised in this draft recommendation, after being presented at the May 13, 2015 HSCRC public meeting. Any comments may be sent to Alyson Schuster at Alyson.schuster@Maryland.gov by COB on May 27, 2015.

A. Introduction

The Commission approved a shared savings policy on May 1, 2013, which reduced hospital revenues based on risk-adjusted readmission rates using specifications set forth in the Admission-Readmission Revenue Constraint Program (ARR). The program was developed to maintain Maryland's exemption from the CMS readmission program and required a reduction of 0.3 percent of inpatient revenues in the state during FY2014. This draft recommendation proposes the continuation of the shared savings policy, but suggests aligning the measurement definition to the definitions used in the Readmission Reduction Incentive Program and implementing interim limits for hospitals with changes above a threshold in shared savings amounts and those serving a higher proportion of adult Medicaid patients.

B. Background

Exemption Criteria from CMS Quality-Based Payment Programs

As of federal fiscal year 2013, Section 3025 of the Patient Protection and Affordable Care Act (H.R. 3590) requires the Secretary of Health and Human Services to reduce payments to hospitals relative to excess readmissions as a means of reducing Medicare readmissions nationally. Medicare requires Inpatient Prospective Payment System (IPPS) hospitals outside of Maryland to engage in Medicare's Hospital Readmissions Reduction program. According to this IPPS rule published for FFY 2015, the Secretary is authorized to exempt Maryland hospitals from the Medicare 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 quality-based payment recommendations, the new All-Payer model changed the criteria for maintaining exemptions from the CMS programs. As part of the CMMI contract, the aggregate maximum revenue at risk in Maryland quality/performance based payment programs must be equal to or greater than the aggregate maximum revenue at risk in the CMS Medicare quality programs.

Approved Methodology to Implement Shared Savings Program

The approved shared savings methodology the HSCRC used for the last two years calculated a case mix adjusted readmission rate based on ARR specifications (intra-hospital readmissions excluding 0-1 day stays with planned admission exclusions) for each hospital for the base period and determines a statewide required percent reduction in readmission rates to achieve the revenue for shared savings. The case mix adjustment is based on observed vs. expected readmissions, calculated using the statewide average readmission rate for each DRG SOI cell and aggregated for each hospital. HSCRC staff then applies a shared savings benchmark to the case mix adjusted readmission rate to calculate the contribution from each hospital. The shared savings benchmark is the required percent reduction in readmissions necessary to achieve the predetermined revenue for shared shavings.

C. Assessment

1. Alignment of Readmission Measure

HSCRC staff is proposing to calculate risk-adjusted readmission rates of each hospital for calendar year 2014 using the measurement specifications developed for the Readmission Reduction Incentive program (RRIP) to be used as the basis of shared savings reductions, which includes readmissions to other hospitals. Staff believe that this alignment is important because hospitals need to be accountable for readmissions to other hospitals. Appendix I provides the CY 2013 case mix adjusted readmission rate under old and new methodology and the CY 2014 case mix adjusted readmission rates under the new methodology.

2. Proposed Required Revenue Reduction

HSCRC staff is proposing a statewide shared savings required revenue reduction of 0.6% of total hospital revenue. Because last year's statewide shared savings reduction of 0.4% is added back into rates, this represents an additional net reduction of 0.2%. Statewide required reductions in readmission rates are determined based on the proposed revenue reduction in total revenue as described in Table 1.

Table 1: Calculation of Statewide Reduction based on 0.6% of total revenue shared savings

FY 15 Total Approved Permanent Revenue	A	$14,984,632,041
Percent Inpatient	B	59.9%
Approved Inpatient Revenue	C = (A/B)	$8,977,162,630
Proposed Required Revenue Reduction %	F	0.60%
Proposed Required Revenue Reduction ($)	G=A*F	$89,907,792
Total Discharges Included	D	539,233
Average Approved Charge Per Case	E=C/D	$16,648
Readmission as a percent of Total Discharges	H	13.29%
Total Number of Readmissions	I = D*H	71,664
Required Reduction in Readmissions to achieve savings	J=G/E	(5,401)
Required New Readmission Rate	K=(I+J)/D	12.29%
Required Percent Reduction in Readmission Rate	L=K/H-1	**-7.54%**

Once the overall required reduction in readmission rates is determined, the hospital specific reduction as a percent of total revenue is calculated using the following formula:

*Inpatient revenue percent reduction= Hospital Risk-Adjusted Readmission Rate*Statewide required reduction in readmission rate*

The conversion to reduction as a percent of total revenue is calculated as follows:

*Total revenue percent reduction= Inpatient percent revenue reduction*proportion of total revenue from inpatient.*

The existing shared savings reductions policy has a number of advantages:

- Every hospital contributes to the shared savings; however, the shared savings are distributed in proportion to each hospital's case mix adjusted readmission rates in the base year.
- The shared savings amount is not related to actual reduction in readmissions during the rate year, hence providing an equitable reduction for quality improvement related to readmissions reductions across all hospitals. Hospitals that reduce their intra-hospital readmission rates beyond the shared savings benchmark during the rate year will retain 100 percent of the difference between their actual reduction and the shared savings benchmark.
- When applied prospectively, the HSCRC sets and may adjust the targeted dollar amount for shared savings, thus guaranteeing a fixed amount of shared savings.

3. Hospital Protections

HSCRC staff is proposing two adjustments to the hospital-specific shared savings reductions:

- **Reduce the shared savings amounts for hospitals with changes above a threshold in shared savings penalty due to the change in the readmission measure.** Specifically, hospitals with an increase in the shared savings penalty of greater than 0.3% and had an improvement in readmissions from CY 2013 to CY 2014, will have the shared savings penalty capped at 0.3% of hospital total revenue for this year and will return to the full shared savings amount in subsequent years.

- **Reduce the shared savings penalty for hospitals with a higher proportion of adult Medicaid patients.** The HSCRC staff is concerned about ensuring hospitals that treat a higher proportion of disadvantaged patients have the needed resources for care delivery and care improvement, while not excusing poor quality of care or care coordination because of higher deprivation. The HSCRC has convened a subgroup to discuss risk-adjusting readmissions for socio-demographic factors, which had its kickoff meeting on May 1st and staff anticipate completing this work by fall. In the meantime, the staff is proposing that hospitals that are above the 75th percentile on the percentage of Medicaid discharges for those over age 18 should have shared savings reductions capped at the Statewide average of 0.6%. Discharges for adults were chosen in part due to the low readmission rates for children.

Appendix II provides the results of shared savings policy based on proposed 0.6% reduction in total patient revenues with and without these protections. In total the Statewide reduction is reduced to 0.58% with these protections.

D. Recommendations

The Staff is providing the following recommendations to the Commission for the Shared Savings for RY 2016:

- Align the shared savings readmission rate to the measure specified in RY 2017 Readmission Reduction Incentive Program.
- Set the value of the shared savings amount to 0.6 % of total permanent revenue in the state.
- Reduce hospital-specific shared savings reductions for hospitals with large changes from last year and those with higher proportion of adult Medicaid patients:
    - Hospitals with an increase in the shared savings penalty of greater than 0.3% and had an improvement in readmissions from CY 2013 to CY 2014, will have the shared savings penalty capped at 0.3% for this year and will return to the full shared savings amount in subsequent years.
    - Hospitals that are above the 75th percentile on the percentage of Medicaid discharges for those over age 18 should have shared savings reductions capped at the Statewide average of 0.6%.

Appendix I: Case Mix Adjusted Readmission Rates, CY 2013 and CY 2014

Hospital ID	Hospital Name	CY2013			CY2014 Using RRIP Definition						
		Case Mix Adjusted Rate using old ARR Definition	Case Mix Adjusted Rate using new RRIP Definition	Case Mix Adjusted Rate using new RRIP Definition Intra Only	Total Admissions in Denominator	Expected Readmissions *	Observed Readmissions	Observed Rate	Readmission Ratio	Case Mix Adjusted Rate	Case Mix Adjusted Rate Intra Only
		–	–		A	B	C	D=C/A	E=C/B	F=E*CY13 SWUnadj. Rate	
210001	MERITUS	8.22%	12.48%	11.15%	15,597	2080.1	1,907	12.23%	0.9168	12.71%	11.23%
210002	UNIVERSITY OF MARYLAND	6.72%	15.27%	8.68%	26,895	4213.8	4,559	16.95%	1.0819	14.99%	8.10%
210003	PRINCE GEORGE	5.50%	11.54%	6.67%	10,990	1532.9	1,181	10.75%	0.7704	10.68%	6.85%
210004	HOLY CROSS	6.90%	12.34%	8.86%	27,170	2939	2,753	10.13%	0.9367	12.98%	9.25%
210005	FREDERICK MEMORIAL	7.61%	11.42%	9.94%	14,737	2027.3	1,691	11.47%	0.8341	11.56%	10.10%
210006	HARFORD	6.24%	12.41%	8.38%	4,073	682.59	592	14.53%	0.8673	12.02%	8.75%
210008	MERCY	6.55%	15.57%	8.73%	13,594	1427.2	1,453	10.69%	1.0181	14.11%	7.71%
210009	JOHNS HOPKINS	8.30%	15.43%	11.13%	45,570	7033.6	7,816	17.15%	1.1112	15.40%	11.35%
210010	DORCHESTER	6.46%	12.56%	8.81%	2,340	406.42	367	15.68%	0.9030	12.51%	9.30%
210011	ST. AGNES	7.26%	14.90%	9.50%	15,436	2147.5	2,076	13.45%	0.9667	13.40%	8.34%
210012	SINAI	7.90%	15.14%	9.68%	21,301	3028.2	3,071	14.42%	1.0141	14.05%	8.54%
210013	BON SECOURS	7.13%	20.43%	8.98%	4,175	823.39	1,033	24.74%	1.2546	17.39%	6.10%
210015	FRANKLIN SQUARE	7.87%	14.03%	9.78%	20,820	2961.6	2,945	14.15%	0.9944	13.78%	9.41%
210016	WASHINGTON ADVENTIST	6.38%	12.11%	8.07%	10,946	1533.1	1,404	12.83%	0.9158	12.69%	8.51%
210017	GARRETT COUNTY	4.56%	7.72%	6.24%	1,821	215.27	113	6.21%	0.5249	7.28%	5.86%
210018	MONTGOMERY GENERAL	7.26%	13.44%	9.45%	7,837	1172.5	1,047	13.36%	0.8930	12.38%	8.02%
210019	PENINSULA REGIONAL	7.86%	11.90%	10.22%	16,879	2311.4	2,035	12.06%	0.8804	12.20%	10.53%
210022	SUBURBAN	6.81%	12.13%	8.87%	12,915	1866.3	1,598	12.37%	0.8562	11.87%	8.00%
210023	ANNE ARUNDEL	7.94%	12.97%	10.43%	24,086	2536.9	2,291	9.51%	0.9031	12.52%	9.53%
210024	UNION MEMORIAL	6.70%	15.25%	8.04%	11,770	1798.1	1,786	15.17%	0.9933	13.77%	6.26%
210027	WESTERN MARYLAND HEALTH SY	9.35%	13.14%	12.68%	10,884	1536.3	1,447	13.29%	0.9419	13.05%	12.60%
210028	ST. MARY	8.15%	13.40%	11.70%	6,503	875.99	710	10.92%	0.8105	11.23%	9.40%
210029	HOPKINS BAYVIEW MED CTR	8.26%	16.32%	10.32%	18,062	2642.4	2,914	16.13%	1.1028	15.28%	9.96%
210030	CHESTERTOWN	8.70%	14.75%	11.47%	1,766	288.43	271	15.35%	0.9396	13.02%	10.24%
210032	UNION HOSPITAL OF CECIL COUN	7.82%	10.88%	9.41%	4,959	747.22	579	11.68%	0.7749	10.74%	9.48%
210033	CARROLL COUNTY	7.79%	12.91%	10.32%	10,147	1414.3	1,289	12.70%	0.9114	12.63%	10.07%
210034	HARBOR	6.90%	13.94%	8.11%	6,787	898.36	876	12.91%	0.9751	13.51%	7.79%
210035	CHARLES REGIONAL	7.20%	12.93%	9.91%	7,041	984.56	940	13.35%	0.9547	13.23%	9.96%
210037	EASTON	6.25%	11.54%	8.76%	7,109	906.18	865	12.17%	0.9546	13.23%	10.03%
210038	UMMC MIDTOWN	5.63%	17.71%	6.41%	5,285	1052.1	1,266	23.95%	1.2033	16.68%	6.50%
210039	CALVERT	6.22%	10.57%	8.20%	5,273	733.93	482	9.14%	0.6567	9.10%	6.67%
210040	NORTHWEST	9.12%	16.03%	10.68%	10,216	1729.4	1,798	17.60%	1.0397	14.41%	8.60%
210043	BALTIMORE WASHINGTON MEDICA	8.25%	15.26%	11.14%	16,597	2528.5	2,674	16.11%	1.0575	14.66%	10.90%
210044	G.B.M.C.	6.09%	11.90%	7.90%	15,809	1764.6	1,426	9.02%	0.8081	11.20%	7.37%
210045	MCCREADY	4.97%	13.03%	6.36%	314	52.871	40	12.74%	0.7566	10.49%	6.38%
210048	HOWARD COUNTY	7.57%	12.90%	9.89%	15,465	1957.1	1,744	11.28%	0.8911	12.35%	9.59%
210049	UPPER CHESAPEAKE HEALTH	7.09%	12.68%	9.21%	10,784	1463.5	1,360	12.61%	0.9293	12.88%	9.10%
210051	DOCTORS COMMUNITY	7.07%	13.89%	9.22%	8,396	1423.9	1,221	14.54%	0.8575	11.88%	7.22%
210055	LAUREL REGIONAL	6.97%	14.91%	8.71%	4,263	609.21	603	14.14%	0.9898	13.72%	7.65%
210056	GOOD SAMARITAN	7.85%	15.15%	9.87%	10,078	1736.9	1,808	17.94%	1.0409	14.43%	9.45%
210057	SHADY GROVE	6.86%	11.87%	8.90%	18,632	2200.8	1,788	9.60%	0.8124	11.26%	8.10%
210058	REHAB & ORTHO	0.85%	12.70%	0.24%	2,449	287.39	262	10.70%	0.9117	12.63%	0.66%
210060	FT. WASHINGTON	6.48%	13.87%	6.96%	2,114	316.57	322	15.23%	1.0172	14.10%	6.77%
210061	ATLANTIC GENERAL	6.29%	13.00%	8.85%	3,093	492.89	435	14.06%	0.8825	12.23%	8.12%
210062	SOUTHERN MARYLAND	6.81%	12.74%	9.14%	12,269	1869.3	1,647	13.42%	0.8811	12.21%	8.73%
210063	UMST. JOSEPH	6.24%	12.67%	8.08%	15,986	1947.4	1,645	10.29%	0.8447	11.71%	7.37%
TOTAL		**7.36%**	**13.86%**	**9.55%**	**539,233**	**75,197**	**72,130**	**13.38%**	**0.9592**	**13.29%**	**9.09%**

Appendix II: Proposed Shared Savings Policy Reductions for Rate Year 2016

Hospital ID	Hospital Name	CY14 Risk Adjusted Rate	Inpatient Revenue Reduction	Proportion of Total Revenue from Inpatient	Percent Reduction in Total Revenue For RY 2016	Medicaid Adult Percentage	FY2015 Adjustment	Difference from FY15	Percent Reduction in Total Revenue for FY16 w/Adjustments
A	B	C	D=C*Reduction	E	F=D*E	G	H	I	J
210001	MERITUS	12.71%	-0.96%	62.80%	-0.60%	19.22%	-0.47%	-0.13%	**-0.60%**
210002	UNIVERSITY OF MARYLAN	14.99%	-1.13%	68.95%	-0.78%	30.54%	-0.44%	-0.34%	**-0.60%**
210003	PRINCE GEORGE	10.68%	-0.80%	69.39%	-0.56%	41.92%	-0.35%	-0.21%	**-0.56%**
210004	HOLY CROSS	12.98%	-0.98%	69.47%	-0.68%	20.33%	-0.44%	-0.24%	**-0.68%**
210005	FREDERICK MEMORIAL	11.56%	-0.87%	57.44%	-0.50%	15.44%	-0.29%	-0.21%	**-0.50%**
210006	HARFORD	12.02%	-0.91%	46.61%	-0.42%	19.32%	-0.40%	-0.03%	**-0.42%**
210008	MERCY	14.11%	-1.06%	49.01%	-0.52%	25.25%	-0.26%	-0.26%	**-0.52%**
210009	JOHNS HOPKINS	15.40%	-1.16%	62.52%	-0.73%	23.07%	-0.48%	-0.25%	**-0.73%**
210010	DORCHESTER	12.51%	-0.94%	44.50%	-0.42%	27.44%	-0.29%	-0.13%	**-0.42%**
210011	ST. AGNES	13.40%	-1.01%	59.59%	-0.60%	19.94%	-0.39%	-0.21%	**-0.60%**
210012	SINAI	14.05%	-1.06%	62.60%	-0.66%	24.93%	-0.45%	-0.21%	**-0.66%**
210013	BON SECOURS	17.39%	-1.31%	61.90%	-0.81%	55.27%	-0.40%	-0.41%	**-0.60%**
210015	FRANKLIN SQUARE	13.78%	-1.04%	60.41%	-0.63%	26.71%	-0.43%	-0.20%	**-0.60%**
210016	WASHINGTON ADVENTIST	12.69%	-0.96%	65.05%	-0.62%	32.02%	-0.37%	-0.25%	**-0.60%**
210017	GARRETT COUNTY	7.28%	-0.55%	43.65%	-0.24%	20.03%	-0.17%	-0.07%	**-0.24%**
210018	MONTGOMERY GENERAL	12.38%	-0.93%	53.65%	-0.50%	13.24%	-0.35%	-0.15%	**-0.50%**
210019	PENINSULA REGIONAL	12.20%	-0.92%	57.61%	-0.53%	17.42%	-0.41%	-0.12%	**-0.53%**
210022	SUBURBAN	11.87%	-0.89%	64.95%	-0.58%	6.87%	-0.40%	-0.18%	**-0.58%**
210023	ANNE ARUNDEL	12.52%	-0.94%	57.36%	-0.54%	10.89%	-0.41%	-0.13%	**-0.54%**
210024	UNION MEMORIAL	13.77%	-1.04%	59.77%	-0.62%	22.62%	-0.36%	-0.26%	**-0.62%**
210027	WESTERN MARYLAND HEA	13.05%	-0.98%	59.25%	-0.58%	19.91%	-0.49%	-0.09%	**-0.58%**
210028	ST. MARY	11.23%	-0.85%	44.55%	-0.38%	17.46%	-0.33%	-0.05%	**-0.38%**
210029	HOPKINS BAYVIEW MED C	15.28%	-1.15%	60.26%	-0.69%	31.84%	-0.45%	-0.25%	**-0.60%**
210030	CHESTERTOWN	13.02%	-0.98%	49.52%	-0.49%	14.18%	-0.37%	-0.11%	**-0.49%**
210032	UNION HOSPITAL OF CEC	10.74%	-0.81%	44.83%	-0.36%	26.43%	-0.32%	-0.05%	**-0.36%**
210033	CARROLL COUNTY	12.63%	-0.95%	56.27%	-0.54%	15.10%	-0.40%	-0.13%	**-0.54%**
210034	HARBOR	13.51%	-1.02%	61.91%	-0.63%	33.54%	-0.34%	-0.29%	**-0.60%**
210035	CHARLES REGIONAL	13.23%	-1.00%	54.07%	-0.54%	17.02%	-0.39%	-0.15%	**-0.54%**
210037	EASTON	13.23%	-1.00%	51.99%	-0.52%	17.66%	-0.31%	-0.21%	**-0.52%**
210038	UMMC MIDTOWN	16.68%	-1.26%	62.77%	-0.79%	47.03%	-0.31%	-0.48%	**-0.60%**
210039	CALVERT	9.10%	-0.69%	48.73%	-0.33%	18.92%	-0.27%	-0.06%	**-0.33%**
210040	NORTHWEST	14.41%	-1.09%	58.28%	-0.63%	21.17%	-0.48%	-0.15%	**-0.63%**
210043	BALTIMORE WASHINGTON	14.66%	-1.10%	58.00%	-0.64%	16.90%	-0.27%	-0.37%	**-0.30%**
210044	G.B.M.C.	11.20%	-0.84%	48.29%	-0.41%	8.53%	-0.43%	0.03%	**-0.41%**
210045	MCCREADY	10.49%	-0.79%	24.60%	-0.19%	15.29%	-0.11%	-0.09%	**-0.19%**
210048	HOWARD COUNTY	12.35%	-0.93%	61.11%	-0.57%	13.64%	-0.41%	-0.16%	**-0.57%**
210049	UPPER CHESAPEAKE HEAL	12.88%	-0.97%	50.00%	-0.49%	10.24%	-0.31%	-0.17%	**-0.49%**
210051	DOCTORS COMMUNITY	11.88%	-0.90%	62.83%	-0.56%	17.07%	-0.43%	-0.13%	**-0.56%**
210055	LAUREL REGIONAL	13.72%	-1.03%	64.81%	-0.67%	27.55%	-0.43%	-0.24%	**-0.60%**
210056	GOOD SAMARITAN	14.43%	-1.09%	61.85%	-0.67%	17.08%	-0.39%	-0.28%	**-0.67%**
210057	SHADY GROVE	11.26%	-0.85%	62.23%	-0.53%	16.77%	-0.39%	-0.14%	**-0.53%**
210058	REHAB & ORTHO	12.63%	-0.95%	59.98%	-0.57%	19.35%	-0.05%	-0.52%	**-0.30%**
210060	FT. WASHINGTON	14.10%	-1.06%	39.21%	-0.42%	14.15%	-0.25%	-0.17%	**-0.42%**
210061	ATLANTIC GENERAL	12.23%	-0.92%	38.88%	-0.36%	9.67%	-0.23%	-0.13%	**-0.36%**
210062	SOUTHERN MARYLAND	12.21%	-0.92%	63.74%	-0.59%	22.35%	-0.39%	-0.20%	**-0.59%**
210063	UM ST. JOSEPH	11.71%	-0.88%	60.98%	-0.54%	10.93%	-0.34%	-0.19%	**-0.54%**
Statewide	**Total**	**13.29%**	**-1.00%**	**59.91%**	**-0.60%**	**21.14%**	**-0.40%**	**-0.20%**	**0.58%**

*75th Percentile for Medicaid +18 was 25.17%

Adj. due to >0.3% change

Eligible for Medicaid Adj.

Maryland Health Services Cost Review Commission

Market Shift Adjustments Update
05/13/2015

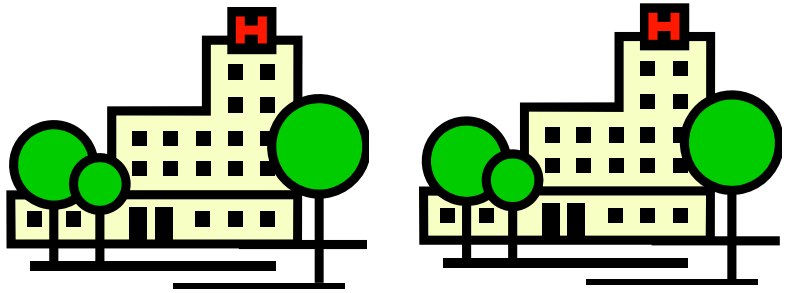
Two Overarching Principles

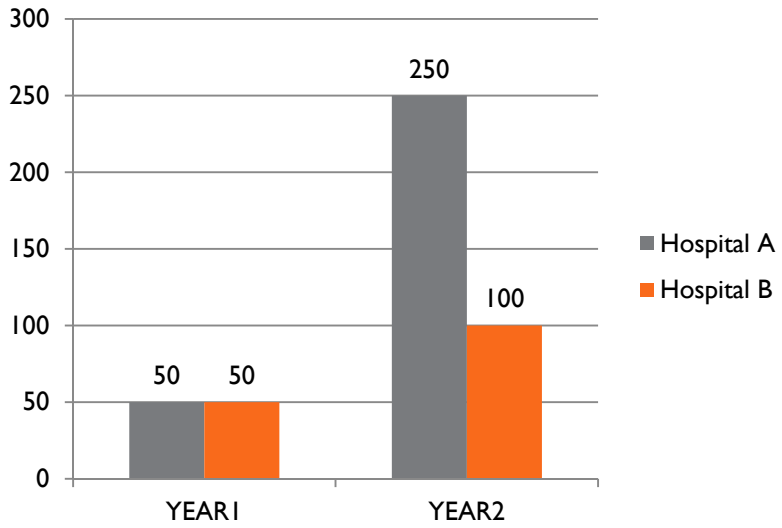
- Market shift adjustment should not undermine the incentives to reduce avoidable utilization
  - Separate shifts from utilization increase
- Market shift adjustment should provide necessary resources for services shifted to another hospital
  - Money follows the patient

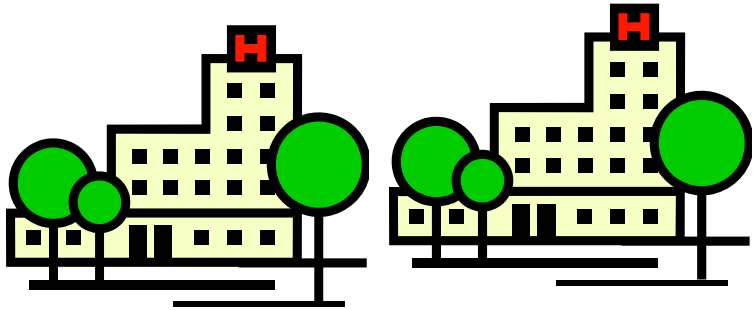
Volume Adjustments under Global Budgets

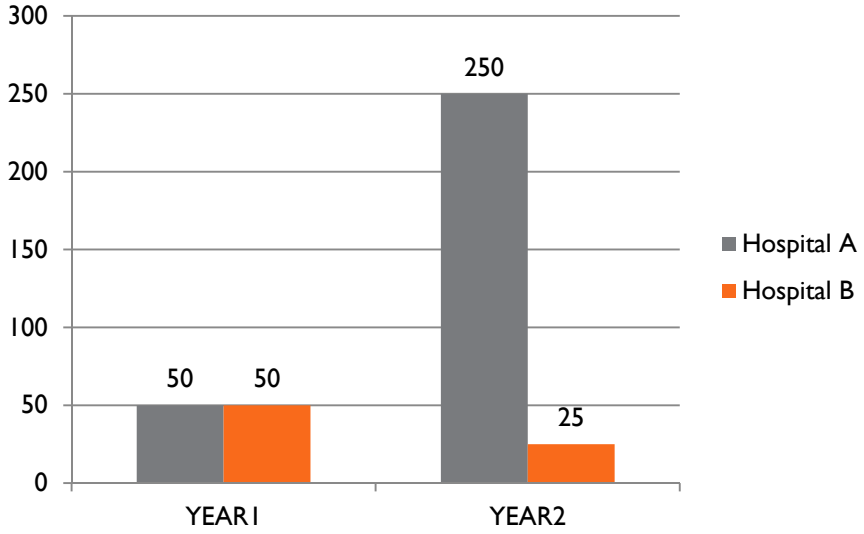
- Demographic adjustment: Population growth and aging
- Utilization increases due to ACA: Medicaid Expansion
- Transfer adjustments: Complex Patients transferred to Academic Medical Centers
- Market Shift: Shifts between acute care MD hospitals for services provided to MD residents
- Out of state utilization
- Changes in services provided
- Shifts to unregulated settings

Market Share vs. Market Shift









Calculation of Costs

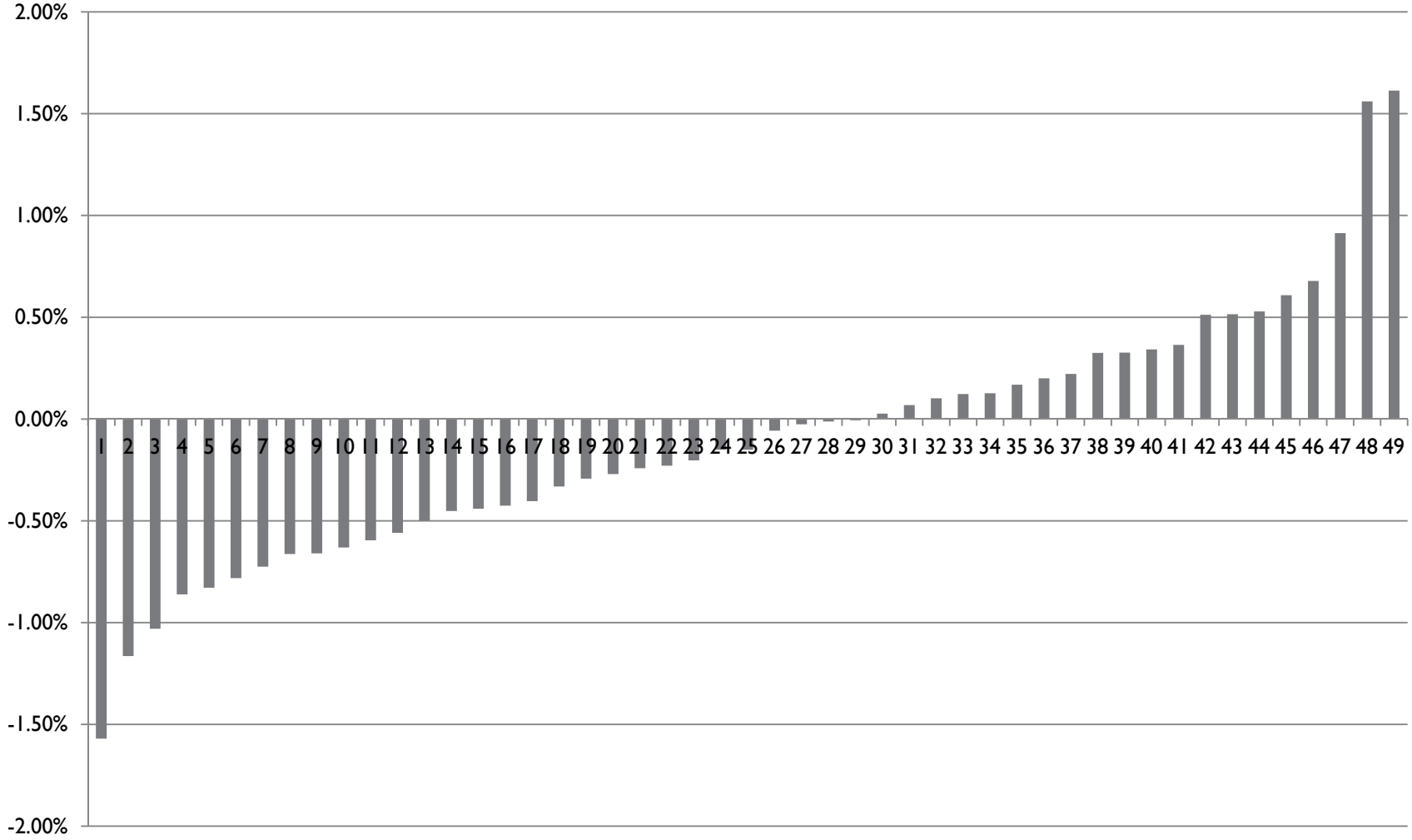
Market Shift *Average Cost*50% Variable Cost Factor*Price Inflator

- Average Cost Options:
  - Option 1: Hospital Overall Average Cost per ECMAD
    - Range=$19,069-$10,456
  - Option 2: Hospital Service Line Specific Cost per ECMAD

Statewide Impact-Preliminary Data

Statewide Impact	1.Market Shift Adjustment Using Hospital Average Charge	3.Market Shift Adjustment Using Hospital Service Line Specific Average	Difference From Hospital Average
A	B	C	D=C-B
Grand Net Total	**-$792,587**	**$524,359**	**$1,316,946**
Positive Adjustment Total	$31,214,203	$30,689,285	$3,831,250
Negative Adjustment Total	-$32,006,790	-$30,164,926	-$2,514,303
Absolute Adjustment Total	$63,220,992	$60,854,210	$6,345,553

Preliminary Hospital Level Impact as % of Revenue



Not Undermining GBR Incentives

- Exclude Potentially Avoidable Utilization
  - Readmissions, Prevention Quality Indicators (PQIs)

- Limit market shift to the lesser of loses or gains

Loses<Gains	Loses>Gains
Loses=100 Admissions	Loses=200 admissions
Gains=200 Admissions	Gains=100 admissions
Market Shift Adjustment=+100	Market Shift Adjustment=+100

Money Follows the Patient

- Included observation stays with 24 hours or greater to inpatient counts
- Service Specific calculations
  - eg. shifts in orthopedic surgery are calculated independently from cardiac surgery
- Zip code level calculations
  - County level aggregation for low population density, concentrated markets
    - Garrett, Allegany , Washington, Carroll, Cecil, Kent, Queen Anne's, Caroline, Talbot , Dorchester, Wicomico, Somerset, Calvert, Charles, Saint Mary's, Worcester, Frederick, Harford

Market Shift Adjustment Timing

- Prospective Adjustments
  - Prior notifications for planned changes
- Annual calculations
  - FY2016 : July 2014-Dec 2014
  - FY2017: Jan 2015-Dec 2015

Global Budget Revenue Contracts Market Shift Adjustments
Draft Technical Report

Health Services Cost Review Commission
4160 Patterson Avenue Baltimore, MD 21215
(410) 764-2605

May, 2015

This document contains technical specifications for Global Budget Contract Market Share adjustments for RY 2016.

