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Introduction

The State of Maryland is leading a transformative effort to improve care and lower healthcare spending growth through the Maryland Total Cost of Care (TCOC) Model. The TCOC Model builds on the successes of the All-Payer Model, a 5-year demonstration project with the Centers for Medicare and Medicaid Services (CMS), which began January 1, 2014 and ended December 31, 2018. The TCOC Model, which began in January 2019, will progressively transform care delivery across the health care system with the objective of controlling total healthcare costs, improving health and quality of care.

The TCOC Model serves as the central focus in this Monitoring Maryland’s All-Payer and Total Cost of Care Model Biannual Report. This biannual report, prepared in accordance with Section 19-207(b)(9) of the Health-General Article of the Annotated Code of Maryland (MSAR #10266), includes:

- An overview of performance under the All-Payer Model during 2014-2018
- An overview of the new TCOC Model and implementation activities
- Performance under the TCOC Model from January 1, 2019 through June 30, 2019
- An update other HSCRC activities, including care transformation efforts, stakeholder engagement, and rate setting methodology development

Section I: Overview of Total Cost of Care Model and Key Requirements

Performance under the All-Payer Model (2014-2018)
The All-Payer Model (APM) contained measurements that reached across the payer and provider system. The following is a description of the targets that Maryland was required to meet by the end of 2018.

Total Hospital Per Capita Cost Growth – Target Achieved
The APM Agreement required that the State limit the average annual growth in all-payer hospital per capita revenue for Maryland residents to 3.58 percent. By measuring hospital revenue growth on a per capita basis, this measure reflects hospitals costs for the average Marylander. Success on this measure, therefore, is an important indicator as the State strives to deliver higher-value care in hospitals, while constraining the growth of hospital costs, regardless of payer. Per capita revenue for Maryland residents grew at a rate more than one percent below that target for all years of the Model except 2017, so that by the end of the Model the average annual growth rate was 2.03 percent—well below the 3.58 percent target in the Model.

Aggregate Medicare Savings - Target Achieved
The APM Agreement required the State to save Medicare at least $330 million in hospital expenditures over the five years of the Agreement. Cumulatively, Maryland realized $1.4
billion in hospital savings throughout the five years of the APM—an additional $1.07 billion in savings to Medicare beyond the Model requirement.

**Shifting from a Per-Case Rate System to Global Budgets - Target Achieved**
The APM Agreement also required that Maryland transition at least 80 percent of hospital revenue to global- or population-based budgets by 2018. Within the first year of the Model, 95 percent of the State’s regulated hospital revenue had transitioned to global budgets. By CY 2016, 98 percent of Maryland’s regulated hospital revenues were contained within global budget structures and all of Maryland’s regulated hospitals operate under Global Budget Revenue (GBR) agreements. The remaining two percent of non-GBR revenue accounts for drug costs, which are funded based on volume.

**Reducing the Hospital Readmission Rate among Medicare Beneficiaries - Target Achieved**
HSCRC policies have focused on reducing hospital inpatient readmission rates since 2011. The APM Agreement required Maryland’s hospital readmission rate for Medicare fee-for-service (FFS) beneficiaries to be at or below the national readmission rate by the end of 2018. Maryland successfully reduced its readmissions rate to below the national average by substantially reducing the rate over the course of the APM. At the beginning of the APM, the Maryland readmission rate was 1.22 percentage points higher than the nation (Maryland: 16.60 percent; Nation: 15.38 percent). By the end of the Model, the Maryland Medicare FFS Readmission Rate was 0.05 percentage points lower than the National Medicare FFS Readmission Rate (Maryland: 15.40 percent; Nation: 15.45 percent).

**Cumulative Reduction in Hospital Acquired Conditions - Target Achieved**
Under the APM, Maryland hospitals were required to achieve a 30 percent cumulative reduction in Hospital Acquired Conditions (HACs) by 2018. Maryland measures HACs using a list of potentially preventable complications (PPCs). PPCs are defined as post-admission harmful events (e.g. accidental laceration during a procedure) or negative outcomes (e.g. hospital-acquired pneumonia) that may result from the process of care and treatment rather than from a natural progression of underlying disease. Maryland hospitals reduced prevalence of these conditions by 51 percent — well above the Model requirement.

**Medicare Savings and Total Cost of Care Performance – Target Achieved**
Under the APM Agreement, the total cost of care growth for Maryland Medicare beneficiaries could not exceed the national growth rate by more than one percent in any given year and could not exceed the national growth in any amount for two consecutive years. During the five years of the APM, Maryland was in compliance with these guardrail targets and produced a cumulative $869 million in Medicare total cost of care savings.

**Goals Established by the Total Cost of Care Model (2019-2028)**
While the APM focused primarily on hospitals, the Total Cost of Care (TCOC) Model focuses on transforming care across the entire healthcare system. The Model began on January 1, 2019,
and will continue through 2028, so long as Maryland meets the Model’s performance requirements. These include both spending, quality, and population health improvements.

Healthcare Spending under TCOC Model
The TCOC Model continues the per capita all-payer hospital growth limit requirement from the APM and sets new, more ambitious TCOC savings targets. The two key spending requirements under the Model are:

- Average annual hospital cost growth per capita must stay at or below 3.58 percent.
- The State must build up to $300 million in savings for Medicare total cost of care spending on Medicare Part A and Part B (hospital and non-hospital) annually by the end of 2023, and maintain those annual savings through the end of the Model (2028).

Quality Measures and Population Health under TCOC Model
The State must make reductions in healthcare cost growth without backtracking on hospital quality measures for the remainder of the Model (through 2028). Additionally, Maryland must identify population health priorities and develop health improvement goals. The State must develop robust methodologies for at least three population health priorities, and propose their approach to CMS for approval. These areas of focus should align with the Statewide Integrated Health Improvement Strategy, discussed in Section IV.

