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Final Recommendation for the Readmission Reduction Incentive Program for Rate Year 2026

April 10, 2024

This document contains the staff final recommendations for the

RY 2026 Readmission Reduction Incentive Program.

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List of Abbreviations

ADI	Area Deprivation Index
AMA	Against Medical Advice
APR-DRG	All-patient refined diagnosis-related group
CMS	Centers for Medicare & Medicaid Services
CMMI	Center for Medicare and Medicaid Innovation
CRISP	Chesapeake Regional Information System for Our Patients
CY	Calendar year
eCQM	Electronic Clinical Quality Measure
EDAC	Excess Days in Acute Care
FFS	Fee-for-service
HCC	Hierarchical Condition Category
HRRP	Hospital Readmissions Reduction Program
HSCRC	Health Services Cost Review Commission
HWR	Hospital-Wide Readmission Measure
MCDB	Medical Claims Database
MPR	Mathematica Policy Research
MSA	Metropolitan Statistical Area
NQF	National Quality Forum
PAI	Patient Adversity Index
PMWG	Performance Measurement Workgroup
PQI	Prevention Quality Indicators
RRIP	Readmissions Reduction Incentive Program
RY	Rate Year
SIHIS	Statewide Integrated Healthcare Improvement Strategy
SOI	Severity of illness
TCOC	Total Cost of Care
YTD	Year-to-date

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Key Methodology Concepts and Definitions

Diagnosis-Related Group (DRG): A system to classify hospital cases into categories that are similar in clinical characteristics and in expected resource use. DRGs are based on a patient's primary diagnosis and the presence of other conditions.

All Patients Refined Diagnosis Related Groups (APR-DRG): Specific type of DRG assigned using 3M software that groups all diagnosis and procedure codes into one of 328 All-Patient Refined-Diagnosis Related Groups.

Severity of Illness (SOI): 4-level classification of minor, moderate, major, and extreme that can be used with APR-DRGs to assess the acuity of a discharge.

APR-DRG SOI: Combination of diagnosis-related groups with severity of illness levels, such that each admission can be classified into an APR-DRG SOI "cell" along with other admissions that have the same diagnosis-related group and severity of illness level.

Observed/Expected Ratio: Readmission rates are calculated by dividing the observed number of readmissions by the expected number of readmissions. Expected readmissions are determined through case-mix adjustment.

Case-Mix Adjustment: Statewide rate for readmissions (i.e., normative value or "norm") is calculated for each diagnosis and severity level. These statewide norms are applied to each hospital's case-mix to determine the expected number of readmissions, a process known as indirect standardization.

Prevention Quality Indicator (PQI): a set of measures that can be used with hospital inpatient discharge data to identify quality of care for "ambulatory care sensitive conditions." These are conditions for which good outpatient care can potentially prevent the need for hospitalization or for which early intervention can prevent complications or more severe disease.

Area Deprivation Index (ADI): A measure of neighborhood deprivation that is based on the American Community Survey and includes factors for the theoretical domains of income, education, employment, and housing quality.

Patient Adversity Index (PAI): HSCRC-developed composite measure of social risk incorporating information on patient race, Medicaid status, and the Area Deprivation Index.

Excess Days in Acute Care (EDAC): Capture excess days that a hospital's patients spent in acute care within 30 days after discharge. The measures incorporate the full range of post-discharge use of care (emergency department visits, observation stays, and unplanned readmissions).

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Policy Overview

Policy Objective	Policy Solution	Effect on Hospitals	Effect on Payers/Consumers	Effect on Health Equity
The quality programs operated by the Health Services Cost Review Commission, including the Readmission Reduction Incentive Program (RRIP), are intended to ensure that any incentives to constrain hospital expenditures under the Total Cost of Care Model do not result in declining quality of care. Thus, HSCRC's quality programs reward quality improvements and achievements that reinforce the incentives of the Total Cost of Care Model, while guarding against unintended consequences and penalizing poor performance.	The RRIP policy is one of several pay-for-performance quality initiatives that provide incentives for hospitals to improve and maintain high-quality patient care and value over time. It also provides incentive to reduce disparities in readmissions.	The RRIP policy currently holds up to 2 percent of hospital revenue at-risk for performance relative to predetermined attainment or improvement goals on readmissions occurring within 30-days of discharge, applicable to all payers and all conditions and causes. The hospitals can also earn up to a 0.5 percent reward for reductions in within hospital disparities.	This policy affects a hospital's overall GBR and so affects the rates paid by payers at that particular hospital. The HSCRC quality programs are all-payer in nature and so improve quality for all patients that receive care at the hospital.	Currently, the RRIP policy measures within-hospital disparities in readmission rates, using an HSCRC-generated Patient Adversity Index (PAI), and provides rewards for hospitals that meet specified disparity gap reduction goals. The broader RRIP policy continues to reward or penalize hospitals on the better of improvement and attainment, which incentivizes hospitals to improve poor clinical outcomes that may be correlated with health disparities. It is important that persistent health disparities are not made permanent.

Recommendations

These are the final recommendation for the Maryland Rate Year (RY) 2026 Readmission Reduction Incentives Program (RRIP):

1. Maintain the 30-day, all-cause readmission measure.
2. Improvement Target - Set statewide 4-year improvement target of 5 percent from 2022 base period through 2026.
3. Attainment Target - Maintain the attainment target whereby hospitals at or better than the 65th percentile of statewide performance receive scaled rewards for maintaining low readmission rates.
4. Maintain maximum rewards and penalties at 2 percent of inpatient revenue.
5. Provide additional payment incentive (up to 0.50 percent of inpatient revenue) for reductions in within-hospital readmission disparities. To be eligible for disparity gap reward, hospitals must not have an increase in overall readmission rate and must submit details on interventions aimed at reducing disparities. Scale rewards:
    a. beginning at 0.25 percent of IP revenue for hospitals on pace for 50 percent reduction in disparity gap measure over 8 years, and;
    b. capped at 0.50 percent of IP revenue for hospitals on pace for 75 percent or larger reduction in disparity gap measure over 8 years.
6. Monitor emergency department and observation revisits by adjusting readmission measure and through all-payer Excess Days in Acute Care measure. Consider future inclusion of revisits in the case-mix adjusted readmission measure or inclusion of EDAC in the RRIP program. Collaborate with stakeholders to explore the causes and consequences of greater observation stay use in Maryland compared to the Nation.

Introduction

Maryland hospitals are funded under a population-based revenue system with a fixed annual revenue cap set by the Maryland Health Services Cost Review Commission (HSCRC or Commission) under the All-Payer Model agreement with the Centers for Medicare & Medicaid Services (CMS) beginning in 2014, and continuing under the current Total Cost of Care (TCOC) Model agreement, which took effect in 2019. Under the global budget system, hospitals are incentivized to shift services to the most appropriate care setting and simultaneously have revenue at risk in Maryland's unique, all-payer, pay-for-performance quality programs; this allows hospitals to keep any savings they earn via better patient experiences, reduced hospital-acquired infections, or other improvements in care. Maryland systematically revises its quality and value-based payment programs to better achieve the state's overarching goals: more efficient, higher quality care, and improved population health. It is important that the Commission ensure that any incentives to constrain hospital expenditures do not result in declining quality of care. Thus, the Commission's quality programs reward quality improvements and achievements that reinforce the incentives of the global budget system, while guarding against unintended consequences and penalizing poor performance.

The Readmissions Reduction Incentive Program (RRIP) is one of several quality pay-for-performance initiatives that provide incentives for hospitals to improve patient care and value over time that targets unplanned readmissions. While some hospital readmissions are unavoidable, other hospital readmissions within 30 days result from ineffective initial treatment, poor discharge planning, or inadequate post-acute care and result in poor patient outcomes and financially straining healthcare institutions.[1] The RRIP currently holds up to 2 percent of inpatient hospital revenue at-risk in penalties and rewards based on achievement of improvement or attainment targets in 30-day case-mix adjusted readmission rates. Furthermore,the RRIP also provides the opportunity to earn an additional 0.5 percent of inpatient revenue for hospitals with reductions in within-hospital readmission disparities (with requirement that the overall readmission

[1] Rammohan R, Joy M, Magam S, et al. (May 15, 2023) The Path to Sustainable Healthcare: Implementing Care Transition Teams to Mitigate Hospital Readmissions and Improve Patient Outcomes. Cureus 15(5): e39022. doi:10.7759/cureus.39022

rate does not increase). These two incentives should be considered in combination when assessing policy and evaluating performance.

For RRIP, as well as the other State hospital quality programs, updates are vetted with stakeholders and approved by the Commission to ensure the programs remain aggressive and progressive with results that meet or surpass those of the national CMS analogous programs (from which Maryland must receive annual exemptions). For purposes of the RY 2026 RRIP Final Policy, staff vetted the updated proposed recommendations in January and February with the Performance Measurement Workgroup (PMWG), the standing advisory group that meets monthly to discuss Quality policies.

