Total Cost of Care (TCOC) Workgroup

September 25, 2019

HSCRC
Health Services Cost Review Commission

Agenda

1. Introductions & Updates
2. Y2 & Y3 MPA (PY19)
   i. Y2 Updates
   ii. Potential MPA Y3 Policy Changes
   iii. Churn Analysis (Y4)
3. MPA Framework
   i. Comments from Draft
4. CTI and Role of the TCOC WG
   i. CTI Target Pricing Methodology
   ii. Future Policy Work
      i. Capturing Costs of CTIs
      ii. Overlaps between CTI and the MPA

Y2 MPA (PY19)

- Changing to use CCLF for MPA Traditional Scoring
- MPA Diabetes Population Profiler Released

Y3 MPA (PY20)

- Proposed Policy Changes
- Proposed Attribution Changes

MPA Y3 Changes

- Staff are planning to propose limited changes to the MPA in Year 3 (2020 Performance Year) because of:
  - Many other areas of change and activity - Efficiency Policy, Capital Policy etc., MPA Framework
  - Ongoing concerns from stakeholders about the stability of the attribution
- MPA Year 3 draft staff recommendation is likely to reflect only:
  - **Attribution**: Minor technical changes
  - **MPA quality adjustment**: May revise the specific quality measures to introduce new measures and a small increase to the weight
  - **Revenue at risk**: No plans to change the amount at risk from Y2
  - **Performance measurement**: Maintain improvement-only methodology for Y3 (2020) and defer attainment and further review of benchmarking to Y4 (2021)

Proposed Y3 Attribution Changes

- **Employment**: Attribute beneficiaries to groups of employed providers. This will allow us to eliminate the requirement to update individual provider terminations for employment.
- **Referral-linkage:** Replace 60% rule for primary care services with minimum of 5 attributed beneficiaries rule.
- **Deactivation**: Check NPPES for deactivation early in the attribution process to ensure that deactivated providers are not attributed beneficiaries.

Y3 MPA Quality Adjustment

- Required to have MHAC and RRIP at minimum.
- For Y3 (RY2022) MPA Policy, considering new measures:
  - CMMI push to add in additional relevant measures
  - Ensure efforts to reduce TCOC do not harm quality or access to care
  - Opportunity to utilize Medicare claims data and other data sources to capture quality of care not possible in case-mix
- Use validated or existing measures whenever possible.

MPA Quality Adjustment

- After discussing some options with Performance Measurement WG (PMWG), staff reviewed alternative measures.
- Staff is now proposing the addition of **"timely follow-up after acute exacerbations of chronic conditions"** (NQF 3455).
  - Acute exacerbation: ED visits or hospitalization
  - Chronic conditions: hypertension, asthma, heart failure, CAD, COPD, and diabetes
  - Follow-up timelines vary by condition based on clinical practice guidelines (7, 14, or 30 day)
- Rationale:
  - Best clinical practice guidelines, research demonstrating follow-up has a significant impact on patient outcomes
  - Aligns with MDPCP follow-up after discharge
  - Addresses PMWG concerns that 14 day follow-up might not be appropriate for all conditions
- Accountability:
  - Staff interest in linking to MPA-attributed hospital but PMWG preferred discharging hospital
  - PMWG concern that discharging hospital is typically responsible for follow-up

Y4 MPA (PY21)

- Proposed Approach

MPA Y4 Intent

- Intent to focus TCOC group, starting in October, on more comprehensive review of the approach, including, revisiting attribution method, coordinating with CTI process, adding attainment with benchmarking and considering changes to amount at risk (CMS has indicated interest in increasing the amount).
- **Churn**: The HSCRC has shared additional churn analysis with the Maryland Hospital Association (MHA). As the MHA reviews our analysis they will follow up with hospitals as needed. We will share the preliminary results in future meetings during our Y4 policy review.