Strategies for Success
To support these savings and health improvement goals, the Model allows Maryland to do the following:

- Expand statewide and hospital-specific total cost of care accountability for Maryland Medicare fee-for-service beneficiaries, managed through adjustments to hospital rates via the Medicare Performance Adjustment.
- Broaden incentives for healthcare providers to participate in voluntary programs that leverage federal programs and align efforts to improve care and care coordination.

Moving forward, hospitals must strengthen partnerships with non-hospital providers to reduce healthcare spending and improve quality across the healthcare system. While the HSCRC will continue to only regulate hospital rates, HSCRC staff are developing and expanding value-based payment opportunities for non-hospital providers. Maryland will only reach the TCOC Model targets if all providers in the healthcare system work together to transform care.

Section II: Total Cost of Care Performance (January – June 2019)
Maryland met all financial and quality targets under the APM Agreement. Under the new Model, the State must continue to perform positively and meet the new healthcare spending requirements to control total hospital per capita growth and achieve TCOC Medicare savings. The information below contains data showing Maryland’s positive performance during the first six months of the TCOC Model.
Total Hospital Per Capita Cost Growth
The Maryland TCOC Model agreement requires the State to limit the average annual growth in all-payer hospital per capita revenue for Maryland residents to a 3.58 percent growth rate. This number is based on the average growth in per capita gross state product (GSP) for the period 2002 through 2012. Continuing the favorable performance under the APM, the CY 2019 per capita revenue for the first six months under the TCOC Model was 1.01 percent. Additionally, the CY 2019 Medicare FFS per capita also had favorable results with a 2.11 percent decline over the first six months of CY 2018.

Medicare Savings and Total Cost of Care Performance
Under the TCOC Model, the TCOC growth for Maryland Medicare beneficiaries may not exceed the national growth rate by more than one percent in any given year and may not exceed the national growth for two consecutive years. Additionally, Maryland must build to an annual $300 million in TCOC savings by the fifth year of the Model (CY 2023).

Maryland successfully achieved cumulative total cost of care savings of $869 million over the five years of the APM. In the last year of the APM alone, Maryland reached $273 million in TCOC savings. The TCOC Model builds off of this progress with preliminary data through June 2019 showing TCOC savings of $298 million, a $25 million increase over 2018 performance.

Maryland continues to perform favorably when compared to the nation in both hospital and total cost of care spending per capita. Non-hospital spending per capita shows excess growth when compared to the nation, specifically Part B spending. While an increase in non-hospital growth is to be expected as services move from hospital-settings to non-hospital settings, it is important this growth not substantially offset savings achieved in hospital spending and total cost of care. These trends continue to be monitored on a monthly basis.

The following figures represent actual growth trends from CY 2014 through June 2019. The trend measures growth for the current calendar year month versus the prior calendar year month.
Monitoring of Maryland’s All-Payer and Total Cost of Care Model

**Figure 1. Total Cost of Care per Capita, CY 2014-June 2019**

Source: CMMI Monthly Data Reports to CMS

**Figure 2. Medicare Hospital Spending per Capita, CY 2014- June 2019**

Source: CMMI Monthly Data Reports to CMS
**Policies influencing Financial Performance and TCOC**

**Medicare Performance Adjustment (MPA)**

The HSCRC implemented the Medicare Performance Adjustment (MPA, also referred to as MPA Traditional) to assist the State in the transition to the TCOC Model, which focuses on controlling TCOC (both hospital and non-hospital costs). The MPA adjusts hospital Medicare payments based on Medicare TCOC performance. Commissioners voted on the initial policy in November 2017 to allow for a January 2018 implementation date, with payment adjustments that began in July 2019 (Rate Year 2020) and will continue into RY 2021 (July 2021–June 2022). Based on hospital performance in CY 2019 for the RY 2021 adjustment, these adjustments are net positive payments to hospitals given favorable TCOC performance across the State. The TCOC Workgroup, described in Section VI of this report, worked throughout 2019 to refine the MPA methodology and guide implementation in CY 2020 and future years. Commissioners approved the MPA Year 3 policy in November 2019, which will impact Medicare payment adjustments for RY 2022 (July 2021 – June 2022).

**Update Factor**

The Update Factor policy is a revenue update that incorporates both price and volume adjustments for hospital revenue under Global Budget Revenues (GBR). In considering the system-wide update for hospitals with global budget revenues under the TCOC Model, HSCRC staff sought to achieve balance among the following conditions: meeting the requirements of the TCOC Model agreement; providing hospitals with the necessary resources to keep pace with changes in inflation and demographic changes; ensuring that hospitals have adequate resources to invest in the care coordination and population health strategies necessary for long-term success under the TCOC Model; and incorporating quality performance programs.
Monitoring of Maryland’s All-Payer and Total Cost of Care Model

(discussed in Section III). The FY 2020 update policy was implemented on July 1, 2019. The Commission adopted the following policies as a part of the FY 2020 Update Factor:

- Provide an overall increase of 3.59 percent for revenue (inclusive of an uncompensated care increase and deficit assessment reduction), resulting in a 3.28 percent per capita revenue increase for hospitals under Global Budgets
- Allocate 0.19 percent of the total inflation allowance to high cost outpatient oncology and infusion drugs, providing a 10 percent increase based on the amount each hospital reported for estimated cost and utilization for the top 80 percent of these drugs for RY 2020
- Provide a conditional additional allowance to the two major Academic Medical Centers of one percent for growth in high cost inpatient procedures and intensity for RY 2020
- Prospectively reduce Global Budgets by 0.30 percent statewide for Potentially Avoidable Utilization.

The Commission will continue to closely monitor performance targets for Medicare, including Medicare’s growth in TCOC and Hospital Cost of Care per beneficiary during the performance year. As always, the Commission has the authority to adjust rates as it deems necessary.