Additionally, with the onset of the Total Cost of Care Model Agreement, each program was overhauled to ensure they support the goals of the Model. For the RRIP policy, the overhaul was completed during 2019, which entailed an extensive stakeholder engagement effort. The major accomplishments of the RRIP redesign were modifications to the inclusion and exclusion criteria for the readmission measure, development of a 5-year (2018-2023) improvement target, adjustment of the attainment target, and the addition of an incentive to reduce within hospital disparities in readmissions. See Appendix I for additional information on the Readmission Redesign Subgroup activities.

This final policy establishes a new four-year improvement target (CY2022 to CY2026), assesses the current attainment target, discusses the issue of revisits to the emergency department/observation following an inpatient admission, and continues the incentive for reductions in within-hospital disparities. The final policy does not make any changes to the current case-mix adjustment readmission measure, and includes minimal updates to the disparity gap measurement. Given the multi-year nature of this policy, staff may extend this policy for multiple years unless changes are warranted.

Background

Brief History of RRIP program

Maryland made incremental progress each year throughout the All-Payer Model (2014-2018), ultimately achieving the Model goal for the Maryland Medicare FFS readmission rate to be at or below the unadjusted national Medicare readmission rate by the end of Calendar Year (CY) 2018. Maryland had historically performed poorly compared to the nation on readmissions; it ranked 50th among all states in a study examining Medicare data from 2003-2004.[2] In order to meet the All-Payer Model requirements, the Commission approved the inaugural RRIP program in April 2014 to further bolster the incentives to reduce unnecessary readmissions beyond the incentives already inherent in the global budget system.

As recommended by the Performance Measurement Work Group (PMWG), the RRIP is more comprehensive than its federal counterpart, the Medicare Hospital Readmission Reduction Program (HRRP), as it is an all-cause, all-condition measure that includes all eligible discharges regardless of payer.[3] Furthermore, it assesses both improvement and attainment and provides an incentive to focus on disparities.

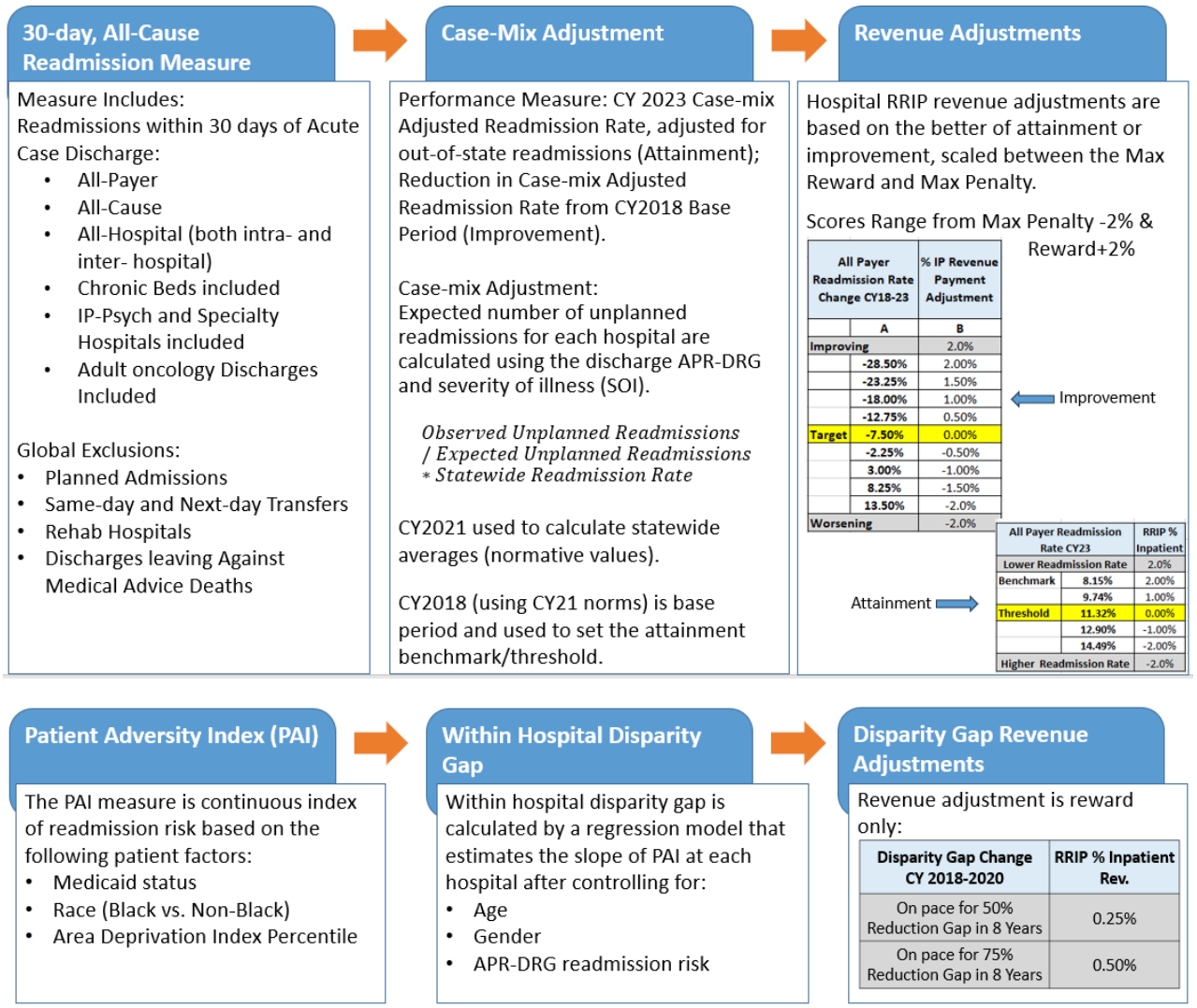
RRIP Methodology

Figure 1 provides an overview of the current RRIP methodology (also see Appendix I) that converts hospital performance to payment adjustments. In Maryland, the RRIP methodology evaluates all-payer, all-cause inpatient readmissions using the CRISP unique patient identifier to track patients across Maryland hospitals. The readmission measure excludes certain types of discharges (pediatric oncology, patients who leave against medical advice, rare diagnosis groups) from consideration, due to data issues and clinical concerns. Readmission rates are adjusted for case-mix using all-patient refined diagnosis-related group (APR-DRG) severity of illness (SOI), and the policy determines a hospital's score and revenue adjustment by the better of

[2] Jencks, S. F. et al., "Hospitalizations among Patients in the Medicare Fee-for-Service Program," *New England Journal of Medicine* Vol. 360, No. 14: 1418-1428, 2009.
[3] For more information on the HRRP, please see:
https://www.cms.gov/Medicare/Medicare-Fee-for-Service-Payment/AcuteInpatientPPS/Readmissions-Reduction-Program

improvement or attainment.[4] The disparity gap methodology is separate and provides hospitals with the opportunity to earn rewards (no penalties) based on improvement.

Figure 1. RRIP Methodology RY25



[4] See Appendix I for details of on the current RRIP methodology.

Assessment

For RY 2026, the main policy decisions are to develop a new improvement target, since the original TCOC model goal was set through CY 2023, and assess the attainment standards with updated benchmarking. In order to set a new improvement goal, this section assesses readmissions performance and provides improvement scenarios for consideration. For attainment, updated benchmarking was evaluated for Medicare FFS and Commercial populations; as described below, staff is not proposing to change the attainment target from the 65th percentile. While there are no proposed changes to the readmission measure, staff is recommending that additional analytics be conducted over the coming year to assess hospital revisits to the emergency department and/or observation, which staff believes will complement some of the other workstreams the Commission currently is engaging in to improve emergency room length of stay. Finally, staff provides performance on the disparity gap measure and recommends to continue this targeted focus on high adversity patients.

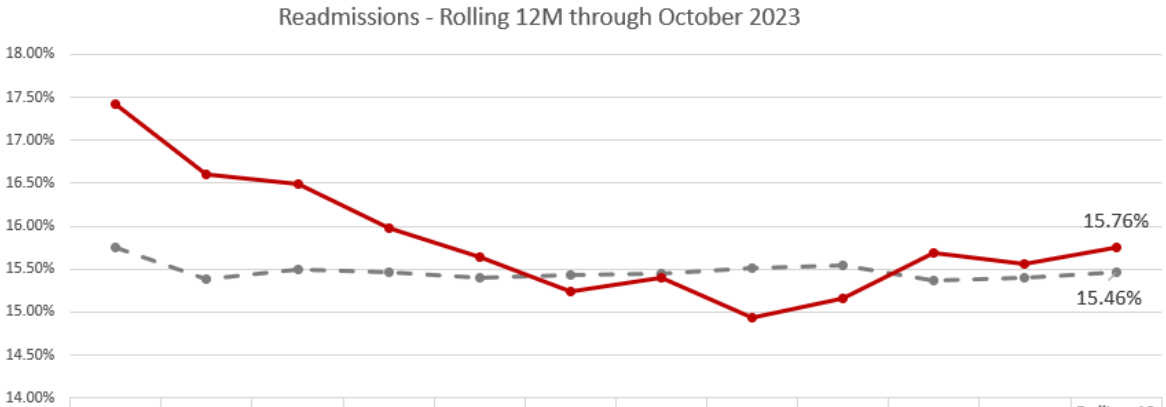
Current Statewide Year To Date Performance

Readmission performance is assessed in several ways. First, we present data on the unadjusted, all-cause Medicare Readmission Rate (the "Waiver Test"), which shows that Maryland currently has a slightly higher unadjusted readmission rate than the nation. Second, we present the all-payer, case mix adjusted readmission results used for the RRIP.