Market Shift Adjustments under Global Revenue Models

Updated-5/6/2015

Table of Contents

Market Shift Adjustments under Global Revenue Models

Updated-5/6/2015

This draft document, prepared in conjunction with the Payment Models Work Group, contains principles for consideration as market shift adjustments are developed and applied. It is a work in progress and may be modified as the approaches and calculations for adjustments are finalized.

1. Introduction

The Market Shift Adjustments (MSAs) mechanism is part of a much broader set of tools that links global budgets to populations and patients under the State's new All-Payer Model.

The specific purpose of MSAs is to provide a criteria for increasing or decreasing the approved regulated revenue of Maryland hospitals operating under Global Budget Revenue (GBR) rate arrangements to ensure that revenue is appropriately reallocated when shifts in patient volumes occur between hospitals as a result of efforts to achieve the Triple Aim of better care, better health, and lower costs. In fact, MSAs under global budget revenue arrangements are fundamentally different from a volume adjustment. Hospitals under a population-based payment system, such as GBR, have a fixed budget for providing services to the population in their service area. Therefore, it is imperative that MSAs reflect shifts in patient volumes independent of general volume increases in the market.

This document lays out the principles governing the development of MSA mechanisms that will be applied as part of Maryland's global budget system and provides a brief overview of the methodology.

2. Overview

MSAs should contain the following features:

- A specified population from which hospitals' market shifts will be calculated;
- A defined set of covered services of the MSA ; and
- An MSA approach that is budget neutral to the maximum extent practicable and/or results in demonstrably higher quality of care.

The MSA should complement the global budget revenue incentives to eliminate marginal services that do not add value, are unnecessary or result from better community based care. Therefore, MSAs should not be applied to these appropriate reductions in utilization.

MSAs are one of the global budget tools necessary to account for changes in utilization levels and patterns. The global budget revenue agreements contain other mechanisms intended to ensure the continued provision of needed services for Maryland patients including:

- **Population/Demographic Adjustments:** Changing demographics could result in a growth in the demand for hospital services. Currently, the annual update factor adjusts revenue to capture changes in overall population. Annual hospital level population adjustments will capture changes in total population/demographics in each hospital's service area.
- **Annual Update Provides Flexibility to Fund Innovation/New Services/Growth in Selected Quaternary Services:** Targeted funding could be provided through the Update Process. For example, the new Holy

Cross Germantown Hospital is partially funded from the general update process. Consideration is given to annual budget changes for quaternary services such as transplants, burns, and highly specialized cancer care for Johns Hopkins Hospital and University of Maryland Hospital Center under their global budget agreements.

- **Transfers to Johns Hopkins Hospital, University of Maryland Hospital Center, and Shock Trauma Center:** Adjustments will be made for changes in patient transfers to respective centers to ensure that resources are available to treat patients needing the specialized care provided in these settings.

- **Potentially Avoidable Utilization (PAU**): PAU is excluded from the MSAs and will be analyzed separately. The exclusion of PAU avoids the possibility of rewarding a hospital that increased PAU at the expense of a hospital that appropriately reduced its PAU. A PAU focused analysis, when warranted, will allow an assessment PAU reductions that are not driven by improvements in population health, such as diversion of patients to an unregulated setting, transfer of patients due to changes in referral patterns by purchasers, or a less favorable change in service delivery (eliminating or contracting service lines that have high PAU volumes) that should not be rewarded.

The basis for distinguishing between desirable and undesirable utilization changes is the Triple Aim of the new system: to improve health care outcomes, enhance patient experiences, and control costs. MSAs, together with other global budget agreement provisions and HSCRC policies, will need to focus on efforts that support the Triple Aim.

Examples of actions that help achieve the Triple Aim are those that result from:

- Providing high quality hospital care resulting in fewer hospital-acquired conditions;
- Making efforts to improve care coordination and patient discharge planning resulting in fewer re-hospitalizations;
- Promoting the provision of care in the most appropriate setting, resulting in fewer initial hospitalizations for ambulatory care sensitive conditions and conditions that can be treated equally effectively in other settings at lower cost; and
- Providing services in lower cost settings without compromising patient care.

Possible examples of actions that undermine the Triple Aim and should be avoided include:

- Prompting patients with unprofitable service needs to seek care elsewhere or reducing the volume of non-profitable services below the amount needed by patients within the hospital's service area;
- Reducing capacity or service ability to the point of creating long waiting lists or delays;
- Under investing in new technology or modes of care proven to be efficient ways of improving patient health, safety or quality; and
- Reducing the total level of a hospital's medical staff or the quality of affiliated providers to the point of compromising patient care.

Similarly, the MSA together with other mechanisms and policies must distinguish between increases in utilization at any given hospital that should be recognized and those that should not be recognized. For

example, hospitals should receive increases to their approved regulated revenue in circumstances that result in a shift of patient volumes that are beyond the hospital's control, such as the closure of a service at a particular hospital and resulting relocation of patients receiving that service to another facility, or other discrete and readily identifiable events. As long as the financial drivers of the shift are transparent and value based, hospitals should also receive a market shift adjustment if organizations such as Health Maintenance Organizations, Accountable Care Organizations or Primary Care Medical Homes direct their members to the facility to improve efficiency, cost-effectiveness and quality.

The MSA policy should not encourage shifts in volume that are not clearly relatable to improvements in the overall value of care, for example, such as marketing or acquisition strategies that merely shift the location or ownership of resources without increasing access, improving outcomes, or reducing costs in a geographic area. In February 2014, the Commission reduced the variable cost factor for volume changes from 85% to 50% for services provided outside of global budgets revenue arrangements, yet subject to the All Payer Model. Applying this lower variable cost factor to market shift adjustments will contribute to limiting incentives to increase volume through strategies that do not improve care or value.

3. Guiding Principles

In developing its MSA approach, the HSCRC should follow certain guiding principles. These include:

1. Provide clear incentives

1.1. Promote the three part aim
1.2. Emphasize value, recognizing that this concept will take some time to develop
1.3. Promote investments in care coordination
1.4. Encourage appropriate utilization and delivery of high quality care
1.5. Avoid paying twice for the same service

2. Reinforce the maintenance of services to the community.

2.1. Encourage competition to promote responsive provision of services
2.2. Competition should be based on value
2.3. Revenue should generally follow the patient
2.4. Support strategies pursued by entities such as ACOs, PCMH, and MCOs seeking to direct patients to low cost, high quality settings

3. Changes constituting market shift should be clearly defined.

3.1. Volume increase alone is not a market shift change.
3.2. Market shift should be evaluated in combination with the overall volume trend to ensure that shift has occurred, rather than volume growth
3.3. If one hospital has higher volume and other hospitals serving the same area do not have corresponding declines in volume, a market shift should not be awarded.
3.4. Increases in the global budget of one hospital should be funded fully by the decrease in other hospitals' budgets
3.5. Market shift changes should reflect services provided by the hospital

3.6. Substantial reductions at a facility may result in a global budget reduction even if not accompanied by shift to other facilities in service area. (Investigate shift to unregulated facilities and limitations on types of procedures)

3.7. Closures of services or discrete and readily identifiable events should result in a global budget adjustment and a market shift adjustment as needed

3.8. Market shifts in Potentially Avoidable Utilization (PAU) should be evaluated separately[1]

4. Market Shift Calculations

1.1. Market Shift Algorithm

Based on the principles listed above, an algorithm has been developed to calculate market shift adjustments for a specific service area (e.g. orthopedic surgery) and defined geographic location (e.g. zip code). The algorithm compares the growth in volumes at hospitals with utilization increases to the decline in volumes at hospitals with utilization decreases. Adjustments are capped at the lesser of the growth for volume gainers or the decline for volume loses. This approach disentangles market shifts from collective changes in volume in the service area and removes incentives for driving up volume in the service area.

Table 1 provides an illustration of the calculation done for zip code 21000 and General Surgery service line. Within this zip code, the total volume increase is 654 and decline is 129. Applying the lesser of the two rule, the allowed market shift is limited to 129 ECMADs and allocated to other hospitals with volume increases proportional to this hospital's volume increase in total utilization. In the end, the net impact of market shifts in each zip code and service line combination equals zero.

Table 1: Example Calculation of the Market Shift Algorithm

Zip code 21000 General Surgery	Volume CY13	Volume CY14	Volume Growth	Hospital's Proportion of Total Increase/Decline	Market Shift
	A	B	C=B-A	D=C/Subtotal C	E=D*Allowed Market Shift
Hospital A	1,000	1,500	500	76%	99
Hospital B	500	600	100	15%	20
Hospital C	50	100	50	8%	10
Hospital D	-	4	4	1%	1
Utilization Increase	1,550	2,204	654	100%	129
Hospital E	500	400	(100)	78%	(100)
Hospital F	50	25	(25)	19%	(25)

[1] There are limited circumstances where HSCRC might want to recognize a market shift in PAUs. For example, if an HMO moved all of its patients from one facility to another, there may be an appropriate shift in revenue for some level of PAU cases. Similarly, if a PCMH changed its hospital affiliation, there may be a shift in PAU volumes from one facility to another.

Hospital G	4	-	(4)	3%	(4)
Utilization Decline	554	425	(129)	100%	(129)
Zip Total	**2,104**	**2,629**	**525**	-	0
Allowed Market Shift			**129**		

1.2. Geographic Area Definitions

Market shift is focused on movement of patients and services between Maryland hospitals. Narrowly defined geographic regions are ideal for calculating market shift as the individual hospitals serving the region are not likely to be differentially impacted by population growth or demographically driven changes in utilization rates. Calculating market shift at the statewide level, in contrast, would result in the movement of dollars to hospitals in regions experiencing population growth at the expense of other regions. Adjustments for changes in population and demographics are already addressed by annual demographic adjustments to each hospital's global budget.

In densely populated regions of the State where there is significant completion among hospitals, market share calculations are performed at the zip code level. However, zip code level calculations introduce random variation to the measurement in small geographic areas where the population density is low and health care market is concentrated. Such zip codes are aggregated to limit the impact of small cell sizes on the calculations. In particular, the following county zip codes are aggregated at a county level:

Garrett, Allegany, Washington, Carroll, Cecil, Kent, Queen Anne's, Caroline, Talbot, Dorchester, Wicomico, Somerset, Calvert, Charles, Saint Mary's, Worcester, Harford, Frederick

In calculating market shifts all hospitals will have the same geographic definitions. For example, to calculate volume changes in Garrett County all zip codes in Garrett County will be added together for each of the hospitals which had a volume in Garrett County. The calculations of volume changes will be based on zip code level analysis for the remaining of the counties that are not aggregated such as Baltimore City.

1.3. Service Line Definitions

Narrow definitions of service lines are proposed to prevent utilization growth for one component of the service line from masking a shift in patients for another service line. For instance, a service line that captures all surgical procedures might be growing at every hospital in a region due to increasing demand for orthopedic surgery and thereby mask the shift of fifty cardiac surgical procedures from one hospital to another.

Movement of cases from inpatient to outpatient settings and utilization of observation units creates a challenge in differentiating shifts from one hospital to another, or shifts from a hospital's inpatient to outpatient services. Staff has started to address this issue by including all observation cases with 24 hours or more in inpatient counts and assigning them weights that are similar to an inpatient case. Staff is planning to continue to work on combining other outpatient cases with inpatients for future year adjustments and evaluating the impact of inpatient to outpatient services on a case by case basis.

Inpatient service lines are developed using the existing 3M methodology to group APR DRGs to specific service lines with a few modifications. The cross walk of APR DRGs to Service lines are included in APPENDIX I.

While inpatient service lines have been widely used and understood easily due to the availability of APR DRGs, outpatient service lines are more difficult to develop. Conceptually, staff uses an inpatient like logic and assigns the visits based upon the reasons for acquiring services. For example, all services provided for emergency department patients are grouped under the Emergency Department service line. APPENDIX II provides the hierarchy of outpatient service lines.

1.4. Exclusions

The following services or cases and the rationale to exclude from the market shift calculations.

1. Potentially Avoidable Utilization (PAU): As hospitals improve care and population health, trends in potentially avoidable utilization could reflect differential performance among hospitals rather than market shifts. In other words, one hospital may perform better than the others and reduce their PAU while another hospital serving a similar market may have an increase in their PAU. For the rate year 2016 adjustments, staff included only readmissions and prevention quality indicators (PQIs) developed by AHRQ that were measured in both inpatient and observation cases equaling or exceeding 24 hours and more. APPENDIX III and IV provide overviews of readmissions indicators and PQIs.
2. Categorical exclusions: These cases represent the most specialized services received at Academic Medical Centers (AMCs) and are based upon actual trends in these hospitals under their global budgets. APPENDIX V provides the definitions of categorical cases.

1.5. Timing of Adjustments

To accommodate the HSCRC case mix data submission timelines, there will be a six month lag between the measurement period and the rate adjustments. The rate year 2016 adjustments will be based on comparing the measurement period of July 2014 - December 2014 to a base year period of July 2013 - December 2013. After this initial measurement period, a full calendar year will be used to calculate market shift adjustments. Accordingly, rate year 2017 adjustment will be based on Jan - Dec 2015 compared to Jan - Dec 2014 time periods.

1.6. Case Weights and Equivalent Case Mix Adjusted Discharges

To measure utilization, HSCRC developed equivalent case mix adjusted discharges (ECMADs) as a method to quantify inpatient and outpatient hospital volume into a single measure. A hospital's ECMAD count includes case mix adjusted inpatient discharges as well as equivalent adjusted outpatient case mix discharges, which is based on case-mix adjusted outpatient visits converted to inpatient discharges by the ratio of average inpatient visit charge per discharge to average outpatient charge per visit.

Inpatient weights are developed using the Hospital Specific Relative Value (Iterative Weights) methodology. APPENDIX VI provides the detailed steps for calculating inpatient weights. Historically, HSCRC has been modifying the 3M APR DRGs to account for differences in resource use within Rehabilitation DRG (860) and psychiatric DRGs (voluntary and involuntary). Staff evaluated the impact of these modifications and found that the differences between national APR DRGs and Maryland specific DRGs were very limited. Furthermore, staff

expects t transition to ICD-10 will create inaccuracies in defining these modifications and 3M will improve the APR DRG classifications using more granular information from ICD-10 codes. Based on these considerations, HSCRC will use national 3M APR DRGs for all adjustments starting in the rate year 2016 adjustments.

Outpatient weights primary rely on EAPG grouping. After EAPGs weights are assigned to each CPT code in the patient records, a principal record type is assigned to differentiate types of visits into four main categories:

Principle EAPG Type A: Radiation, Chemo, & Major Infusion

Principal EAPG Type 2: Significant Procedures

Principal EAPG Type 3: Medical Visit

Principal EAPG Type 4: All Other (Ancillary, Incidental, Drug, Durable Medical Equipment, Unassigned EAPG Types.)

Once each record is grouped into four principal EAPG types, singleton weights are developed within each group and normalized. Singleton weights are used to assign the highest EAPG that in turn determines the assignment of the APG category for that record. Afterwards, these EAPGs are mapped to initial service lines using EAPG to Service line mapping (Appendix VII). Service lines used for Market shifts are determined using a hierarchy of services aiming to group the visits in accordance to the purpose of the patient visit. APPENDIX VIII provides technical documentation on outpatient weights.

5. Market Shift Revenue Calculations

HSCRC staff evaluated several options in calculating the cost associated with market shift changes calculated using the algorithm described above. Two viable alternatives emerged:

- the hospital specific average charge per ECMAD; or

- each hospital's service line specific average charge per ECMAD.

Service line specific cost calculations have an advantage of overcoming the variation in outpatient services within each service line. Inpatient DRG weights and prices have the advantage of decades of refinement, while outpatient weights are relatively new. Hospital specific charges per ECMAD have the advantage of overcoming some of the underlying variation in charge for equivalent case on the outpatient side as further refinements are made over time. The Maryland Hospital Association sent a letter to staff indicating that the hospital industry supports use of the hospital service line average charge per ECMAD. Staff has made a detailed review of the results using this approach compared to the alternative and we are satisfied with the results. Therefore, we are planning to use service line ECMAD average charges to develop the adjustments for each hospital. Consistent with initial policy implementation for the new All Payer Model, staff plans to use a 50% variable cost factor for market shift adjustments between regulated hospitals.

Market Shift Adjustments under Global Revenue Models

Updated-5/6/2015

Market Shift Adjustments under Global Revenue Models

Updated-5/6/2015

APPENDIX

Technical Specifications for Market Shift Calculations for Rate Year 2016

1. APR DRG Version= 32
2. EAPG Version= 38
3. Readmission Logic= Readmission Reduction Program CY 2015 Logic
4. Prevention Quality Indicators Version= 4.5
5. Adjustment periods= July-Dec 2014 vs July-Dec 2013

APPENDIX I: APR DRG Service Line Map (APR DRG version32)

APR DRG	DESCRIPTION	Product Category	Prodline
1	Liver transplant &/or intestinal transplant	Transplant Surgery	40
2	Heart &/or lung transplant	Transplant Surgery	40
3	Bone marrow transplant	Transplant Surgery	40
4	ECMO or tracheostomy w long term mechanical ventilation w extensive procedure	Ventilator Support	45
5	Tracheostomy w long term mechanical ventilation w/o extensive procedure	Ventilator Support	45
6	Pancreas transplant	Transplant Surgery	40
20	Craniotomy for trauma	Neurological Surgery	23
21	Craniotomy except for trauma	Neurological Surgery	23
22	Ventricular shunt procedures	Neurological Surgery	23
23	Spinal procedures	Spinal Surgery	37
24	Extracranial vascular procedures	Neurological Surgery	23
26	Other nervous system & related procedures	Neurological Surgery	23
40	Spinal disorders & injuries	Neurology	24
41	Nervous system malignancy	Oncology	26
42	Degenerative nervous system disorders exc mult sclerosis	Neurology	24
43	Multiple sclerosis & other demyelinating diseases	Neurology	24
44	Intracranial hemorrhage	Neurology	24
45	CVA & precerebral occlusion w infarct	Neurology	24
46	Nonspecific CVA & precerebral occlusion w/o infarct	Neurology	24
47	Transient ischemia	Neurology	24
48	Peripheral, cranial & autonomic nerve disorders	Neurology	24
49	Bacterial & tuberculous infections of nervous system	Infectious Disease	17
50	Non-bacterial infections of nervous system exc viral meningitis	Infectious Disease	17
51	Viral meningitis	Infectious Disease	17
52	Nontraumatic stupor & coma	Neurology	24
53	Seizure	Neurology	24
54	Migraine & other headaches	Neurology	24
55	Head trauma w coma >1 hr or hemorrhage	Neurology	24
56	Brain contusion/laceration & complicated skull Fx, coma < 1 hr or no coma	Neurology	24
57	Concussion, closed skull Fx nos,uncomplicated intracranial injury, coma <	Neurology	24

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APR DRG	DESCRIPTION	Product Category	Prodline
	1 hr or no coma		
58	Other disorders of nervous system	Neurology	24
70	Orbital procedures	Ophthalmologic Surg	27
73	Eye procedures except orbit	Ophthalmologic Surg	27
80	Acute major eye infections	Ophthalmology	28
82	Eye disorders except major infections	Ophthalmology	28
89	Major cranial/facial bone procedures	ENT Surgery	8
90	Major larynx & trachea procedures	ENT Surgery	8
91	Other major head & neck procedures	ENT Surgery	8
92	Facial bone procedures except major cranial/facial bone procedures	ENT Surgery	8
93	Sinus & mastoid procedures	ENT Surgery	8
95	Cleft lip & palate repair	ENT Surgery	8
97	Tonsil & adenoid procedures	ENT Surgery	8
98	Other ear, nose, mouth & throat procedures	ENT Surgery	8
110	Ear, nose, mouth, throat, cranial/facial malignancies	Oncology	26
111	Vertigo & other labyrinth disorders	Otolaryngology	32
113	Infections of upper respiratory tract	Otolaryngology	32
114	Dental & oral diseases & injuries	Dental	3
115	Other ear, nose, mouth,throat & cranial/facial diagnoses	Otolaryngology	32
120	Major respiratory & chest procedures	Thoracic Surgery	39
121	Other respiratory & chest procedures	Thoracic Surgery	39
130	Respiratory system diagnosis w ventilator support 96+ hours	Pulmonary	34
131	Cystic fibrosis - pulmonary disease	Pulmonary	34
132	BPD & oth chronic respiratory diseases arising in perinatal period	Pulmonary	34
133	Pulmonary edema & respiratory failure	Pulmonary	34
134	Pulmonary embolism	Pulmonary	34
135	Major chest & respiratory trauma	Trauma	41
136	Respiratory malignancy	Oncology	26
137	Major respiratory infections & inflammations	Pulmonary	34
138	Bronchiolitis & RSV pneumonia	Pulmonary	34
139	Other pneumonia	Pulmonary	34
140	Chronic obstructive pulmonary disease	Pulmonary	34
141	Asthma	Pulmonary	34
142	Interstitial lung disease	Pulmonary	34
143	Other respiratory diagnoses except signs, symptoms & minor diagnoses	Pulmonary	34
144	Respiratory signs, symptoms & minor diagnoses	Pulmonary	34

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APR DRG	DESCRIPTION	Product Category	Prodline
160	Major cardiothoracic repair of heart anomaly	Cardiothoracic Surgery	2
161	Cardiac defibrillator & heart assist implant	Cardiothoracic Surgery	2
162	Cardiac valve procedures w cardiac catheterization	Cardiothoracic Surgery	2
163	Cardiac valve procedures w/o cardiac catheterization	Cardiothoracic Surgery	2
165	Coronary bypass w cardiac cath or percutaneous cardiac procedure	Cardiothoracic Surgery	2
166	Coronary bypass w/o cardiac cath or percutaneous cardiac procedure	Cardiothoracic Surgery	2
167	Other cardiothoracic procedures	Cardiothoracic Surgery	2
169	Major thoracic & abdominal vascular procedures	Vascular Surgery	44
170	Permanent cardiac pacemaker implant w AMI, heart failure or shock	EP/Chronic Rhythm Mgmt	9
171	Perm cardiac pacemaker implant w/o AMI, heart failure or shock	EP/Chronic Rhythm Mgmt	9
173	Other vascular procedures	Vascular Surgery	44
174	Percutaneous cardiovascular procedures w AMI	Invasive Cardiology	19
175	Percutaneous cardiovascular procedures w/o AMI	Invasive Cardiology	19
176	Cardiac pacemaker & defibrillator device replacement	EP/Chronic Rhythm Mgmt	9
177	Cardiac pacemaker & defibrillator revision except device replacement	EP/Chronic Rhythm Mgmt	9
180	Other circulatory system procedures	Cardiothoracic Surgery	2
190	Acute myocardial infarction	Myocardial Infarction	20
191	Cardiac catheterization w circ disord exc ischemic heart disease	Invasive Cardiology	19
192	Cardiac catheterization for ischemic heart disease	Invasive Cardiology	19
193	Acute & subacute endocarditis	Cardiology	1
194	Heart failure	Cardiology	1
196	Cardiac arrest	Cardiology	1
197	Peripheral & other vascular disorders	General Medicine	11
198	Angina pectoris & coronary atherosclerosis	Cardiology	1
199	Hypertension	Cardiology	1

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APR DRG	DESCRIPTION	Product Category	Prodline
200	Cardiac structural & valvular disorders	Cardiology	1
201	Cardiac arrhythmia & conduction disorders	Cardiology	1
203	Chest pain	Cardiology	1
204	Syncope & collapse	Cardiology	1
205	Cardiomyopathy	Cardiology	1
206	Malfunction,reaction,complication of cardiac/vasc device or procedure	Cardiology	1
207	Other circulatory system diagnoses	Cardiology	1
220	Major stomach, esophageal & duodenal procedures	General Surgery	12
221	Major small & large bowel procedures	General Surgery	12
222	Other stomach, esophageal & duodenal procedures	General Surgery	12
223	Other small & large bowel procedures	General Surgery	12
224	Peritoneal adhesiolysis	General Surgery	12
225	Appendectomy	General Surgery	12
226	Anal procedures	General Surgery	12
227	Hernia procedures except inguinal, femoral & umbilical	General Surgery	12
228	Inguinal, femoral & umbilical hernia procedures	General Surgery	12
229	Other digestive system & abdominal procedures	General Surgery	12
240	Digestive malignancy	Oncology	26
241	Peptic ulcer & gastritis	Gastroenterology	10
242	Major esophageal disorders	Gastroenterology	10
243	Other esophageal disorders	Gastroenterology	10
244	Diverticulitis & diverticulosis	Gastroenterology	10
245	Inflammatory bowel disease	Gastroenterology	10
246	Gastrointestinal vascular insufficiency	Gastroenterology	10
247	Intestinal obstruction	Gastroenterology	10
248	Major gastrointestinal & peritoneal infections	Gastroenterology	10
249	Non-bacterial gastroenteritis, nausea & vomiting	Gastroenterology	10
251	Abdominal pain	Gastroenterology	10
252	Malfunction, reaction & complication of GI device or procedure	Gastroenterology	10
253	Other & unspecified gastrointestinal hemorrhage	Gastroenterology	10
254	Other digestive system diagnoses	Gastroenterology	10
260	Major pancreas, liver & shunt procedures	General Surgery	12
261	Major biliary tract procedures	General Surgery	12
262	Cholecystectomy except laparoscopic	General Surgery	12
263	Laparoscopic cholecystectomy	General Surgery	12
264	Other hepatobiliary, pancreas & abdominal procedures	General Surgery	12
279	Hepatic coma & other major acute liver disorders	Gastroenterology	10

