



STATE OF MARYLAND

DHMH

Maryland Department of Health and Mental Hygiene  
201 W. Preston Street • Baltimore, Maryland 21201

Martin O'Malley, Governor – Anthony G. Brown, Lt. Governor – Joshua M. Sharfstein, M.D., Secretary

September 27, 2013

Dear Colleagues:

We are pleased to release for public comment an updated draft application to the Centers for Medicare and Medicaid Services and Center for Medicare and Medicaid Innovation, State Innovation Models Group for modernization of Maryland's All-Payer Model.

Since March 2013, when we submitted the initial application, we have received input from many stakeholder groups and individuals in the state and have held ongoing discussions with federal government officials.

This revised and improved proposal reflects an unprecedented effort across the state to enhance care for patients, improve health care outcomes, and control costs. The proposal builds upon decades of innovation and equity in health care payment and delivery in Maryland by modernizing our all payer rate setting system for hospital services.

The plan includes:

- **A five year model** focused on improving health care quality, delivery of services, and the affordability of health care.
- **A new approach to Maryland's all-payer hospital waiver**, that moves from the current statutory approach to all-payer hospital payment, which is based on Medicare payment per admission, to a new model that focuses on overall hospital expenditures.
- **Strong incentives for better outcomes at lower cost**, by shifting away from fee-for-service reimbursement to models that reward hospitals when care is high quality and fewer admissions are needed.
- **Improved quality**, including substantial reductions in hospital readmissions and potentially preventable complications.
- **Controls on costs**, including an annual limit on the total increase in revenue based on the 10-year average growth in the state's economy and at least \$330 million in savings over five years to Medicare. The Health Services Cost Review Commission will be working with payers, providers, and many others to develop innovative approaches to create savings.

The proposed revised application is designed to work together with a number of other efforts currently underway in Maryland, including efforts to strengthen primary care, map and track preventable disease and health costs, develop public-private coalitions for improved health outcomes, establish health enterprise zones, and enroll Marylanders in health coverage through Maryland Health Connection.

We deeply appreciate all of the time and effort from stakeholder input groups, hospital leadership, physician leaders, legislators, state employees, regulators, and others in providing input and comments to help us improve and revise this application draft.

We look forward to receiving your comments on the question of whether the draft application advances the important health care goals of better quality, lower cost, and improved outcomes by close of business on **Monday, October 7, 2013**. Based on that input, we will then decide on proceeding with submission to the Center for Medicare and Medicaid Services.

Thank you for your support as we work together to improve health and health care in Maryland.

Sincerely,

A handwritten signature in black ink that reads "Josh M. Sharfstein". The signature is fluid and cursive, with the first name "Josh" being particularly prominent.

Joshua M. Sharfstein, M.D.  
Secretary  
Maryland Department of Health and Mental Hygiene

A handwritten signature in black ink that reads "John M. Colmers". The signature is cursive and somewhat stylized, with the first name "John" being the most legible part.

John M. Colmers  
Chairman  
Health Services Cost Review Commission



# Maryland's All-Payer Model

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*Proposal to the Center for Medicare and Medicaid Innovation*

*Revised September 2013*

*Submitted by the Maryland Department of Health and Mental Hygiene*

TABLE OF CONTENTS

**EXECUTIVE SUMMARY.....1**

**BACKGROUND .....3**

**All-Payer Rate Setting in Maryland.....4**

**Challenges to the Existing Waiver.....7**

**Proposed Model.....9**

**PROGRAM OVERVIEW .....10**

**Name of Model .....10**

**Purpose and Objectives .....10**

**THEORY OF ACTION.....12**

**Logic Model .....12**

**Driver Diagram .....13**

**MODEL DESIGN AND REQUIREMENTS.....15**

**All-Payer Total Hospital Cost Growth Ceiling .....15**

**Medicare Total Hospital Cost Growth Ceiling.....16**

**Medicaid and CHIP .....17**

**Length of the Agreement.....17**

**Transition to National Medicare Payment Systems.....18**

**Population Based Revenue .....19**

**Readmissions .....20**

**Hospital Acquired Conditions.....22**

**Electronic Health Records.....22**

**Innovation in Medical Education .....23**

**TARGET PARTICIPANTS.....23**

**OPERATIONAL DESIGN ELEMENTS .....24**

**Methods Under Current Maryland Authority .....25**

**Payment Methods Currently Under Development in Maryland.....39**

**Participation in Other Medicare Programs, Initiative, Models, or Demonstrations.....41**

**MONITORING AND EVALUATION .....42**

**Monitoring .....42**

**Maryland Monitoring and Evaluation Strategy .....42**

**SIGNIFICANT ASSUMPTIONS, INCLUDING RISK ELEMENTS AND UNKNOWNNS .....51**

**DEFINITION OF SUCCESS: BASIS FOR BROAD SCALE IMPLEMENTATION.....52**

**APPENDIX A: SPECIFICATIONS FOR CALCULATING MEDICARE SAVINGS .....53**

**APPENDIX B: SPECIFICATIONS FOR CALCULATING READMISSIONS RATE.....55**

**APPENDIX C: MARYLAND REGULATED AND UNREGULATED HOSPITAL REVENUE....56**

**APPENDIX D: EXISTING FEDERAL AND STATE PROGRAMS .....59**

**State Innovation Models (SIM).....59**

**Centers for Disease Control and Prevention (CDC).....60**

**CMS Health Care Innovation Awards.....61**

**APPENDIX E: MARYLAND STATE GOVERNMENT ORGANIZATION .....62**

**Department of Health and Mental Hygiene .....62**

**Health Services Cost Review Commission (HSCRC) .....63**

**Maryland Health Care Commission .....65**

## EXECUTIVE SUMMARY

Maryland operates the nation's only all-payer hospital rate regulation system. This system is made possible by Maryland law and by a 36 year old Medicare waiver (codified in Section 1814(b)(3) of the Social Security Act) that exempts Maryland from the Inpatient Prospective Payment System (IPPS) and Outpatient Prospective Payment System (OPPS) and allows Maryland to set rates for these services. Maryland can maintain its exemption from IPPS and OPPS as long as it passes a "waiver test": the cumulative growth since January 1, 1981, in Medicare inpatient payment per admission in Maryland cannot exceed cumulative growth in Medicare inpatient payment per admission nationally. The State of Maryland believes that the incentives created by the current waiver test prevent Maryland from reforming its delivery system to align with the goals of delivering better health, better care, and lower cost.

Under the terms of the Maryland All-Payer Model described in this document:

- Maryland will permanently shift away from its current statutory waiver, which is based on Medicare payment per admission, in exchange for a new five year model based on Medicare per capita total hospital cost growth.
- This model will require Maryland's Medicare per capita total hospital cost growth over five years to be at least \$330 million less than the national Medicare per capita total hospital cost growth over five years.
- This model will require Maryland to limit its annual all-payer per capita total hospital cost growth to 3.58%, the 10-year compound annual growth rate in per capita gross state product.
- Maryland will shift virtually 100% of its hospital revenue over the five year model into global payment models.
  - The targets for the end of years two through five will be as follows: Year 2: 50%, Year 3: 60%, Year 4: 70%, Year 5: 80%.
  - Hospital revenues that are not covered under a global model will be subject to a volume adjustment system.
- Maryland will achieve a number of quality targets designed to promote better care, better health and lower costs.
  - Readmissions: Maryland will commit to reducing its aggregate Medicare 30-day unadjusted all-cause, all-site hospital readmission rate in Maryland to the national Medicare 30-day unadjusted all-cause, all-site readmissions rate over five years.
  - Hospital Acquired Conditions: Maryland currently operates a HAC program that measures 3M's 65 Potentially Preventable Conditions (PPC). Under this model, Maryland will achieve an annual aggregate reduction of 6.89% in the 65 PPCs over five years for a cumulative reduction of 30%.
- Under the model, Maryland will convene medical schools and schools of health professionals to develop a five year plan that will serve as a blue print on critical elements of improvement that will be needed to sustain transformation initiatives.
- Before the start of the fourth year of the model, Maryland will develop a proposal to extend the model beyond five years based on a Medicare total per capita cost of care test.

- If after year 5, the model is not extended, or if the model is terminated early, Maryland hospitals will transition to the national Medicare payment systems.

The purpose of this model is to test whether transformation efforts will produce greater results when implemented in the context of an all-payer rate setting system. Specifically, the model will test whether 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 better care, better health and reduced costs. This model will be used to engage all Maryland hospitals, as well as other care providers, in payment reform and innovation. The model will work synergistically with other important delivery reform innovations in the state. The target participants in this model are all Maryland residents.

In order to measure the success of this model, we propose that both Maryland and CMS engage in evaluation activities to assess the impact on cost and quality of care. Maryland will submit to CMS an annual report cataloging its performance with respect to patient experience, population health and health care costs. Additional evaluation could include in-depth qualitative interviews and an impact analysis on costs and quality of care on Maryland residents covered by Medicare, Medicaid, CHIP, private insurance, or those uninsured. In addition to robust quality measurement, the model will employ a range of methods to monitor for the protection of beneficiaries' rights, clinical quality, and beneficiary and provider complaint audits.

Maryland expects that the All-Payer Model will be successful in reducing program expenditures and improving the quality of care for Maryland residents, including Medicare, Medicaid, and CHIP beneficiaries. Moreover, the Maryland system will serve as a model for other states interested in developing all-payer payment systems.

## BACKGROUND

Maryland operates the nation's only all-payer hospital rate regulation system. This system is made possible by state law and by a 36 year old Medicare waiver (codified in Section 1814(b) of the Social Security Act) that exempts Maryland from the Inpatient Prospective Payment System (IPPS) and Outpatient Prospective Payment System (OPPS) and allows Maryland to set rates for these services. The Secretary of the U.S. Department of Health and Human Services (HHS) allows Maryland to maintain its exemption from IPPS and OPPS if Maryland passes a "waiver test": the cumulative growth since January 1, 1981, in Medicare inpatient payment per admission in Maryland cannot exceed cumulative growth in Medicare inpatient payment per admission nationally. If Maryland were to fail this test, the state would have 36 months from the time that the HHS Secretary notifies the Governor to come into compliance. If Maryland does not meet the test after this 36-month period, the Secretary may give the state a period of up to 2 years to transition to the national Medicare payment system.

The State of Maryland believes that the incentives created by the current waiver test prevent Maryland from reforming its delivery system to align with the goals of delivering better health, better care, and lower cost.

In February 2012, the Secretary of Maryland's Department of Health and Mental Hygiene, Dr. Joshua M. Sharfstein, and the Chairman of the Maryland Health Services Cost Review Commission, John M. Colmers, initiated a discussion with CMS about the possibility of amending its Medicare waiver in order to preserve its all-payer system through an Innovation Center model.<sup>1</sup> This document reflects Maryland's proposal for a new all-payer model.

Maryland's all-payer rate setting system for hospital services presents an opportunity to test a unique model that has the potential to serve as a guide for other states. Under the terms of the model described in this proposal:

- Maryland will permanently shift away from its current statutory waiver, which is based on Medicare cost per admission, in exchange for the new five year Innovation Center model based on Medicare per capita total hospital cost growth.
- Maryland's Medicare per capita total hospital cost growth over five years will be at least \$330 million less than the national Medicare per capita total hospital cost growth over five years.
- Maryland will limit its annual all-payer per capita total hospital cost growth to 3.58%, the 10-year compound annual growth rate in per capita gross state product.

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<sup>1</sup> The HHS Centers for Medicare and Medicaid Services (CMS) Innovation Center was established by section 1115A of the Social Security Act ("Act") as added by section 3021 of the Affordable Care Act. Congress created the Innovation Center for the purpose of testing "innovative payment and service delivery models to reduce program expenditures ... while preserving or enhancing the quality of care" for those individuals who receive Medicare, Medicaid, or Children's Health Insurance Program (CHIP) benefits. Section 1115A(d)(1) of the Act authorizes the Secretary of HHS to waive such requirements of titles XI and XVIII of the Act as may be necessary solely for purposes of testing new payment models. The Innovation Center seeks to accelerate payment and delivery system reform across the country.



- Maryland will move at least 80% of total revenue into population-based payment systems.
- Maryland will achieve a number of quality targets designed to promote better care, better health and lower costs.
- Before the start of the fourth year of the model, Maryland will develop a proposal to extend the model beyond five years based on a total Medicare per capita cost of care test.
- If after year 5, the model is not extended, or if the model is terminated early, Maryland hospitals will transition to the national Medicare payment system.

Maryland expects that this model will produce net savings for the federal government, the state, and private payers while providing stability and predictability for Maryland hospitals, and allowing Maryland to serve as a laboratory for the rest of the nation to test several innovative tools for improving quality and reducing cost in health care.

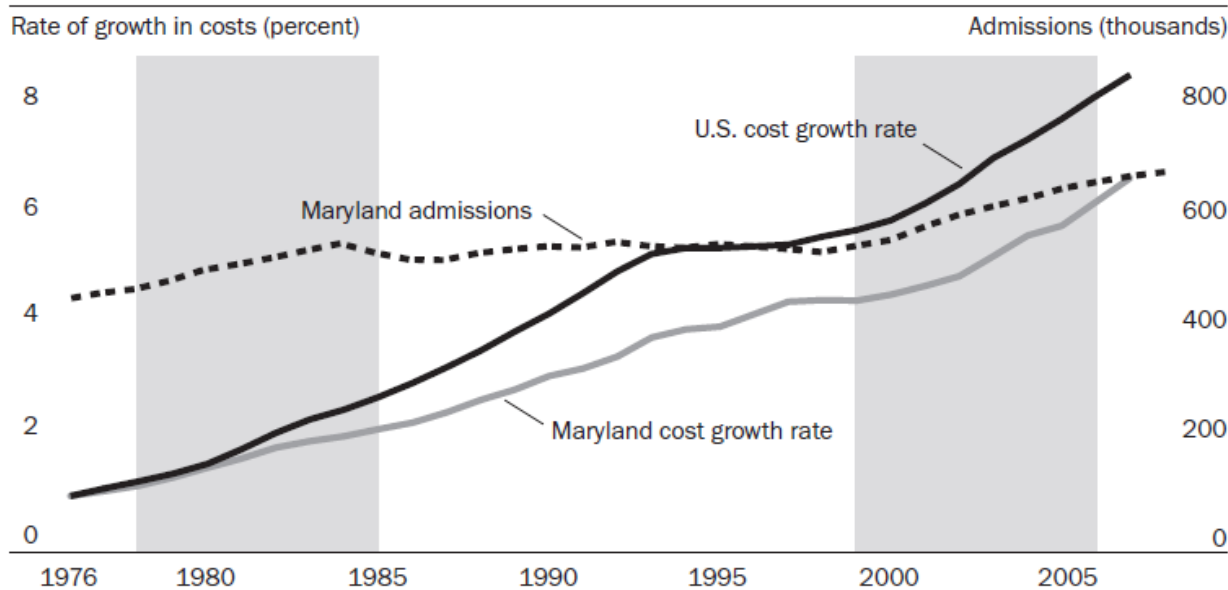
### **All-Payer Rate Setting in Maryland**

Since 1977, Maryland's independent Health Services Cost Review Commission (HSCRC) has established hospital inpatient and outpatient rates for all public and private payers. This payment mechanism offers the potential for many benefits, including reduced cost-shifting between payers and accelerated development of effective incentives to improve quality and outcomes. As a result of this system, Maryland has substantially limited the growth of hospital costs per-case and provided a stable and predictable payment system for hospitals. Maryland hospitals cite the payment systems as one that has promoted greater financial stability for hospitals and supported equitable funding of uncompensated care and medical education.

Maryland was one of five states initially granted the authority to test all-payer systems. Today Maryland is the only state system remaining. (*See Appendix E: Maryland State Government Organization*)

In 1976, the cost of a Maryland hospital admission was considerably above the national average. In 2007, average hospital cost per admission in Maryland was below the national average.

## Indexed Growth Rates In Hospital Cost Per Adjusted Admission, Maryland And United States, 1976–2007 (2008)



**SOURCES:** Growth rate in costs per equivalent inpatient admission (EIPA) (Maryland and United States): American Hospital Association Statistics, 1976–2007. Maryland admissions: Hospital Cost Reports filed with the Health Services Cost Review Commission (HSCRC), 1976–2008.

**NOTES:** Cost growth rates are represented by solid lines and relate to the left-hand y axis. Numbers of admissions are represented by the dotted line and relate to the right-hand y axis. Explanation of shaded areas: The increase in admission rates in Maryland during 1976–1983 was driven in large part by a net increase of 1,615 beds approved by the Maryland health planning agency (a majority of which were in the Washington, D.C., suburbs, resulting in an increase in in-migration of DC patients to Maryland). In 2000, the HSCRC eliminated fixed/variable cost adjustments for changes in hospital volume in a negotiation with the hospital industry. Once this “break” on volume was eliminated, admission growth averaged 2.7 percent per year during 2000–2007. Volume adjustments were reimposed in 2008, and annual admission growth dropped to about 1.0 percent.

The Maryland rate setting system has achieved its original goals of controlling cost per admission and provided additional benefits to the Maryland health care system.

- **Cost Containment** – At the inception of the waiver, Maryland hospital costs per case for equivalent inpatient admission (EIPA) were 25 percent above the national average, but today costs per EIPA are near the national average on an all-payer basis.
- **Equitable Financing of Uncompensated Care** –When setting rates, the HSCRC includes uncompensated care and thus allocates the overall expenditure amount to all payers, including the public programs.
- **Stable and Predictable Payment System for Hospitals** – Maryland’s Medicare waiver has allowed Maryland to achieve its policy goals over time and avoid major short-term disruptions while establishing a more stable system of hospital financing.

- ***Robust Data and Comprehensive Analytic Tools*** – Over its 30 year history, the HSCRC has developed data sets to establish and monitor hospital payments. Payments in Maryland are based on analysis of actual case mix data and cost data and are not subject to negotiations between payers and providers.
- ***Transparency*** –The HSCRC created a significant data infrastructure that includes a uniform accounting and reporting system and data collection on, and analysis of, every aspect of hospital operations. It distributes annual reports on hospital operations and makes all such files accessible to the public.
- ***Health Information Exchange (HIE)*** - The HSCRC worked in cooperation with hospitals to create requirements for all hospitals to submit real time data on admissions and ER visits to the statewide HIE entity. It is expanding this submission to all outpatient encounters. This provides the HSCRC with a data source to use in an all-payer rate setting context with its new focus on population health and care delivery. It also has created a rich data source to accelerate the planning and execution of interventions in other aspects of delivery system innovation.

Additionally, Maryland's all-payer system may provide substantial indirect benefits to the federal government. For example, by prohibiting cost shifting to private payers the federal government could benefit from lower costs associated with the Federal Employees Health Benefits Program and lower health insurance exchange subsidies.

For many years, the hospital rate setting system was effective in controlling inpatient hospital cost per admission. Recently, due largely to changes in the delivery system, Maryland hospital cost per admission has begun to exceed the rate of increase nationally. Absent intervention, it is projected that the trajectory of the current trend may cause Maryland to fail the current statutory test within the next several years.