Benchmarking and Attainment

- Benchmarking work is continuing.
  - Approach to selecting benchmark geographies has not changed significantly from that described earlier this year.
  - Ongoing work is on normalizing results between geographies and creating equivalent commercial outcomes.
  - HSCRC is currently planning to release commercial and Medicare results together:
    - Expect to share in the calendar Q4 of this year
    - Balance likely results from Medicare and Commercial
    - Ensure considerations of all elements to normalize results are considered for both payers and results are equivalent
  - Results will then be evaluated for use in an attainment element for the MPA Year 4 (CY2021) policy and other HSCRC policies.

Review of Draft Recommendation: MPA Framework

- Comments on Draft Policy

Purpose of the Savings Component

- Stakeholders expressed support for the use of the MPA-SC to meet the Medicare savings targets.
  - All stakeholders agreed that the MPA-SC would not be necessary to meet the savings target in the first half of 2020
  - Some stakeholders emphasize that the MPA-SC should be paired with an emphasis on efficiency which would mitigate the impact on hospitals with high Medicare share
- CareFirst supported the MPA-SC and noted that their initial concerns had been satisfied by setting the update factor equal to the lesser of inflation and national Medicare TCOC growth for FY19.
- The MHA suggested that the MPA-SC could increase Medicare payments to hospitals.
- The HSCRC staff do not support the use of the MPA-SC to increase Medicare payments, although will reconsider the need for the MPA-RC Offset assuming universal and substantial participation in CTIs.

Principles of Reconciliation Component

- All stakeholders (JHHS, UMMS, AAMC, CareFirst, Rockburn, & MHA) expressed support for the general principles of the MPA-RC, which include:
  - Incentives to hospitals to develop care transformation initiatives and reduce Medicare TCOC
  - Understanding individual hospital effort and success at reducing TCOC
  - Identify and penalize free-riders

Use of the MPA-RC Offset

- Some stakeholders expressed concern about the effect of the MPA-RC Offset.
  - Some hospitals expressed concern that hospitals which were 'unsuccessful' with their CTI would fund hospitals with successful CTI but that the standard for a 'successful' CTI was unclear (JHHS & UMMS)
  - Hospitals that serve populations with complex needs may be disadvantaged by a lack of opportunity to produce savings (UMMS)
  - Exposure to the MPA-RC Offset should be capped (AAMC)
- An unsuccessful CTI is one that does not produce any TCOC savings. Non-participating hospitals and unsuccessful hospitals will be treated equally.
- The HSCRC staff considers the offset necessary to address the free-rider problem but will monitor the impact and evaluate reducing the offset over time.

CTI Methodology

- Some commenters expressed their concern about limitations in the scope of the current CTI policy, including:
  - Limiting triggers to claims-related events / Intent-to-treat Estimates (JHHS & UMMS)
  - Needing to include public health investments (JHHS, UMMS, AAMC, & CareFirst)
  - Lacking inclusion of other payers (JHHS & AAMC)
  - Using an earlier baseline than 2016 (JHHS & MHA)
- The HSCRC staff recognize there are limitations with the current data availability (Medicare FFS claims back to 2016). The staff will work to expand the scope of the CTI policy by:
  - Inviting interested hospitals to give HSCRC access to their EHRs in order to create non-claims-based triggers
  - Inviting other payers to share their claims data in order to develop a similar approach
  - Working with stakeholders on modifications to the cost-reports to identify both CTI-related costs and large public health investments

CTI Timing and Approach

- Some stakeholders expressed concern about the timing and approach for finalizing the CTI process and requested the HSCRC staff:
  - Allow for more discussion of methodology, thematic groupings, triggering events, and episode durations before finalizing the policy (JHHS, UMMS, & MHA)
  - Monitor performance rather than adding payments (JHHS & UMMS)
  - Discuss the overlap with other policies in more detail (UMMS & MHA)
  - Formalize CTI calculation methodology in a commission recommendation(MHA)
- The HSCRC will continue to discuss the methodology, CTI proposals, and discussion of the overlap with other policies to July 1st, 2020.
- However, HSCRC staff do not consider it feasible to delay an assessment of care transformation activities given that the timeline currently extends to July 2022, which is already towards the end of the TCOC Model.
- Staff will enhance policy to include more detail on the CTI methodology and release a stand-alone, comprehensive user guide.

