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October 1, 2014

The Honorable Martin O'Malley  
Governor of Maryland  
100 State Circle  
Annapolis, Maryland 21401-1925

The Honorable Thomas V. Mike Miller, Jr.  
President of the Senate  
H-101 State House  
Annapolis, MD 21401-1991

The Honorable Michael E. Busch  
Speaker of the House  
H-107 State House  
Annapolis, MD 21401-1991

The Honorable Joshua M. Sharfstein, M.D.  
Secretary of DHMH  
201 W. Preston Street  
Baltimore, MD 21201

RE: Monitoring Maryland's All-Payer Model: Biannual  
Report  
Health General Article §19-207(b)(9)

Dear Governor O'Malley, President Miller, Speaker Busch, and Secretary Sharfstein;

I am pleased to provide you with this inaugural Monitoring of Maryland's All-Payer Model Biannual Report, prepared relative to Section 19-207(b)(9) of the Health-General Article of the Annotated Code of Maryland. This report discusses the State's progress during the period from January 1, 2014 through June 30, 2014, the first six months of Maryland's new agreement with the Center for Medicare & Medicaid Innovation (CMMI).

Effective January 1, 2014, the State of Maryland and CMMI entered into a new initiative to modernize Maryland's unique all-payer rate-setting system for hospital services. This initiative, replacing Maryland's 36-year-old Medicare waiver, allows Maryland to adopt new and innovative policies aimed at reducing per capita hospital expenditures and improving patient health outcomes. More information on the Health Services Cost Review Commission ("HSCRC") and Maryland hospital activities can be found on the HSCRC's website: <http://www.hsrc.state.md.us/>

Please contact me if you any questions about this report, or you may contact Steve Ports, Deputy Director, Policy and Operations, at [Steve.Ports@Maryland.gov](mailto:Steve.Ports@Maryland.gov).

Sincerely,



Donna Kinzer  
Executive Director

# Monitoring of Maryland's All-Payer Model

## *Biannual Report*

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

October 1, 2014

**Introduction**

Effective January 1, 2014, the State of Maryland and the Center for Medicare & Medicaid Innovation (CMMI) entered into a new initiative to modernize Maryland’s unique all-payer rate-setting system for hospital services. This initiative, replacing Maryland’s 36-year-old Medicare waiver, allows Maryland to adopt new and innovative policies aimed at reducing per capita hospital expenditures and improving patient health outcomes.

**State and Federal All-Payer Model Status Reporting Requirements**

**State All-Payer Model Reporting Requirements**

This report contains a summary of implementation, monitoring and other activities to inform the Maryland legislature regarding the status of the new All-Payer Model. This inaugural Monitoring of Maryland’s All-Payer Model Biannual Report, prepared relative to Section 19-207(b)(9) of the Health-General Article of the Annotated Code of Maryland, discusses the State’s progress during the period from January 1, 2014 through June 30, 2014, the first six months of Maryland’s new agreement. The Health Services Cost Review Commission (“HSCRC,” or “Commission”) will produce an updated report every six months. Figure 1 provides an overview of the reporting required relative to Health-General Section 19-207(b)(9) for Maryland’s first six months under the new All-Payer Model.

**Figure 1: State Biannual Reporting of Maryland’s All-Payer Model**

Section	Achievement Requirement	Metric Finding	Status
I.1.	Limit the annual growth in all-payer hospital per capita revenue for Maryland residents to 3.58% growth rate	Per capita revenue for Maryland residents grew 0.96%	<ul style="list-style-type: none"> <li>• Ongoing monthly measurement</li> <li>• Expecting continued favorable performance for Calendar Year 2014</li> </ul>
I.2.	Achieve aggregate savings in Medicare spending equal to or greater than \$330 million over 5 years	<i>Data not yet available from CMS</i>	<ul style="list-style-type: none"> <li>• HSCRC and CMS met on methodology</li> <li>• Testing data from Centers for Medicare &amp; Medicaid Services (CMS), expect preliminary tests to conclude in November</li> </ul>
I.3.	Shift at least 80% of hospital revenue to a population-based payment structure (such as global budgets)	95% of hospital revenue shifted to global budgets	<ul style="list-style-type: none"> <li>• All hospitals engaged in global budgets under Global Budget Revenue agreements and Total Patient Revenue agreements</li> </ul>
I.4.	Reduce the hospital readmission rate for Medicare beneficiaries to below the national rate over the 5 year period of the agreement	<i>Data not yet available from CMS</i>	<ul style="list-style-type: none"> <li>• HSCRC and CMMI are refining methodology</li> <li>• HSCRC does not yet have Medicare data needed to measure progress</li> <li>• Monitoring progress within Maryland using data collected from hospitals by HSCRC</li> </ul>

## Monitoring of Maryland's All-Payer Model – Biannual Report October 1, 2014

Section	Achievement Requirement	Metric Finding	Status
I.5.	Cumulative reduction in hospital acquired conditions by 30% over 5 years	Reduction of 24.27% in hospital acquired conditions 2014 year to date compared to 2013 year to date	<ul style="list-style-type: none"> <li>HSCRC staff reviewing and auditing these findings</li> </ul>
Section	Description	Report	Status
II.	Workgroup actions	All workgroups have reported to the HSCRC	<ul style="list-style-type: none"> <li>Workgroups meeting on a regular basis. Two new workgroups established for fall 2014.</li> </ul>
III.	New alternative methods of rate determination	95% of hospital revenue now under global budgets arrangements, implemented in accordance with policies approved by the Commission	<ul style="list-style-type: none"> <li>New global budget agreements published on HSCRC website</li> <li>Ongoing modifications underway to refine approaches</li> </ul>
IV.	Ongoing reporting to CMS of relevant policy development and implementation	See Appendices for reports provided to CMS	<ul style="list-style-type: none"> <li>Provided reports to CMS on an ongoing basis</li> </ul>

### Federal All-Payer Model Reporting Requirements

Maryland's All-Payer Model agreement with CMMI establishes a number of requirements that Maryland must fulfill. CMMI must evaluate Maryland's performance under the model and provide reports on an annual basis. The evaluations will be made based on calendar year performance, with the first evaluation due in July 2015.<sup>1</sup> In addition to the annual report, the HSCRC provides ongoing reporting to CMMI of relevant policy development and implementation. If Maryland fails to meet selected requirements, CMMI must provide notification and Maryland will have the opportunity to provide information for evaluation and to provide a corrective action plan if warranted. At this time, CMMI has not provided any notices of failure to Maryland.

## Section I

### 1. Inpatient and Outpatient Hospital Per Capita Cost Growth

Maryland's All-Payer Model agreement requires the State to limit the annual growth in all-payer hospital per capita revenue for Maryland residents to the long-term growth rate in the State's economy (a 3.58% growth rate). Over the first six months of calendar year 2014, per capita revenue for Maryland residents rose 0.96%, well below the 3.58% ceiling. Although the revenue increase for the second half of calendar year 2014 is expected to be higher, continued favorable performance is expected throughout calendar year 2014 under the global budget agreements that have been implemented for each hospital (we discuss global budgets in Section I.3 and in Section III). Global budgets result in predictable statewide revenue performance enabling the HSCRC to actively manage compliance with the 3.58% target.

<sup>1</sup> Initial Model metrics are due to CMS May 1, 2015 with the complete annual report due June 30, 2015.

## **2. Aggregate Medicare Savings**

The All-Payer Model agreement requires the State to achieve an aggregate savings in Medicare spending equal to or greater than \$330 million over the five years of the agreement. Savings are calculated by comparing the rate of increase in Medicare hospital payments per Maryland beneficiary as compared to the national rate of increase in payments per beneficiary.

The data necessary to calculate the Medicare savings achieved by the model are not yet available. On an ongoing basis, HSCRC staff expects reports to be available with a four to six month lag, allowing CMS to process and report hospital claims. Given the importance of the calculation, the HSCRC staff is carefully reviewing the technical methodology proposed by CMMI and validating the Maryland specific data generated by CMS. It is in the interest of both parties that the calculation correctly captures hospital payments made on behalf of Medicare beneficiaries who are Maryland residents.

The HSCRC and CMMI held meetings on the technical methodology throughout the summer and are continuing to refine the methodology. CMS began making the Maryland patient-level data available to the HSCRC in August. Additional data became available in mid-September. HSCRC staff, in conjunction with a contractor with expertise in Medicare and HSCRC data, is actively engaged in a data validation and review process. Preliminary validation of Maryland data is expected by November but will depend on the number of issues identified and the time it takes to resolve them. A calculation of Medicare savings to date will be included in the HSCRC's next Biannual Report.

## **3. Shifting from a Per-Case Rate System to Global Budgets**

The HSCRC has progressed toward shifting Maryland hospitals' revenues from a per-case rate system into global budget structures. All hospitals not already under a Total Patient Revenue (TPR) agreement were transitioned to Global Budget Revenue (GBR) agreements under policies approved by the Commission. With more than 95 percent of hospital revenue now under global budgeting, Maryland has exceeded the All-Payer Model agreement requirement of shifting at least 80 percent of hospital revenue to global or population based budgets. The remaining five percent of hospital revenue not under global budgets is excluded out-of-state revenue for five hospitals. These hospitals are otherwise engaged in global budgeting. The new Holy Cross Germantown Hospital that is opening in October 2014 will initially be excluded from global budgeting during its start up, but will be transitioned to a global or population based budget as soon as it reaches stable volumes. See section III of this report for a description of GBR methodology. Global budget agreements are available on the HSCRC's website at <http://hscrc.maryland.gov/global-budgets.cfm>.

## **4. Reducing the Hospital Readmission Rate among Medicare Beneficiaries**

Reducing hospital inpatient readmission rates has been an aim of the HSCRC since 2011. While the readmission rate in Maryland has significantly fallen over the last several years, Maryland's readmission rate for Medicare beneficiaries remains higher than the national average. The All-Payer Model agreement requires that Maryland's hospital readmission rate for Medicare fee-for-service

(FFS) beneficiaries must be at or below the national readmission rate by 2018. This metric uses national Medicare data. Currently, Maryland does not have access to the Medicare data needed to produce this metric. The HSCRC is working with the CMS and CMMI to receive access to the required data and to refine the readmissions methodology that will be used to calculate the readmissions metric.

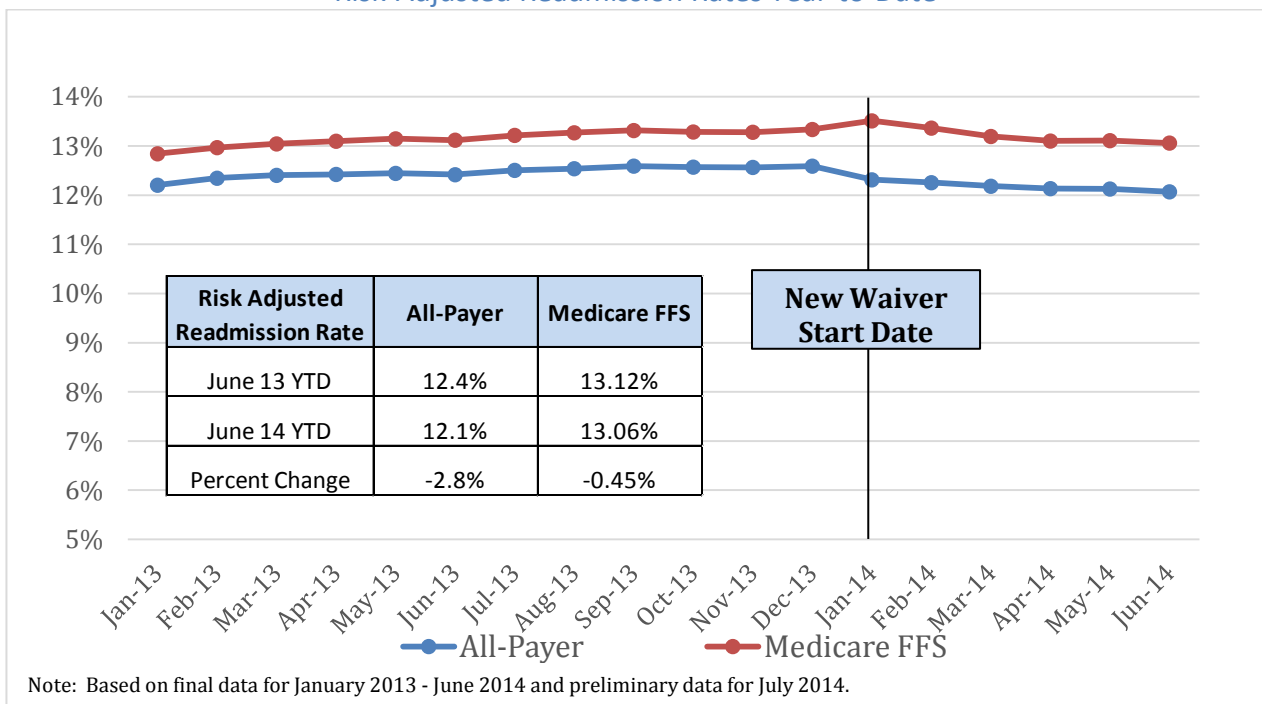
While the HSCRC cannot report the hospital readmissions rate from CMS data for this biannual report, we are monitoring readmissions with data collected from Maryland hospitals by HSCRC. HSCRC's Maryland data show the monthly risk-adjusted readmission rate for January through June 2014 is trending lower than the rate for the previous year prior to the initiation of the All-Payer Model (Figure 2). This analysis includes all Maryland inpatients, including Medicare FFS. Based on this available HSCRC data, the all-payer risk-adjusted readmission rate year to date was 12.1% compared to 12.4% during the same time period in 2013, a 2.8% reduction. The corresponding reduction for Medicare FFS beneficiaries is less, falling by 0.45%, but remains in a downward trend.

To support readmission reduction in Maryland, the HSCRC approved the new Readmission Reduction Incentive program in April 2014, which provides a potential 0.5% revenue increase in rate year 2016 for hospitals that have at least a 6.76% reduction in risk-adjusted readmissions during calendar year 2014 compared to 2013.<sup>2</sup> HSCRC staff developed the 6.76% goal using assumptions about the difference between Maryland and national readmission rates, and by estimating national reductions based on historical trends.

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<sup>2</sup> Readmission definition: Total readmissions/total admissions to any acute hospital. A discharge can both be initial and readmission; one readmission within 30 days is counted; transfers are combined into a single stay; and the 30-day period starts at the end of the combined stay. Left against medical advice is also included in the index. Admissions with discharge status of "Died" are excluded. For greater impact and potential for reaching the target, the measure includes all payers and any acute hospital readmission in the state. To enhance fairness of the methodology, planned admissions (using the CMS Algorithm V 2.1) and deliveries are excluded from readmission counts.

Figure 2. All-Payer and Medicare Fee-for-Service Risk-Adjusted Readmission Rates Year-to-Date



Note: Based on final data for January 2013 - June 2014 and preliminary data for July 2014.

### 5. Cumulative Reduction in Hospital Acquired Conditions

Maryland hospitals must achieve a 30% cumulative rate of reduction of hospital acquired conditions (HAC) by 2018 to comply with the requirements of the All-Payer Model agreement. Maryland measures hospital acquired conditions using 65 Potentially Preventable Complications (PPCs).<sup>3</sup> PPCs are defined as harmful events (for example, accidental laceration during a procedure) or negative outcomes (for example, hospital acquired pneumonia) that may result from the process of care and treatment rather than from a natural progression of underlying disease.

In order to support the goal of reducing PPCs, the HSCRC approved major revisions to the Maryland Hospital Acquired Conditions (MHAC) program in April 2014. The MHAC program calculates hospital rewards and penalties for rates of PPCs adjusted for patient mix. Specifically, these calculations now use observed to expected ratios as the basis of the measurement for all of the 65 PPCs measured, and use preset positions on a scale based on the base year scores for all PPCs to determine penalties and rewards. Figure 3 shows the all-payer risk-adjusted PPC/Complication rates year-to-date comparing July 2013 to July 2014. In July 2014, the all-payer risk-adjusted PPC rate was 0.99 per 1,000 compared to 1.30 per 1,000 for July 2013, a 24.27% reduction. The HSCRC staff is currently auditing hospitals' coding to determine whether reduction represents an improvement in documentation or an actual reduction in complications.

<sup>3</sup> 3M Health Information Systems developed PPCs. The PPC software relies on present on admission indicators from administrative data to calculate the actual versus expected number of complications for each hospital.



Figure 3. All-Payer Risk-Adjusted PPC/Complication Rates Year-to-Date

All-Payer Risk Adjusted PPC Rate	
<b>July 13 YTD</b>	1.30
<b>July 14 YTD</b>	0.99
<b>Percent Change</b>	-24.27%

## Section II.

### Workgroup Actions

The HSCRC has implemented a broad stakeholder engagement approach. More than 100 stakeholders representing consumers, payers, providers, physicians, nurses, other health care professionals, and experts have participated in these Work Groups. All Work Group meetings have been conducted in public sessions, and comments from the public have been solicited at each meeting. Technical white papers submitted by members of the research community and general public were also solicited and evaluated by the Work Groups.

#### *1. Advisory Council on Modernization of the Maryland All-Payer Waiver*

Beginning in late 2013, in advance of the new All-Payer Model's approval, the HSCRC convened an Advisory Council, to develop guiding principles for implementation of the new globally budgeted all-payer model. The purpose of the Advisory Council was to provide the HSCRC with senior-level stakeholder input on guiding principles for the overall implementation of population-based and patient-centered payment systems. The Advisory Council consisted of a broad representation of hospitals, payers, physicians, providers, the Department of Health and Mental Hygiene, and health care experts. All meetings were open to the public and encouraged public comment.

The Advisory Council held five public meetings and put forth its final report on January 31, 2014, shortly after final approval of the new All-Payer Model. Its report made the following recommendations:

1. Focus on Meeting the Early Model Requirements
  - Focus on All-payer and Medicare tests
  - Start with Global Budgets
  - Reduce avoidable utilization
2. Meet Budget Targets, Investments in Infrastructure, and Providing Flexibility for Private Sector Innovation
3. The HSCRC should be a Regulator, Catalyst, and Advocate
4. Have Consumer Involvement in Planning and Implementation
5. Consider Physician and Other Provider Alignment
6. Transparency and the Public Engagement Process is important

The Commission received the recommendations of the Advisory Council and has taken those recommendations into account in its ongoing planning and implementation activities. At the completion of the Advisory Council meetings, the HSCRC convened four Work Groups -- Payment Models, Physician Alignment & Engagement, Performance Measurement, and Data and Infrastructure. The

Work Groups held public meetings and engaged numerous stakeholders in the implementation activities for the new All-Payer Model. Since many of the topics discussed below are inter-related, Work Groups held joint sessions or received updates on the activities of other relevant Work Groups.