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APR DRG	DESCRIPTION	Product Category	Prodline
280	Alcoholic liver disease	Gastroenterology	10
281	Malignancy of hepatobiliary system & pancreas	Oncology	26
282	Disorders of pancreas except malignancy	Gastroenterology	10
283	Other disorders of the liver	Gastroenterology	10
284	Disorders of gallbladder & biliary tract	Gastroenterology	10
301	Hip joint replacement	Orthopedic Surgery	29
302	Knee joint replacement	Orthopedic Surgery	29
303	Dorsal & lumbar fusion proc for curvature of back	Orthopedic Surgery	29
304	Dorsal & lumbar fusion proc except for curvature of back	Orthopedic Surgery	29
305	Amputation of lower limb except toes	Orthopedic Surgery	29
308	Hip & femur procedures for trauma except joint replacement	Orthopedic Surgery	29
309	Hip & femur procedures for non-trauma except joint replacement	Orthopedic Surgery	29
310	Intervertebral disc excision & decompression	Orthopedic Surgery	29
312	Skin graft, except hand, for musculoskeletal & connective tissue diagnoses	Orthopedic Surgery	29
313	Knee & lower leg procedures except foot	Orthopedic Surgery	29
314	Foot & toe procedures	Orthopedic Surgery	29
315	Shoulder, upper arm & forearm procedures	Orthopedic Surgery	29
316	Hand & wrist procedures	Orthopedic Surgery	29
317	Tendon, muscle & other soft tissue procedures	Orthopedic Surgery	29
320	Other musculoskeletal system & connective tissue procedures	Orthopedic Surgery	29
321	Cervical spinal fusion & other back/neck proc exc disc excis/decomp	Spinal Surgery	37
340	Fracture of femur	Orthopedics	30
341	Fracture of pelvis or dislocation of hip	Orthopedics	30
342	Fractures & dislocations except femur, pelvis & back	Orthopedics	30
343	Musculoskeletal malignancy & pathol fracture d/t muscskel malig	Oncology	26
344	Osteomyelitis, septic arthritis & other musculoskeletal infections	Infectious Disease	17
346	Connective tissue disorders	Rheumatology	36
347	Other back & neck disorders, fractures & injuries	Orthopedics	30
349	Malfunction, reaction, complic of orthopedic device or procedure	Orthopedics	30
351	Other musculoskeletal system & connective tissue diagnoses	Rheumatology	36
361	Skin graft for skin & subcutaneous tissue diagnoses	General Surgery	12
362	Mastectomy procedures	General Surgery	12
363	Breast procedures except mastectomy	General Surgery	12
364	Other skin, subcutaneous tissue & related procedures	General Surgery	12
380	Skin ulcers	Dermatology	4
381	Major skin disorders	Dermatology	4

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APR DRG	DESCRIPTION	Product Category	Prodline
382	Malignant breast disorders	Oncology	26
383	Cellulitis & other bacterial skin infections	Infectious Disease	17
384	Contusion, open wound & other trauma to skin & subcutaneous tissue	Dermatology	4
385	Other skin, subcutaneous tissue & breast disorders	Dermatology	4
401	Pituitary & adrenal procedures	Endocrinology Surgery	7
403	Procedures for obesity	Endocrinology Surgery	7
404	Thyroid, parathyroid & thyroglossal procedures	Endocrinology Surgery	7
405	Other procedures for endocrine, nutritional & metabolic disorders	Endocrinology Surgery	7
420	Diabetes	Diabetes	5
421	Malnutrition, failure to thrive & other nutritional disorders	Endocrinology	6
422	Hypovolemia & related electrolyte disorders	Endocrinology	6
423	Inborn errors of metabolism	Endocrinology	6
424	Other endocrine disorders	Endocrinology	6
425	Electrolyte disorders except hypovolemia related	Endocrinology	6
440	Kidney transplant	Transplant Surgery	40
441	Major bladder procedures	Urological Surgery	42
442	Kidney & urinary tract procedures for malignancy	Oncology	26
443	Kidney & urinary tract procedures for nonmalignancy	Urological Surgery	42
444	Renal dialysis access device procedure only	Urological Surgery	42
445	Other bladder procedures	Urological Surgery	42
446	Urethral & transurethral procedures	Urological Surgery	42
447	Other kidney, urinary tract & related procedures	Urological Surgery	42
460	Renal failure	Nephrology	22
461	Kidney & urinary tract malignancy	Oncology	26
462	Nephritis & nephrosis	Nephrology	22
463	Kidney & urinary tract infections	Nephrology	22
465	Urinary stones & acquired upper urinary tract obstruction	Urology	43
466	Malfunction, reaction, complic of genitourinary device or proc	Nephrology	22
468	Other kidney & urinary tract diagnoses, signs & symptoms	Nephrology	22
480	Major male pelvic procedures	Urological Surgery	42
481	Penis procedures	Urological Surgery	42
482	Transurethral prostatectomy	Urological Surgery	42
483	Testes & scrotal procedures	Urological Surgery	42

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APR DRG	DESCRIPTION	Product Category	Prodline
484	Other male reproductive system & related procedures	General Surgery	12
500	Malignancy, male reproductive system	Oncology	26
501	Male reproductive system diagnoses except malignancy	Urology	43
510	Pelvic evisceration, radical hysterectomy & other radical GYN procs	Gynecological Surg	13
511	Uterine & adnexa procedures for ovarian & adnexal malignancy	Oncology	26
512	Uterine & adnexa procedures for non-ovarian & non-adnexal malig	Oncology	26
513	Uterine & adnexa procedures for non-malignancy except leiomyoma	Gynecological Surg	13
514	Female reproductive system reconstructive procedures	Gynecological Surg	13
517	Dilation & curettage for non-obstetric diagnoses	Gynecological Surg	13
518	Other female reproductive system & related procedures	Gynecological Surg	13
519	Uterine & adnexa procedures for leiomyoma	Gynecological Surg	13
530	Female reproductive system malignancy	Oncology	26
531	Female reproductive system infections	Gynecology	14
532	Menstrual & other female reproductive system disorders	Gynecology	14
540	Cesarean delivery	Obstetrics/Delivery	25
541	Vaginal delivery w sterilization &/or D&C	Obstetrics/Delivery	25
542	Vaginal delivery w complicating procedures exc sterilization &/or D&C	Obstetrics/Delivery	25
544	D&C, aspiration curettage or hysterotomy for obstetric diagnoses	Other Obstetrics	31
545	Ectopic pregnancy procedure	Gynecological Surg	13
546	Other O.R. proc for obstetric diagnoses except delivery diagnoses	Other Obstetrics	31
560	Vaginal delivery	Obstetrics/Delivery	25
561	Postpartum & post abortion diagnoses w/o procedure	Other Obstetrics	31
563	Threatened abortion	Other Obstetrics	31
564	Abortion w/o D&C, aspiration curettage or hysterotomy	Other Obstetrics	31
565	False labor	Other Obstetrics	31
566	Other antepartum diagnoses	Other Obstetrics	31
580	Neonate, transferred <5 days old, not born here	Neonatology	21
581	Neonate, transferred < 5 days old, born here	Neonatology	21
583	Neonate w ECMO	Neonatology	21
588	Neonate bwt <1500g w major procedure	Neonatology	21
589	Neonate bwt <500g	Neonatology	21
591	Neonate birthwt 500-749g w/o major procedure	Neonatology	21
593	Neonate birthwt 750-999g w/o major procedure	Neonatology	21
602	Neonate bwt 1000-1249g w resp dist synd/oth maj resp or maj anom	Neonatology	21
603	Neonate birthwt 1000-1249g w or w/o other significant condition	Neonatology	21
607	Neonate bwt 1250-1499g w resp dist synd/oth maj resp or maj anom	Neonatology	21
608	Neonate bwt 1250-1499g w or w/o other significant condition	Neonatology	21

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APR DRG	DESCRIPTION	Product Category	Prodline
609	Neonate bwt 1500-2499g w major procedure	Neonatology	21
611	Neonate birthwt 1500-1999g w major anomaly	Neonatology	21
612	Neonate bwt 1500-1999g w resp dist synd/oth maj resp cond	Neonatology	21
613	Neonate birthwt 1500-1999g w congenital/perinatal infection	Neonatology	21
614	Neonate bwt 1500-1999g w or w/o other significant condition	Neonatology	21
621	Neonate bwt 2000-2499g w major anomaly	Neonatology	21
622	Neonate bwt 2000-2499g w resp dist synd/oth maj resp cond	Neonatology	21
623	Neonate bwt 2000-2499g w congenital/perinatal infection	Neonatology	21
625	Neonate bwt 2000-2499g w other significant condition	Neonatology	21
626	Neonate bwt 2000-2499g, normal newborn or neonate w other problem	Neonatology	21
630	Neonate birthwt >2499g w major cardiovascular procedure	Neonatology	21
631	Neonate birthwt >2499g w other major procedure	Neonatology	21
633	Neonate birthwt >2499g w major anomaly	Neonatology	21
634	Neonate, birthwt >2499g w resp dist synd/oth maj resp cond	Neonatology	21
636	Neonate birthwt >2499g w congenital/perinatal infection	Neonatology	21
639	Neonate birthwt >2499g w other significant condition	Neonatology	21
640	Neonate birthwt >2499g, normal newborn or neonate w other problem	Normal Newborn	48
650	Splenectomy	General Surgery	12
651	Other procedures of blood & blood-forming organs	General Surgery	12
660	Major hematologic/immunologic diag exc sickle cell crisis & coagul	Hematology	15
661	Coagulation & platelet disorders	Hematology	15
662	Sickle cell anemia crisis	Hematology	15
663	Other anemia & disorders of blood & blood-forming organs	Hematology	15
680	Major O.R. procedures for lymphatic/hematopoietic/other neoplasms	General Surgery	12
681	Other O.R. procedures for lymphatic/hematopoietic/other neoplasms	General Surgery	12
690	Acute leukemia	Oncology	26
691	Lymphoma, myeloma & non-acute leukemia	Oncology	26
692	Radiotherapy	Oncology	26
693	Chemotherapy	Oncology	26
694	Lymphatic & other malignancies & neoplasms of uncertain behavior	Oncology	26
710	Infectious & parasitic diseases including HIV w O.R. procedure	General Surgery	12
711	Post-op, post-trauma, other device infections w O.R. procedure	General Surgery	12
720	Septicemia & disseminated infections	Infectious Disease	17
721	Post-operative, post-traumatic, other device infections	General Surgery	12
722	Fever	Infectious Disease	17
723	Viral illness	Infectious Disease	17
724	Other infectious & parasitic diseases	Infectious Disease	17

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APR DRG	DESCRIPTION	Product Category	Prodline
740	Mental illness diagnosis w O.R. procedure	General Surgery	12
750	Schizophrenia	Psychiatry	33
751	Major depressive disorders & other/unspecified psychoses	Psychiatry	33
752	Disorders of personality & impulse control	Psychiatry	33
753	Bipolar disorders	Psychiatry	33
754	Depression except major depressive disorder	Psychiatry	33
755	Adjustment disorders & neuroses except depressive diagnoses	Psychiatry	33
756	Acute anxiety & delirium states	Psychiatry	33
757	Organic mental health disturbances	Psychiatry	33
758	Childhood behavioral disorders	Psychiatry	33
759	Eating disorders	Psychiatry	33
760	Other mental health disorders	Psychiatry	33
770	Drug & alcohol abuse or dependence, left against medical advice	Substance Abuse	38
772	Alcohol & drug dependence w rehab or rehab/detox therapy	Substance Abuse	38
773	Opioid abuse & dependence	Substance Abuse	38
774	Cocaine abuse & dependence	Substance Abuse	38
775	Alcohol abuse & dependence	Substance Abuse	38
776	Other drug abuse & dependence	Substance Abuse	38
791	O.R. procedure for other complications of treatment	Injuries/complic. of prior care	18
811	Allergic reactions	General Medicine	11
812	Poisoning of medicinal agents	General Medicine	11
813	Other complications of treatment	Injuries/complic. of prior care	18
815	Other injury, poisoning & toxic effect diagnoses	General Medicine	11
816	Toxic effects of non-medicinal substances	General Medicine	11
841	Extensive 3rd degree burns w skin graft	General Medicine	11
842	Full thickness burns w skin graft	General Medicine	11
843	Extensive 3rd degree or full thickness burns w/o skin graft	General Medicine	11
844	Partial thickness burns w or w/o skin graft	General Medicine	11
850	Procedure w diag of rehab, aftercare or oth contact w health service	General Surgery	12
860	Rehabilitation	Rehabilitation	35
861	Signs, symptoms & other factors influencing health status	General Medicine	11
862	Other aftercare & convalescence	General Medicine	11
863	Neonatal aftercare	General Medicine	11
890	HIV w multiple major HIV related conditions	HIV	16
892	HIV w major HIV related condition	HIV	16

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APR DRG	DESCRIPTION	Product Category	Prodline
893	HIV w multiple significant HIV related conditions	HIV	16
894	HIV w one signif HIV cond or w/o signif related cond	HIV	16
910	Craniotomy for multiple significant trauma	Trauma	41
911	Extensive abdominal/thoracic procedures for mult significant trauma	Trauma	41
912	Musculoskeletal & other procedures for multiple significant trauma	Trauma	41
930	Multiple significant trauma w/o O.R. procedure	Trauma	41
950	Extensive procedure unrelated to principal diagnosis	General Surgery	12
951	Moderately extensive procedure unrelated to principal diagnosis	General Surgery	12
952	Nonextensive procedure unrelated to principal diagnosis	General Surgery	12
955	Invalid	Invalid	46
956	Ungroupable	Ungroupable	47

APPENDIX II Outpatient Service Line Assignment Hierarchy

1. **Radiation Therapy/Infusion/Chemo/Oncology Radiation**

   Therapy/Infusion/Chemo/Oncology cases where operating (rctchg40)<drug charge (rctchg67), Operating Room (rctchg40)<Radiation (rctchg 45 & rctchg46);Included EAPGS: (1, 110, 111,117, 340,341,342,343,344,345,346,347,348,349,431, 432,433, 434,441,443,460,461,462,463,464,465,476,477,478,482,483,484, 802, and 803)

2. **Emergency Department:** Emergency Department cases where emergency (rctchg28), free standing center (rctchg34), or Trauma Resuscitation rate center charges(rctchg90) > 0

3. **Drug:** Drug cases where EAPGs are assigned to drug service line

4. **Major Surgery**: Major Surgery cases where EAPGs are assigned to major surgery service line

5. **Cardiovascular:** Cardiovascular cases where EAPGs are assigned to cardiovascular service line

6. **Minor Surgery:** Cases where EAPGs are assigned to minor surgery service line

7. **Psychiatry**: Cases where EAPGs are assigned psychiatry service line

8. **Rehab & Therapy**: Cases where EAPGs are assigned rehab & therapy service line

9. **Clinic**: Cases where clinic (rctchg29), clinic services primary (rctchg30), oncology clinic (rctchg35), operating room clinic (rctchg79), or UM shock trauma clinic rate center charges (rctchg37) > 010.

10. **Unassigned**: If high weight eapg =0

11. **Other**: Cases where EAPGs are assigned various services including: Other; Lab, Pathology, CT/MRI/PET, Radiology

APPENDIX III: 30-day Readmission Definition Overview

The methodology for the readmission indicator is based on definitions in Maryland Readmission Reduction Incentive Program. Readmissions are based on 30-day all-payer all hospital (both intra and inter hospital) readmission rates. The readmission logic is run with both inpatient and observation stays with 24 hour or greater length of stay.

The following exclusions are applied in the CY 2015 Program logic:

- Planned readmissions are excluded from the numerator based upon CMS Planned Readmission Algorithm V. 3. The HSCRC has also added all vaginal and C-section deliveries as planned using the APR-DRGs rather than principal diagnosis (APR-DRGs 540, 541, 542, 560). Planned admissions are counted in the denominator because they could have an unplanned readmission.

- All newborn APR-DRG discharges are NOT eligible for a readmission.

- 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 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, and it is this discharge date that is used to calculate the 30-day readmission window.

    - In addition the following data cleaning edits are applied:
        - Cases with null or missing Chesapeake Regional Information System unique patient identifiers (CRISP EIDs)
        - Duplicates
        - Negative interval days

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. The percent of inpatient discharges with CRISP EID is currently at 99 percent.

APPENDIX IV: Prevention Quality Indicators Overview

The Prevention Quality Indicators (PQIs) are a set of measures that can be used with hospital inpatient discharge data to identify quality of care for "ambulatory care sensitive conditions." These are conditions for which good outpatients care can potentially prevent the need for hospitalization or for which early intervention can prevent complications or more severe disease. The PQIs are population based and adjusted for factors such as age, severity of illness.

Discharges, for patient's ages 18 years and older, that meet the inclusion and exclusion rules for the numerator in any of the following PQIs:

- PQI #1 Diabetes Short-Term Complications
- PQI #3 Diabetes Long-Term Complications
- PQI #5 Chronic Obstructive Pulmonary Disease (COPD) or Asthma in Older Adults
- PQI #7 Hypertension
- PQI #8 Heart Failure
- PQI #10 Dehydration
- PQI #11 Bacterial Pneumonia
- PQI #12 Urinary Tract Infection
- PQI #13 Angina Without Procedure
- PQI #14 Uncontrolled Diabetes
- PQI #15 Asthma in Younger Adults Admission Rate
- PQI #16 Lower-Extremity Amputation among Patients with Diabetes

Discharges that meet the inclusion and exclusion rules for the numerator in more than one of the above PQIs are counted only once in the composite numerator.

Additional information can be accessed at:

http://www.qualityindicators.ahrq.gov/modules/pqi_resources.aspx

APPENDIX V: Categorical Cases Exclusions

1. Categorical Case Exclusions
   - 1.1. Solid Organ Transplants APR DRGS = 001, 002, 003, 006 or 440
     (any procedure = 5280, 5282 or 5283 or any procedure = 5280, 5282, 5283, 4100, 4101, 4102, 4103, 4104, 4105, 4106, 4107, 4108 or 3751 Heart Transplantation 4109 or 336 or 3350 , 3351, 3352, 5569, 5561, 5281, 5051, or 5059)
   - 1.2. Melodysplastic - Any Diagnosis = 2387 for Johns Hopkins Oncology Center
   - 1.3. JHU Pediatric Burn Cases (Age < 18) - 3rd Degree Burns
   - 1.4. Johns Hopkins and University Oncology Center
     - 1.4.1. Transplant Cases (Reserve Flag = 1)
     - 1.4.2. Research Cases (Reserve Flag = 2)
     - 1.4.3. Hematological Cases (Reserve Flag = 3)
     - 1.4.4. Transfer in Cases (Reserve Flag = 4)

APPENDIX VI: Steps for Calculating APR DRG Weights - TBD

APPENDIX VII: EAPG Service Line Map (EAPG version 38)

APG	APG DESCRIPTION	SERVICE
1	PHOTOCHEMOTHERAPY	Other
2	SUPERFICIAL NEEDLE BIOPSY AND ASPIRATION	Other
3	LEVEL I SKIN INCISION AND DRAINAGE	Minor Surgery
4	LEVEL II SKIN INCISION AND DRAINAGE	Major Surgery
5	NAIL PROCEDURES	Minor Surgery
6	LEVEL I SKIN DEBRIDEMENT AND DESTRUCTION	Minor Surgery
7	LEVEL II SKIN DEBRIDEMENT AND DESTRUCTION	Major Surgery
8	LEVEL III SKIN DEBRIDEMENT AND DESTRUCTION	Major Surgery
9	LEVEL I EXCISION AND BIOPSY OF SKIN AND SOFT TISSUE	Minor Surgery
10	LEVEL II EXCISION AND BIOPSY OF SKIN AND SOFT TISSUE	Major Surgery
11	LEVEL III EXCISION AND BIOPSY OF SKIN AND SOFT TISSUE	Major Surgery
12	LEVEL I SKIN REPAIR	Minor Surgery
13	LEVEL II SKIN REPAIR	Major Surgery
14	LEVEL III SKIN REPAIR	Major Surgery
15	LEVEL IV SKIN REPAIR	Major Surgery
20	LEVEL I BREAST PROCEDURES	Minor Surgery
21	LEVEL II BREAST PROCEDURES	Major Surgery
22	LEVEL III BREAST PROCEDURES	Major Surgery
30	LEVEL I MUSCULOSKELETAL PROCEDURES EXCLUDING HAND AND FOOT	Minor Surgery
31	LEVEL II MUSCULOSKELETAL PROCEDURES EXCLUDING HAND AND FOOT	Major Surgery
32	LEVEL III MUSCULOSKELETAL PROCEDURES EXCLUDING HAND AND FOOT	Major Surgery
33	LEVEL I HAND PROCEDURES	Minor Surgery
34	LEVEL II HAND PROCEDURES	Major Surgery
35	LEVEL I FOOT PROCEDURES	Major Surgery
36	LEVEL II FOOT PROCEDURES	Major Surgery
37	LEVEL I ARTHROSCOPY	Major Surgery
38	LEVEL II ARTHROSCOPY	Major Surgery
39	REPLACEMENT OF CAST	Other
40	SPLINT, STRAPPING AND CAST REMOVAL	Other
41	CLOSED TREATMENT FX & DISLOCATION OF FINGER, TOE & TRUNK	Major Surgery
42	CLOSED TREATMENT FX & DISLOCATION EXC FINGER, TOE & TRUNK	Major Surgery
43	OPEN OR PERCUTANEOUS TREATMENT OF FRACTURES	Major Surgery
44	BONE OR JOINT MANIPULATION UNDER ANESTHESIA	Major Surgery
45	BUNION PROCEDURES	Major Surgery
46	LEVEL I ARTHROPLASTY	Major Surgery
47	LEVEL II ARTHROPLASTY	Major Surgery
48	HAND AND FOOT TENOTOMY	Major Surgery

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APG	APG DESCRIPTION	SERVICE
49	ARTHROCENTESIS AND LIGAMENT OR TENDON INJECTION	Minor Surgery
60	PULMONARY TESTS	Other
61	NEEDLE AND CATHETER BIOPSY, ASPIRATION, LAVAGE AND INTUBATION	Other
62	LEVEL I ENDOSCOPY OF THE UPPER AIRWAY	Minor Surgery
63	LEVEL II ENDOSCOPY OF THE UPPER AIRWAY	Major Surgery
64	ENDOSCOPY OF THE LOWER AIRWAY	Other
65	RESPIRATORY THERAPY	Other
66	PULMONARY REHABILITATION	Rehabilitation
67	VENTILATION ASSISTANCE AND MANAGEMENT	Other
80	EXERCISE TOLERANCE TESTS	Cardiovascular
81	ECHOCARDIOGRAPHY	Cardiovascular
82	CARDIAC ELECTROPHYSIOLOGIC TESTS AND MONITORING	Cardiovascular
83	PLACEMENT OF TRANSVENOUS CATHETERS	Cardiovascular
84	DIAGNOSTIC CARDIAC CATHETERIZATION	Cardiovascular
85	ANGIOPLASTY AND TRANSCATHETER PROCEDURES	Cardiovascular
86	PACEMAKER INSERTION AND REPLACEMENT	Cardiovascular
87	REMOVAL AND REVISION OF PACEMAKER AND VASCULAR DEVICE	Cardiovascular
88	LEVEL I CARDIOTHORACIC PROCEDURES W OR W/O VASCULAR DEVICE	Cardiovascular
89	LEVEL II CARDIOTHORACIC PROCEDURES W OR W/O VASCULAR DEVICE	Cardiovascular
90	SECONDARY VARICOSE VEINS AND VASCULAR INJECTION	Cardiovascular
91	VASCULAR LIGATION AND RECONSTRUCTION	Cardiovascular
92	RESUSCITATION	Cardiovascular
93	CARDIOVERSION	Cardiovascular
94	CARDIAC REHABILITATION	Cardiovascular
95	THROMBOLYSIS	Cardiovascular
96	ATRIAL AND VENTRICULAR RECORDING AND PACING	Cardiovascular
97	AICD IMPLANT	Cardiovascular
110	PHARMACOTHERAPY BY EXTENDED INFUSION	Radiation, Infusion, Chemotherapy
111	PHARMACOTHERAPY EXCEPT BY EXTENDED INFUSION	Radiation, Infusion, Chemotherapy
112	PHLEBOTOMY	Other
113	LEVEL I BLOOD AND BLOOD PRODUCT EXCHANGE	Other
114	LEVEL II BLOOD AND BLOOD PRODUCT EXCHANGE	Other
115	DEEP LYMPH STRUCTURE AND THYROID PROCEDURES	Minor Surgery
116	ALLERGY TESTS	Other
117	HOME INFUSION	Radiation, Infusion, chemotherapy

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APG	APG DESCRIPTION	SERVICE
118	NUTRITION THERAPY	Other
130	ALIMENTARY TESTS AND SIMPLE TUBE PLACEMENT	Major Surgery
131	ESOPHAGEAL DILATION WITHOUT ENDOSCOPY	Other
132	ANOSCOPY WITH BIOPSY AND DIAGNOSTIC PROCTOSIGMOIDOSCOPY	Other
133	PROCTOSIGMOIDOSCOPY WITH EXCISION OR BIOPSY	Other
134	DIAGNOSTIC UPPER GI ENDOSCOPY OR INTUBATION	Other
135	THERAPEUTIC UPPER GI ENDOSCOPY OR INTUBATION	Other
136	DIAGNOSTIC LOWER GASTROINTESTINAL ENDOSCOPY	Other
137	THERAPEUTIC COLONOSCOPY	Other
138	ERCP AND MISCELLANEOUS GI ENDOSCOPY PROCEDURES	Minor Surgery
139	LEVEL I HERNIA REPAIR	Major Surgery
140	LEVEL II HERNIA REPAIR	Major Surgery
141	LEVEL I ANAL AND RECTAL PROCEDURES	Minor Surgery
142	LEVEL II ANAL AND RECTAL PROCEDURES	Major Surgery
143	LEVEL I GASTROINTESTINAL PROCEDURES	Minor Surgery
144	LEVEL II GASTROINTESTINAL PROCEDURES	Major Surgery
145	LEVEL I LAPAROSCOPY	Minor Surgery
146	LEVEL II LAPAROSCOPY	Major Surgery
147	LEVEL III LAPAROSCOPY	Major Surgery
148	LEVEL IV LAPAROSCOPY	Major Surgery
149	SCREENING COLORECTAL SERVICES	Other
160	EXTRACORPOREAL SHOCK WAVE LITHOTRIPSY	Other
161	URINARY STUDIES AND PROCEDURES	Other
162	URINARY DILATATION	Minor Surgery
163	LEVEL I BLADDER AND KIDNEY PROCEDURES	Minor Surgery
164	LEVEL II BLADDER AND KIDNEY PROCEDURES	Major Surgery
165	LEVEL III BLADDER AND KIDNEY PROCEDURES	Major Surgery
166	LEVEL I URETHRA AND PROSTATE PROCEDURES	Minor Surgery
167	LEVEL II URETHRA AND PROSTATE PROCEDURES	Major Surgery
168	HEMODIALYSIS	Other
169	PERITONEAL DIALYSIS	Other
180	TESTICULAR AND EPIDIDYMAL PROCEDURES	Major Surgery
181	CIRCUMCISION	Minor Surgery
182	INSERTION OF PENILE PROSTHESIS	Major Surgery
183	OTHER PENILE PROCEDURES	Major Surgery
184	DESTRUCTION OR RESECTION OF PROSTATE	Major Surgery
185	PROSTATE NEEDLE AND PUNCH BIOPSY	Other
190	ARTIFICIAL FERTILIZATION	Major Surgery

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APG	APG DESCRIPTION	SERVICE
191	LEVEL I FETAL PROCEDURES	Minor Surgery
192	LEVEL II FETAL PROCEDURES	Major Surgery
193	TREATMENT OF INCOMPLETE ABORTION	Major Surgery
194	THERAPEUTIC ABORTION	Major Surgery
195	VAGINAL DELIVERY	Major Surgery
196	LEVEL I FEMALE REPRODUCTIVE PROCEDURES	Minor Surgery
197	LEVEL II FEMALE REPRODUCTIVE PROCEDURES	Major Surgery
198	LEVEL III FEMALE REPRODUCTIVE PROCEDURES	Major Surgery
199	DILATION AND CURETTAGE	Minor Surgery
200	HYSTEROSCOPY	Major Surgery
201	COLPOSCOPY	Other
210	EXTENDED EEG STUDIES	Other
211	ELECTROENCEPHALOGRAM	Other
212	ELECTROCONVULSIVE THERAPY	Other
213	NERVE AND MUSCLE TESTS	Other
214	NERVOUS SYSTEM INJECTIONS, STIMULATIONS OR CRANIAL TAP	Radiology
215	LEVEL I REVISION OR REMOVAL OF NEUROLOGICAL DEVICE	Minor Surgery
216	LEVEL II REVISION OR REMOVAL OF NEUROLOGICAL DEVICE	Major Surgery
217	LEVEL I NERVE PROCEDURES	Major Surgery
218	LEVEL II NERVE PROCEDURES	Major Surgery
219	SPINAL TAP	Major Surgery
220	INJECTION OF ANESTHETIC AND NEUROLYTIC AGENTS	Major Surgery
221	LAMINOTOMY AND LAMINECTOMY	Major Surgery
222	SLEEP STUDIES	Other
223	LEVEL III NERVE PROCEDURES	Major Surgery
224	LEVEL IV NERVE PROCEDURES	Major Surgery
230	MINOR OPHTHALMOLOGICAL TESTS AND PROCEDURES	Minor Surgery
231	FITTING OF CONTACT LENSES	Other
232	LASER EYE PROCEDURES	Major Surgery
233	CATARACT PROCEDURES	Major Surgery
234	LEVEL I ANTERIOR SEGMENT EYE PROCEDURES	Major Surgery
235	LEVEL II ANTERIOR SEGMENT EYE PROCEDURES	Major Surgery
236	LEVEL III ANTERIOR SEGMENT EYE PROCEDURES	Major Surgery
237	LEVEL I POSTERIOR SEGMENT EYE PROCEDURES	Major Surgery
238	LEVEL II POSTERIOR SEGMENT EYE PROCEDURES	Major Surgery
239	STRABISMUS AND MUSCLE EYE PROCEDURES	Major Surgery
240	LEVEL I REPAIR AND PLASTIC PROCEDURES OF EYE	Major Surgery
241	LEVEL II REPAIR AND PLASTIC PROCEDURES OF EYE	Major Surgery

