maryland
health services
cost review commission

Introduction to Care Transformation Initiative (CTI) Program

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Introduction

Care Transformation Initiatives (CTIs) reward hospitals for generating total cost of care (TCOC) savings through the interventions they deploy. CTIs enable hospitals to define their own patient populations reflecting their current work and incentivize the development of new efforts to transform care in Maryland. The Health Services Cost Review Commission (HSCRC) uses the Medicare Performance Adjustment Reconciliation Component to share savings with the hospitals in full, and then offset those savings payments through a pro-rata reduction to all hospitals.

To determine the savings generated, the HSCRC uses a four-step process: (1) identify the population, (2) construct CTI episodes, (3) calculate a target price, and (4) compare the average TCOC during the performance year versus the target price. To date, HSCRC has established five thematic areas for CTIs: transitions of care, palliative care, primary care, emergency department (ED) care, and community-based care.

This policy guide provides a high-level overview of the current CTI program, including the methodology for constructing episodes and calculating participants' CTI savings. More detail on the methodology of CTI savings calculations is available in the **Care Transformation Initiative (CTI) Specifications and Methodology** document.

Background

CTIs are undertaken by a hospital entity (a single hospital, a group of hospitals, or a collaboration of hospitals with a core hospital) to reduce the TCOC of a defined population. CTIs are describable, quantifiable, and within an individual hospital's purview to implement. Therefore, the return earned on these investments can be awarded to the hospital entity. Currently, CTIs may include only fee-for-service Medicare beneficiaries residing in Maryland. (Other technical exclusions also apply, as described in the Care Transformation Initiative (CTI) Specifications and Methodology document linked above.)

Under Maryland's All-Payer Model, hospitals engaged in numerous efforts to reduce avoidable utilization of health services by investing in initiatives to address population needs and provide valuable health services to beneficiaries. Under the TCOC Model, HSCRC staff seek to evaluate these efforts, to advance, refine, and reward innovation within Maryland's health system.

CTI policy achieves the following objectives:

> **Disseminate Industry Success**: Evaluating hospitals' individual CTI efforts will help to develop a systematic understanding across the State of best practices for improving care and reducing unnecessary utilization. This will lead to broader implementation and acceleration of care transformation in Maryland.
>
> **Reward Care Transformation Success and Investment**: Investing in care transformation has been a fundamental way that Maryland produces savings under the TCOC Model. The HSCRC seeks to reward hospitals for investing in meaningful connections throughout the healthcare system and transforming care. This means developing mechanisms for rewarding savings produced outside of hospital global budgets. Rewarding individual hospitals for their investment in the system's success further incentivizes the practice.

CTIs focus on identifying individual hospital investments that provide a return on investment to the hospital through beneficiary-level TCOC reductions. CTIs do not capture all investments in patient care, population health, and care redesign. Longer-term investments into public health are still prioritized in HSCRC policy development but are delineated from CTIs. Initiatives that do not identify specific beneficiary populations affected or that cannot reliably calculate a short-term TCOC savings impact are not included in the CTI framework.

Current CTIs

HSCRC, in collaboration with its stakeholder workgroups, has approved the CTI thematic areas shown in Exhibit 1. CTIs in the same thematic area share two traits: (1) a common attribution rule specific to that thematic area, and (2) a set of parameters specific to that thematic area that participant hospitals can adjust to select their population of interest.

Exhibit 1: CTI Thematic Areas

Thematic Area	Description
Care Transitions	Interventions focusing on transitional care management (e.g., home assessments, hospital screenings, discharge coordination, telehealth transition services).
Palliative Care	Interventions to manage and direct the care of chronic pain patients (e.g., advance care planning; goals of care discussion; coordination with home health, hospice, and SNFs).
Primary Care (Episode- or Panel-Based)	Interventions to improve primary care services (e.g., clinics established at primary care practices to deploy wraparound services; completion of social, behavioral, and home safety assessments; referrals to community resources).
Community-Based Care ("PAC Touch" or Geographic)	Interventions targeting the broader health community (e.g., health coaches assigned to senior living buildings, care coordination for patients transitioning to or from Skilled Nursing Facilities or Assisted Living Facilities).
Outpatient Services	Interventions focusing on streamlining and enhancing care provided in the hospital outpatient setting.
Emergency Care	Interventions to improve access to clinical and social services for users of the emergency department (e.g., deployment of community-based teams, nurse home visits, connection to resources to address social determinants of health).

Abbreviations: PAC, post-acute care.