## ***2. The Payment Models Work Group***

The Payment Models Work Group is charged with vetting potential recommendations for HSCRC consideration on the structure of payment models and how to balance its approach to payment updates. The following issues have been considered:

1. Balanced Updates: Recommendations for how the HSCRC should change its historic approach to annual updates, including what factors should be considered (weighting inflation, different types of volume and trends including demographic trends), innovation, capital and new services, efficiency, variable cost concepts, the "spread" between update factors for global budgets and fee-for-service budgets, the methodology used for Uncompensated Care given the significant changes in insurance coverage expected with health reform implementation, the timing of updates and the magnitude of revenue that is put at risk for meeting value-based performance goals, the use of positive incentives for quality and care improvement, and other adjustments to transitional policies adopted by HSCRC.
2. Guardrails for Model Performance: Recommendations on whether there are certain performance targets the HSCRC should establish that, if not met, would trigger a policy change, mid-year course correction or other corrective action, including whether guardrails should be developed at the hospital, region, and/or state level.
3. Market share: Recommendations on how the HSCRC should incorporate market share adjustments into payment and the timing of adjustments.

The Payment Models Work Group held seven meetings and made recommendations on various issues. Below is a summary of the Commission actions conducted related to these issues.

1. FY 2015 Balanced Update Factor and Elements – The Commission approved an update factor of 2.4% for hospitals on a global budget and 1.7% for hospital revenues under the waiver<sup>4</sup> but not included under a global budget. Hospitals were also provided a demographic adjustment under their global arrangements, and many GBR agreements provided for an additional infrastructure adjustment effective July 1. The revenue increase generated from these adjustments was reduced by offsetting a reduction in the MHIP assessment effective October 1, 2014, as approved by the legislature, as well as a net reduction in uncompensated care.
2. The Uncompensated Care (UC) Methodology for FY 2015 and the Impact of Full Coverage of the Primary Adult Care Program Enrollees – The Commission approved a new methodology for the UC that recognizes that the UC population

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<sup>4</sup> The Medicare rate setting waiver authority applies to general acute hospitals and specific chronic hospitals. The Medicare rate setting waiver does not extend to psychiatric and rehabilitation hospitals or to other specialty facilities even though HSCRC sets rates for some of these facilities that apply to non-governmental payers.

is different after the passage of the Affordable Care Act (ACA). The Commission also reduced the amount of UC that would have otherwise been included in rates by 1.09% or approximately \$160 million due to the PAC population receiving full coverage under the ACA.

3. Readmission Shared Savings - The Commission approved a readmission shared savings methodology. Under this methodology, the HSCRC calculates a case mix adjusted readmission rate, using intra-hospital readmissions excluding 0-1 day stays and planned admission, 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 for each Diagnosis Related Group (DRG) and Severity of Illness (SOI) level., HSCRC staff then applies a shared savings benchmark to the risk-adjusted readmission rate to calculate the required savings contribution from each hospital. The shared savings benchmark is the required percent reduction in readmissions necessary to achieve the predetermined revenue for shared shavings. The Commission set the value of the shared savings amount to 0.4 % of total hospital revenue exclusive of one-time adjustments.

In addition to the above actions, the Commission has received frequent presentations and updates in its monthly public meetings from staff on global budget approaches and issues that are in development or being implemented operationally, including:

- Demographic Adjustment
- Market Share Adjustment
- Transfer Adjustment Methodology
- Global Budget Agreement Template

### ***3. Physician Alignment and Engagement Work Group***

The Physician Alignment and Engagement Work Group discussed how the new hospital payment models should align and engage with physicians and other health care providers in partnership with patients to achieve the goals of the new model. The Work Group was charged with considering the following issues:

1. Alignment with Emerging Physician Models: Identification of current physician payment models as background and a foundation for recommendations on shared savings, and informing the Payment Models workgroup including payment models and hospital/physician payment arrangements for different types of physicians (employed, community, primary care, specialty), and under different physician engagement scenarios, such as Accountable Care Organizations (ACO), Patient-Centered Medical Home (PCMH), and any other existing alignment programs.
2. Shared Savings: How hospitals and physicians can create aligned incentive models on an All-Payer basis to share savings, such as through creating gain sharing or pay-for-performance structures, bundled payments, including relationship to ACO, PCMH, and Medicare fee-for-service models. The Work Group discussed developing standard approaches, accounting for unduplicated savings, and

pursuing federal waivers and exemptions relative to operation of these models where necessary.

3. **Care Improvement:** The need for a multi-stakeholder campaign to support care improvement and the extent to which existing efforts could be leveraged to support the goals of the new All-Payer Model and enhance overall efficiency. Consider the role for the HSCRC in convening stakeholders, encouraging standardization and facilitating the acquisition and use of data, and how the HSCRC role should be coordinated among State agencies and other stakeholders.

The Work Group held seven meetings and made the following recommendations to move forward with promoting alignment and engagement:

- The HSCRC could serve as a catalyst to encourage the hospital industry, providers, and providers to consider ways to:
  - Share infrastructure, analytics, and other resources
  - Improve reporting between and for hospitals and providers
  - Make the practice of medicine more efficient for providers
  - Promote broad awareness of the objectives of the new model financial incentives and promote the various types of programs designed to support it
- HSCRC could serve as catalyst for hospitals, physicians, and other providers to work collaboratively toward models that are consistent with the goals of the Three-Part Aim and the new All-Payer Model.
- HSCRC should work with the field to pursue confirming with CMS/OIG (and/or other appropriate regulatory bodies) the ability of Maryland hospitals to pursue pay-for-performance models, without additional regulatory approval.
- The Maryland Hospital Association and MedChi work collaboratively to pursue a New Jersey type physician incentive model that is modified to be consistent with the goals of the new All-Payer Model (with input and advocacy from the HSCRC).
- The HSCRC should work with the State and key stakeholders to pursue a Maryland-specific ACO-like care integration and shared savings option, which would require infrastructure development and regulatory approval, and provide Maryland with increased flexibility in the development of a model for beneficiaries not already in ACOs, Medicare Advantage, or other CMS demonstration projects.
- HSCRC should serve as catalyst for encouraging and expanding alignment models across all payers, and consistency regarding incentives, including working with stakeholders to determine if legislative or regulatory changes are necessary to achieve the options above and to sponsor or promote those changes, as appropriate.
- HSCRC should serve as catalyst for encouraging models that are possible today (e.g., Primary Care Medical Homes and pay for performance enhancements to fee-for-service and salary models), while pursuing broader population-based models that require regulatory approvals and additional infrastructure development.

Future work topics for the Work Group include:

- Further develop Maryland specific ACO-like option
- Coordinate with Stakeholder led alignment efforts
- Outreach and Education Plan
- Care Coordination
- Post-Acute/LTC Coordination
- Evidence Based Care
- Tort Reform/Cost of Defensive Medicine

#### **4. Performance Measurement Work Group**

The Performance Measurement Work Group is charged with developing recommendations for HSCRC consideration on measures that are reliable, informative, and practical for assessing a number of important issues. This Work Group coordinated with the Payment Models Work Group which designed the overall structure through which the results of these measures are applied to payment updates and rate orders. Specifically, the Work Group discussed the following issues:

1. Reducing Potentially Avoidable Utilization to Achieve the Three-Part Aim:  
Recommendations on measuring volume of services that could be avoided and establishing incentives to improve patient care and reduce health care costs.
  - a. Development of Statewide Targets and Hospital Performance  
Measurement: Recommendations on establishing statewide targets for readmissions and potentially preventable conditions and how to achieve these targets through hospital performance measurement. The new All-Payer Model requires reductions in Medicare readmissions to national levels within five (5) years and a thirty percent (30%) reduction in Maryland Hospital Acquired Conditions (MHACs). It also requires that the combination of value-based purchasing programs for Maryland put comparable revenues at risk to the national Medicare programs.
  - b. Measuring potentially avoidable utilization: Recommendations on developing a comprehensive set of measures for volume of services that could be avoided with benefit to patients and health care costs. The initial set of measures under consideration includes hospital acquired conditions (safety issues), readmissions and re-hospitalizations (care planning and coordination), ambulatory sensitive conditions (effective primary and community based care), and enhanced care coordination for high needs patients (identification and planning of care).
2. Value-based Payment (Integration of Cost, Quality, Population Health and Outcomes): Recommendations on what specific measures of cost, care and health should be considered for adoption, retention or development in order to evaluate and incentivize the population-based All-Payer Model. This measurement and payment approach relates to the policy objectives of establishing payment levels that are reasonably related to the cost of providing services on an efficient basis and in accordance with the value concepts embodied in the new All-Payer Model.

3. Patient Experience and Patient-Centered Outcomes: Recommendations on integrating patient-centered concepts in the performance measurement work as well as the measures used, including, but not limited to, patient perspective measures, whether gathered through CAHPS-type instruments or in other ways, and outcome measures that are valued by patients to improve efficiency, effectiveness, and outcomes of care.

Since early February 2014, the Work Group held nine meetings and made the following recommendations to the Commission that were subsequently adopted:

1. New Measures and Methods under the Commission's Maryland Hospital Acquired Conditions Program – The Commission approved a recommendation to change the MHAC program for CY 2014 performance year in the following manner:
  - Set minimum MHAC statewide target at 8% improvement with a maximum revenue at risk of 4% of permanent inpatient revenue if this target is missed.
  - Set maximum revenue at risk at 1% of permanent inpatient revenue if CY 2014 target is met. Provide rewards to hospitals with more than 0.60 score up to 1% of permanent inpatient revenue provided sufficient funds are collected through penalties.
  - Set a maximum statewide total penalty limit at 0.5% of permanent inpatient revenue.
2. Readmission Measurement Policy: Staff provides the following recommendations for a new readmission reduction incentive program that would have CY 2014 performance applied to rate year 2016:
  - The Commission should implement a Readmissions Reduction Incentive Program.
  - The CMS readmission measure definition specifications should be used with limited adjustments to enhance the fairness of the measure.
  - The annual target for the first performance year, CY 2014, should be based on an all-payer readmission rate.
  - The risk adjusted readmission reduction target for the first year, CY 2014, should be a 6.76% compared to CY 2013 risk adjusted readmission rates. The readmission reduction target will be determined annually.
  - A positive incentive magnitude of up to 0.5% of the hospital's inpatient permanent revenue should be provided for hospitals that meet or exceed the target set forth in recommendation provided that the FY 2016 update factor has favorable conditions.

In addition to the above action items, the Commission received presentations on the following topics that are in development or being implemented operationally.

- White papers on methods to reduce potentially avoidable utilization
- Efficiency and cost measures
- Review of measures for ambulatory care settings
- Potential future population-based measures including hospital dashboards
- Changes to the Commission's existing quality-based reimbursement policy



### 5. Data and Infrastructure Work Group

The Data and Infrastructure Work Group considered policy implications regarding data and infrastructure requirements needed to support oversight and monitoring of the new hospital All-Payer Model and successful performance. The Work Group considered the needs of the HSCRC, as well as the needs for the health care industry and other stakeholders to achieve the goals of the model. This Work Group emphasized collaboration with other state agencies and other stakeholders to build upon the available resources and existing models for data governance. The Work Group held six meetings and discussed the following topics:

1. Data Requirements: Recommendations on the data needed to support rate setting activities; conduct evaluation activities using the key performance indicators; monitor and evaluate model performance; monitor shifts in care among hospitals and other providers; and, monitor the total cost of care.
2. Care Coordination Data and Infrastructure: Recommendations on the potential opportunities to use Medicare data to support care coordination initiatives, including: identifying the gaps in Medicare data; the best practices in predictive modeling and targeting care coordination resources; the most efficient infrastructure to support the needs of the State, hospitals, and other health care providers to meet the goals of the new model; and the relationship to initiatives supported by CMMI State Innovation Model (SIM) funding.
3. Technical and Staff Infrastructure: Recommendations on the technical infrastructure, staff resources and external resources needed to build, maintain and optimize the use of the data.
4. Data Sharing Strategy: Recommendations on the data that should be shared among the HSCRC, MHCC, SIM, DHMH, hospitals and others to manage and implement the new payment models, including the data sharing strategy to ensure protection of patient confidentiality and compliance with federal and state requirements and best practices.

The Work Group reported to Commission on the best sources of data to meet the monitoring and compliance requirements of the new model. The recommendations were focused on the monitoring requirements included in the contract between Maryland and CMS. The Work Group made a series of general recommendations as a foundation for developing unified and effective data and infrastructure policies:

- The State public and private sector health leaders need to develop a roadmap for its health care infrastructure.
- There should be a focused effort to get access to Medicare data because of its importance to care coordination and achieving the goals of the new model.
- The HSCRC and stakeholders should pursue the use of other data sources, in addition to comprehensive Medicare data, to support care coordination.
- The most efficient and effective way to host Medicare data is through a shared infrastructure that is accessible hospitals and other providers.

- Defining specific use of data will be important to prepare Maryland for implementing an infrastructure efficiently as well as supporting the case to CMMI to secure the data.
- Analysis of potential use cases of data needed to identify gaps in data sharing policy that should be addressed.

The Work Group also made specific recommendations on collecting total cost of care. They include:

- Collect aggregate total cost of care data from payers on a voluntary basis consistent with the initial reporting template developed by the subgroup (Total Cost of Care Report)
- Develop detailed template reporting instructions in sufficient time for payers to report data
- Begin to collect data by October 2014 and establish a routine reporting schedule

This Commission is pursuing these approaches toward addressing data and infrastructure needs to support the new all-payer model.

#### ***6. Phase II of the Work Group Process***

Beginning in October, the Commission will engage in Phase II of the Work Group Process. The Payment Models, Alignment, and Performance Measurement work groups will continue to pursue the work identified above. The Commission will be working with two new Work Groups that will include multi-stakeholder and multi-State representation. The industry and key consumer representatives will lead these groups, and the Commission will help support and participate on these work groups. They include the Care Coordination Initiatives and Infrastructure Work Group and the Work Group on Consumer Engagement, Outreach, and Education.

### **Section III.**

#### **Alternative Methods of Rate Determination**

The All-Payer Model agreement affords Maryland the ability to innovate to develop alternative methods of rate determination. During the first six months of the All-Payer Model, the HSCRC developed the Global Budget Revenue (GBR) reimbursement model and engaged all hospitals not already under a Total Patient Revenue (TPR) agreement in GBR, as discussed in Section I.3 of this report. Since some revenue is outside of the global budget (such as revenue from some out of state referrals), approximately 95% of acute hospital revenue is now under a global budget.

The GBR and TPR methodologies are central to achieving the three part aim set forth in the All-Payer Model: 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. GBR and TPR agreements prospectively establish a fixed annual



revenue cap for each hospital to encourage hospitals to focus on care improvement and population-based health management.

Under GBR and TPR contracts, each hospital's total annual revenue is known at the beginning of each fiscal year. Annual revenue is determined from a historical base period that is adjusted to account for inflation updates, infrastructure requirements for GBR hospitals<sup>5</sup>, demographic driven volume increases, performance in quality-based or efficiency-based programs, changes in payer mix and changes in levels of approved uncompensated care. Annual revenue may also be modified for changes in service levels, market share, or shifts of services to unregulated settings. The HSCRC is establishing a tool to understand how hospitals are utilizing their resources to meet care coordination goals and to evaluate the success of certain care strategies to reduce potentially avoidable utilization at the hospital. Understanding these investments and their impact is important for maximizing the potential for success under global budgets and improving care coordination and population health.

While the HSCRC may consider augmenting the existing global budget concept with new population-based arrangements in the future, it is important to first evaluate the effectiveness of the existing global budget mechanism. Other than global budgets, there are no other new general alternative methods of rate determination or experimental rate methods being developed at this time. The HSCRC will continue to innovate payment policy, and will report any future innovations in this section of the Biannual Report.

## **Section IV.**

### **Reports Submitted to CMMI**

The All-Payer Model Agreement requires HSCRC to report to CMMI relevant policy development and implementation. To date, the HSCRC has met all of the reporting requirements outlined in the All-Payer Model Agreement by submitting to CMMI the following information:

- Commission Meeting Documents: The HSCRC has submitted all pre and post Commission Meeting materials to CMMI. These documents are available on the HSCRC website (<http://hscrc.maryland.gov/commission-meetings-2014.cfm>).
- Base Year All Payer Revenue per Capita Total Hospital Revenue Amount for Maryland Residents Report: This report establishes the all-payer per capita total hospital revenue for Maryland residents in calendar year 2013, which will be used as the base period to calculate the all-payer per capita revenue growth moving forward. See Appendix 1.
- Correction to Base Year All Payer Revenue per Capita Total Hospital Revenue Amount for Maryland Residents Report: An incorrect Maryland resident population value was utilized in the initial all-payer per capita total hospital revenue for Maryland residents in 2013. This document, see Appendix 2, was submitted to CMMI in order to revise the initial calculation. The HSCRC has been conducting an audit of reports filed by hospitals that were the basis for reporting the Base Year All

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<sup>5</sup> TPR hospitals were previously provided allowances at the initiation of their agreements.

Payer Revenue for Maryland residents included in the report to CMMI. Upon completion of the audit report, HSCRC will assess the need for further updates and corrections to the All-Payer Base Period report.

- Base Year Potentially Preventable Complications Report: This report, available in Appendix 3, established the PPC rate for calendar year 2013, which will be used as the base period to calculate the change in PPC rates moving forward.
- Fiscal Year 2014 Electronic Health Records Compliance Penalty Implementation Report: This document, available in Appendix 4, outlines the calculation used to implement this electronic health record (EHR) payment adjustment to any Maryland hospital that did not meet the requirements for meaningful EHR by October 1, 2014. The All-Payer Model Agreement stipulates that Maryland must adjust the payment to each subsection (d) hospital that is not a meaningful EHR user (as defined in section 1886(n)(3) of the Act and the implementing regulations at 42 CFR 495.4) in a manner designed to result in an aggregate reduction in payments to hospitals in the State that is equivalent to the aggregate reduction that would have occurred if payments had been reduced to each subsection (d) hospital in a manner comparable to the reduction under Section 1886(b)(3)(B)(ix)(I).
- Base Year Maryland Monitoring Report: This report, see Appendix 5, contains the calendar year 2013 or most recently available population health, patient experience of care, and health care expenditure measures that Maryland is required to monitor under the All-Payer Model Agreement.
- Summary of Global Budget Implementation: This summary chart was submitted to CMMI to illustrate that 95% of Regulated Revenue for Maryland Residents is currently under a population based payment system through the Global Budget Revenue (GBR) and Total Patient Revenue (TPR) payment systems used under the All-Payer Model. See Appendix 6.