MPA Framework
The HSCRC introduced the Medicare Performance Adjustment Framework (MPA Framework) policy in the September 2019 Commission meeting. The MPA Framework will be used to ensure that the State meets the Medicare savings targets in the TCOC Model Agreement, while also incentivizing hospitals to engage in Care Transformation Initiatives (CTIs). CTIs are programs implemented by hospitals to reduce cost and improve quality of care across all sites of service (also discussed in Section V). In order to accomplish these goals, the HSCRC’s MPA Framework recommendation includes the potential use of both (1) a positive adjustment to Medicare payments to reward hospitals that produce total cost of care savings through care transformation and (2) negative adjustments to Medicare payments, if such adjustments are needed to help the State achieve the TCOC Model’s Medicare savings requirements.

In addition, an offset to the positive payments for care transformation is included. This offset penalizes hospitals that are not pursuing successful CTIs. The combination of rewards and penalties ensures that both Medicare and successful hospital participants receive savings while non-contributing hospitals are penalized.

The MPA Framework Policy was approved by Commissioners in the October 2019 Commission meeting. The policy outlines the link between the MPA Framework and care transformation activities and further highlights the mechanics of the MPA Framework with other Commission policies including the Update Factor policy. The policy concludes that no negative adjustment to rates is required for the first half of 2020 given the State’s current favorable Medicare savings run rate ($298 million through June 2019).
Section III: Hospital Quality Programs and Performance

Maryland continues to be a national leader in implementing innovative hospital payment systems to achieve the goals of cost containment, access to care, equity in payment, financial stability, and quality improvement. Maryland’s achievements in recent years have resulted in hospital pay-for-performance programs that are broader than corresponding federal programs in design and scope, and that encompass a robust set of performance measures with strong emphasis on all-payer patient outcomes. Maryland has steadily expanded the magnitude and scope of its quality payment reform initiatives since 2008. Maryland’s hospital quality initiatives are part of a comprehensive set of emerging healthcare delivery reform efforts and activities in the State to achieve the three-part aim of better care for individuals, better health for populations, and reduced expenditures for all patients.

Each of the quality-based payment programs places hospital revenue at-risk for meeting performance targets. These programs provide strong incentives for hospitals to continuously improve quality performance. The hospital quality-based payment programs are listed below and are described in the subsections that follow.

- Quality-Based Reimbursement (QBR) Program
- Maryland Hospital Acquired Conditions (MHAC) Program
- Readmission Reduction Incentive Program (RRIP)
- Potentially Avoidable Utilization (PAU) Shared Savings Policy

Quality-Based Reimbursement (QBR) Program

Established in FY 2010, the QBR program adjusts hospital payments based on their performance on a number of quality-of-care measures. These include clinical care measures, patient experience of care measures, and safety measures. Each domain is then weighted to determine hospitals’ final scores on the program (Figure 4).

![Figure 4. QBR Measure Domain Weights for FY 2020/FY 2021](image)

In the FY 2021 policy update, the HSCRC maintained the measurement domains and weights from the FY 2020 policy to be as consistent as possible with the CMS Value-Based Purchasing (VBP) Program, while also targeting areas of needed improvement. In FY 2021, the amount of total hospital revenue at-risk for scaling was held to a two percent maximum penalty. Since the scaling of rewards and penalties was expanded, the maximum reward was correspondingly maintained at two percent. Maryland does not include an efficiency measure as part of the QBR Program, but it does apply a Potentially Avoidable Utilization (PAU) savings adjustment to
hospital global budgets, and evaluates Medicare payments based on hospitals’ total cost of care performance under the MPA.

Since FY 2019, the QBR reward and penalty adjustments to global budgets has been determined based on a preset scale rather than relatively ranking hospital performance and penalizing those with less than average performance. This change was designed to provide hospitals with predictable revenue adjustments and predetermined quality improvement targets.

Maryland’s QBR program is similar in design and detail to the federal Medicare Value-Based Purchasing Program. Data trends for the most recently available FY 2020 performance period (October 2017-September 2018) suggest that:

- For the healthcare-associated infection measures in the Safety domain, Maryland is performing on par with or better than the national Standardized Infection Ratios (SIR) of 1 established for the nation in 2015 for all measures except Surgical Site Infection (SSI) after hysterectomy surgery. However, the nation currently outperforms Maryland on all measures, with exception of the Catheter-Associated Urinary Tract Infection (CAUTI) measure where Maryland performs better and is generally improving at a faster pace, as illustrated in Figure 5 below.

**Figure 5. Maryland-Nation NHSN HAI Weighted Average SIRs (RY 2020)**

Source: CMS Hospital Compare Data
• Maryland is performing slightly better than the nation on three of the six condition-specific mortality measures, according to most recently available data, as illustrated in Figure 6.

**Figure 6. Maryland-Nation 30 Day Mortality Measure Rates**

*Condition-Specific Mortality Measures: Maryland vs. National (Weighted Averages)*

*Data Source: Hospital Compare*

*Timeframe: Jul2015 - Jun2018*

Source: CMS Hospital Compare

• Maryland continues to lag behind the nation in performance on the Hospital Consumer Assessment of Healthcare Providers and Systems (HCAHPS) patient experience measures (Figure 7). HSCRC staff remain concerned about Maryland HCAHPS performance. In the FY 2018 QBR policy, the HSCRC increased the weighting of the HCAHPS measures in determining hospitals’ overall scores in order to incentivize improvement in patient satisfaction, and has kept this domain weighting through the FYs 2019, 2020 and 2021 policies.
Readmission Reduction Incentive Program (RRIP)

The APM Agreement required Maryland’s hospital readmission rate for Medicare FFS beneficiaries to be at or below the national readmission rate by the end of 2018, which Maryland successfully achieved. When the APM concluded in December 2018, the Maryland Medicare FFS Readmission Rate was 0.05 percentage points lower than the National Medicare FFS Readmission Rate (Maryland: 15.40 percent; Nation: 15.45 percent). In 2019, Maryland is working to match or exceed any additional improvement that the nation experiences in order to maintain the State’s achievements under the APM. Data through April 2019 suggest that Maryland has maintained its improvement relative to the Nation thus far in 2019, with Maryland readmissions at 15.27 percent compared to the national rate of 15.44 percent (Figure 8).
Additionally, HSCRC’s hospital data show that the monthly case-mix adjusted readmission rate through June 2019 continues to improve when compared to CY 2016 (Figure 9). This analysis includes all Maryland inpatient stays, including Medicare FFS. Based on these HSCRC data, the all-payer, case-mix adjusted readmission rate in CY 2019 YTD through June was 11.08 percent, compared to 11.96 percent in CY 2016—a 7.38 percent reduction. The corresponding readmission reduction for Medicare FFS beneficiaries was slightly higher at 8.16 percent. This reduction is significant given the difficulty and time involved in reducing readmissions, as it requires sustained effort, investment, and coordination across providers.