Care Transformation Initiatives

CTI Savings Methodology

Overview

1. Episode Construction
   - Identify episode windows
   - Determine included episode claims
   - Aggregate episode costs
2. Calculate the Target Price
   - Risk adjustment
   - Index price trending
   - Finalize the target price
3. Calculate Savings
   - Compare Performance Period costs to the Target Price
   - Ensure actuarial stability

Care Transformation Initiatives

Episode Construction

Steps to Construct Episodes

1. Identify episode triggers and windows
   - Exclude beneficiaries
   - Construct the episode window: identify trigger and apply episode duration
2. Determine included episode claims
   - Included claims & excluded claims
   - Prorated claims
3. Aggregate episode costs
   - Standardize episode costs
   - Exclude inter-CTI overlaps

Step 1: Exclude Beneficiaries

- A beneficiary will not be eligible to be included in a CTI if any of the following is met:
  - The beneficiary is receiving services for End-Stage Renal Disease (CTI for the ESRD population will be handled separately)
  - The beneficiary has a hospital stay lasting 60 days or more
  - The beneficiary is not continuously enrolled in Medicare Part A and Part B during the year OR has a different primary payer
  - OPTIONAL: The beneficiary dies during the year
- Any beneficiary that does not meet the eligibility condition for a CTI, as defined by the hospital, will be excluded.
  - Example: A CTI for CHF would exclude any beneficiary without a CHF flag
  - Example: A CTI for anyone in a particular county would exclude any beneficiary not residing within that county

Step 1: Construct the Episode Windows

- Identify the date an episode trigger (as defined by the hospital's CTI proposal) occurs.
  - Example: The episode window begins on the date of the third hospitalization for a CTI targeting high-utilizers
  - Example: The episode window begins on the first day of the year for all beneficiaries residing in a county for a geographic CTI
- The episode window ends X days after the trigger, as defined by the hospital's CTI proposal.
  - Exclude episodes with a trigger date that occurs during an existing episode for that CTI.
  - Example: Exclude the second hospital discharge if it occurs within 90 days of a hospital discharge trigger (costs are included in the first episode)

Step 1: Example

Assume Base Period = FY17, Performance Period = FY21, and episode length of 90 days

ID	Trigger Date	Group	Comment
A	6/17/2016	Excluded	Triggered prior to beginning of Base Year
B	7/1/2016	Baseline	Triggered during base year
C	10/30/2016	Baseline	Triggered during base year
D	1/15/2017	Baseline	Triggered during base year
E	4/7/2017	Baseline	Triggered during base year
F	9/9/2017	Excluded	Triggered after the base year
G	7/1/2020	Performance	Triggered during performance period
H	7/24/2020	Performance	Triggered during performance period
I	9/19/2020	Performance	Triggered during performance period
H	10/20/2020	Excluded	Excluded due to the episode trigger on 7/24/2020
J	1/13/2021	Performance	Triggered during performance period
K	3/30/2021	Performance	Triggered during performance period
E	5/10/2021	Performance	Triggered during performance period, a beneficiary can be in both cohorts as long as the episodes don't overlap
M	8/6/2021	Next Performance Period	Triggered after performance period (in next performance period)

Step 2: Included & Excluded Claims

- Any claim that meets the following condition will not be included:
  - Part B payments for drugs on the average sales price (ASP) list (except where relevant to the CTI)
  - Blood clotting factor, identified by HCPCS J7199
  - Inpatient claims for hemophilia and clotting factors
  - Pass-through payments for medical devices in OPPS hospital claims
  - Claims that represent per-beneficiary-per-month (PBPM) payments for hospice claims
- An episode consists of all remaining Part A or B claims that meet the following conditions:
  - Have a service start date that overlap at least one day of the Clinical Episode
  - Have a standardized payment amount greater than zero

Step 2: Prorated Claims

- Some claims may begin during the episode window but finish after the end of the episode window.
- These will be handled as follows:

Claim Type	Treatment	Claim Type	Treatment
Carrier	Assigned to the episode	Inpatient Rehab Facility	GMLOS
Critical Access Hospitals	Per Diem	IPPS	GMLOS
Durable Medical Equipment	Assigned to the episode	Long-Term Care Hospital	Per Diem
Home Health Agency	Per Diem	OPPS	Assigned to the episode
Hospice	Per Diem	Skilled Nursing Facility	Per Diem
Inpatient Psychiatric Facility	Per Diem		