In addition to the documents HSCRC submitted to CMMI, the HSCRC has made available a large amount of public information related to the All-Payer Model implementation on the agency's website (<http://hscrc.maryland.gov>). This includes materials developed through the stakeholder workgroup process, technical white papers submitted by members of the research community and general public, and every global budget revenue contract signed by regulated Maryland hospitals to date.

The HSCRC staff has been meeting biweekly with CMMI staff since the beginning of the model demonstration period. These standing meetings have allowed HSCRC and CMMI staff to work closely together to monitor and evaluate Maryland's progress under the Model.

## **Section V.**

### **Reporting Adverse Consequences**

At this time, the HSCRC has not observed adverse consequences occurring as a result of the implementation of the All-Payer Model.

In this first six months of implementation, the HSCRC is actively developing policies to support the goals of the All-Payer Model and to guard against adverse

consequences that HSCRC staff and stakeholder workgroups have identified as possible unintended outcomes of implementation. The GBR agreements initiated by HSCRC for implementation of the global budgets contain consumer protection clauses. The HSCRC, in conjunction with the Payment Models Workgroup, is developing a Transfer Adjustment Policy and a Market Share Policy to help ensure that “the money will follow the patient” when shifts in utilization occur between hospitals or other health care settings. These policies aim to guard against hospitals inappropriately limiting the number of high cost, high risk cases admitted and to provide open access and resources when patients need to be transferred to receive highly specialized care offered in academic medical centers.

Additionally, the HSCRC is putting in place tools to monitor changes in patterns of service, particularly shifts in utilization and expenditure across all healthcare providers. This includes a Total Cost of Care Reporting Template through which a group of public and private healthcare payers have agreed to submit both hospital and non-hospital claims data. Some of this data may soon be available through the All Payer Claims Data (APCD) collected by MHCC. HSCRC will work with MHCC and payers to obtain the needed data in the most efficient and timely manner possible. The HSCRC will use this reporting tool to assess the growth and shifts that occur within the regulated and unregulated hospital market as well as those changes that occur among non-hospital healthcare providers.

The HSCRC has also focused on engaging consumers throughout the All-Payer Model implementation process. Consumer advocates are present on each of the HSCRC stakeholder workgroup panels, and the HSCRC staff has made significant efforts to be as transparent as possible in its initiatives and policy development by making these workgroup meetings available to the public and posting the meeting materials and recordings on the HSCRC's website (<http://www.hscrc.maryland.gov/index.cfm>)

## **Contact and More Information**

For questions about this report or more information, please contact Steve Ports, Deputy Director, Policy and Operations, at [Steve.Ports@maryland.gov](mailto:Steve.Ports@maryland.gov).

More information is available on HSCRC's website:  
<http://www.hscrc.maryland.gov/index.cfm>

# Appendix 1

STATE OF MARYLAND  
DEPARTMENT OF HEALTH AND MENTAL HYGIENE



**John M. Colmers**  
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**Sule Calikoglu, Ph.D.**  
Deputy Director  
Research and Methodology

**HEALTH SERVICES COST REVIEW COMMISSION**

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[hsrc.maryland.gov](http://hsrc.maryland.gov)

DATE: May 1, 2014

TO: Ankit Patel, CMS Innovation Center

FROM: Sule Calikoglu, Deputy Director Research and Methodology

RE: Reporting of the All-Payer Per Capita Total Hospital Revenue Amount for Maryland Residents in Calendar Year 2013

The purpose of this memorandum is to report the all-payer baseline calculations for the Maryland All-Payer Model as outlined in the Maryland All-Payer Model Agreement signed between the Maryland Health Services Cost Review Commission and the Center for Medicare and Medicaid Services on January 10, 2014.

The Maryland All-Payer Model Agreement states that the State of Maryland must calculate the all-payer per capital total hospital revenue amount for Maryland residents in 2013 in accordance with the methodology set forth in appendix 1.

Below shows the calculation of the all-payer per capita total hospital revenue amount for Maryland residents in calendar year (CY) 2013 as well as the total in-state and out of state revenue for each hospital included in the calculation.

**All-Payer Per Capita Total Hospital Revenue Amount for Maryland Residents in CY 2013**

<b>Hospital Number</b>	<b>Hospital</b>	<b>Total Revenue</b>	<b>Total In State Revenue</b>	<b>Total Out State Revenue</b>
210001	Meritus Medical Center	\$ 315,071,587	\$ 262,288,325	\$ 52,783,262
210002	UMMC	1,269,187,962	1,167,828,435	101,359,528
210003	Dimensions Prince Georges	256,247,114	222,110,885	34,136,229
210004	Holy Cross Hospital	465,712,601	425,516,787	40,195,814
210005	Frederick Memorial Hospital	334,184,138	312,860,364	21,323,774
210006	UCH-Harford	103,526,090	100,572,132	2,953,958
210008	Mercy Medical Center	479,519,745	451,169,793	28,349,952
210009	Johns Hopkins Hospital	2,209,150,745	1,678,361,337	530,789,408
210010	UM Dorchester	57,367,714	56,421,909	945,806
210011	St Agnes Hospital	407,741,951	401,532,346	6,209,605
210012	Sinai Hospital	696,733,458	664,888,451	31,845,007
210013	Bon Secours Hospital	124,959,436	124,497,623	461,813
210015	Medstar Franklin Square	480,921,246	475,637,190	5,284,056
210016	Washington Adventist	245,904,709	222,678,098	23,226,611
210017	Garrett County	44,795,071	31,717,220	13,077,851
210018	Medstar Montgomery	164,956,949	160,578,229	4,378,720
210019	Peninsula Regional	410,987,449	317,276,231	93,711,218
210022	Suburban Hospital	291,346,746	262,347,141	28,999,605
210023	Anne Arundel	551,344,418	538,804,841	12,539,577
210024	Medstar Union Memorial	406,325,099	390,410,217	15,914,882
210027	Western Maryland	320,277,833	235,817,959	84,459,875
210028	Medstar St Mary's	158,931,105	156,147,814	2,783,291
210029	Johns Hopkins Bayview	602,693,085	549,795,495	52,897,590
210030	UM Chesterton	60,955,411	59,120,414	1,834,998
210032	Union Hospital of Cecil	152,391,751	137,125,112	15,266,639
210033	Carroll County Hospital	248,411,667	236,222,495	12,189,172
210034	Medstar Harbor	198,985,823	193,154,753	5,831,070
210035	UM Charles Regional	143,713,371	138,544,733	5,168,637
210037	UM Easton	192,205,108	188,132,058	4,073,050
210038	UM Midtown	218,177,007	213,477,808	4,699,199
210039	Calvert Memorial	138,980,373	136,090,347	2,890,026
210040	Northwest Hospital	250,027,722	246,167,326	3,860,396
210043	UM Baltimore	384,836,920	377,933,699	6,903,221
210044	GBMC	423,227,898	403,160,994	20,066,903
210045	McCready Hospital	19,288,157	18,710,214	577,943
210048	Howard County Hospital	282,779,771	274,382,114	8,397,657
210049	Upper Chesapeake	290,180,963	279,111,417	11,069,546

210051	Doctors Community	220,555,193	203,853,009	16,702,184
210055	Dimensions Laurel Regional	122,523,536	116,700,021	5,823,515
210056	Medstar Good Samaritan	288,405,868	280,936,770	7,469,098
210057	Shady Grove Adventist	375,147,483	358,152,552	16,994,931
210058	UM Rehab & Ortho	116,580,459	111,580,925	4,999,534
210060	Ft. Washington	46,010,165	40,819,195	5,190,970
210061	Atlantic General	102,142,705	75,135,280	27,007,425
210062	Medstar Southern Maryland	259,074,028	240,545,531	18,528,497
210063	UM St. Joseph	354,640,622	337,766,451	16,874,171
210087	Germantown Emergency	13,047,629	12,663,812	383,817
210088	Queen Anne's Emergency	5,044,501	4,869,172	175,329
210333	Bowie Emergency	14,917,171	13,980,260	936,910
212005	Levindale	56,881,582	55,969,535	912,047
218992	UM Shock Trauma	199,869,113	178,245,080	21,624,033
	Totals	\$ 15,576,888,246	\$14,141,809,895	\$ 1,435,078,351
All-Payer Total Hospital Revenue for Maryland Residents				\$14,141,809,895
CY 2013 Maryland Population Estimate				5,982,814
All-Payer Per Capita Total Hospital Revenue for Maryland Residents				\$ 2,364

In accordance with the All-Payer Model Agreement, the HSCRC will make available any necessary underlying data, including access to contractors, contract deliverables, and software systems used to make the calculations necessary to validate the State's calculation.

## Appendix 1: Specifications for Calculating All-Payer Ceiling

### I. The revenue increase limit calculation

- 1) Base period: Regulated gross patient service revenue for Maryland residents in Maryland hospitals, where Maryland regulates rates paid by all-payers<sup>1</sup>. The base period is calendar year 2013.
- 2) Application of growth limit: Each year, this amount is increased by the annual growth ceiling (Base period revenue multiplied by 1 + All-Payer Revenue Limit of 3.58% for the first three years of the Model)
- 3) Population adjustment: Each year, the revenue limit will be adjusted for population growth, based on population projections from the Department of State Planning (Results of Line 2 above X 1 + Population Growth Percentage)
- 4) Adjusted base: The results of this calculation will result in an adjusted base period that can be used in the calculation for the following year
- 5) Adjustments to cumulative revenue limit calculation: Maryland may request adjustments to the methodology used to calculate the limit. Adjustments will be reported and be

<sup>1</sup> These hospitals are listed in appendix 2.

subject to approval by CMMI/CMS. Requests for adjustment may include but are not limited to the following:

- a) Changes in Regulated Revenues: If Maryland's regulation of hospital revenues were changed through statute and/or additional applications with CMS.
- b) In and Out-Migration of Maryland residents: Changes in the in and out-migration of Maryland residents.
- c) Exogenous Factors: Any exogenous factors that impacted hospital revenues

**II. Reporting of actual revenue for comparison to the ceiling**

- 1) Actual revenue will be reported in a consistent manner with the calculation of the revenue limit calculation, beginning with Performance Year 2014.
  - a) Actual revenue will include gross revenue for Maryland residents served in Maryland hospitals for those hospitals where HSCRC sets the rates paid by all-payers.
  - b) By May 1 of each year following the end of the Performance Year, the State will compare the actual revenues to the maximum allowed revenue under the Model.
  - c) Actual revenues will be adjusted for changes in differential to achieve the required Medicare savings of the Model as follows: If HSCRC adjusts gross revenue to reflect the use of an increased differential to achieve cost savings to Medicare that are permitted under the Maryland All-Payer Model, the resulting changes to gross revenue when calculating a new differential will be netted against the gross revenue in reporting the actual revenue.

**III. The Population Growth Factor**

The population growth estimates used in the calculations will be based on the population estimates of Maryland residents, based on Department of State Planning projections.

**IV. All-Payer Per Capita Total Hospital Calculation**

For each Performance Year, beginning with Performance Year 2014, by May 1 of the following year, Maryland will provide CMS with a calculation of the All-Payer Per Capita Total Hospital Amount by dividing the actual revenues as described in this Appendix by the most recently available population estimates at the time of the calculation.

**Appendix 2: Hospital Revenues Included in the Calendar Year 2013 Gross Patient Revenue for Maryland Residents**

<b>Regulated</b>	<b>Medicare Provider Number</b>		<b>Hospital Name</b>	<b>Type</b>
yes	21	0001	Meritus Medical Center	Acute
yes	21	0002	UMMC	Acute
yes	21	0003	Dimensions Prince Georges	Acute



yes	21	0004	Holy Cross Hospital	Acute
yes	21	0005	Frederick Memorial Hospital	Acute
yes	21	0006	UCH-Harford	Acute
yes	21	0008	Mercy Medical Center	Acute
yes	21	0009	Johns Hopkins Hospital	Acute
yes	21	0010	UM Dorchester	Acute
yes	21	0011	St Agnes Hospital	Acute
yes	21	0012	Sinai Hospital	Acute
yes	21	0013	Bon Secours Hospital	Acute
yes	21	0015	Medstar Franklin Square	Acute
yes	21	0016	Washington Adventist	Acute
yes	21	0017	Garrett County	Acute
yes	21	0018	Medstar Montgomery	Acute
yes	21	0019	Peninsula Regional	Acute
yes	21	0022	Suburban Hospital	Acute
yes	21	0023	Anne Arundel	Acute
yes	21	0024	Medstar Union Memorial	Acute
yes	21	0027	Western Maryland	Acute
yes	21	0028	Medstar St Mary's	Acute
yes	21	0029	Johns Hopkins Bayview	Acute
yes	21	0030	UM Chesterton	Acute
yes	21	0032	Union Hospital of Cecil	Acute
yes	21	0033	Carroll County Hospital	Acute
yes	21	0034	Medstar Harbor	Acute
yes	21	0035	UM Charles Regional	Acute
yes	21	0037	UM Easton	Acute
yes	21	0038	UM Midtown	Acute
yes	21	0039	Calvert Memorial	Acute
yes	21	0040	Northwest Hospital	Acute
yes	21	0043	UM Baltimore	Acute
yes	21	0044	GBMC	Acute
yes	21	0045	McCready Hospital	Acute
yes	21	0048	Howard County Hospital	Acute
yes	21	0049	Upper Chesapeake	Acute
yes	21	0051	Doctors Community	Acute
yes	21	0055	Dimensions-Laurel Regional	Acute
yes	21	0056	Medstar Good Samaritan	Acute
yes	21	0057	Shady Grove Adventist	Acute
yes	21	0058	UM Rehab & Ortho	Acute

yes	21	0060	Ft. Washington	Acute
yes	21	0061	Atlantic General	Acute
yes	21	0062	Medstar Southern Maryland	Acute
yes	21	0063	UM St. Joseph	Acute
yes	21	0087	Germantown Emergency	FSE
yes	21	0088	Queen Anne's Emergency	FSE
yes	21	0333	Bowie Emergency	FSE
yes	21	5033	Levindale	specialty
yes	21	8992	UM Shock Trauma	Acute

# Appendix 2

STATE OF MARYLAND  
DEPARTMENT OF HEALTH AND MENTAL HYGIENE



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**HEALTH SERVICES COST REVIEW COMMISSION**

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DATE: July 1, 2014

TO: Ankit Patel, CMS Innovation Center

FROM: Sule Calikoglu, Deputy Director Research and Methodology *SC*

RE: Revision to the Reported All-Payer per Capita Total Hospital Revenue Amount for Maryland Residents in Calendar Year 2013

The purpose of this memorandum is to revise the all-payer baseline calculations for the Maryland All-Payer Model originally reported on May 1, 2014. An incorrect figure of **5,982,814** was reported for the CY13 population estimate for Maryland residents. The correct figure of **5,928,814** has been input in this document. This has resulted in the All-Payer per Capital Total Hospital Revenue Amount for Maryland Residents in Calendar Year 2013 of **\$2,385**.

### All-Payer Per Capita Total Hospital Revenue Amount for Maryland Residents in CY 2013

Hospital Number	Hospital	Total Revenue	Total In State Revenue	Total Out State Revenue
210001	Meritus Medical Center	\$ 315,071,587	\$ 262,288,325	\$ 52,783,262
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210087	Germantown Emergency	13,047,629	12,663,812	383,817
210088	Queen Anne's Emergency	5,044,501	4,869,172	175,329
210333	Bowie Emergency	14,917,171	13,980,260	936,910
210064 <sup>i</sup>	Levindale	56,881,582	55,969,535	912,047
218992	UM Shock Trauma	199,869,113	178,245,080	21,624,033
	Totals	\$ 15,576,888,246	\$14,141,809,895	\$ 1,435,078,351
All-Payer Total Hospital Revenue for Maryland Residents				\$14,141,809,895
CY 2013 Maryland Population Estimate (Mid-Year)				5,928,814
All-Payer Per Capita Total Hospital Revenue for Maryland Residents				\$ 2,385

In accordance with the All-Payer Model Agreement, the HSCRC will make available any necessary underlying data, including access to contractors, contract deliverables, and software systems used to make the calculations necessary to validate the State's calculation.

## Appendix 1: Specifications for Calculating All-Payer Ceiling

### I. The revenue increase limit calculation

- 1) Base period: Regulated gross patient service revenue for Maryland residents in Maryland hospitals, where Maryland regulates rates paid by all-payers<sup>1</sup>. The base period is calendar year 2013.
- 2) Application of growth limit: Each year, this amount is increased by the annual growth ceiling (Base period revenue multiplied by 1 + All-Payer Revenue Limit of 3.58% for the first three years of the Model)
- 3) Population adjustment: Each year, the revenue limit will be adjusted for population growth, based on population projections from the Department of State Planning (Results of Line 2 above X 1 + Population Growth Percentage)
- 4) Adjusted base: The results of this calculation will result in an adjusted base period that can be used in the calculation for the following year
- 5) Adjustments to cumulative revenue limit calculation: Maryland may request adjustments to the methodology used to calculate the limit. Adjustments will be reported and be

<sup>1</sup> These hospitals are listed in appendix 2.

subject to approval by CMMI/CMS. Requests for adjustment may include but are not limited to the following:

- a) Changes in Regulated Revenues: If Maryland's regulation of hospital revenues were changed through statute and/or additional applications with CMS.
- b) In and Out-Migration of Maryland residents: Changes in the in and out-migration of Maryland residents.
- c) Exogenous Factors: Any exogenous factors that impacted hospital revenues

**II. Reporting of actual revenue for comparison to the ceiling**

- 1) Actual revenue will be reported in a consistent manner with the calculation of the revenue limit calculation, beginning with Performance Year 2014.
  - a) Actual revenue will include gross revenue for Maryland residents served in Maryland hospitals for those hospitals where HSCRC sets the rates paid by all-payers.
  - b) By May 1 of each year following the end of the Performance Year, the State will compare the actual revenues to the maximum allowed revenue under the Model.
  - c) Actual revenues will be adjusted for changes in differential to achieve the required Medicare savings of the Model as follows: If HSCRC adjusts gross revenue to reflect the use of an increased differential to achieve cost savings to Medicare that are permitted under the Maryland All-Payer Model, the resulting changes to gross revenue when calculating a new differential will be netted against the gross revenue in reporting the actual revenue.