CTI Methodology

Once a hospital participant has selected the parameters for its CTI, the HSCRC will determine the savings associated with the CTI through the following four steps:

1. Identify the population.
2. Construct CTI episodes and calculate episode costs.
3. Calculate a target price, i.e., the pre-determined payment level based on historical claims data that the participant hospital must provide services below to achieve episode savings.
4. Compare the average TCOC for episodes during the performance period versus the target price.

These steps are discussed below. A more detailed discussion of how the HSCRC implements each aspect, in a step-by-step manner, is available here: **Care Transformation Initiative (CTI) Specifications and Methodology**

Step 1: Identify the Population

Each CTI thematic area uses an incidence-based, episodic approach to measure the effectiveness of the intervention in reducing the TCOC of attributed beneficiaries. Each episode-based CTI has a triggering event and beneficiary profile that can be identified in claims, and any beneficiary who meets the triggering conditions may be included in (i.e., "attributed" to) the CTI. Hospitals may propose a trigger based on any Medicare Part A or Part B claim, drawn from a wide selection of data elements available in the Maryland Medicare Claim and Claim Line Feed data. For example, a hospital might focus its CTI on any hospital

discharge with an All Patient Refined Diagnosis Related Group (APR-DRG) code for major joint replacement of the lower extremity. The hospital might opt to further define its CTI population according to one or more parameters, depending on the thematic area. Examples of parameters defining populations:

- Receipt of one or more services or procedures – hospitalization or count of emergency department visits, ICD-10 or CPT/HCPCS codes.
- Condition – chronic condition flag, ICD-10 code, APR-DRG code, Severity of Illness (SOI) code, or Risk of Mortality (ROM) code.
- Geographic residency – by ZIP code or county.
- Receipt of services from an indicated provider – CMS Certification Number (CCN), Taxpayer Identification Number (TIN), National Provider Identifier (NPI), or provider type or specialty.
- Beneficiary age.
- Intervention window – for example, 15, 30, 60, 90, 120, or 180 days; all panel-based CTIs are exclusively 365 days.

Two thematic areas, *Primary Care* and *Community-Based Care*, allow CTI participants to choose to participate in "panel-based" CTIs, which use a population-based approach to attribute beneficiaries to the CTI. Under this approach, beneficiaries are attributed to either NPIs (for primary care) or ZIP codes (for community-based geographic care), and then subsequently assigned to CTI participants based on the requested CTI definition. Beneficiaries who meet the participant-specified parameters that define the CTI population are attributed to a panel-based CTI at the start of the performance year and assumed to be eligible to receive the intervention.

HSCRC excludes beneficiaries who are not continuously enrolled in Medicare Parts A and B or have a different primary payer to ensure all of the beneficiaries' medical history are included in the Medicare Claim and Claim Line Feed data. HSCRC also excludes beneficiaries with end-stage renal disease (ESRD) since they tend to have unusually high TCOC. **Hospitals may choose to include or exclude beneficiaries who die during the episode window beginning in performance year 5**. Prior to this, they were automatically excluded.

Step 2: Construct CTI Episodes and Calculate Episode Costs

Hospitals are accountable for all Medicare Parts A and B costs that occur during the CTI episode. Hospitals can choose the length of the episode window (e.g., 15, 30, 60, 90, 120, or 180 days). The beneficiary is assigned to the CTI on the day of the triggering claim and removed from the CTI after the indicated length of the episode window. For example, a hospital might select a 90-day episode window for beneficiaries discharged from a hospital after major joint replacement of the lower extremity. The result of this step would be a list of CTI beneficiaries, each beneficiary's episode window (from the trigger date through 90 days after the trigger date), and the TCOC of the CTI beneficiaries incurred during their episode windows.

For regulated services, episode costs are calculated using the CMS claims standardization process for the base period, inflated to the performance period and re-normalized to account for the specific hospital's rate schedule. For non-regulated services, the actual allowed amount is used for all claims within the episode window. The HSCRC applies a claims completion process to facilitate faster turnaround on performance data as requested by participants while ensuring consistent, accurate evaluation of program payments.

To avoid duplicating costs when the HSCRC calculates total episode costs, the HSCRC allows only one active episode per beneficiary per day under the same CTI definition. HSCRC excludes hospital discharges that occurred during the episode window of another potential episode (i.e., episodes under the same CTI definition that were triggered by a previous inpatient hospital discharge). Overlapping episodes between different CTI definitions are resolved according to the HSCRC's CTI hierarchy, which prioritizes CTIs from lowest to highest episode volume to ensure that smaller CTIs are attributed as many episodes as possible. However, a hospital participating in more than one CTI definition is allowed to designate its own hierarchy to determine the precedence between overlapping CTIs.

Step 3: Calculate a Target Price

The CTI target price is equal to the risk-adjusted costs of all the beneficiaries who were attributed to the CTI during a "baseline" period, after standardizing, re-normalizing, and adjusting for inflation.