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APG	APG DESCRIPTION	SERVICE
250	COCHLEAR DEVICE IMPLANTATION	Major Surgery
251	OTORHINOLARYNGOLOGIC FUNCTION TESTS	Other
252	LEVEL I FACIAL AND ENT PROCEDURES	Minor Surgery
253	LEVEL II FACIAL AND ENT PROCEDURES	Major Surgery
254	LEVEL III FACIAL AND ENT PROCEDURES	Major Surgery
255	LEVEL IV FACIAL AND ENT PROCEDURES	Major Surgery
256	TONSIL AND ADENOID PROCEDURES	Minor Surgery
257	AUDIOMETRY	Other
270	OCCUPATIONAL THERAPY	Rehabilitation
271	PHYSICAL THERAPY	Physical Therapy
272	SPEECH THERAPY AND EVALUATION	Rehabilitation
273	MANIPULATION THERAPY	Rehabilitation
274	OCCUPATIONAL/PHYSICAL THERAPY, GROUP	Rehabilitation
275	SPEECH THERAPY & EVALUATION, GROUP	Rehabilitation
280	VASCULAR RADIOLOGY EXCEPT VENOGRAPHY OF EXTREMITY	Radiology
281	MAGNETIC RESONANCE ANGIOGRAPHY - HEAD AND/OR NECK	Radiology
282	MAGNETIC RESONANCE ANGIOGRAPHY - CHEST	Radiology
283	MAGNETIC RESONANCE ANGIOGRAPHY - OTHER SITES	Radiology
284	MYELOGRAPHY	Radiology
285	MISCELLANEOUS RADIOLOGICAL PROCEDURES WITH CONTRAST	Radiology
286	MAMMOGRAPHY	Radiology
287	DIGESTIVE RADIOLOGY	Radiology
288	DIAGNOSTIC ULTRASOUND EXCEPT OBSTETRICAL AND VASCULAR OF LOWER EXTREMITIES	Radiology
289	VASCULAR DIAGNOSTIC ULTRASOUND OF LOWER EXTREMITIES	Radiology
290	PET SCANS	CT/MRI/PET
291	BONE DENSITOMETRY	Radiology
292	MRI- ABDOMEN	CT/MRI/PET
293	MRI- JOINTS	CT/MRI/PET
294	MRI- BACK	CT/MRI/PET
295	MRI- CHEST	CT/MRI/PET
296	MRI- OTHER	CT/MRI/PET
297	MRI- BRAIN	CT/MRI/PET
298	CAT SCAN BACK	CT/MRI/PET
299	CAT SCAN - BRAIN	CT/MRI/PET
300	CAT SCAN - ABDOMEN	CT/MRI/PET
301	CAT SCAN - OTHER	CT/MRI/PET
302	ANGIOGRAPHY, OTHER	Radiology

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APG	APG DESCRIPTION	SERVICE
303	ANGIOGRAPHY, CEREBRAL	Radiology
310	DEVELOPMENTAL & NEUROPSYCHOLOGICAL TESTING	Other
311	FULL DAY PARTIAL HOSPITALIZATION FOR SUBSTANCE ABUSE	Psychiatric
312	FULL DAY PARTIAL HOSPITALIZATION FOR MENTAL ILLNESS	Psychiatric
313	HALF DAY PARTIAL HOSPITALIZATION FOR SUBSTANCE ABUSE	Psychiatric
314	HALF DAY PARTIAL HOSPITALIZATION FOR MENTAL ILLNESS	Psychiatric
315	COUNSELLING OR INDIVIDUAL BRIEF PSYCHOTHERAPY	Psychiatric
316	INDIVIDUAL COMPREHENSIVE PSYCHOTHERAPY	Psychiatric
317	FAMILY PSYCHOTHERAPY	Psychiatric
318	GROUP PSYCHOTHERAPY	Psychiatric
319	ACTIVITY THERAPY	Psychiatric
320	CASE MANAGEMENT & TREATMENT PLAN DEVELOPMENT - MENTAL HEALTH OR SUBSTANCE ABUSE	Psychiatric
321	CRISIS INTERVENTION	Psychiatric
322	MEDICATION ADMINISTRATION & OBSERVATION	Psychiatric
323	MENTAL HYGIENE ASSESSMENT	Psychiatric
324	MENTAL HEALTH SCREENING & BRIEF ASSESSMENT	Psychiatric
327	INTENSIVE OUTPATIENT PSYCHIATRIC TREATMENT	Psychiatric
328	DAY REHABILITATION, HALF DAY	Rehabilitation
329	DAY REHABILITATION, FULL DAY	Rehabilitation
330	LEVEL I DIAGNOSTIC NUCLEAR MEDICINE	Other
331	LEVEL II DIAGNOSTIC NUCLEAR MEDICINE	Other
332	LEVEL III DIAGNOSTIC NUCLEAR MEDICINE	Other
340	THERAPEUTIC NUCLEAR MEDICINE	Other
341	RADIATION THERAPY AND HYPERTHERMIA	Radiation, Infusion, chemotherapy
342	LEVEL I AFTERLOADING BRACHYTHERAPY	Radiation, Infusion, chemotherapy
343	RADIATION TREATMENT DELIVERY	Radiation, Infusion, chemotherapy
344	INSTILLATION OF RADIOELEMENT SOLUTIONS	Radiation, Infusion, chemotherapy
345	HYPERTHERMIC THERAPIES	Radiation, Infusion, chemotherapy
346	RADIOSURGERY	Radiation, Infusion, Chemotheraphy
347	HIGH ENERGY NEUTRON RADIATION TREATMENT DELIVERY	Radiation, Infusion, Chemotheraphy

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APG	APG DESCRIPTION	SERVICE
348	PROTON TREATMENT DELIVERY	Radiation, Infusion, Chemotheraphy
349	LEVEL II AFTERLOADING BRACHYTHERAPY	Radiation, Infusion, Chemotheraphy
350	LEVEL I ADJUNCTIVE GENERAL DENTAL SERVICES	Other
351	LEVEL II ADJUNCTIVE GENERAL DENTAL SERVICES	Other
352	PERIODONTICS	Other
353	LEVEL I PROSTHODONTICS, FIXED	Other
354	LEVEL II PROSTHODONTICS, FIXED	Other
355	LEVEL III PROSTHODONTICS, FIXED	Other
356	LEVEL I PROSTHODONTICS, REMOVABLE	Other
357	LEVEL II PROSTHODONTICS, REMOVABLE	Other
358	LEVEL III PROSTHODONTICS, REMOVABLE	Other
359	LEVEL I MAXILLOFACIAL PROSTHETICS	Other
360	LEVEL II MAXILLOFACIAL PROSTHETICS	Other
361	LEVEL I DENTAL RESTORATIONS	Other
362	LEVEL II DENTAL RESTORATIONS	Other
363	LEVEL III DENTAL RESTORATION	Other
364	LEVEL I ENDODONTICS	Other
365	LEVEL II ENDODONTICS	Other
366	LEVEL III ENDODONTICS	Other
367	LEVEL I ORAL AND MAXILLOFACIAL SURGERY	Minor Surgery
368	LEVEL II ORAL AND MAXILLOFACIAL SURGERY	Major Surgery
369	LEVEL III ORAL AND MAXILLOFACIAL SURGERY	Major Surgery
370	LEVEL IV ORAL AND MAXILLOFACIAL SURGERY	Major Surgery
371	ORTHODONTICS	Other
372	SEALANT	Other
373	LEVEL I DENTAL FILM	Other
374	LEVEL II DENTAL FILM	Other
375	DENTAL ANESTHESIA	Other
376	DIAGNOSTIC DENTAL PROCEDURES	Minor Surgery
377	PREVENTIVE DENTAL PROCEDURES	Preventive
380	ANESTHESIA	Other
390	LEVEL I PATHOLOGY	Pathology
391	LEVEL II PATHOLOGY	Pathology
392	PAP SMEARS	Pathology
393	BLOOD AND TISSUE TYPING	Lab
394	LEVEL I IMMUNOLOGY TESTS	Lab

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APG	APG DESCRIPTION	SERVICE
395	LEVEL II IMMUNOLOGY TESTS	Lab
396	LEVEL I MICROBIOLOGY TESTS	Lab
397	LEVEL II MICROBIOLOGY TESTS	Lab
398	LEVEL I ENDOCRINOLOGY TESTS	Lab
399	LEVEL II ENDOCRINOLOGY TESTS	Lab
400	LEVEL I CHEMISTRY TESTS	Lab
401	LEVEL II CHEMISTRY TESTS	Lab
402	BASIC CHEMISTRY TESTS	Lab
403	ORGAN OR DISEASE ORIENTED PANELS	Lab
404	TOXICOLOGY TESTS	Lab
405	THERAPEUTIC DRUG MONITORING	Lab
406	LEVEL I CLOTTING TESTS	Lab
407	LEVEL II CLOTTING TESTS	Lab
408	LEVEL I HEMATOLOGY TESTS	Lab
409	LEVEL II HEMATOLOGY TESTS	Lab
410	URINALYSIS	Lab
411	BLOOD AND URINE DIPSTICK TESTS	Lab
412	SIMPLE PULMONARY FUNCTION TESTS	Other
413	CARDIOGRAM	Other
414	LEVEL I IMMUNIZATION	Other
415	LEVEL II IMMUNIZATION	Other
416	LEVEL III IMMUNIZATION	Other
417	MINOR REPRODUCTIVE PROCEDURES	Minor Surgery
418	MINOR CARDIAC AND VASCULAR TESTS	Other
419	MINOR OPHTHALMOLOGICAL INJECTION, SCRAPING AND TESTS	Other
420	PACEMAKER AND OTHER ELECTRONIC ANALYSIS	Other
421	TUBE CHANGE	Other
422	PROVISION OF VISION AIDS	Other
423	INTRODUCTION OF NEEDLE AND CATHETER	Other
424	DRESSINGS AND OTHER MINOR PROCEDURES	Minor Surgery
425	OTHER MISCELLANEOUS ANCILLARY PROCEDURES	Minor Surgery
426	PSYCHOTROPIC MEDICATION MANAGEMENT	Other
427	BIOFEEDBACK AND OTHER TRAINING	Other
428	PATIENT EDUCATION, INDIVIDUAL	Other
429	PATIENT EDUCATION, GROUP	Other
430	CLASS I CHEMOTHERAPY DRUGS	Radiation, Infusion, Chemotheraphy

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APG	APG DESCRIPTION	SERVICE
431	CLASS II CHEMOTHERAPY DRUGS	Radiation, Infusion, Chemotheraphy
432	CLASS III CHEMOTHERAPY DRUGS	Radiation, Infusion, Chemotheraphy
433	CLASS IV CHEMOTHERAPY DRUGS	Radiation, Infusion, Chemotheraphy
434	CLASS V CHEMOTHERAPY DRUGS	Radiation, Infusion, Chemotheraphy
435	CLASS I PHARMACOTHERAPY	Drugs
436	CLASS II PHARMACOTHERAPY	Drugs
437	CLASS III PHARMACOTHERAPY	Drugs
438	CLASS IV PHARMACOTHERAPY	Drugs
439	CLASS V PHARMACOTHERAPY	Drugs
440	CLASS VI PHARMACOTHERAPY	Drugs
441	CLASS VI CHEMOTHERAPY DRUGS	Radiation, Infusion, Chemotheraphy
443	CLASS VII CHEMOTHERAPY DRUGS	Radiation, Infusion, Chemotheraphy
444	CLASS VII PHARMACOTHERAPY	Drugs
448	EXPANDED HOURS ACCESS	Other
449	ADDITIONAL UNDIFFERENTIATED MEDICAL VISITS/SERVICES	Other
450	OBSERVATION	Observation
451	SMOKING CESSATION TREATMENT	Other
452	DIABETES SUPPLIES	Other
453	MOTORIZED WHEELCHAIR	Other
454	TPN FORMULAE	Other
455	IMPLANTED TISSUE OF ANY TYPE	Other
456	MOTORIZED WHEELCHAIR ACCESSORIES	Other
457	VENIPUNCTURE	Other
458	ALLERGY THERAPY	Other
459	VACCINE ADMINISTRATION	Other
460	CLASS VIII COMBINED CHEMOTHERAPY AND PHARMACOTHERAPY	Radiation, Infusion, Chemotheraphy
461	CLASS IX COMBINED CHEMOTHERAPY AND PHARMACOTHERAPY	Radiation, Infusion, Chemotheraphy
462	CLASS X COMBINED CHEMOTHERAPY AND PHARMACOTHERAPY	Radiation, Infusion, Chemotheraphy
463	CLASS XI COMBINED CHEMOTHERAPY AND PHARMACOTHERAPY	Radiation, Infusion, Chemotheraphy

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APG	APG DESCRIPTION	SERVICE
464	CLASS XII COMBINED CHEMOTHERAPY AND PHARMACOTHERAPY	Radiation, Infusion, Chemotheraphy
465	CLASS XIII COMBINED CHEMOTHERAPY AND PHARMACOTHERAPY	Radiation, Infusion, Chemotheraphy
470	OBSTETRICAL ULTRASOUND	Radiology
471	PLAIN FILM	Radiology
472	ULTRASOUND GUIDANCE	Radiology
473	CT GUIDANCE	CT/MRI/PET
474	RADIOLOGICAL GUIDANCE FOR THERAPEUTIC OR DIAGNOSTIC PROCEDURES	Radiology
475	MRI GUIDANCE	CT/MRI/PET
476	LEVEL I THERAPEUTIC RADIATION TREATMENT PREPARATION	Radiology
477	LEVEL II THERAPEUTIC RADIATION TREATMENT PREPARATION	Radiology
478	MEDICAL RADIATION PHYSICS	Radiology
479	TREATMENT DEVICE DESIGN AND CONSTRUCTION	Radiology
480	TELETHERAPY/BRACHYTHERAPY CALCULATION	Radiology
481	THERAPEUTIC RADIOLOGY SIMULATION FIELD SETTING	Radiology
482	RADIOELEMENT APPLICATION	Radiation, Infusion, Chemotheraphy
483	RADIATION THERAPY MANAGEMENT	Radiation, Infusion, Chemotheraphy
484	THERAPEUTIC RADIOLOGY TREATMENT PLANNING	Radiology
485	CORNEAL TISSUE PROCESSING	Other
490	INCIDENTAL TO MEDICAL, SIGNIFICANT PROCEDURE OR THERAPY VISIT	Other
491	MEDICAL VISIT INDICATOR	Other
492	ENCOUNTER/REFERRAL FOR OBSERVATION INDICATOR	Other
495	MINOR CHEMOTHERAPY DRUGS	Radiation, Infusion, Chemotheraphy
496	MINOR PHARMACOTHERAPY	Drugs
500	ENCOUNTER/REFERRAL FOR OBSERVATION - OBSTETRICAL	Other
501	ENCOUNTER/REFERRAL FOR OBSERVATION - OTHER DIAGNOSES	Other
502	ENCOUNTER/REFERRAL FOR OBSERVATION - BEHAVIORAL HEALTH	Other
510	MAJOR SIGNS, SYMPTOMS AND FINDINGS	Other
520	SPINAL DISORDERS & INJURIES	Other
521	NERVOUS SYSTEM MALIGNANCY	Radiation, Infusion, Chemotheraphy
522	DEGENERATIVE NERVOUS SYSTEM DISORDERS EXC MULT SCLEROSIS	Other
523	MULTIPLE SCLEROSIS & OTHER DEMYELINATING DISEASES	Other
524	LEVEL I CNS DISORDERS	Other

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APG	APG DESCRIPTION	SERVICE
525	LEVEL II CNS DISORDERS	Other
526	TRANSIENT ISCHEMIA	Other
527	PERIPHERAL NERVE DISORDERS	Other
528	NONTRAUMATIC STUPOR & COMA	Other
529	SEIZURE	Other
530	HEADACHES OTHER THAN MIGRAINE	Other
531	MIGRAINE	Other
532	HEAD TRAUMA	Other
533	AFTEREFFECTS OF CEREBROVASCULAR ACCIDENT	Other
534	NONSPECIFIC CVA & PRECEREBRAL OCCLUSION W/O INFARC	Other
535	CVA & PRECEREBRAL OCCLUSION W INFARCT	Other
536	CEREBRAL PALSY	Other
550	ACUTE MAJOR EYE INFECTIONS	Other
551	CATARACTS	Other
552	GLAUCOMA	Other
553	LEVEL I OTHER OPHTHALMIC DIAGNOSES	Other
554	LEVEL II OTHER OPHTHALMIC DIAGNOSES	Other
555	CONJUNCTIVITIS	Other
560	EAR, NOSE, MOUTH, THROAT, CRANIAL/FACIAL MALIGNANCIES	Other
561	VERTIGINOUS DISORDERS EXCEPT FOR BENIGN VERTIGO	Other
562	INFECTIONS OF UPPER RESPIRATORY TRACT & OTITIS MEDIA	Other
563	DENTAL & ORAL DISEASES & INJURIES	Other
564	LEVEL I OTHER EAR, NOSE, MOUTH,THROAT & CRANIAL/FACIAL DIAGNOSES	Other
565	LEVEL II OTHER EAR, NOSE, MOUTH,THROAT & CRANIAL/FACIAL DIAGNOSES	Other
570	CYSTIC FIBROSIS - PULMONARY DISEASE	Other
571	RESPIRATORY MALIGNANCY	Other
572	BRONCHIOLITIS & RSV PNEUMONIA	Other
573	COMMUNITY ACQUIRED PNUEMONIA	Other
574	CHRONIC OBSTRUCTIVE PULMONARY DISEASE	Other
575	ASTHMA	Other
576	LEVEL I OTHER RESPIRATORY DIAGNOSES	Other
577	LEVEL II OTHER RESPIRATORY DIAGNOSES	Other
578	PNEUMONIA EXCEPT FOR COMMUNITY ACQUIRED PNEUMONIA	Other
579	STATUS ASTHMATICUS	Other
591	ACUTE MYOCARDIAL INFARCTION	Other
592	LEVEL I CARDIOVASCULAR DIAGNOSES	Other
593	LEVEL II CARDIOVASCULAR DIAGNOSES	Other

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APG	APG DESCRIPTION	SERVICE
594	HEART FAILURE	Other
595	CARDIAC ARREST	Other
596	PERIPHERAL & OTHER VASCULAR DISORDERS	Other
597	PHLEBITIS	Other
598	ANGINA PECTORIS & CORONARY ATHEROSCLEROSIS	Other
599	HYPERTENSION	Other
600	CARDIAC STRUCTURAL & VALVULAR DISORDERS	Other
601	LEVEL I CARDIAC ARRHYTHMIA & CONDUCTION DISORDERS	Other
602	ATRIAL FIBRILLATION	Other
603	LEVEL II CARDIAC ARRHYTHMIA & CONDUCTION DISORDERS	Other
604	CHEST PAIN	Other
605	SYNCOPE & COLLAPSE	Other
620	DIGESTIVE MALIGNANCY	Radiation, Infusion, Chemotheraphy
621	PEPTIC ULCER & GASTRITIS	Other
623	ESOPHAGITIS	Other
624	LEVEL I GASTROINTESTINAL DIAGNOSES	Other
625	LEVEL II GASTROINTESTINAL DIAGNOSES	Other
626	INFLAMMATORY BOWEL DISEASE	Other
627	NON-BACTERIAL GASTROENTERITIS, NAUSEA & VOMITING	Other
628	ABDOMINAL PAIN	Other
629	MALFUNCTION, REACTION & COMPLICATION OF GI DEVICE OR PROCEDURE	Other
630	CONSTIPATION	Other
631	HERNIA	Other
632	IRRITABLE BOWEL SYNDROME	Other
633	ALCOHOLIC LIVER DISEASE	Other
634	MALIGNANCY OF HEPATOBILIARY SYSTEM & PANCREAS	Radiation, Infusion, Chemotheraphy
635	DISORDERS OF PANCREAS EXCEPT MALIGNANCY	Other
636	HEPATITIS WITHOUT COMA	Other
637	DISORDERS OF GALLBLADDER & BILIARY TRACT	Other
638	CHOLECYSTITIS	Other
639	LEVEL I HEPATOBILIARY DIAGNOSES	Other
640	LEVEL II HEPATOBILIARY DIAGNOSES	Other
650	FRACTURE OF FEMUR	Other
651	FRACTURE OF PELVIS OR DISLOCATION OF HIP	Other
652	FRACTURES & DISLOCATIONS EXCEPT FEMUR, PELVIS & BACK	Other
653	MUSCULOSKELETAL MALIGNANCY & PATHOLOGICAL FRACTURES	Other

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APG	APG DESCRIPTION	SERVICE
654	OSTEOMYELITIS, SEPTIC ARTHRITIS & OTHER MUSCULOSKELETAL INFECTIONS	Other
655	CONNECTIVE TISSUE DISORDERS	Other
656	BACK & NECK DISORDERS EXCEPT LUMBAR DISC DISEASE	Other
657	LUMBAR DISC DISEASE	Other
658	LUMBAR DISC DISEASE WITH SCIATICA	Other
659	MALFUNCTION, REACTION, COMPLIC OF ORTHOPEDIC DEVICE OR PROCEDURE	Other
660	LEVEL I OTHER MUSCULOSKELETAL SYSTEM & CONNECTIVE TISSUE DIAGNOSES	Other
661	LEVEL II OTHER MUSCULOSKELETAL SYSTEM & CONNECTIVE TISSUE DIAGNOSES	Other
662	OSTEOPOROSIS	Other
663	PAIN	Other
670	SKIN ULCERS	Other
671	MAJOR SKIN DISORDERS	Other
672	MALIGNANT BREAST DISORDERS	Radiation, Infusion, Chemotheraphy
673	CELLULITIS & OTHER BACTERIAL SKIN INFECTIONS	Other
674	CONTUSION, OPEN WOUND & OTHER TRAUMA TO SKIN & SUBCUTANEOUS TISSUE	Other
675	OTHER SKIN, SUBCUTANEOUS TISSUE & BREAST DISORDERS	Other
676	DECUBITUS ULCER	Other
690	MALNUTRITION, FAILURE TO THRIVE & OTHER NUTRITIONAL DISORDERS	Other
691	INBORN ERRORS OF METABOLISM	Other
692	LEVEL I ENDOCRINE DISORDERS	Other
693	LEVEL II ENDOCRINE DISORDERS	Other
694	ELECTROLYTE DISORDERS	Other
695	OBESITY	Other
710	DIABETES WITH OPHTHALMIC MANIFESTATIONS	Other
711	DIABETES WITH OTHER MANIFESTATIONS & COMPLICATIONS	Other
712	DIABETES WITH NEUROLOGIC MANIFESTATIONS	Other
713	DIABETES WITHOUT COMPLICATIONS	Other
714	DIABETES WITH RENAL MANIFESTATIONS	Other
720	RENAL FAILURE	Other
721	KIDNEY & URINARY TRACT MALIGNANCY	Radiation, Infusion, Chemotheraphy
722	NEPHRITIS & NEPHROSIS	Other
723	KIDNEY AND CHRONIC URINARY TRACT INFECTIONS	Other

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APG	APG DESCRIPTION	SERVICE
724	URINARY STONES & ACQUIRED UPPER URINARY TRACT OBSTRUCTION	Other
725	MALFUNCTION, REACTION, COMPLIC OF GENITOURINARY DEVICE OR PROC	Other
726	OTHER KIDNEY & URINARY TRACT DIAGNOSES, SIGNS & SYMPTOMS	Other
727	ACUTE LOWER URINARY TRACT INFECTIONS	Other
740	MALIGNANCY, MALE REPRODUCTIVE SYSTEM	Radiation, Infusion, Chemotheraphy
741	MALE REPRODUCTIVE SYSTEM DIAGNOSES EXCEPT MALIGNANCY	Other
742	NEOPLASMS OF THE MALE REPRODUCTIVE SYSTEM	Other
743	PROSTATITIS	Other
744	MALE REPRODUCTIVE INFECTIONS	Other
750	FEMALE REPRODUCTIVE SYSTEM MALIGNANCY	Other
751	FEMALE REPRODUCTIVE SYSTEM INFECTIONS	Other
752	LEVEL I MENSTRUAL AND OTHER FEMALE DIAGNOSES	Other
753	LEVEL II MENSTRUAL AND OTHER FEMALE DIAGNOSES	Other
760	VAGINAL DELIVERY	Other
761	POSTPARTUM & POST ABORTION DIAGNOSES W/O PROCEDURE	Other
762	THREATENED ABORTION	Other
763	ABORTION W/O D&C, ASPIRATION CURETTAGE OR HYSTEROTOMY	Other
764	FALSE LABOR	Other
765	OTHER ANTEPARTUM DIAGNOSES	Other
766	ROUTINE PRENATAL CARE	Other
770	NORMAL NEONATE	Other
771	LEVEL I NEONATAL DIAGNOSES	Other
772	LEVEL II NEONATAL DIAGNOSES	Other
780	OTHER HEMATOLOGICAL DISORDERS	Other
781	COAGULATION & PLATELET DISORDERS	Other
782	CONGENITAL FACTOR DEFICIENCIES	Other
783	SICKLE CELL ANEMIA CRISIS	Other
784	SICKLE CELL ANEMIA	Other
785	ANEMIA EXCEPT FOR IRON DEFICIENCY ANEMIA AND SICKLE CELL ANEMIA	Other
786	IRON DEFICIENCY ANEMIA	Other
800	ACUTE LEUKEMIA	Other
801	LYMPHOMA, MYELOMA & NON-ACUTE LEUKEMIA	Other
802	RADIOTHERAPY	Other
803	CHEMOTHERAPY	Other
804	LYMPHATIC & OTHER MALIGNANCIES & NEOPLASMS OF UNCERTAIN BEHAVIOR	Other
805	SEPTICEMIA & DISSEMINATED INFECTIONS	Other

Market Shift Adjustments under Global Revenue Models

Updated-5/6/2015

APG	APG DESCRIPTION	SERVICE
806	POST-OPERATIVE, POST-TRAUMATIC, OTHER DEVICE INFECTIONS	Other
807	FEVER	Other
808	VIRAL ILLNESS	Other
809	OTHER INFECTIOUS & PARASITIC DISEASES	Other
810	H. PYLORI INFECTION	Other
820	SCHIZOPHRENIA	Psychiatric
821	MAJOR DEPRESSIVE DISORDERS & OTHER/UNSPECIFIED PSYCHOSES	Psychiatric
822	DISORDERS OF PERSONALITY & IMPULSE CONTROL	Psychiatric
823	BIPOLAR DISORDERS	Psychiatric
824	DEPRESSION EXCEPT MAJOR DEPRESSIVE DISORDER	Psychiatric
825	ADJUSTMENT DISORDERS & NEUROSES EXCEPT DEPRESSIVE DIAGNOSES	Psychiatric
826	ACUTE ANXIETY & DELIRIUM STATES	Psychiatric
827	ORGANIC MENTAL HEALTH DISTURBANCES	Psychiatric
828	MENTAL RETARDATION	Psychiatric
829	CHILDHOOD BEHAVIORAL DISORDERS	Psychiatric
830	EATING DISORDERS	Psychiatric
831	OTHER MENTAL HEALTH DISORDERS	Psychiatric
840	OPIOID ABUSE & DEPENDENCE	Other
841	COCAINE ABUSE & DEPENDENCE	Other
842	ALCOHOL ABUSE & DEPENDENCE	Other
843	OTHER DRUG ABUSE & DEPENDENCE	Other
850	ALLERGIC REACTIONS	Other
851	POISONING OF MEDICINAL AGENTS	Other
852	OTHER COMPLICATIONS OF TREATMENT	Other
853	OTHER INJURY, POISONING & TOXIC EFFECT DIAGNOSES	Other
854	TOXIC EFFECTS OF NON-MEDICINAL SUBSTANCES	Other
860	EXTENSIVE 3RD DEGREE OR FULL THICKNESS BURNS W/O SKIN GRAFT	Other
861	PARTIAL THICKNESS BURNS W OR W/O SKIN GRAFT	Other
870	REHABILITATION	Rehabilitation
871	SIGNS, SYMPTOMS & OTHER FACTORS INFLUENCING HEALTH STATUS	Other
872	OTHER AFTERCARE & CONVALESCENCE	Other
873	NEONATAL AFTERCARE	Other
874	JOINT REPLACEMENT	Other
875	CONTRACEPTIVE MANAGEMENT	Other
876	ADULT PREVENTIVE MEDICINE	Preventive
877	CHILD PREVENTIVE MEDICINE	Preventive
878	GYNECOLOGIC PREVENTIVE MEDICINE	Preventive
879	PREVENTIVE OR SCREENING ENCOUNTER	Preventive

Market Shift Adjustments under Global Revenue Models

Updated-5/6/2015

APG	APG DESCRIPTION	SERVICE
880	HIV INFECTION	Other
881	AIDS	Other
993	INPATIENT ONLY PROCEDURES	Major Surgery
994	USER CUSTOMIZABLE INPATIENT PROCEDURES	Other
999	UNASSIGNED	Unassigned
1001	DURABLE MEDICAL EQUIPMENT - LEVEL 1	Other
1002	DURABLE MEDICAL EQUIPMENT - LEVEL 2	Other
1003	DURABLE MEDICAL EQUIPMENT - LEVEL 3	Other
1004	DURABLE MEDICAL EQUIPMENT - LEVEL 4	Other
1005	DURABLE MEDICAL EQUIPMENT - LEVEL 5	Other
1006	DURABLE MEDICAL EQUIPMENT - LEVEL 6	Other
1007	DURABLE MEDICAL EQUIPMENT - LEVEL 7	Other
1008	DURABLE MEDICAL EQUIPMENT - LEVEL 8	Other
1009	DURABLE MEDICAL EQUIPMENT - LEVEL 9	Other
1010	DURABLE MEDICAL EQUIPMENT - LEVEL 10	Other
1011	DURABLE MEDICAL EQUIPMENT - LEVEL 11	Other
1012	DURABLE MEDICAL EQUIPMENT - LEVEL 12	Other
1013	DURABLE MEDICAL EQUIPMENT - LEVEL 13	Other
1014	DURABLE MEDICAL EQUIPMENT - LEVEL 14	Other
1015	DURABLE MEDICAL EQUIPMENT - LEVEL 15	Other
1016	DURABLE MEDICAL EQUIPMENT - LEVEL 16	Other
1017	DURABLE MEDICAL EQUIPMENT - LEVEL 17	Other
1018	DURABLE MEDICAL EQUIPMENT - LEVEL 18	Other
1019	DURABLE MEDICAL EQUIPMENT - LEVEL 19	Other
1020	DURABLE MEDICAL EQUIPMENT - LEVEL 20	Other
1090	USER DEFINED 340B DRUGS	Drugs

APPENDIX VIII: Steps in Calculating Outpatient Weights - TBD

Final Recommendation:

Maryland's Statewide Health Information Exchange, the Chesapeake Regional Information System for our Patients: FY 16 Funding to Support HIE Operations and CRISP Reporting Services

May 6, 2015

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

This final recommendation was approved by the Commission at the May 13, 2015 meeting.