**III. The Population Growth Factor**

The population growth estimates used in the calculations will be based on the population estimates of Maryland residents, from the Maryland Department of State Planning.

**IV. All-Payer Per Capita Total Hospital Calculation**

For each Performance Year, beginning with Performance Year 2014, by May 1 of the following year, Maryland will provide CMS with a calculation of the All-Payer Per Capita Total Hospital Amount by dividing the actual revenues as described in this Appendix by the most recently available population estimates at the time of the calculation.

**Appendix 2: Hospital Revenues Included in the Calendar Year 2013 Gross Patient Revenue for Maryland Residents**

<b>Regulated</b>	<b>Medicare Provider Number</b>	<b>Hospital Name</b>	<b>Type</b>
yes	21 0001	Meritus Medical Center	Acute
yes	21 0002	UMMC	Acute
yes	21 0003	Dimensions Prince Georges	Acute

yes	21	0004	Holy Cross Hospital	Acute
yes	21	0005	Frederick Memorial Hospital	Acute
yes	21	0006	UCH-Harford	Acute
yes	21	0008	Mercy Medical Center	Acute
yes	21	0009	Johns Hopkins Hospital	Acute
yes	21	0010	UM Dorchester	Acute
yes	21	0011	St Agnes Hospital	Acute
yes	21	0012	Sinai Hospital	Acute
yes	21	0013	Bon Secours Hospital	Acute
yes	21	0015	Medstar Franklin Square	Acute
yes	21	0016	Washington Adventist	Acute
yes	21	0017	Garrett County	Acute
yes	21	0018	Medstar Montgomery	Acute
yes	21	0019	Peninsula Regional	Acute
yes	21	0022	Suburban Hospital	Acute
yes	21	0023	Anne Arundel	Acute
yes	21	0024	Medstar Union Memorial	Acute
yes	21	0027	Western Maryland	Acute
yes	21	0028	Medstar St Mary's	Acute
yes	21	0029	Johns Hopkins Bayview	Acute
yes	21	0030	UM Chesterton	Acute
yes	21	0032	Union Hospital of Cecil	Acute
yes	21	0033	Carroll County Hospital	Acute
yes	21	0034	Medstar Harbor	Acute
yes	21	0035	UM Charles Regional	Acute
yes	21	0037	UM Easton	Acute
yes	21	0038	UM Midtown	Acute
yes	21	0039	Calvert Memorial	Acute
yes	21	0040	Northwest Hospital	Acute
yes	21	0043	UM Baltimore	Acute
yes	21	0044	GBMC	Acute
yes	21	0045	McCready Hospital	Acute
yes	21	0048	Howard County Hospital	Acute
yes	21	0049	Upper Chesapeake	Acute
yes	21	0051	Doctors Community	Acute
yes	21	0055	Dimensions-Laurel Regional	Acute
yes	21	0056	Medstar Good Samaritan	Acute
yes	21	0057	Shady Grove Adventist	Acute
yes	21	0058	UM Rehab & Ortho	Acute



yes	21	0060	Ft. Washington	Acute
yes	21	0061	Atlantic General	Acute
yes	21	0062	Medstar Southern Maryland	Acute
yes	21	0063	UM St. Joseph	Acute
yes	21	0087	Germantown Emergency	FSE
yes	21	0088	Queen Anne's Emergency	FSE
yes	21	0333	Bowie Emergency	FSE
yes	21	0064 <sup>i</sup>	Levindale	Specialty
yes	21	8992	UM Shock Trauma	Acute

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<sup>i</sup>The Levindale building contains two facilities, one that operates as a chronic care hospital and one that operates as a skilled nursing facility.

The chronic care facility is licensed by the State of Maryland Office of Health Care Quality. Medicare recognized this facility as an LTAC with a provider number (CCN) of 212005 through July 2013. At that time, the chronic care facility lost its LTAC status and became recognized as an acute care hospital with provider number 210064. The HSCRC is aligning 212005 and 210064 as these provider numbers represent the same facility.

The skilled nursing facility within Levindale has a provider number of 215033. This number is the Medicare provider number and is also used by the HSCRC in their financial database. However, the HSCRC only regulates the portion of activities at 215033 that fall under IPPS and OPSS. It does not regulate services that fall under the SNF prospective payment system.

# Appendix 3

# Maryland All-Payer Model: Potentially Preventable Complications Report

June 30, 2014

Health Services Cost and Review Commission

This report containing Calendar Year 2013 baseline data on potentially preventable complications is submitted by the Health Services Cost and Review Commission (HSCRC) to the Center for Medicare and Medicaid Services (CMMI) in compliance with the Maryland All-Payer Model Agreement.

The Maryland Hospital Acquired Conditions (MHAC) program utilizes a measurement methodology developed by 3M™ Health Information Systems, which identifies Potentially Preventable Complications (PPCs) that occur during inpatient admissions based on hospital discharge abstract data with present on admission (POA) indicators. PPCs are defined as harmful events (e.g., accidental laceration during a procedure) or negative outcomes (e.g., hospital acquired pneumonia) that may result from the process of care and treatment rather than from a natural progression of underlying disease. The MHAC program links hospital payment to hospital performance by comparing the observed number of PPCs to the expected number of PPCs, with the overall goal of incentivizing hospitals to reduce the rates of complications.

### Measurement Methodology

- a) **Measure:** PPC rate per 1,000 at-risk discharges (for each of the 65 PPCs and for all PPCs combined)
- b) **Data Source:** HSCRC discharge abstract data
- c) **Measurement Period:** Calendar Year 2013
- d) **Population:** All payer acute inpatient discharges\*
- e) **Version:** PPC Version 31.0 and APR-DRG Version 31.0
- f) **Exclusion Criteria:**
  - Cases excluded if less than 2 within an APR-DRG cell
  - Palliative care cases
  - Patients with more than 6 PPCs
  - PPCs for hospitals with less than 1 expected or 10 at-risk cases
- g) **Calculation of Measure:**

$$\text{PPC Rate per 1,000 At-Risk Discharges} = (\text{Observed Number of PPCs} / \text{Number of At-Risk Cases}) * 1,000$$

\* Levindale is excluded from these CY13 calculations. The chronic care facility at Levindale had not been required to report POA indicators when it was recognized as an LTAC. This chronic care facility lost its LTAC status and became a regular acute care hospital in July 2013. Now that it is an acute care hospital, this facility has been working to begin reporting POA indicators. HSCRC is integrating the Levindale chronic care facility into the acute hospital data stream and as such will include it in PPC reporting. An adjustment to the base year would be necessary to account for such a change.

## All-Payer Potentially Preventable Complications (PPCs) Rates for Calendar Year 2013

PPC NUMBER	PPC DESCRIPTION	OBSERVED NUMBER OF PPCs CY2013 BASE PERIOD	TOTAL NUMBER AT-RISK CY2013 BASE PERIOD	PPC RATE PER 1,000 AT-RISK DISCHARGES
1	Stroke & Intracranial Hemorrhage	500	482,999	1.04
2	Extreme CNS Complications	108	409,122	0.26
3	Acute Pulmonary Edema and Respiratory Failure without Ventilation	1,692	432,800	3.91
4	Acute Pulmonary Edema and Respiratory Failure with Ventilation	945	432,790	2.18
5	Pneumonia & Other Lung Infections	951	375,199	2.53
6	Aspiration Pneumonia	610	470,227	1.30
7	Pulmonary Embolism	382	486,840	0.78
8	Other Pulmonary Complications	688	294,535	2.34
9	Shock	720	477,771	1.51
10	Congestive Heart Failure	426	424,387	1.00
11	Acute Myocardial Infarction	631	484,050	1.30
12	Cardiac Arrhythmias & Conduction Disturbances	594	2,303	257.92
13	Other Cardiac Complications	94	404,238	0.23
14	Ventricular Fibrillation/Cardiac Arrest	1,064	499,818	2.13
15	Peripheral Vascular Complications Except Venous Thrombosis	91	419,860	0.22
16	Venous Thrombosis	487	491,306	0.99
17	Major Gastrointestinal Complications without Transfusion or Significant Bleeding	310	471,384	0.66
18	Major Gastrointestinal Complications with Transfusion or Significant Bleeding	117	455,172	0.26
19	Major Liver Complications	127	454,884	0.28
20	Other Gastrointestinal Complications without Transfusion or Significant Bleeding	145	441,801	0.33
21	Clostridium Difficile Colitis	874	499,818	1.75
23	GU Complications Except UTI	209	480,016	0.44
24	Renal Failure without Dialysis	2,559	414,765	6.17
25	Renal Failure with Dialysis	52	326,212	0.16
26	Diabetic Ketoacidosis & Coma	16	199,858	0.08
27	Post-Hemorrhagic & Other Acute Anemia with Transfusion	696	373,895	1.86
28	In-Hospital Trauma and Fractures	75	461,543	0.16
29	Poisonings Except from Anesthesia	89	456,088	0.20
30	Poisonings due to Anesthesia	1	505,774	0.00
31	Decubitus Ulcer	125	529,715	0.24
32	Transfusion Incompatibility Reaction	1	529,715	0.00
33	Cellulitis	262	413,289	0.63
34	Moderate Infectious	99	339,483	0.29
35	Septicemia & Severe Infections	743	469,820	1.58
36	Acute Mental Health Changes	164	275,210	0.60
37	Post-Operative Infection & Deep Wound Disruption Without Procedure	455	137,257	3.31
38	Post-Operative Wound Infection & Deep Wound Disruption with Procedure	52	119,322	0.44
39	Reopening Surgical Site	135	126,729	1.07
40	Post-Operative Hemorrhage & Hematoma without Hemorrhage Control Procedure or I&D Proc	1,342	182,488	7.35
41	Post-Operative Hemorrhage & Hematoma with Hemorrhage Control Procedure or I&D Proc	150	137,964	1.09
42	Accidental Puncture/Laceration During Invasive Procedure	699	186,968	3.74
43	Accidental Cut or Hemorrhage During Other Medical Care	32	292,133	0.11
44	Other Surgical Complication - Mod	161	135,686	1.19
45	Post-procedure Foreign Bodies	16	163,582	0.10
46	Post-Operative Substance Reaction & Non-O.R. Procedure for Foreign Body	3	500,105	0.01
47	Encephalopathy	229	356,638	0.64
48	Other Complications of Medical Care	324	493,771	0.66
49	Iatrogenic Pneumothrax	175	483,161	0.36
50	Mechanical Complication of Device, Implant & Graft	218	478,240	0.46
51	Gastrointestinal Ostomy Complications	144	476,506	0.30
52	Inflammation & Other Complications of Devices, Implants or Grafts Except Vascular Infection	530	484,686	1.09
53	Infection, Inflammation & Clotting Complications of Peripheral Vascular Catheters & Infusions	170	486,428	0.35
54	Infections due to Central Venous Catheters	99	486,678	0.20
55	Obstetrical Hemorrhage without Transfusion	1,426	64,926	21.96
56	Obstetrical Hemorrhage with Transfusion	519	64,926	7.99
57	Obstetric Lacerations & Other Trauma Without Instrumentation	1,010	60,048	16.82
58	Obstetric Lacerations & Other Trauma With Instrumentation	389	3,615	107.61
59	Medical & Anesthesia Obstetric Complications	505	65,944	7.66
60	Major Puerperal Infection and Other Major Obstetric Complications	99	62,877	1.57
61	Other Complications of Obstetrical Surgical & Perineal Wounds	158	65,400	2.42
62	Delivery with Placental Complications	220	65,944	3.34
63	Post-Operative Respiratory Failure with Tracheostomy	36	76,559	0.47
64	Other In-Hospital Adverse Events	368	498,136	0.74
65	Urinary Tract Infection without Catheter	1,616	438,471	3.69
66	Catheter-Related Urinary Tract Infection	70	396,530	0.18
<b>STATE TOTAL</b>		<b>27,997</b>	<b>22,278,405</b>	<b>1.26</b>

PPCs highlighted in yellow are high priority complications listed in the Contract under Maryland Monitoring.

# Appendix 4

**Sample Calculation of EHR penalty for FY15**

Penalty has been calculated based on IP Medicare revenue and will be applied to hospital's rates on an

penalty (total \$) = (Medicare \$)*(1-IME-DSH)*(update factor*reduction)			
<b>Penalty amount for FY15:</b>		<b>\$229,102.98</b>	
	Value	Source	Period
<u>Medicare \$</u>	<u>\$43,338,039</u>	CCW database	CY13
<u>(1-IME-DSH)</u>	<u>0.783173</u>		
IME	0.108155	CMS PUF	FFY15
DSH	0.108672	CMS PUF	FFY15
<u>(Update factor*reduction)</u>	<u>0.00675</u>		
Update factor	0.027	IPPS rules	FFY15
Reduction	0.25	IPPS rules	FFY15

# Appendix 5



DRAFT

Maryland All-Payer Model:  
Measure Specifications for Monitoring  
Maryland Report

June 30, 2014

Health Services Cost and Review Commission

This draft report containing Calendar Year 2013 baseline measures is submitted by the Health Services Cost and Review Commission (HSCRC) to the Center for Medicare and Medicaid Services (CMMI) in compliance with the Maryland All-Payer Model Agreement.

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## Introduction

On January 10th, 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 order to measure the progress of the state in achieving the three-part aim, the Contract states that Maryland will submit to the Center for Medicare and Medicaid Services (CMS) an annual monitoring report on June 30<sup>th</sup> following the end of each performance year cataloguing its performance with respect to quality and financial goals outlined in the All-Payer Agreement. Thus we are submitting a draft report to CMMI with all the measures for Calendar Year 2013 to begin the work on finalizing the measure definitions and provide baseline information for the first performance year, which is CY 2014.

The Maryland All-Payer Model will test two hypotheses:

1. An all-payer system for hospital payment that is accountable for the total hospital cost of care on a per capita basis is an effective model for advancing population health by raising the quality of health care delivery, improving population health, and reducing cost.
2. New payment and delivery system models implemented in the context of an all-payer rate setting system will have greater sustainability and impact when compared to payment and delivery system models in other states.

In short, this model will test whether transformation efforts will produce greater results when implemented in the context of an all-payer rate setting system. More specifically, this model has four objectives: 1) Reduce expenditures for all payers, including CMS; 2) Partner with CMS to deploy innovative delivery systems and payment models in order to transform health care systems; 3) Improve the health of Maryland residents; and 4) Evaluate Maryland's efforts and initiatives. Maryland intends to achieve results in each of the three areas of the three-part aim by following strategies as outlined below:

Patient experience of care. Maryland believes that an all payer model that is accountable for the total cost of care can improve the quality of care and the patient's experience of care. Maryland will enhance care transitions, sustain high levels of physician participation in public programs, and broaden provider engagement in innovative models of care. Through these efforts and reducing complications and readmissions, Maryland will increase quality outcomes and patient satisfaction scores.

Population Health. Maryland believes that an all payer model that is accountable for the total cost of care can establish incentives that improve population health outcomes and reduce health disparities to drive significant population health improvement.

Health care costs. Maryland believes that an all payer model accountable for the total cost of care can control the growth in health care expenditures at a reasonable level and has the potential for

shared savings beneath a hard expenditure ceiling. The goal is to achieve meaningful savings for all payers, including to Medicare, Medicaid, and CHIP, and the Federal Government through reduced expenditures for insurance subsidies in Maryland's health benefit exchange.

The Monitoring reports contain measures to evaluate Maryland's progress in achieving three -part aim goals under the new All-Payer Model based on the strategies outlined above. While there are many measures being monitored, specific quality and cost targets that must be achieved over the 5-year demonstration project are established in the contract, including:

- 30% reduction in Potentially Preventable Complications
- Reduction of Maryland Medicare Readmissions to at or below National Medicare Readmissions
- Medicare payment savings of \$330 million above national trend

In order to achieve these targets, the Commission has put into place various quality initiatives and payment methodologies designed to incentivize hospitals to invest in quality improvement initiatives and population health. In addition to the specific targets above, the HSCRC will work collaboratively with CMMI to establish benchmarks or targets for other high priority measures that are currently being monitored or that will be developed in the future. This baseline report can serve as a starting point for establishing these additional benchmarks or targets. The HSCRC also plans to add new measures to this report as they are developed such as additional efficiency measures or other new measures developed by CMS. Overall, the HSCRC aims to ensure that CMMI has the data that it needs to show that this new All-Payer Model is effective at achieving the three-part aim.

Starting in January 2014, the HSCRC convened a stakeholder workgroup to assess the data and infrastructure needs for the new Model. The Data and Infrastructure workgroup made recommendations to the Commission on data sources for some of the monitoring measures identified in the contract for which there were data gaps. As a result of this review, the HSCRC informed the CMMI team that the reporting deadline of June 30<sup>th</sup> is not feasible for some of the monitoring measures as the information for the calendar year period will not be available until the fall. HSCRC is proposing to report measures that are derived from its own data sets on June 30<sup>th</sup> and report all other measures on December 1<sup>st</sup>.

Based upon the Data and Infrastructure workgroup recommendations, this Calendar Year (CY) 2013 Monitoring Maryland Draft Report provides the baseline measures (or most recently available data) for the patient experience of care, population health, and healthcare cost and efficiency measures listed in the Contract in Appendix 7 and 8, with the following modifications or gaps:

### **Measure Gaps**

1. To be filled in the future:
  - 1.1. Three-item Care Transitions Measure: Currently not available; this item was added to HCAHPS Survey and hospitals began reporting them in January 2014.
  - 1.2. Rate of Physician Follow-Up after Discharge: Currently not available. Requires access to all payer ambulatory care data.
  - 1.3. Medicaid Participating Physicians per Medicaid Enrollee: Currently not available. Suggested data source is Maryland Medicaid HealthChoice.

- 1.4. Outpatient Quality Reporting/Overuse of Imaging Measures: Maryland hospitals were required to report these data beginning with discharges starting on January 1, 2014. HSCRC will report these data in subsequent years' reports when sufficient base and measurement period data are submitted and available for reporting.
  - 1.5. Per Capita Expenditures for all Services: Currently not available. Requires access to all payer ambulatory care data.
2. Needs to be removed or replaced
    - 2.1. Short Stay Nursing Home Resident's Discharge Needs Met: Removed from the Maryland Nursing Facility Short Stay Resident Survey in 2013; however four questions on discharge planning are reported and the HSCRC will look into other measures to add in the future.
    - 2.2. Children's Asthma Care (3 measures): Maryland hospitals no longer reporting CAC measures as of January 2013 because it is not required by IQR. The HSCRC will explore other potential pediatric measures to add to this report.