**Figure 9. Case-Mix Adjusted Readmissions in Maryland, CY 2016- CY2019 YTD Jun**

<table>
<thead>
<tr>
<th>Case-Mix Adjusted Readmissions</th>
<th>All-Payer</th>
<th>Medicare FFS</th>
</tr>
</thead>
<tbody>
<tr>
<td>CY 2016 YTD Jun</td>
<td>11.96%</td>
<td>12.92%</td>
</tr>
<tr>
<td>CY 2019 YTD Jun</td>
<td>11.08%</td>
<td>11.86%</td>
</tr>
<tr>
<td>CY 16-19 YTD Improvement</td>
<td>-7.38%</td>
<td>-8.16%</td>
</tr>
</tbody>
</table>

In the RY 2020 and 2021 policies, hospitals continue to be measured based on improvement and attainment. To help readmission reduction efforts, the HSCRC continues to improve its readmission reporting capability by leveraging resources available in the state Health Information Exchange (HIE) and providing timely, monthly, and patient-specific data to hospitals. During CY 2019, the State is working with hospital quality experts and other measurement subject-matter experts to update the readmission policy and monitor for unintended consequences in order to sustain hospital readmissions improvements.

**Maryland Hospital Acquired Conditions (MHAC) Program**

Maryland measures Hospital Acquired Conditions (HACs) using a list of potentially preventable complications (PPCs). PPCs are defined as post-admission harmful events (e.g. accidental laceration during a procedure) or negative outcomes (e.g. hospital-acquired pneumonia) that may result from the process of care and treatment rather than from a natural progression of underlying disease. The MHAC program calculates hospital rewards and penalties for case-mix
adjusted rates of PPCs. Specifically, these calculations use observed-to-expected ratios as the basis of the measurement for all PPCs, converts the individual PPC performance into a standardized score, and then uses a preset scale to determine penalties and rewards.

By the end of the APM, Maryland achieved a 51.50 percent reduction in all-payer, case-mix adjusted PPC rates, far exceeding the required 30 percent reduction requirement. The reduction in the case-mix adjusted complication rate for Medicare FFS was slightly higher at 53.03 percent. (Figure 10). The HSCRC hopes to build on the State’s commendable work under the APM by further incentivizing hospitals to reduce hospital-acquired infections and complications under the TCOC Model. In CY 2018, the HSCRC convened a subgroup of clinical and measurement experts to redesign the MHAC program under the TCOC Model (beginning CY 2019). Based on recommendations from the staff and subgroup, the Commission approved a revised policy that focuses on a narrowed down list of clinically recommended PPCs that in general have higher statewide rates and variation across hospitals. The updated policy also rewards hospitals for achieving low PPC rates rather than rewarding them for improving PPC rates over time. Based on CY 2019 YTD data through June, there has been an 18 percent reduction in the PPCs rates in CY 2019 compared to the same 6-month time period in CY 2018. Staff will continue to monitor the impacts of the revised MHAC policy as more data becomes available.

Figure 10. Case-Mix Adjusted PPC Rates in Maryland, CY 2014 – CY 2018

Note: Line graph based on v32 prior to October 2015; and v35 October 2015 to December 2018; all data are final, but are subject to validation.
Potentially Avoidable Utilization (PAU) Savings Program

The HSCRC adopted a final PAU Savings policy for FY 2020 as part of the FY 2020 Update Factor at its June 2019 Commission meeting. The PAU Savings policy includes savings realized from readmissions reductions as well as savings that should be realized from reducing avoidable admissions as defined under the Agency for Healthcare Research and Quality (AHRQ) Prevention Quality Indicator (PQI) logic. For FY 2020, the Commission implemented an incremental prospective savings requirement of 0.30 percent of total hospital revenue, which is distributed based on a hospital’s share of revenue deemed to be potentially avoidable.

Section IV: Population Health

Statewide Integrated Health Improvement Strategy

Under the TCOC Model, Maryland must propose population health priorities and improvement goals to CMS. To realize these substantive improvements in the identified population health areas, the HSCRC, in partnership with the Maryland Department of Health (MDH) and various other State agencies, are developing a Statewide Integrated Health Improvement Strategy (SIHIS). The SIHIS aims to align stakeholders across the State to address top population health goals through achieving consensus on priorities and developing a shared action plan to tackle these challenges. To date, the State has achieved alignment around two population health goals: diabetes and opioid use reduction. The third population health priority will be presented to CMS no later than December 2020.

Diabetes

Slowing or reducing the growth in diabetes incidence represents a huge opportunity for the State. Type 2 Diabetes is a high-burden, high-cost condition that is avoidable with medical, lifestyle, and other interventions. Maryland is projected to spend $9.6 billion annually on diabetes-associated health care by 2020 and $11.1 billion by 2025. ¹ Nearly 490,000 Maryland adults were estimated to have diagnosed diabetes in 2017. ² ³

Importantly, a reduction in diabetes incidence represents a statewide opportunity to improve health equity as acknowledged in nearly all community health needs assessments and hospital community benefit reports. Successful interventions can promote healthy lifestyles, address economic barriers to adequate health care, and improve primary care access. HSCRC is working to incentivize hospitals to work with community partners, including local health departments and other healthcare focused organizations, to prevent diabetes, which will ultimately help hospitals under the TCOC Model.