Medicare FFS performance

At the end of 2018, Maryland had an unadjusted FFS Medicare readmission rate of 15.40 percent, which was below the national rate of 15.45 percent. This is the measure that CMMI used to assess Maryland's successful performance on readmissions under the All-payer Model. Under the TCOC model, Maryland is required to maintain a Medicare FFS readmission rate that is below the nation. However, since CY 2021, Maryland's FFS Medicare unadjusted readmission rate has hovered slightly above that of the nation. The most recent readmission data, in Figure 2, show Maryland's readmission rate at 15.76 percent with the nation at 15.46 percent. However, as discussed in Appendix II, staff and CMMI have agreed to move to a risk-adjusted readmission measure that takes into account the case-mix differences between Maryland and the Nation. Overall, when taking case-mix into account, Maryland Medicare FFS patients have a lower readmission rate than National beneficiaries.

Figure 2. Maryland and National Medicare FFS Unadjusted Readmission Rates

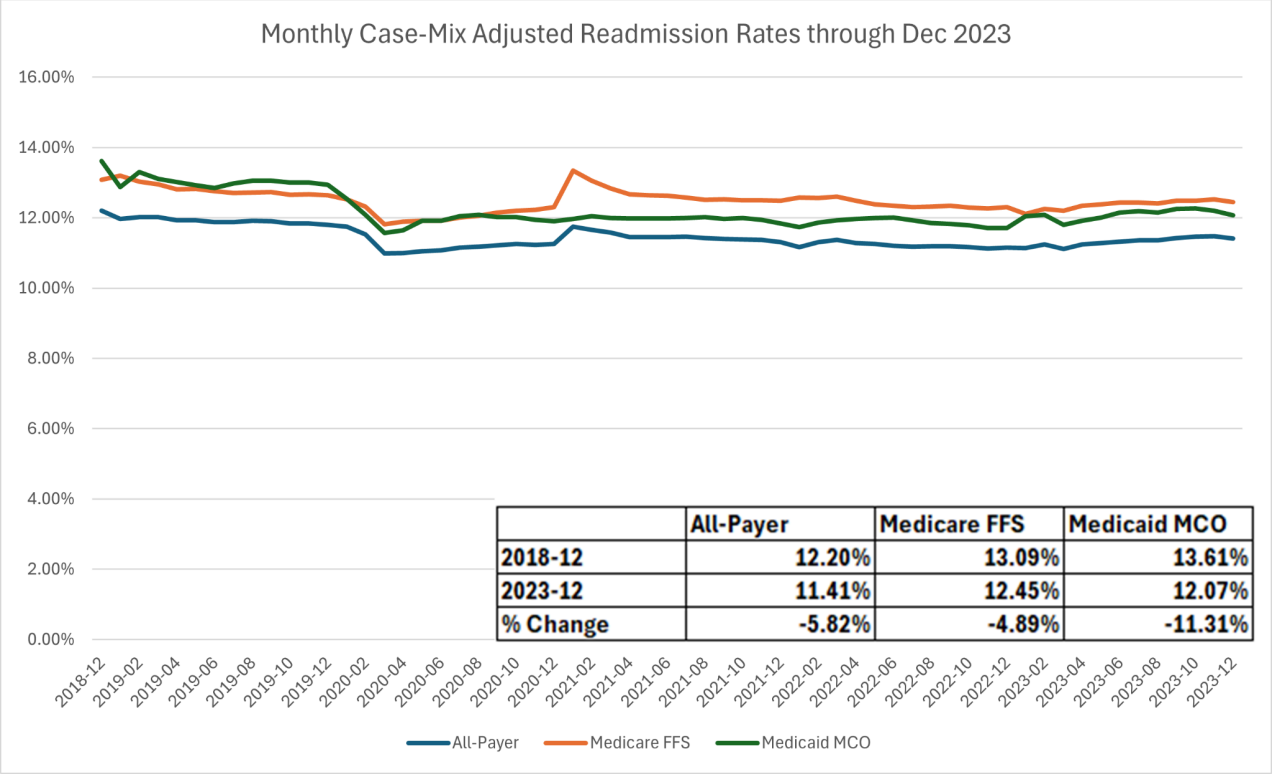


	CY 2012	CY 2013	CY 2014	CY 2015	CY 2016	CY 2017	CY 2018	CY 2019	CY 2020	CY 2021	CY 2022	Rolling 12 Months CY 2023
National	15.76%	15.38%	15.50%	15.46%	15.40%	15.43%	15.45%	15.52%	15.55%	15.37%	15.40%	15.46%
Maryland	17.41%	16.60%	16.48%	15.97%	15.65%	15.24%	15.40%	14.94%	15.17%	15.68%	15.56%	15.76%

All-Payer Readmission Performance

Maryland has also performed well statewide over time on RRIP performance standards as shown in Figure 3, with All-payer, Medicare FFS, and Medicaid MCO readmission reductions of 5.82 percent, 4.89 percent and 11.31 percent from 2018 respectively. The all-payer reduction is in line with the 5-year improvement goal, which was set as part of the RRIP redesign, of a 7.5 percent improvement from CY2018 through CY2023.

Figure 3. Statewide Improvement in Case-Mix Adjusted Readmission Rates by Payer, 2018 through 2023 (Preliminary)



	All-Payer	Medicare FFS	Medicaid MCO
2018-12	12.20%	13.09%	13.61%
2023-12	11.41%	12.45%	12.07%
% Change	-5.82%	-4.89%	-11.31%

Most hospitals continue to perform well under the RY 2025 RRIP program, which is based on CY 2023 performance (current results are YTD through preliminary December). As illustrated in Figure 4 below, 14 hospitals are on target to reach the improvement goal of 7.5 percent, and as shown in Figure 5, 13 hospitals are on target to have a readmission rate below the attainment threshold of 11.32 percent. Hospitals performing well on both improvement and attainment will receive the better revenue adjustment (i.e., the higher reward or lower penalty). Overall there are 20 unique hospitals on track to receive a scaled reward for CY 2023 performance.

Figure 4. By-Hospital Change in All-Payer Case Mix Adjusted Readmission Rates, 2018-YTD 2023