### **Measure Modifications**

Discharges with PCP identified: Proposed modification to measure "Discharges with Principle Provider Notified". The monitoring plan with CMS requires measures to assess patient experience of care. One of these measures is the frequency of the primary care provider (PCP) identified on discharge to support care transitions between providers. The Workgroup's recommendation for monitoring this data will build on a solution already being deployed in Maryland to support hospital efforts to meet meaningful use requirements (Stage 2 Summary of Care/Transitions of Care Measure) and redefine the measure as percent of discharges where the "principal provider of care" was notified. Maryland's state designated health information exchange, Chesapeake Regional Information System for our Patients (CRISP) currently operates an Electronic Notification Service (ENS) that sends information on inpatient admissions and discharges, as well as emergency department visits, on a real-time basis to the Principal Provider of Care (PPC), which includes specialty providers and PCPs. ENS works by gathering patient panels directly from the providers rather than relying on self-reported data from patients during the admission process which is known to be unreliable in Maryland as well as nationally. Recently, CRISP started providing a service to send discharge summaries to the PPCs who subscribe to the ENS.

The Workgroup recommended using data from CRISP for the number of discharges for which there is an associated ENS alert to a provider. This standard is much higher than the CMS required measure, which only considers whether a PCP was identified on discharge. The CRISP data source will allow us to provide information on the number of discharges where a discharge summary was sent to the provider via the ENS. While this measure is not exactly consistent with CMS requirement, there is a strong case to be made that this measure is a better indicator of supporting transitions in care and more consistent with meaningful use requirements. The Workgroup also suggested that the HSCRC should work with CRISP to create more specific information to capture primary care providers receiving notifications

The HSCRC is currently in the process of hiring a Contractor who will assist us with analytics to support the Model. Once a vendor is hired, this draft report will be finalized. The HSCRC will be working on timely access to all payer data to calculate measures related to total cost of care and will develop measurement definitions for outpatient measures (rate of physician follow up, overuse of imaging measures). In the meantime, the HSCRC staff will review the report with CMMI to obtain feedback and begin the process of setting additional goals to enhance the Model.

## Patient Experience of Care Goals and Measures

Goal #	Goal	Measure	2013 Results	Data Source	Measurement Period	Notes	Link to additional information
<b>Patient Experience of Care</b>							
1	<b>Increase Patient Satisfaction with Hospital</b>	Patient's Rating of Hospital: Percentage of survey respondents reporting a 9 or 10 (10 being best)	65%	Hospital CAHPS	July 1, 2012 - June 30, 2013	Preliminary data	<a href="http://www.hcahpsonline.org/home.aspx">http://www.hcahpsonline.org/home.aspx</a>
		Communication with Doctors: Percentage of survey respondents reporting "always" on three questions (composite measure)	78%	Hospital CAHPS	July 1, 2012 - June 30, 2013	Preliminary data	
		Communication with Nurses: Percentage of survey respondents reporting "always" on three questions (composite measure)	75%	Hospital CAHPS	July 1, 2012 - June 30, 2013	Preliminary data	
2	<b>Increase patient Satisfaction with Home Health</b>	Patient's Rating of Home Health Agency: Percentage of survey respondents reporting a 9 or 10 (10 being best)	82%	Home Health CAHPS	October 1, 2012 – September 30, 2013	Preliminary data	<a href="https://homehealthcahps.org/Home.aspx">https://homehealthcahps.org/Home.aspx</a>
		Communication with Home Health Team: Percentage of survey respondents reporting "always" on six questions (composite measure)	85%	Home Health CAHPS	October 1, 2012 – September 30, 2013	Preliminary data	
3	<b>Increase Patient Satisfaction with Nursing Homes</b>	Patient's Rating of Nursing Home: Average rating of 0-10 (10 being best)	7.9	Maryland Nursing Facility Short Stay Resident Survey	September 1, 2012 – February 8, 2013	Preliminary data	<a href="http://mhcc.dhmh.maryland.gov/Itc/Documents/longtermcare/2013_Maryland_Nursing_Facility_Short_Stay_Statewide_Report.pdf">http://mhcc.dhmh.maryland.gov/Itc/Documents/longtermcare/2013_Maryland_Nursing_Facility_Short_Stay_Statewide_Report.pdf</a>
4	<b>Increase Patient Satisfaction with Ambulatory Care</b>	Patients' Rating of Provider: Percent with top-box scores	82% (South Region)	Clinician and Group CAHPS	CY2012	Preliminary data. Data is only reported by region.	<a href="https://www.cahpsdatabase.ahrq.gov/CGSurveyGuidance.aspx">https://www.cahpsdatabase.ahrq.gov/CGSurveyGuidance.aspx</a>
5	<b>Enhance Care Transitions-Hospital</b>	Three item care transition measure				Currently not available. Items added to HCAHPS Survey and hospitals began reporting them in January 2014.	
6	<b>Enhance Care Transitions-Short Stay Nursing Homes</b>	Short Stay Nursing Home Resident's Discharge Needs Met				Measure removed from 2013 survey	<a href="http://mhcc.dhmh.maryland.gov/Itc/Documents/longtermcare/2013_Maryland_Nursing_Facility_Short_Stay_Statewide_Report.pdf">http://mhcc.dhmh.maryland.gov/Itc/Documents/longtermcare/2013_Maryland_Nursing_Facility_Short_Stay_Statewide_Report.pdf</a>
		Discharge Planning: Percent reporting "Yes" that nursing home talked with resident about help needed after discharge	86%	Maryland Nursing Facility Short Stay Resident Survey	September 1, 2012 – February 8, 2013		<a href="http://mhcc.dhmh.maryland.gov/Itc/Documents/longtermcare/2013_Maryland_Nursing_Facility_Short_Stay_Statewide_Report.pdf">http://mhcc.dhmh.maryland.gov/Itc/Documents/longtermcare/2013_Maryland_Nursing_Facility_Short_Stay_Statewide_Report.pdf</a>
		Discharge Planning: Percent reporting "Yes" that nursing home provided written info on symptoms/health problems to look for	73%	Maryland Nursing Facility Short Stay Resident Survey	September 1, 2012 – February 8, 2014		<a href="http://mhcc.dhmh.maryland.gov/Itc/Documents/longtermcare/2013_Maryland_Nursing_Facility_Short_Stay_Statewide_Report.pdf">http://mhcc.dhmh.maryland.gov/Itc/Documents/longtermcare/2013_Maryland_Nursing_Facility_Short_Stay_Statewide_Report.pdf</a>
		Discharge Planning: Percent reporting "Yes" that nursing home told them what medications were for	82%	Maryland Nursing Facility Short Stay Resident Survey	September 1, 2012 – February 8, 2015		<a href="http://mhcc.dhmh.maryland.gov/Itc/Documents/longtermcare/2013_Maryland_Nursing_Facility_Short_Stay_Statewide_Report.pdf">http://mhcc.dhmh.maryland.gov/Itc/Documents/longtermcare/2013_Maryland_Nursing_Facility_Short_Stay_Statewide_Report.pdf</a>
		Discharge Planning: Percent reporting "Yes" that they clearly understood purposes for each medication	87%	Maryland Nursing Facility Short Stay Resident Survey	September 1, 2012 – February 8, 2016		<a href="http://mhcc.dhmh.maryland.gov/Itc/Documents/longtermcare/2013_Maryland_Nursing_Facility_Short_Stay_Statewide_Report.pdf">http://mhcc.dhmh.maryland.gov/Itc/Documents/longtermcare/2013_Maryland_Nursing_Facility_Short_Stay_Statewide_Report.pdf</a>

Goal #	Goal	Measure	2013 Results	Data Source	Measurement Period	Notes	Link to additional information
<b>Patient Experience of Care</b>							
7	Enhance Care Transitions-Coordination with Primary Care	Rate of Physician Follow-Up after Discharge				Currently not available. Requires access to ambulatory care data.	
		Discharges with Principle Provider Notified				Currently not available. Modified measure: Measure is not exactly consistent with CMS requirement, however there is a strong case to be made that this measure is a better indicator of supporting transitions in care and more consistent with meaningful use requirements. HSCRC will work with CRISP to develop.	
8	Sustain High Physician Participation in Public Programs	Medicare Participating Physicians per 1,000 Medicare Enrollees	(19,172 [Providers]/749,971 [Benes])*1,000 = 25.56	List of providers downloaded from Medicare.gov Physician Compare and de-duplicated based on NPI. Benes came from average of Part A and B from CMMI.	Provider list downloaded on 6/30/2014	Concerns/Limitations: Potential duplication in provider data and a lack of current information on whether providers are actively seeing Medicare beneficiaries or open for new patients.	
		Medicaid Participating Physicians per Medicaid Enrollee				Currently not available. Suggested data source is HealthChoice Directory. Concerns/Limitations: Potential duplication in provider data and a lack of current information on whether providers are actively seeing Medicare beneficiaries or open for new patients	
9	Broaden Engagement in Innovative Models of Care	Participation of Clinicians in NCQA Accredited Patient Centered Medical Homes	781	NCQA Website	As of 6/30/2014	Count of providers and practices (possible duplication) that are part of PCMH -2011 Recognition Program and Physician Practice Connections - PCMH Recognition Program	<a href="http://recognition.ncqa.org/index.aspx">http://recognition.ncqa.org/index.aspx</a>
		Participation of Providers in Accountable Care Organization	13	CMS Website	As for June 30, 2014	Some of these ACOs may have started in 2014. We want to request that CMMI provide this number for 2013.	<a href="https://data.cms.gov/ACO/Medicare-Shared-Savings-Program-Accountable-Care-O/x5qt-6kt3?">https://data.cms.gov/ACO/Medicare-Shared-Savings-Program-Accountable-Care-O/x5qt-6kt3?</a>
		Participation of Providers in Bundled Payment Initiatives	32	HSCRC Rate-Setting	CY 2013	This is the number of alternative rate setting methodologies that became effective in CY2013.	
10	Improve Process of Care-Inpatient	Heart Attack Care- Aspirin at arrival*	99.34%	Joint Commission Quality Check	October 1, 2012-September 30, 2013	<b>* For Goal 10 measures, indicates measures also reported on Hospital Compare but Joint Commission had more recent data.</b> <b>Preliminary data</b>	<a href="http://www.qualitycheck.org/co/numner/searchQCR.aspx">http://www.qualitycheck.org/co/numner/searchQCR.aspx</a>
		Heart Attack Care -Aspirin prescribed at discharge*	99.32%	Joint Commission Quality Check	October 1, 2012-September 30, 2013	<b>Preliminary data</b>	
		Heart Attack Care- ACE inhibitor or ARB for LVSD*	98.11%	Joint Commission Quality Check	October 1, 2012-September 30, 2013	<b>Preliminary data</b>	
		Heart Attack Care -Beta blocker prescribed at discharge*	98.89%	Joint Commission Quality Check	October 1, 2012-September 30, 2013	<b>Preliminary data</b>	



Goal #	Goal	Measure	2013 Results	Data Source	Measurement Period	Notes	Link to additional information
<b>Patient Experience of Care</b>							
10	<b>Improve Process of Care- Inpatient</b>	Heart Attack Care- Primary PCI received within 90 minutes of hospital arrival*	92.62%	Joint Commission Quality Check	October 1, 2012-September 30, 2013	Preliminary data	
		Heart Attack Care- Statin Prescribed at Discharge	98.47%	Joint Commission Quality Check	October 1, 2012-September 30, 2013	Preliminary data	
		Heart Failure Care- Discharge instructions*	92.63%	Joint Commission Quality Check	October 1, 2012-September 30, 2013	Preliminary data	
		Heart Failure Care- LVF assessment*	99.27%	Joint Commission Quality Check	October 1, 2012-September 30, 2013	Preliminary data	
		Heart Failure Care -ACE inhibitor or ARB for LVSD*	97.24%	Joint Commission Quality Check	October 1, 2012-September 30, 2013	Preliminary data	
		Pneumonia Care Initial antibiotic selection for Community Acquired Pneumonia (CAP) in immunocompetent – ICU patient*	92.70%	Joint Commission Quality Check	October 1, 2012-September 30, 2013	Preliminary data	
		Pneumonia Care -Initial antibiotic selection for CAP in immunocompetent – non ICU patient*	97.23%	Joint Commission Quality Check	October 1, 2012-September 30, 2013	Preliminary data	
		Pneumonia Care -Blood cultures for pneumonia patients in intensive care units.	97.50%	Joint Commission Quality Check	October 1, 2012-September 30, 2013	Preliminary data	
		Pneumonia Care -Blood cultures for pneumonia patients admitted through the Emergency Department.*	96.83%	Joint Commission Quality Check	October 1, 2012-September 30, 2013	Preliminary data	
		Surgical Care Improvement (SCIP) - Cardiac Surgery patients taking a Beta-Blocker before hospital admission who received a Beta-Blocker in the time frame of 24 hours before surgery through the time they were in the recovery room.	97.26%	Joint Commission Quality Check	October 1, 2012-September 30, 2013	Preliminary data	
		SCIP - Infection Prevention Surgery patients with proper hair removal.	99.84%	Joint Commission Quality Check	October 1, 2012-September 30, 2013	Preliminary data	
		SCIP - Infection Prevention Urinary Catheter Removed	97.82%	Joint Commission Quality Check	October 1, 2012-September 30, 2013	Preliminary data	
		SCIP - Infection Prevention- SCIP Inf-1 - Patients having a surgery who received medicine to prevent infection (an antibiotic) within one hour before the skin was surgically cut.*	97.40%	Joint Commission Quality Check	October 1, 2012-September 30, 2013	Preliminary data	
		SCIP - Infection Prevention SCIP Inf-2 - Patients having surgery who received the appropriate medicine (antibiotic) which is shown to be effective for the type of surgery performed.*	98.80%	Joint Commission Quality Check	October 1, 2012-September 30, 2013	Preliminary data	
		SCIP - Infection Prevention SCIP Inf-3 - Patients who had surgery and received appropriate medicine that prevents infection (antibiotic) and the antibiotic was stopped within 24 hours after the surgery ended.*	97.87%	Joint Commission Quality Check	October 1, 2012-September 30, 2013	Preliminary data	
	SCIP – Venous Thromboembolism (VTE)Patients having surgery who received the appropriate treatment to prevent blood clots which is shown to be effective for the type of surgery performed. Note: Treatment may be medication, stockings, or mechanical devices for exercising the legs.*	97.95%	Joint Commission Quality Check	October 1, 2012-September 30, 2013	Preliminary data		
	Children's Asthma Care (CAC)- Home Management Plan of Care (HMPC) Document Given to Patient/Caregiver*					Maryland hospitals no longer reporting CAC measures as of January 2013.	

Goal #	Goal	Measure	2013 Results	Data Source	Measurement Period	Notes	Link to additional information
<b>Patient Experience of Care</b>							
10	<b>Improve Process of Care- Inpatient</b>	Children's Asthma Care Use of Relievers for Inpatient Asthma Overall Rate. Age 2-17*				Maryland hospitals no longer reporting CAC measures as of January 2013	
		Children's Asthma Care Use of Systemic Corticosteroids for Inpatient Asthma Overall Rate. Age 2-17*				Maryland hospitals no longer reporting CAC measures as of January 2013	
		Blood Clot Prevention- Patients who got treatment to prevent blood clots on the day of or day after hospital admission or surgery *	83%	CMS Hospital Compare	July 1, 2012 - June 30, 2013	Blood Clot Prevention and Treatment measurement domain is not in the contract monitoring requirements and is newly added by HSCRC. Preliminary data	<a href="http://www.medicare.gov/hospitalcompare/search.html">http://www.medicare.gov/hospitalcompare/search.html</a>
		Blood Clot Prevention Patients who got treatment to prevent blood clots on the day of or day after being admitted to the intensive care unit (ICU) *	91%	CMS Hospital Compare	July 1, 2012 - June 30, 2013	Preliminary data	
		Blood Clot Prevention Patients who developed a blood clot while in the hospital who <i>did not</i> get treatment that could have prevented it *	10%	CMS Hospital Compare	July 1, 2012 - June 30, 2013	Preliminary data	
		Blood Clot Treatment -Patients with blood clots who got the recommended treatment, which includes using two different blood thinner medicines at the same time *	92%	CMS Hospital Compare	July 1, 2012 - June 30, 2013	Preliminary data	
		Blood Clot Treatment- Patients with blood clots who were treated with an intravenous blood thinner, and then were checked to determine if the blood thinner was putting the patient at an increased risk of bleeding*	96%	CMS Hospital Compare	July 1, 2012 - June 30, 2013	Preliminary data	
		Blood Clot Treatment- Patients with blood clots who were discharged on a blood thinner medicine and received written instructions about that medicine*	73%	CMS Hospital Compare	July 1, 2012 - June 30, 2013	Preliminary data	
11	<b>Improve Process of Care- Outpatient</b>					Maryland hospitals were required to report these data beginning with discharges starting on January 1, 2014. HSCRC will report these data in subsequent years' reports when sufficient base and measurement period data are submitted and available for reporting.	
12	<b>Reduce High Priority Hospital Complications</b>	Potentially Preventable Complication Rate Per 1,000 Discharges (All 65 PPCs)	1.26	HSCRC Inpatient Abstract Data	CY2013	<b>See Potentially Preventable Complication Report</b>	
		Central-Line Acquired Bloodstream Infections (CLABSI) Standardized Infection Ratio (1 = National Average)	0.53	<a href="http://www.medicare.gov/hospitalcompare/search.html">Whynotthebest.org</a>	July 1, 2012 - June 30, 2013		<a href="http://www.cdc.gov/nhsn/pdfs/pscmanual/4psc_clabscurrent.pdf">http://www.cdc.gov/nhsn/pdfs/pscmanual/4psc_clabscurrent.pdf</a>