## Challenges to the Existing Waiver

Maryland's all-payer per capita cost, while higher than the national average, has been comparable to other states in the region as is shown in the following table:

### All-Payer Per Capita Medical Expenditures, Regional and National, 2006-2009

Item	Y2006	Y2007	Y2008	Y2009
<b>Total Medical Expenditure</b>				
District of Columbia	\$9,019	\$9,476	\$9,835	\$10,349
Delaware	\$7,350	\$7,750	\$8,111	\$8,480
New York	\$7,417	\$7,722	\$7,966	\$8,341
<i>Region</i>	<i>\$7,074</i>	<i>\$7,399</i>	<i>\$7,664</i>	<i>\$7,970</i>
Pennsylvania	\$6,860	\$7,207	\$7,483	\$7,730
New Jersey	\$6,803	\$7,110	\$7,356	\$7,583
<b>Maryland</b>	<b>\$6,534</b>	<b>\$6,881</b>	<b>\$7,205</b>	<b>\$7,492</b>
<i>United States</i>	<i>\$6,028</i>	<i>\$6,318</i>	<i>\$6,566</i>	<i>\$6,815</i>
<b>Hospital Care</b>				
District of Columbia	\$4,467	\$4,625	\$4,779	\$4,948
Delaware	\$2,680	\$2,858	\$2,944	\$3,109
New York	\$2,661	\$2,770	\$2,827	\$2,949
Pennsylvania	\$2,537	\$2,666	\$2,764	\$2,858
<i>Region</i>	<i>\$2,528</i>	<i>\$2,641</i>	<i>\$2,717</i>	<i>\$2,823</i>
<b>Maryland</b>	<b>\$2,374</b>	<b>\$2,520</b>	<b>\$2,680</b>	<b>\$2,767</b>
<i>United States</i>	<i>\$2,172</i>	<i>\$2,279</i>	<i>\$2,374</i>	<i>\$2,475</i>
New Jersey	\$2,169	\$2,238	\$2,261	\$2,351
<b>Physician &amp; Clinical Services</b>				
New Jersey	\$1,714	\$1,885	\$2,000	\$2,049
Delaware	\$1,796	\$1,851	\$1,952	\$1,978
<b>Maryland</b>	<b>\$1,610</b>	<b>\$1,685</b>	<b>\$1,732</b>	<b>\$1,792</b>
<i>Region</i>	<i>\$1,539</i>	<i>\$1,624</i>	<i>\$1,720</i>	<i>\$1,777</i>
District of Columbia	\$1,641	\$1,803	\$1,790	\$1,770
New York	\$1,486	\$1,522	\$1,629	\$1,696
Pennsylvania	\$1,448	\$1,551	\$1,641	\$1,694
<i>United States</i>	<i>\$1,480</i>	<i>\$1,535</i>	<i>\$1,599</i>	<i>\$1,650</i>
Source: Centers for Medicare & Medicaid Services (2011). Health Expenditures by State of Residence. Retrieved at <a href="http://www.cms.gov/NationalHealthExpendData/downloads/resident-state-estimates.zip">http://www.cms.gov/NationalHealthExpendData/downloads/resident-state-estimates.zip</a>				

However, the recent rise in inpatient hospital cost has placed new stresses on the current payment system. The waiver, as currently structured, places the emphasis on cost per admission and is not optimized to address overall health care spending or promote comprehensive and coordinated care across different settings. In fact, the tight constraint on per inpatient admission payments induces providers to increase the rate of inpatient admissions or inappropriately shift costs to outpatient settings. Medicare expenditures are provided in the following table.

### Medicare Per Capita Expenditures, Regional and National, 2006-2011

Item	Y2006	2007	2008	2009	Y2010	Y2011
<b>Personal Health Care</b>						
New Jersey	\$10,151	\$10,880	\$11,382	\$11,903	N/A	N/A
New York	\$9,955	\$10,530	\$11,103	\$11,604	N/A	N/A
Maryland	<b>\$10,274</b>	<b>\$10,597</b>	<b>\$11,178</b>	<b>\$11,449</b>	N/A	N/A
<i>Region</i>	<i>\$9,762</i>	<i>\$10,306</i>	<i>\$10,844</i>	<i>\$11,297</i>	N/A	N/A
District of Columbia	\$10,269	\$10,289	\$10,771	\$11,157	N/A	N/A
Pennsylvania	\$9,157	\$9,645	\$10,134	\$10,555	N/A	N/A
Delaware	\$8,845	\$9,371	\$10,125	\$10,421	N/A	N/A
<i>United States</i>	<i>\$9,012</i>	<i>\$9,418</i>	<i>\$9,930</i>	<i>\$10,365</i>	N/A	N/A
<b>Hospital Care</b>						
District of Columbia	\$5,965	\$5,886	\$6,118	\$6,133	\$6,576	\$6,574
Maryland	<b>\$5,873</b>	<b>\$5,986</b>	<b>\$6,289</b>	<b>\$6,352</b>	<b>\$6270</b>	<b>\$6545</b>
New York	\$5,084	\$5,251	\$5,477	\$5,650	\$5,710	\$5,695
<i>Region</i>	<i>\$4,976</i>	<i>\$5,139</i>	<i>\$5,332</i>	<i>\$5,452</i>	<i>\$5,397</i>	<i>\$5,424</i>
New Jersey	\$4,856	\$5,144	\$5,287	\$5,362	\$5,064	\$5,008
Pennsylvania	\$4,609	\$4,718	\$4,844	\$4,950	\$4785	\$4803
Delaware	\$4,460	\$4,637	\$4,965	\$4,966	\$4,713	\$4,772
<i>United States</i>	<i>\$4,416</i>	<i>\$4,514</i>	<i>\$4,688</i>	<i>\$4,847</i>	<i>\$4,570</i>	<i>\$4,596</i>
<b>Physician &amp; Clinical Services</b>						
New Jersey	\$2,652	\$2,786	\$2,903	\$3,107	\$3,919	\$3,995
New York	\$2,388	\$2,506	\$2,656	\$2,794	\$3,557	\$3,667
<i>Region</i>	<i>\$2,332</i>	<i>\$2,438</i>	<i>\$2,565</i>	<i>\$2,694</i>	<i>\$3,422</i>	<i>\$3,519</i>
Maryland	\$2,335	\$2,335	\$2,406	\$2,441	\$3,192	\$3,336
Delaware	\$2,118	\$2,171	\$2,240	\$2,278	\$3,035	\$3,176
Pennsylvania	\$2,094	\$2,211	\$2,340	\$2,451	\$2,988	\$3,059
District of Columbia	\$2,165	\$2,116	\$2,144	\$2,271	\$2,965	\$3,021
<i>United States</i>	<i>\$2,125</i>	<i>\$2,178</i>	<i>\$2,297</i>	<i>\$2,407</i>	<i>\$2,959</i>	<i>\$3,011</i>
Sources: 2006-2009: Centers for Medicare & Medicaid Services (2011). Health Expenditures by State of Residence. Retrieved at <a href="http://www.cms.gov/NationalHealthExpendData/downloads/resident-state-estimates.zip">http://www.cms.gov/NationalHealthExpendData/downloads/resident-state-estimates.zip</a>						
2010-2011: Centers for Medicare & Medicaid Services (2012). Medicare & Medicaid Statistical Supplement, 2012 Edition. Retrieved at <a href="http://www.cms.gov/Research-Statistics-Data-and-Systems/Statistics-Trends-and-Reports/MedicareMedicaidStatSupp/index.html">http://www.cms.gov/Research-Statistics-Data-and-Systems/Statistics-Trends-and-Reports/MedicareMedicaidStatSupp/index.html</a>						
Note: Not all of the components of Personal Health Care Expenditures is available for CY 2010-2011 in the Statistical Supplements and therefore not reported above.						

## Proposed Model

In this model, over the next five years, Maryland will commit to limiting all-payer inpatient and outpatient hospital cost for Maryland residents to a trend based on the state's ten-year average Gross State Product (GSP). Over the first three years of the demonstration, all-payer annual per capita growth will be limited to a ceiling of 3.58 percent. In years 4 and 5, Maryland may adjust the overall cap to the compound annual 10 year GSP, subject to prior approval by CMS. There will be a separate guarantee of savings to Medicare of \$330 million in total hospital cost. These savings will be calculated using a Medicare benchmark based on actual national Medicare hospital trend.

To succeed in improving health care and population health while achieving these cost goals, Maryland will implement a broad range of health care delivery system reform efforts. These include:

- Global budgeting, initially focused on rural hospitals, that will incentivize hospitals to improve operating margins through innovative partnerships with community physicians and public health agencies;
- Readmission programs, which provide powerful incentives for improved coordination of care;
- A plan to reduce hospital acquired conditions;
- Population-based and global budgeting for suburban and urban hospitals that move these hospitals away from fee-for-service payment towards accountability for health outcomes and cost;
- Medical homes throughout the state to provide preventative services to all and care coordination for individuals with chronic illnesses;
- Accountable Care Organizations, with rules that can be established in Maryland on an all-payer basis;
- Coordination among hospitals, physicians, and other health providers as patient outcomes improve and overall costs decline.

Maryland's model design works in concert with other critical health reforms under way in the state. It aligns hospital incentives with those of medical homes, a key feature of Maryland's Health Care Innovation award and State Innovation Model design grant from CMS. It aligns with major investments made in information technology, including the state's Health Information Exchange. It also aligns with the public health goals of the State Health Improvement Process. Maryland believes this proposal will further advance CMS' vision to achieve better health, better care and reduced cost.

## PROGRAM OVERVIEW

### Name of Model

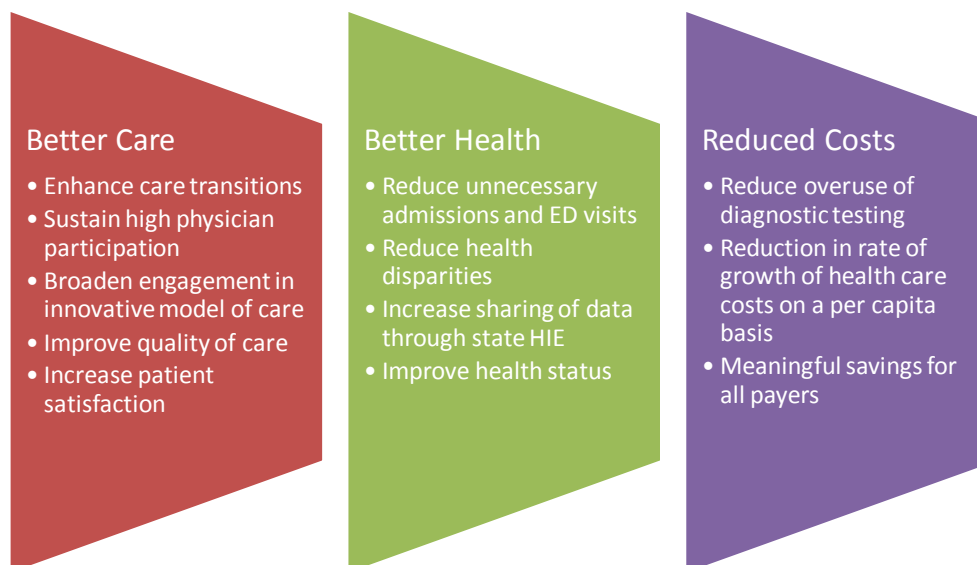
Maryland All-Payer Model

### Purpose and Objectives

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.

### Model Purpose and Objectives



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.

In addition to the primary objectives, improving the value of Maryland's health care system and the health of Maryland residents are core policy goals. These goals are already supported by a number of innovative efforts currently under way in Maryland:

- The State Health Improvement Process focuses efforts on 39 health measures in six focus areas with 17 regional public-private health coalitions working to improve these outcomes.<sup>2</sup>
- Multi-payer medical home projects that include over 50 practices with over 300 Maryland physicians covering 200,000 commercial patients and 57,000 Medicaid patients as well as insurer-sponsored medical homes that include over 2,000 Maryland physicians covering 800,000 patients.
- Innovative payment structures and partnerships for delivery reform in hospitals and physicians' offices across the state.<sup>3</sup>
- The state's Health Information Exchange connects all of Maryland's acute care hospitals and provides automatic notification to primary care clinicians when their patients are seen in the Emergency Department or admitted.
- A new Health Enterprise Zone program invests state resources in community health in defined geographic areas to address health disparities.<sup>4</sup>
- The Maryland Health Connection, the state-based insurance exchange under the Affordable Care Act.<sup>5</sup>
- CMS Health Care Innovation Awards testing new care delivery approaches.<sup>6</sup>
- Planning through a State Innovation Model design grant from CMS for integration of primary care and community health.

This proposed Maryland All-Payer Model provides a unique evaluation opportunity to assess whether leveraging the broad participation of all payers, providers, and patients leads to more rapid and systemic improvements in health, health care delivery outcomes, and costs. Maryland believes this model will also allow CMS to be able to identify areas for replication both in the individual initiatives pursued through the model and in the process by which public payers work with others to achieve progress in care transformation and population health.

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<sup>2</sup> Maryland's State Health Improvement Process is online at <http://dhmh.maryland.gov/SHIP>.

<sup>3</sup> Examples of three-part aim health innovations are available online at <http://dhmh.maryland.gov/innovations>.

<sup>4</sup> Information on Maryland's Health Enterprise Zone program is available online at <http://dhmh.maryland.gov/healthenterprisezones/SitePages/Home.aspx>.

<sup>5</sup> Information on Maryland's health benefit exchange is available online at <http://www.marylandhealthconnection.gov>.

<sup>6</sup> Information on Maryland recipients of CMS Health Care Innovation Awards can be found at: <http://innovation.cms.gov/initiatives/map/index.html#state=MD>.



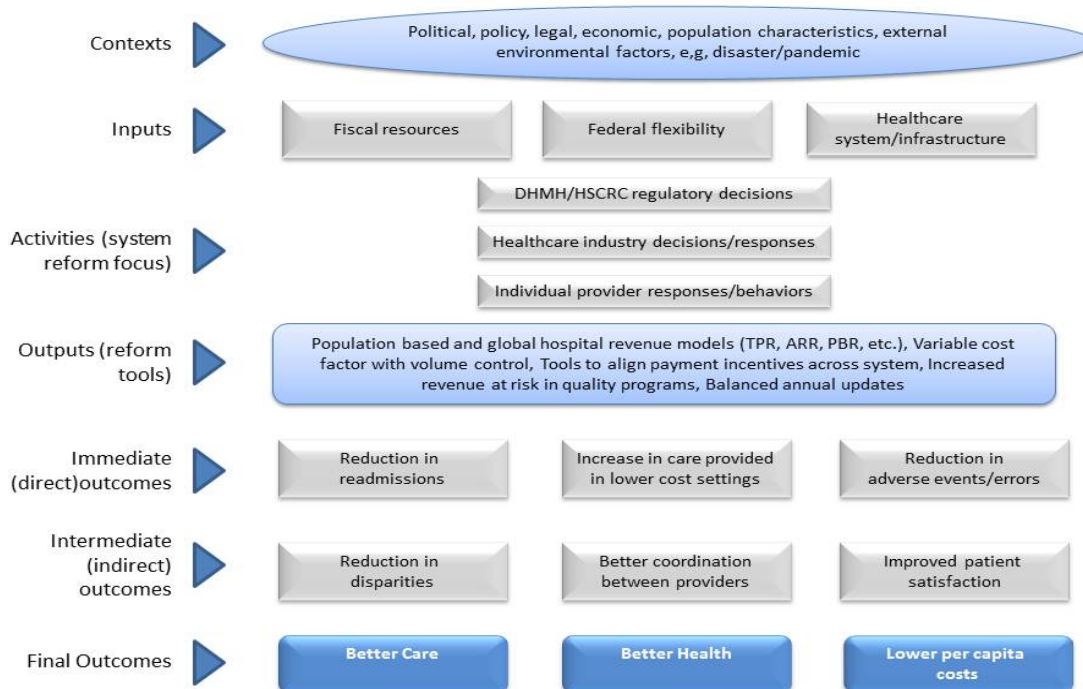
## THEORY OF ACTION

As described above, the current all-payer waiver emphasizes cost per admissions which may have induced an increase in the rate of inpatient admissions or an excessive shift in costs to outpatient settings. To address these existing incentives, the all-payer model incorporates direct and indirect financial incentives to accelerate change and to evolve incentives over time, as the focus shifts from cost per admission to the cost per patient. Direct financial incentives include bonuses for improving performance on quality measures. Indirect financial incentives would be payment models that favor care integration that lowers inpatient volume and improves quality. The model also facilitates delivery system transformation by encouraging hospitals to participate in local public health coalitions, share savings with physicians and other providers, to participate in bundled payment arrangements, Accountable Care Organizations, and to work collaboratively with physicians in patient centered medical homes. The model is designed to evolve over time to shift from a focus on hospital costs to a focus on total cost of care for Maryland residents.

### Logic Model

The model’s design approach will leverage strengths of population-based methods to enhance the all-payer system’s ability to drive improvements towards better health, better care and lower costs while mitigating the possibility for unintended consequences such as exertion of monopoly power and lack of sufficient incentives for quality.

### Logic Model



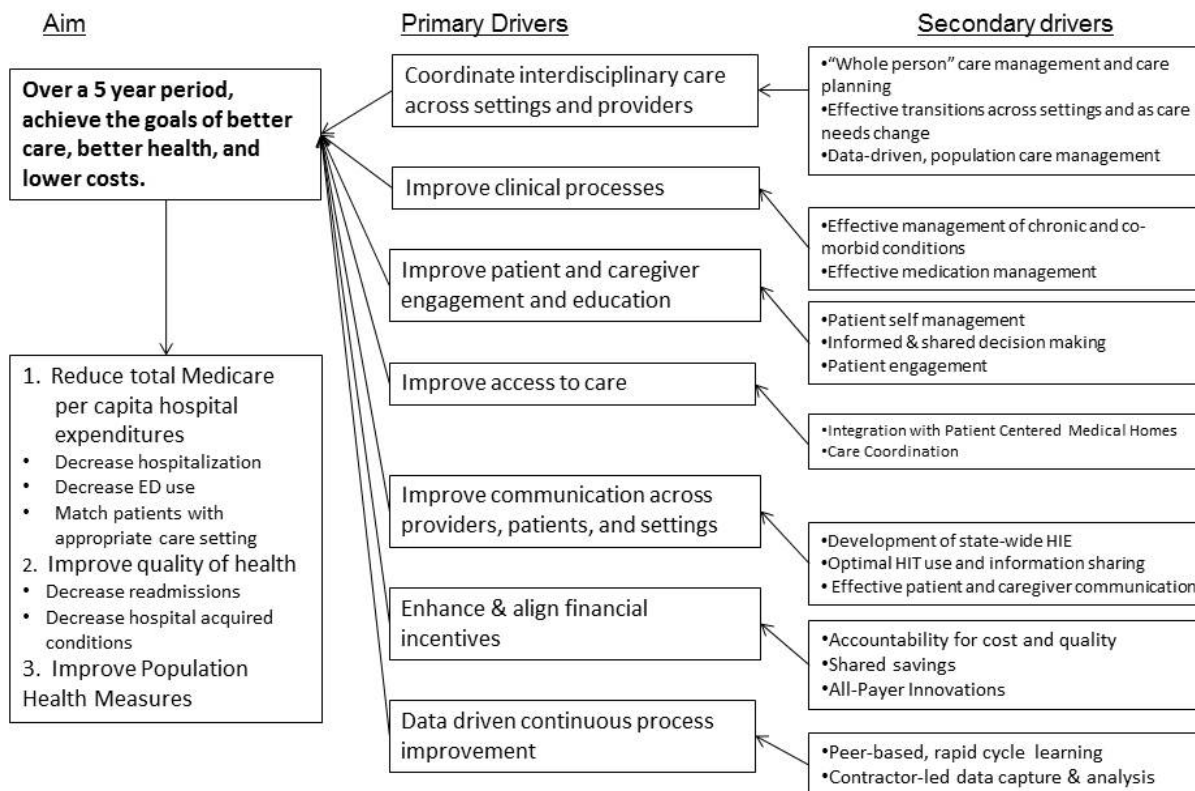
The ultimate desired outcomes, displayed on the bottom row, are better care, better health and lower costs through improvement. In the bubble at the top are the contexts that must be considered in terms of their potential impact and their implications for program design. These include policy, political and legal environments, economic conditions, characteristics of the population to be served, and external environmental factors outside the state's control. The inputs row illustrates that along with fiscal resources and a healthcare system already poised to engage in an all-payer per capita model, a degree of federal flexibility is a necessary input to produce the outputs/methods to drive desired outcomes.