In July 2019, Maryland received approval of an outcomes-based credit (OBC) for aversion of diabetes incidence, the first of at least three eventual OBC methodologies that will be submitted to CMS. Under the OBC methodology, if fewer Marylanders than expected are newly diagnosed with diabetes in a given year, the State will be eligible to receive a financial credit that will help the State meet its TCOC savings targets.

**Opioids**

Maryland continues a statewide focus on addressing the State’s opioid epidemic. These efforts have led to promising results, with the first half of 2019 marking the State’s first six-month decline in the total number of opioid-related fatalities in over a decade. However, there are still thousands of Marylanders dying from opioid overdoses each year and thousands more suffering from opioid use disorder. The misuse and addiction to opioids is a public health crisis as well as an economic crisis, with increased costs in healthcare, lost productivity, and criminal justice involvement. Recognizing the impact of opioid misuse on the healthcare system, the HSCRC is evaluating approaches to calculate future health system savings that can be recognized with improvement in opioid use. Under this type of outcomes-based approach, CMS would credit the State with financial credit for federal TCOC Model investments if Maryland can make progress on an opioid-related metric. The credit will enable hospitals to invest additional dollars into opioid use prevention and treatment as part of their global budgets, which may be reinforced with additional pay-for-performance measures related to substance use.

**Section V: Care Transformation**

While the APM focused primarily on improving care and controlling costs within hospitals, the new TCOC Model requires care transformation across the healthcare continuum. Hospitals, physicians, post-acute providers, and other provider types are expected to work together to improve the health of Marylanders and control healthcare spending. Additionally, the Model creates opportunities for healthcare providers to drive innovation in the system and lead transformation efforts. To encourage these efforts, the HSCRC is designing tools that incentivize providers to implement best practices and achieve savings and quality improvements for the system.

**Provider Alignment Programs**

A key strategy to achieving the goals of the TCOC Model is implementing care redesign strategies to provide hospitals and other providers with new tools and resources to better meet the needs of patients and improve population health. To achieve this, the HSCRC designs, operates, and supports various provider alignment programs to incentivize collaboration between providers, drive quality improvement throughout the system, and achieve cost savings.

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Care Redesign Program (CRP)
The Maryland Care Redesign Program (CRP) aims to support effective care management and population health activities, deliver high quality, efficient, well-coordinated episodes of care, and improve care for high and rising-risk populations. The State currently operates three care redesign tracks: the Hospital Care Improvement Program (HCIP), the Complex and Chronic Care Improvement Program (CCIP), and Episode Care Improvement Program (ECIP). The Chesapeake Regional Information System for our Patients (CRISP) serves as the administrator of CRP.

HCIP is designed to facilitate care improvement and efficiency within hospitals. The main goals of the track are to improve inpatient medical and surgical care delivery, provide effective transitions of care, reduce potentially avoidable utilization, and encourage the effective management of inpatient resources.

CCIP, which will end December 2019, was initially developed to serve as a vehicle for hospitals to transition to the Maryland Primary Care Program (MDPCP). The track supports collaboration between hospitals and community physicians to improve care for complex and chronic patients. The track aims to strengthen primary care supports to reduce avoidable hospital utilization, enhance care management tools, and facilitate practice transformation towards person-centered that improves health outcomes.

The Episode Care Improvement Program (ECIP) allows hospitals to link payments to providers across certain clinical episodes of care. The track is modeled off of CMS' Bundled Payments for Care Improvement Advanced (BPCI-Advanced) program. This episode payment approach aligns incentives across hospitals, physicians, and post-acute care facilities to generate savings and improve quality through better care management during episodes, eliminating unnecessary care, and reducing post-discharge emergency department visits and hospital readmissions.

As of July 2019, there was a total of 42 unique participants across all tracks, with 40 hospitals participating in HCIP, 16 hospitals participating in ECIP, and 2 hospitals participating in CCIP. Participation in CCIP declined significantly in 2019 as hospitals transitioned to the Maryland Primary Care Program (MDPCP). In February 2019, HSCRC notified CMMI of the intent to end CCIP at the end of 2019.

The HSCRC continues to explore options for additional CRP tracks to support hospital and provider alignment based on stakeholder interest and policy needs.

Episode Quality Improvement Program (EQIP)
The HSCRC is currently working on the design and scope of a new program under the TCOC Model, called the Episode Quality Improvement Program (EQIP). This program will engage non-hospital providers in a bundled payment program custom to Maryland. EQIP will offer Maryland providers the opportunity to coordinate care through clinical episodes focused on increasing accountability for patients throughout specific disease courses and treatments. Providers will elect to have their reimbursement altered by Medicare to reward or penalize performance on improving quality and reducing costs of care. HSCRC continues to work with CMS to move EQIP
through the approval process, with a targeted program start in January 2021. Throughout 2020, the HSCRC plans to disseminate information on EQIP and solicit provider and industry feedback through workgroups and other ad-hoc research.

**Maryland Primary Care Program (MDPCP)**

Maryland is also continuing efforts to implement the Maryland Primary Care Program, which is voluntary to all qualifying Maryland primary care providers and provides funding and support for the delivery of advanced primary care throughout the State. The MDPCP supports the overall health care transformation process and allows primary care providers to play an increased role in prevention, management of chronic disease, and preventing unnecessary hospital utilization. While the MDPCP Program Management Office (PMO) operates under MDH, the HSCRC provides support as needed.

Currently, there are 376 practices participating in the program with 220,000 attributed beneficiaries. These practices engage approximately 1,500 primary care providers across all 24 Maryland counties. An additional 150 practices have applied to participate in MDPCP in 2020.

A key component of the MDPCP are Care Transformation Organizations (CTOs) which formed to support physician practices. CTOs provide technical support and resources to physician practices, such as certified electronic health record technology (CEHRTs), data analytics, and care management staff. There are currently 21 CTOs, approximately six per county, 14 of which are hospital-based. An additional three CTOs have been preliminarily approved to participate in 2020.