Goal #	Goal	Measure	2013 Results	Data Source	Measurement Period	Notes	Link to additional information
<b>Patient Experience of Care</b>							
13	<b>Reduce Readmissions-Home Health</b>	Admission Rates from Home Health Agencies to Acute Inpatient Hospital	17%	Home Health Compare	October 1st 2012 – September 30th 2013		<a href="http://www.medicare.gov/homehealthcompare/search.html">http://www.medicare.gov/homehealthcompare/search.html</a>
		Unplanned, Urgent Visits to the Emergency Department for Patients Receiving Home Health	11%	Home Health Compare	October 1, 2012 – September 30, 2014		
14	<b>Reduce Readmissions-Nursing Homes</b>	Readmission Rates for Inpatient Discharges to Nursing Homes	21.11%	HSCRC Inpatient Abstract Data	CY2013		
15	<b>Reduce Readmissions-Hospital</b>	30-Day, All Hospital, All-Cause Readmission Rate	12.50%	HSCRC Inpatient Abstract Data	CY2013		
		Readmissions Per 1,000 MD Residents	12.62	HSCRC Inpatient Abstract Data	CY2013		
		Heart Failure Readmission Rate	23.71%	HSCRC Inpatient Abstract Data	CY2013		
		Pneumonia Readmission Rate	15.42%	HSCRC Inpatient Abstract Data	CY2013		
		Acute Myocardial Infarction	13.79%	HSCRC Inpatient Abstract Data	CY2013		
		Chronic Obstructive Pulmonary Disease	21.88%	HSCRC Inpatient Abstract Data	CY2013		
		Hip/Total Knee Arthroplasty	4.07%	HSCRC Inpatient Abstract Data	CY2013		

## Population Health Goals and Measures

Goal #	Goal	Measure	2013 Results	Data Source	Measurement Period	Notes	Link to additional information
<b>Population Health</b>							
16	<b>Improve Life Expectancy</b>	Average Life Expectancy at Birth	79.7 years	Maryland Vital Statistics	CY2012	Preliminary Data	<a href="http://dhmh.maryland.gov/ship/SitePages/Home.aspx">http://dhmh.maryland.gov/ship/SitePages/Home.aspx</a>
17	<b>Reduce the Rate of Hospitalizations for Ambulatory Care Sensitive Conditions</b>	Adjusted Preventive Quality Indicator (PQI) Acute Composite Rate per 100,000 Population, Age 18 and over	513.64	HSCRC Inpatient Abstract Data	CY2013		<a href="http://www.qualityindicators.ahrq.gov/modules/pqi_resources.aspx">http://www.qualityindicators.ahrq.gov/modules/pqi_resources.aspx</a>
		Adjusted Preventive Quality Indicator (PQI) Chronic Composite Rate per 100,000 Population, Age 18 and over	907.04	HSCRC Inpatient Abstract Data	CY2013		
		Adjusted Preventive Quality Indicator (PQI) Overall Composite Rate per 100,000 Population, Age 18 and over	1,420.07	HSCRC Inpatient Abstract Data	CY2013		
18	<b>Improve Cancer Control</b>	Percent of Adults who are Current Smokers	16.20%	Behavioral Risk Factor Surveillance System (BRFSS)	CY 2012	Preliminary Data	<a href="http://dhmh.maryland.gov/ship/SitePages/Home.aspx">http://dhmh.maryland.gov/ship/SitePages/Home.aspx</a>
		Percent of Youth Using any kind of Tobacco Product	24.80%	Maryland Youth Tobacco Survey	CY 2010	Preliminary Data	
19	<b>Improve Primary Prevention of Infectious Disease</b>	Annual Seasonal Influenza Vaccination Rate	53.10%	Centers for Disease Control BRFSS and National Immunization Survey	2012-2013 season		<a href="http://dhmh.maryland.gov/ship/SitePages/Home.aspx">http://dhmh.maryland.gov/ship/SitePages/Home.aspx</a>
		Percent of Children with Recommended Vaccinations	78%	Centers for Disease Control National Immunization Survey	2011	Preliminary Data	<a href="http://dhmh.maryland.gov/ship/SitePages/Home.aspx">http://dhmh.maryland.gov/ship/SitePages/Home.aspx</a>
		New HIV Infection Rate among Adults and Adolescents Rate per 100,000 Population	26.9	Maryland DHMH Infectious Disease Bureau, Center for HIV Surveillance and Epidemiology	2011	Preliminary Data	<a href="http://dhmh.maryland.gov/ship/SitePages/Home.aspx">http://dhmh.maryland.gov/ship/SitePages/Home.aspx</a>
20	<b>Improve Prevention for Diabetes and Cardiovascular Disease</b>	Diabetes-Related ED Visit Rate per 100,000 Population	205.1	Calculated by DHMH using HSCRC Outpatient Data	CY 2013		<a href="http://dhmh.maryland.gov/ship/SitePages/Home.aspx">http://dhmh.maryland.gov/ship/SitePages/Home.aspx</a>
		Hypertension-Related ED Visit Rate per 100,000 Population	265.2	Calculated by DHMH using HSCRC Outpatient Data	CY 2013		<a href="http://dhmh.maryland.gov/ship/SitePages/Home.aspx">http://dhmh.maryland.gov/ship/SitePages/Home.aspx</a>
		Percent of Children Considered Obese	11.60%	Maryland Youth Tobacco Survey	2010		<a href="http://dhmh.maryland.gov/ship/SitePages/Home.aspx">http://dhmh.maryland.gov/ship/SitePages/Home.aspx</a>
		Percent of Adults at a Healthy Weight	36.20%	Maryland DHMH BRFSS	2012		<a href="http://dhmh.maryland.gov/ship/SitePages/Home.aspx">http://dhmh.maryland.gov/ship/SitePages/Home.aspx</a>
21	<b>Improve Prevention for Asthma</b>	Asthma-Related Emergency Department Visit Rate per 100,000 Population	66.2	Calculated by DHMH using HSCRC Outpatient Data	CY2013		<a href="http://dhmh.maryland.gov/ship/SitePages/Home.aspx">http://dhmh.maryland.gov/ship/SitePages/Home.aspx</a>
22	<b>Promote Behavioral Health Integration in Primary Care</b>	Mental Health-Related Emergency Department Visit Rate per 100,000 Population	3,379.20	Calculated by DHMH using HSCRC Outpatient Data	CY2013		<a href="http://dhmh.maryland.gov/ship/SitePages/Home.aspx">http://dhmh.maryland.gov/ship/SitePages/Home.aspx</a>
		Substance Abuse-Related Emergency Department Visit Rate per 100,000 Population	1,525.60	Calculated by DHMH using HSCRC Outpatient Data	CY2013		<a href="http://dhmh.maryland.gov/ship/SitePages/Home.aspx">http://dhmh.maryland.gov/ship/SitePages/Home.aspx</a>
23	<b>Promote Health Through Safe Physical Environments</b>	Fall-Related Death Rate per 100,000 Population	9.16	Maryland Vital Statistics	CY2012	Preliminary Data	<a href="http://dhmh.maryland.gov/vsa/Documents/12annual.pdf">http://dhmh.maryland.gov/vsa/Documents/12annual.pdf</a>

## Cost and Efficiency Goals and Measures

Goal #	Goal	Measure	2013 Results	Data Source	Measurement Period	Notes	Link to additional information
<b>Costs and Efficiency</b>							
24	<b>Reduce Overuse of Diagnostic Testing-Imaging</b>	OP-8: MRI Lumbar Spine for Lower Back Pain				Maryland hospitals were required to report these data beginning with discharges starting on January 1, 2014. HSCRC will report these data in subsequent years' reports when sufficient base and measurement period data are submitted and available for reporting.	
		OP-9 Mammography Follow-up Rates					
		OP-9 Mammography Follow-up Rates					
		OP-11: Thorax CT-Use of Contrast Material					
		OP-13: Cardiac Imaging for Preoperative Risk Assessment for Non Cardiac Low Risk Surgery					
		OP-14: Simultaneous Use of Brain Computed Tomography and Sinus Computed Tomography					
25	<b>Control Expenditure Growth-Hospital</b>	All-Payer Maryland Hospital Per Capita Total Charges for MD Residents	\$2,385.27	HSCRC Financial Data/MD Dept. Planning	CY 2013	Estimate based on HSCRC inpatient and outpatient data and Population Estimates from Department of Planning.	
		Medicare Maryland Hospital Per Capita Total Charges for MD Residents	\$7,705.87	HSCRC Inpatient and Outpatient Data/CMMI	CY 2013	Estimate based on HSCRC inpatient and outpatient data and Medicare Population Estimates from CMMI (average of Part A and B Benes)	
		Medicaid Maryland Hospital Per Capita Total Charges for MD Residents	\$2,906.75	HSCRC Inpatient and Outpatient Data/Hilltop	CY 2013	Estimate based on HSCRC inpatient and outpatient data and Medicaid Population Estimates from UMBC Hilltop.	
		Medicaid Per Capita Total Hospital Charges by Eligibility Status				The HSCRC staff plans to work with Medicaid to obtain Total Hospital Costs (in and out of State providers) by eligibility group.	
		Private Payer Maryland Hospital Per Capita Total Charges for MD Residents	\$1,495.17	HSCRC Inpatient and Outpatient Data/Kaiser State Health Facts	CY 2013	Estimate based on HSCRC inpatient and outpatient data and 2011-12 Kaiser State Health Facts Estimate of Number of MD Residents with Private Insurance.	
		Medicare/Medicaid Dual Eligibles Maryland Hospital Per Capita Total Charges for MD Residents	\$10,017.30	HSCRC Inpatient and Outpatient Data/Hilltop	CY 2013	Estimate based on HSCRC inpatient and outpatient data and Medicaid Population Estimates from UMBC Hilltop.	
26	<b>Control Expenditure Growth-All Services</b>	All-Payer				Currently not available. Requires access to ambulatory care data.	
		Medicare					
		Medicaid/CHIP					
		Private Payer					
		Medicare/Medicard Enrollees (Dual Eligible)					

# Appendix: Measure Definitions

## Patient Experience Measure Specifications

### Patient Satisfaction with Hospital Care

Patient satisfaction with hospital care is monitored using the Hospital Consumer Assessment of Healthcare Providers and Systems (HCAHPS) survey. The HCAHPS survey is a standardized survey that allows comparisons across hospitals for public reporting and is used by CMS for pay-for-performance as part of its Value-Based Purchasing (VBP) program. The HSCRC also uses the HCAHPS results to reward or penalize hospitals for patient satisfaction as part of its Quality-Based Reimbursement (QBR) program. For this report, we include results on overall satisfaction with the hospital, as well as the composite scores for communication with doctors and communication with nurses.

### Measurement Methodology

#### a) Survey Questions:

**Overall patient satisfaction:** This is a global item with one survey question. The measure is the percentage of survey respondents reporting a 9 or 10 when asked, “Using any number from 0 to 10, where 0 is the worst hospital possible and 10 is the best hospital possible, what number would you use to rate this hospital during your stay?”.

**Doctors always communicated well:** This is a composite measure combining responses from three survey questions. The measure is the percentage of survey respondents reporting “always” for each of the following questions:

- During this hospital stay, how often did doctors treat you with courtesy and respect?
- During this hospital stay, how often did doctors listen carefully to you?
- During this hospital stay, how often did doctors explain things in a way you could understand?

**Nurses always communicated well:** This is a composite measure combining responses from three survey questions. The measure is the percentage of survey respondents reporting “always” for each of the following questions:

- During this hospital stay, how often did nurses treat you with courtesy and respect?
- During this hospital stay, how often did nurses listen carefully to you?
- During this hospital stay, how often did nurses explain things in a way you could understand?

Additional information on the HCAHPS survey (e.g., number of surveys collected, survey methods, exclusion criteria) and each of the three areas can be found at:

<http://www.hcahponline.org/home.aspx>.

## Patient Satisfaction with Home Health Care

Patient satisfaction with home health care is assessed using the Home Health Care Consumer Assessment of Healthcare Providers and Systems (HHCAHPS) survey. As with the hospital survey, the HHCAHPS is a standardized survey that allows comparisons across hospitals for public reporting and the results can be used for quality improvement. For this report, we include results on overall satisfaction with home health, as well as the composite score for communication with home health team.

### Measurement Methodology

#### a) Survey Questions:

**Overall patient satisfaction with home health agency:** This is a global item with one survey question. The measure is the percentage of survey respondents reporting a 9 or 10 when asked, “Using any number from 0 to 10, where 0 is the worst home health care possible and 10 is the best home health care possible, what number would you use to rate your care from this agency’s home health providers?”.

**Home health team always communicated well:** This is a composite measure combining responses from six survey questions. The measure is the percentage of survey respondents reporting “always” to each of the following questions:

- When you first started getting home health care from this agency, did someone from the agency tell you what care and services you would get?
- In the last 2 months of care, how often did home health providers from this agency keep you informed about when they would arrive at your home?
- In the last 2 months of care, how often did home health providers from this agency explain things in a way that was easy to understand?
- In the last 2 months of care, how often did home health providers from this agency listen carefully to you?
- In the last 2 months of care, when you contacted this agency's office did you get the help or advice you needed?
- When you contacted this agency's office, how long did it take for you to get the help or advice you needed?

Additional information on the HHCAHPS survey (e.g., number of surveys collected, survey methods, exclusion criteria) and each measurement area can be found at:

<https://homehealthcahps.org/Home.aspx>.

## Increase Patient Satisfaction with Nursing Homes

Patient satisfaction with short term nursing home care is assessed using a State-administered survey that is similar to the Nursing Home Consumer Assessment of Healthcare Providers and Systems (NHCAHPS). Short-term nursing home stays are defined as stays lasting between 5 and 100 days. As stated in the Contract, Maryland will consider transitioning to the Nursing Home CAHPS within the first three years of the model.

### Measurement Methodology

a) Survey Question:

**Overall rating of nursing home:** The measure is the average score on the question, “Using any number from 0 to 10, where 0 is the worst nursing home possible and 10 is the best nursing home possible overall, what number would you use to rate the nursing home?”.

b) Data Source/Survey Methodology:

The results were obtained from the Maryland Nursing Facility Short Stay Resident Survey. The Short Stay Resident Survey was completed for 77 nursing facilities in Maryland that had one or more residents with a stay of between 5 and 100 days. Each facility provides a list with at least one resident who met the length of stay criteria and was discharged alive during the measurement period. The mode of administration was via the mail; residents in the sample were sent a packet explaining the purpose of the survey and a request for their participation along with the actual questionnaire, as well as a postage-paid business reply envelope.

Additional information on the Maryland nursing home survey can be found at:

[http://mhcc.dhmf.maryland.gov/lrc/Documents/longtermcare/2013\\_Maryland\\_Nursing\\_Facility\\_Short\\_Stay\\_Statewide\\_Report.pdf](http://mhcc.dhmf.maryland.gov/lrc/Documents/longtermcare/2013_Maryland_Nursing_Facility_Short_Stay_Statewide_Report.pdf)



## Increase Patient Satisfaction: Ambulatory Care

The Clinician and Group Consumer Assessment of Healthcare Providers and Systems (CG-CAHPS) Database contains results for four different CG-CAHPS survey versions. In 2012 there were 766,506 patient experience surveys submitted voluntarily by 2,399 medical practices. These results are currently reported in aggregate and across regions for the Adult Visit 2.0 Survey, but data specifically for Maryland providers are not available.

Additional information on the CG-CAHPS database is available here:

<https://www.cahpsdatabase.ahrq.gov/CGSurveyGuidance.aspx>

## Enhance Care Transitions and Patient Experience: Hospital

### **Three-Item Care Transition Measure (CTM-3)**

NOTE: These three items were added to the HCAHPS survey and hospitals began reporting them in January 2014 along with the other hospitals in the Nation.

## Enhance Care Transitions and Patient Experience: Short Stay Nursing Homes

### Short Stay Nursing Home Resident's Discharge Needs Met

*Removed from 2013 MHCC Survey.*

### Short Stay Nursing Home Resident's Discharge Planning and Information about Medicine and Symptoms

Survey details available at

[http://mhcc.dhmd.maryland.gov/ltc/Documents/longtermcare/2013\\_Maryland\\_Nursing\\_Facility\\_Short\\_Stay\\_Statewide\\_Report.pdf](http://mhcc.dhmd.maryland.gov/ltc/Documents/longtermcare/2013_Maryland_Nursing_Facility_Short_Stay_Statewide_Report.pdf)

Percent Reporting "Yes" to the following Questions
Before leaving the nursing home, did the nursing home staff talk with you about whether you would have the help you needed after you left?
Before leaving the nursing home, did you get information in writing about what symptoms or health problems to look out for?
Before leaving the nursing home, did the nursing home staff tell you what your medicines were for?
When I left the nursing home, I clearly understood the purpose for taking each of my medications

## Enhance Care Transitions and Patient Experience: Coordination with Primary Care

### **Rate of Physician Follow Up After Discharge**

*This measure is not currently available.*

The HSCRC is working to obtain access to ambulatory care data from Medicare and the All-Payer Claims Database to calculate these measures.

### **Discharges with PCP identified**

Revised Measure: Discharges with Principle Provider Notified

*This measure is not currently available.*

The Data and Infrastructure workgroup recommendation for obtaining this data builds on a solution already being deployed in Maryland to support hospital efforts to meet meaningful use requirements (Stage 2 Summary of Care/Transitions of Care Measure). Chesapeake Regional Information Exchange (CRISP) currently operates an Electronic Notification Service (ENS), which sends admission and discharge information on a real-time basis to providers. ENS works by gathering patient panels directly from providers rather than relying on self-reported data from patients during the admission process which is known to be unreliable in Maryland as well as nationally. CRISP has recently started providing a service to send discharge summaries to providers who subscribe to the ENS. HSCRC staff is proposing to use data from CRISP on the number of discharges for which there is an associated ENS alert to a provider. Additionally, this data source will allow us to provide information on the number of discharges where a discharge summary was sent. While this measure is not exactly consistent with CMS requirement, there is a strong case to be made that this measure is a better indicator of supporting transitions in care and more consistent with meaningful use requirements. Thus the HSCRC is proposing that the measure in the Contract be modified and that we will work with CRISP to obtain baseline data for this measure.

## Sustain High Physician Participation in Public Programs

### **Medicaid Participating Physicians per Medicaid Enrollee**

*This measure is not currently available.*

Based upon the Data and Infrastructure Workgroups recommendations the HSCRC is considering using Medicaid's directory for all providers participating in the HealthChoice program. Medicaid also issues ID numbers to all participating providers. There are some challenges to relying on the HealthChoice provider directory and Medicaid provider IDs as a resource, including potential duplication of providers, or providers who are not actively seeing Medicaid patients or other inaccuracies. Nonetheless, this is the best data source available. As this data is reported in the future it will be important to distinguish when changes in participating providers may actually be a result of further efforts to clean up the provider data.

### **Medicare Participating Physicians per 1,000 Medicare Enrollees**

Based upon the Data and Infrastructure Workgroups recommendations the HSCRC used the Medicare.gov Physician Compare directory to download a list of Maryland physicians and other providers participating in Medicare. This list was then de-duplicated based upon NPI; however, there still may be some duplicates or lack of information on providers not accepting new patients.