The logic model displays the actors and actions that are important to consider, including the regulatory decisions as well as system and individual provider responses. The outputs or methods are at the heart of Maryland's model. These include various methods to align incentives so that the state can build on its efforts and achieve the immediate and intermediate results/outcomes.

### **Driver Diagram**

While the logic model illustrates the major moving pieces at a high level, individual desired outcomes can be explained in more detail in a driver diagram. The figure below depicts the system components (i.e., drivers) required to accomplish the model's specific aims. In this framework, a state-wide health care system that continuously achieves better health, better care, and lower expenditures is possible when the primary and secondary drivers are achieved. The "driver diagram" below states a prediction—if the primary and secondary drivers are all present and deployed sufficiently, then the outcome (aim) will be achieved, if external conditions do not significantly change the underlying assumptions. Because the actual impact of each driver is a hypothesis, it is expected that these inter-related drivers will be tested, measured, and refined throughout the implementation of this model.

### MARYLAND ALL-PAYER MODEL DRIVER DIAGRAM



Maryland believes that deploying innovative payment incentives and care management programs through an all-payer system will result in improved outcomes and expenditure savings by producing:

- Fewer unnecessary visits to the emergency department
- Reduced hospitalizations and avoidable re-hospitalizations
- Reduced lengths of stay
- Reductions in hospital acquired conditions
- Wider adoption of improved clinical practices resulting in improved beneficiary outcomes and reduced risk of adverse events

## MODEL DESIGN AND REQUIREMENTS

The Maryland All-Payer Model includes a number of elements that will allow Maryland to test the use of an all-payer rate setting system to better care and reduce cost.

### All-Payer Total Hospital Cost Growth Ceiling

Under the model, Maryland will limit total inpatient and outpatient hospital costs for all payers to a trend based on the state's long-term Gross State Product (GSP). Specifically, in the first three years of the model, Maryland will cap its annual per capita total inpatient and outpatient hospital cost growth to 3.58%, which represents Maryland's 10-year compound annual growth rate in GSP per capita. In years 4 and 5, Maryland proposes that it may adjust the overall cap to the 10-year compound annual growth rate based on the most recently available data, subject to prior approval by CMS.

Per capita GSP was selected as a benchmark for health care spending growth under this model in recognition of the growing share of resources devoted to health care across all states. By committing to limit hospital expenditures to long-term per capita GSP growth, this model will stabilize expenditures, first for hospitals, then for all health care services in the state.

### Annual Growth Rate in Maryland GSP Per Capita, 2002-2012

Year	MD Annual Population Estimates	Maryland Gross State Product	% GSP Growth	GSP Per Capita	% Per Capita Growth
2002	5,440,389	\$206,624,000,000		\$37,979.64	
2003	5,496,269	\$216,607,000,000	5.63%	\$39,409.83	3.77%
2004	5,546,935	\$231,963,000,000	4.83%	\$41,818.23	6.11%
2005	5,592,379	\$247,241,000,000	7.09%	\$44,210.34	5.72%
2006	5,627,367	\$259,792,000,000	6.59%	\$46,165.82	4.42%
2007	5,653,408	\$271,985,000,000	5.08%	\$48,109.92	4.21%
2008	5,684,965	\$281,112,000,000	4.69%	\$49,448.33	2.78%
2009	5,730,388	\$284,724,000,000	3.36%	\$49,686.69	0.48%
2010	5,787,998	\$295,981,000,000	1.28%	\$51,137.03	2.92%
2011	5,839,572	\$305,175,000,000	3.95%	\$52,259.82	2.20%
2012	5,884,563	\$317,678,000,000	3.11%	\$53,984.98	3.30%
<b>10-year Compound annual Growth Rate</b>			<b>4.40%</b>		<b>3.58%</b>

### Medicare Total Hospital Cost Growth Ceiling

In addition to limiting the total inpatient and outpatient hospital cost growth for all payers as described above, Maryland will also limit its Medicare per capita total hospital cost growth. The Medicare per capita total hospital (inpatient and outpatient) spending target will be set to produce \$330 million in Medicare savings over 5 years. CMS will calculate Medicare savings by establishing a baseline that is the actual Medicare per capita total hospital expenditures for Maryland Medicare fee-for-service beneficiaries in 2013 trended forward by the national average growth rate in Medicare per capita hospital expenditures to each year of the model and comparing Maryland's annual Medicare per capita total hospital expenditures to that baseline. Specifically, CMS will calculate Medicare per capita total hospital cost by including in the denominator of the calculation all Maryland residents who are fee-for-service beneficiaries enrolled in Part A and/or Part B, and by including in the numerator all inpatient and outpatient hospital care (except outpatient lab services) received by these beneficiaries, regardless of the state of service. (*See Appendix A: Specifications for Calculating Medicare Savings*). \$330 million reflects the projected savings for a spending rate that is at the national trend for year 1 and approximately 0.5% below the national trend for years 2-5. Regardless of the changes in the national trend over the course of the 5 year Maryland All-Payer Model, Maryland proposes to produce \$330 million in savings over 5 years to be calculated in the manner described above.

Maryland will generate the \$330 million in savings over the life of the model beginning in year two in the following manner:

	2014	2015	2016	2017	2018	Total Savings
<b>Cumulative Savings</b>	\$0	\$49.5M	\$132M	\$247.5M	\$330M	<b>\$0.33 billion</b>

The state will set hospital rates and budgets prospectively each year in order to meet these targets. In other words, Maryland's per capita cost growth relative to the national per capita cost growth may fluctuate from year to year, but Maryland will progressively move towards its end savings goals as shown in the above table.

There is the potential for exogenous factors to affect cost growth, both for the all-payer and Medicare trends, in unpredictable ways. For example, Maryland could experience a localized disease outbreak that does not occur in other parts of the nation. Additionally, there are two future events that could impact the projected trend: 1) expansion of health insurance coverage under the Affordable Care Act and 2) the construction of a new hospital facility in Prince George's County. Under the model, Maryland may submit to CMS feedback on any exogenous factors' impact on the model, including a suggestion to adjust the model on the basis of those exogenous factors. Any such adjustment would be at the sole discretion of CMS.

## Medicaid and CHIP

The Medicaid and CHIP programs will benefit from the model through the reduction in utilization of inpatient services for its beneficiaries, as well as a reduction in costs associated with hospital admissions. Additionally, the model will benefit these programs by providing a mechanism for improving health outcomes through appropriate linkages to less costly preventative and disease management services.

While it is true that these programs cover certain populations and services that are frequently associated with growing service volumes outside the Medicare benchmark, under this model Medicaid and CHIP expenditure growth will be protected under the overall all-payer expenditure ceiling. In addition, Medicaid payments follow Medicare payments under the all-payer system.

## Length of the Agreement

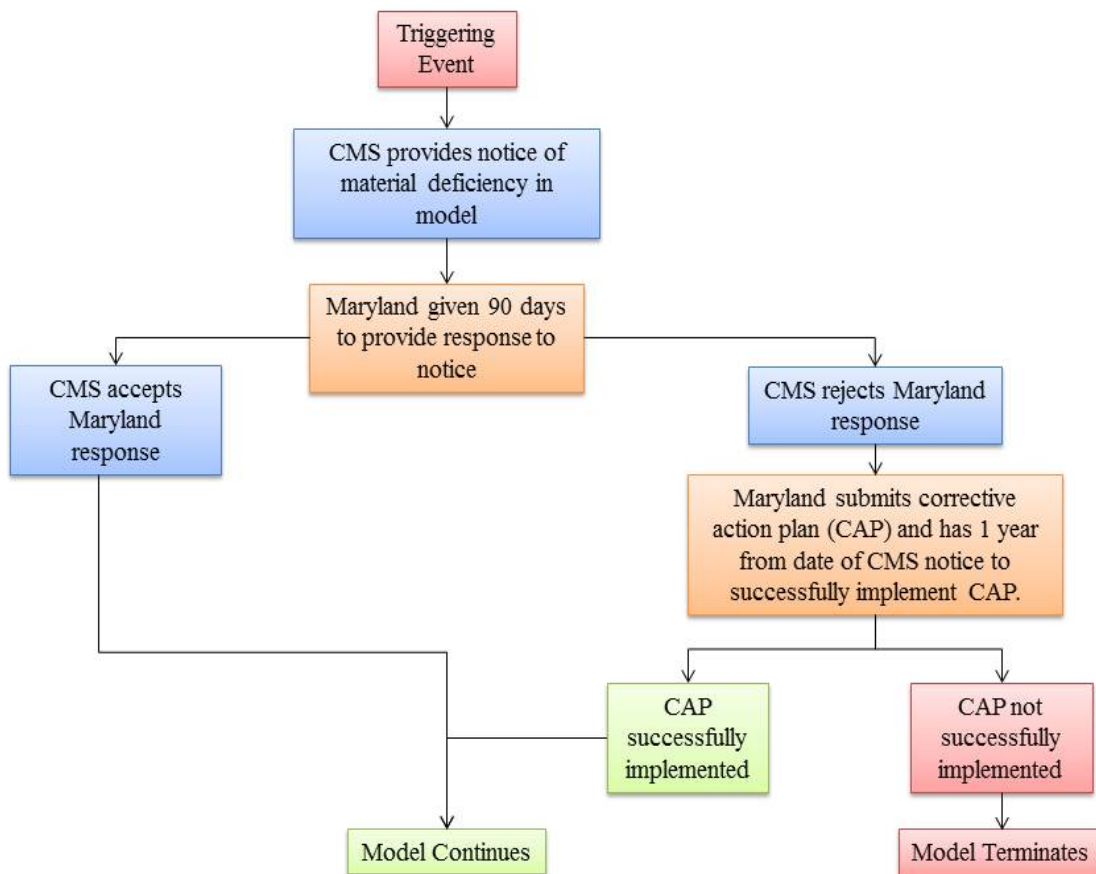
Maryland proposes to begin the model on January 1, 2014, and will continue for five years. Before the start of the fourth year of the model, Maryland will submit a proposal to continue the model under a Medicare total per capita cost cap after year five. CMS has the authority to test models that have the potential to reduce programmatic expenditures. Therefore, whether this model produces total cost of care savings for CMS will be a critical factor in deciding whether to extend the model beyond five years. Any extension of the model beyond five years will be at the sole discretion of CMS. Should the model not be extended, the model would automatically terminate and Maryland would transition to the national Medicare program as described below.

During the course of the five year model period, there are specified events that will lead to further review by CMS and potentially early termination. These events are:

- Failure to achieve savings for two consecutive years calculated as described above. Specifically, a year in which Maryland's Medicare per capita total hospital cost growth exceeds the national Medicare per capita total hospital cost growth would constitute a year in which Maryland generated a loss for the Medicare program.
- Failure to meet the cumulative target by a total of \$100 million or more at any point during the life of the model. For example, per the above table, should Maryland only generate \$32 million in savings by the end of 2016, Maryland's cumulative savings amount would be off target by \$100 million.
- Annual growth in Medicare per capita total cost of care for Maryland residents, regardless of state of service, that is more than 1% greater than the national Medicare total cost of care growth rate.
- A determination of a significant deterioration in the quality of care provided to Medicare, Medicaid or CHIP beneficiaries. Developments that could trigger such a determination include (but are not necessarily limited to) a significant deterioration in key population health indicators, a significant deterioration in indicators of patient experience, or findings (as part of the model monitoring strategy) that providers are engaging in inappropriate behaviors, including failure to provide needed care.

Should any of these events occur, CMS will provide notice to Maryland of a triggering event. Maryland will have 90 days to respond. Within 90 days of receiving Maryland’s response, CMS will either accept Maryland’s response or require the state to submit a corrective action plan within 30 days. If after one year from the initial notice of the triggering event, CMS determines that the corrective action plan has not been implemented successfully, CMS may terminate the model.

**Triggering Event Scenarios**



Maryland may elect to proceed directly to the corrective action plan step immediately upon receipt of notice of a triggering event.

**Transition to National Medicare Payment Systems**

In order to implement the Maryland All-Payer Model, CMS may need to waive provisions of section 1814(b)(3) of the Social Security Act. In the event a triggering event leads to termination of the model, Maryland will transition to the national Medicare program over a two year period (e.g. reimbursement through IPSS and OPSS).

## Population Based Revenue

In this model, Maryland commits to transform its hospital reimbursement system from a per case reimbursement system to a population based reimbursement for services provided to Maryland residents. The overarching incentives created by this model—that is, the establishment of a per capita-based ceiling on inpatient and outpatient hospital expenditures—will enable the HSCRC to develop and implement hospital financial incentives that reward better health, better care and lower costs for Maryland residents. Maryland will use two approaches to achieve this transformation.

Maryland will shift virtually 100%<sup>7</sup> of its hospital revenue over the five-year model into population based models. A population based model refers to a model of hospital reimbursement that is either “directly population-based” (i.e., tying hospitals' reimbursement to the projected services of a specific population or specific residents) or one that establishes a fixed global budget for hospitals for services unconnected to assignment of a specific population but is related to historical trends, the hospital service area and residents served through the implementation of innovative care models. Population based models currently proposed by Maryland include the Total Patient Revenue (TPR) and Population Based Reimbursement (PBR) systems, which annually establish fixed revenue amounts for a hospital (global budgets) either based on historical trends or a specific population served by the hospital. Other population based models include broad based hospital quality programs such as the Admission/Readmission Revenue (ARR) program.<sup>8</sup> Additional hospital reimbursement models that reward value rather than the volume of hospital services developed throughout the performance period for the model may also be classified by CMS as population based with CMS approval.

Hospital revenues that are not covered under a population based payment model will be subject to a volume adjustment system with use of variable cost factors, update factors, and a volume governor, as necessary, so that these hospitals operate within the all-payer and Medicare revenue limitations prescribed by this model as enumerated in this document. The HSCRC will be able to adjust these factors on a more specific regional or hospital basis to assure accountability at the operational level for key population health and revenue goals.

The goal of this model is to shift virtually 100% of Maryland hospital revenue for Maryland residents into Global Models by the end of year five of the model. However, at a minimum, the targets for the end of years two through five will be as follows: Year 2: 50%, Year 3: 60%, Year 4: 70%, Year 5: 80%.

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<sup>7</sup> There may be exceptions made for specific service lines for which Global Models are impractical, and allowances for infrastructure or certificate of need projects. The HSCRC will develop policies, in consultation with CMS, to determine categories of revenue that may be excluded from Global Models based on the nature and variability of the underlying revenues.

<sup>8</sup> The base DRG revenue included in an episode of care bundle will be excluded from the Qualified Revenue covered by the episode of care bundle.



In calculating the percentage of hospital services provided to Maryland residents in each year of the model that are covered by a population based model, the HSCRC will compute a fraction for each year of the model as follows:

- The numerator of the fraction, termed the hospitals' Qualified Revenue, will equal the hospitals' aggregate revenue for services to Maryland residents in the particular year covered by a population based model.
- The denominator of the fraction in each year will equal the hospitals' aggregate revenue for services to Maryland residents in the particular year.

By utilizing these two approaches in combination with currently available and newly developed measures and incentives focused on improving care, improving health, and improving efficiency, Maryland will transform its finance system from one that emphasizes volume to one that aligns incentives for better health, better care and lower costs.

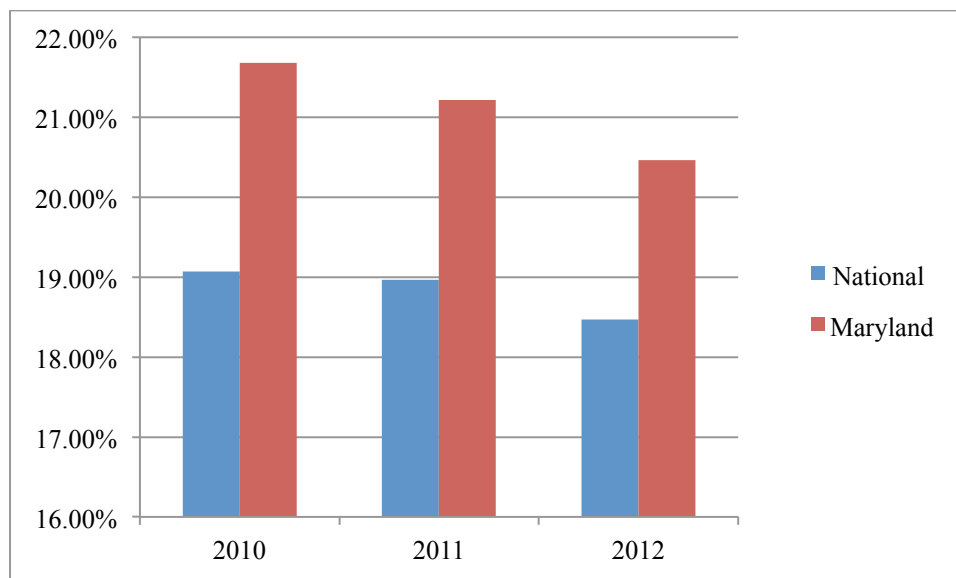
### **Readmissions**

Under the model, Maryland is proposing that CMS waive the requirements of section 1886(q) of the Social Security Act establishing the Hospital Readmissions Reduction Program. This model sets a goal of reducing Maryland's aggregate Medicare 30-day unadjusted all-cause, all-site hospital readmission rate in Maryland to the national Medicare 30-day unadjusted all-cause, all-site readmissions rate over five years.

The national and Maryland hospital readmission rate will be measured as a percentage of total admissions. As such, the hospital readmission rate will be calculated by including the number of readmissions in the numerator and total admissions in the denominator. (*See Appendix B: Specifications for Calculating Readmission Rate*). This calculation method was chosen to create an incentive for hospital's to develop post-discharge care coordination programs.

According to the most recent available data, Maryland's Medicare unadjusted readmission rate was 20.5% compared to the national Medicare readmission rate of 18.5% in 2012. Based on this data, Maryland will need to outperform the national readmission rate trend by .4% annually in order to reach the national mean over a five year period.

### Unadjusted Medicare 30-day Readmission Rate, Maryland vs. National, 2010-2012



At the start of the model, Maryland proposes that CMS use the most recently available data to recalculate these rates. In so doing, CMS will determine an annual readmission reduction rate target that will reflect the annual rate reduction needed to reach the national readmission rate after five years. As with the savings calculation, CMS will conduct an annual assessment to determine Maryland's actual readmission rate for a given performance year. If Maryland fails to reach its cumulative target, CMS may exercise the right to terminate Maryland's waiver from 1886(q) of the Social Security Act. Under 1886(q) Maryland may continue to seek an annual exemption from the Hospital Readmissions Reduction Program.

Prior to terminating Maryland's waiver from 1886(q), CMS will follow a process similar to termination of the Maryland All-Payer Model, described above. Specifically, CMS will provide notice to Maryland if Maryland fails to meet the readmission reduction target. Maryland will have 90 days to respond. Within 90 days of receiving Maryland's response, CMS will either accept Maryland's response or require the state to submit a corrective action plan within 30 days. In considering whether to accept Maryland's explanation, CMS will consider whether Maryland hospitals are making meaningful progress towards the goal of achieving an unadjusted, all-cause, all-site readmission rate at or below the national mean unadjusted, all-cause, all-site readmission rate. Additionally, CMS will also review Maryland's progress relative to the national average on a readmission per 1000 beneficiary measure. If after one year from the initial notification, CMS determines that the corrective action plan has not been implemented successfully, CMS may terminate Maryland's waiver from 1886(q) of the Social Security Act.

This proposal also suggests that CMS consider ways to integrate the Quality Improvement Organization program with the readmission reduction goals of this model.

## Hospital Acquired Conditions

Under the model, Maryland is proposing that CMS waive the requirements of section 1886(p) of the Social Security Act establishing the Hospital Acquired Conditions program. Under the Maryland Hospital Acquired Condition (MHAC) program, Maryland will achieve an annual aggregate reduction of 6.89% in 65 Potentially Preventable Complications (PPC) over five years.