**Regional Partnerships Grant Program**

The [HSCRC Regional Partnership Grant Program](#) was created in 2016 to enable diverse hospitals and community stakeholders to work together on interventions designed to improve population health. In FY 2017, the Commission awarded $36.5 million to 14 hospital partnerships to focus on improving care coordination for high-utilizer and high-risk Medicare patients and reduce potentially avoidable hospital utilization. Regional partnerships include hospitals, local health departments, provider organizations, faith-based organizations, and other community-based organizations. The 14 Regional Partnerships are geographically dispersed across Maryland and serve both rural and urban areas of the State. Over the duration of the program, the most common interventions across Regional Partnerships have been care transitions and coordination, behavioral health integration, patient engagement and community education, and home-based care. The current Regional Partnership Program is scheduled to end June 30, 2020. A new version of the grant program called the Regional Partnership Catalyst Grants will begin on January 1, 2021.

As the State continues under the TCOC Model, the HSCRC continues to look for opportunities to build upon the successes of the current Regional Partnership structure and increase alignment

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5 In previous reports submitted by the HSCRC, this program was referenced as Transformation Implementation Awards.
with the goals of the TCOC Model. The future Regional Partnership Catalyst grants will be
directed towards the two population health goals identified under the Statewide Integrated
Health Improvement Strategy (SIHIS): diabetes and behavioral health crisis programs. Staff are
currently designing a framework to encourage much needed investment in these areas and
plan to conduct a competitive rebid process in CY 2020 in order to issue awards by January
2021.

Care Transformation Initiatives (CTIs)
Under the TCOC Model, HSCRC staff are beginning to evaluate hospital efforts to address
specific patient population needs, defined as Care Transformation Initiatives (CTIs). CTIs will
develop systematic understanding of best practices for improving care, account for the savings
and improvements attributed to care transformation, incentivize initiatives that produce
savings under the TCOC Model, and articulate Maryland’s success stories in transforming care.
Assessing CTIs will help to delineate the level of effort each hospital is undertaking in the
correct investments for system success to inform revenue distribution and policy incentives.
Successful CTIs will reward hospitals through the MPA Framework outlined in Section II of this
report. HSCRC staff are currently soliciting industry feedback and further developing the policy
which is set to begin July 2020.

Section VI: Stakeholder Engagement
Stakeholder engagement is key to the implementation and success of the TCOC Model. The
HSCRC has made significant efforts to be as transparent as possible in its initiatives and policy
developments by making these workgroup meetings open to the public and by posting the
meeting materials online.

HSCRC Workgroup Activities
The HSCRC workgroup process is considered a model for stakeholder engagement in major
policy endeavors. The HSCRC has made significant efforts to be as transparent as possible in its
initiatives and policy developments by making these workgroup meetings open to the public and by posting the meeting materials and recordings on the HSCRC’s website. HSCRC standing
workgroup activities are provided below.

Payment Models Workgroup
The Payment Models Workgroup is charged with vetting potential recommendations for HSCRC
consideration on the structure of payment models and how to balance its approach to payment
updates. In September 2018, the group convened to vet new payment-related policies such as
adjusting the public-payer differential, drug cost policies, and hospital rate modernization. The
Workgroup met monthly from February to May 2019 to review the FY 2020 Annual Update
Factor and other payment policies. Additionally, new subgroups convened in Fall 2018,
ocusing on rate modernization and volume measurements.
Total Cost of Care Workgroup
The Total Cost of Care Workgroup is charged with providing feedback to the HSCRC on the development of specific methodologies and calculations for TCOC. The TCOC Workgroup met monthly in 2019 to further refine methodologies related to the Year 3 MPA Traditional policy and provide feedback on the new MPA Framework policy. Commissioners approved both policies at the October and November 2019 Commission meetings. Additionally, the TCOC Workgroup discussed the source of cost drivers in Maryland and future benchmarking methodologies. Moving forward, the TCOC workgroup will also review the approach to determine savings from Care Transformation Initiatives (CTIs), discussed in Section V of this report.

Performance Measurement Workgroup
The Performance Measurement Workgroup develops recommendations for HSCRC consideration on measures that are important, reliable, informative, and feasible for assessing a number of important quality and efficiency issues. In the spring of 2019, the Workgroup considered the Readmission Reduction Incentive Program (RRIP) for RY 2021 and the Potentially Avoidable Utilization Savings Policy updates for RY 2020. Throughout the Fall of 2019 and into the Spring 2020, the Workgroup will review RY 2022 policies, including the Maryland Hospital Acquired Conditions (MHAC) Program, the Quality-Based Reimbursement (QBR) Program, and the Readmissions Reduction Incentive Program (RRIP).

Care Transformation Steering Committee
The Care Transformation Steering Committee is an industry-led group tasked with providing feedback on the Care Transformation Initiative (CTI) policy and Care Redesign Program (CRP). The Committee is comprised of healthcare industry representatives who meet monthly to prioritize, develop, and finalize submitted CTIs, provide feedback on CRP progress, and supply policy input as necessary. This Committee also comments on new, hospital-based programs that are developed to optimize performance under the TCOC Model.