CRISP: FY 2016 HIE Operations and CRS Support

Overview

In accordance with its statutory authority to approve alternative methods of rate determination consistent with the All-payer Model and the public interest (Health-General Article, Section 19-219(c)), this recommendation is to provide continued funding support in FY 2016 in the amount of $3,249,000 to the Chesapeake Regional Information System for our Patients (CRISP), for the following purposes:

- Health Information Exchange (HIE) Operations; and
- Continuing CRISP reporting services to hospitals in the State.

Background

HIE Operations

Over the past 6 years, the Commission has approved funding to support the general operations of the CRISP HIE through hospital rates as shown in Table 1:

Table 1. CRISP HIE Project HSCRC Funding 2010-2015

CRISP Budget: HSCRC Funds Received	
FY 2010	$4,650,000
FY 2011	No funds received
FY 2012	$2,869,967
FY 2013	$1,313,755
FY 2014	$1,166,278
FY 2015	$1,650,000

In December 2013, the Commission approved continued funding support for CRISP during FYs 2015 through FY 2019 not to exceed $2.5 million in any year. At the May 2014 Commission public meeting, staff reported that $1.65 million in funding support had been granted to CRISP for core operations in FY 2014.

CRISP Reporting Services

In June of 2014, the Commission approved additional funding of $850,000 for specific CRISP functions related to the HSCRC's inter-hospital reporting capabilities. At that point, the Commission had approved a total of $2.5 million for HIE operations and CRISP Reporting Services.

Enhanced Reporting Services and Planning and Evaluation

In September of 2014, the Commission approved an additional $2 million (for a total of $4.5 million in FY 2015) to support expansion of its current monitoring capacity and engagement of resources to assist in further evaluation and planning of possible statewide infrastructure and approaches for care coordination and provider alignment, in conjunction with stakeholders.

FY 2016 Funding Request

For FY 2016, the staff is separating the funding request for HIE operations and standard CRISP reporting services from those relating to HIE connectivity expansion and ambulatory integration, statewide infrastructure needs, and related expanded reporting services while further information can be gathered on potential needs and costs. The FY 2016 request for HIE operations and standard CRISP report services is $3,249,000, which exceeds the $2.5 previously established maximum.

Health Information Exchange Operations Funding

The value of a health information exchange rests in the premise that more efficient and effective access to health information will improve care delivery while reducing administrative health care costs. The General Assembly, in Health-General Article §19-143, charged the MHCC and the HSCRC with the designation of a statewide HIE. In the summer of 2009, MHCC awarded State-Designation to the Chesapeake Regional Information System for our Patients (CRISP), and the HSCRC approved up to $10 million in startup funding over a four-year period through Maryland's unique all-payer hospital rate setting system. HSCRC-funding by year is illustrated in Table 1 above.

The use of HIEs is a key component of health care reform, enabling clinical data sharing among appropriately authorized and authenticated users. The ability to exchange health information electronically in a standardized format is critical to improving health care quality and safety.

Many states along with federal policy makers look to Maryland as a leader in HIE implementation. Further investment in building CRISP's infrastructure is necessary to support existing and future use cases and to assist the HSCRC as it moves to more per-capita and population-based payment structures. A healthy return on the investment will occur from having implemented a robust technical platform that can support innovative use cases to improve care delivery, increase efficiencies in health care, and reduce health care costs. The HSCRC derives significant benefit from the enterprise

master patient index (EMPI) developed by CRISP. This index uses highly sophisticated tools from secure electronic submission to CRISP of registration data from hospitals. The EMPI allows for accumulation of use across hospitals, which HSCRC, in turn, uses to track readmissions across hospitals.

Beginning in FY 2015, CRISP-related hospital rate adjustments are paid into an MHCC fund, and MHCC and HSCRC review the invoices for approval of appropriate payments to CRISP. This process has created an extra layer of accountability but has also been time consuming.

In order to ensure the process is most efficacious for all, the MHCC intends to use up to $60,000 to engage an independent auditor to determine whether invoices provided by CRISP to MHCC in FY 2015 are adequately supported and to make recommendations for changes to the process to MHCC and CRISP.

In addition to its role in health information exchange among providers, CRISP is involved in health care reform activities related to the HSCRC, MHCC, DHMH, and other state agencies. In its collaboration with the Medicaid program, uniform and broad-based funding through hospital rates can also be used to leverage federal fiscal participation (90/10 match requirement and 50/50 match requirement) under the Health Information Technology for Economic and Clinical Health (HITECH) Act known as Implementation Advanced Planning Document (IAPD) funding. HITECH enables states to be approved for funding by CMS under the Medicaid EHR Incentive Program and receive a 90 and/or 50 percent federal financial participation match for expanding HIE through 2021. This request will enable CRISP (working with DHMH) to obtain federal funding for both the 90 percent and 50 percent programs. Federal matching for IAPD is expected to draw down approximately $3.4 million in FY16.

For FY 2016, staff is requesting funding of $1.71 million for HIE Operations – the same amount that was requested in FY 2015 plus $60,000 in additional funding for an independent auditor to review and make recommendations on the invoicing process.

CRISP Reporting Services

CRISP collects admission (or encounter), discharge and transfer information from hospitals in a nearly real time basis. In the fall of 2013, HSCRC expanded the required collection of data by CRISP to include all hospital outpatient encounters. CRISP creates a master patient index using this and other data. The master patient index (a unique identifier number assigned to each person in the data base) can be attached to HSCRC abstract data, enabling the HSCRC to track readmissions across hospitals, transfers among hospitals, movement of patients across local, regional and statewide areas, and

to focus on the care and health improvement needs of the population, including the nature and extent of use by high needs patients. This is a complex task that requires constant reconciliation between individual hospital transactional data and the HSCRC abstract data, which are now submitted on a monthly basis. The linking of information using the master patient index enhances the security and confidentiality of patient information, such as name and address, because HSCRC does not collect this information in any data it receives. Through this process, the HSCRC is able to obtain the information it needs in order to broaden its regulatory approaches for focusing on population based measures while eliminating the need for HSCRC to collect or store highly identifiable data such as name and address.

In FY 2015, the Commission approved a total amount of funding for CRISP reporting services of $1.85 million ($850,000 for core reporting and $1 million for enhanced reporting). HSCRC and MHCC staff are requesting the authority to increase hospital rates to continue support of CRISP reporting in services in FY 2016 in the amount of $1,539,000.

The current $1,539,000 request may be disaggregated into two categories (as they are in FY 2015): (1) core reporting services; and (2) expanded reporting services. Last year, CRISP requested $850,000 to provide core reporting services to hospitals and the HSCRC. The work requires technology hardware and software licensing along with a small team to create and process the reports. CRISP is beginning to transition the core reporting services from the consultants, who originally installed the infrastructure and created the reports, to permanent staff who can operate the service more efficiently. CRISP's request this year is $539,000 for the following work:

Unique ID Creation and Assignment

- CRISP links the unique master patient index ID to the HSCRC abstract data on a monthly basis and provides the unique ID linkage to HSCRC staff for inter-hospital and other analysis. HSCRC staff uses the unique ID to track inter-hospital readmissions for the new All-Payer waiver, to track transfers among hospitals on a monthly basis, and to support the analysis of use of hospital services utilized aggregated around populations, episodes, and patients.

Basic Cross-Entity Report Production for HSCRC

- CRISP obtains HSCRC abstract data in order to generate reports requested by HSCRC, such as inter-hospital readmission rates.

Standard Report Creation for Hospitals

- CRISP provides hospitals with a core set of standard reports that require use of the unique patient identifier index on a monthly basis, such as inter-hospital readmissions, potentially avoidable utilization, and high needs patients.

Beginning in October 2014, CRISP began working with HSCRC and with hospitals to expand the reporting services available. Changes to the All-Payer model, which are generating an increased focus on population health, are also creating a need for additional information and new reports. CRISP is requesting $1 million to pursue this work, which will be prioritized by the HSCRC and by the CRISP Reporting & Analytics Committee, comprised of experts from hospitals and other provider organizations who use the information in collaboration with MHCC.

One way CRISP has been supporting ad hoc analysis for HSCRC staff is by linking the abstract data to other sources of information, such as Medicaid enrollment files and the MHCC's All Payer Claims Database (APCD). CRISP is able to support such analysis by linking through its master patient index.

The expanded services include:

- Ad hoc analyses of cost and utilization, such as: measuring Medicaid savings under State statute; uncompensated care analytics related to the ACA expansion, other Medicaid enrollment expansions, and other analyses as needed;
- Reporting on Potential Avoidable Utilization (PAU) at the case level including regular detail and summary reports;
- Other population based reports;
- Tableau programming to support real-time report production and analysis.

A focus of the additional Reporting funding will be the creation of tools (primarily through Tableau) to enable hospitals and other provider organizations to perform analysis without requiring custom reports. Such functionality will support provider organizations in their improvement efforts.

Finally, CRISP anticipates that as reporting capabilities and services are developed, the operation of such services will gradually shift to a less expensive staffing model. This transition, which has started for Unique ID creation, will continue for the standard monthly reports.

Additional Funding for Support of Care Coordination and Integrated Care Network Activities, and Evaluation and Planning Resources

The Care Coordination Work Group is a multi-stakeholder group charged with looking at statewide, regional and provider-based approaches to support care coordination activities that assist in meeting the goals of the All-Payer Model. The Work Group is making a series of recommendations to the HSCRC. At their highest level, these intend to:

- Build/secure a data infrastructure to facilitate identification of individuals who would benefit from care coordination – The Goal is to secure, organize, synthesize, and share data that will support care coordination
- Encourage Patient-Centered Care - Identify standard elements of care profiles that can be shared, and propose future standards for the creation of Individualized Care Profiles.
- Encourage Patient Engagement – This involves educating patients about care coordination, and encouraging individuals to participate in care plans and complete and share medical orders for life-sustaining treatment.
- Encourage Collaboration – Priorities include facilitating somatic and behavioral health collaboration, integration between hospitals and long-term care/post acute care services, and creating standard gain sharing and pay for performance programs.
- Connect Providers – Call on CRISP to connect community-based and long-term and post acute providers to CRISP, and to coordinate efforts to use Medicare data on high needs patients to support population health and outcomes initiatives.

In light of these recommendations, staff intends to evaluate the role that CRISP can play in further supporting care coordination and integrated care network development and implementation in the State, and report back to the Commission on the potential for additional CRISP funding to meet these critical needs. Further development of budgets and timelines will be required to determine these needs.

In FY 2015, the Commission approved $1 million in funding for consulting and expert resource needs to support more detailed planning, evaluation, and stakeholder input relative to provider alignment and care coordination initiatives and infrastructure needs. These activities fall outside of the ongoing recurring work of the HSCRC staff and require flexible and agile approaches to convening stakeholders and planning resource requirements. Staff is currently discussing future needs and may submit

recommendations in the coming months on continuing funding for planning and evaluation resources in FY 2016 that are designed to bring success to Maryland's providers in meeting the Three-Part Aim in a patient-centered way.

Recommendation

HSCRC and MHCC staff recommend that hospital rates be increased in FY 2016 by $3,249,000 to continue to support the ongoing costs of CRISP HIE operations and reporting services. (Note that this amount is $60,000 higher than was requested in the draft recommendation in order to fund auditing of fiscal year 2015 CRISP invoices.) The FY 2016 budget for each of these functions is as follows:

- CRISP HIE Operations - $1,710,000 (consistent with funding in FY 2015);
- CRISP Reporting Services - $1,539,000 (compared to $1,850,000 in FY 2015).

Additionally, HSCRC and MHCC staff will to continue to work with CRISP in the development of a budget and timeline for further support of the All-Payer Model consistent with the recommendations of the Care Coordination Work Group. As necessary, it is possible that a recommendation for additional FY 2016 funding through CRISP to support the care coordination needs identified in the Care Coordination Work Group recommendations will be forthcoming.

Recommended Regional Planning Grants Awards for Regional Partnerships for Health System Transformation

May 13, 2015

DHMH and HSCRC

Consent Calendar of Awards

Regional Group Name	Award Amount	Lead Hospital
Trivergent Health Alliance	$ 133,334	Western Maryland Health System
	$ 133,333	Frederick Regional Health System
	$ 133,333	Meritus Medical Center
Bay Area Tranformation Partnership	$ 400,000	Anne Arundel Medical Center
Howard County Regional Partnership for Health System Transformation	$ 200,000	Howard County General Hospital
U of M Upper Chesapeake Health and Hospital of Cecil County Partnership	$ 200,000	University of Maryland Upper Chesapeake
Total	**$ 1,200,000**	

Other Recommended Proposals

Regional Group Name	Award Amount	Lead Hospital
Regional Planning Community Health Partnership	$ 400,000	Johns Hopkins Hospital(s)
Baltimore Health System Transformation Partnership	$ 400,000	University of Maryland Medical Center
NexusMontgomery	$ 300,000	Holy Cross Hospital
Southern Maryland Regional Coalition for Health System Transformation	$ 200,000	Doctors Community Hospital
Total	**$ 1,300,000**	

Report on Review Committee Recommendations for Planning Grants to Create Regional Partnerships for Health System Transformation

May 6, 2015

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

This report includes the final recommendations of the Regional Partnerships for Health System Transformation Review Committee. This recommendation was approved by the Commission.

Planning Grants for Regional Partnerships for Health System Transformation

Overview

The Department of Health and Mental Hygiene ("Department," or "DHMH") and the Health Services Cost Review Commission ("HSCRC," or "Commission") are recommending that eight regional partnerships for health system transformation grants be funded through fiscal year 2015 hospital rates in accordance with the provisions of the Budget Reconciliation and Financing Act of 2014 ("BRFA").

Background

During the 2014 Legislative Session, the General Assembly adopted the BRFA of 2014. This legislation provides that the HSCRC may include an additional $15,000,000 in hospital revenue when determining hospital rates that are effective in fiscal year 2015 for the purpose of:

> (1) Assisting hospitals in covering costs associated with the implementation of Maryland's all–payer model contract; or
>
> (2) Funding of statewide or regional proposals that support the implementation of Maryland's all–payer model contract.

Statewide or regional proposals for funding are to be submitted to the Commission and DHMH for approval. The Department and the Commission are required to establish a committee to review regional proposals and make recommendations to the Department and the Commission for funding. The review committee is required to include representatives from the Department and the Commission as well as subject matter experts, including individuals with expertise in areas such as public health, community–based health care services and supports, primary care, long–term care, end–of–life care, behavioral health, and health information technology.

The Commission may take action on a statewide or regional proposal that has reviewed by the review committee and approved by both the Commission and the Department.

This report reflects the review committee's recommendations to award a total of $2.5 million for regional planning grants of the $15 million in BRFA funds previously approved by the Commission.

Planning Grants for Regional Partnerships for Health System Transformation

In order to improve population health, it is most helpful that regional collaborations develop across the State. Transforming Maryland's health care system into a more reliable, efficient, less fragmented, and with a greater source of pride in our communities, will require increasing collaboration among health systems, payers, community hospitals, ambulatory physician practices, long-term care providers, and many other community-based organizations. It will also require effectively engaging patients and consumers.

In order to achieve these goals and to pave a way for success of the all-payer model, on February 9, 2015 the Department, in collaboration with the HSCRC, released a Request for Proposals ("RFP") for funding to support planning, development initiatives, and operational plans for regional partnerships for health system transformation. Eleven applications were receive by the due date of April 15, 2015.

The RFP invited proposals to develop partnerships capable of identifying and addressing their regional needs and priorities and, in turn, shaping the future of health care in Maryland. These included developing care coordination and population health priorities; determining what resources are needed and available; and how resources and strategies should be deployed. The model concept is intended to focus on particular patient populations (e.g., patients with multiple chronic conditions and high resource use, frail elders with support requirements, dual-eligibles with high resource needs) and may also include a strategy for improving overall population health in the region over the long-term, with particular attention paid to reducing risk factors. The overarching goal is to create the right partnerships to assist hospitals in meeting the goals of the new All-Payer Model and the Three-Part Aim.

The RFP limits the maximum award to $400,000 for each approved application. Funding will be allocated via HSCRC-approved rate increases for hospitals working in con junction with partner organizations.

Successful bidders are required to submit an interim report to the Department and HSCRC by September 1, 2015, and a final report is due on December 1, 2015.

DHMH and the Commission are offering technical assistance support through CRISP to assist successful bidders in the quest to meet their goals, conduct statewide and regional educational sessions, share lessons learned among participating grantees and other hospitals, and ensure that planning activities are consistent with statewide infrastructure activities.

The Planning Grant Review Committee and Evaluation Criteria

As required in BRFA, DHMH and HSCRC established a broad multi-stakeholder review committee of individuals that have no direct or indirect relationship to any of the proposals. The review committee includes representatives from:

- DHMH;
- HSCRC;
- The Maryland Community Health Resources Commission;
- Maryland Hospital Association;
- Payers;
- Physicians;
- Consumers;
- Community Service Providers;
- Behavioral Health;
- Long-Term Care; and
- Consulting.

The evaluation committee gave preference to those models that included the following characteristics/features:

- A comprehensive, diverse set of partners with standing in the region;
- Multiple target high-cost conditions/populations, with initial focus on Medicare;
- Integrating primary care, prevention, and addressing multiple determinants of health; and
- Sustainability concept that builds on the All Payer Model and other delivery/financing models.

The committee established evaluation criteria and weighting in each of the following categories:

1. Scope and Target Population – 10 points
2. Model Concept – 50 points
3. Population Health Strategy – 10 points
4. Potential for Sustainability – 10 points
5. Proposed Process and List of Partners – 10 points
6. Budget Narrative – 10 points

Recommendation

After thorough review, the committee has recommended that eight regional grant proposals be funded from fiscal year 2015 BRFA funding. Table 1 below lists the recommended awardees, the award amount, and the lead hospitals (the hospitals in which rates will be adjusted to generate the award). Appendix I includes a summary of each proposal.

Table 1. Recommended Awardees

Regional Partnership Group Name	Award Amount	Lead Hospital(s)
Regional Planning Community Health Partnership	$ 400,000	Johns Hopkins Hospital
Baltimore Health System Transformation Partnership	$ 400,000	University of Maryland Medical Center
Trivergent Health Alliance	$ 133,334 $ 133,333 $ 133,333	Western Maryland Health System Frederick Regional Health System Meritus Medical Center
Bay Area Tranformation Partnership	$ 400,000	Anne Arundel Medical Center
NexusMontgomery	$ 300,000	Holy Cross Hospital
Howard County Regional Partnership for Health System Transformation	$ 200,000	Howard County General Hospital
U of M Upper Chesapeake Health and Hospital of Cecil County Partnership	$ 200,000	University of Maryland Upper Chesapeake
Southern Maryland Regional Coalition for Health System Transformation	$ 200,000	Doctors Community Hospital
Total	**$ 2,500,000**	

Appendix I

Summaries of Regional Planning Grant Proposals

Regional Partnerships – Application Summary

<table>
<tr><td>Applicant/ Hospitals</td><td colspan="6">The Johns Hopkins Hospital (lead applicant), Johns Hopkins Bayview Medical Center, Mercy Medical Center, University of Maryland Medical Center, University of Maryland Medical Center Midtown Campus, Greater Baltimore Medical Center (GBMC), and Anne Arundel Medical Center</td></tr>
<tr><td colspan="7">Scope and Target Population</td></tr>
<tr><td>Region</td><td colspan="5">The combined Community Benefits Service Area (CBSA) for JHH and JHBMC covers approximately 27.9 square miles within East Baltimore, with an estimated 303,874 residents. The CBSA for MMC includes 18 combined statistical areas (CSAs) that represent downtown Baltimore and the communities east, west, and south of the city center. The combined CBSA for UMMC and Midtown consists of 12 zip codes within West Baltimore, with an estimated 438,356 people residing in the CBSA. Eight of the 18 CSAs for MMC and 3 of the 12 zip codes for UMMC/Midtown overlap with the JHH/JHBMC CBSA. All of MMC CSAs overlap with either JHH/JHBMC or UMMC/Midtown. (See Appendix 1 and 2.)</td><td>250,000 population? Y or N</td></tr>
<tr><td>Health Needs</td><td colspan="5">Hypertension, hyperlipidemia, diabetes, ischemic heart disease, asthma, mental health issues, substance use disorder, multiple chronic conditions</td><td>References CHNA? Y or N</td></tr>
<tr><td>Target Population</td><td colspan="5">More than 50 percent of residents living in these CBSA's are recipients of Medicare, Medicaid, dual eligible, lack health insurance and experience the following major barriers to health: poor health literacy, unaffordable/unstable housing, hunger, unemployment, and mental illness.</td><td>Initial focus on Medicare or duals? Y or N</td></tr>
<tr><td colspan="7">Model Concept</td></tr>
<tr><td>Services/ Intervention</td><td colspan="6">Types of services proposed include identifying high-risk patients from a selected geographical area who are being admitted or at risk of being admitted to any of the five Baltimore City hospitals, connect them to care management in a primary care clinic or a community setting, actively engage them in care, and identify and address challenges they experience as barriers to optimal care.

Types of interventions include: community mobilization for health partnerships, transitional care, outreach and engagement services, health education, health and social system navigation services, health coaching and self-management, clinical case management, and pharmacist led medication management. See pages 3-10 for details.</td></tr>
<tr><td>Role of partners</td><td colspan="6">See pages 16-18 for list of partners.

The Baltimore City Health Department is grounded in the public health outcome goals of Healthy Baltimore 2015. It plans to continue to lead a collaboration of community members and organizations to achieve collective benefit impact on public health, deploy resources to align with public health priorities and needs of the community, collect and analyze health data for use in community engagement, planning, monitoring, policy making, and legislative advocacy. Sisters Together and Reaching (STAR) will continue to build upon its community based Community Health Worker Case Manager model for this Regional Partnership. The Esperanza Center, with its long-standing history of serving the immigrant population of Baltimore, will contribute lessons learned related to health needs and barriers to care among the growing Latino population in Baltimore City. Based on the experiences serving a patient population challenged by high disease burden and homelessness, Health Care for the Homeless will bring to the table its expertise in providing comprehensive medical services for people experiencing homelessness. All of the partners will participate in regular planning meetings.
<table>
<tr><td>PCPs: Y or N</td><td>Long term care: Y or N</td><td>Behavioral health: Y or N</td><td>Public health? Y or N</td><td>Community orgs? Y or N</td><td>Others: Esperanza Center, Health Care for the Homeless</td></tr>
</table></td></tr>
<tr><td>Infrastr./ workforce</td><td colspan="4">Staffing needed for model includes: Medical Director for Population Health and Community Health Programs, Project Manager, Population Health Associate, Senior Data Analyst Project Lead, Analysts, IT/Data Consultant, Clinical Informatics Specialist, Administrative Assistant, Community Program Manager.</td><td>Utilizes CRISP? Y or N</td><td>Address care plan sharing ? Y or N</td></tr>
</table>

Regional Partnerships – Application Summary

Alignment w/ All Payer Model	*The proposal addresses how it fits under the All Payer Model and furthers its work in at least two important ways: it creates a forum where hospitals can come together collaboratively rather than competitively to share new knowledge and evidence, particularly around mutual challenges such as case-finding, eligibility criteria, and evaluation methods; and it sets a foundation for leveraging additional common resources, such as IT infrastructure, in the future.* *Care coordination is referenced.*		
Population Health Strategy			
	(1)population health assessment, (2) interpretation and prioritization of health needs, (3) risk stratification and segmentation of population according to health needs, (4) development of evidence based interventions tailored to meet the needs of the population, (5) implementation of evidence-based interventions to improve health, (6) ongoing monitoring and continuous QI, (7) evaluation and dissemination	Focus on risk factors? ***Y** or N*	Align with LHIC? ***Y** or N*
Potential for Sustainability			
Value-based payment structures	*Savings from avoidable utilization with reductions in inpatient admissions and readmissions, savings from patients that receive care across multiple organizations*		
Population health funding	*Potential revenue that may be derived from current and proposed CPT codes that permit providers and other entities to bill public and private payers for delivering services such as care management, care coordination, and pharmacist-led Medication Management.*		
Proposed Process and List of Partners			
Proposed process	*A Steering Committee will be formed, comprised of at least one senior executive leader from MMC, University of Maryland Medical System (UMMS), STAR, Esperanza Center, Health Care for the Homeless, the Baltimore City Health Department, JHM, JHH, JHBMC, JHHC, Johns Hopkins Community Physicians (JHCP), Johns Hopkins Home Care Group (JHHCG), and Johns Hopkins University (JHU). Leaders from the workgroups listed below will also participate. This Committee will meet monthly for 90 minutes to oversee strategies, make key decisions, review timelines, monitor progress toward milestones, and resolve barriers that affect the Regional Partnership. The Steering Committee is responsible for the Interim Report due on Sept. 1st and the Regional Transformation Plan due on Dec. 1, 2015. Workgroups will be established to focus on key planning areas including: Analytics and Evaluation, Transitional Care and Interventions, and Finance and Sustainability. Each workgroup will have a designated leader who will participate on the Steering Committee and work closely with the Project Manager on timelines, planning deliverables, and meeting materials. Most workgroups will meet twice a month for a 1-2 hour meeting. (see pages 14-15 for details)*		Includes list of partners? ***Y** or N*
Budget			
	Includes line item budget? ***Y** or N*	Includes narrative justifying costs? ***Y** or N*	Funds are for planning (not implementation)? ***Y** or N*