The MHAC policy relies on administrative data hospitals report to the HSCRC that parallel the claims data submission. Utilizing the administrative data allows the HSCRC to measure performance on 65 preventable, hospital acquired conditions across most of the 314 APR DRG categories for all payers. The MHAC program selected 51 Potentially Preventable Complication (PPC)s from a list of 65 Potentially Preventable Complications (PPC) identified through a software product developed by 3M Health Information Systems. PPCs are identified based on the present on admission (POA) information on the hospital discharge abstract data set submitted to HSCRC. MHAC performance scaling and ranking of hospitals and allocation of rewards and penalties, calculated by HSCRC staff, is determined by two components: (1) incidence of complications and (2) amount of additional charges for each PPC.

Under this model Maryland will further reduce PPCs by a total of 30% over five years. In order to achieve this reduction over the 5 year time period, Maryland would have to achieve an average annual reduction of 6.89%. As with the savings and readmission calculation, CMS will conduct an annual assessment to determine Maryland's actual PPC reduction for a given performance year. If Maryland fails to reach its target, CMS may exercise the right to terminate Maryland's waiver from 1886(p) of the Social Security Act. Under 1886(p) Maryland may continue to seek an annual exemption from the Hospital Acquired Conditions program.

CMS will provide notice to Maryland if Maryland fails to meet the PPC reduction target. Maryland will have 90 days to respond. Within 90 days of receiving Maryland's response, CMS will either accept Maryland's response or require the state to submit a corrective action plan within 30 days. If after one year from the initial notification, CMS determines that the corrective action plan has not been implemented successfully, CMS may terminate Maryland's waiver from 1886(q) of the Social Security Act.

Additionally, prior to the start of year 2 of the model, CMS and Maryland will establish annual reduction targets for years two through five of the model with respect to PPCs that overlap with conditions included in the Medicare Hospital Acquired Conditions program.<sup>9</sup>

## Electronic Health Records

Section 1886(n) The American Reinvestment and Recovery Act of 2009 (ARRA) established the Electronic Health Records (EHR) Program. Under the EHR program, hospitals demonstrating

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<sup>9</sup> At present, Maryland claims do not include data on whether hospital acquired conditions were present on admission. As a result, it is impossible to compare Maryland's performance on these measures to national performance. This data will become available after 2014.

meaningful use of EHR, including Maryland hospitals, receive up to 4 years of incentive payments from the Medicare program beginning in 2011 and ending no later than 2016.

Section 1886(n) also provides for an adjustment beginning in 2015 for hospitals that are not meaningful EHR users. Under this model, Maryland will adjust payments in a manner that is 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 Maryland hospital in a manner comparable to the reduction under Section 1886(n).

### **Innovation in Medical Education**

In order to ensure that the transformation efforts continue to evolve, Maryland believes it is necessary to develop medical education curricula for health care professionals to meet the need of an evolving health care system. There are two highly regarded academic medical systems in Maryland. Maryland believes it is important to develop innovative educational strategies that will inform future health care professionals of the principles of quality improvement, population health and cost effective medical decision making. Under the model, Maryland will convene medical schools and schools of health professionals to develop a five year plan that will serve as a blue print on critical elements of improvement that will be needed to sustain transformation initiatives. The plan will be designed in a manner that is scalable and generalizable to other schools across the nation.

### **TARGET PARTICIPANTS**

This model will engage all Maryland hospitals, as well as other care providers, in payment reform and innovation. The target participants in this model are all Maryland residents.

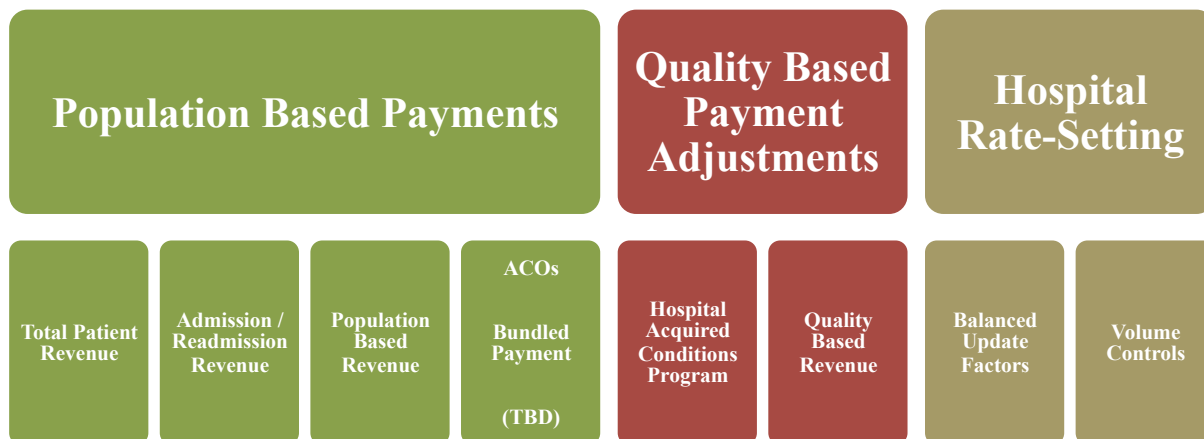
## OPERATIONAL DESIGN ELEMENTS

To achieve the goals of this model, Maryland will deploy a broad range of methods to better align hospital financial incentives under the state's all-payer system. These methods can be grouped into three general categories.

- **Population Based Payments:** Under population based payment methodologies, hospitals will assume financial risk for the costs associated with a defined patient population, either over the course of the year, or over the course of a defined episode of care. Within this general framework, Maryland will use several discrete approaches, in order to meet the needs of diverse groups of patients and providers. Two population-based payment approaches (Total Patient Revenue and Admissions/Readmissions Revenue) are already in operation in Maryland on a voluntary basis. Development of a third (Population Based Revenue) is under way. Maryland will also develop additional approaches such as Accountable Care Organizations and Bundled Payments.
- **Quality-Based Payment Adjustments:** Maryland currently has two programs that adjust hospital payments based on quality performance: the Maryland Hospital-Acquired Conditions (MHAC) program and the Quality Based Reimbursement (QBR) initiative. These programs will continue under the proposed model, and may be expanded. Hospitals participating in population based payments will continue to be subject to these payment adjustments.
- **Hospital Rate-Setting:** Historically, the HSCRC has used the annual hospital payment update along with a variable cost factor (VCF) tied to patient volume to control hospital costs. These tools will remain in place, and will serve to regulate revenue that is excluded from population-based payments.

These methods, described in further detail below, aim to transform Maryland's health care delivery system while reducing the total cost of care.

# Toolkit for Aligning Hospitals' Financial Incentives



## Methods Under Current Maryland Authority

Maryland, through state authority granted to the HSCRC, has implemented a number of hospital payment methods that move the Maryland payment system towards a population-based financing system for all payers. Under the per capita approach, Maryland can expand the use of these global payment methods that align incentives to control cost and improve care.

Under the model, the HSCRC will retain authority to further develop and implement a variety of methods (listed below). Under Maryland law, Section 19-219(c) of the Health – General Article permits the Commission to promote and approve alternate methods of rate determination and payment that are of an experimental nature in order to promote the most efficient and effective use of health care facility services, if it is in the public interest. Section 19-219(b) permits the Commission to: (a) review and approve or disapprove the reasonableness of any rate, and (b) in determining the reasonableness of rates, to take into account objective standards of efficiency and effectiveness. The HSCRC will also retain responsibility for reviewing and approving policies integral to these methods such as shared savings initiatives.

### Global Payment Strategies

Method	Services Included	Hospital Participating	Estimated Percent of Revenue at Risk
<b>Total Patient Revenue (TPR)</b>	All regulated services	10	~100%
<b>Admission/Readmission Revenue (ARR)</b>	All-cause readmissions for 30 days	31	~10%
<b>Population Based Revenue (PBR) and Other Global Models</b>	Core services for specific DRGs in hospital community	TBD	~ 30% to 100% (estimated)
<b>Quality Programs with Revenue at Risk (Quality Based reimbursement and Maryland Hospital Acquired Conditions)</b>	All inpatient regulated services <i>State will expand to all regulated services in future years</i>	All	For each performance year, Maryland will place the same percentage of hospital revenue at risk as the national Medicare Value-Based Purchasing Program, Hospital Acquired Condition and Readmission Reduction programs a
<b>Balanced Update Factors</b>	All regulated services	All	N/A
<b>Volume Controls</b>	All regulated services under the models	All non-TPR/Global revenues	N/A

Consistent with the Maryland Administrative Procedure Act, all HSCRC rule and policy making must be conducted through a public deliberative process allowing for public comment prior to adoption. The HSCRC generally provides between 30 and 60 days for a public comment period.

#### *Total Patient Revenue (TPR)*

Total Patient Revenue (TPR) payment arrangements are voluntary three-year rate arrangements between the HSCRC and individual hospitals, which establish fixed global (and guaranteed) revenue levels for hospitals for all inpatient and outpatient revenues regardless of volume. TPR is one of the few global payment systems in the country. Ten hospitals began operating under this structure in FY 2011, mostly in isolated rural facilities with defined catchment areas. Therefore, the target population for the TPR method is all Maryland residents living in areas served by TPR hospitals. Using TPR hospital market share analysis and population data from Maryland's Department of Planning, Maryland estimated the target population for the TPR method in state fiscal year 2013 as follows:

### Target Population for TPR, SFY 2013

Target Population	Estimated Population Count	Percent of Maryland Residents
Medicare	123,081	2.1%
Medicaid	142,226	2.4%
Dual Eligible	17,762	0.3%
Private/Other	522,682	8.9%
<b>TOTAL</b>	<b>805,751</b>	<b>13.7%</b>

Source: HSCRC, 2013. Hospital market share evaluation of Maryland's Department of Planning population tables.

The TPR arrangement provides strong incentives by encouraging care coordination and ensuring that care is provided in less expensive and more appropriate settings. This requires the hospital to work collaboratively with community providers—for example, to ensure that patients are not going to emergency rooms for non-emergent care. In turn, the Maryland expects to see reduced hospital visits, admissions, readmissions, less duplicative testing, and improved efficiency.

Under the current arrangement, the TPR hospitals are able to keep a constant revenue base, updated by the annual update factor. The savings from improved performance are retained by the hospital, with the understanding that the facility will invest in opportunities to improve population health and reduce hospital utilization. Payers and consumers share in these savings through lower annual update factors and quality, productivity and other savings measures that may be required.

Implementation on an all-payer basis means that TPR ensures that the incentives for participating hospitals are uniform. As part of the model, Maryland intends to enhance the TPR program in the following manner:

- Focused coordination with local health improvement coalitions that are working to address health outcomes and disparities. This element provides the assistance of community organizations and public health to achieve lower health care costs through improved health;
- Opportunities for gainsharing with physicians;
- Integration with medical homes, ACOs and bundled payments by expanding the reach of these savings programs.

Under this model, Maryland anticipates that at least nine hospitals will participate in TPR arrangements and that additional hospitals located in suburban and urban areas may participate in similar models.



### Target Providers for TPR

Target Providers	Geographic Region
Calvert Memorial	Southern Maryland
Chester River Hospital Center	Eastern Shore
Dorchester General	Eastern Shore
Garrett County	Western Maryland
McCready Foundation	Eastern Shore
Memorial at Easton	Eastern Shore
Meritus Medical Center	Western Maryland
Union of Cecil	Eastern Shore
Western Maryland	Western Maryland

The following timeline describes the expected modifications and their associated timeframe for the TPR program.

### Proposed Initial TPR Implementation Milestones

Process	Total Patient Revenue Proposed Implementation Milestones	
	Timeline	Comments
HSCRC establishes rebased revenue, develops draft TPR proposals. Provides for one-month public comment period.	Complete	Baselines to capture program shared savings
HSCRC and hospitals sign TPR agreements.	+1 month	HSCRC anticipates similar group of TPR hospitals as in previous cycle; potential additional hospitals under similar models for suburban and urban areas expected.
Hospital – community health plans developed in TPR areas and submitted to HSCRC and DHMH.	Development on going	In tandem with local planning coalitions
HSCRC initiates new agreements.	Start date identified in agreements	

### *Admissions/Readmissions Revenue (ARR)*

The Admission/Readmission Revenue Structure (ARR), like TPR, is a guaranteed inpatient revenue rate constraint; however, the ARR limits the institutional bundle to a per episode payment constraint to include admissions and readmissions within 30 days of discharge. Under this approach, hospitals are at risk for all-cause readmissions within a 30-day window under a voluntary arrangement with the HSCRC. Currently, 31 hospitals participate in ARR. Maryland has identified the target population for the ARR method as all Maryland residents living in areas served by ARR hospitals. Using ARR hospital market share analysis and

population data from Maryland's Department of Planning, Maryland estimated the target population for the ARR method in state fiscal year 2013. In this analysis, Maryland assumed that all hospitals not participating in TPR or PBR arrangements will be engaged in ARR.

### Target Population for ARR

Target Population	Estimated Population Count	Percent of Maryland Residents
Medicare	580,277	9.9%
Medicaid	769,974	13.1%
Dual Eligible	96,160	1.6%
Private/Other	3,518,596	59.8%
<b>TOTAL</b>	<b>4,965,007</b>	<b>84.4%</b>

Source: HSCRC, 2013. Hospital market share evaluation of Maryland's Department of Planning population tables.

The advantages of this method are similar to those of TPR, except that ARR is focused on reducing inpatient readmissions and encouraging hospitals to work with community providers to ensure that patients are receiving appropriate post-acute care. Hospital activities that are critical to reducing unnecessary readmissions must focus on improving the transition out of the hospital.

In the current program, allowable revenue for an admission is based on the DRG of the index admission. The total allowable revenue for an admission is the average charges associated with the index admission, and all-cause readmissions for 30 days are bundled into that index admission. The hospital will receive no additional allowable revenue for any readmission during the 30-day period. However, the hospital keeps all allowable revenue associated with the index admission and associated readmissions. If the hospital is able to reduce readmissions, it retains the same revenue for the DRG, allowing the hospital to increase its profitability.

ARR has been effective in reducing readmissions. Having the same incentives across all payers optimizes the opportunity to reduce readmissions. As part of the model, Maryland plans to enhance the ARR method as a foundation of episode-based payment in the following manner.

These plans include:

- Focused coordination with local health planning coalitions. These coalitions can mobilize public health and community resources to reduce readmissions;
- Permitting gainsharing with physicians to reduce readmissions;
- Coordination with medical homes, ACO and bundled payment programs;
- Enhance detection of area admissions at other hospitals through use of the health information exchange (HIE) and payer claims data.

Under this model, Maryland expects 36 hospitals to participate in ARR. The following timeline describes the expected modifications and their associated timeframe for the ARR program.

### Proposed Initial ARR Implementation Milestones

Admissions Readmissions Revenue Proposed Implementation Milestones		
Process	Timeline	Comments
<b>HSCRC staff provides draft recommendation to Commission; provide for one-month public comment period.</b>	Complete	Explicit shared savings model approved.
<b>Commission decision on final ARR policy</b>	Annual updates	
<b>HSCRC issues new ARR documentation, weights.</b>	Annual updates	
<b>Hospital-community health plans developed and submitted to HSCRC and DHMH.</b>	Development on going	In tandem with community health coalitions
<b>HSCRC implements ARR program modifications.</b>	+1 Annual updates	Modifications timed to correspond with the new rate year

#### *Population Based Revenue Structure (PBR)*

The HSCRC is in the development phase of a Population Based Revenue (PBR) method that is intended to be implemented in FY 2014. The goal of this project is to design a virtual capitation payment system that would incorporate the comprehensive incentives of the TPR but would be applicable to hospitals with less self-contained catchment areas. This initiative would involve assigning primary market areas to each hospital, where the hospital is held at risk for efficiency and effectiveness in the provision of inpatient and outpatient health care services and quality performance.

PBR is intended to be a modified and more flexible version of the Total Patient Revenue (TPR) system. Like TPR, PBR will be a voluntary arrangement with hospitals that provides for selected services that are provided by the PBR Hospital, or by other Maryland hospitals, to residents of one service area of the PBR hospital. PBR is designed to encourage hospitals that have a majority of the market share for specific services to operate under broader population-based incentives where they are accountable for providing services more efficiently. The PBR methodology would define the parameters for hospital participation but is intended to be broad in scope.

Maryland plans to continue to develop the PBR method as part of its strategy to adopt population-based financing systems. The HSCRC expects to implement the first pilot of the methodology in FY 2014. Maryland anticipates one to two hospitals piloting PBR in the first year of this model. Thus, the method will apply to a limited target population.

### Target Population for PBR

Target Population	Estimated Population Count	Percent of Maryland Residents
Pilot Year		
Medicare	18,300	0.3%
Medicaid	10,816	0.2%
Dual Eligible	1,351	0.02%
Private/Other	82,632	1.4%
<b>TOTAL PBR</b>	<b>113,099</b>	<b>1.9%</b>

Similar to TPR and ARR, the financial incentives of PBR encourage coordination between the PRB hospitals and other providers across the continuum of care. The following timeline describes the expected modifications and their associated timeframe for the PBR program.

### Proposed Initial PBR Implementation Milestones

Population Based Rate Setting Proposed Implementation Milestones		
Process	Timeline	Comments
HSCRC engages pilot hospital	Ongoing	
HSCRC provides draft proposal on PBR program, provides for one-month comment period	TBD	HSCRC intends this as 1 to 2 hospital pilot
HSCRC approves final PBR program	+1 month	
HSCRC discuss PBR with other potential hospitals	+5 month	
Hospital-community health plans developed and submitted to HSCRC and DHMH	Development on going	In tandem with community coalitions
HSCRC expands PBR under revised terms with interested hospitals	+6 months	

### *Hospital Acquired Conditions Program*

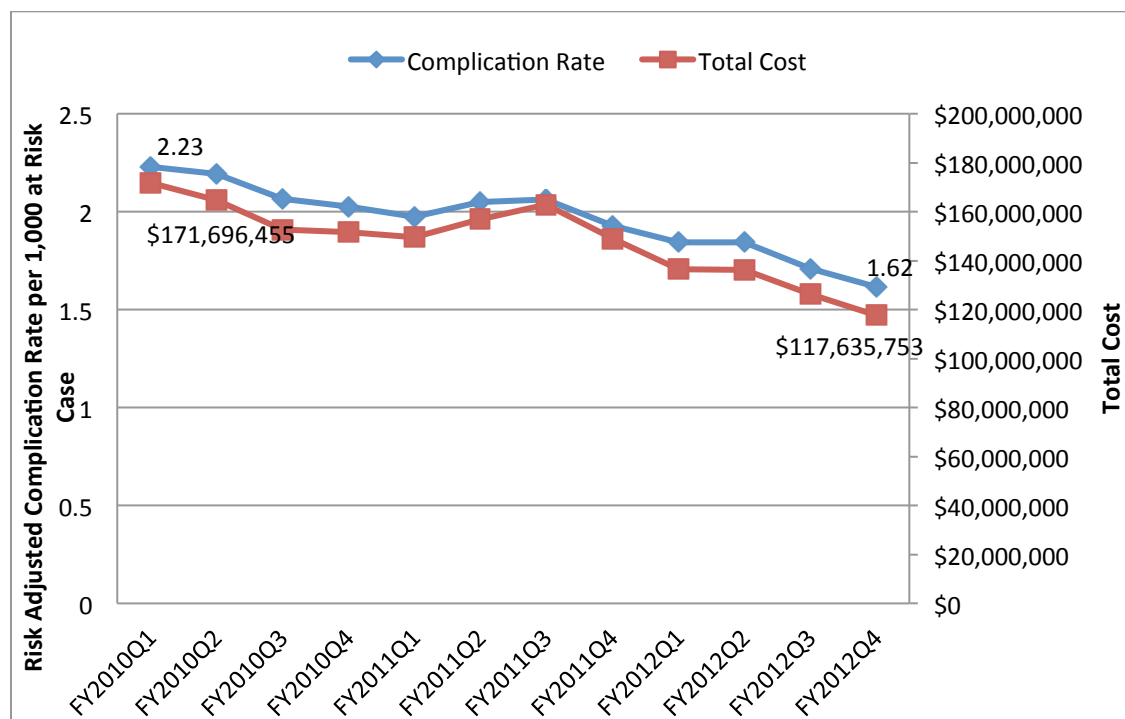
Maryland's Hospital-Acquired Conditions Program (MHAC) rewards and penalizes individual hospitals based on the hospital's level of hospital-acquired conditions thought to be preventable. The worst-performing hospitals can lose up to 3% of inpatient revenues, while the best-performers can earn up to a similar amount, with rewards and penalties based on relative performance on two components—actual versus expected rates (adjusted for patient severity and additional cost) and improvement over time.