#### **Calculation:**

Medicare Participating Physicians per Medicare Enrollee=

Number of providers / Number of Enrollees (obtained by average Part A and Part B numbers from CMMI) \* 1,000

## Broaden Engagement in Innovative Care Models

### **Provider participation in Patient Centered Medical Home Initiatives:**

Workgroup recommended relying on the information available through the national accrediting organizations (primarily NCQA). Although NCQA will not capture all of the providers participating in PCMH, it will allow HSCRC, in the short-term, to monitor trends that may reflect the broader PCMH environment. In the long term, HSCRC is looking to possibly work with the SIM Community Integrated Medical Home Advisory Board to leverage their work to develop broader definitions of PCMH and with MHCC to amend their annual report submitted by carriers to capture the number of participating physicians in PCMH programs.

The following website was used to get the count of providers and practices in PCMH: <http://recognition.ncqa.org/index.aspx>. Limitations and concerns about this data are that there may be duplication and it does not capture all PCMH programs such as those by Carefirst. We will be working with Carefirst to get data on the number of PCMH providers that they contract with as well.

### **Provider participation in ACOs**

The HSCRC staff obtained the number of ACOs located in Maryland using this website:

<https://data.cms.gov/ACO/Medicare-Shared-Savings-Program-Accountable-Care-O/x5qt-6kt3?>

### **Provider participation in Bundled Payment Initiatives:**

Currently CMS does not permitted Maryland hospitals to participate in Medicare-funded bundled payment demonstrations; however, the agreement with CMS encourages Maryland to come forward with proposals under different CMMI initiatives. However, through the HSCRC rate-setting methodologies, Maryland hospitals have been engaging in bundled payment arrangements since the 1990's. The HSCRC is authorized by law to promote and approve alternative methods of rate determination and payment that are of an experimental nature in order "[t]o promote the most efficient and effective use of health care facility services, if it is in the public interest and consistent with the subtitle."

The Alternative Rate-setting Methodology (ARM) was developed to encourage innovative and cost-saving payment arrangements without compromising the Commission's long-standing principles of equity and access. There are two types of ARM arrangements:

- Capitation: This type involves significant risk to the hospital for a broad range of services, including regulated hospital services.
- Global or Fixed Price: This type encompasses not only the hospital rates associated with a case but also the professional services provided during the course of treatment, usually negotiated between a hospital and a physician group as a joint venture.

The HSCRC is reporting the number of ARMs that became effective in Calendar Year 2013.

### Improve Process of Care: Inpatient

These measures report how often hospitals delivered recommended care processes in the following four areas: heart attack (AMI), heart failure (CHF), pneumonia (, surgical care improvement and blood clot prevention and treatment.

The CMS IQR measures specifications are aligned with those of the Joint Commission's for the same measures. HSCRC derived the heart attack, heart failure pneumonia and surgical care improvement measure statewide average results for discharges from October 1, 2012 to September 2013 from the Joint Commission Quality Check Website: <http://www.qualitycheck.org/consumer/searchQCR.aspx>.

HSCRC notes that Maryland hospitals were no longer required by the State to report and submit Children's Asthma Care (CAC) measures, a voluntary set of measures for CMS and the Joint Commission, beginning with January 2013 discharges, so the data are not provided in the report.

Although not included in the contract monitoring requirements, HSCRC notes that the blood clot prevention and treatment measures, also voluntary for the IQR program, are currently reported on Hospital Compare for discharges from July 1, 2012 to June 30, 2013

### Improve Process of Care: Outpatient

Prior to January 1, 2014 when Maryland hospital rate setting was subject to the terms of the previous CMS Waiver, Maryland hospitals did not participate in the Medicare Outpatient Prospective Payment System (OPPS) and therefore was not subject to the Outpatient Quality Reporting (OQR) requirements. However, in January 2013 HSCRC and the Maryland Health Care Commission (MHCC) jointly communicated with hospitals the agencies' requirements regarding hospital based outpatient quality data reporting. Hospitals were notified that Maryland's reporting will be modeled after CMS Hospital Outpatient Quality Reporting (OQR) data requirements, and hospitals were required to participate in the CMS OQR program. Each hospital was required to complete and submit the Hospital OQR Program Online Notice of Participation through My QualityNet (QualityNet.org) by February 28, 2013. After acceptance of the online Notice of Participation (i.e., Outpatient Pledge of Participation) hospitals' outpatient chart abstracted data would be transmitted to CMS on a quarterly basis in accordance with the established data submission schedule. Upon your successful completion of the CMS Outpatient Pledge requirements, the MHCC and HSCRC would also be able to access your outpatient claims based measures (OP-8, OP-9, OP-10, OP-11, OP-13, OP-14, OP-15).

HSCRC will report these data in subsequent years' reports when sufficient base and measurement period data are submitted and available for reporting.

## Reduce High Priority Hospital Complications

### Potentially Preventable Complications (PPC)

See the PPC Report submitted on June 30<sup>th</sup>, 2014.

### Central Line-Associated Bloodstream Infections (CLABSI)

According to the CDC an estimated 41,000 CLABSI infections occur annually in US hospitals. These serious infections increase the length of stay, hospital costs, and mortality. CLABSI can be prevented through proper insertion and management of the central line.

Data for the CLABSI SIR measure was derived from WhyNotTheBest.org. Data Source(s): Centers for Medicare & Medicaid Services (CMS); Centers for Disease Control and Prevention's National Healthcare Safety Network (NHSN)

Measure Author(s): Centers for Disease Control and Prevention (CDC)

Data Collection: Clinical data - medical and laboratory records, all-payer.

#### Measurement Methodology

- a) Measure: Standardized Infection Ratio (SIR) of healthcare-associated, central line-associated bloodstream infections (CLABSI) calculated among patients in the ICU.

**Numerator Statement:** Total number of observed healthcare-associated CLABSI among patients in ICUs, NICUs, SCAs and other acute care hospital locations where patients reside overnight.

**Denominator Statement:** Total number of expected CLABSIs, calculated by multiplying the number of central line device days for each location under surveillance for CLABSI during the period by the CLABSI rate for the same types of locations obtained from the standard population. Central line device- day denominator data that are collected differ according to the location of the patients being monitored. See 2a.8.

- b) Exclusions:

- Pacemaker wires and other nonlumened devices inserted into central blood vessels or the heart are excluded as central lines
- Peripheral intravenous lines are excluded from this measure

A SIR greater than 1.0 means that more HAIs were observed in a facility or state than predicted, and a SIR less than 1.0 means there were fewer HAIs observed than predicted. A score of 0, meaning no infections, is best.

Additional information on CLABSI can be found at:

[http://www.cdc.gov/nhsn/pdfs/pscmanual/4psc\\_clabscurrent.pdf](http://www.cdc.gov/nhsn/pdfs/pscmanual/4psc_clabscurrent.pdf)



## Reduce Readmissions and Emergency Department Visits from Home Health

Home health agencies may be able to assist hospitals in reducing potentially avoidable inpatient and ED utilization. For example, hospitals could collaborate with home health agencies to avoid unnecessary care by having home health staff remind patients to call the home health agency first for non-life threatening emergencies. In addition, it is important to monitor admissions from home health agencies to identify potential quality of care issues. Home Health Compare publicly reports the quality of care provided by Medicare-certified home health agencies, including measures on admission rates to acute inpatient hospitals and unplanned urgent visits to the ED for those receiving home health care.

Additional information on Home Health Compare can be found at:

<http://www.medicare.gov/homehealthcompare/search.html>.

### Measure Methodology

a) Measures:

- Percent of home health patients who had to be admitted to the hospital
- Percent of home health patients who had an unplanned urgent visit to an ED

b) Data Source: Medicare claims data

c) Exclusions:

- Pediatric home health patients
- Home health patients receiving maternity care only
- Home health clients receiving non-skilled care only
- Home health patients for whom the payment source is neither Medicare nor Medicaid
- Medicare beneficiaries enrolled in a Part C (Medicare Advantage) plan
- Medicaid beneficiaries who are not also enrolled in Medicare

d) Measure Calculation:

Percent of home health patients who had to be admitted to the hospital

**Numerator:** Number of home health episodes of care for which the assessment completed at the conclusion of the episode indicates the patient was admitted to a hospital for a reason other than a scheduled treatment or procedure.

**Denominator:** Number of home health episodes of care ending with a discharge or transfer to inpatient facility during the reporting period, other than those covered by generic or measure-specific exclusions.

**Exclusions:** Home health episodes of care that end in patient death.

Percent of home health patients who had an unplanned urgent visit to an ED

**Numerator:** Number of home health episodes of care where Medicare claims indicates the patient required emergency medical treatment from a hospital emergency department during

the first 60 days of home health care, but that the patient was not admitted to the hospital as an inpatient.

**Denominator:** Number of home health episodes of care beginning during the reporting period, other than those covered by generic or measure-specific exclusions.

**Exclusions:** 1) Home health stays for patients who are not continuously enrolled in fee-for-service Medicare for the 6 months before or 60 days after the start of the home health stay or until death. 2) Home health stays that begin with a Low Utilization Payment Adjustment (LUPA) claim. 3) Home health stays in which the patient receives service from multiple agencies during the first 60 days.

## Reduce Readmissions from Nursing Homes

Readmissions among patients discharged to a nursing home are high in part due to the complexity of these patients, but also potentially due to early discharge or quality of care issues after discharge. Nursing homes and hospitals should collaborate to reduce potentially avoidable readmissions.

### Measurement Methodology

- a. Measure: 30-Day, All-Cause, All Maryland Hospital Readmission Rate for Patients Discharged to a Nursing Home
- b. Data Source: HSCRC discharge abstract data with Chesapeake Regional Information System unique patient identifiers (CRISP EIDs)
- c. Population: All payer inpatient discharges eligible for a readmission
- d. Exclusion Criteria:

The following discharges are removed from the numerator and/or denominator for the readmission rate calculations:

- Planned readmissions are excluded from the numerator based upon CMS Planned Readmission Algorithm V. 2.1. 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.
- 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.
- Discharges from rehabilitation hospitals (provider ids 213028, 213029, 210333).
- In addition the following data cleaning edits are applied:
  - a. Cases with null or missing CRISP EIDs
  - b. Duplicates
  - c. Negative interval days

- e. Measure Calculation:

Readmission Rate for Patients Discharged to a Nursing Home =

Number of Readmissions / Number of Discharges to a Nursing Home Eligible for a Readmission

## Reduce Hospital Readmissions

Hospital readmissions rates for Medicare beneficiaries are higher in Maryland than in the rest of the Nation. The new all-payer model is required to reduce Medicare readmissions in Maryland to at or below the national rate by 2018. The costs of readmissions are included in the HSCRCs measure of potentially avoidable utilization that is used to adjust global budgets. In addition the HSCRC has a Readmission Shared Savings program and a Readmission Reduction Incentive program designed to incentivize hospitals to invest resources to reduce readmissions. In addition to the all-payer measures reported below, CMMI will provide the HSCRC with the Medicare specific readmission rate for Maryland that will include discharges that occur outside of the state.

### Measurement Methodology

- a. Measures:
  - a. 30-Day, All-Cause, All Hospital Readmission Rate
  - b. 30-Day, All-Cause, All Maryland Hospital Readmissions per 1,000 Maryland Residents
  - c. 30-Day, All-Cause, All Maryland Hospital Condition Specific Readmission Rate for:
    - i. Heart Failure
    - ii. Acute Myocardial Infarction (MI)
    - iii. Pneumonia
    - iv. Chronic Obstructive Pulmonary Disease (COPD)
    - v. Hip/Total Knee Arthroplasty

b. Data Source: HSCRC discharge abstract data with Chesapeake Regional Information System unique patient identifiers (CRISP EIDs)

c. Population: All payer inpatient discharges eligible for a readmission

d. Exclusion Criteria:

The following discharges are removed from the numerator and/or denominator for the readmission rate calculations:

- Planned readmissions are excluded from the numerator based upon CMS Planned Readmission Algorithm V. 2.1. 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.
- 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.

- Discharges from rehabilitation hospitals (provider ids 213028, 213029, 210333).
- In addition the following data cleaning edits are applied:
  - a. Cases with null or missing CRISP EIDs
  - b. Duplicates
  - c. Negative interval days

e. Calculation of each of the 30-Day, All-Cause, All Maryland Hospital Readmission Measures:

Readmission Percent:

Number of Readmissions / Number of Discharges Eligible for a Readmission

Readmissions per 1,000 Maryland Residents =

(Number of Readmissions / Number of Discharges Eligible for a Readmission) \* 1,000

Condition Specific Readmission Rates =

Number of Readmissions / Number of Condition Specific Discharges Eligible for a Readmission

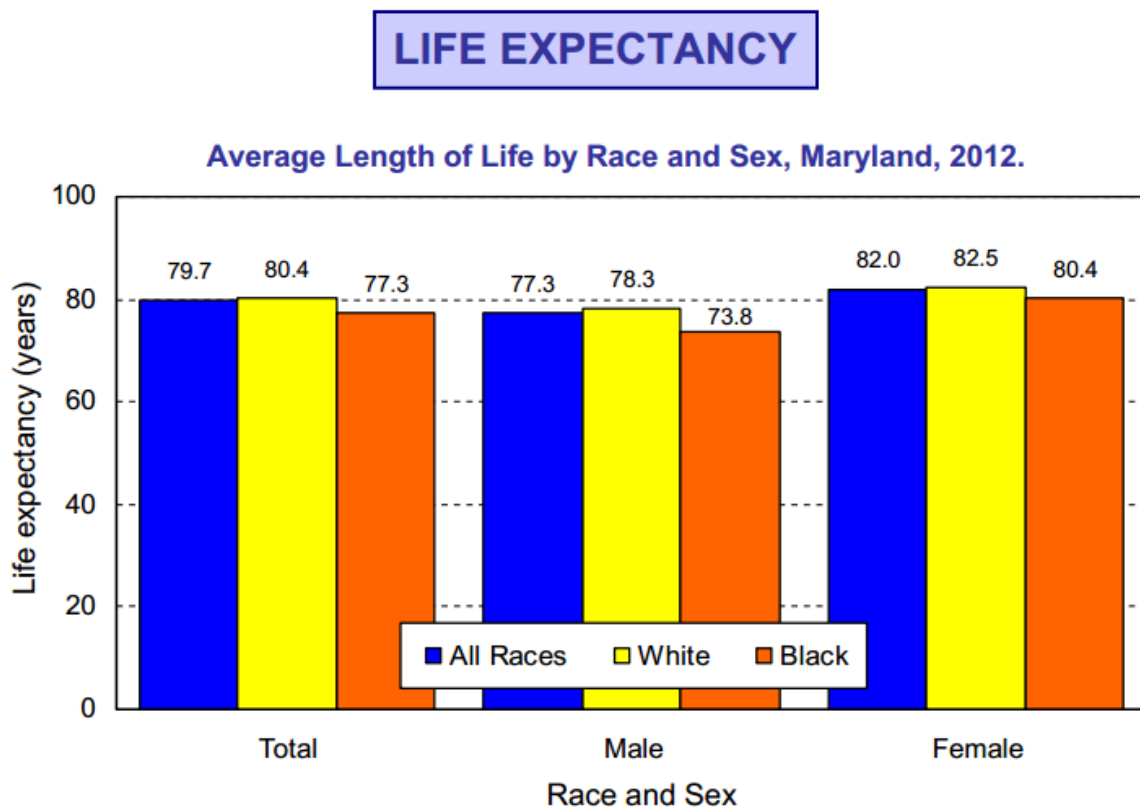
## Population Health Measure Specifications

### Improve Life Expectancy

The Maryland Vital Statistics Annual report contains information on average life expectancy. In 2012, the average life expectancy at birth was 79.7 years. The tables below show life expectancy by race and sex.

Additional information on the Maryland Vital Statistics Annual reporting on life expectancy can be found here: <http://dhmh.maryland.gov/vsa/Documents/12annual.pdf>.

### Results



## Reduce Rate of Hospitalizations for Ambulatory Care Sensitive Conditions

Prevention Quality Indicators (PQIs) are a set of measures developed by the Agency for Healthcare Research and Quality (AHRQ). The PQI measures flag hospitalizations that are for ambulatory sensitive conditions. Patients should not require hospitalizations for these conditions or their associated complications if they have access to high quality outpatient care; examples of these conditions include hypertension, diabetes and its associated complications, and perforated appendix. Thus, PQIs can be used as a screening tool to identify possible access and/or quality of care issues outside of the hospital setting. The 13 individual PQI measures roll up into three composite measures (overall, acute, and chronic), are population based, and adjusted for covariates such as age and sex. The HSCRC uses the PQI overall composite measure as one way to identify potentially avoidable utilization (PAU) and costs for hospital care; performance on PAUs are used to adjust hospital global budgets. The goal is to incentivize hospitals to work within their communities to improve quality of care outside the hospital and thus reduce potentially avoidable hospital utilization.

### Measurement Methodology

- a) **Measure:** PQI (overall, acute, and chronic) rate per 100,000 Maryland Residents (includes data for Maryland hospitals only)
- b) **Data Source:** HSCRC discharge abstract data

Additional information on numerator, denominator, exclusions, and codes used to calculate the PQI rate can be found on the AHRQ website:

([http://www.qualityindicators.ahrq.gov/modules/pqi\\_resources.aspx](http://www.qualityindicators.ahrq.gov/modules/pqi_resources.aspx))

## Improve Cancer Control

Cigarette smoking is the cause of almost 6,800 Maryland deaths each year and 150,000 people suffer from diseases/cancers caused by cigarette smoking. Reducing adults who smoke and preventing youth from using any tobacco product are critical to improving the health of Marylanders. The Maryland State Improvement Process (SHIP) monitors the percent of adults who are current smokers and youth who use any kind of tobacco product. Additional information about Maryland's SHIP can be found here: <http://dhmh.maryland.gov/ship/SitePages/Home.aspx>.

### Measurement Methodology

- a) Measures:
  - Percent of Adults who are Current Smokers
  - Percent of Youth Using Any Kind of Tobacco Product
  
- b) Data Source: Maryland DHMH Behavioral Risk Factor Surveillance System (BRFSS) ([www.marylandbrfss.org](http://www.marylandbrfss.org))



## Improve Primary Prevention of Infectious Disease

The Maryland State Improvement Process (SHIP) monitors the percent of people vaccinated annually for seasonal influenza and children with recommended vaccinations, as well as rate of new HIV infections.