Regional Partnerships – Application Summary

Applicant/ Hospitals	*Baltimore Health System Transformation Partnership (BHSTP): University of Maryland Medical Center (lead);*	
Scope and Target Population		
Region	*All 19 Baltimore City zip codes representing the Community Benefit Service Area (21201, 21202, 21205, 21206, 21210, 21211, 21213…21229, 21230, and 21231).*	250,000 population? *Y or **N***
Health Needs	*Highest utilizers of healthcare who have chronic illnesses including mental illness.*	References CHNA? ***Y** or N*
Target Population	*Baltimore City high-utilizers found in 19 zip codes who are either Medicare beneficiaries with 3+ hospital utilizations in one year or dual-eligibles with 3+ hospital utilizations in one year. Includes those with chronic illnesses, including mental health.* *Population health target population determined while planning and informed using census-tract level data and HSCRC Area Deprivation Index, focused on those who are statistically at risk of high-utilization.*	Initial focus on Medicare or duals? ***Y** or N*
Model Concept		
Services/ Intervention	*Creation of the Primary Care Support Center (PCSC), a regionalized, cross-system, integrated solution. The PCSC delivery model serves as a bridge between hospital and primary care providers and provides patients with community-based health and social services in order to create a city-wide continuum of care. The PCSC develops an individualized plan for vulnerable patients immediately after discharge that addresses the social and clinical needs and provides comprehensive wrap-around services synonymous with the patient-centered medical home. The PCSC operates as an extension to primary care practices, allowing them to provide complete patient-centered medical care at no cost to the patient or the primary care provider.* *High-utilizers are referred to the PCSC by the discharging hospital for care coordination, including individual continuum-wide care plan creation and connection to a PCP. Patients who are referred to the PCSC without a medical home will be connected to a primary care provider through the PCSC network. In addition to primary care patients receive wrap-around services.PCSC care teams are composed of a mid-level primary care provider, care coordinator, social worker, behavioral health specialist, pharmacist, health educator, medical assistant, nutritionist, community health worker, and health and life coach.*	
Role of partners	*Seven acute care hospitals, four federally-qualified health centers, one skilled nursing facility, one local health department/local health improvement coalition, and four community-based health services business.* *Partner resources used to develop patient individualized plans. Some examples are: Comprehensive Housing Assistance Inc. (CHAI) to provide senior housing; Healthcare for the Homeless as a partner in addressing specific population and their associated needs; and, Keswick Multi-Care or other BHSTP partner will provide housing insecurity support. High-acuity patients referred to AbsoluteCARE for ambulatory ICU services and advanced primary care practice and Coordinating Center and Mosaic Community Service will provide the design of the cornerstones of care coordination and behavioral health. This partnership's Intention is that it exist beyond the planning stage, specifically via the creation of an IT infrastructure even if not able to mobilize all elements planned.*	

Regional Partnerships – Application Summary

	PCPs: ***Y** or N Appendix E)*	Long term care: **Y** or N *(See Appendix E)*	Behavioral health: ***Y** or N*	Public health? ***Y** or N*	Community orgs? ***Y or N** (Appendix F)*	Others: *Healthcare for the Homeless, Mosaic Community Service, Coordinating Center*		
Infrastr./ workforce	*Staffing needed for model:* *> PCSC care teams are composed of mid-level primary care provider, care coordinator, social worker, behavioral health specialist, pharmacist, health educator, medical assistant, nutritionist, community health worker, and health and life coach.* *> PSCS center run by CEO (experience managing clinical operations at the community level), Chief Medical Officer (CMO), Chief Quality Officer/Data Analyst, and Chief Medical Officer (CFO)* *> Data exchange among partners, including use of CRISP and sharing of patient care plans/profiles.* *> Technical assistance for accessing/interpreting census-tract and neighborhood-level data needed from HSCRC.* *> IT consultant to conduct assessment of CRISP and partner's IT infrastructure in order to (1) identify disparate IT infrastructure, (2) evaluate opportunities for data exchange and interoperability, and (3) review hardware, software, and technological clinical tools for use in clinical and administrative operations.*						Utilizes CRISP? ***Y*** or N	Address care plan sharing? ***Y** or N*
Alignment w/ All Payer Model	*Design addresses triple aim of Maryland's all payer model and the target population found within the Community Benefit Service Area (CBSA) of the partnering hospitals. Further, the design of care coordination and behavioral health will incorporate evidence-based practices and recommendations from the HSCRC Care Coordination Workgroup.*							
Population Health Strategy								
	Informed by continual process that reviews utilization data, community-level diseases data, and inventories existing community programs and services, researches evidence-based practice and innovation, and ensures community participation in the process. *This strategy includes a PCSC staff member and an advisory council. The inter-disciplinary advisory council (LHIC, community members, community leaders, hospital reps, community healthcare providers, other stakeholders) will develop a strategy that the Population Health Management Director will implement. The advisory council will additionally set population health priorities, assess progress, identify gaps, and select programs for funding.*						Focus on risk factors? ***Y** or N*		Align with LHIC? ***Y** or N*
Potential for Sustainability								
Value-based payment structures	*Suggest that the PCSC model bolsters primary care resources and produces efficiencies in care and IT that make the model scalable and economical. Further savings is suggested via examples of similar models in Kentucky's University Hospital Population Health Management Complex Case Program and Washington's High Utilizer Case Management Program. It Is anticipated that cost savings will be demonstrated through financial modeling done during the planning process. This model will be used to motivate payers and hospitals to commit to care management payments that will cover the operating costs and produce a surplus to be invested in the population health strategy. Additionally, exploring a Pay for Success strategy where social service providers are compensated in lieu of reimbursing medical providers for health outcomes will provide opportunity for a different financial model.*								

Regional Partnerships – Application Summary

	Annual budget surplus from model concepts financing design will be applied toward regions population health strategy. Focus of the funding will be on building local capacity by investing in new and already existing programs. *PCSC rely on care management payments, part of the planning process will determine the feasibility of the model by examining a return on investment allowing hospitals to reduce overhead costs. Suggests that BHSTP may seek a shared savings arrangement in order to generate more revenue. Goal is to examine a financial model that covers PCSC activities and allows for surplus to be invested into population health strategy.*	
Population health funding	*Annual budget surplus from model concepts financing design will be applied toward regions population health strategy. Focus of the funding will be on building local capacity by investing in new and already existing programs.*	
Proposed Process and List of Partners		
Proposed process	*Utilize 5 workgroups in order to complete planning process:* ➢ *Infrastructure and Population Health Strategy workgroup* ➢ *IT Infrastructure and Technology Workgroup* ➢ *Care Coordination, Chronic Disease Management, and Care Transitions Workgroup* ➢ *Financing, Data, and Quality Workgroup* ➢ *Provider and Community Engagement Workgroup* *First will completed planning infrastructure, next asset mapping, then define health system transformation through two retreats attended by core representatives from all partner organizations and key stakeholders in order to identify areas of system to target for transformation. Next, the workgroups will meet monthly and report progress at full committee meetings on a monthly basis. Next, qualitative research of the target population, community leaders and partners, and providers will be done to understand the perspective on the health system. Finally there will be a report.* *> Explore additional programs and processed while planning the PCSC such as Care at Hand (mobile application for assessing readmission and admission risk), "12-12 C-TAT" (universal hospital screening where with 12 hours of admission all patients are assessed for readmission, those at risk are assigned to a team that develops a prevention strategy to begin implementation prior to discharge), transportation (exploring having the PCSC providing this service), and pay for success (compensates social service providers in lieu of reimbursing medical professionals for improved health outcomes).* *>IT consultant to conduct assessment of CRISP and partner's IT infrastructure in order to (1) identify disparate IT infrastructure, (2) evaluate opportunities for data exchange and interoperability, and (3) review hardware, software, and technological clinical tools for use in clinical and administrative operations.* *>Cites Collective Impact, the idea that sustainable improvements are achieved through stakeholders abandoning their agendas in favor of a collective approach.* *> Population Health Advisory Council can operate without funding*	Includes list of partners? ***Y***

Budget			
	Includes line item budget? ***Y** or N*	Includes narrative justifying costs? ***Y**or N*	Funds are for planning (not implementation)? ***Y** or N*

Regional Partnerships – Application Summary

Applicant/ Hospitals	*Trivergent Health Alliance (Frederick Regional Health System, Meritus Medical Center, and Western Maryland Health System). Garrett County Memorial Hospital is also a "partner."*	
Scope and Target Population		
Region	*Allegany, Frederick, Washington Counties (80 total zipcodes)* *Population: 455,000+*	250,000 population? ***Y** or N*
Health Needs	*Chronic conditions among total population: Hypertension, lipid disease, diabetes, "other" mental health conditions (not cognitive or mood disorders), cardiac arrhythmia, and COPD.* *Chronic conditions among Medicare population: hypertension, lipid disease, arthritis, ischemic heart disease, COPD, and diabetes.* *Chronic conditions among high utilizers: hypertension, lipid disease, mood disorder, diabetes, COPD, and cardiac arrhythmias*	References CHNA? ***Y** or N*
Target Population	*Focus on two specific Medicare populations: (1) high utilizers and (2) those who have multiple chronic conditions (five or more)*	Initial focus on Medicare or duals? ***Y** or N*
Model Concept		
Services/ Intervention	*Transitions of care; care coordination; prevention and wellness programs; behavioral health integration and behavioral health crisis intervention; virtual care team and community care teams; and long term care (care management and transitions); standardizing clinical resources and tools; leveraging training and workforce development; technologies and evidence-based best practice models; and community services*	
Role of partners	*Partners will serve on the Executive Committee, Task Forces and work groups, as appropriate. Partner roles and responsibilities include: providing input on structure and process, helping with identification and engagement of patients needing services, workforce strategy and development, and planning, implementation and sustainability. See pages 19-21 for list of partners.* *In general, community partner staffing will be responsible for transitions of care, care coordination, prevention & wellness programs, behavioral health integration & behavioral health crisis intervention, virtual care team & community care teams, and long term care.* *Key Alliance partners would govern and oversee the planning, implementation, and accountability for progress throughout Regional Transformation; build bridges to overcome any gaps or barriers during the planning phase; connect critical community partners and other care delivery partners to the specific teams and work processes; and develop infrastructure and systems that cut across organizations and improvement efforts to create sustainable and efficient use of workforce, technology, and standardized evidence-based tools.*	
	PCPs: ***Y** or N* / Long term care: **Y** or N / Behavioral health: **Y** or N / Public health? **Y** or N / Community orgs? **Y** or N / Others: *See proposed process/partners list section below or pages 17, 19-21*	
Infrastr./ workforce	*Specific staffing needs for model include hiring a new, local project manager to manage tasks and facilitate workgroups. Also to act as key staff for Alliance leadership.* *Reporting and data sharing through CRISP and shared regional framework of evidence-based tools, workforce strategies, best practice model deployment, community service approach, and ongoing system learning).*	Utilizes CRISP? **Y** or N / Address care plan sharing ? **Y** or N
Alignment w/ All Payer	*Yes. The Alliance's potential savings, community benefits, and other financial strategies to pursue, including payment transformation will all be defined and aligned with the All-Payer mode. The*	

Regional Partnerships – Application Summary

Model	*application references care coordination but not HSCRC workgroups.*		
Population Health Strategy			
	Focus on aging populations, frail elders and patients with chronic medical conditions and serious mental illness. There will also be emphasis on primary care, prevention, and reduction of risk factors, by reaching patients where they are, whether inside of outside of traditional health care settings.	Focus on risk factors? ***Y** or N*	Align with LHIC? ***Y** or N*
Potential for Sustainability			
Value-based payment structures	*The Alliance proposes to fund the model with ongoing cost savings that are expected to be recouped early on by reducing unnecessary, excessive use of the ED, as well as avoidable inpatient admissions and readmissions. They are considering various value-based payment structures such as pay-for-performance, physician gain-sharing, and shared savings. See table on pages 13-14.* *The long-term sustainability plan includes the shift to increased reliance on value-based payments and managed care contracts that reward efficiency, value, managing across the care continuum, and will not depend on grant funding from the state or other sources. The Alliance plans to find opportunities to share resources and address alignment of key services and resources (IT, community dollars, staffing, equipment, EHR, inter-operability), share best practices, and identify collective payment strategies. See pages 12-15 for details.*		
Population health funding	*The Alliance is considering financial mechanisms for regional health improvement strategy such as regional health trusts (see table on pages 13-14) and directed community benefit dollars.*		
Proposed Process and List of Partners			
Proposed process	*Planning process will begin with a kick-off retreat with key hospital and community leaders. At this retreat, the team will define a high level multi-year regional transformation plan or horizon map, which will guide their short and long term planning efforts. In May 2015, the general Executive Committee will be formed and conduct its initial meeting. The committee will meet monthly during the planning phase. Three task forces will be formed (Funding and Sustainability, Population Health Strategies, and Clinical Models, Workforce, and Supports). Ad hoc workgroups designed to tackle specific strategies and work will also be formed. More widespread input will be gained through structured focus groups, town hall meetings, and committee structures within various partner organizations. See pages 16-17 for details.*		Includes list of partners? ***Y** or N*
Budget			
	Includes line item budget? ***Y** or N*	Includes narrative justifying costs? **Y** or N	Funds are for planning (not implementation)? **Y** or N

Regional Partnerships – Application Summary

Applicant/ Hospitals	*Bay Area Transformation Partnership: Anne Arundel Medical Center (lead applicant); University of Maryland Baltimore Washington Medical Center; Healthy Anne Arundel Coalition (LHIC); and, MedChi, the Maryland State Medical Society*	
Scope and Target Population		
Region	*Includes counties of Anne Arundel, Queen Anne's, and Talbot (Appendix A) and zip codes in this region.*	250,000 population? ***Y** or N*
Health Needs	*Need per CHNA identified chronic diseases such as diabetes, hypertension, and chronic obstructive pulmonary disease (COPD), adult obesity, tobacco use, and behavioral health as areas necessary of intervention.*	References CHNA? ***Y** or N*
Target Population	*Focuses on three distinct segments of the population with priority given to Medicare and dual-eligible population: (1) vulnerable high utilizer population that are chronically ill; (2) the rising-risk population who are in the beginning/early stages of chronic diseases; and (3) the healthy population.*	Initial focus on Medicare or duals? ***Y** or N*
Model Concept		
Services/ Intervention	*The model created through the planning process will focus on two critical elements of community-wide coordination: identifying the essential partners and designing how they will best interact with each other. Develop a standardized Universal Care Plan template that can be generated from common data elements and accessed within a variety of workflows and provider settings. Develop a registry of vulnerable, chronically ill patients so that providers are notified in real time as patients enter practices or facilities. Notifications provided by the registry will include clinical and social, cogent "need to know right now" information provided in a standardized electronic format. Further identifying the rising-risk patients who receive routine care for chronic illness in EDs and facilitating their entry into patient-centered medical homes and community clinics equipped to provide culturally competent, high-quality medical care through chronic care management services. Finally for the health population a partnership model is proposed as an integrated approach to primary care, public health, and community-based resources in order to pool resources and skills to promote and sustain healthy habits in this population. Additionally, in order to support the Universal Care Plan, the implementation of a text messaging system for providers will be developed.*	
Role of partners	*Developing this model will require design and testing by subject-matter experts, ACO physicians to provide insight into All Payer Model, long-term and post-acute care providers, behavioral health providers, and the Local Health Improvement Coalition – the Healthy Anne Arundel Coalition will provide patient feedback to the model design. CRISP will provide technological expertise in registry design and development of the notification feature.*	
	PCPs: ***Y** or N* | Long term care: ***Y** or N* | Behavioral health: ***Y** or N* | Public health? ***Y** or N* | Community orgs? ***Y** or N* | Others:	
Infrastr./ workforce	*Additional support for data exchange among partners, including use of CRISP and sharing of patient care plans/profiles, will be required in order to create Universal Health Plan platform.*	Utilizes CRISP? **Y** or N | Address care plan sharing? **Y** or N
Alignment w/ All Payer Model	*The Universal Care Plan – once designed, tested, and refined – will have the potential to be propagated statewide by CRISP to support the goals and requirements of the All-Payer Model.*	
Population Health Strategy		
	CHNA and LHIC strategic plans identify health disparities, high burdens of chronic disease, tobacco use, and adult obesity as key areas of need for adolescents and adults. While full implementation of the model concept will result in community-wide adoption of the Universal Care Plan, coupled by secure and rapid messaging among providers, in order to continue these efforts at the population level the planning process will include review of	Focus on risk factors? ***Y** or N* | Align with LHIC? ***Y** or N*

	community resources, evidence-based care pathways, and payment methodologies so patients are given adequate support in the most appropriate setting. Focus on identifying strategies to reduce ED utilization for behavioral health-related conditions, diabetes-related conditions, and addressing tobacco use in adolescents will focus the population health strategy. Activities will include a conference reflecting on care coordination strategies from interdisciplinary teams, sharing of best practices, and collaboration between local behavioral health resources.		
Potential for Sustainability			
Value-based payment structures	*The Bay Area Transformation Partnership will determine how global budgets, accountable care arrangements, gain sharing, and other quality-based reimbursement programs will provide incentives/funding to sustain and expand these efforts across diverse providers of care in value-based systems. One opportunity is with CCM and TCM codes which have become reimbursable for services rendered by clinicians coordinating the care of high-risk individuals. These incentives create an environment that promotes adoption of care-coordination features and services and pairs with the alignment of quality incentives that reduce complications and preventable utilization of medical resources.*		
Population health funding	*Explore innovative uses of community-benefit dollars and the best means in which hospitals can support community based providers consistent with legal limitations and focused on effective risk management. Once established, the infrastructure created by this partnership is designed to support providers in better managing high-risk patients should be a relatively low cost means to manage risk. Thus, it will be marketable to providers that seek to undertake shared savings models, managed care payers, and the eventual evolution of gain sharing and bundling initiatives that are likely to be created in Maryland.*		
Proposed Process and List of Partners			
Proposed process	*Upon award a separate legal entity will be established to govern the proposal. The entity will establish a steering committee to engage the broader community. CRISP will provide technical support for the registry development and Universal Care Plan notification features. Work in both population area and Universal Care Plan will occur simultaneously and stakeholders and partners will be asked to share insight through meetings that are pertinent to the population served and area of expertise. List of Steering Committee members found on Page 13-14.*		Includes list of partners? ***Y** or N*
Budget			
	Includes line item budget? ***Y** or N*	Includes narrative justifying costs? ***Y** or N*	Funds are for planning (not implementation)? ***Y** or N*

Regional Partnerships – Application Summary

<table>
<tr><td>Applicant/ Hospitals</td><td colspan="6">NexusMontgomery: Holy Cross Health (lead entity), Suburban Hospital, & Primary Care Coordination of Montgomery County</td></tr>
<tr><td colspan="7">Scope and Target Population</td></tr>
<tr><td>Region</td><td colspan="5">Montgomery County, 16 zip codes including Rockville and Gaithersburg.</td><td>250,000 population?
Y or N</td></tr>
<tr><td>Health Needs</td><td colspan="5">Focus on seniors 65+, there are approximately 86,080 in the catchment area. Approximately 5,600 of them live in assisted living communities. This will include addressing those who are chronically ill and at high risk as well as those who have chronic disease but are under control. Per HSCRC Chronic Conditions-High Utilizer Report for Montgomery County key disease are cardiovascular disease and diabetes as well as mental health and mood disorder patients.</td><td>References CHNA?
Y or N</td></tr>
<tr><td>Target Population</td><td colspan="5">Focus on Medicare beneficiaries and dual eligible individuals. The first priority population will be Medicare and dual eligible individuals residing in senior housing and senior care facilities within the target geographic region. Once modeled appropriately, scaling the program to low-income and other housing communities will be next followed by applying the model to all payers. Focus on seniors because 65+ are set to make up 15% of Montgomery County population by 2020.</td><td>Initial focus on Medicare or duals?
Y or N</td></tr>
<tr><td colspan="7">Model Concept</td></tr>
<tr><td>Services/ Intervention</td><td colspan="6">The model concept creates a centralized, collaborative function that we refer to as a “switching station” will identify and triage individuals to the appropriate medical and social interventions to improve disease management for the chronically ill (including self-management), and ultimately to reduce inappropriate use of hospital services. Payer engagement during the planning process will facilitate easier potential integration of the model into existing systems.

Model embeds a nurse/community health worker team (“the team”) within senior living communities to serve multiple roles and be responsive to each communities needs based on data. Role of the team is to determine community needs, conduct health risk assessments with individual patients, offer nursing interventions, connect to primary care and payer care management agencies, and connect to appropriate services and service providers. This stage will design a common health risk assessment tool, predictive modeling tool, and strategies for individualized engagement and care planning. Additional development of a shared inventory of programs, interventions, and resources identified specifically by and for the senior community in order to improve information sharing and technology capacity to share care plans between providers and insurers and identify gaps in services. Design of IT infrastructure utilizing CRISP to secure patient data via opt-in care management panels, including ENS notification, site-specific reporting on particular characteristics (admissions, diagnosis, falls, readmission, etc.), and the ability to query the system. Finally the model will examine method for measuring health and functional status, cost, and patient experience.</td></tr>
<tr><td rowspan="2">Role of partners</td><td colspan="6">During the planning period, the project partners will focus on two major areas. They will define the governance, learning, and execution infrastructure needed to achieve NexusMontgomery goals. In addition, they will create processes to manage and measure progress (and adapt) for a portfolio of system-level projects (interventions. See Page 16-18.</td></tr>
<tr><td>PCPs:
Y or N</td><td>Long term care:
Y or N</td><td>Behavioral health:
Y or N</td><td>Public health?
Y or N</td><td>Community orgs?
Y or N</td><td>Others: list</td></tr>
<tr><td>Infrastr./ workforce</td><td colspan="4">Expertise consultancy needed in areas of financial models, Medicare data analytics, and community-based infrastructure.
High touch nurse/community health worker team to link seniors to resources and service and provide “switching station” capacity. Governance will include one entity as a convener.</td><td>Utilizes CRISP?
Y or N</td><td>Address care plan sharing?
Y or N</td></tr>
</table>

Regional Partnerships – Application Summary

Alignment w/ All Payer Model	*Intention of the planning process is to align with the All Payer Model and determine a fiscally sustainable model that returns savings to the overall health system in order to meet All Payer Model goals. Model focuses is on reducing total cost of care for Medicare patients, scalable for all-payers and could be utilized in other Maryland jurisdictions, and the partnership of NexusMontgomery is committed to planning and implementation as a learning process to be conducted in partnership with HSCRC and other regional partnerships.*		
Population Health Strategy			
	Aim is to maintain health status for beneficiaries who are healthy and have chronic conditions that are already under control and maintain attrition for those moving out of critical care into coordinated care by identifying and linking primary (food, transport, etc.), secondary (screening), and tertiary (health coaching) prevention strategies (See page 11 for detail). Partnership will address social determinates of health through Minority Community Empowerment Project and deployment of CHWs and already existing programs will be enhances, expanded, and amended to better promote protective factors and reduce risk factors for the target population. Population health services are embedded into the "switching stations."	Focus on risk factors? ***Y** or N*	Align with LHIC? ***Y** or N*
Potential for Sustainability			
Value-based payment structures	*Financial modeling, intervention design and retooling intended to prioritize fiscally sustainable models that return savings to the overall health system. The modeling process will develop a payment model in collaboration with all partners (hospital, clinic, community service agencies, and local health department) by exploring potential payment mechanisms to reduce overall total cost of care for the target population, achieve measurable health outcomes, be functional for delivery entities (hospital, senior living, etc.), and be adaptable to other target populations.* *Build in pay for performance for service providers to ensure quality of care. Intend to integrate new revenue streams, such as Medicare's billing codes for care management, into financial model and align the financial model with global cost reduction incentives within Maryland's hospital budget model. Expect to recover initial investments over a 3 year time horizon.*		
Population health funding	*Payment model intended to compensate each part of delivery care team (hospitals, senior living facilities, primary care, community-based services, and local health department) to be compensated for efforts in patient-centered coordination approach. First priority of payment model ensures quality care for patients, next design a system that requires minimum "new money" entering system, and hold financial model accountable via performance measures for fiscal and clinical outcome (see Page 15).*		
Proposed Process and List of Partners			
Proposed process	*Primary Care Coalition (PCC) will facilitate planning process by convening the core team and Reactor Panels, providing support, producing an interim report for September 1st , and finalizing a final Regional Plan. The Core team will meet once per month to determine the model design. Between meetings subject matter experts, advice from Reactor Panels and participating health system and core team members will conduct analytical and planning work. Partner hospitals will produce the final model decisions. Rector Panels will provide input on senior living communities, service providers, senior engagement, and physician perspectives and needs to be considered in the model. Finally, individual meetings with community partners will provide design and service delivery insight. See Table 3 for the Work Plan.*		Includes list of partners? ***Y** or N*
Budget			
	Includes line item budget? ***Y** or N*	Includes narrative justifying costs? ***Y** or N*	Funds are for planning (not implementation)? ***Y** or N*

Regional Partnerships – Application Summary

Applicant/ Hospitals	*Howard County/Howard County General Hospital*	
Scope and Target Population		
Region	*25 zipcodes in Howard County* *Population: 309,284*	250,000 population? ***Y** or N*
Health Needs	*Heart disease, stroke, cancer, COPD, diabetes, cancer, diabetes, angina, heart attack, stroke, high blood pressure, overweight, obese, requirement of home care*	References CHNA? ***Y** or N*
Target Population	*Medicare population, high-utilizers, individuals with multiple chronic conditions,*	Initial focus on Medicare or duals? ***Y** or N*

Model Concept							
Services/ Intervention	*(1) link residents in the community who may not be accessing the health system appropriately to primary care and other needed resources; (2) improve ease of transitions from various care settings; (3) address social needs; (4) improve access to behavioral and mental health services; (5) identify areas to improve medication education and reconciliation, pharmacy access, and medication compliance across points of care; (6) improve communication and transfers between primary and specialty care. See pages 8-10 for details.*						
Role of partners	*Howard County LHIC will most likely serve as the "integrator," who will be the central entity responsible for bringing together stakeholders from all involved organizations to address gaps in care, improve efficiency, and reduce duplication. Partners will provide representatives to participate in Core discussion and process improvement exercises or subcommittees and to collaborate to find sustainable solutions for financing these efforts and creating a potential model that is portable and could be replicated statewide. See pages 17-19 for detailed roles of partners. See page 19 for list of partners.*						
	PCPs: ***Y** or N*	Long term care: ***Y** or N*	Behavioral health: ***Y** or N*	Public health? ***Y** or N*	Community orgs? ***Y** or N*	Others: *Howard County Dept of Citizen Services/Office on Aging*	
Infrastr./ workforce	*Anticipated incremental staff is needed to manage, guide, and further this effort including a Program Manager, Project Manager, Process Improvement Facilitator, Data Analyst, and an Administrative Coordinator/Assistant. See budget narrative for detailed roles and responsibilities for these positions.* *Data exchange among partners will include use of CRISP, sharing of patient care plans/profiles, readmission analysis reports, high utilization reports, vital statistics, predictive modeling and intervention implementation. See pages 10-11 for details.*					Utilizes CRISP? **Y** or N	Address care plan sharing ? **Y** or N
Alignment w/ All Payer Model	*The proposal addresses how it fits under the All Payer Model. The proposed model will initially target Medicare high utilizer population by providing community-based care coordination, and each of the stakeholders will play an important role in improving health outcomes for these individuals. This approach is aligned with both county goals and the All Payer Model, which also targets utilizers enrolled in Medicare.*						

Population Health Strategy			
	The benefit of the proposed model is that it sets the stage for much larger, more permanent changes in the way health care is delivered across a region. Creating a system where information, incentives, and decision making are shared for the good of the overall population reduces duplication of efforts, decreases wasteful spending, improves patient outcomes, and improves patient satisfaction with care. Further, bringing leadership from many separate organizations to a common table provides an open communication	Focus on risk factors? ***Y** or N*	Align with LHIC? ***Y** or N*

	stream where all parties can voice barriers to care and concerns about specific areas of health, and divide responsibility for dealing with issues as they arise. Shared responsibility for health outcomes, in particular when shared financing models are in place, means less duplication, less wasteful spending, and improved accountability for patient outcomes. *The model will allow for much broader collaborations to take place around other areas identified for improvement by the LHIC, such as obesity, access to care, and behavioral/mental health for the community. Having a centralized platform to bring together leadership and a data infrastructure in place to support these collaborations will facilitate discussions around other community priority issues. Creating a system like this ensures that the health needs of all residents, whether they fall into a low risk or high risk category, are being met, and helps to ensure that population level movements across risk levels trend in a positive direction*		
Potential for Sustainability			
Value-based payment structures	*Proposed value-based payment structures such as ACO metrics, patient engagement, waiver goals, shared savings, etc.*		
Population health funding	*Funding structures for regional health improvement strategy such as community benefit dollars, community health trusts, a per member per month (PMPM) participant fee for payers or employers)*		
Proposed Process and List of Partners			
Proposed process	*With the LHIC serving as the central integrator for the delivery model, the decision-making and planning process will also be located centrally within the LHIC. Six 'Cores' will be created targeting specific points of the health care experience or risk areas of the health system: 1) Community Link to Care, 2) Facility Transitions, 3) Social Needs, 4) Mental & Behavioral Health, 5) Pharmacy, and 6) Primary to Specialty Care. Each Core will consist of subject matter experts from the various stakeholders involved in each stage/area fostering collaboration across organizations, aligning goals and efforts, and creating more patient/family centric approaches to care delivery. See pages 16-20 for details about the decision-making model, description of 'cores', meeting schedules, and planning process.*		Includes list of partners? ***Y** or N*
Budget			
	Includes line item budget? ***Y** or N*	Includes narrative justifying costs? ***Y** or N*	Funds are for planning (not implementation)? ***Y** or N*

Regional Partnerships – Application Summary

<table>
<tr><td>Applicant/ Hospitals</td><td colspan="7">University of Maryland Upper Chesapeake Health & Union Hospital of Cecil County</td></tr>
<tr><td colspan="9">Scope and Target Population</td></tr>
<tr><td>Region</td><td colspan="6">All zipcodes in Harford and Cecil as well as 21087 and 21156 in Baltimore County.