HSCRC collects information on every patient discharged from a Maryland hospital (roughly 700,000 a year), including a list of conditions present on admission. HSCRC can identify cases when a condition not present on admission arises during the inpatient stay, signaling a potentially preventable condition (PPC). HSCRC currently measures 65 PPCs, which includes 51 PPCs as part of its payment penalty program.

HSCRC evaluates two components of an individual hospital’s performance: its severity-adjusted rate of PPCs as compared to an expected rate, and its degree of improvement, as compared to the statewide average rate of improvement. Reimbursement rates for individual hospitals are adjusted up or down annually for each hospital admission based on performance during the most recent calendar year for which data are available. All adjustments are made in a revenue-neutral manner, with the better-performing hospitals receiving net increases funded by reductions for the poorer-performing hospitals. Beginning in fiscal year 2015, in addition to the 2% of revenue already at risk based on actual versus expected rates of MHACs, hospitals will be rewarded or penalized up to 1% of their revenues based on improvement. Hospitals with above-average levels of improvement will receive rewards, funded by those with below-average levels of improvement. The size of the reward or penalty will be in proportion to the difference between the hospital rate of improvement and the benchmark. Each quarter, hospitals receive a series of reports that help their leaders understand their performance and the financial impact of that performance, and identify specific opportunities for improvement.

HSCRC implemented its MHAC initiative applicable to all patients and all payers in the state in 2009. The figure below illustrates that the overall risk adjusted hospital-acquired potentially preventable complication rates declined by 27.5% since the first quarter of state fiscal year 2010.

**Trends in Hospital-Acquired Potentially Preventable Complication Rates and Costs in Maryland, 2010-2012\***



\*Note: Includes all 65 Potentially Preventable Complication Rates. Total cost is not adjusted for patient-mix.

As previously noted, HSCRC has continued to update and refine the MHAC initiative. Below are the most recent changes that will be applied for the FY 2015 payment determinations.

### *1. Scaling Magnitudes*

On January 9, 2013 the Commission approved the following staff recommendations on the scaling magnitudes for the MHAC program:

- Using the FY 2013 scaling magnitudes for FY 2014 for the MHAC since the performance year has passed; and
- Increasing the magnitude of scaling for the MHAC from 2.0% to a total of 3.0% of hospital approved inpatient revenue for MHAC for FY 2015 rate year, and considering increasing this amount each year.

### *2. Raising the Bar on Attainment Scale*

At the same commission meeting, the Commission also approved increasing the benchmark for the MHAC attainment scale by establishing the expected MHAC values at the 85% of the state average which represents a more linear relationship between scaling and performance.

### *3. Adding an Improvement Scale*

The Commission also approved staff recommendations on adding an improvement scale to the MHAC program. One percent of the total 3% scaling factor will reflect improvement on a targeted set of measures for FY 2015. The following potentially preventable conditions (PPCs) are included in the program for FY 2015:

- PPC5 – Pneumonia and Other Lung Infections
- PPC6 – Aspiration Pneumonia
- PPC16 – Venous Thrombosis
- PPC24 – Renal Failure without Dialysis
- PPC35 – Septicemia and Severe Infections

Each year, Maryland will re-evaluate the PPCs used for the improvement scale based on improvement rates, prevalence, cost, and policy considerations. Improvement rewards will be scaled in a manner where hospitals that achieve improvement better than the median improvement rate in the base year shall receive additional revenue under the 1% improvement scale.

HSCRC notes that all or equivalent measures proposed for the CMS HAC program for FY 2015 have been measured and used for performance based payments in the MHAC program since FY 2011 (July 1, 2010)

### *Quality Programs with Revenue at Risk*

Consistent and powerful incentives to drive quality and improve outcomes are a critical component to a health care system designed to achieve value. Over the last several years, Maryland has steadily expanded the magnitude and scope of its hospital quality payment reform

initiatives. In July 2008, HSCRC implemented the Quality Based Reimbursement initiative (QBR), which allocates rewards and penalties for hospitals based on their performance in clinical process-of-care measures. This program is Maryland's version of the Value Based Purchasing initiative. Based on the reports summarizing our QBR and Maryland Hospital Acquired Conditions (MHAC) programs, the HHS Secretary granted Maryland an exemption from the VBP provisions for FY 2013 and 2014.<sup>10</sup> Under this model, Maryland proposes to include in its annual report to CMS a description of how the QBR program achieves or surpasses the patient health outcomes and cost savings of the national HVBP program. Maryland's goal is to have broad measures of performance that are supported by strong and consistent financial incentives, fundamentally linked to the all-payer system. Maryland's access to robust case mix data allows the development and testing of new measures of performance. In collaboration with the QBR/MHAC work group, Maryland will continue to design and implement new approaches to measuring and rewarding performance.

The following table outlines anticipated improvements and expansions in existing quality programs.

### Proposed Initial Implementation Milestones

Quality Programs with Revenue at Risk Proposed Implementation Milestones		
Process	Timeline	Comments
<b>HSCRC staff provides final recommendation to Commission; Commission decision on final policy</b>	Completed January 2013	HSCRC staff recommending 2014 and 2015 scaling amount for QBR and MHAC; program modifications (adding mortality and improvement domains to MHAC)
<b>HSCRC requires hospitals to sign the CMS OQR Pledge</b>	Completed January 2013	
<b>Hospitals required to report all CMS IQR and OQR measures</b>	January 2014	

### *Balanced Update Factors*

The HSCRC can control the amount of revenue in the hospital system through two basic methods already in use – the annual update factor and the volume adjustment.

The HSCRC currently determines hospital inflationary price adjustments on an annual basis. The update factor is based on multiple factors including the Medicare market basket forecast, current economic conditions, productivity improvements, case mix growth, and the previous year's performance. During annual update factor policy discussions, the HSCRC estimates the impact of each component. The sum of these components determines the annual update factor for system revenue in the coming state fiscal year. The HSCRC regularly monitors revenue and is authorized to make mid-year adjustments, if required.

<sup>10</sup> 78 Fed. Reg. 50707 (August 19, 2013)

### Annual Update Factor Component Examples and HSCRC Actions

Component	HSCRC Action
<b>Market Basket Forecast</b>	<ul style="list-style-type: none"> <li>Review Medicare market basket forecast.</li> <li>Establish starting point for Maryland hospital annual update factor.</li> </ul>
<b>Productivity Improvements</b>	<ul style="list-style-type: none"> <li>Determine the level of productivity improvements required of the state's hospitals. This is similar to the productivity requirements established by the Affordable Care Act for Medicare fee-for-service reimbursement in each of its prospective payment systems.</li> </ul>
<b>Case Mix</b>	<ul style="list-style-type: none"> <li>Calculate the previous year's case mix growth.</li> <li>Determine how much growth should be recognized in the system overall. In recent years, the HSCRC has recognized case mix growth system wide of 0.5 percent, although hospitals could achieve more or less than this amount individually. If the budget for case mix was exhausted, the HSCRC applied a revenue governor to recapture some of the revenue associated with case mix growth to achieve a 0.5 percent increase overall.</li> </ul>
<b>Revenue Restriction Achievements</b>	<ul style="list-style-type: none"> <li>Determine success in controlling revenue in the previous fiscal year.</li> <li>Adjust system revenue by lowering the update factor to correct the revenue base going forward. This adjustment would reset the permanent revenue base to the level desired under the Commission's policy.</li> </ul>

If in a prior year, revenue was not constrained under the budget as developed, the HSCRC can adjust system revenue by lowering the update factor to correct the revenue base going forward. This adjustment would reset the permanent revenue base to the level desired under the Commission's policy. The update factor can be adjusted on a hospital-by-hospital basis, aligning incentives for each hospital with the overall system goal of per capita expenditure control.

The following table describes the process and expected timeline for developing the FY 2014 update factor.

#### Proposed Update Factor Implementation Milestones

Balanced Update Factors Proposed Implementation Milestones		
Process	Timeline	Comments
HSCRC engages stakeholders in preliminary discussions	6 months prior to beginning of rate year	HSCRC holds several workgroups, provides modeling
HSCRC staff provide draft recommendation to Commission, provide one-month comment period	Anticipated 3 months prior to rate year	
Commission decision on final policy	Anticipated 2 months prior to rate year	
HSCRC implements update factor in rates	Rate years begin each July	HSCRC rate year aligns with the Maryland state fiscal year

For the update effective January 1, 2014, HSCRC has already begun accumulating the information that will be required for the first six months under the new model. Discussions will be held with payers and providers during September and October, with a draft recommendation to the Commission in November and expected implementation date of January 1, 2014.



*Volume Controls*

Over time, global and population based hospital revenue models are expected to be the primary mechanism in place to control revenues for volume increases. However, in order to address unwarranted volume growth, for hospitals outside global and population based revenue programs, Maryland has developed a variable cost factor (VCF) to apply alongside other rate updates. Unlike the rate update, which updates revenue by the final rate determined by policy, the volume constraint is designed to influence hospital behavior and reduce the incentive for increased volume. Volume controls in an all-payer setting reduce the incentives to grow volume with one payer when another payer’s volume has been curbed. Volume controls can also be modified by hospital, based on demographic trends, hospital performance, and other factors.

Under the current policy, the VCF is set such that hospitals receive 85 percent of revenue for incremental increases in volume above the budgeted amount in the hospital’s rate base for the year. Instead of the full revenue in the subsequent year, the HSCRC provides the hospital with 85 cents per dollar of revenue charged for the incremental volume growth.

Many analysts argue, however, that short run marginal costs are likely to be much lower than 85 percent of revenue, providing hospitals with full variable costs for incremental volume plus some additional amount that is operating margin. Therefore, under this model, Maryland will reduce the VCF appropriately. An example of a 50 percent variable adjustment is illustrated below.

**Allowable Revenue Without and With a 50 Percent Volume Adjustment**

Allowed Revenue <i>Without a Volume Adjustment</i>			
	Volume, Count of Cases	Revenue Per Case	Total Revenue
Historic Volume	1000	\$10,000	\$10,000,000
Volume Growth	100	\$10,000	\$1,000,000
Total Allowed Revenue	1100	\$10,000	\$11,000,000

Allowed Revenue <i>With a 50 Percent Volume Adjustment</i>			
	Volume, Count of Cases	Revenue Per Case	Total Revenue
Historic Volume	1000	\$10,000	\$10,000,000
Volume Growth	100	\$10,000 X .50	\$500,000
Total Allowed Revenue	1100	\$9,545	\$10,500,000

**The volume adjustment reduces a hospital’s allowed revenue, with the result of lower allowed revenue per case.**



In addition to behavioral impact of VCF for individual hospital’s volume growth, Maryland can use VCF and price update factors to control revenues under the ceiling in the state. For example, as an illustration of how VCF and update factors can work together, assuming 2.30 percent volume growth in the state and 4.19 percent total revenue growth rate hard expenditure ceiling, HSCRC can provide 4.19 percent as price update with 0 percent VCF (i.e., no additional revenue

for additional volume) or 1.85 percent update factor with 100 percent VCF (i.e., full revenue for additional volume).

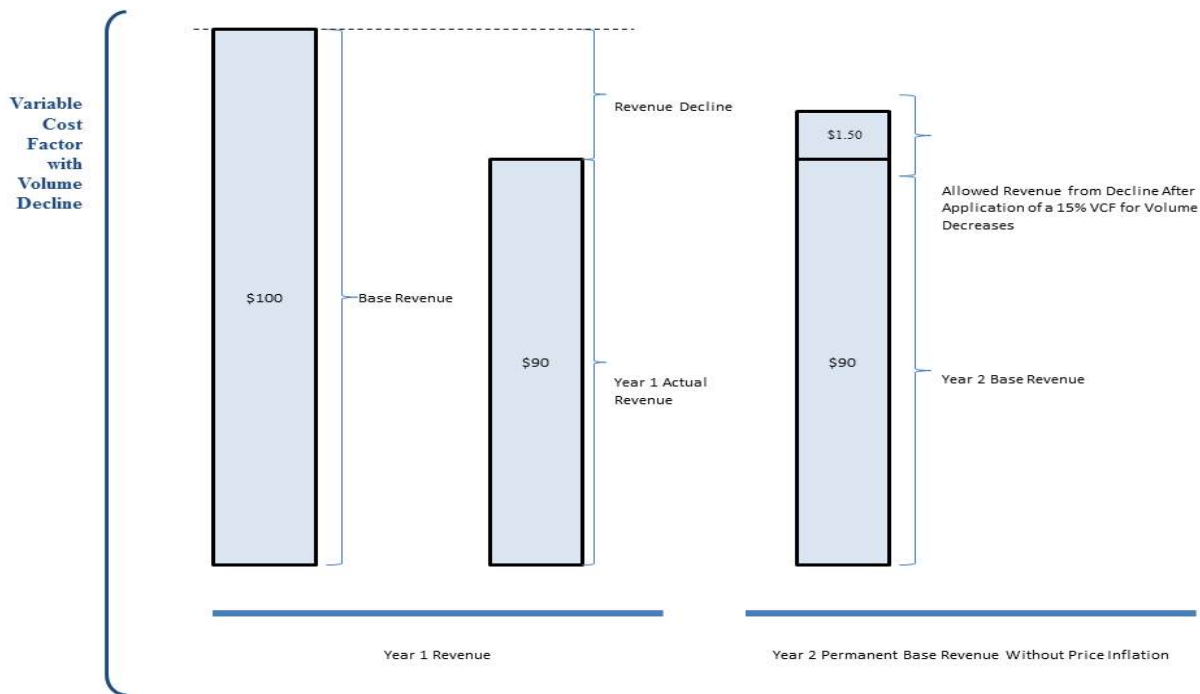
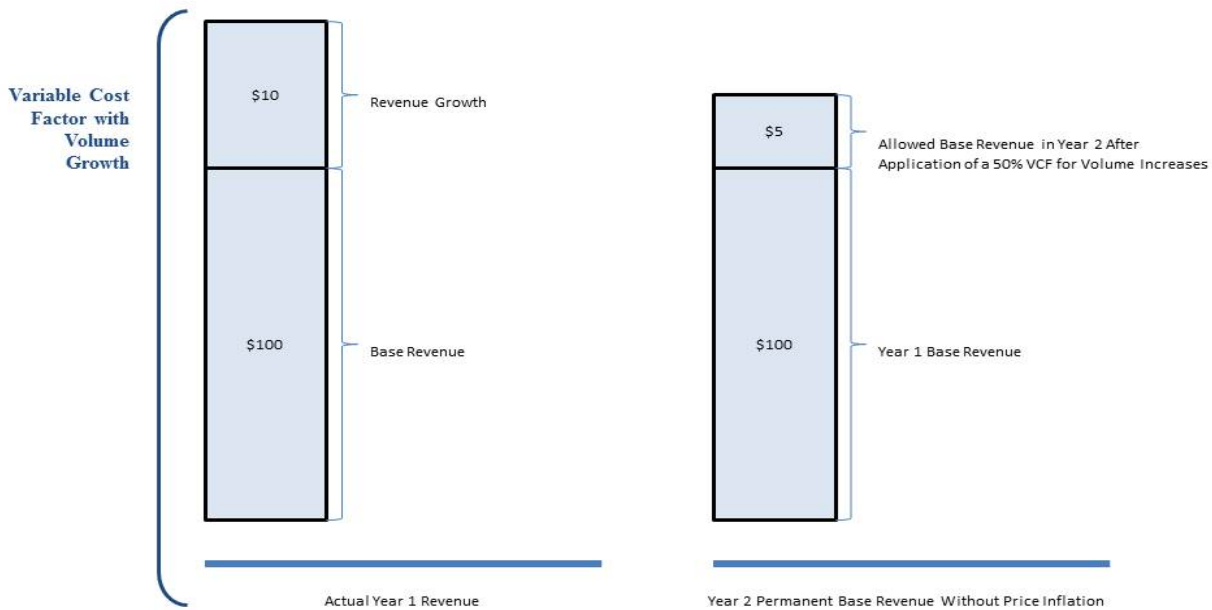
**Variable Cost Factor and Rate Update**

Maximum Allowable Total Revenue Growth Rate	Estimated Revenue Growth from Additional Volume	Variable Cost Factor (VCF)	Maximum Allowable Price Update
A	B	C	$D=(1+A)/(1+B*C)-1$
4.19%	2.30%	100%	1.85%
		85%	2.19%
		60%	2.77%
		50%	3.01%
		40%	3.24%
		0%	4.19%

The HSCRC may also develop and apply alternatives to symmetric and continuous volume adjustment.

Under an asymmetric volume adjustment, Maryland can deviate from its past practice of applying the VCF in a symmetric manner. That is, the variable cost factor X percent and credit given for fixed costs is (100-X) percent. For example, HSCRC could retain its current volume policy for volume decreases while instituting a lower VCF for volume increases.

### Example of Asymmetric Variable Cost Factor



Maryland can also calibrate the VCF to change incentives for different levels of growth rather than treating the VCF as a single number. The Commission may wish to treat volume growth associated with population growth differently than volume growth beyond that. So, for example, suppose population growth was 1% and a hospital's volume grew by 3%. The Commission could apply a 60% VCF to the first 1% growth and a more stringent 40% VCF to the remaining 2% volume growth. In this manner, the HSCRC could calibrate this step function to achieve policy goals desired within the system.

The following table describes the process and expected timeline for developing the volume adjustment, expected to be decided in tandem with the update factor.

### Proposed Initial Implementation Milestones

Volume Controls Proposed Implementation Milestones		
Process	Timeline	Comments
HSCRC engages stakeholders in preliminary discussions	6 months prior to beginning of rate year	HSCRC holds several workgroups, provides modeling
HSCRC staff provides draft recommendation to Commission, provide for one-month comment period	Anticipated 3 months prior to rate year	
Commission decision on final policy	Anticipated 2 months prior to rate year	
HSCRC implements update factor in rates	Rate years begin each July	HSCRC rate year aligns with the Maryland state fiscal year
Regional and hospital variations •		HSCRC reserves the ability to make adjustments to these factors by region or hospital, consistent with local factors.

Formal discussions regarding the VCF for January 1, 2014 will begin in September, with a draft recommendation provided to the Commission and a one-month comment period by the end of October. The effective date of the change will be January 1, 2014.

### Payment Methods Currently Under Development in Maryland

Payment methods that involve sharing of risk among healthcare entities align incentives for better outcomes at lower costs. These could include hospital-based Accountable Care Organization (ACOs), medical homes, and bundled payments. Under a medical home or an ACO program, Maryland could direct hospitals toward care coordination activities and thereby have a more rapid impact on total costs as compared to medical homes or ACO's in other states because incentives would be aligned across all-payers. Similarly, Maryland is developing bundled payment arrangements on an all-payer basis, ensuring that hospitals will make the necessary delivery system changes system-wide to reduce the costs across an entire episode of care. Maryland is also considering opportunities to incorporate initiatives with skilled-nursing

facilities (SNF) into its approach. This could include SNF participation in bundled payments or other HSCRC approved inpatient reduction programs.