Step 2: Example

ID	Episode Window	Claim ID	Claim Type	From Date	Through Date	Claim $	Episode $	Comment
A	07/07/2017 - 10/05/2017	A1	IPPS	7/7/2017	7/10/2017	$12,837	$12,837	
A	07/07/2017 - 10/05/2017	A2	Carrier	7/7/2017	7/7/2017	$3,985	$3,985	
A	07/07/2017 - 10/05/2017	A3	Carrier	7/8/2017	7/8/2017	$698	$698	
A	07/07/2017 - 10/05/2017	A4	SNF	7/11/2017	8/21/2017	$5,471	$5,471	
A	07/07/2017 - 10/05/2017	A5	HHA	8/24/2017	10/23/2017	$401	$280	42 days are within the episode. Include 70% of costs.
B	04/17/2021 - 07/16/2021	B1	IPPS	4/17/2021	4/21/2021	$10,780	$10,780	
B	04/17/2021 - 07/16/2021	B2	Carrier	4/17/2021	4/17/2021	$3,058	$3,058	
B	04/17/2021 - 07/16/2021	B3	Carrier	4/19/2021	4/19/2021	$1,938	$1,938	
B	04/17/2021 - 07/16/2021	B5	OPPS	5/12/2021	5/12/2021	$3,547	$3,547	
B	04/17/2021 - 07/16/2021	B7	Carrier	5/12/2021	5/12/2021	$615	$615	
B	04/17/2021 - 07/16/2021	B9	IPPS	7/15/2021	7/20/2021	$1,773	$1,773	1 day is within the episode. The GLMOS in the IPPS rule is 3.5 days. Include 29% of the costs.

Step 3: Standardize Episode Costs

- Unregulated: Episode-level costs are aggregated by summing the CMS standardized allowed amounts for included claims.
  - These standardized payments reflect the cost of services after removing variation in spending arising from geographical and policy driven reimbursement. E.g. geographic practice cost index (GPCI)
  - For details of the standardization methodology see the documentation on the CMS website
- Regulated: Hospital costs will be re-priced using the baseline period rate orders and not the actual paid amount.
- To limit extreme values, winsorize episode costs at the 1st and 99th percentile.
  - Set all values below the 1st percentile to the 1st percentile
  - Set all values above the 99th percentile to the 99th percentile

Step 3: Exclude Inter-CTI Overlaps

- Definitional overlap will be prohibited between CTIs.
  - Example: A hospital may not propose a CTI that includes all hospital discharges and also propose a CTI that includes all discharges for CHF
  - Solution: One or both population definitions will be changed
- Operational overlap will be corrected if more than 15% of beneficiaries in a CTI also fit in another CTI.
  - Example: A CTI triggered on a hospital discharge for CHF and a CTI triggered on a primary care visit for CHF share 25% of beneficiaries
  - Solution: A beneficiary is assigned based on which trigger occurred first

Step 3: Example

CTI ID	Epsiode ID	Bene ID	Epsiode Window	Costs	Stnd. Costs	Comment
X	X-1	B001	07/08/2020 - 10/06/2020	$16,988	$15,459	
X	X-2	B002	07/22/2020 - 10/20/2020	$17,347	$14,730	Overlaps with Y-2* and occurs first. Episode retained.
X	X-3	B003	07/30/2020 - 10/28/2020	$17,287	$15,731	
X	X-4	B004	08/03/2020 - 11/01/2020	$91,606	$32,000	Winsorized to the 99 percentile threshold of $32k
X	X-5	B005	08/15/2020 - 11/13/2020	$14,957	$13,611	
X	X-6	B006	08/17/2020 - 11/15/2020	$13,791	$12,550	
X	X-7	B007	08/21/2020 - 11/19/2020	NA	NA	Overlaps with Y-6* but occurs second. Episode dropped.
Y	Y-1	B008	07/23/2020 - 10/21/2020	$25,753	$23,435	
Y	Y-2	B002	07/26/2020 - 10/24/2020	NA	NA	Overlaps with X-2* but occurs second. Episode dropped.
Y	Y-3	B009	07/31/2020 - 10/29/2020	$24,016	$21,855	
Y	Y-4	B010	08/06/2020 - 11/04/2020	$20	$2,500	Winsorized to the 1st percentile threshold of $2.5k
Y	Y-5	B011	08/07/2020 - 11/05/2020	$25,049	$22,795	
Y	Y-6	B007	08/20/2020 - 11/18/2020	$23,052	$20,977	Overlaps with X-7* and occurs first. Episode retained.
Y	Y-7	B012	08/20/2020 - 11/18/2020	$26,527	$24,140	
Y	Y-8	B013	08/23/2020 - 11/21/2020	$21,190	$19,283	