Population: 348,000+</td><td>250,000 population? Y or N</td></tr>
<tr><td>Health Needs</td><td colspan="6">Coronary artery disease, hypertension, mood disorders and other mental health issues, substance abuse</td><td>References CHNA? Y or N</td></tr>
<tr><td>Target Population</td><td colspan="6">Medicare and Medicaid patients that are high utilizers of hospital services with chronic conditions, including cardiac, endocrine, and behavioral health issues.</td><td>Initial focus on Medicare or duals? Y or N</td></tr>
<tr><td colspan="9">Model Concept</td></tr>
<tr><td>Services/ Intervention</td><td colspan="8">In-home evaluation, care coordination, telehealth monitoring, multidisciplinary clinics , care plan sharing across the continuum to aid in decision making. Pre-intervention, intervention, and post-intervention coordination (see pages. 3-6 for details). Emphasis will shift overtime to seek out patients before they reach the high utilizer threshold, including referrals from ambulatory practices, EMS, and government agencies.</td></tr>
<tr><td>Role of partners</td><td colspan="8">See page 13 for list of partners.

Physicians will identify patients by examining chronic condition information and hospital utilization metrics. Partners will use develop new or utilize existing tools to help create a common understanding of the patient needs and target the appropriate intervention. Administrative staff will manage enrollment in the program and ensure that stakeholders across the continuum are aware of the patient's participation status in CRISP (patients have the ability to opt out). Emergency Medical Service teams, Private Ambulance companies, CHWs, or visiting nurses will conduct in-home visits for those high-risk patients who demonstrate a willingness to participate but lack the basic resources or support to get to multiple provider locations.

Data on the needs of high utilizers referred to the program will be captured and used as an important reference tool for the care team to track additional referrals and understand where the patient has already received care. This allows the Care Center team to work in a supportive manner with the other programs instead of in silos or even in competition.
<table>
<tr><td>PCPs: Y or N</td><td>Long term care: Y or N</td><td>Behavioral health: Y or N</td><td>Public health? Y or N</td><td>Community orgs? Y or N</td><td colspan="3">Other: Heart to Hart Ambulance, home health care, emergency medical services, and CRISP</td></tr>
</table></td></tr>
<tr><td>Infrastr./ workforce</td><td colspan="6">Staffing needed for model includes: project manager to serve as the administrative lead for the planning program, financial consultant, primary and specialty care providers such as cardiologists and endocrinologists for development of treatment algorithms and framework of multidisciplinary rounds, administrative personnel,

Data exchange among partners will be in the form of analysis and heat mapping that allow for interventions to be tailored based on highest impact. A regional patient registry for care coordination will also be developed. The team will require assistance from an IT vendor to develop options for consolidating this data. Among the factors for consideration are connectivity to CRISP.</td><td>Utilizes CRISP? Y or N</td><td>Address care plan sharing ? Y or N</td></tr>
<tr><td>Alignment w/ All Payer Model</td><td colspan="8">The proposal addresses how it fits under the All Payer Model and supports the patient-centered goals and metrics of reducing avoidable re-admissions and unnecessary ED utilization (see page 6). Care coordination is referenced.</td></tr>
</table>

Regional Partnerships – Application Summary

Population Health Strategy			
	Tools and interventions for existing or potential high utilizers and those with chronic conditions will be developed. An important secondary function will be to address the overall health needs of the region.	Focus on risk factors? ***Y** or N*	Align with LHIC? ***Y** or N*
Potential for Sustainability			
Value-based payment structures	*Funding through hospital avoidance (reduction in ED visits), Chronic Care Management Funding (alters the current provider incentive model that favors highly specialized procedural volume over the time-consuming, ongoing management of chronic conditions.*		
Population health funding	*Future establishment of an ACO*		
Proposed Process and List of Partners			
Proposed process	*The group will make decisions about the IT infrastructure needed to support a new delivery model and will also work on a communication and education plan for providers and community members. The first meeting will include a review of the project scope and charter documents. Education on the new Maryland All-Payer Model and the new Medicare Chronic Care Management Code will be provided.* *The team will be organized into subcommittees that will work on the pre-intervention tools, the intervention workflow, and the financial model. Teams will meet twice per month, once as a workgroup and once as the entire team, to enable information sharing. Meetings will be recorded via web conferencing and an online forum for exchanging project information will be created.*		Includes list of partners? ***Y** or N*
Budget			
	Includes line item budget? ***Y** or N*	Includes narrative justifying costs? ***Y** or N*	Funds are for planning (not implementation)? ***Y** or N*

Regional Partnerships – Application Summary

Applicant/ Hospitals	*Southern Maryland Regional Coalition (Doctors Community Hospital, Ft. Washington Medical Center, Laurel Regional Hospital, Prince George's Hospital Center, Bowie Medical Center, and Calvert Memorial Hospital*						
Scope and Target Population							
Region	*Prince George's and Calvert counties (78 zipcodes)*						250,000 population? ***Y** or N*
Health Needs	*Obesity, diabetes, poor nutrition, physical inactivity, smoking, hypertension, cardiovascular disease, asthma, respiratory disorders, stroke, and selected cancers.*						References CHNA? ***Y** or N*
Target Population	*High utilizers, Medicare patients, patients with multiple chronic conditions, frail elders, dual-eligible citizens with high resource needs.*						Initial focus on Medicare or duals? ***Y** or N*
Model Concept							
Services/ Intervention	*Chronic care management, diabetes self-management program, direct to patient efforts to improve HbA1c, continued evaluation of insurance coverage under ACA to ensure patients have chosen he right plans for their disease state, identification of social service programs not fully utilized by residents, identification of ways to pay the hospitals reduction in ED utilization, redesign of physician practices to improve care coordination, medical home model expansion*						
Role of partners	*See Appendix L for list of partners and Appendix I for role of partners.*						
	PCPs: ***Y** or N*	Long term care: Y or **N (not current partner but nursing homes and hospices are on list of future invitees. See pages 92-95)**	Behavioral health: Y or **N**	Public health? **Y** or N	Community orgs? **Y** or N	Others: *post-acute providers (Genesis, DaVita, Radiology group, Cancer Treatment), faith-based organizations*	
Infrastr./ workforce	*Staffing needed for model includes a facilitator/project leader, CHWs, and consultants.* *For infrastructure, see Appendix I.* *Data exchange among partners, including use of CRISP and sharing of patient care plans/profiles for the purpose of reducing costs and increasing the quality of services provided in PG and Calvert counties.*					Utilizes CRISP? **Y** or N	Address care plan sharing ? **Y** or N
Alignment w/ All Payer Model	*The proposal addresses how the Transition Care Coordination model supports and fits under the All Payer Model (see page 12). Care coordination is referenced but HSCRC workgroups are not.*						
Population Health Strategy							
	During the first year, the Coalition will focus on Medicare and dually eligible patients with multiple chronic conditions demanding high resource expenditures. The intent of the model is to codify what works and then replicate its design elements to identify interventions and best practices for					Focus on risk factors? ***Y** or N*	Align with LHIC? ***Y** or N*

	other disease states, counties, and insurers with the goal to continue to meet the Triple Aim. *Through the planning process, the Coalition will design, study, and be ready to implement a regional Transitional Care Coordination model that will prevent additional utilization from high-risk patients and avoid future utilization from risking-risk patients.*		
Potential for Sustainability			
Value-based payment structures	*Not explicitly stated.* *Anticipated flow of funds – see diagram on page 20. "The use of chronic care management model fees and community benefits will continue to be a source of revenue for the Coalition; however, when readmissions and PQIs are reduced, this source opportunity sharing may not exist, so the Coalition will have to continue to evaluate sources of revenue for the long-term."* *The Coalition requests that HSCRC/DHMH devote funding for additional data and technical support during and after the Design Phase to ensure continued engagement.*		
Population health funding	*Community benefit dollars from hospitals' programs*		
Proposed Process and List of Partners			
Proposed process	*The Coalition will start with clear objectives for the Pilot program, discuss their plan with physicians and post-acute service providers, take those results and develop the interventions and best practices for short-term and long-term goals, and identify the realistic revenue sources.* *During the Design Phase, the Coalition expects to meet monthly from May to July 2015, and bi-weekly from August to November 2015. A detailed, monthly Gantt chart is on page 23.*		Includes list of partners? ***Y*** *or N*
Budget			
	Includes line item budget? ***Y*** *or N*	Includes narrative justifying costs? ***Y*** *or N*	Funds are for planning (not implementation)? ***Y*** *or N*

Draft Recommendations on Continued Financial Support for the Maryland Patient Safety Center for FY 2016

May 6, 2015

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

This is a Draft Recommendation to be considered at the May 13, 2015 HSCRC public meeting. Any comments on this draft must be emailed to Dianne Feeney at Dianne.feeney@maryland.gov by COB on May 27, 2015.

Draft Recommendations on Continued Financial Support of the Maryland Patient Safety Center for FY 2016

Introduction

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 MPSC in meeting its goals as well as an estimate of expected expenditures and revenues for the upcoming fiscal year. Based on these presentations, staff has evaluated the reasonableness of the budget items presented and made recommendations to the Commission.

Over the past 11 years, the rates of eight Maryland hospitals were increased by the following amounts in total, and funds have been 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

In April 2015, the HSCRC received the attached request for continued financial support of the MPSC through hospital rates in FY 2016 (Appendix I). The MPSC is requesting a total of $972,000 in funding support from HSCRC, a decrease of 10% from the previous year.

Background

The 2001 General Assembly passed the "Patients' Safety Act of 2001," charging the Maryland Health Care Commission (MHCC), in consultation with the 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 a Maryland Patient Safety Center (MPSC or Center) as one approach to improving 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.

The operators of the MPSC were initially chosen through the State of Maryland's Request for Proposals (RFP) procurement process. At the request of MHCC, the two respondents to the RFP to operate the MPSC, the Maryland Hospital Association (MHA) and the Delmarva Foundation for Medical Care (Delmarva), agreed to collaborate in their efforts. The RFP was subsequently awarded jointly to the two organizations for a three-year period (January 2004 through December 2006). The RFP authorized two one-year extensions beyond the first three years of the pilot project. MHCC extended the contract for two years ending December 31, 2009. The Center was then reorganized as an entity independent from MHA and the Delmarva Foundation and subsequently re-designated by MHCC as the state's patient safety center for two additional five year periods; the Center's current designation extends through December 2019.

Assessment

Strategic Partnerships

The MPSC has established and continues to build new strategic partnerships with key organizations to achieve its mission and goals. The organizations with which they indicate they are working closely and anticipate continuing to do so for FY 2016 and beyond include private and public agencies and organizations working across the continuum of care to improve patient safety (Appendix I).

Maryland Patient Safety Center Activities, Accomplishments, and Outcomes

The MPSC's core activities for FY 2015, including their current status and summaries of provider participation, are listed in in Figure 1 below.

Figure 1. MPSC FY 2015 Core Activities

FY 2015 Activity	Status/Participation
Maryland Hospital Hand Hygiene Collaborative	Collaborative Ended in October 2014
Safe from Falls Long Term Care	21 LTCs participating; will continue into FY16
Improving Sepsis Survival	Cohort I 10 hospitals; Cohort II 11 hospitals; will Continue into FY16
Perinatal/Neonatal Learning Network	33 Maryland hospitals; 1 DC hospital; 1 Northern VA hospital-learning network will convert to two collaboratives

FY 2015 Activity	Status/Participation
Patient Safety Certification	Pilots in 3 organization near completion; once data and evaluation complete will begin to market to organizations in FY 16
Caring for the Caregiver	Pilots in 2 organizations near completion
Adverse Event Reporting	Contracting with Quantros (vendor) to map data from the various hospital systems to the MPSC. Recruiting hospitals to test the mapping.

The highlights of the Center's key accomplishments for FY 2015, more fully outlined in Appendix I, include:

- Initiated pilots of the Patient Safety Certification program in two hospitals and one long-term care facility
- Initiated pilots of the Caring for the Caregiver program in two hospitals
- Focused education on OB hemorrhage preparation contributing to a decreased rate of OB hemorrhage deaths
- Established a cooperative relationship with new Quality Improvement Organization/Network, VHQC
- Maryland Hospital Hand Hygiene Collaborative completed with twelve consecutive months at a goal of 90% or greater aggregate compliance
- Kicked off the innovative Improving Sepsis Survival Collaborative focused on decreasing mortality rates for severe sepsis and septic shock
- Decreased falls with injury in participating long-term care facilities by 27.3% (July 2014 - February 2015)

As illustrated in Figure 2 below, for FY 2016, the Center anticipates it will complete work in some areas (e.g., LTC Safe From Falls Collaborative), continue several of the projects from FY 2015 (e.g., Caring for the Caregiver Project, Patient Safety Certification, Improving Sepsis Survival Collaborative), and begin work on new projects important for patient safety in the State (e.g., Reduction of First Time C Sections and Standardizing Care and Treatment of Neonatal Abstinence Syndrome).

Figure 2. MPSC FY 2016 Projects

FY 2016 Activity	Status/Expected Participation Target
Safe from Falls Long Term Care	21 LTCs participating; collaborative to end December 2015
Improving Sepsis Survival	Cohort I 10 hospitals- ends June 2016; Cohort II 11 hospitals- ends May 2017
Hand Hygiene LTC	Recruiting has begun and hope to recruit at least 50 LTCs to participate

Reducing First time C-Sections	Recruitment to begin in July 2015 and hoping to have all 33 Maryland birthing hospitals
Standardizing Care and Treatment of Neonatal Abstinence Syndrome	Recruitment to begin in July 2015. Of the 33 birthing hospitals 15 are Level III NICUs- hope to at minimum have all 15 and at least a few Level II NICUs.
Clean Environment	Collaborative recruitment to start July 2015. Goal is for 40 hospitals, 20 LTCs
Patient Safety Certification	Once results and evaluation complete, plan to use data to market to organizations- expect to have data in early fall 2015
Caring for the Caregiver	Pilots in 2 organizations near completion; plan to begin marketing for implementation at the start of July 2015
Adverse Event Reporting	Contracting with Quantros (vendor) to map data from the various hospital systems to the MPSC. Continue to recruit hospital participants.

FY 2016 Projected Budget

MPSC continued its efforts to work with its partners to secure program-specific funding for FY 2016, and estimates the amounts they will secure for FY 2016 in Figure 3 below.

Figure 3. Proposed Revenue and Expenses

Maryland Patient Safety Center
FY 16 Budget

REVENUE	FY 2015 Budget	FY 2016 Budget
Cash Contributions from MHA/Delmarva	200,000	100,000
Cash Contributions from Hospitals	151,350	75,000
Cash Contributions for Long-term Care	25,000	25,000
HSCRC Funding	1,080,000	972,000
Membership Dues	247,500	275,000
Education Session Revenue	35,000	22,000
Conference Registrations-Annual MedSafe Conference	7,000	3,000
Conference Registrations-Annual Patient Safety Conference	157,500	130,000
Sponsorships	128,000	130,000
Program Sales	50,000	60,000
DHMH Grant	250,000	200,000
Other Grants/Contributions	135,000	100,000
Total Revenue	**2,466,350**	**2,092,000**

EXPENSES	FY 2015 MPSC	FY 2015 Consultants	FY 2015 Total	FY 2016 MPSC	FY 2016 Consultants	FY 2016 Total
Administration	538,000		538,000	551,250		551,250
Outpatient Dialysis (previously committed)	-		-	-		-
Programs			-			-
Education Sessions		98,000	98,000		78,000	78,000
Annual Patient Safety Conference		400,000	400,000		360,000	360,000
MEDSAFE Conference		55,000	55,000		55,000	55,000
Caring for HC	67,500	130,000	197,500	57,000	60,000	117,000
Patient/Family Centered Care	-	-	-	-	-	-
Safety Initiatives-Perinatal/Neonatal	250,000	-	250,000	221,300	-	221,300
Safety Initiatives-Hand Hygiene	87,500	7,500	95,000	52,050	15,000	67,050
Safety Initiatives-Safe from Falls	52,250	250	52,500	24,600	500	25,100
Safety Initiatives-Adverse Event Reporting	21,000	84,000	105,000	15,600	85,000	100,600
Patient Safety Certification	115,500	285,000	400,500	117,400	52,000	169,400
Sepsis	169,000	17,500	186,500	71,500	87,900	159,400
Clean Environment	-	-	-	81,600	105,000	186,600
Total Expenses	**1,300,750**	**1,077,250**	**2,378,000**	**1,192,300**	**898,400**	**2,090,700**
Net Income (Loss)			**88,350**			**1,300**

MPSC Return on Investment

As was noted in the last several Commission recommendations, the All-Payer System has provided funding support for the Maryland Patient Safety Center with the expectation that there would be both short-term and long-term reductions in hospital costs – particularly as a result of reduced mortality rates, lengths of stays, patient acuity, and malpractice insurance costs. However, these results are difficult to quantify and the Center has been able to provide limited evidence that the programs have resulted in cost savings, and only to the extent that these savings relate to individual programs and for limited periods of time.

MPSC implemented its Hand Hygiene and Improving Sepsis Survival programs to target safety improvement of hospital infections. To monitor progress on potentially related indicators, the MPSC analyzes the data self-reported by hospitals (Appendix I), as well as the data provided by HSCRC on infection-related Potentially Preventable Complications (PPC) used in the Maryland Hospital Acquired Conditions (MHAC) program, and inpatient mortality related to sepsis. HSCRC notes that there has been an almost 1% reduction in inpatient mortality statewide for patients with sepsis from CY 2012 to CY

2014 (from 29.7% to 28.8%). In addition, there have been significant reductions in ten out of twelve infection-related PPCs as illustrated in Figure 4 from CY 2013 to CY 2014.

Figure 4. Reduction in Infection PPCs, CY 2013 to CY 2014

PPC NUMBER	PPC DESCRIPTION	RISK ADJUSTED RATE CY2013	RISK ADJUSTED RATE CY2014	IMPROVEMENT PERFORMANCE
5	Pneumonia & Other Lung Infections	1.2570	0.9149	-27.22%
6	Aspiration Pneumonia	1.2573	1.0515	-16.37%
33	Cellulitis	1.2583	0.9845	-21.76%
34	Moderate Infectious	1.3159	1.1925	-9.38%
35	Septicemia & Severe Infections	1.2555	0.8969	-28.56%
37	Post-Operative Infection & Deep Wound Disruption Without Procedure	1.2628	1.0859	-14.01%
38	Post-Operative Wound Infection & Deep Wound Disruption with Procedure	1.1988	0.8004	-33.24%
52	Except Vascular Infection	1.2619	0.9359	-25.83%
53	Catheters & Infusions	1.2770	1.0863	-14.94%
54	Infections due to Central Venous Catheters	1.2948	1.3111	1.25%
64	Other In-Hospital Adverse Events	1.2505	0.8899	-28.84%
66	Catheter-Related Urinary Tract Infection	1.2615	2.0611	63.39%

Based on the reports MPSC has provided and on analysis of HSCRC data, although direct cause and effect relationships can't be established, staff continues to believe that the programs of the MPSC are well conceived. The new sepsis prevention program aligns with the Commission's goals as it aspires to reduce infection complications and mortality. MPSC has continued to work diligently at establishing relationships with providers across the continuum of care in the past year, and to maintain sources of revenue, particularly in conference registration fees and in membership dues, demonstrating perceived value of the Center's provider customer base.

Recommendations

In light of the information presented above, staff provides the following draft recommendations on the MPSC funding support policy:

1. HSCRC provide funding support for the MPSC in FY 2016 through an increase in hospital rates in the amount of $972,000, a $108,000 (10%) reduction from FY 2015;
2. The MPSC continue to aggressively pursue other sources of revenue, including from other provider groups that benefit from the programs of the Center, to help support the Center into the future, and maintain reasonable cash reserves;
3. Going forward, HSCRC continue to decrease the dollar amount of support by a minimum of 10% per year, or a greater amount contingent upon:
    a. how well the MPSC initiatives fit into and line up with a broader statewide plan and activities for patient safety; and
    b. whether new MPSC revenues should offset HSCRC funding support.

Appendix I: MPSC Report to HSCRC on FY 2015 Results and FY 2016 Program Plan and Budget Request

Maryland Patient Safety Center
FY 2016 Program Plan & Budget

Presented to the Health Services Cost Review Commission

March 2015

Creation of the Maryland Patient Safety Center

- In 2001, the Maryland General Assembly passed the "Patients' Safety Act of 2001" charging the Maryland Health Care Commission (MHCC) with studying the feasibility of developing a system for reducing the incidence of preventable adverse medical events in Maryland
- In 2003, legislation was passed establishing the Maryland Patient Safety Center
- In 2004, the MHCC solicited proposals from organizations to create the Maryland Patient Safety Center. They approved a joint proposal from the Maryland Hospital Association and the Delmarva Foundation
- In 2004, designated by the MHCC as the state's Patient Safety Organization through 2009. Re-designated in 2014 through 2019
- In 2007, the Maryland Patient Safety Center was incorporated as a 501(c)(3) organization
- In 2008, listed as a federal Patient Safety organization and relisted through 2017

Appendix I: MPSC Report to HSCRC on FY 2015 Results and FY 2016 Program Plan and Budget Request

Maryland Patient Safety Center Board of Directors

- **Susan Glover**, Chair, SVP, Chief Quality Officer Adventist HealthCare
- **Gerald Abrams**, Director
  Abrams, Foster Nolo & Williams, PA
- **John Astle**, Senator, District 30 (D)
  Maryland State Senate
- **Carmella Coyle**, President & CEO
  Maryland Hospital Association
- **Joseph DeMattos, Jr.**, MA, President
  Health Facilities Association of Maryland
- **Barbara Epke**, Vice President
  LifeBridge Health
- **E. Robert Ferdi**, PharmD, FASHP, FMSQ
  Medication Safety Officer
  Johns Hopkins Hospital
- **Eugene Friedman**, Former Corporate Counsel
  1st Mariner Bank
- **Chris Goeschel**, ScD, MPA, MPS, RN
  Corporate Assistant Vice President, Quality
  MedStar Health
- **Warren Green**
  Former President and CEO
  LifeBridge Health
- **William Holman**, President & CEO
  Charles County Nursing & Rehabilitation Center
- **David Homoky**, President
  CRISP
- **Andrea M. Hyatt**, President
  Maryland Ambulatory Surgery Association
- **Robert Imhoff**, President & CEO
  Maryland Patient Safety Center
- **Joanne Kaufman**, Program / Information Specialist
  Institute for Patient Family-Centered Care
- **Lawrence Linder, MD, FACEP, FAAEM**
  Senior Vice President and CMO
  Baltimore Washington Medical Center
- **David Meyer, MD**
  Corporate Vice President of Quality and safety
  MedStar Health
- **Sherry Perkins**, PhD, RN, COO and CNO
  Anne Arundel Medical Center
- **Steve Ports**, Principal Deputy Director
  Health Services Cost Review Commission
- **James R. Rost**, MD, Medical Director, NICU and Medical Director of Patient Safety
  Shady Grove Adventist Hospital
- **Fredia S. Wadley**, MD, President & CEO
  Quality Health Strategies
- **Kathleen White**, PhD, RN, NEA-BC, FAAN,
  Associate Professor,
  The Johns Hopkins University School of Nursing

Maryland Patient Safety Center

Strategic Priorities

Vision - *Who we are*
A center of patient safety innovation, convening providers of care to accelerate our understanding of, and implement evidence–based solutions for, preventing avoidable harm

Mission – *Why we exist*
Making healthcare in Maryland the safest in the nation

Goals - *What will we accomplish*
- 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

Strategic Areas of Focus - *What we will do*

- Prevent Harm and Demonstrate the Value of Safety
- Spread Excellence
- Lead Innovation in New Areas of Safety Improvement

Maryland Patient Safety Center

Appendix I: MPSC Report to HSCRC on FY 2015 Results and FY 2016 Program Plan and Budget Request

Strategic Partners

- **Courtemanche & Associates** - An interdisciplinary healthcare firm that serves healthcare organizations to improve care through compliance with regulatory and accreditation requirements
- **Quantros** - National vendor of adverse event reporting services
- **VHQC** – Maryland state QIO
- **Health Facilities Association of Maryland** - A leader and advocate for Maryland's long-term care provider community
- **Institute for Safe Medication Practices** – The leading national organization educating others about safe medication practices
- **Maryland Healthcare Education Institute** – The educational affiliate of the Maryland Hospital Association
- **Maryland Hospital Association** - The advocate for Maryland's hospitals, health systems, communities, and patients before legislative and regulatory bodies
- **LifeSpan Network** - The largest senior care provider association in the Mid-Atlantic, representing more than 300 senior care provider organizations in Maryland and the District of Columbia
- **Maryland Ambulatory Surgical Association** - The state membership association that represents ambulatory surgery centers (ASCs) and provides advocacy and resources to assist ASCs in delivering high quality, cost-effective ambulatory surgery to the patients they serve
- **Johns Hopkins School of Medicine / The Armstrong Institute for Patient Safety and Quality** – The patient safety center within Johns Hopkins Medicine

Maryland Patient Safety Center

FY15 Highlights

- Initiated pilots of the Patient Safety Certification program in two hospitals and one long term care facility
- Initiated pilots of the Caring for the Caregiver program in two hospitals
- Focused education on OB hemorrhage preparation contributing to a decreased rate of OB hemorrhage deaths
- Established a cooperative relationship with new QIO, VHQC
- Maryland Hospital Hand Hygiene Collaborative completed with twelve consecutive months at goal of 90% or greater aggregate compliance
- Kicked off the innovative Improving Sepsis Survival Collaborative focused on decreasing mortality rates for severe sepsis and septic shock
- Decreased falls with injury in participating long term care facilities by 27.3 % (July 2014 - February 2015)

Maryland Patient Safety Center

FY16 Initiatives: Education Programs

- Educational programming according to needs of members & marketplace.
- Objectives:
  - Educate providers regarding pertinent patient safety/medication related issues
  - Expand geographic and participant reach of the Center
  - Increase participation levels
  - Increase revenue generation
  - Establish Center as recognized educational resource
- Vendor – Maryland Healthcare Education Institute

FY16 Initiatives: Conferences

- The Annual Maryland Patient Safety Center Conference is the Center's signature event; providing awareness, education and the exchange of best practice solutions to a broad-based audience that goes well beyond the Center's usual participants. The annual Medication Safety Conference has become a premier event for the Center concentrating on the prevention of medication errors with an emphasis on processes and technology.
- Objectives:
  - Educate providers regarding pertinent patient safety / medication related issues
  - Expand geographic and participant reach of the Center
  - Increase participation levels
  - Increase revenue generation
  - Establish Center as recognized educational resource
- Vendor: Maryland Healthcare Education Institute

FY16 Initiatives: Patient Safety Certification

- The certification will utilize both traditional classroom instruction and practical application methodology incorporating positive psychology, using the Patient Safety Officer (PSO) as the focal point. This is an institutional certification.
- Objectives:
  - Ensure competency level of PSO
  - Identify and solve actual patient safety issues
  - Engrain "culture of patient safety"
  - Establish patient safety as an institutional focus
  - Develop teamwork approach to solving patient safety issues
  - Empower participating staff to be patient safety leaders
  - Provide real and measurable impact
- Year two funding focuses on evaluation of pilot sites, implementation of positive psychology module and post-pilot curriculum refinements
- Vendor: Courtemanche & Associates

FY16 Initiatives: Caring for the Caregiver

- Provides timely support to healthcare employees who encounter stressful, patient-related events related to the "second victim" situation.
- Objectives:
  - Reduce the number of harmful patient safety incidents
  - Increase patient satisfaction scores
  - Improve worker satisfaction
  - Increase worker retention rates
- Year two funding focuses on evaluation and development of the "peer to peer" training module
- Vendor: Johns Hopkins University School of Medicine / Armstrong Institute for Patient Safety and Quality

FY 16 Initiatives: Hand Hygiene

- Continues work of Maryland Hospital Hand Hygiene Initiative
- Applies successes and lessons learned to long-term care community
- Objectives:
  - Reduction of facility acquired infections leading to increased length of stay and hospital readmissions
- Twenty-four (24) month collaborative ; recruitment April / May of 2015
- Collaboration with VHQC

FY 16 Initiatives: Clean Environment

- Builds upon accomplishments of Maryland Hospital Hand Hygiene Initiative
- Reduction of surface contamination in high touch areas of facility
- Applicable to hospitals, LTC, ASC's and Outpatient facilities
- Objectives:

  Reduce facility acquired infection rates

Vendor: Clean*Health* Environmental, LLC
MDH2E

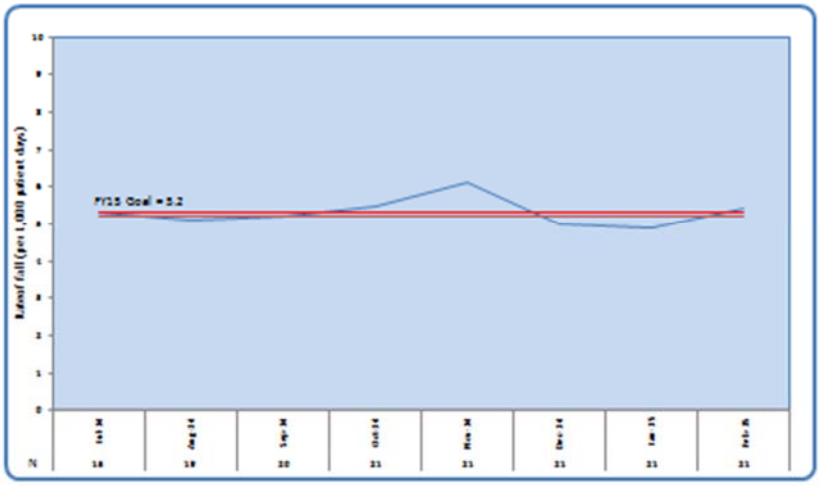
Appendix I: MPSC Report to HSCRC on FY 2015 Results and FY 2016 Program Plan and Budget Request