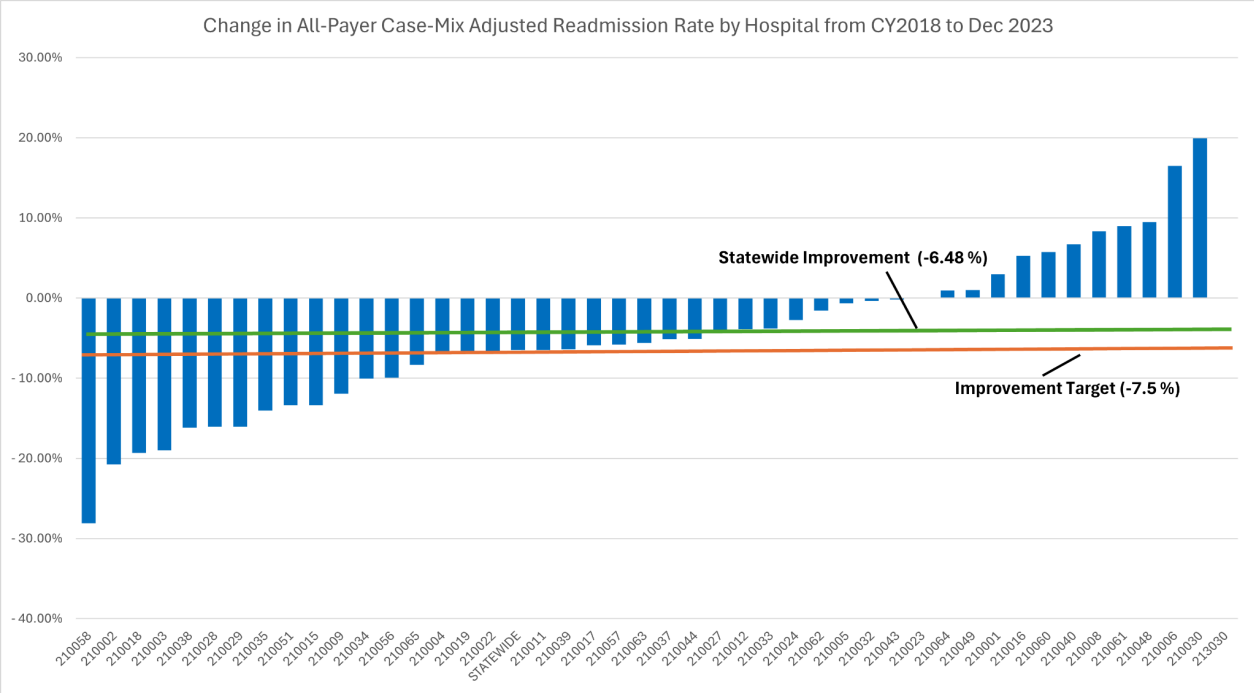
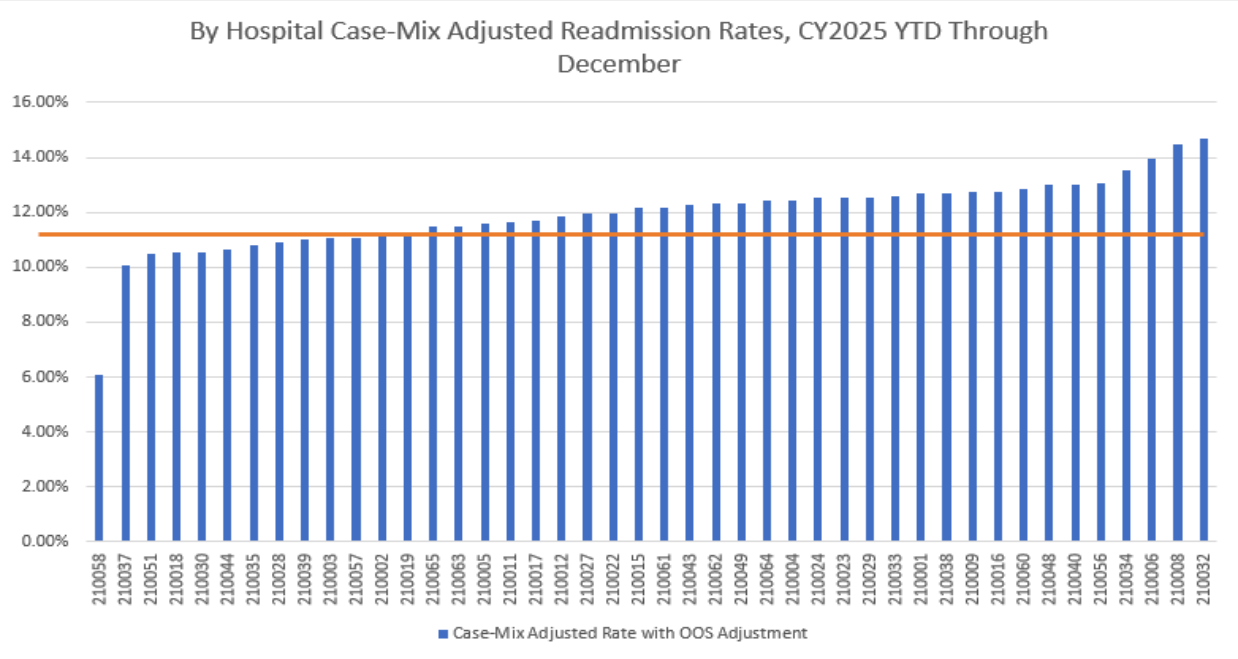


Figure 5. By-Hospital Change Case Mix Adjusted Readmission Rates, YTD 2023



Updating the Performance Targets Under the TCOC Model

Improvement

Maryland hospitals achieved the contractual test for Medicare readmissions to be at or below the nation by 2018. Analyses conducted as part of the RRIP redesign suggested that further improvements of 7.5 percent could be achieved. This policy repeats the analyses conducted in 2019 to determine a reasonable improvement goal for earning rewards, and whether additional improvement should be expected over the last few years of the TCOC model.

Staff believes that further reductions in readmissions are possible, but recommends a more modest improvement target from CY 2022 through CY2026 in recognition of the sustained and substantial improvement under the All-Payer Model and the first five years under the TCOC Model. As the literature does not provide an optimal all-payer readmission rate, staff has generated a range of potential improvement scenarios. Figure 5 reflects the modeling revealing a range of readmission rate reductions of approximately 2 to 9 percent from existing CY 2022 levels.

Figure 6. Improvement Target Estimates

Estimating Method	Percent Improvement from CY2022 (11.15%)	Resulting Readmission Rate (2026)*
1 Actual Compounded Improvement, 2018-2022	-8.61%	10.19%
2 Actual Improvement 2021-2022, Annualized to Four Years	-5.54%	10.53%
3 All Hospitals to 2022 Median	-4.1%	10.69%
4a Medicare Benchmarking - Peer County/MSA to 75th Percentile**	-4.75% to -5.45%	10.58%
4b Commercial Benchmarking - Peer	-2.22% to -9.15%	10.52%

County/MSA to 75th Percentile**		
5 Reduction in Readmission-PQIs	-2.39%	10.88%

* Assuming a constant CY 2022 readmission rate of 11.15 percent (under RY 2025 logic with specialty hospitals included)

For the first estimating method (Row 1), staff analyzed the improvement achieved under the first four years of the TCOC model and assumed that similar improvements could be repeated during the last four years under the TCOC Model. This ~9 percent reduction represents the higher end of the improvement estimates. The second method (Row 2) uses the (slightly slower) improvement achieved between 2021 and 2022 and annualizes this one-year improvement to four years, resulting in a slightly less aggressive improvement target of ~5.5 percent.

The third and fourth estimating methods derive targets by assuming that hospitals currently performing worse than the statewide median or other peer geographies could improve to these rates. The third method (Row 3) calculates the statewide improvement if all hospitals are reduced to the CY 2022 median readmission rate. This method provides a lower improvement goal than the trending analysis. The fourth estimating method (Row 4a and 4b) uses national benchmarks of like geographies to generate improvement targets for Maryland hospitals to reduce to the 75th percentile of similar geographies by payer. Based on 2022 data, Maryland Medicare FFS readmission rates would need to improve by 4.75 percent to reach the Peer county 75th best percentile, or 5.75 percent to ensure that all Maryland counties were at or below the 75th percentile.[5] While for Commercial population, the CY 2022 readmission rate would need to improve by 2.22 percent to reach the Peer county 75th best percentile, or 9.15 percent to ensure that all Maryland counties were at or below the 75th percentile.

The fifth method estimates what the readmission rate would be if a certain percent of readmissions that are also PQIs (i.e., avoidable admissions for conditions such as diabetes, COPD, and hypertension) are prevented. In this analysis we used the SIHIS PQI improvement goal, and reduced readmissions that were also PQIs by this goal and recalculated statewide rate.

[5] The second scenario is lower as there are Maryland counties already better than the 75th percentile.

We also considered how reductions in readmission disparities might impact overall improvement, but would have needed to assess reductions for each factor (medicaid status, race, ADI) independently, which would be difficult to interpret and would not account for differing populations of interest across hospitals.

These scenarios identify a range of potential targets but do not determine a specific, optimal readmission rate. Staff and stakeholders agree generally with the range of potential improvement targets and support the generation of a four-year target rather than annual targets. Stakeholders also continue to support including both improvement and attainment in building a revenue adjustment. Based on the above modeling, as well as stakeholder input, staff has decreased the improvement target in this final policy from 5.5 percent to 5.0 percent (2022 to 2026). Staff reserves the right to revisit and revise this target should it prove too aggressive or too lenient such that the state creates unintended consequences or risks not meeting the continued goal of remaining at or below that national Medicare rate.

Attainment

Prior to the RRIP Redesign for the TCOC model, the HSCRC has used the 75th percentile of best performers as the threshold to begin receiving rewards for attainment. In RY 2021, this was amended to the 65th percentile to allow hospitals in the top-third of Maryland performance to earn financial rewards for attainment, which acknowledged that Maryland (historically a poor performer on readmissions) had accomplished substantial improvement during the All-Payer Model. Staff analyzed the current policy of the 65th percentile and compared this to the improvement targets suggested by the Peer Group national benchmarking analysis and the various opportunity analyses. To do this, staff calculated the statewide CY 2022 casemix-adjusted rate inclusive of a 5% improvement target and compared this statewide rate to the 65th percentile of hospital performance in CY 2022. Staff determined that the 65th percentile of current performance is quite close to the targeted statewide readmission rate. Thus, as discussed more in the stakeholder feedback section, staff supports maintaining the attainment threshold (start of rewards) at the 65th percentile of hospital performance since it aligns with the start of rewards for improvement.