Section 1115A(d)(1) of the Act authorizes the Secretary of HHS to waive such requirements of titles XI and XVIII of the Act as may be necessary solely for purposes of testing new payment models. Maryland is proposing to further develop or expand the scope of the programs noted above. The Secretary of HHS may consider, at her sole discretion, waiving certain Medicare payment rules, such as the three-day inpatient rule, or waiving certain fraud and abuse laws, consistent with the statutory standard set forth at 1115A(d)(1). Such waivers, if any, would be set forth in separately issued documentation specific to the Maryland All-Payer Model. Any such waiver would apply solely to this model and could differ in scope or design from waivers granted for other programs or models tested under section 1115A of the Act. Financial arrangements between and among providers must comply with all applicable laws and regulations except as may be explicitly provided in a written waiver issued specifically for this model pursuant to section 1115A(d)(1) of the Social Security Act.

Maryland is interested in pursuing these, and other risk-sharing initiatives to be implemented under all-payer rules. Prior to implementation of new programs that would require additional waiver authority or a change to Medicare's reimbursement process, Maryland will submit a detailed proposal and operational plan describing the program for review and approval by CMS. This operational plan will include the following information:

- How the proposed program would enhance Maryland's ability to the cost and quality targets established under this model;
- The potential impact of the proposed program to the total Medicare cost growth rate;
- Any necessary waivers or changes in payments methods, required for the successful implementation of the proposed program;
- The perspective of key stakeholders, including all those that might be included in the arrangements;
- Maryland's plans to encourage hospital participation in these voluntary programs;
- Maryland's monitoring and evaluation strategy for the proposed program.

After receiving the program proposal, Maryland understands that CMS will respond by accepting, rejecting or requesting amendment modification to Maryland's proposal.

## Initial Implementation Milestones for Global Payment Methods that Require Prior CMS Approval

Proposed Initial Implementation Milestones		
Process	Timeline	Comments
HSCRC engages multi-stakeholder workgroup	Upon initiation of Model Design	Workgroup of interested parties staffed by HSCRC staff
Workgroup provides preliminary report to Commission with one month provided for public comment	+3 months	Workgroup report delivers data requirements, timelines, task lists, and processes for hospital participation
Commission staff proposes rules to Commission and Commission adopts	+2 months	
Maryland submits proposal to CMS for review and approval	~ 6-12 months (estimated)	
HSCRC adopts rules hospital participation	Approximately 18 months after Maryland All-Payer Model initiation	

It is important to note that Maryland is able to achieve all of the cost and quality requirements under this model using the tools that are already within the HSCRC's authority. However, Maryland believes these new approaches will be able to accelerate the transformation of health care delivery and produce additional value for the health care system.

### Participation in Other Medicare Programs, Initiative, Models, or Demonstrations

CMS may fund testing of complementary payment and service delivery models under section 1115A of the Social Security Act authority. The State of Maryland and Maryland payers are participating in a number of CMS sponsored initiatives (*See Appendix D: Existing Federal and State Programs*). These initiatives are:

- Community-Integrated Medical Home (State Innovation Model): A patient-centered medical home model of increased access and care coordination that links patients with expanded community health resources across localities in Maryland through the use of case management.
- CareFirst's Total Care and Cost Improvement Program (Health Care Innovation Award): APCMH model of care delivery and payment to 25,000 Medicare beneficiaries in Maryland per year.
- Johns Hopkins Community Health Partnership (Health Care Innovation Award): A comprehensive and integrated program designed to increase access to services for high-risk adults in East Baltimore through patient education, interdisciplinary care planning post-discharge support.

As these programs along with the specific payment programs described under this model are developed – including medical homes, ACOs, bundled payments, TPR, ARR, and PBR – Maryland will work with CMS to take appropriate steps to ensure effective integration among initiatives.

## MONITORING AND EVALUATION

### Monitoring

Maryland proposes to work with CMS to engage in evaluation and monitoring activities to assess the impact on cost and quality of care. In addition to robust quality measurement, the model will employ a range of methods to monitor for the protection of beneficiaries' rights, clinical quality, and beneficiary and provider complaint audits. Strategies will include, but not be limited to the following:

- Analyses of beneficiary and provider complaints submitted through 1-800-MEDICARE
- Provider audits (including claims data mining, medical chart review, beneficiary survey data, coding audits, on-site compliance reviews)
- Number of complaints and citations under the Emergency Medical Treatment and Active Labor Act (EMTALA)
- Changes in case mix for Maryland patients

### Maryland Monitoring and Evaluation Strategy

In addition to meeting the requirements of model design described above, Maryland will integrate into the proposed model its methods currently used to continuously improve quality and outcomes. The state expects improved outcomes in the three categories below to result from the model:

- **Patient Experience of Care:** Maryland will measure patient satisfaction, the effectiveness of care transitions, physician participation in public programs, and complication rates and hospital acquired condition rates.
- **Population Health:** Maryland will measure life expectancy, hospitalizations for ambulatory care sensitive conditions, primary and secondary prevention for cardiovascular disease, and behavioral health emergencies, including racial and ethnic disparities in these measures.
- **Health Care Expenditures:** Maryland will measure overuse of diagnostic imaging, inpatient and outpatient costs trends, readmission rates and total cost of care for all residents. The state will track expenditures for specific payers, including Medicare, Medicaid, CHIP, and CMS subsidies through the Maryland Health Benefit Exchange.

Maryland will submit to CMS an annual report cataloging its performance with respect to the financial and quality measures described below. Maryland will make available to CMS the Maryland datasets and methodologies used for this evaluation. Additionally, Maryland hospitals will meet the reporting requirements under the Hospital Inpatient Quality Reporting (IQR) and Hospital Outpatient Quality Reporting (OQR) programs. In its annual report, Maryland will include its performance with respect to the IQR and OQR measures.

### *Patient Experience of Care*

Maryland will develop a plan to assess improvements in patient experience by monitoring the following:

- Care transition interventions that are designed to improve communication and coordination between providers;
- The number of Medicaid participating physicians per Medicaid enrollee, Medicare participating physicians per Medicare enrollee, and participation of providers in patient centered medical home models, Accountable Care Organizations, and bundled payment models;
- Patient satisfaction and experience for hospitals through Hospital Consumer Assessment of Healthcare Providers and Systems (HCAHPS) surveys for all sites of care for which they are available.

As stated previously, Maryland's hospital quality initiative started in 2008 with the Quality Based Reimbursement initiative (QBR), which is based on the public and well-established CMS/Joint Commission clinical process of care measures. In the third year (FY 2012), patient experience-of-care measures were added to the QBR initiative to strengthen incentives for patient centered care. During FY 2013, Maryland hospitals will be required to report Hospital Outpatient Quality Reporting measures.

### **Patient Experience Goals and Measures**

<b>Goal</b>	<b>Description of Measure</b>	<b>Data Source</b>	<b>Considerations/Comments</b>
Increase patient satisfaction-Hospital	HCAHPS: Patient's rating of the hospital HCAHPS: Communication with doctors HCAHPS: Communication with nurses	Survey	(NOTE: Most recent HCAHPS average improvement rate is 3.06%)
Increase patient satisfaction-Home Health	Home Health CAHPS: Patient's rating of home health agency Home Health CAHPS: Communication with the home health team	Survey	Home Health Based- This measure will be monitored with the intent to add targets after year 5.
Increase patient satisfaction-Nursing Homes	State-administered survey based on Nursing Home CAHPS: Family members' perceptions of nursing home care	Survey	Nursing Home Based- This measure will be monitored with the intent to add targets after year 5. Maryland will consider transitioning to Nursing Home CAHPS survey instrument during the initial 3 year period of the model.
Increase patient satisfaction-Ambulatory Care	Clinician and Group CAHPS: Patient's perceptions of care provided by a physician in an office.	Survey	Physician Office Based- This measure will be monitored with the intent to add targets after year 5.



Goal	Description of Measure	Data Source	Considerations/ Comments
Enhance care transitions – patient experience- Hospital	HCAHPS : Three-item care transition measure (CTM-3)	Survey	New HCAHPS measures for 2013; as a new measure, historic data not available
Enhance care transitions – patient experience- Short Stay Nursing Homes	Short Stay Nursing Home Resident’s discharge needs met Short Stay Nursing Home Resident’s Discharge planning and information about medicines and symptoms	Survey	Short Stay Recently Discharged Nursing Home Resident- This measure will be monitored with the intent to add targets after year 5.
Enhance care transitions – coordination with primary care	Rate of physician follow up after discharge	Claims	Medicare and Medicaid; later state all-payer database
Enhance care transitions – coordination with primary care	Discharges with PCP identified	To be developed	
Sustain high physician participation in public programs	Medicaid participating physicians per Medicaid enrollee; Medicare participating physicians per Medicare enrollee	Medicaid/Medicare provider enrollment; Survey	Concerns regarding participating physicians not accepting new patients
Broaden engagement in innovative models of care	Participation of providers in patient centered medical home models, ACOs, bundled payments	Administrative	
Improve process of care – Inpatient	Quality score using process of care measures in AMI, HF, SCIP, PN, CAC	Hospital Inpatient Quality Reporting Program	NOTE: QBR clinical score improvement: +0.82% (2009- 2011 average), +2.4 % in 2011
Improve process of care – Outpatient	Quality score using process of care measures in outpatient setting	Hospital Outpatient Quality Reporting Program	Maryland hospitals currently developing processes to collect outpatient process measures with the intent to add targets after year 5.

Goal	Description of Measure	Data Source	Considerations/Comments
Reduce high priority hospital complications	Potentially Preventable Complications (PPC): PPC24/25: Renal Failure with/without Dialysis PPC5: Pneumonia & Other Lung Infections PPC35: Septicemia & Severe Infections PPC6: Aspiration Pneumonia PPC16: Venous Thrombosis PPC37:Post-Operative Infection & Deep Wound Disruption Without Procedure PPC 7:Pulmonary Embolism PPC31:Decubitus Ulcer PPC54:Infections due to Central Venous Catheters PPC25:Renal Failure with Dialysis PPC38:Post-Operative Wound Infection & Deep Wound Disruption with Procedure PPC 66:Catheter-Related Urinary Tract Infection PPC28:In-Hospital Trauma and Fractures NHSN CLASBI SIR	HSCRC Hospital Inpatient Discharge Abstract	NOTE: Inpatient only  NHSN CLABSI SIR represents central line-associated bloodstream infection (CLABSI), measured by the Standardized Infection Ratio (SIR) calculated by dividing the number of observed infections by the projected expected number of infections calculated using CLABSI rates from a standard population during a baseline period
Reduce readmissions-Home Health	Admission Rates from Home Health Agencies to Acute Inpatient Hospital Unplanned, urgent visits to the Emergency Departments for patients receiving Home Health care	Home Health Compare	This measure will be monitored during the model with the intent to add targets if the model is extended to total cost care.
Reduce readmissions-Nursing Homes	Readmission rates from nursing home to acute care hospital	HSCRC Hospital Inpatient Discharge Abstract	As several hospitals have nursing home interventions as part of their ARR intervention plans, there should be a reduction in readmissions.
Reduce readmissions-Hospital	Hospital wide all cause 30-day readmissions Readmissions per 1000 residents National Readmissions Reduction Program Measures: Heart Failure Pneumonia Acute Myocardial Infarction Chronic Obstructive Pulmonary Disease Hip/Total Knee Arthroplasty	HSCRC Hospital Inpatient Discharge Abstract; Medicare Claims	HSCRC data is limited to discharges from Maryland hospitals, Medicare data provides access to discharges outside of state NOTE: Inter-hospital Medicare Readmissions: 0.3 percentage points decline in FY 2012.

### Population Health

Maryland has established a State Health Improvement Process<sup>11</sup> with 39 health benchmark measures. Through this process, 17 regional planning councils have developed action plans for improvement.

As key indicators of population health are expected to improve as the model evolves, Maryland will continually measure population health metrics, including but not limited to hospital admission rates (as well as readmission rates), ED visits, and admissions and ED visits for

<sup>11</sup> The SHIP website is <http://dhmh.maryland.gov/ship/SitePages/Home.aspx>

ambulatory sensitive conditions. Maryland will also measure life expectancy, hospitalizations for ambulatory care sensitive conditions, primary and secondary prevention for cardiovascular disease, and behavioral health emergencies, including racial and ethnic disparities in these measures.

Maryland will consider a range of population health measures developed by quality measurement groups such as NCQA and National Quality Forum (NQF) some of which are being used in numerous initiatives including the CMS Shared Savings Program and Meaningful Use incentive program. These include:

- Screening mammography
- Colorectal cancer screening
- Persistence of beta-blocker treatment after a heart attack
- Optimal diabetes care
- Screening for future fall risk
- Blood pressure control
- Million hearts ABCs (a composite of NQF measures)
- Screening for clinical depression and follow-up plan
- Medication reconciliation post-discharge
- Adult influenza immunization: Influenza immunization received
- Pneumonia vaccination for patients 65 years and older
- Smoking cessation, Medical Assistance: a. Advising smokers to quit, b. Discussing smoking cessation medications, c. Discussing smoking cessation strategies
- Annual monitoring for patients on persistent medications

Beginning in June of 2012, HSCRC staff convened the *Hospital Race and Ethnicity Disparities Work Group*, a multi-stakeholder group of individuals working to reduce or eliminate disparities in Maryland healthcare, to guide HSCRC staff efforts and work to analyze the status of hospital patient race and ethnicity data collection and consider how this data may be used in payment incentive programs. Maryland will continue to analyze race and ethnicity data using hospital discharge and quality datasets and will use race and ethnicity data in its quality incentive programs as appropriate.

Finally, advances in computing and connectivity have the potential to improve population health by expanding the reach of knowledge, increasing access to clinical information when and where needed, and assisting patients and providers in managing chronic diseases. Maryland will monitor encounter data flow through its HIE, CRISP (Maryland's state information exchange).

### Population Health Measures

Goal	Description of Measure	Data Source	Measure Specification
<b>Improve life expectancy</b>	SHIP Objective 1*: Increase life expectancy	Vital Statistics Administration, Department of Health and Mental Hygiene	Standard calculations based on birth and death records.
<b>Reduce the rate of hospitalizations for ambulatory care sensitive conditions</b>	Prevention Quality Indicator (PQI) Composite Measure of Preventable Hospitalization	HSCRC	Preventable hospitalizations per 100,000 population. Will be calculated using AHRQ methodology**. The PQI tracks the number of hospitalizations that occurred for ambulatory care sensitive conditions, conditions for which effective outpatient care can prevent the need for hospitalization or for which early intervention can prevent complications or more severe disease. The HSCRC data source includes data for Maryland hospitals only.
<b>Improve cancer control</b>	SHIP Objective 32: Reduce the % of adults who are current smokers	Behavioral Risk Factor Surveillance System (BRFSS)	Numerator is number of persons who reported currently smoking cigarettes some days or every day. Denominator is number of persons.
	SHIP Objective 33: Reduce the % of youth using any kind of tobacco product	Maryland Youth Tobacco Survey	Numerator is number of surveyed adolescents ages 12 through 19 in public schools who report using any kind of tobacco product in the past 12 months. Denominator is number surveyed.
<b>Improve primary prevention of infectious disease</b>	SHIP Objective 24: Increase the % vaccinated annually for seasonal influenza	CDC National Immunization Survey; BRFSS	Coverage estimates are for all persons over 6 months of age.
	SHIP Objective 23: Increase % of children with recommended vaccinations	CDC National Immunization Survey	Numerator is number of children aged 19-35 months old vaccinated under NIS vaccine coverage definitions. Denominator is number of children in this age group surveyed.
	SHIP Objective 20: Reduce new HIV infections among adults and adolescents	MD HIV surveillance system; US Census Bureau; ACS 5 year Census	Rate of new adult and adolescent HIV cases during a calendar year (age 13 or greater) reported to the State of Maryland per 100,000 population.
<b>Improve prevention for diabetes and cardiovascular disease</b>	SHIP Objective 27: Reduce diabetes-related emergency department visits	HSCRC	Numerator is number of inpatient and outpatient emergency department visits for which the primary diagnosis was coded as 250.xx. Denominator is the number of persons. HSCRC data is limited to data from Maryland hospitals.

Goal	Description of Measure	Data Source	Measure Specification
	SHIP Objective 28: Reduce hypertension related emergency department visits	HSCRC	Numerator is number of inpatient and outpatient emergency department visits for which the primary diagnosis was coded as 401.x. Denominator is the number of persons. HSCRC data is limited to data from Maryland hospitals.
	SHIP Objective 31: Reduce the % of children who are considered obese	Maryland Youth Tobacco Survey	Numerator is number of adolescents ages 12 to 19 attending public school who have a Body Mass Index (determined through self-reported height and weight) equal to or above the 95 <sup>th</sup> percentile for age and gender. Denominator is total population surveyed.
	SHIP Objective 30: Increase the % of adults who are at a healthy weight	Behavioral Risk Factor Surveillance System	Number of people with BMI of less than 25kg/m <sup>2</sup> . Denominator is population surveyed.
<b>Improve prevention for asthma</b>	SHIP Objective 17: Reduce hospital ED visits from asthma	HSCRC	Numerator is number of inpatient and outpatient emergency department visits for which the primary diagnosis was coded as 493.xx. Denominator is the number of persons. HSCRC data is limited to data from Maryland hospitals.
<b>Promote behavioral health integration in primary care</b>	SHIP Objective 34: Reduce hospital ED visits related to behavioral health	HSCRC	Number of inpatient and outpatient emergency department visits for which the primary or secondary diagnosis was defined as related to behavioral health by the Healthcare Cost and Utilization Project of the Agency for Healthcare Research and Quality. These diagnoses include adjustment disorders, anxiety disorders, attention deficit, conduct or disruptive behavior disorders, disorders usually diagnosed in infancy, childhood, or adolescence, impulse control disorders (not classified elsewhere), mood disorders, personality disorders, schizophrenia and other psychotic disorders, alcohol-related disorders, substance-related disorders, suicide and intentional self-inflicted injury, and miscellaneous mental disorders. HSCRC data is limited to data from Maryland hospitals.
<b>Promote health through safe physical environments</b>	Fall-related death rate	Maryland Vital Statistics Administration	Numerator is deaths with an ICD-10 code of W00-W19, denominator is total population.
<p><i>*Most measures have all been adopted as core measures in Maryland's State Health Improvement Process. Technical specifications for these measures are located at: <a href="http://dhmh.maryland.gov/ship/SitePages/measures.aspx">http://dhmh.maryland.gov/ship/SitePages/measures.aspx</a>. Each measure is tracked, where possible, by race/ethnicity and gender and by county. Local public-private public health coalitions, which include local hospitals, develop plans to achieve improvements in these measures.</i></p> <p><i>**The AHRQ PQI technical specifications are located at <a href="http://www.qualityindicators.ahrq.gov/Modules/PQI_TechSpec.aspx">http://www.qualityindicators.ahrq.gov/Modules/PQI_TechSpec.aspx</a></i></p>			

AHRQ = Agency for Healthcare Research and Quality

PQI = Prevention Quality Indicators

SHIP = State Health Improvement Process

PQRS = Physician Quality Reporting System

NQF = National Quality Forum

Maryland will report annually the quality and cost measure results for the QBR, MHAC and readmissions reduction programs with a specific focus on the progress in selected high priority PPCs. Maryland will establish the data collection and analysis infrastructure for reporting future quality measures.

### *Health Care Costs*

Maryland will integrate frequent and regular monitoring into the model relying on a number of datasets, data collection processes already established by the HSCRC, Medicare claims and clinical data. To calculate all-payer financial success under the model, Maryland will rely on HSCRC datasets with population numbers provided by Maryland's Department of Planning, adjusted for expected in and out migration.<sup>12</sup> Maryland will also complete implementation of a state all-payer database in order to monitor per capita health expenditure growth for inpatient and outpatient services across all payers.