Consumer Standing Advisory Committee
In addition to having consumers embedded in all standing HSCRC workgroups, the HSCRC, along with MDH, convenes a Consumer Standing Advisory Committee (CSAC). This Committee builds on existing consumer engagement and involvement across various HSCRC and MDH workgroups in an effort to bring together a diverse group of consumers, consumer advocates, relevant subject matter experts, and other stakeholders. Workgroup goals include ensuring that the consumer perspective is reflected in and remains central to the TCOC Model and ongoing modernization efforts; promoting understanding of the TCOC Model and its impact on improving healthcare for patients; and gathering input from consumers to ensure those perspectives are used to inform the policymaking process. In Fall 2018, the committee received updates on hospital transformation efforts, care redesign, and discussed consumer messaging and education strategies. The HSCRC plans to reconvene the group in 2020 to discuss current progress under the TCOC Model and analyze new initiatives to support the goals of the TCOC Model.
Stakeholder Innovation Group
Maryland’s Secretary of Health directed Maryland stakeholders to convene an advisory group to discuss ongoing health care delivery and payment innovations that may be leveraged or scaled, as well as to identify and develop any additional tools or programs needed to realize the goals of the TCOC Model. The group, known as the Stakeholder Innovation Group (SIG), is a broad group of health care industry representatives that includes hospitals, physicians, skilled nursing and long term care facilities, and payers. The group is staffed by the Maryland Hospital Association and attended by several State agencies including the HSCRC, Maryland Health Care Commission (MHCC), and Maryland Department of Health (MDH). The group met throughout 2018 and 2019 to collaborate on the development of new tools and make recommendations to the MDH that may be incorporated into the implementation strategy of the TCOC Model. More information on the SIG can be found here: https://www.mhaonline.org/transforming-health-care/tracking-our-all-payer-experiment/stakeholder-innovation-group.

Section VII: Methods of Rate Determination

Global Budget Overview
Under the TCOC Model, 95 percent of regulated hospital revenues must remain under global (or “population-based”) budget structures. With 98 percent of regulated hospital revenues under global budget structures since CY 2016, Maryland currently exceeds this target level. The two percent of revenue not included in GBR accounts for drug costs which are based on volume. All regulated acute-care Maryland hospitals operate under Global Budget Revenue (GBR) agreements. The HSCRC continues to work with stakeholder workgroups (discussed in Section VI) to refine the GBR methodology and develop a number of policies discussed in this section.

Intensity Methodology
Under the APM and TCOC Model, the cornerstone methodology is the hospital GBR system, which reimburses hospitals for baseline volume plus or minus market shifts and demographic changes. This methodology removes incentives for hospitals to increase utilization in order to drive profitability. Historically, hospitals had funded high-intensity cases or health care innovation, such as organ transplants or gene therapies, by increasing lower-acuity volume, thereby generating more revenue while maintaining the same fixed costs.

This economic behavior is particularly apparent for the State’s two academic medical centers, the University of Maryland Medical Center and the Johns Hopkins Hospital. In order to ensure that the State’s two national leaders in academic research and innovation continue to be at the forefront of quaternary care, the HSCRC is developing a standalone volume policy that will reimburse the academic medical centers for all growth deemed to be innovative. Innovation will be determined by evaluating all inpatient procedure codes and removing procedures from the GBR system when Johns Hopkins and University of Maryland Medical Center perform a preponderance of these activities. In effect, the two academic medical centers will have a
partial cost-based reimbursement system for higher level acuity cases. Funding will be capped by the amount of revenue HSCRC Commissioners set aside in the Annual Update Factor. The activities to be covered by this policy cannot, in concert with the volume-based high-cost drug methodology, bring the percentage of statewide revenue evaluated by the GBR system to less than 95 percent, per the contract with CMS.

**Volume Methodologies**

**Market Shift Policy**

The Market Shift Adjustment (MSA) provides criteria for increasing or decreasing the approved regulated revenue of Maryland hospitals operating under global revenue caps. Specifically, the MSA provides the criteria to reallocate funding to account for shifts in cases between regulated hospitals, with the objective of ensuring hospitals’ continuing competitive interest in serving patients. The MSA does not currently address all volume changes, only those that can be quantified as shifts between hospitals. The HSCRC developed an algorithm to calculate MSAs for a specific service area (e.g., orthopedic surgery) and a defined geographic location (e.g., ZIP code). The algorithm compares the growth in volumes at hospitals with utilization increases to the decline in volumes at hospitals with utilization decreases. Adjustments are capped at the lesser of the growth for volume gains or the decline for volume losses. As such, the net MSA for the State is typically near breakeven, with funds awarded to hospitals receiving cases and funds taken from hospitals losing cases being about the same in the aggregate. The MSA does not currently address shifts to unregulated settings or other sources of volume growth and decline as this approach separates market shifts from collective changes in volume in the service area and removes incentives for driving up volume in the service area.

**Demographic Adjustment**

The Demographic Adjustment methodology provides funding increases or decreases to recognize anticipated changes in hospital volume based upon projected age-adjusted population changes at the ZIP code level, while disallowing increases in utilizations due to potentially avoidable utilization (PAU). This adjustment is used to prospectively amend acute hospitals’ GBRs for the forthcoming fiscal year and capped by the Maryland Department of Planning estimates of statewide population changes to align with the per capita constraint of the All-Payer/Total Cost of Care Model parameters. The Demographic Adjustment averages approximately 0.4 percent of net hospital revenue or approximately $60 million, with lower values in recent periods resulting from slower population growth.

**Deregulation of Services**

Deregulation is the movement of a hospital service from a HSCRC regulated space to an unregulated space. Service movement can be initiated by payers, the hospital itself, or physician practices. In some cases the deregulation may simply be a function of service discontinuation or cross-border movement to an unregulated hospital setting. If services are shifted to an unregulated setting, global budgets generally must be reduced to prevent excess billing. HSCRC staff has been working to formalize and strengthen the review process to make timely reductions when necessary.
CDS-A Drug Funding
As stated previously, 98 percent of hospital revenue is currently under the global budget system. The remaining two percent of revenue accounts for drug costs, which are funded based on volume. For the past three years, the HSCRC has provided funding prospectively for the utilization of certain high-cost, physician-administered outpatient oncology and infusion drugs. The HSCRC provides this prospective funding as portion of the annual update factor which provides hospitals with the ability to afford these high-cost drugs. The HSCRC also makes retrospective adjustments to hospital GBRs based on changes in volume between expected and actual utilization during the prior year in order to address any under or overpayment that may have occurred. A portion of the Update Factor for FY 2020 has been earmarked to continue funding of these high cost drugs.