There is no default baseline period for episode-based CTIs; all hospitals must use the intake templates to specify their baseline period. Prior to PY5, all primary care panel CTIs used Calendar Year (CY) 2019 as the baseline period. **Beginning in PY5, participants may choose CY2022 or CY2023 for their panel baseline and select from FY2023 or FY2024 as the baseline for all other CTIs. CTIs continuing from prior years will be grandfathered in and allowed to maintain their existing baseline so long as no modifications are made to the definition.**

The risk adjustment approach differs based on whether the CTI is triggered by a hospital stay or not. For a hospital-triggered CTI, baseline costs are adjusted for the attributed beneficiaries' APR-DRG-SOIs and Hierarchical Condition Categories (HCC) scores. For a non-hospital-triggered CTI, baseline costs are adjusted only for HCC scores.

Step 4: Calculate CTI Savings

Hospital savings are calculated by comparing the CTI episode costs in the performance period to the target price. CTI episode costs in the performance year are calculated by implementing Steps 1 and 2 above, but replacing the baseline period with the performance period. The hospital's CTI savings are calculated by comparing total CTI episode costs (i.e., TCOC during all episodes attributed to the CTI) versus the aggregate target price (i.e., target price multiplied by the number of episodes).

Initial hospital performance data are available in the Care Transformation Profiler (https://ctp.crisphealth.org) as soon as claims data for the episode are available in the monthly Claim and Claim Line Feed data feed. Though the Care Transformation Profiler provides real-time data on hospital performance, the hospital's savings are finalized only after the performance period is complete. Initial performance might not reflect final performance with more completed episodes.

Episode-based and panel-based CTI savings are calculated separately for each CTI participant hospital. The HSCRC reconciles a participant's cumulative savings, across all episode-based (or panel-based) CTIs in which it participates, against a participant-specific Minimum Savings Rate (MSR). The participant's episode-based (or panel-based) MSR is determined by the total volume of episodes across all episode-based (or panel-based) CTIs in all CTI thematic areas in which it participates. If a hospital reduces the TCOC for its CTI beneficiaries beyond the MSR, it will be paid 100 percent of the savings it achieves, minus the statewide savings offset.

Reconciliation Payments

The Centers for Medicare and Medicaid Services (CMS) allows the State to adjust the payments made to regulated Maryland hospitals based on the hospital's success at reducing the TCOC for Medicare beneficiaries. This adjustment is called the Medicare Performance Adjustment (MPA) and is described in the "Final Recommendation for the Medicare Performance Adjustment Framework" from the October 2019 Commission meeting (MPA Framework Final Recommendation). A component of this policy adjusts Medicare payments to hospitals based on their CTI performance. The payment is made as an adjustment to the amount that CMS pays hospitals, rather than as a cash payment. This portion of the MPA policy is known as the Reconciliation Component.

A hospital's reconciliation payment is equal to the savings earned for the hospital's CTIs, which is measured by calculating the difference between the actual TCOC for a CTI and its target price. The savings for individual CTIs are calculated separately. Each CTI will have a separate target price and performance period costs. A hospital that participates in multiple CTIs will receive a reconciliation payment equal to the sum of the savings received across its CTIs if its aggregate savings are greater than its MSR.

Statewide CTI savings paid through the MPA Reconciliation Component are made in a net-neutral manner. This ensures that the reconciliation payments provided to successful CTI participant hospitals do not put the State at risk of missing its Medicare TCOC savings target. Additionally, the Statewide Offset allows the State to reward high performers and incentivize hospitals to participate.

The HSCRC calculates the Statewide Offset for an individual hospital by:

- Summing the reconciliation payments made to all hospitals in the State.
- Multiplying the aggregate reconciliation payments by the hospital's share of Medicare hospital revenue to determine the individual hospital's reduction.

The hospital's net reconciliation is illustrated with the following example:

- The Hospital represents 5% of total Medicare hospital payments in the State.
- The Hospital is participating in CTIs and achieved $5 million in savings out of a statewide total of $30 million.
- The Hospital would receive reconciliation payments equal to $5 million minus 5% of $30 million, or $3.5 million.

The Statewide Offset applies to hospitals regardless of whether they participate in the CTI program. Reconciliation payments for a non-participating hospital are illustrated with the following example:

- The Hospital represents 5% of total Medicare hospital payments in the State.
- The Hospital is not participating in CTIs and achieved no savings out of a statewide total of $30 million.
- The Hospital would receive reconciliation payments equal to $0 – 5% of $30 million, or -$1.5 million (i.e., a penalty).

Because hospitals are rewarded or penalized regardless of whether they participate, the HSCRC strongly recommends that all hospitals participate in the CTI program.