#### **HSCRC Data to Monitor All-Payer Financial Success**

<b>Dataset</b>	<b>Financial Monitoring Use</b>	<b>Collection Schedule</b>	<b>Data Lag</b>
Unaudited financial data, monthly submissions	Rapid revenue trend monitoring	Monthly	One month from end of reporting period
Audited financial data, annual filing	Revenue trend monitoring	Annually	Four months from end of reporting period
Inpatient and outpatient case mix data	CMI monitoring, trends for out of state patients	Quarterly	Two months from end of reporting period
Maryland population (Provided by the Maryland Department of Planning)	Establish Maryland's population; potential for use in population attribution methods	Annually	Projections based on US Census

Maryland will also monitor utilization of certain diagnostic tests and procedures to assess and decrease unnecessary and wasteful practices (i.e., duplicate imaging).

<sup>12</sup> Current financial reports do not distinguish between resident and non-resident revenue. The HSCRC will employ patient-level case mix datasets to establish regulated charge ratios of resident and non-residents and will apply these ratios to the financial revenue numbers to establish the numerator of the calculation. Maryland cannot capture revenue for care provided to Maryland residents outside the state. Therefore, the all payer numerator differs slightly from the numerator used for the Medicare calculation. Maryland will rely on monthly financial data without adjustments for in- and out-of-state revenue as a proxy. This will provide Maryland the ability to manage the system in something close to real time. These data are a good proxy for monitoring the system over time because in-migration and out-migration in recent years appears to offset and to be relatively stable over time.

### Health Care Costs

Goal	Description of Measure	Data Source	Considerations/ Comments
Reduce overuse of diagnostic testing – imaging	OP-8 : MRI Lumbar Spine for Low Back Pain OP-9: Mammography Follow-up Rates OP-10: Abdomen CT - Use of Contrast Material 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 (CT) and Sinus Computed Tomography (CT)	Claims	Medicare (Hospital Compare) and Medicaid; later state all-payer database
Control expenditure growth – hospital	Per capita hospital expenditure growth (inpatient and outpatient) for: <ul style="list-style-type: none"> <li>• All-payer</li> <li>• Medicare</li> <li>• Medicaid/CHIP</li> <li>• Private payer</li> <li>• Dual Eligibles</li> </ul>	HSCRC Hospital Inpatient and Outpatient Discharge Abstract; Medicare and Medicaid enrollment files	For all expenditures, risk adjustment for in and out of state services
Control expenditure growth – all services	Per capita health expenditure growth (inpatient and outpatient) for: <ul style="list-style-type: none"> <li>• All-payer</li> <li>• Medicare</li> <li>• Medicaid/CHIP</li> <li>• Private payer</li> <li>• Dual Eligibles</li> </ul>	Claims	Medicare and Medicaid; later state all payer database

## SIGNIFICANT ASSUMPTIONS, INCLUDING RISK ELEMENTS AND UNKNOWNNS

### Assumptions:

- It is assumed that both Maryland and CMS will be able to provide timely relevant reports and data to each other.
- Timelines and milestone assume HSCRC full staffing and contractor availability.

In addition to these assumptions, this model presents a number of risks:

1. Effect on Patients: Testing new payment and delivery system models may have an impact on the care patients receive. While there will inevitably be changes in how providers deliver care, these changes should be aimed at improving patient care and be made in a manner that ensures a seamless transition for patients from one care delivery approach to another. While the model changes the approach to payment, it does not change the rights or access to needed care of patients in Maryland. This model includes a robust monitoring and evaluation plan to ensure that patients' rights are protected and that access to care is not restricted.
2. Supplanting funding: Because of the number of concurrent initiatives and models funded by the ACA, the ARRA, and other initiatives, the risk of supplanting state funds or creating "double dipping" conflicts is possible. (*See Appendix D: Existing State and Federal Programs*). States are expected to incorporate and integrate in their model designs existing delivery system and population health improvement initiatives and new ACA authorities without supplanting funds. It is anticipated that CMS will address these risks by performing model validation reviews as necessary and will also perform process reviews to validate that the model is not creating a financial conflict or program payment risk. Maryland must abide by the cost principles contained in OMB Circular A-87. Specifically, Maryland may not supplant other state funding authorized through its Medicaid and CHIP programs with funding from the Innovation Center; however, a state may supplement or enhance a current funding source.
3. Use of Differential Payment: Maryland believes that the targets established in this model are achievable without any change in the payment differential between public and commercial payers. If expenditures are under the all-payer ceiling, but Medicare savings are not sufficient, a differential may be used to assure the required savings. To ensure that the differential is only used in a manner consistent with the terms of this agreement, it is understood that CMS must review and approve any change in the differential prior to its implementation.
4. Exogenous Factors: As stated, there is the potential for exogenous factors to affect cost growth in unpredictable ways (see Model Design and Requirements section). For



example, Maryland could experience an unforeseen impact to the projected trends based on the expansion of health insurance coverage under the Affordable Care Act or the construction of a new hospital facility in Prince George's County. Maryland may submit to CMS feedback on any exogenous factors' impact on the model, including a suggestion to adjust the model on the basis of those exogenous factors. Any such adjustment would be at the sole discretion of CMS.

5. Unsuccessful models: There is a risk that the model will generate neither cost savings nor quality improvements. This is a risk inherent in testing any model. As stated earlier, CMS may discontinue or modify, as necessary, initiatives that are deemed unproductive, as required by Section 1115A(b)(3)(B) of the Social Security Act.

### **DEFINITION OF SUCCESS: BASIS FOR BROAD SCALE IMPLEMENTATION**

The Maryland All-Payer Model will be successful if the model reduces program expenditures and improves the quality of care for Maryland residents, including Medicare, Medicaid, and CHIP beneficiaries, more than other states. Specifically, the model will be successful if Maryland can meet the hospital cost and quality targets without inappropriately shifting costs to non-hospital settings *and* if there is a measurable improvement in quality of care. Maryland expects that the success of this model will result in the model being extended to include total cost of care after year 5 of the model, as described above. Moreover, Maryland believes that the model may be scaled to other states interested in developing all-payer payment systems.

**APPENDIX A: SPECIFICATIONS FOR CALCULATING MEDICARE SAVINGS**

CMS will use the following method to calculate savings:

1. CMS will calculate two fractions – Medicare per capita inpatient hospital cost and per capita outpatient hospital cost. These two fractions will be added to determine the Medicare per capita total hospital cost.
  - This calculation will be done for Medicare fee-for-service beneficiaries.
  - The growth in Maryland per capita total hospital cost will be compared to the national growth rate in per capita hospital cost.
  - The per capita total hospital cost calculation for Maryland will include all hospital expenditures per these specifications, regardless of the state of service.
2. Medicare per capita inpatient cost will be calculated by including in the numerator all fee-for-service claims with a claim code “60” (indicating an inpatient service) billed from any facility listed in the table below. Facility serial numbers indicate the facility type. Serial numbers preceded with “21” indicate the facility is located in Maryland.
3. Medicare per capita outpatient cost will be calculated by including in the numerator all fee-for-service claims with a claim code “40” (indicating an outpatient service) billed from any of the highlighted facilities listed in the table below with the following exception: any 72x bill type (CLM\_BILL\_FAC\_TYPE\_CD = ‘7’ and CLM\_BILL\_CLSFCTN\_CD = ‘2’) will be excluded as these represent bills from ESRD clinics.

**Medicare Facility Types**

Serial Number	Facility Description
0001-0879	Short-term (general and specialty) hospitals where TOB = 11X; ESRD clinic where TOB = 72X
0880-0899	Reserved for hospitals participating in ORD demonstration projects where TOB = 11X; ESRD clinic where TOB = 72X
0900-0999	Multiple hospital component in a medical complex (numbers retired) where TOB = 11X; ESRD clinic where TOB = 72X
1000-1199	Reserved for future use
1200-1224	Alcohol/drug hospitals (excluded from PPS-numbers retired) where TOB = 11X; ESRD clinic where TOB = 72X
1225-1299	Medical assistance facilities (Montana project); ESRD clinic where TOB = 72X
1300-1399	Rural Primary Care Hospital (RCPH) - eff. 10/97 changed to Critical Access Hospitals (CAH)
1400-1499	Continuation of 4900-4999 series (CMHC)
1500-1799	Hospices
1800-1989	Federally Qualified Health Centers (FQHC) where TOB = 73X; SNF (IP PTB) where TOB = 22X; HHA where TOB = 32X, 33X, 34X

1990-1999	Christian Science Sanatoria (hospital services) - eff. 7/00 changed to Religious Nonmedical Health Care Institutions (RNHCI)
2000-2299	Long-term hospitals
2300-2499	Chronic renal disease facilities (hospital based)
2500-2899	Non-hospital renal disease treatment centers
2900-2999	Independent special purpose renal dialysis facility (1)
3000-3024	Formerly tuberculosis hospitals (numbers retired)
3025-3099	Rehabilitation hospitals
3100-3199	Continuation of Subunits of Nonprofit and Proprietary Home Health Agencies (7300-7399) Series (3) (eff. 4/96)
3200-3299	Continuation of 4800-4899 series (CORF)
3300-3399	Children's hospitals (excluded from PPS) where TOB = 11X; ESRD clinic where TOB = 72X
3400-3499	Continuation of rural health clinics (provider-based) (3975-3999)
3500-3699	Renal disease treatment centers (hospital satellites)
3700-3799	Hospital based special purpose renal dialysis facility (1)
3800-3974	Rural health clinics (free-standing)
3975-3999	Rural health clinics (provider-based)
4000-4499	Psychiatric hospitals
4500-4599	Comprehensive Outpatient Rehabilitation Facilities (CORF)
4600-4799	Community Mental Health Centers (CMHC); 9/30/91 - 3/31/97 used for clinic OPT where TOB = 74X
4800-4899	Continuation of 4500-4599 series (CORF) (eff. 10/95)
4900-4999	Continuation of 4600-4799 series (CMHC) (eff. 10/95); 9/30/91 - 3/31/97 used for clinic OPT where TOB = 74X
5000-6499	Skilled Nursing Facilities
6500-6989	CMHC / Outpatient physical therapy services where TOB = 74X; CORF where TOB = 75X
6990-6999	Christian Science Sanatoria (skilled nursing services) - eff. 7/00 Numbers Reserved (formerly CS)
7000-7299	Home Health Agencies (HHA) (2)
7300-7399	Subunits of 'nonprofit' and 'proprietary' Home Health Agencies (3)
7400-7799	Continuation of 7000-7299 series
7800-7999	Subunits of state and local governmental Home Health Agencies (3)
8000-8499	Continuation of 7400-7799 series (HHA)
8500-8899	Continuation of rural health center (provider based) (3400-3499)
8900-8999	Continuation of rural health center (free-standing) (3800-3974)
9000-9799	Continuation of 8000-8499 series (HHA) (eff. 10/95)
9800-9899	Transplant Centers (eff. 10/1/07)
9900-9999	Reserved for future use

## APPENDIX B: SPECIFICATIONS FOR CALCULATING READMISSIONS RATE

CMS will use the following method to calculate the readmission rate under this model:

1. Use Part A claims for all Medicare beneficiaries that were enrolled in FFS during the reference period and within 30 days of the end of that period.
2. Limit analysis to inpatient claims from acute care hospitals.
3. Combine multiple stays (including transfers) into a single stay if the last day of one stay is the same as the first day of the next stay.
  - Multiple claims are combined into a single stay if the claims are on consecutive days (i.e., March 2<sup>nd</sup> and March 3<sup>rd</sup>) and the first claim has a discharge code of 30 (still a patient).
4. Classify each inpatient stay as an index admission, a readmission, or both, as follows:
  - An inpatient stay counts as an index admission if:
    - The last service date for a stay falls within the month being analyzed and,
    - The stay does not have a patient discharge status code of 20 (patient died during stay).
    - Instances where a patient was discharged “against medical advice” are included as index stays.
  - An inpatient stay counts as a readmission if the first day of the stay occurred within 30 days of the last service date of an index admission stay.
    - For example, when identifying readmissions for March index stays, the first day of the stay for a readmission could be as early as March 2 or as late as April 30.
    - For transfers, the 30-day period starts at the end of the combined stay.
    - Inpatient stays can count as readmissions even if the patient died during the stay.
5. The monthly readmission rate is equal to the total number of readmissions that occurred during the 30-day period divided by the total number of index admissions that occurred during the month.
  - Index stays are counted under the month of the last service date from that stay.
  - Readmission stays are counted under the month of the last service date from the corresponding index stay.
  - An inpatient stay can be both an index admission and a readmission, but an index admission cannot have more than one readmission.

## APPENDIX C: MARYLAND REGULATED AND UNREGULATED HOSPITAL REVENUE

The Health Services Cost Review Commission (HSCRC) regulates rates for hospital inpatient and outpatient services for all acute general hospitals and for one chronic hospital facility. HSCRC regulates private payer rates for several specialty hospital facilities that are not general acute care hospitals but it does not set rates for Medicare and Medicaid for those facilities. The table below indicates hospital facilities in Maryland subject to rate regulation as well as hospital facilities whose rates for Medicare are determined by CMS and not by HSCRC.

For inpatient care, HSCRC does not set rates for services that are not acute hospital services such as skilled nursing facility (SNF) services. For outpatient services, HSCRC sets rates for hospital services provided by the hospital within the hospital campus facilities. HSCRC does not set rates for freestanding facilities off the hospital campus such as free standing surgery, radiology, or clinic services, even though these may be provided by a hospital. There is a legislated exception to this policy where HSCRC sets rates for three freestanding emergency room facilities that are provided by hospitals. Additionally, HSCRC does not set rates for ESRD services provided at the hospital. It also does not set rates for services provided to non-hospital patients for laboratory services. Specifically, it does not regulate reference laboratory services where a specimen is drawn off-site but processed in the hospital laboratories.

### Maryland Hospital Facilities and Revenue Regulation Status

<u>Regulated (Medicare)</u>	<u>Medicare Provider Number</u>	<u>Hospital Name</u>	<u>Type</u>
Yes	21 0001	Meritus Medical Center	Acute
Yes	21 0002	University of Maryland Medical Center	Acute
Yes	21 0003	Dimensions - Prince Georges	Acute
Yes	21 0004	Holy Cross	Acute
Yes	21 0005	Frederick Memorial	Acute
Yes	21 0006	UCH-Harford	Acute
Yes	21 0008	Mercy	Acute
Yes	21 0009	Johns Hopkins	Acute
Yes	21 0010	UM Shore Medical Dorchester	Acute
Yes	21 0011	St. Agnes	Acute
Yes	21 0012	Sinai	Acute
Yes	21 0013	Bon Secours	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 General	Acute

<u>Regulated (Medicare)</u>	<u>Medicare Provider Number</u>	<u>Hospital Name</u>	<u>Type</u>
Yes	21 0019	Peninsula Regional	Acute
Yes	21 0022	Suburban	Acute
Yes	21 0023	Anne Arundel	Acute
Yes	21 0024	MedStar Union Memorial	Acute
Yes	21 0028	MedStar St. Mary's	Acute
Yes	21 0029	Johns Hopkins -Bayview	Acute
Yes	21 0030	UM Shore Medical Center Chestertown	Acute
Yes	21 0032	Union Hospital Cecil County	Acute
Yes	21 0033	Carroll County Medical Center	Acute
Yes	21 0034	MedStar Harbor Hospital	Acute
Yes	21 0035	UM Charles Regional Medical Center	Acute
Yes	21 0037	UM Shore Medical Easton	Acute
Yes	21 0038	UMMC Midtown	Acute
Yes	21 0039	Calvert Memorial	Acute
Yes	21 0040	Northwest	Acute
Yes	21 0043	UM Baltimore Washington	Acute
Yes	21 0044	G.B.M.C.	Acute
Yes	21 0045	McCready	Acute
Yes	21 0048	Howard County General Hospital	Acute
Yes	21 0049	Upper Chesapeake Health	Acute
Yes	21 0051	Doctors Community	Acute
Yes	21 0055	Dimensions - Laurel Regional	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 0904	Johns Hopkins - Oncology	Acute
Yes	21 0058	UM Rehabilitation & Orthopedic Institute	Acute
Yes	21 0056	MedStar Good Samaritan	Acute
Yes	21 0057	Adventist HealthCare - Shady Grove	Acute
Yes	21 8992	Univ. of MD MEIMS	Acute
Yes	21 0087	Germantown Emergency Center	FSE
Yes	21 0088	Queen Anne's Emergency Center	FSE
Yes	21 0333	Bowie Emergency Center	FSE
Yes	21 5033	Levindale	Specialty

<u>Regulated (Medicare)</u>	<u>Medicare Provider Number</u>	<u>Hospital Name</u>	<u>Type</u>
No	21 02V0	VA –Maryland Healthcare System - Baltimore	Acute-Veterans
No	21 2781	St. Luke Institute	Private- Ministry
No	21 3478	Adventist Behavioral Health at Eastern Shore	Psychiatric
No	21 4000	Sheppard Pratt	Psychiatric
No	21 4003	Brook Lane	Psychiatric
No	21 3028	Health South - Chesapeake Rehab	Rehabilitation
No	21 3029	Adventist Rehab of Maryland	Rehabilitation
No	21 5034	Mt. Washington Pediatrics	Specialty
No	21 4012	Thomas B Finan Center	Psychiatric
No	21 3301	Kennedy Krieger Institute	Specialty

## APPENDIX D: EXISTING FEDERAL AND STATE PROGRAMS

The Maryland All-Payer Model is intended to complement many of the existing programs at the federal and state level. Because the HSCRC has limited purview over other healthcare settings, Maryland will need to coordinate among multiple federal, state and private programs, as well as partnerships at the federal and state level. This appendix describes a number of these existing programs.

### State Innovation Models (SIM)

The State of Maryland was awarded a State Innovation Models (SIM) Model Design grant by CMS in February 2013 to develop a plan for State Healthcare Innovation. Maryland's vision for this program is a transformed health system that integrates patient-centered primary care with innovative community health initiatives. The four pillars of this vision are (1) primary care, (2) community health, (3) strategic use of data, and (4) workforce development.

The centerpiece of the Innovation Plan is a new statewide Community Integrated Medical Home (CIMH) program. The CIMH utilizes the patient-centered medical home (PCMH) model of increased access and care coordination and links it with expanded community health resources across localities in Maryland. Through the use of case management by the CIMH practice and community health workers, patients will be linked to appropriate preventive, disease management, and other supplemental services between their visits to their CIMH primary care physician. Care managers and community health workers will also coordinate with hospitals to link patients to appropriate community-based supports that will help reduce readmission rates.

Moreover, using new geographic information system (GIS) mapping tools that make use of admission, discharge and transfer data and other data from CRISP, the community health workers will be able to identify areas at a city block level that have high rates of readmissions, long lengths of stay, high utilization, and other indicators of inefficient care. These data and maps would be available for various health care conditions, including cardiovascular and other chronic diseases.

In this program, patients receive preventive and disease management services in the primary care setting as well as wrap-around, community-based services between care visits to help maintain patients' health. Care coordination – a hallmark of medical home models – will incorporate these community-services to result in an integrated, advanced primary care system that extends out of the primary care office and into the community.

Maryland's goal is for 80% of its population to belong to a state-certified primary care medical home. For the subset of that population that make frequent use of the hospital and emergency room settings, Maryland will also provide more intensive community-based follow-up and additional community-based wrap-around support services to more effectively address underlying social, behavioral, and environmental determinants of health. Preliminary estimates suggest that 6% to 10% of Maryland's population can be considered "super-utilizers" or chronically ill and at risk of becoming "super-utilizers" and could benefit from such community-integrated approaches.