Revisits to Emergency Department and Observation Stays

Improvement in readmission rates under the model should result in better patient experience. However, the current readmission measures only count a readmission if the patient returns to the hospital and is admitted into an inpatient bed. Thus, revisits to the emergency department or for an observation stay after an initial inpatient admission are not considered. This potentially has an impact on hospital throughput and ED boarding as anecdotally hospital ED staff have said that they are doing more testing and diagnostics in the ED, which previously may have been done during the inpatient admission, to determine whether an admission is really necessary. While this might be appropriate clinically, if these revisits represent quality of care or care coordination concerns, these are not being identified for payment incentives at this time (only exception is PAU includes observation stays >=24 hours as inpatient stays). When HSCRC staff looked at this previously for just observation stays, we found that while readmission rates increased when observation stays were included, the correlation between the readmission rates with and without observation stays was 0.986 in 2018. This analysis, and the fact that the national program does not include observation stays, led the staff at that time to recommend that the RRIP readmission measure remain an inpatient only measure. However, staff recommended in the draft policy, and seeks Commissioner input/support, to repeat these analyses over the coming year with both ED and observation stays included, to assess the extent of revisits, types of revisits, and differential impacts of revisits on readmission performance by hospital (e.g., does the rank order of hospitals change with inclusion of revisits). While PMWG members have told us that revisits may reflect quality of care or other concerns such as medication access, they do not think that shorter observation stays necessarily reflect quality concerns and do remain concerned about lack of benchmarking for a broader measure. Finally, staff has discussed with CMMI and other stakeholders their interest in understanding the causes and consequences of higher use of observation in Maryland compared to the nation. CMMI has proposed adding observation stays to the Medicare readmission measure used for comparing Maryland and the Nation. However, staff believes additional analytics and clinical input is needed to assess this change and whether shorter observation stays should be excluded. Staff will continue to collaborate with CMMI on this issue and has updated the recommendation on monitoring of revisits to reflect that CMMI has identified higher use of observation stays as a topic of interest.

Excess Days in Acute Care (EDAC)

As discussed above, stakeholders remain concerned about emergency department and observation revisits, especially given the global budget incentives to reduce avoidable[6] admissions. Another approach for addressing this issue would be to adopt the Excess Days in Acute Care measure into payment. The EDAC measure captures the number of days that a patient spends in the hospital within 30 days of discharge, and includes emergency department and observation stays by assigning ED visits a half-day length of stay and assigning observation hours rounded up to half-day units.[7] Staff has worked with our methodological contractor to adapt the Medicare Excess Days in Acute Care (EDAC) condition-specific measures to an all-cause, all-payer measure for potential program adoption in future years. This work was completed and monitoring reports for this measure are posted on the CRISP portal on a monthly basis for hospital monitoring and input. Over the coming year as staff assesses revisits, the EDAC measure may be one option for consideration rather than adapting the actual readmission measure. However, the EDAC measure has been criticized by some PMWG members because of the time element associated with the readmission. Specifically, the concern is that longer readmissions (which would represent worse performance) may indicate a less preventable readmission. While staff will consider this concern, it could also be countered that a longer readmission represents a more serious quality of care issue from the initial admission. Staff should collaborate with CMMI on observation stays as they decide if and how to factor in revisits as a quality of care concern.

Digital Measures/Electronic Clinical Quality Measure (eCQM)

Under the Inpatient Quality Reporting program, CMS transitioned from the claims-based 30-day Hospital Wide Readmission (HWR) measure to the digital Hybrid HWR measure with the July, 1 2023-June 30, 2024 mandatory reporting of the hybrid measure for Medicare patients for FFY 2026 payment year. The HWR 30-day readmission hybrid measure merges electronic health record data elements with a set of 13 Core Clinical Data Elements (CCDE) consisting of six vital signs and seven laboratory test results; hospitals must map these 13 CCDE to the patient

[6] Updated 4/5/2024 from “to avoid admissions” to say “reduce avoidable admissions”.
[7] Additional information on the EDAC measures and methodology can be found here: https://www.qualitynet.org/inpatient/measures/edac/methodology

electronic health record (EHR). The claims and CCDE data are then merged and used to calculate measure results. For the initial mandatory year beginning July 1, 2023, HSCRC also requires hospitals to submit the hybrid HWR measure data to the State for Medicare patients. Additionally, staff has formally communicated to hospitals the State's intent to expand the measure to all-payers aged 18 and above beginning with July 1, 2024 discharges. To prepare for this update, CRISP and Medisolv (CRISP digital measure subcontractor) have indicated they are updating the data collection infrastructure and will be ready to receive data on the expanded measure with the first submission scheduled to begin in January 2025. However, in a digital measures stakeholder subgroup staff convened in August 2023, and in subsequent communication with staff, hospital and EHR vendor representatives significant concerns have been raised about the feasibility of expanding the measure beyond Medicare patients. Among the specific concerns from hospitals are, in some cases, their EHR vendors are telling them there are additional costs and significant effort to set up and implement the expanded measure; in other cases, hospitals are noting their EHR vendor is telling them they are unable to do the work to expand and implement the measure. HSCRC staff will continue to investigate the issues voiced by hospitals and identify strategies to progress on expansion of the Hybrid measure, and will also consider options for augmenting the RRIP all-payer measure with EHR data elements in the future.

Reducing Disparities in Readmissions

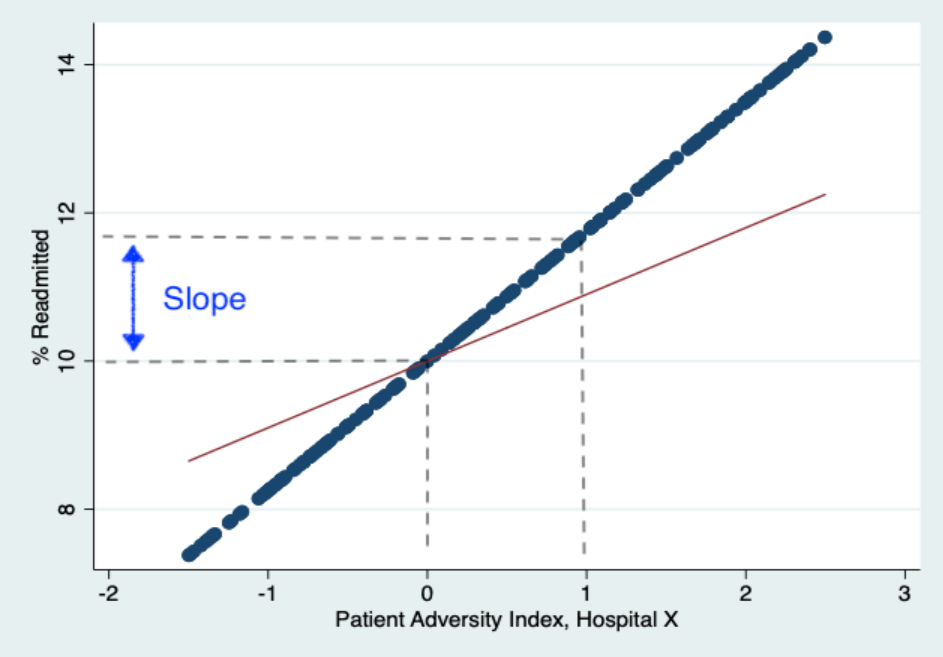
Racial and socioeconomic differences in readmission rates are well documented[8,9] and have been a source of significant concern among healthcare providers and regulators for years. In Maryland, the 2018 readmission rate for blacks was 2.6 percentage points higher than for whites, and the rate for Medicaid enrollees was 3.4 points higher than for other patients. A 2019 Annals of Internal Medicine paper co-authored by HSCRC staff[10] reported a 1.6 percent higher readmission rate for patients living in neighborhoods with increased deprivation. Maryland hospitals, as well as CMS

[8] Tsai TC, Orav EJ, Joynt KE. Disparities in surgical 30-day readmission rates for Medicare beneficiaries by race and site of care. *Ann Surg*. 2014;259(6):1086–1090. doi:10.1097/SLA.0000000000000326;
[9] Calvillo–King, Linda, et al. "Impact of social factors on risk of readmission or mortality in pneumonia and heart failure: systematic review." *Journal of general internal medicine* 28.2 (2013): 269-282.
[10] Jencks, Stephen F., et al. "Safety-Net hospitals, neighborhood disadvantage, and readmissions under Maryland's all-payer program: an observational study." Annals of internal medicine 171.2 (2019): 91-98.

and the Maryland Hospital Association, identify reduction in disparities as a key priority over the near term. Thus, staff developed and the Commission approved adding a within-hospital disparity gap improvement goal to the RRIP in RY2021.

Specifically, the RRIP within hospital disparity methodology assesses patient-level socioeconomic exposure using the Patient Adversity Index (PAI), a continuous measure that reflects exposure to poverty, structural racism, and neighborhood deprivation. As shown in Figure 6, the relationship between PAI and readmissions is then assessed for each hospital for the base and performance period, and improvements in the slope of the line or in the difference in readmission rates at two points on the line (e.g., PAI = 1 vs PAI = 0) are compared for the base and performance period to calculate improvement. Hospitals that improve on the within hospital disparity gap and do not decline on overall readmissions, are eligible for a scaled reward up to 0.50 percent of inpatient revenue. Additional information on the development of the within-hospital disparity metric can be found in the RY 2021 RRIP policy.