Additional general information about Maryland's SHIP can be found here:

<http://dhmh.maryland.gov/ship/SitePages/Home.aspx>.

### Measure Methodology

#### **Percent Vaccinated Annually for Seasonal Influenza**

**Measure Description:** This indicator shows the percentage of children and adults who are vaccinated annually against seasonal influenza. Coverage estimates are for all persons over 6 months of age. Coverage estimates are for persons interviewed September through June of the next year who reported being vaccinated August through May.

Numerator: NIS and BRFSS respondents who reported that they received an influenza vaccination in the past 12 months.

Denominator: NIS and BRFSS respondents

**Source:** Centers for Disease Control Behavioral Risk Factor Surveillance System (BRFSS) and National Immunization Survey (NIS)

For information on this measure is located here:

[http://dhmh.maryland.gov/ship/PDFs/Objective%202024%20influenza%20vaccination%20WEBSITE%202020%20pager%20\(added%20updated%20data%20for%202011-2012\).pdf](http://dhmh.maryland.gov/ship/PDFs/Objective%202024%20influenza%20vaccination%20WEBSITE%202020%20pager%20(added%20updated%20data%20for%202011-2012).pdf)

#### **Percent of Children with Recommended Vaccinations**

**Measure Description:** This indicator shows the percentage of children (19-35 months) who received the recommended vaccines. Vaccines are among the most cost-effective clinical preventive services and are a core component of any preventive services package. Increasing vaccination rates can reduce preventable infectious diseases among young children.

Numerator: Number of children aged 19-35 months old who received 4 doses DTP/DT/DTaP vaccine (diphtheria, tetanus toxoids, and pertussis vaccine; diphtheria and tetanus toxoids vaccine; and diphtheria, tetanus toxoids, and acellular pertussis vaccine), 3 doses of poliovirus vaccine, 1 dose of any measles-containing vaccine, 3 doses of HepB, 1 dose of varicella vaccine, and 4 doses of PCV. Haemophilus influenzae type b vaccine is excluded.

Denominator: Number of Children

**Source:** Centers for Disease Control National Immunization Survey (NIS)

For information on this measure is located here:

<http://dhmh.maryland.gov/ship/PDFs/Objective%2023.pdf>

### **New HIV Infections among Adults and Adolescents**

**Measure Description:** This indicator shows the rate of adult/adolescent cases (age 13+) diagnosed with HIV (per 100,000 population). HIV is a significant and preventable public health problem. An estimated 21% of people with HIV are undiagnosed. We have the knowledge and tools needed to slow the spread of HIV infection and improve the health of people living with HIV.

Numerator: Number of reported HIV diagnoses among persons age 13 and older during a calendar year (including those reported up to one full year after)

Denominator: Number of persons age 13 and over (population)

**Source:** Maryland DHMH Infectious Disease Bureau, Center for HIV Surveillance and Epidemiology

For information on this measure is located here:

<http://dhmh.maryland.gov/ship/PDFs/Objective%2020.pdf>

## Improve Prevention of Diabetes and Cardiovascular Disease

### Diabetes-Related and Hypertension-Related Emergency Department Visits

Emergency department (ED) visits for diabetes and hypertension may indicate that these conditions are not well-controlled and, as with PQIs, potentially poor quality outpatient care. The Maryland State Improvement Process (SHIP) monitors these and other measures of population health and encourages the development of Local Health Improvement Coalitions to address these issues. Additional information about Maryland's SHIP can be found here: <http://dhmh.maryland.gov/ship/SitePages/Home.aspx>.

#### Measurement Methodology

- a. Measures:
  - a. Emergency Department Visit Rate Due to Diabetes per 100,000 Population
  - b. Emergency Department Visit Rate Due to Hypertension per 100,000 Population
- b. Data Source: HSCRC outpatient data
- c. Population: Maryland residents who had an ED visit to a Maryland Hospital
- d. Calculation:

ED Rate for Diabetes =

(Number of ED Visits with Primary Diagnosis of 250.xx) / Number of Maryland Residents) \* 100,000

ED Rate for Hypertension =

(Number of ED Visits with Primary Diagnosis of 401.x) / Number of Maryland Residents) \* 100,000

## Percent of Children who are Considered Obese

Obesity in children is a risk factor for the development diabetes and hypertension. The Maryland State Improvement Process (SHIP) monitors obesity rates in children and encourages the development of Local Health Improvement Coalitions to address the issue. Additional information about Maryland's SHIP can be found here: <http://dhmh.maryland.gov/ship/SitePages/Home.aspx>.

### Measurement Methodology

- a. Measures:
  - a. Emergency Department Visit Rate Due to Diabetes per 100,000 Population
  - b. Emergency Department Visit Rate Due to Hypertension per 100,000 Population
- b. Data Source: HSCRC outpatient data
- c. Population: Maryland residents who had an ED visit to a Maryland Hospital
- d. Calculation:

ED Rate for Diabetes =

$(\text{Number of ED Visits with Primary Diagnosis of 250.xx}) / \text{Number of Maryland Residents}) * 100,000$

ED Rate for Hypertension =

$(\text{Number of ED Visits with Primary Diagnosis of 401.x}) / \text{Number of Maryland Residents}) * 100,000$

## **Percent of Adults who are at a Healthy Weight**

Maintaining a healthy weight reduces the risk for the development diabetes and hypertension. The Maryland State Improvement Process (SHIP) monitors the percent of adults at a healthy weight and encourages the development of Local Health Improvement Coalitions to address the issue. Additional information about Maryland's SHIP can be found here:

<http://dhmh.maryland.gov/ship/SitePages/Home.aspx>.

### Measurement Methodology

- a. Measures: Percent of people with BMI of less than 25 kg/m<sup>2</sup>
- b. Data Source: CDC National Health and Nutrition Examination Survey
- c. Population: Maryland residents
- d. Calculation:

Percent of Adults who are at Healthy Weight =

$(\text{Number of Respondents with BMI less than } 25 \text{ kg/m}^2) / \text{Number of Persons} * 100$

## Improve Prevention of Asthma

### Hospital Emergency Department Visits from Asthma

Emergency department (ED) visits for asthma may indicate that these conditions are not well-controlled and, as with PQIs, potentially poor quality outpatient care. The Maryland State Improvement Process (SHIP) monitors ED visits for asthma and encourages the development of Local Health Improvement Coalitions to address the issue. Additional information about Maryland's SHIP can be found here: <http://dhmh.maryland.gov/ship/SitePages/Home.aspx>.

#### Measurement Methodology

- a. Measures: Emergency Department Visit Rate Due to Asthma per 100,000 Population
- b. Data Source: HSCRC outpatient data
- c. Population: Maryland residents who had an ED visit to a Maryland Hospital
- d. Calculation:

ED Rate for Asthma =

(Number of ED Visits with Primary Diagnosis of 493.xx) / Number of Maryland Residents) \* 100,000

## Promote Behavioral Health Integration in Primary Care

### Reduce Emergency Department Visits Related to Behavioral Health

The Maryland State Improvement Process (SHIP) monitors mental health and substance abuse-related ED visits and encourages the development of Local Health Improvement Coalitions to address the issue.

Additional information about Maryland's SHIP can be found here:

<http://dhmh.maryland.gov/ship/SitePages/Home.aspx>.

#### Measurement Methodology

- a. Measures:
  - a. Emergency Department Visit Rate Due to Mental Health per 100,000 Population
  - b. Emergency Department Visit Rate Due to Substance Abuse per 100,000 Population
- b. Data Source: HSCRC outpatient data
- c. Population: Maryland residents who had an ED visit to a Maryland Hospital
- d. Calculation:

ED Rate for Mental Health/Substance Abuse =

(Number of ED Visits with Primary Diagnosis of a Mental Health or Substance Abuse Issue as Defined by the Healthcare Cost and Utilization Project) / Number of Maryland Residents) \* 100,000

## Promote Health through Safe Physical Environments

Accidents were the fifth leading cause of death in Maryland in 2012 (age-adjusted mortality rate = 26.8 per 100,000 population) with motor vehicle accidents and falls accounting for about a third of all accidental deaths. However, fall-related deaths have increased over the last decade by 70%, while motor vehicle deaths have decreased by 26%. The Maryland Patient Safety Center (MPSC), supported in part financially and through data sharing by HSCRC, is currently conducting the Safe From Falls Learning Network targeted at reducing falls and falls with injury in hospitals and in long term care settings.

### Measurement Methodology

The Maryland Vital Statistics Annual report contains the number of fall-related deaths. The 2012 Maryland Vital Statistics Annual report can be found here:  
<http://dhmh.maryland.gov/vsa/Documents/12annual.pdf>.



## Health Care Expenditures and Efficiency Measure Specifications

### Reduce Overuse of Diagnostic Testing and Imaging

**OP-8: MRI Lumbar Spine for Lower Back Pain**

**OP-9 Mammography Follow-up Rates**

**OP-9 Mammography Follow-up Rates**

**OP-11: Thorax CT-Use of Contrast Material**

**OP-13: Cardiac Imaging for Preoperative Risk Assessment for Non Cardiac Low Risk Surgery**

**OP-14: Simultaneous Use of Brain Computed Tomography and Sinus Computed Tomography**

*Measures are currently not available (see Outpatient Quality Reporting)*

## Control Expenditure Growth: Hospital

The All-Payer Model requires that for Performance Years 1 through 3 the per capita growth in hospital spending cannot exceed the 3.58%. The All-Payer hospital expenditure per capita number below is what the HSCRC uses to determine the maximum growth allowed. Because the financial data does not have payer type, the payer specific numbers use charges from the abstract data and different population estimates. These may change if we get better estimates on expenditures or population. CMMI will be providing the Medicare specific numbers for the HSCRC to validate.

### Measures:

- a. All-Payer Maryland Hospital Per Capita Total Charges for MD Residents  
**Data source:** Charges are from the HSCRC Financial Data; Population estimates are from the MD Department of Planning
- b. Medicare Maryland Hospital Per Capita Total Charges for MD Residents  
**Data source:** Charges are from HSCRC inpatient and outpatient data and Medicare Population Estimates from CMMI (average of Part A and B Benes).
- c. Medicaid Maryland Hospital Per Capita Total Charges for MD Residents  
**Data source:** Charges are from the HSCRC Inpatient and Outpatient data; Population estimates are from UMBC Hilltop website (<http://www.chpdm-ehealth.org/index.htm>)
- d. Medicaid Per Capita Total Hospital Charges by Eligibility Status:  
Data source: Currently not available; however, the HSCRC will work with Medicaid to obtain Total Hospital Costs (in and out of State providers) by eligibility group.
- e. Private Payer Maryland Hospital Per Capita Total Charges for MD Residents  
**Data source:** Charges are from the HSCRC Inpatient and Outpatient data; Population estimates are from 2011-2012 Kaiser State Health Facts (<http://kff.org/other/state-indicator/total-population/?state=MD>). When updated numbers are available
- f. Medicare/Medicaid Dual Eligibles Maryland Hospital Per Capita Total Charges for MD Residents  
**Data source:** Charges are from the HSCRC Inpatient and Outpatient data; Population estimates are from UMBC Hilltop website (<http://www.chpdm-ehealth.org/index.htm>).

**Control Expenditure Growth: All Services**

**All Payer per Capita Health Expenditure Growth**

**Medicare per Capita Health Expenditure Growth**

**Medicaid/CHIP per Capita Health Expenditure Growth**

**Private Payer per Capita Health Expenditure Growth**

**Dual Eligible per Capita Health Expenditure Growth**

*Measures are currently not available because they require ambulatory care data.*

# Appendix 6

## Global Budget Revenue Contract Progress

Hospital	Affiliation	Negotiations		Deal	Contract	Actuals/Approved		
		Model Completed	Agreed Upon Model	Contract Final	Actual FY 13	FY 14 Approved		CY 13 Actuals
Shady Grove	Adventist	Y	Y	Y 4/16	362,277,247	376,588,970	4.0%	375,189,793
WAH	Adventist	Y	Y	Y 4/16	249,870,484	254,864,218	2.0%	245,900,361
Germantown ER	Adventist	Y	Y	Y 4/16	13,725,997	13,839,618	0.8%	13,008,365
Laurel Regional	Dimensions	Y	Y	Y 7/28	121,542,160	122,799,111	1.0%	122,523,544
Prince George's	Dimensions	Y	Y	Y 7/28	249,194,550	261,425,365	4.9%	256,247,115
Bowie EMG	Dimensions	Y	Y	Y 7/28	13,677,929	15,617,219	14.2%	14,917,176
Hopkins Bayview	Hopkins	Y	Y	Y 7/17	596,807,218	606,268,039	1.6%	602,693,085
out-of-state removed: Total in state					546,014,279	554,499,811	1.6%	549,795,495
Howard County	Hopkins	Y	Y	Y 7/17	278,901,592	281,634,848	1.0%	282,779,771
Johns Hopkins	Hopkins	Y	Y	Y 7/17	2,132,653,311	2,130,871,913	-0.1%	2,209,150,745
out-of-state removed: Total in state					1,628,834,440	1,636,470,794	0.5%	1,678,361,337
Suburban	Hopkins	Y	Y	Y 7/17	280,578,547	285,259,285	1.7%	291,346,746
out-of-state removed: Total in state					252,455,346	257,152,521	1.9%	262,347,141
Levindale	LifeBridge	Y	Y	Y 2/14	53,610,127	54,535,652	1.7%	55,314,586
Northwest	LifeBridge	Y	Y	Y 2/14	248,252,705	250,019,982	0.7%	250,110,426
Sinai	LifeBridge	Y	Y	Y 2/14	684,513,503	702,036,456	2.6%	696,682,226
Franklin Square	MedStar	Y	Y	Y 1/15	469,792,199	485,365,423	3.3%	480,924,236
Good Samaritan	MedStar	Y	Y	Y 1/15	295,622,767	299,617,955	1.4%	288,411,037
Harbor	MedStar	Y	Y	Y 1/15	201,140,964	204,950,822	1.9%	198,896,155
Southern Maryland	MedStar	Y	Y	Y 1/15	253,544,106	260,984,437	2.9%	259,084,292
Union Memorial	MedStar	Y	Y	Y 1/15	406,581,848	415,215,132	2.1%	406,325,098
Montgomery General	MedStar	Y	Y	Y 8/20	166,868,979	167,907,266	0.6%	164,956,948
St. Mary's	MedStar	Y	Y	Y 8/20	154,602,928	161,151,064	4.2%	158,931,103
BWMC	University	Y	Y	Y 7/4	376,812,786	393,555,941	4.4%	384,836,921
Civista	University	Y	Y	Y 7/4	136,703,016	144,514,525	5.7%	143,713,371
Harford	University	Y	Y	Y 7/4	106,016,703	103,938,098	-2.0%	103,526,090
Kernan	University	Y	Y	Y 7/4	115,227,460	118,349,210	2.7%	116,580,459
Maryland General	University	Y	Y	Y 7/4	216,173,783	221,712,410	2.6%	218,177,007
University of MD	University	Y	Y	Y 7/4	1,241,601,464	1,285,889,250	3.6%	1,269,187,962
out-of-state removed: Total in state					1,150,600,983	1,192,843,953	3.7%	1,167,828,435
University Shock Trauma	University	Y	Y	Y 7/4	188,680,878	198,645,136	5.3%	199,869,113
out-of-state removed: Total in state					167,855,661	177,458,623	5.7%	178,245,080
Upper Chesapeake	University	Y	Y	Y 7/4	283,865,424	305,743,020	7.7%	290,180,963
Queen Anne EMG	University	Y	Y	Y 7/4	4,999,918	4,912,838	-1.7%	5,044,500
St. Joseph's	University	Y	Y	Y 7/4	337,661,509	362,064,197	7.2%	354,640,625
Atlantic General		Y	Y		99,344,019	101,751,882	2.4%	102,142,705
Anne Arundel		Y	Y	Y 4/17	541,867,872	553,115,271	2.1%	551,323,704
Bon Secours		Y	Y	Y 1/14	124,805,442	129,643,967	3.9%	124,962,638
Doctors Community		Y	Y	Y 12/11	216,854,386	221,771,821	2.3%	220,550,782
Fort Washington		Y	Y	Y 7/16	46,451,704	46,796,285	0.7%	46,152,036
Frederick Memorial		Y	Y	Y 2/21	337,093,592	338,085,814	0.3%	334,080,138
GBMC		Y	Y	Y 2/12	421,172,480	427,071,053	1.4%	418,773,323
Holy Cross		Y	Y	Y 7/14	461,351,270	472,185,907	2.3%	465,712,601
New Germantown Hospital					-			-
Mercy		Y	Y	Y 2/11	470,760,326	487,981,390	3.7%	479,519,068
Peninsula General		Y	Y	Y 5/15	412,641,496	416,052,547	0.8%	411,323,473
St. Agnes		Y	Y	Y 5/16	404,669,958	411,438,239	1.7%	407,878,216
<b>TOTALS</b>					<b>13,083,953,938</b>	<b>13,407,663,657</b>	<b>2.47%</b>	<b>13,285,898,338</b>
YOY					2.47%			

Hospital	Affiliation	Model Completed	Agreed Upon Model	Contract Final	Actual FY 13	FY 14 Approved		CY 13 Actuals
Calvert Memorial Hospital		-	-	-	138,862,906	142,402,619	2.5%	138,980,373
Chester River Hospital Center	University	-	-	-	59,206,382	61,106,999	3.2%	61,321,590
Dorchester General Hospital	University	-	-	-	59,897,850	59,041,890	-1.4%	57,966,014
Memorial Hospital at Easton	University	-	-	-	186,358,594	187,789,175	0.8%	192,205,101
Carroll Hospital Center		-	-	-	249,075,082	252,621,323	1.4%	248,411,667
Garrett County		-	-	-	44,018,658	45,163,111	2.6%	44,395,551
McCready Memorial		-	-	-	17,976,486	14,122,299	-21.4%	19,286,229
Meritus Hospital		-	-	-	301,350,725	304,582,766	1.1%	314,847,042
Union of Cecil		-	-	-	153,372,921	157,033,246	2.4%	153,170,031
Western MD Regional		-	-	-	314,237,386	319,393,103	1.6%	320,333,997
<b>TOTALS</b>					<b>1,524,356,990</b>	<b>1,543,256,531</b>		<b>1,550,917,595</b>
					1.24%			
<b>Grand Totals</b>					<b>14,608,310,928</b>	<b>14,950,920,188</b>		<b>14,836,815,933</b>
					2.35%			