Over the course of a six-month planning period in 2013, Maryland is establishing a governance structure and an approach to patient attribution, risk adjustment, patient selection, and other processes that are required for shared savings calculations. This approach will assure that incentives all point in the same direction while preserving innovation in payment. Additionally, meeting quality standards will be a requirement for receipt of shared savings. The governance structure will also establish a core set of quality metrics that will result in consistent expectations and quality improvement activities across participating medical homes.

### **Centers for Disease Control and Prevention (CDC)**

Maryland receives several grants from the Centers for Disease Control and Prevention (CDC) that contribute to the integration of public health and health care systems, which is key to reducing the burden of chronic diseases, improving overall population health, and reducing health care spending. These grants complement other state efforts and the plans outlined in this application.

CDC-funded public health programs include Chronic Disease Control, Coordinated Chronic Disease Prevention and Health Promotion, and Diabetes Control programs. These grants fund efforts to reduce disease and disability through prevention, assessment, and health promotion programs. The programs promote and guide the implementation of stroke, diabetes, and chronic disease prevention services in Maryland, working closely with multiple stakeholders including local health departments, the Maryland State Department of Education, the Governor's Advisory Council on Heart Disease and Stroke, the American Heart Association, the American Diabetes Association, professional societies, and other community groups.

This funding has also been used to establish statewide data collection and an analysis and surveillance system that allows for information sharing on the burden of chronic diseases in Maryland. The goal of these programs is to improve health outcomes for individuals at high risk for developing chronic disease through health promotion/disease prevention education, early detection, follow up monitoring, and counseling for high risk persons, minorities and the medically underserved. These programs help reduce the burden of some of the state's most costly health outcomes. In addition, the Community Transformation Grant supports statewide and community efforts to reduce chronic diseases in 19 of Maryland's smaller jurisdictions with a total population of 1,900,000 residents.

Other chronic disease prevention efforts focus exclusively on tobacco. The CDC grant for Core Capacity Building for Tobacco Use Prevention is being used to build and support core tobacco use prevention capacities within Maryland, supplementing (and not supplanting) state-supported tobacco use prevention initiatives as well as non-governmentally supported programs. This project provides funding for core staffing and expertise, technical assistance to local and statewide tobacco use prevention and cessation programs, training and support for community groups and coalitions, as well as additional statewide resources including support of the Quitline and statewide resource centers.

These CDC funded initiatives are vital to promoting healthy lifestyles and preventing chronic disease. By providing a robust public health prevention infrastructure in Maryland, these efforts help establish the public health infrastructure that is the keystone of the Community-Integrated

Medical Home. Moreover, the focus on community-based prevention will complement the implementation of this model by helping reduce hospitalizations among those with chronic diseases, who tend to be the most costly to the health care system. At the same time, data collection and surveillance allows public health leaders to monitor progress and allocate resources more effectively. These CDC-funded prevention, health promotion and disease management activities will also be integrated into the primary care setting through the CIMH, with community health workers and care managers providing the link between these public health programs and medical care for patients with chronic disease. By creating financial incentives for all providers that align closely with the goals of these public health programs, Maryland will be well positioned to meet the three-part aim.

### **CMS Health Care Innovation Awards**

Maryland has been granted a number of Health Care Innovation Awards from CMS, totaling \$49.1 million. Two of the larger projects include:

- Expansion of CareFirst's Total Care and Cost Improvement Program (TCCI), a Patient-Centered Medical Home model of care delivery and payment to 25,000 Medicare beneficiaries in Maryland per year. This approach aligns with the Model Design proposal in that it will enhance support for primary care physicians to coordinate care for multi-chronically ill Medicare beneficiaries and patients at high risk for chronic illnesses, while reducing avoidable hospitalizations, emergency room visits, and other problems caused by gaps in care.
- Johns Hopkins University, in partnership with the Johns Hopkins Health System and its member hospitals, as well as other stakeholders, received funding to create the Johns Hopkins Community Health Partnership, a comprehensive and integrated program designed to increase access to services for high-risk adults in East Baltimore. The intervention improves care coordination across the continuum, providing services such as patient education, interdisciplinary care planning post-discharge support and home care services; all of which complements the model demonstration proposal.

## APPENDIX E: MARYLAND STATE GOVERNMENT ORGANIZATION

### Department of Health and Mental Hygiene

As the state's health agency, the Department of Health and Mental Hygiene (the Department) is the lead state partner working with the Center for Medicare and Medicaid Services and other federal agencies. The Department will work collaboratively with the Health Services Cost Review Commission (HSCRC), Maryland Health Care Commission (MHCC), hospitals, physicians, payers, and other key constituencies to effectively implement this model.

#### *Mission*

The Department's mission is to improve the health status of Maryland residents and to ensure access to quality health care. The Department pursues this mission directly through key programs and indirectly through partnerships with the private sector.

#### *Administration*

The Department is organized according to major divisions, each headed by a Deputy Secretary.

The Secretary of the Department is Dr. Joshua M. Sharfstein, the former principal deputy commissioner of the U.S. Food and Drug Administration and former Health Commissioner in Baltimore City. Dr. Sharfstein has worked closely with the staff and leadership of the HSCRC to develop this proposal.

The Deputy Secretary for Health Care Financing, Charles Milligan, oversees the Medicaid program in Maryland and will be an integral participant in the model's implementation.

The Deputy Secretary for Public Health is Dr. Laura Herrera, a former senior public health administrator with the National Veterans Administration. Dr. Herrera oversees a broad range of public health programs as well as Department efforts to integrate the health care system with public health objectives. She is also the lead for the State Innovation Model design process. With respect to the proposed model, Dr. Herrera's public health team will work closely with the HSCRC to align the two parallel efforts. The team will also assist in the development of public health outcome measurements, including measurements of health disparities, for evaluation.

The Deputy Secretary for Behavioral Health is Dr. Gayle Jordan-Randolph, a child, adult, and forensic psychiatrist. Dr. Jordan-Randolph oversees the Mental Hygiene Administration, the Alcohol and Drug Abuse Administration, and the Developmental Disabilities Administration in Maryland. With respect to the proposed model, she will consult on the behavioral health aspects, such as how to provide appropriate incentives for integrated care across different levels of care.

The Deputy Secretary for Administration, Thomas Kim, oversees facilities, human resources, and budget. His office will assist in the logistical operation of the model as needed.

### *Budget*

The Department's total budget in FY 2014 is \$10.2 billion, of which \$5.1 billion is federal funds. The Medicaid program's FY 2013 budget is \$7.2 billion.

### *Assistance to Model Design*

The Department has been fully engaged in the development of the proposal and is fully committed to the successful implementation of this model.

The Medicaid program is supportive of the model's focus on better health, better care, and lower costs. Medicaid will see better health for enrollees and savings as the goals are achieved. Medicaid will participate actively in the HSCRC process for receiving input from key public and private payers. The public health and behavioral health programs within the Department will also benefit from the successful application of the model. Support from all these programs will include technical assistance, data as needed, participation in relevant workgroups, and other types of support for HSCRC's role.

The Secretary of the Department of Health and Mental Hygiene will continue to work with the Governor's office, legislative offices, and leadership in key stakeholder organizations to explain the new model and support its implementation.

### **Health Services Cost Review Commission (HSCRC)**

#### *Statutory Authority and Mission*

The HSCRC is an independent state entity of the Department. The statutory authority of the HSCRC is found in Title 19, Subtitle 2, of the Health-General Article of the Annotated Code of Maryland. The regulations established under this authority are published in the Chapter 10 of the Code of Maryland Regulations (COMAR Title 10, Subtitle 37, Chapters 01-12).

The HSCRC is primarily charged with maintaining the hospital all-payer system and managing hospital rates under that system. The HSCRC's authority and mission include, but are not limited to:

- Assuring purchasers of hospital care that the total costs of services are reasonable and that rates are set equitably among all purchasers.
- Monitoring hospital financial indicators to ensure that each hospital has sufficient resources to meet financial requirements and develop solutions in collaboration with the hospital industry if solvency is threatened.
- Developing and testing alternative methods of rate determination and payment, when appropriate.
- Establishing methods for financing the reasonable total costs of hospital uncompensated care.
- Assuring the integrity of the payment system.
- Assessing and collecting user fees.
- Providing access to hospital-related healthcare data that is in the public interest.

### *Administration*

The HSCRC consists of commissioners and commission staff. The statute requires there be seven volunteer commissioners appointed by the Governor, who, in turn, serve the citizens of Maryland at large. Of the seven commissioners, four must lack a connection with the management or policy of a hospital; however, each commissioner must have an interest in health care. Commissioners serving two consecutive full four-year terms may not be reappointed until at least four years after the completion of the two terms. The Commission is led by Chairman John M. Colmers, Vice President, Health Care Transformation and Strategic Planning for Johns Hopkins Medicine and a former Maryland Secretary of Health. The senior staff members employed by the Commission serve at the pleasure of the commissioners. HSCRC decisions can be appealed directly to the Maryland courts, not through administrative processes.

The HSCRC was deliberately organized to be a small agency and to operate in a flexible and efficient fashion. The duties of the Commission require substantial industry knowledge (hospital, health services, insurance) and are complex in nature. Because of its unique mission and responsibilities, the HSCRC requires the services of individuals with highly specialized professional skills and experience.

The HSCRC has three divisions, each headed by a Deputy Director: Rate Setting; Research and Methodology; and Operations, Governmental Relations and Hospital Performance Measurement.

### *Budget*

The HSCRC is an independent state entity of the Department and its budget is a non-lapsing state special fund, consisting of annual user fees assessed on 58 regulated Maryland hospitals. The HSCRC's administrative appropriation for FY 2014 is \$6,476,391 and the HSCRC expects to collect \$6,499,022 in user fees during the course of the year.

Expenses are driven primarily by personnel costs accounting for 65 percent of the overall administrative budget. The HSCRC currently employs 29 full-time staff and may employ up to 34 staff in accordance with its appropriation. HSCRC also contracts for certain technical services to manage the HSCRC's datasets and to assist the HSCRC with specific policy issues.

The user fee assessment is determined after the HSCRC's fiscal year budget appropriation is established. Those user fees are applied proportionately across all regulated hospitals (half based on admissions and half based on hospital revenues).

### *Model Design Budget*

Maryland is not requesting grant funding as part of this model design proposal. However, the state may incur added expenses to obtain additional technical assistance to study, implement and evaluate new programs, payment methods, and incentives that support the goal of reducing per capita costs over time. The state may also need to update or extend its existing data management contracts (or issue new ones) to ensure that the state is capturing the appropriate data elements and having them analyzed on a timely basis.

## Maryland Health Care Commission

### *Mission*

The mission of the Maryland Health Care Commission (MHCC) is to plan for health system needs, increase accountability, and improve access to cost effective services. MHCC pursues this mission through information gathering and dissemination, health policy analyses, regulatory authority and health planning.

### *Administration*

MHCC is an independent state agency within the Department. Its fifteen Commissioners, appointed by the Governor with the advice and consent of the Senate, represent both the state's citizens and a broad range of other stakeholders. The Chair of MHCC, Dr. Craig Tanio, is a former principal at McKinsey & Company and is now Medical Director at JenCare Neighborhood Medical Centers, an innovative managed care organization recently organized to serve the health care needs of seniors including Medicare beneficiaries.

The MHCC is organized into five centers that focus on evaluating, regulating or providing guidance to health care providers and payers utilizing an array of tools such as data gathering, public reporting, planning and regulation, to improve quality, address costs, and increase access. The Centers for Hospital Services and Long-term Care and Community-based Services focus on provider organizations, bringing together expertise and tools to address cost, quality, and access in those sectors. The Center for Healthcare Financing and Policy addresses broad policy issues relating to the organization and financing of health care services, as well as issues relating to the regulation of the small group health insurance market. The Center for Information Services and Analysis conducts broad studies using both Maryland databases and national surveys. The Center for Health Information Technology has responsibilities that cut across health care delivery sectors to facilitate the adoption of electronic health records and to enable the private and secure transfer of personal health information among sectors.

### *Budget*

The MHCC's budget for FY 2014 is \$31,328,930, of which Operations account for 40 percent, including 62 permanent staff positions. The remaining 60 percent of the projected budget is allocated to MHCC initiatives: the Maryland Trauma Physician Services Fund, used to compensate physicians for providing uncompensated care to uninsured trauma patients; the Maryland Emergency Medical System Operations Fund; the Health Care Coverage Fund/Maryland Health Insurance Partnership Program, a health insurance subsidy program for micro employers; and Health Information Technology Initiatives.

### *Collaboration with HSCRC on Model Implementation*

Collaboration between MHCC and the HSCRC is statutorily mandated on four primary health system functions and these formal responsibilities are reinforced through longstanding and routine collaboration: 1) health system planning, 2) performance and quality reporting, 3) payment and delivery reform and 4) health information technology adoption.

### *Health System Planning*

MHCC's longstanding collaboration with HSCRC is anchored in health system planning. MHCC routinely consults with HSCRC when developing policies and standards contained in the State Health Plan for Facilities and Services ('State Health Plan') which addresses acute care general hospitals and other providers of acute and ambulatory care services. The SHP provides the foundation for Maryland's approach to determining the need for additional inpatient and ambulatory surgical services. MHCC also plans for specialized hospital services in the areas of cardiac surgery and percutaneous coronary intervention (PCI), organ transplant, neonatal intensive care, and burn intensive care services.

The Certificate of Need (CON) program, administered by MHCC, involves the regulation of the supply and distribution of certain types of health care facilities and services, including hospitals. By regulation, MHCC currently considers the following criteria in reaching its decision: need, cost-effectiveness, viability, and the impact of proposed projects. In general, the following types of capital projects require CON approval by MHCC before they can be implemented:

- Establishment, relocation or a change in the bed capacity of a health care facility.
- An increase in the number of operating rooms in a general hospital.
- Introduction of hospital-based cardiac surgery, percutaneous coronary intervention, organ transplantation, burn intensive care services, acute medical rehabilitation, or neonatal intensive care services by an existing health care facility.
- A capital expenditure by or on behalf of a health care facility, for any purpose, that exceeds a threshold established in law. Currently, that threshold for 2013 is \$11.35 million for hospitals (annually adjusted for inflation).

The CON program would support the success of the Maryland All-Payer model by considering the goals and objectives of the model in its decisions to approve or deny health care facility projects by requiring health care facilities to demonstrate that their projects are viable without reliance on continually growing service volume. This can be achieved formally, through State Health Plan regulation, and informally, through the information obtained in project reviews.

### *Performance and Quality Reporting*

MHCC annually reports Process of Care Quality, Outcome and HCAHPS measures to the public on the Hospital Performance Evaluation Guide (HPEG) website. MHCC and HSCRC collaborated closely on the selection of the quality process measures in the development of the HSCRC Quality-Based Reimbursement (QBR) program. In the QBR initiative, HSCRC adjusts hospital reimbursement rates depending on each hospital's achievement or improvement on specified quality-of-care measures. The QBR measures are aligned with process of care and HCAHPS measures reported on the HPEG. MHCC and HSCRC continue to align their measures used for reporting and payment adjustments with the process, outcome and HCAHPS measures used by the CMS IHQR and VBP programs.

### *Payment and Delivery System Reform*

High-quality primary care is one key to achieving the savings necessary to succeed under new payment mechanisms envisioned under the Maryland All-Payer Model. In 2010, MHCC was

charged by the Maryland General Assembly to establish a program that promotes the development of patient centered medical homes by adopting standards, forms and processes with consultation of stakeholders. Since the inception of the pilot program, 'Maryland Multi-Payer Patient Centered Medical Home,' or 'MMPP,' in 2011, 52 practices achieved NCQA Patient-Centered Medical Home (PCMH) Recognition, with two-thirds of the practices achieving Level II or III, and all submitted quality measure data to the MHCC using electronic health records or registries. The Shared Savings Methodology, for participating practices and commercial health insurance carriers, was confirmed using 2009-2010 data and in the first year of the program, 23 of the 50 practices met all requirements for shared savings and were able to lower the total costs of care for privately insured patients attributed to the practices.

### *Health Information Technology Adoption*

MHCC and HSCRC have worked collaboratively in planning the establishment of a statewide health information exchange for Maryland hospitals. HSCRC provided \$10 million in initial grant funding for the Chesapeake Regional Information System for Our Patients (CRISP), the organization designated by the state to develop a Maryland-wide health information exchange. MHCC provides ongoing technical direction and oversight to CRISP and provides guidance to hospitals in developing community-based health information exchange.

All 46 acute care and two specialty hospitals in the state have established a connection to CRISP and currently send admission, discharge, and transfer data. Forty-two hospitals in Maryland are now exchanging select clinical information through CRISP. Providers are now able to receive alerts when patients are in the hospital through CRISP's Encounter Notification System (ENS), which provides real-time patient information to primary care and other community providers that participate in the ENS service. The information is securely sent electronically to a provider and enables them to be aware of their patients' condition and plan for care after discharge.

### *Data Contributions to Model Implementation*

#### ***Hospital Performance Evaluation Guide (HPEG)***

MHCC's Hospital Performance Evaluation Guide (HPEG) enables users to review information on various hospital facility characteristics and performance measures. Hospital characteristics include the location of the hospital, number of beds, services provided, and accreditation status. Users are able to compare the volume and average length-of-stay for fifty high-volume common medical conditions (All Patient Refined Diagnosis-Related Groups (APR-DRGs) by APR-DRG for each hospital. The HPEG also includes performance data on process of care measures endorsed by the National Quality Forum (NQF), and adopted by the Centers for Medicare and Medicaid Services (CMS), the Joint Commission, and the Hospital Quality Alliance that address hospital compliance with evidence-based standards for the treatment of Acute Myocardial Infarction (AMI), Heart Failure (HF), Pneumonia (PN), Childhood Asthma Care (CAC) and surgical patients (SCIP), including the prevention of surgical site infections.

#### ***Medical Care Database (MCDB)***

The Maryland Medical Care Data Base (MCDB) is an all-payer claims database that has been developed by MHCC to support analyses of health care spending and the utilization of services.



Almost all fully-insured and a majority of self-insured claims are submitted to the data system. The database currently reflects the experience of 3.1 million privately insured and 720,000 Medicare beneficiaries. Claims for professional services and pharmacy have been submitted by commercial carriers and Medicare under Data Use Agreements (DUAs) with CMS for more than a decade. Eligibility records and claims for institutional care services were added in 2009. The MHCC plans to expand data collection for the MCDB to include Medicaid data over the next few years, as well as data from all qualified health and dental plans approved to participate in Maryland's Health Benefit Exchange.

### ***Provider Performance Measurement Initiative***

One key use of the Maryland MCDB will be analyzing claims for a new Provider Performance Measurement initiative that MHCC is developing. This initiative involves merging claims data from public & private insurers, including the integration of Medicare claims. Maryland is in the process of applying for Qualified Entity certification from CMS and a state agency DUA to receive Medicare data quarterly.

Initially, MHCC plans to use accepted quality measures; however, the goal is to produce clinician cost and utilization measure results for use by physicians, payers, patients, and other stakeholders. These latter alternative measures will be developed in collaboration with stakeholders through newly-created workgroups. MHCC currently provides HSCRC with access to the privately insured data in the MCDB and will be sharing the results of the Provider Performance Measurement program with HSCRC for use in waiver model development and assessment.

### ***All-Resident Analysis Summary File (RASF)***

MHCC, HSCRC, Medicaid, and representatives from the Maryland Hospital Association, private payers, local health departments, and academic researchers have begun planning for the development of an all resident analysis summary file (RASF) similar to CMS's Beneficiary Summary File (BSF). The RASF, when fully implemented, will contain detailed insurance information, utilization data, and quality metrics for all Maryland residents. The RASF will be a key data construct to support the Maryland All-Payer Model by enabling HSCRC to more broadly examine trends in per capita spending for the entire Maryland population.