Figure 6. Hypothetical Example of Relationship between PAI and Readmission Rates



The RRIP disparity gap improvement goal was set through the end of the TCOC model (CY2026) and aligns with one of the goals in the Statewide Integrated Health Improvement Strategy (SIHIS). The SIHIS goal is to have half of eligible hospitals achieve a 50 percent reduction in readmission disparities. CY 2022 data shows that 32 hospitals saw a reduction in their within-hospital disparities in readmissions, ranging from a 0.18% reduction to a 61.54% reduction. Through the RY2024 RRIP-Disparity Gap Program (CY 2022 performance), scaled rewards were provided to 11 of these hospitals for reducing their disparities in readmissions by the required minimum of 22.89 percent while simultaneously not increasing their overall readmission rate; the range of revenue adjustments was 0.26 percent to 0.5 percent for a statewide total of about $7.8 million in rewards. To meet the CY 2023 SIHIS Target, the State needs at least 22 hospitals to reduce their within-hospital disparities in readmissions by 25 percent. The State remains committed to ensuring hospitals are advancing health equity by continuing to financially incentivize reductions in disparities through the RRIP policy and other policies. The ability to set hospital payment incentives specifically for advancing health equity is an important hallmark of the TCOC Model and exemptions from national quality programs. In the RY 2026 Quality Based Reimbursement program, this disparity gap methodology was adapted to the Timely Follow-Up post hospitalization measure, and the Commission approved financial incentives for reductions in disparities in follow up for Medicare patients.

Post-COVID there have been some updates to the disparity gap methodology for readmissions. First, HSCRC staff updated the measure to use post-COVID CY 2021 norms that are applied to both the historical CY 2018 data, as well as to the performance periods. However, in doing this, staff decided that in order to fully measure improvement, all of the regression model coefficients used for risk-adjustment such as diagnosis-severity of illness, age, and sex (not just the PAI coefficient) should be “locked in" or not recalculated for each time period. This technical change ensures any improvement over time is fully captured, rather than only capturing improvement above the state average improvement (which would make the SIHIS goal challenging/impossible). Staff is working to lock model coefficients from the CY 2021 base period to be applied to the performance period, but initial analyses show this has only a minor impact on results. These updates to the RRIP-Disparity Gap methodology, however, are important for stakeholder engagement.

For RY 2026, the RRIP disparity gap draft recommendation uses the previously calculated improvement targets pushed forward to CY 2024 performance. Staff continue to work with hospitals to help them understand this methodology and are planning to conduct a learning session on the methodology in April. This learning session will review the methodology and model scenarios to show how certain interventions that focus on high adversity patients to reduce readmissions impacts the measure. Finally, as recommended through Commissioner input, staff have added a requirement that hospitals must submit a report detailing the interventions they are engaged in to promote health equity and reduce disparities in readmissions. This new requirement for RY2026 will need to be met for hospitals to qualify for a disparity reduction reward. Details on how hospitals will report their interventions will be developed and communicated by staff over the coming months.

Revenue Adjustment Modeling

For this final policy, staff modeled hospital performance and revenue adjustments as if the policy were applied from the 2022 base year to the 2023 performance year (this focused just on the RRIP improvement and attainment portion of the program and not disparity reward). This was done by calculating the one-year improvement target (1st year -1.28% of 4-year 5% target) and by updating the attainment target to what it would have been if it were set at the 65th percentile of CY 2022 performance. The revenue adjustment scales for improvement and attainment were created as if the RY 2026 policy were in place for CY 2023 performance. Based on the combined revenue adjustments for the better of improvement or attainment, Figure 7 shows that 31 hospitals would be penalized for a total of $49 million and 13 hospitals would be rewarded for a total of $10 million. The modeling results are more punitive than the actual RY 2025 policy since hospitals may have met and maintained improvement in earlier years (i.e., the improvement from 2018 to 2023 vs 2022 to 2023) and since this policy was not actually in place during 2023 (i.e., hospital may have pushed for additional improvements if the policy had been in place). Preliminary revenue adjustments for RY25 were net positive, with 24 hospitals projected to be penalized for a total of $26 million and 20 hospitals projected to be rewarded for a total of $45 million.

Figure 7. Modeling of CY2022- CY2023 Readmissions Performance

Statewide Revenue Adjustment Modeling	Better of Attainment/Improvement Case-Mix Adjusted Readmission Rate	
	$	%
Net	-$38,665,347	-0.34%
Penalties	-$49,059,832	-0.43%
Rewards	$10,394,485	0.09%
# Hospitals Penalized	31	70.45%
# Hospitals Rewarded	13	29.55%

Stakeholder Feedback and Staff Responses

Comment letters on the draft policy were received from University of Maryland Medical Systems (UMMS) and the Maryland Hospital Association (MHA). Stakeholder feedback was also provided to staff through the PMWG. Specific input provided and staff responses are outlined below.

Comments on RRIP Improvement and Attainment Targets/Revenue Adjustment Scaling

Both UMMS and MHA were supportive of the 5 percent improvement target over 4-years and maintaining attainment in the program. UMMS did express concerns about moving from 2018 to 2022 as the base year for measuring improvement since there have already been significant improvements prior to 2023 performance, and this “results in a dramatic one-time shift in revenue”. Furthermore, they believe both the improvement benchmark and attainment threshold should be less aggressive since Maryland is achieving the CMMI readmissions test on a risk-adjusted basis. Specifically, they are concerned that the readmission rate needed to reach the 2 percent improvement reward is much higher than the threshold and suggested instead that the top decile of hospital performance using the HSCRC modeling would be more appropriate. In the modeling, this would move the 2 percent reward from requiring about a 21 percent

improvement to only requiring a 10 percent improvement. They also would like the attainment threshold lowered from the 65th to the 50th percentile.

STAFF RESPONSE

Staff believes that the change in the baseline year is appropriate since hospitals have earned rewards for improvement from 2018 for 5-years and it reduces the concerns about COVID impacting the readmission rate. In response to UMMS' request to modify the linear scale for the improvement target, staff applied a modified slope for the linear revenue adjustment scale for both the hypothetical modeling and RY24 results. While this new slope reduced the readmission improvement for the maximum reward making it easier to receive the full 2 percent reward, it also reduced the readmission increases needed to receive the maximum 2 percent penalty. However the change for RY25 preliminary results is more positive than negative, and given that the revised slope is not significantly different, staff will use this new slope when creating the 2-year improvement revenue adjustment scale. However, if hospitals have concerns about this change, we can review for RY27 and even potentially consider non-linear revenue adjustment scale.

Figure 8. RY25 (estimated) Revenue Adjustments with and without New Improvement Slope

Statewide Revenue Adjustment Modeling	Better of Attainment/Improvement Case-Mix Adjusted Readmission Rate	
	RY25 estimated $	RY25 estimated w/new improvement slope $
Net	$19,039,736	$26,292,211
Penalties	-$26,387,674	-$28,135,198
Rewards	$45,427,410	$54,427,409
# Hospitals Penalized	24	24
# Hospitals Rewarded	20	20

In response to the request to update the performance standards for attainment, staff continues to recommend the top 35th percentile as the benchmark because, based on our benchmarking analyses, reducing it to the top 50th percentile would not incentivize better performance than our

benchmarking peer groups. Also, when applying the RY26 improvement target (-1.28%) to the CY 2022 readmission rate (11.34%), the result is 11.19% which is very close to the attainment threshold (11.22%) which is set at the 65th percentile.

Excess Days in Acute Care Measure (EDAC)

UMMS supports the monitoring of the EDAC measure but recommends an in-depth analysis before consideration for the payment policy in future years, citing peer reviewed literature revealing that a substantial number of hospitals in the top-performing group would have shifted to lower-performing groups if EDAC was used.

STAFF RESPONSE

Staff agrees additional monitoring is appropriate for EDAC, as well as for the readmission rate with observation included. We appreciate hospitals continuing to review the all-payer EDAC results to better understand the patients who are returning to the ED and observation, or having long stay readmissions. In terms of hospital rankings under the readmission and EDAC measures, staff believes differences in performance may reflect important variation that should be explored. If both measures are highly correlated it may not make sense to include the EDAC measure in payment. In MHAs letter they also expressed support for exploring other measures for post-discharge events (i.e., ED or Observation revisits).

Readmission Within Hospital Disparity Gap Measure

Overall, MHA, UMMS, and other stakeholders are supportive of the inclusion of a disparity measure in the RRIP policy. The main feedback is that the threshold to start to earn rewards is too high (i.e., 50 percent reduction in disparity) and that attainment should be considered. Furthermore, there are concerns about the measure methodology and how hospitals with a preponderance of low or high PAI patients perform and overall how sensitive the measure is to change. Hospitals and interested parties have requested additional modeling and data components, such as regression coefficients, in order to better understand the program. Given the variability in year-to-year performance in PAI, UMMS would like to investigate this model further

before providing additional comment. Last, MHA noted their interest in working with HSCRC staff to develop the necessary form for hospitals to identify and detail activities aimed at reducing readmission disparities.