Integrated Efficiency Policy
Due to requests from HSCRC Commissioners to evaluate and scale global budgets based on efficiency, staff has developed an integrated efficiency policy. The policy evaluates hospital cost per case and total cost of care efficiency and then formulaically penalizes or rewards hospitals based on that performance. Overall, this policy will ensure that the limited resources of the GBR system are distributed to cost-efficient hospitals that are advancing the goals of the TCOC Model to reduce total cost of care.

The final policy on the Integrated Efficiency Policy will be released in the Spring of 2020 and will scale the FY 2021 Annual Update Factor for certain affected hospitals, using an equal weighting of hospital cost-per-case and total cost of care efficiency. In effect, inefficient hospitals will receive a reduced inflation factor for FY 2021 and this funding will be redistributed to efficient hospitals. Staff will also use this integrated efficiency policy to assess budget enhancement requests from efficient hospitals that seek additional funding. The criteria hospitals submit must demonstrate that they have been financially disadvantaged by a Commission methodology or will make population health investments that will further reduce total cost of care.

Capital Policy
Over the course of the HSCRC’s 40 year history of rate setting, allotments have been made in rates to fund large scale capital replacement projects to ensure that hospitals can provide high quality care and have updated, modern infrastructure. The need for this policy is greater under the GBR system because hospitals can no longer grow volume to fund capital projects and instead must reduce avoidable utilization, which is not an opportunity that is spread evenly among all hospitals.

As such, the Commission has proposed a capital methodology that will utilize various evaluations of capital cost efficiency, hospital cost per case efficiency, total cost of care efficiency, presence of potentially avoidable utilization (or lack thereof) and excess capacity, to determine the reasonableness of a hospital’s capital request. Capital funding will be restricted
to the most efficient hospitals to ensure that the best performing hospitals are recapitalized. Additionally, funding will be capped at 100 percent of depreciation, 70 percent of interest to ensure that hospitals expend funding from its capital reserves when implementing large scale capital projects.

**Full Rate Reviews**
A hallmark of the Commission has been its full rate application methodology. A hospital is statutorily entitled to request a review of its entire rate structure if it believes it is a cost efficient hospital that cannot maintain solvency with current revenues. Similarly, the Commission is entitled to open up a review of a hospital if it believes a hospital’s costs are unreasonable and/or charges are not reasonably related to costs.

To this end, the Commission has historically employed an Inter-hospital Cost Comparison (ICC) methodology that evaluates how cost efficient a hospital is relative to select peers (e.g. community teaching hospitals) and how related costs are to charges. The Commission must also employ methodologies to compare hospitals attributed total cost of care to similar national peers. Over the next several months the Commission will be refining these total cost of care benchmark analyses and working towards including them into the historical ICC methodology. The policy recommendation that will result from this work will enable the Commission to provide additional funding to hospitals that are cost efficient, efficient in terms of total cost of care, and potentially insolvent, while simultaneously allowing the Commission to negotiate revenue spend-downs for hospitals that are cost inefficient and inefficient in terms of total cost of care.

**Section VIII: Reporting Requirements to CMS**
Under the APM, the HSCRC was required to report to CMS on relevant policy and implementation developments. A final report on select measures, as agreed to by CMS, was submitted in May 2019. Please find the final report submitted to CMS attached to this report.

The HSCRC must continue to report to CMS on relevant policy and implementation developments during the TCOC Model. Because the TCOC Model began January 1, 2019, no reports are due to CMS until 2020.

**Section IX: Adverse Consequences**
At this time, the HSCRC has not observed any adverse consequences on patients or the public generally as a result of the implementation of the APM or TCOC Model.

A number of policies were developed over the course of the APM guard against potential adverse consequences that HSCRC staff and stakeholder workgroups identified as possible unintended outcomes of implementation. For example, the GBR agreements initiated by the HSCRC for implementation of the global budgets contain consumer protection clauses. In addition, the HSCRC, in conjunction with the Payment Models Workgroup, developed the Transfer Adjustment Policy and a Market Shift Policy (discussed in Section VII) to help ensure
that “the money will follow the patient” when shifts in utilization occur between hospitals or other health care settings. These policies aim to guard against hospitals inappropriately limiting the number of high-cost, high-risk cases admitted and to provide open access and resources when patients need to be transferred to receive highly specialized care offered in academic medical centers (AMCs).

Additionally, the HSCRC continues to refine tools to monitor changes in patterns of service, particularly shifts in utilization and expenditures across all healthcare providers. One area that has been under considerable scrutiny is emergency department (ED) overcrowding and potential patient diversion between EDs. The HSCRC has been studying this issue since 2017 and recently produced a Joint Chairmen’s Report on ED Overcrowding in partnership with the Maryland Institute for Emergency Medical Services Systems (MIEMSS). As part of the effort to identify causes for overcrowding and potential policy solutions, the HSCRC requested performance improvement plans from 13 hospitals with poor ED performance, which were due in January 2018. The HSCRC will determine the impact of the hospitals’ plans once the applicable performance data becomes available for analysis. Additionally, the HSCRC incorporated ED performance measures into its QBR Policy for RY 2020 (discussed in Section III) to incentivize improvements in ED wait times.

As mentioned earlier in the report, one area of caution for our current contract is the fluctuation in trends of the total cost of care. In both the APM and TCOC Contract, CMMI monitors the TCOC in Maryland to ensure that reductions in hospital potentially avoidable utilization do not result in unreasonable increases in the total cost of care. Maryland is currently performing within the established guardrails of the Model. More detail on TCOC performance is provided in Section I.

Section XIII. Future Outlook
The TCOC Model presents the State with a unique opportunity to improve the health and lives of Marylanders. Over the 10 years of the Model, the HSCRC will continue to lead efforts to meet the ambitious goals of the TCOC Model to constrain healthcare costs, improve quality of care, and promote population health. Maryland can meet these goals through supporting provider-led innovation efforts, leveraging the State’s unique global budget system, and engaging stakeholders in a proactive and meaningful way. As the State continues under the Model, the HSCRC will search for a path forward that incorporates these policy solutions permanently into the State healthcare system and helps effectuate long-term health improvements and cost savings for Marylanders.