*Assumes episodes X and Y overlap by over 15% threshold

Calculation of Target Prices

Steps to Calculate Target Prices

4. Risk adjust the claims based on beneficiary characteristics
   - Estimate a risk-adjustment model
   - Calculate risk-adjusted episode costs
5. Update the costs into current year prices
   - Calculate an update factor
   - Update baseline year prices
6. Finalize the target price
   - Convert back to real dollars
   - Average the updated baseline episode costs

Step 4: Risk Adjust Claims

- Each episode spend will be risk adjusted using a regression model across everyone who meets the CTI condition in the entire State. The regression may be based on:
  - Beneficiaries' age
  - Dual eligibility
  - Disability
  - Long-term institutional care
  - Recent hospitalizations prior to episode start
  - Hierarchal Condition Categories (HCC) score or SOI
- Risk score depends on the setting:
  - HCC will be used when episode is triggered outside of the hospital
  - APR-DRG SOI will be used when the episode is triggered in the hospital
- The risk-adjusted costs will be predicted by the outcome of the regression analysis.

Step 4: Example

Bene ID	Stnd. Costs	Age	Dual	Disability	Long-Term	Prior Hosp	HCC	Risk Score	Risk Adj. $
B001	$15,459	67	NO	NO	NO	1	1.29	1.32	$11,711
B002	$14,770	70	NO	NO	NO	0	0.99	0.98	$15,071
B003	$15,731	72	NO	NO	YES	0	0.97	1	$15,731
B004	$13,493	65	YES	YES	NO	0	1.22	1.32	$10,222
B005	$13,611	69	NO	NO	NO	5	1.67	1.61	$8,454
B006	$12,550	85	NO	NO	NO	0	1.55	1.49	$8,423
B007	$12,041	75	YES	YES	YES	1	1.61	1.66	$7,254
B008	$23,435	77	NO	NO	NO	0	1.50	1.53	$15,317
B009	$21,706	86	NO	NO	NO	0	1.29	1.31	$16,569

Step 5: Update the Costs into Current Year Prices

- After episodes are constructed, the risk-adjusted standardized payments for each episode in the baseline period are updated using CMS/HSCRC trend factors:
  - Hospital (IPPS & OPPS): based on the HSCRC update factor
  - PFS: the weighted average of anesthesia and physician update factors
  - SNF and HHA settings: the ratio of the baseline period unit costs re-priced under performance year rates and the baseline period actual unit costs
  - Other settings (e.g. non-hospital OPPS): the chained Medicare Economic Index (MEI) between the baseline and performance period
- Example trend factors will be included in the CTI User Guide.
- The current year episode costs are equal to each cost category times the relevant update factor.

Step 5: Update the Costs into Current Year Prices (cont.)

- The hospital trend factor will be based on the HSCRC update factor at a hospital level.
- In the performance period, hospital costs will be re-priced using the HSCRC rate orders and not the actual paid amount.