STAFF RESPONSE

Staff is encouraged by the overall support for the RRIP disparity gap measure. We also recognize the need to provide hospitals with additional modeling to better understand the measure and whether certain hospitals are disadvantaged in the measurement based on their population (i.e., hospitals with a high proportion of high PAI patients needing to reduce readmissions more to impact gap measure). Thus, staff has been meeting with hospitals who have specific concerns, to understand their questions, and have scheduled an April webinar to provide responses to these concerns. While initial modeling indicates that the methodology does not disadvantage hospitals with different populations, staff is continuing to analyze the data and develop simulations to show hospitals the sensitivity of the measure to improvements. This will help hospitals understand the level of investments needed to impact the measure. If through this process, staff does identify concerns with the methodology, we will work to quantify the issue and explore how to fix the concern. However, because the current methodology risk-adjusts for the type of patients at each hospital and reliability adjusts the results, staff recognizes the modeling is complicated and not easy to understand, but also believe that this complexity is needed to address the concerns raised by hospitals. We look forward to the upcoming webinar so that hospitals can better understand the measure so that they can focus on the interventions needed to impact disparities. Staff appreciates MHA's willingness to assist with developing reporting of disparity interventions and will engage with them over the coming months so that hospitals can provide the HSCRC with additional information on interventions.

In terms of the disparity gap threshold of a 50 percent reduction in disparities needed to begin receiving a reward, staff supports maintaining this high standard since it aligns with SIHIS, the incentive is reward only, and the overall RRIP policy rewards overall improvements and should be considered in conjunction with the disparity gap rewards. Finally, staff would like to explore

attainment with hospitals but is concerned about setting a disparity gap of greater than zero as the goal (i.e., difficult to say what if any gap is “acceptable” to earn a reward).

Recommendations

These are the final recommendation for the Maryland Rate Year (RY) 2026 Readmission Reduction Incentives Program (RRIP):

1. Maintain the 30-day, all-cause readmission measure.
2. Improvement Target - Set statewide 4-year improvement target of 5 percent from 2022 base period through 2026.
3. Attainment Target - Maintain the attainment target whereby hospitals at or better than the 65th percentile of statewide performance receive scaled rewards for maintaining low readmission rates.
4. Maintain maximum rewards and penalties at 2 percent of inpatient revenue.
5. Provide additional payment incentive (up to 0.50 percent of inpatient revenue) for reductions in within-hospital readmission disparities. To be eligible for disparity gap reward, hospitals must not have an increase in overall readmission rate and must submit details on interventions aimed at reducing disparities. Scale rewards:
    a. beginning at 0.25 percent of IP revenue for hospitals on pace for 50 percent reduction in disparity gap measure over 8 years, and;
    b. capped at 0.50 percent of IP revenue for hospitals on pace for 75 percent or larger reduction in disparity gap measure over 8 years.
6. Monitor emergency department and observation revisits by adjusting readmission measure and through all-payer Excess Days in Acute Care measure. Consider future inclusion of revisits in the case-mix adjusted readmission measure or inclusion of EDAC in the RRIP program. Collaborate with stakeholders to explore the causes and consequences of greater observation stay use in Maryland compared to the Nation.

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Appendix I. RRIP Readmission Measure and Revenue Adjustment Methodology

Introduction: RRIP Redesign Subgroup

As part of the ongoing evolution of the All-Payer Model's pay-for-performance programs to further bring them into alignment under the Total Cost of Care Model, HSCRC convened a work group to evaluate the Readmission Reduction Incentive Program (RRIP). The work group consisted of stakeholders, subject matter experts, and consumers, and met six times between February and September 2019. The work group focused on the following six topics, with the general conclusions summarized below:

1. Analysis of Case-mix Adjustment and trends in Eligible Discharges over time to address concern of limited room for additional improvement;
    - Case-mix adjustment acknowledges increased severity of illness over time
    - Standard Deviation analysis of Eligible Discharges suggests that further reduction in
    - readmission rates is possible
2. National Benchmarking of similar geographies using Medicare and Commercial data;
    - Maryland Medicare and Commercial readmission rates and readmissions per capita are on par with the nation
3. Updates to the existing All-Cause Readmission Measure;
    - Remove Eligible Discharges that left against medical advice (~7,500 discharges)
    - Include Oncology Discharges with more nuanced exclusion logic
    - Analyze out-of-state ratios for other payers as data become available
4. Statewide Improvement and Attainment Targets under the TCOC Model;
    - 7.5 percent Improvement over 5 years (2018-2023)
    - Ongoing evaluation of the attainment threshold at 65th percentile
5. Social Determinants of Health and Readmission Rates; and
    - Methodology developed to assess within-hospital readmission disparities
6. Alternative Measures of Readmissions
    - Further analysis of per capita readmissions as broader trend; not germane to the RRIP policy because focus of evaluation is clinical performance and care management post-discharge
    - Observation trends under the All-Payer Model to better understand performance given variations in hospital observation use; future development will focus on incorporation of Excess Days in Acute Care (EDAC) measure in lieu of including observations in RRIP policy
    - Electronic Clinical Quality Measure (eCQM) may be considered in future to improve risk adjustment

Methodology Steps

1) Performance Metric

The methodology for the Readmissions Reduction Incentive Program (RRIP) measures performance using the 30-day all-payer all hospital (both intra- and inter-hospital) readmission rate with adjustments for patient severity (based upon discharge all-patient refined diagnosis-related group severity of illness [APR-DRG SOI]) and planned admissions.[11] Unique patient identifiers from CRISP are used to be able to track patients across hospitals for readmissions.

The measure is similar to the readmission rate that is calculated by CMMI to track Maryland performance versus the nation, with some exceptions. The most notable exceptions are that the HSCRC measure includes psychiatric patients in acute care hospitals, and readmissions that occur at specialty hospitals. In comparing Maryland's Medicare readmission rate to the national readmission rate, the Centers for Medicare & Medicaid Services (CMS) will calculate an unadjusted readmission rate for Medicare beneficiaries. Since the Health Services Cost Review Commission (HSCRC) measure is for hospital-specific payment purposes, an additional adjustment is made to account for differences in case-mix. See below for details on the readmission calculation for the RRIP program.

2) Inclusions and Exclusions in Readmission Measurement

- Planned readmissions are excluded from the numerator based upon the CMS Planned Readmission Algorithm V. 4.0. The HSCRC has also added all vaginal and C-section deliveries and rehabilitation as planned using the APR-DRGs, rather than principal diagnosis.[12] Planned admissions are counted as eligible discharges in the denominator, because they could have an unplanned readmission.
- Discharges for newborn APR-DRG are removed.[13]
- Exclude bone marrow transplants and liquid tumor patients by making these discharges not eligible to have an unplanned readmission or count as an unplanned readmission.[14]
- Exclude patients with a discharge disposition of Left Against Medical Advice (PAT_DISP = 71, 72, or 73 through FY 2018; 07 FY 2019 onward)
- Rehabilitation cases as identified by APR-860 (which are coded under ICD-10 based on type of daily service) are marked as planned admissions and made ineligible for readmission after readmission logic is run.
- Admissions with ungroupable APR-DRGs (955, 956) are not eligible for a readmission, but can be a readmission for a previous admission.

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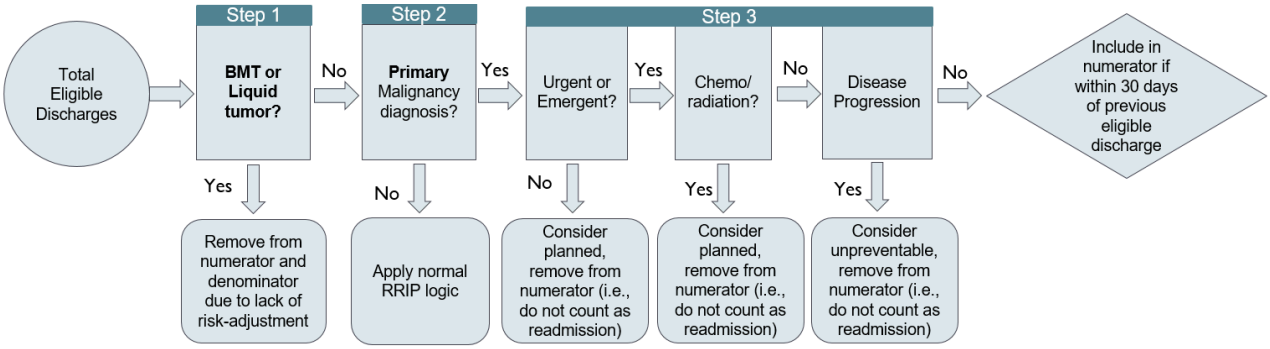
[11] Planned admissions defined under [CMS Planned Admission Logic version 4 – updated March 2018].
[12] **Rehab** DRGs: 540, 541, 542, 560, and 860; **OB Deliveries and Associated DRGs**: 580, 581, 583, 588, 589, 591, 593, 602, 603, 607, 608, 609, 611, 612, 613, 614, 621, 622, 623, 625, 626, 630, 631, 633, 634, 636, 639, 640, and 863.
[13] **Newborn APR-DRGs:** 580, 581, 583, 588, 589, 591, 593, 602, 603, 607, 608, 609, 611, 612, 613, 614, 621, 622, 623, 625, 626, 630, 631, 633, 634, 636, 639, 640, and 863.
[14] **Bone Marrow Transplant:** Diagnosis code Z94.81 or CCS Procedure code 64; **Liquid Tumor:** Diagnosis codes C81.00-C96.0. See section below for additional details on the oncology logic.