A hospital's penalties under the offset are initially limited (or "capped") to a fixed percentage of their Medicare hospital payments as shown in Exhibit 2. Any penalty amounts above this cap are aggregated statewide and then distributed across all hospitals in proportion to their share of Medicare hospital revenue. As a result of this reallocation a hospital may end up with total penalties above the caps shown below.

Exhibit 2: Offset Stop Loss Caps*

Hospital Performance vs. Benchmark	Stop Loss Cap
1st Quintile (-15% to + 1% Relative to Benchmark)	1.250%
2nd Quintile (+1% to +10% Relative to Benchmark)	1.875%
3rd Quintile (+10% to +15% Relative to Benchmark)	2.500%
4th Quintile (+15% to +21% Relative to Benchmark)	3.125%
5th Quintile (+21% to +28% Relative to Benchmark)	3.750%

* Tiers are based on tiers assigned in the Medicare Performance Adjustment (see below) for the calendar year in which the CTI performance period ends.

The Medicare Performance Adjustment (MPA)

The MPA is a percentage increase or decrease in the amount that CMS pays to hospitals after a claim is received by the Medicare Administrative Contractor (MAC). The State calculates the amount of the adjustment and passes that adjustment to CMS, which then increases or decreases all claims paid to the hospital by the indicated percentage. For example, an MPA adjustment of -0.5% means that CMS will pay the charged amount on the claim minus 0.5%. This adjustment is added to other adjustments, such as the sequestration and the public payer discount. The MPA does **not** factor into hospital rates set by the HSCRC, does not affect hospitals' Global Budget Revenue calculations, and is not reflected in rate orders.

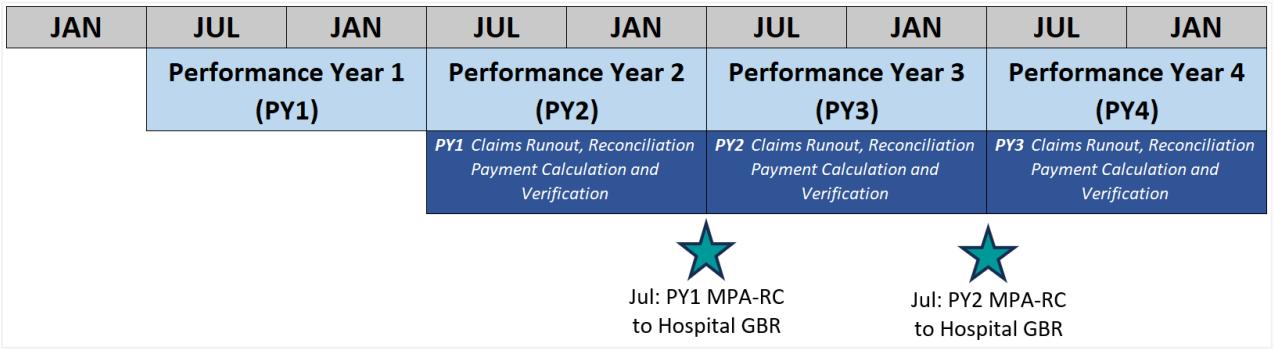
The HSCRC combines and calculates several different policies into a single MPA adjustment that is passed to the CMS MAC.

Timing of Reconciliation Payments and Offsets

Each CTI has a one-year performance period, July 1 to June 30. Reconciliation payments for a CTI are made 12 months after the end of the performance period. For example, payments for the performance period beginning on July 1, 2022, will be made July 1, 2024, or 12 months after the end of that performance year, June 30, 2023. The delay between the end of the performance period and payment is necessary for several reasons. First, 180 days is allowed for CTI episode completion (all episodes starting in a period are considered part of the period). Second, 90 days is allowed for a claims-runout period. Finally, 90 days is allowed for the HSCRC to calculate and disseminate the reconciliation payment.

Exhibit 3 outlines the overall CTI development, performance, and reconciliation process, which takes approximately three years from start to reconciliation payment. This same process will continue through future performance years.

Exhibit 3. Overall Timing of a Care Transformation Initiative



Abbreviations: GBR, Global Budget Revenue; MPA, Medicare Performance Adjustment; PY, performance year; RC, reconciliation payment.
***Note*:** Prior to PY5, all primary care panel CTIs used CY2019 as the baseline period. Beginning in PY5, participants may choose CY2022 or CY2023 for their panel baseline and select from FY2023 or FY2024 as the baseline for all other CTIs. CTIs continuing from prior years will be grandfathered in and allowed to maintain their existing baseline so long as no modifications are made to the definition. The baseline period can vary across the CTIs in which an individual hospital participates.