FY16 Initiatives: Safety Initiatives

- Reduction of Falls and Falls with Injury
  - Long-term care with a focus on rate of falls with injury
- Hand Hygiene Initiative
  - Transferring acute care model to ED specific and long-term care in order to reduce preventable infections through better hand hygiene compliance
- Perinatal/Neonatal Learning Network
  - Reduce first time C-sections in singleton, vertex nulliparous women
  - Standardizing care and treatment of neonatal abstinence syndrome
- Sepsis Prevention
  - Reduce mortality due to sepsis through early identification and treatment

SAFE from FALLS – Long Term Care

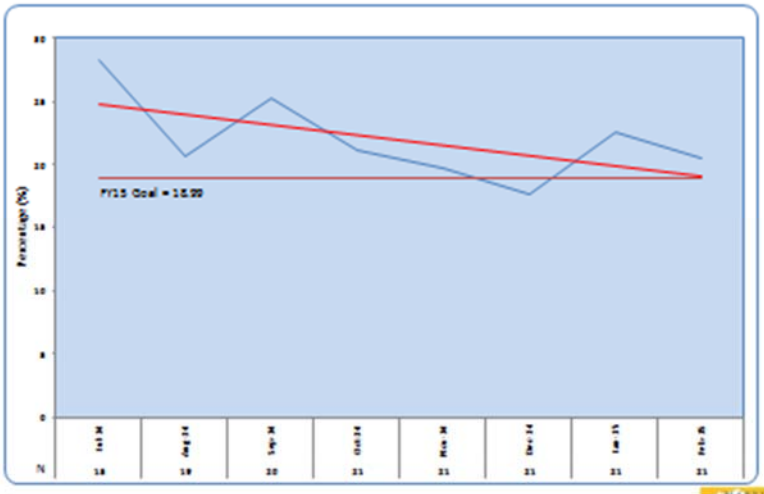
Long Term Care Rate of Falls in Participating Facilities
July 2014 to February 2015



Appendix I: MPSC Report to HSCRC on FY 2015 Results and FY 2016 Program Plan and Budget Request

SAFE from FALLS – Long Term Care

Rate of Falls with Injury in Participating Facilities
July 2014 to February 2015



Maryland Patient Safety Center

Hand Hygiene

Maryland Hospital Hand Hygiene Aggregate Compliance Rate
October 2010 to October 2014

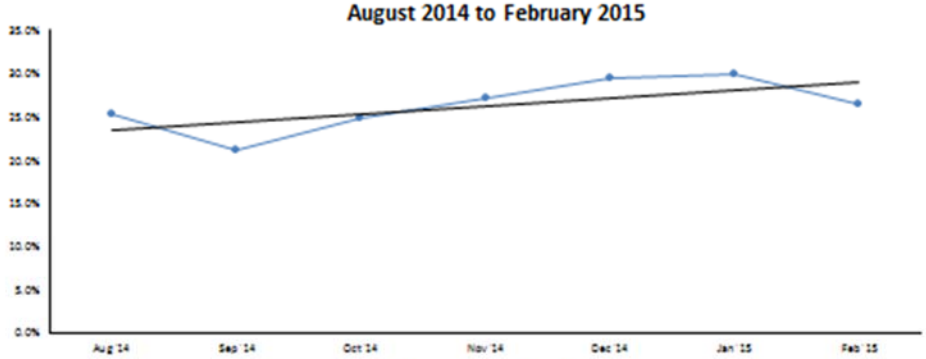
*As of January 1, 2015 Exit and/or Entry HH compliance rate

Maryland Patient Safety Center

Appendix I: MPSC Report to HSCRC on FY 2015 Results and FY 2016 Program Plan and Budget Request

Sepsis

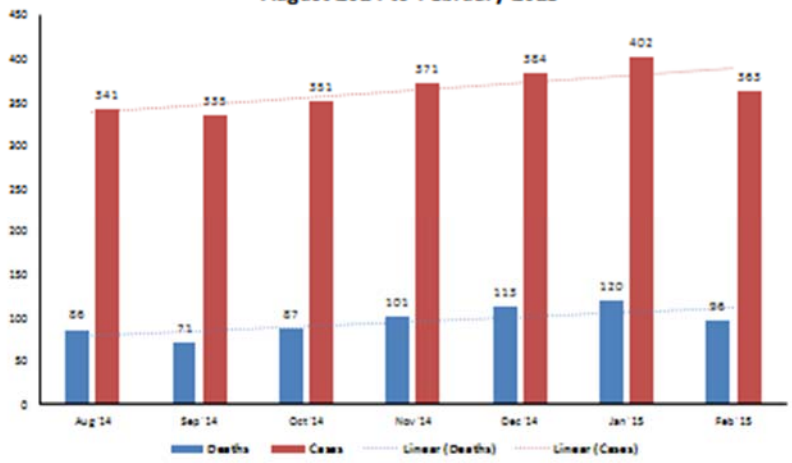
Improving Sepsis Survival Initiative
August 2014 to February 2015



Month-Year	Total Number of Sepsis Patients who expired	Total Number of Sepsis Patients	Sepsis Mortality
Aug-14	86	341	25.22%
Sep-14	71	335	21.19%
Oct-14	87	351	24.79%
Nov-14	101	371	27.22%
Dec-14	115	384	29.45%
Jan-15	120	402	29.85%
Feb-15	96	365	26.45%

Sepsis

Improving Sepsis Survival Initiative
August 2014 to February 2015*



Appendix I: MPSC Report to HSCRC on FY 2015 Results and FY 2016 Program Plan and Budget Request

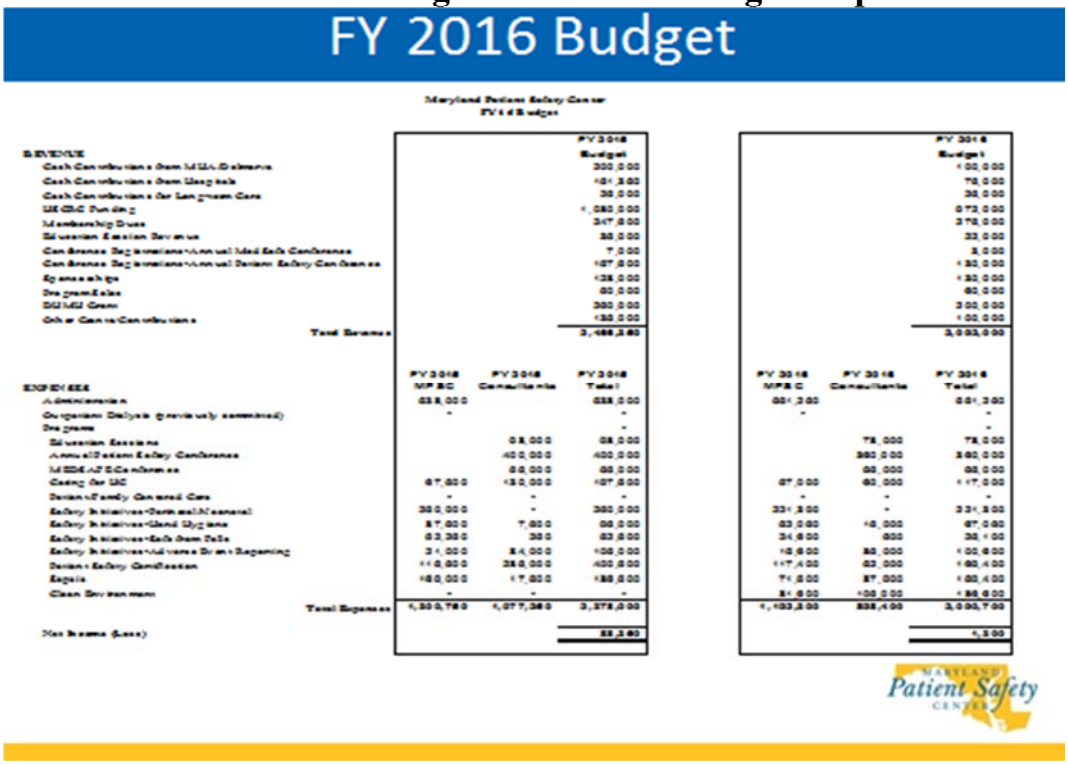
Participants

- Hand Hygiene- 44 Acute Care hospitals and 1 specialty hospital
- Safe from Falls Long Term Care- 21 facilities
- Perinatal/Neonatal Learning Network- all 33 birthing hospitals
- Improving Sepsis Survival- Cohort 1 10 hospitals, Cohort 2 11 hospitals
- Annual Patient Safety Conference 1154 registered

Strategic Direction

- Improve culture of patient safety
- Expand provider involvement
- Supporting provider efforts with regard to Waiver requirements and initiatives
- Continued coordination with statewide healthcare priorities:
  - HSCRC
  - OHQC
  - MHCC
  - DHMH

Appendix I: MPSC Report to HSCRC on FY 2015 Results and FY 2016 Program Plan and Budget Request



Staff Recommendation

May 13, 2015

The Commission staff recommends for review and public comment revisions to the Relative Value Unit (RVU) Scale for Radiation Therapy services. The revisions are specific to Chart of Accounts and Appendix D of the Accounting and Budget Manual. These revised RVUs were developed by a sub-group of the Maryland Hospital Association's HSCRC Technical Issues Task Force. The sub-group's membership included representatives of the Radiation Therapy departments of many of the Maryland hospitals. The RVU scale was updated to reflect the revisions to the Current Procedural Terminology (CPT) codes mandated by the American Medical Association. At your direction, the staff will send the revision to all Maryland hospitals for their review and comment.

SECTION 200

CHART OF ACCOUNTS

7360 Radiation- Therapeutic

Function

This cost center provides radiation therapy services as required for the care and treatment of patients under the direction of a qualified radiation oncologist. Therapeutic radiology services include consultation, patient education, physician planning, simulation, dosimetry planning, blocking and shaping, quality assurance, treatment delivery, image guidance, on-treatment assessment, and follow-up. Therapeutic radiation may be delivered using a variety of radiation sources including external photon beams, external live radiation source, intracavitary live radiation source, implantable live radiation source, intraoperative radiation, and particle beam therapy. The most common radiation therapy modalities include but are not limited to 3-D conformal treatment ("3-D"), Intensity Modulated Radiation Therapy ("IMRT"), Image Guided Radiation Therapy ("IGRT"), Stereotactic Radiosurgery ("SRS"), Stereotactic Body Radiation Therapy ("SBRT"), brachytherapy, and intraoperative radiation therapy ("IORT"). Details and descriptions of radiation therapy services and terminology can be found on the websites of the Centers for Medicare and Medicaid Services, the National Cancer Institute, and the American Society for Radiation Oncology.

Description

This cost center includes the direct expenses incurred in providing therapeutic radiology services. Included in these direct expenses are: salaries and wages, employee benefits, professional fees (non-physician), supplies, purchased services, maintenance costs (maintenance contracts or bio-medical engineering costs if done in-house) on principal equipment, facility costs, other direct expenses, and transfers.

Standard Unit of Measure: Relative Value Units

Therapeutic Radiology RVUs were assigned using the 2015 CMS Physician Fee Schedule, technical component or global RVUs. The RVU Assignment Protocol is detailed in the Appendix D Standard Unit of Measure References, account number 7360.

Data Source

The number of RVUS shall be the actual count maintained by the Therapeutic Radiology cost center.

Reporting Schedule

Schedule D – Line D34

APPENDIX D

STANDARD UNIT OF MEASURE REFERENCES

Account Number	Cost	Center Title
7360	**Radiology**	**Therapeutic**

Approach

Therapeutic Radiology Relative Value Units were developed by an industry task force under the auspices of the Maryland Hospital Association. The descriptions of codes in this section of Appendix D were obtained from the 2015 edition of the Current Procedural Terminology (CPT) manual and the 2015 edition of the Healthcare Common Procedure Coding System (HCPCS). In assigning RVUs the group used the 2015 Medicare Physician Fee schedule (MPFS). RVUs were assigned using the following protocol ("RVU Assignment Protocol").

The RVUs reported in the 2015 MPFS include 2 decimal points. In order to maintain whole numbers in Appendix D, while maintaining appropriate relative value differences reported in the MPFS, the RVU work group agreed to remove the decimals by multiplying the reported RVUs by ten and then rounding the product of the calculation, where values less than X.5 are rounded down and all other values are rounded up.

1. CPT codes with RVUs listed in the MPFS.
    a. For CPT codes with RVUs that include both professional (modifier 26) and technical (modifier TC) components, use only the technical (TC) component RVU.
    b. CPT codes with only a single RVU listed
        a. CPT codes that are considered technical only (such as treatment codes), the single RVU reported will be used.
        b. CPT codes considered professional only (such as weekly treatment management and physician planning), are not listed in Appendix D.
2. CPT codes that do not have RVUs listed in the MPFS.
        a. CPT 77387 did not have a published RVU in the MPFS. The RVU work group agreed the work activity associated with this code is similar to CPT 77014. Given the similarity of the work activity, it was determined the same RVU should be applied to CPT 77387.
        b. CPT codes 77424 and 77425 did not have published RVUs in the MPFS. The RVU work group agreed the work activity associated with these codes is similar to CPT 77787. Given the similarity of the work activity, it was determined the same RVU should be applied to CPTs 77424 and 77425.
        c. CPT 77520 did not have a published RVU in the MPFS. The code does have an OPPS APC relative value weight, and it is valued the same as CPTs 77385 and 77386. It was determined the RVUs for 77385 and 77386 should be applied to CPT 77520.
        d. CPT 77522, 77523, and 77525 did not have published RVUs in the MPFS. These codes are in the same family of services as CPT 77520. The codes have an OPPS APC with a relative value weight 2.112 times greater than the APC for CPT 77520. It was determined CPT codes 77522, 77523, and

77525 should each have the same RVU which is calculated by multiplying 2.112 to the RVU of CPT 77520.

e. CPT 77402 did not have a published RVU in the MPFS. This is a code where Medicare's hospital based fee schedule and physician fee schedule differ. Since the 2015 MPFS is being used as the source for RVUs, the corresponding CPT value is G6003. The RVU work group used the same RVU for G6003 for CPT 77402.

f. CPT 77407 did not have a published RVU in the MPFS. This is a code where Medicare's hospital based fee schedule and physician fee schedule differ. Since the 2015 MPFS is being used as the source for RVUs, the corresponding CPT value is G6007. The RVU work group used the same RVU for G6007 for CPT 77407.

g. CPT 77412 did not have a published RVU in the MPFS. This is a code where Medicare's hospital based fee schedule and physician fee schedule differ. Since the 2015 MPFS is being used as the source for RVUs, the corresponding CPT value is G6011. The RVU work group used the same RVU for G6011 for CPT 77412.

h. CPT 77371 did not have a published RVU in the MPFS, and it was determined there was not a similar CPT for benchmarking. Table 1 provides the methodology employed to assign RVUs of 378 to CPT 77371.

Table 1: CPT 77371 RVU Assessment

CPT 77371 Gamma Knife Treatment Delivery RVU Assignment

a. Step One, Determine a base CPT: CPT 77385 and 77386 were used as a base to which the work associated with CPT 77371 could be compared and extrapolated. CPT 77385 and 77386 each have a RVU of 11.15

b. Step Two, Determine the comparative work components for the CPT in question (77371). These are the work components for which the relative workload will be evaluated against the base CPTs 77385 and 77386.

Component	Weighting	Weighting Methodology
Initial Set-up	65%	The setup for SRS treatment is 4Xs the work effort of an IMRT setup - criticality of coordinate system - application of frame
Treatment	20%	It takes on average 3Xs the amount of time to deliver an SRS Cobalt Based treatment vs. IMRT
QA	7.50%	The QA process is 50% less work effort than with IMRT
Resources	7.50%	The treatment delivery is managed by the Medical Physics personnel as compared to therapists for IMRT delivery. Physicists are 2Xs the resource intensity as IMRT therapists

c. Step Three, Extrapolate the RVU value

	Initial S/U	Treatment	QA	Resources			
Weighting	65%	20%	7.50%	7.50%			
Base RVU	11.15	11.15	11.15	11.15			
Multiplier	4	3	0.5	2	**Sum**	**Multiplier**	**RVUs**
Total RVUs	28.99	6.69	0.42	1.67	**37.77**	**10**	**378**

3. CPT codes for which the published RVU did not make sense,
    a. CPT 77333 had a RVU that did not seem reasonable as compared to CPT 77332 and 77334, which are in the same family of codes and clinical services. It was determined the RVU for CPT 77333 should be the average value of CPT codes 77332 and 77334.

CPT Codes without an Assigned RVU Value

An effort was made to assign RVUs to all codes that were effective in 2015. In the case of CPT codes listed as 'By Report', hospitals should assign RVUs based on the time and resource intensity of the service provided compared to like services in the department.

For new codes developed and reported by CMS after the 2015 reporting, these codes are considered to be "By Report". When assigning RVUs to these new codes, hospitals should use the RVU Assignment Protocol described above where possible. Documentation of the assignment of RVUs to codes not listed in Appendix D should always be maintained by the hospital.

CPT Code	Procedure	RVU
~~61793~~	~~Stereotactic Focused Proton Beam or Gamma Radiosurgery~~	~~175~~
~~——~~	~~Reset/set Treatment Field – The redefining a previously simulated field~~	~~6~~
77014	Computed tomography guidance for placement of radiation therapy fields	20
77280	Therapeutic radiology simulation-aided field setting; simple	66
77285	Therapeutic radiology simulation-aided field setting; intermediate	104
77290	Therapeutic radiology simulation-aided field setting; complex	120
77293	Respiratory motion management (list separately in addition to code for primary procedure)	101
77295	3-Dimensional radiotherapy plan, including dose-volume histograms	74
77299	Unlisted procedure, therapeutic radiology clinical treatment planning	By Report
77300	Basic radiation dosimetry calculation, central axis depth dose, TDF, NSD, gap calculation, off axis factor, tissue inhomogeneity factors, calculation of non-ionizing radiation surface and depth dose, as required during course of treatment, only when prescribed by the treating physician	9
77301	Intensity modulated radiotherapy plan, including dose-volume histograms for target and critical structure partial tolerance specifications	425
~~77305~~	~~Teletherapy, isodose plan (whether hand or computer calculated); simple (one or two parallel opposed unmodified ports directed to a single area of interest)~~	~~15~~
77306	Teletherapy isodose plan; simple (1 or 2 unmodified ports directed to a single area of interest), includes basic dosimetry calculation(s)	20
77307	Teletherapy isodose plan; complex (multiple treatment areas, tangential ports, the use of wedges, blocking, rotational beam, or special beam considerations), includes basic dosimetry calculation(s)	37
~~77310~~	~~Intermediate (three or more treatment ports directed to a single area of interest)~~	~~20~~
~~77315~~	~~Complex (mantle or inverted Y, tangential ports, the use of wedges, compensators, complex blocking, rotational beam or special beam considerations)~~	~~30~~
77316	Brachytherapy isodose plan; simple (calculation[s] made from 1 to 4 sources, or remote afterloading brachytherapy, 1 channel), includes basic dosimetry calculation(s)	32
77317	Brachytherapy isodose plan; intermediate (calculation[s] made from 5 to 10 sources, or remote afterloading brachytherapy, 2-12 channels), includes basic dosimetry calculation(s)	41

77318	Brachytherapy isodose plan; complex (calculation[s] made from over 10 sources, or remote afterloading brachytherapy, over 12 channels), includes basic dosimetry calculation(s)	56
77321	Special teletherapy port plan, particles, hemibody, total body	12
~~77326~~	~~Brachytherapy isodose calculation; simple (calculation made from single plane, one to four sources/ribbon application, remote afterloading brachytherapy, 1 to 8 sources)~~	~~20~~
~~77327~~	~~Intermediate (multiplane dosage calculations, application involving 5 to 10 sources/ribbons, remote afterloading brachytherapy, 9 to 12 sources)~~	~~25~~
~~77328~~	~~Complex (multiplane isodose plan, volume implant calculations, over ten sources/ribbons used, special spatial reconstruction, remote afterloading brachytherapy, over 12 sources)~~	~~35~~
77331	Special dosimetry (e.g., TLD, microdosimetry) (specify), only when prescribed by the treating physician	5
77332	Treatment devices, design and construction; simple~~, to include prefabricated blocks~~ (simple block, simple bolus)	15
77333	Treatment devices, design and construction; intermediate, ~~to include prefabricated blocks~~ (multiple blocks, stents, bite blocks, special bolus)	20
77334	Treatment devices, design and construction; complex (irregular blocks, special shields, compensators, wedges, molds or casts)	25
77336	Continuing medical ~~radiation~~ physics consultation, including assessment of treatment parameters, quality assurance of dose delivery, and review of patient treatment documentation in support of therapeutic radiologist, ~~including continuing quality assurance~~ reported per week of therapy	21
77338	Multi-leaf collimator (MLC) device(s) for intensity modulated radiation therapy (IMRT), design and construction per IMRT plan	79
77370	Special medical radiation physics, consultation	32
77371	Radiation treatment delivery, stereotactic radiosurgery (SRS), complete course of treatment of cranial lesion(s) consisting of 1 session; multi-source Cobalt 60 based	378
77372	Radiation treatment delivery, stereotactic radiosurgery (SRS), complete course of treatment of cranial lesion(s) consisting of 1 session; linear accelerator based	297
77373	Stereotactic body radiation therapy, treatment delivery, per fraction to 1 or more lesions, including image guidance, entire course not to exceed 5 fractions	377
~~77375~~	~~3D Reconstruction of the Tumor~~	~~204~~
77385	Intensity modulated radiation treatment delivery (IMRT), includes guidance and tracking, when performed; simple	112
77386	Intensity modulated radiation treatment delivery (IMRT), includes guidance and tracking, when performed; complex	112

77387	Guidance for localization of target volume for delivery of radiation treatment delivery, includes intrafraction tracking, when performed	20
77399	Unlisted procedure, medical radiation physics, dosimetry and treatment devices	By Report
77401	Radiation treatment delivery, superficial and/or ortho voltage, per day	6
77402	Radiation treatment delivery, ~~single treatment area, single port or parallel opposed ports, simple blocks or no blocks; up to 5 MeV~~ >1 MeV; simple	45
~~77403~~	~~6–10 MeV~~	~~6~~
~~77404~~	~~11–19 MeV~~	~~7~~
~~77406~~	~~20 MeV or greater~~	~~8~~
77407	Radiation treatment delivery~~, two separate treatment areas, three or more ports on a single treatment area, use of multiple blocks; up to 5 MeV~~ >1 MeV; intermediate	72
~~77408~~	~~6–10 MeV~~	~~7~~
~~77409~~	~~11–19 MeV~~	~~8~~
~~77411~~	~~20 MeV or greater~~	~~9~~
77412	Radiation treatment delivery, ~~three or more separate treatment areas, custom blocking, tangential ports, wedges, rotational beam, compensators, special particle beam (e.g., electron or neutron); up to 5 MeV~~ >1 MeV; complex	77
~~77413~~	~~6–10 MeV~~	~~9~~
~~77414~~	~~11–19 MeV~~	~~10~~
~~77416~~	~~20 MeV or greater~~	~~11~~
77417	Therapeutic radiology port film(s)	3
77422	High energy neutron radiation treatment delivery; single treatment area using a single port or parallel-opposed ports with no blocks or simple blocking	9
77423	High energy neutron radiation treatment delivery; 1 or more isocenter(s) with coplanar or non-coplanar geometry with blocking and/or wedge, and/or compensator(s)	18
77424	Intraoperative radiation treatment delivery, x-ray, single treatment session	147
77425	Intraoperative radiation treatment delivery, electrons, single treatment session	147
77470	Special treatment procedure (e.g., total body irradiation, hemibody irradiation, per oral, vaginal cone irradiation)	13
74999	Unlisted procedure, therapeutic radiology treatment management	By Report
77520	Proton treatment delivery, simple, without compensation	112
77522	Proton treatment delivery, simple, with compensation	235
77523	Proton treatment delivery, intermediate	235

77525	Proton treatment delivery, complex	235
77600	Hyperthermia, externally generated; superficial (i.e., heating to a depth of 4 cm or less)	90
77605	Hyperthermia, externally generated; deep (i.e., heating to depths greater than 4 cm)	183
77610	Hyperthermia generated by interstitial probe(s); 5 or fewer interstitial applicators	266
77615	Hypothermia generated by interstitial probe(s); more than 5 interstitial applicators	252
77620	Hyperthermia generated by intracavitary probe(s) 105	
77750	Infusion or instillation of radioelement solution	31
77761	Intracavitary ~~radioelement~~ radiation source application; simple	53
77762	Intracavitary radiation source application; intermediate	61
77763	Intracavitary radiation source application; complex	79
77776	Interstitial ~~radioelement~~ radiation source application; simple	64
77777	Interstitial radiation source application; intermediate	54
77778	Interstitial radiaton source application; complex	80
~~77781~~	~~Remote afterloading high intensity brachytherapy; 1–4 source positions or catheters~~	~~60~~
~~77782~~	~~5–8 source positions or catheters~~	~~70~~
~~77783~~	~~9–12 source positions or catheters~~	~~80~~
~~77784~~	~~Over 12 source positions or catheters~~	~~90~~
77785	Remote afterloading high dose rate radionuclide brachytherapy; 1 channel	46
77786	Remote afterloading high dose rate radionuclide brachytherapy; 2-12 channels	90
77787	Remote afterloading high dose rate radionuclide brachytherapy; over 12 channels	147
77789	Surface application of ~~radioelement~~ radiation source	17
77790	Supervision, handling, loading of ~~radioelement~~ radiation source	12
77799	Unlisted procedure, clinical brachytherapy	By Report

Title 10 DEPARTMENT OF HEALTH AND MENTAL HYGINE

Subtitle 37 HEALTH SERVICES COST REVIEW COMMISSION

Chapter10 Rate Application and Approval Procedures

Authority: Health-General Article, §§ 19-207 and 19-214; Insurance Article, §§ 14-502 and 15-504; Annotated Code of Maryland

NOTICE OF EMERGENCY ACTION

The Health Services Cost Review Commission has granted emergency status to amend Regulation **.26-1** under **COMAR 10.37.10 Rate Application and Approval Procedures**.

Emergency Status Begins: July 1, 2015

Emergency Status Expires: November 1, 2015

Comparison of Federal Standards

There is no corresponding federal standard to this proposed action.

Estimate of Economic Impact

The proposed action has no economic impact.

.26-1 Maryland Health Insurance Plan (MHIP) Assessment.

A. Text Unchanged

B. The Commission shall assess each hospital up to 1 percent of its net patient revenue to operate and administer the MHIP. There shall be no MHIP assessment for Fiscal Year 2016.

C.-D. Text Unchanged

JOHN M. COLMERS
Chairman
Health Services Cost Review Commission

Title 10 DEPARTMENT OF HEALTH AND MENTAL HYGINE

Subtitle 37 HEALTH SERVICES COST REVIEW COMMISSION

Chapter10 Rate Application and Approval Procedures

Authority: Health-General Article, §§ 19-207 and 19-214; Insurance Article, §§ 14-502 and 15-504; Annotated Code of Maryland

NOTICE OF PROPOSED ACTION

The Health Services Cost Review Commission proposes to amend Regulations **.26-1** under **COMAR 10.37.10 Rate Application and Approval Procedures**. This action was considered and approved for promulgation by the Commission at a previously announced open meeting held on May 13, 2015, notice of which was given pursuant to General Provisions Article, § 3-301(c), Annotated Code of Maryland. If adopted, the proposed amendments will become effective on or about October 2, 2015.

Statement of Purpose

The purpose of this action is to impose a moratorium on the Commission's Maryland Health Insurance Plan (MHIP) assessment for Fiscal Year 2016 in response to the Budget Reconciliation Act of 2015 changes to the program as of July 1, 2015.

Comparison of Federal Standards

There is no corresponding federal standard to this proposed action.

Estimate of Economic Impact

The proposed action has no economic impact.

Opportunity for Public Comment

Comments may be sent to Diana M. Kemp, Regulations Coordinator, Health Services Cost Review Commission, 4160 Patterson Avenue, Baltimore, MD 21215, or (410) 764-2576, or fax to (410) 358-6217, or email to Diana.kemp@maryland.gov. The Health Services Cost Review Commission will consider comments on the proposed amendments until July 27, 2015. A hearing may be held at the discretion of the Commission.

.26-1 Maryland Health Insurance Plan (MHIP) Assessment.

A. Text Unchanged

B. The Commission shall assess each hospital up to 1 percent of its net patient revenue to operate and administer the MHIP. There shall be no MHIP assessment for Fiscal Year 2016.

C.-D. Text Unchanged

JOHN M. COLMERS
Chairman
Health Services Cost Review Commission

State of Maryland
Department of Health and Mental Hygiene

John M. Colmers
Chairman

Herbert S. Wong, Ph.D.
Vice-Chairman

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Hospital Rate Setting

Sule Calikoglu, Ph.D.
Deputy Director
Research and Methodology

TO: **Commissioners**

FROM: **HSCRC Staff**

DATE: **May 6, 2015**

RE: **Hearing and Meeting Schedule**

June 10, 2015	**Approximately 8AM**, 4160 Patterson Avenue HSCRC/MHCC Conference Room
July 8, 2015	Time 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 8:00 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://www.hscrc.maryland.gov/commission-meetings-2015.cfm

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