Step 5: Example

Episode ID	Cost Type	Risk Adj. Cost	Update Factor	Current Year Costs
X-01	Hospital	$ 9,675	1.04	$ 10,062
X-01	Physician	$ 1,747	1.05	$ 1,834
X-01	SNF	$ 4,586	1.03	$ 4,724
X-01	HHA	$ 129	1.04	$ 134
X-01	Other	$ 413	1.02	$ 421
X-01	Total	$ 16,550	-	$ 17,175
X-02	Hospital	$ 9,420	1.04	$ 9,797
X-02	Physician	$ 1,151	1.05	$ 1,209
X-02	SNF	$ 4,605	1.03	$ 4,743
X-02	HHA	$ 446	1.04	$ 464
X-02	Other	$ 332	1.02	$ 339
X-02	Total	$ 15,954	-	$ 16,551

Step 6: Finalize the Target Price

- Because all calculations are conducted using standardized allowed amounts, the target prices must be converted back to real dollars.
  - Calculate the ratio of real episode spending to the standardized allowed amount in the baseline period
  - Multiply the risk-adjusted standardized price (in current year dollars) by the ratio of real dollars to standardized prices
- The target price is equal to the average adjusted price per episode.

Step 6: Example

Average Episode Costs	Average Stnd. Costs	Ratio of Episode Costs to Stnd. Costs	Target Price
(E)	(F)	(G)	(I)
Average of A	Average of B	E / F	Average of H
$15,851	$14,424	1.100	$16,446

CTI	Episode ID	Episode Costs (Base Year)	Stnd. Costs	Risk Adj. Costs	Index Trended Costs	Risk Adj. Trended Real $ Costs
		(A)	(B)	(C)	(D)	(H)
				B x Bene Level Risk Adjustment	C x Trend Factors*	D x G
X	X-1	$16,988	$15,459	$15,923	$16,321	$17,935
X	X-2	$16,231	$14,770	$15,065	$15,442	$16,969
X	X-3	$17,287	$15,731	$15,574	$15,963	$17,542
X	X-5	$14,957	$13,611	$14,019	$14,369	$15,790
X	X-6	$13,791	$12,550	$12,425	$12,736	$13,995

*Cumulatively for periods between base and performance period

Calculation of Savings

Example Calculation of Savings

- The aggregate savings paid to hospitals are calculated by:
  1. Calculating the difference between the performance period average, real, risk-adjusted episode costs and the target price
  2. Multiplying the episode savings by the number of beneficiaries

	Baseline Period	Performance Period
Number of Beneficiaries	5	6
Target Price	$850	
Performance Period Cost		$730
Savings per Episode	-	Step 1 $120=($850 - $730)
Aggregate Savings	-	Step 2 $720=(6 x $120)

Power Calculations

- For CTIs with small populations, the HSCRC will set a savings threshold based on a power calculation.
  - The savings threshold is designed to avoid paying out reconciliation payments for savings that are produced by statistical variation and not an actual impact
  - The threshold will be set at a level for which the observed savings rate is reasonably statistically significant
- The statistical threshold will be based on a power calculation run by HSCRC on the CTI population.
  - The power calculation will be based on the number of beneficiaries in the baseline period cohort and the variance in the TCOC between individual episodes in the baseline period

Care Transformation Initiatives

Future Policy Development

Measuring Costs of CTIs

- Stakeholders have suggested incorporating the cost of managing the TCOC into other payment methodologies (e.g. ICC, full rate reviews, etc.).
- Initially, HSCRC staff are interested in methods to quantify:
  - The cost of Full Time Equivalents (FTE) that spent more than 25% implementing the CTI interventions
  - The overhead costs relative to the number of beneficiaries that are covered by the CTI population
- The HSCRC staff will discuss how the costs of the CTI can be captured via cost reports or other methods with a subgroup of the Payment Models Workgroup.

Overlaps between CTI and the MPA

- The MPA attributes all Medicare FFS beneficiaries to Maryland hospitals. The CTI may attribute Medicare beneficiaries to hospitals other than their MPA attribution.
- HSCRC staff will present options for addressing the overlap between the MPA and the CTI. Initial options include:
  - Do nothing
  - Allocate CTI beneficiaries to their CTI hospital under the MPA
  - Remove the CTI beneficiaries from the MPA

Next TCOC WG Meeting: October 30, 2019

Future meetings

- TCOC Work Group meetings
  - October 30
  - December 4
- HSCRC Commission meetings
  - October 16