- APR-DRG-SOI categories with less than two discharges statewide are removed.
- A hospitalization within 30 days of a hospital discharge where a patient dies is counted as a readmission; however, the readmission is removed from the denominator because the case is not eligible for a subsequent readmission.
- Admissions that result in transfers, defined as cases where the discharge date of the admission is on the same or next day as the admission date of the subsequent admission, are removed from the denominator. Thus, only one admission is counted in the denominator, and that is the admission to the transfer hospital (unless otherwise ineligible, i.e., died). It is the second discharge date from the admission to the transfer hospital that is used to calculate the 30-day readmission window.
- Beginning in RY 2019, HSCRC started discharges from chronic beds within acute care hospitals.
- In addition, the following data cleaning edits are applied:
    - Cases with null or missing CRISP unique patient identifiers (EIDs) are removed.
    - Duplicates are removed.
    - Negative interval days are removed.
      HSCRC staff is revising case-mix data edits to prevent submission of duplicates and negative intervals, which are very rare. In addition, CRISP EID matching benchmarks are closely monitored. Currently, hospitals are required to make sure 99.5 percent of inpatient discharges have a CRISP EID.

Additional Details on Oncology Logic:

Flow Chart for Revised Oncology Logic



*Items that are **bolded** are adaptations from NQF measure

This updated logic replaces the RY 2021 measure logic that removes all oncology DRGs from the dataset, such that an admission with an oncology DRG cannot count as a readmission or be eligible to have a readmission.

Step 1: Exclude discharges where patients have a bone marrow transplant procedure, bone marrow transplant related diagnosis code, or liquid tumor diagnosis. This logic varies from the NQF cancer hospital measure that risk-adjusts for bone marrow transplant and liquid tumors. HSCRC staff recommended removing these discharges (similar to current DRG exclusion) because the current indirect standardization approach did not allow for additional risk-adjustment but based on conversations with clinicians staff agreed these cases were significantly more complicated and at-risk for an unpreventable readmission.

Step 2: Flag discharges with a primary malignancy diagnosis to apply cancer specific logic for determining readmissions. This varies from the NQF cancer hospital measure that flags patients with primary or secondary malignancy diagnosis being treated in a cancer specific hospital. Staff think we should only flag those with a primary diagnosis since in a general acute care hospital there may be differences in the types of patients with a secondary malignancy diagnosis. Further, we remove the bone marrow and liquid tumor discharges regardless of malignancy diagnosis, thus ensuring the most severe cases are removed. Last, our initial analyses did not show a large impact on overall hospital rates when primary vs primary and secondary malignancies were flagged. It should be noted however that the current modeling in this policy uses readmission rates where both primary and secondary are flagged.

Step 3: Flag planned admissions using additional criteria beyond the CMS planned admission logic:

a) Nature of admission of urgent or emergent considered unplanned, all other nature of admission statuses are planned
b) Any admission with primary diagnosis of chemotherapy or radiation is considered planned
c) Any admission with primary diagnosis of metastatic cancer is not considered preventable, and thus gets excluded from being a readmission

In step 3, admissions are deemed not eligible to be a readmission but they are eligible to have a subsequent unplanned readmission.

3) Details on the Calculation of Case-Mix Adjusted Readmission Rate

Data Source:

To calculate readmission rates for RRIP, inpatient abstract/case-mix data with CRISP EIDs (so that patients can be tracked across hospitals) are used for the measurement period, with an additional 30 day runout. To calculate the case-mix adjusted readmission rate for CY 2022 base period and CY 2024 performance period, data from January 1 through December 31, plus 30 days in January of the next year are used. CY 2022 data are used to calculate the normative values, which are used to determine a hospital's expected readmissions, as detailed below, as well as the estimated CY 2022 readmission rates.

Please note that, the base year readmission rates are not “locked in”, and may change if there are CRISP EID or other data updates. The HSCRC does not anticipate changing the base period data, and does not anticipate that any EID updates will change the base period data significantly; however, the HSCRC has decided the most up-to-date data should be used to measure improvement. For the performance period, the CRISP EIDs are updated throughout the year, and thus, month-to-month results may change based on changes in EIDs.

SOFTWARE: APR-DRG Version 41 for CY 2018-CY 2024.

Calculation:

$$\text{Case-Mix Adjusted Readmission Rate} = \frac{\text{(Observed Readmissions)}}{\text{(Expected Readmissions)}} * \text{Statewide Base Year Readmission Rate}$$

Numerator: Number of observed hospital-specific unplanned readmissions.

Denominator: Number of expected hospital specific unplanned readmissions based upon discharge APR-DRG and Severity of Illness. See below for how to calculate expected readmissions, adjusted for APR-DRG SOI.

Risk Adjustment Calculation:

Calculate the Statewide Readmission Rate without Planned Readmissions.

- Statewide Readmission Rate = Total number of readmissions with exclusions removed / Total number of hospital discharges with exclusions removed.

For each hospital, enumerate the number of observed, unplanned readmissions.

For each hospital, calculate the number of expected unplanned readmissions at the APR-DRG SOI level (see Expected Values for description). For each hospital, cases are removed if the discharge APR-DRG and SOI cells have less than two total cases in the base period data.

Calculate at the hospital level the ratio of observed (O) readmissions over expected (E) readmissions. A ratio of > 1 means that there were more observed readmissions than expected, based upon a hospital’s case-mix. A ratio of < 1 means that there were fewer observed readmissions than expected based upon a hospital’s case-mix.

Multiply the O/E ratio by the base year statewide rate, which is used to get the case-mix adjusted readmission rate by hospital. Multiplying the O/E ratio by the base year state rate converts it into a readmission rate that can be compared to unadjusted rates and case-mix adjusted rates over time.

Expected Values:

The expected value of readmissions is the number of readmissions a hospital would have experienced had its rate of readmissions been identical to that experienced by a reference or normative set of hospitals,

given its mix of patients as defined by discharge APR-DRG category and SOI level. Currently, HSCRC is using state average rates as the benchmark.

The technique by which the expected number of readmissions is calculated is called indirect standardization. For illustrative purposes, assume that every discharge can meet the criteria for having a readmission, a condition called being “eligible” for a readmission. All discharges will either have zero readmissions or will have one readmission. The readmission rate is the proportion or percentage of admissions that have a readmission.

The rates of readmissions in the normative database are calculated for each APR-DRG category and its SOI levels by dividing the observed number of readmissions by the total number of eligible discharges. The readmission norm for a single APR-DRG SOI level is calculated as follows:

Let:

N = norm
P = Number of discharges with a readmission
D = Number of eligible discharges
i = An APR DRG category and a single SOI level

$$N_i = \frac{P_i}{D_i}$$

For this example, the expected rate is displayed as readmissions per discharge to facilitate the calculations in the example. Most reports will display the expected rate as a rate per one thousand.

Once a set of norms has been calculated, the norms are applied to each hospital’s DRG and SOI distribution. In the example below, the computation presents expected readmission rates for a single diagnosis category and its four severity levels. This computation could be expanded to include multiple diagnosis categories, by simply expanding the summations.

Consider the following example for a single diagnosis category.

Expected Value Computation Example – Individual APR-DRG

A Severity of Illness Level	B Eligible Discharges	C Discharges with Readmission	D Readmissions per Discharge (C/B)	E Normative Readmissions per Discharge	F Expected # of Readmissions (A*E)
1	200	10	.05	.07	14.0
2	150	15	.10	.10	15.0
3	100	10	.10	.15	15.0
4	50	10	.20	.25	12.5
Total	**500**	**45**	**.09**		**56.5**

For the diagnosis category, the number of discharges with a readmission is 45, which is the sum of discharges with readmissions (column C). The overall rate of readmissions per discharge, 0.09, is calculated by dividing the total number of eligible discharges with a readmission (sum of column C) by the total number of discharges at risk for readmission (sum of column B), i.e., 0.09 = 45/500. From the normative population, the proportion of discharges with readmissions for each severity level for that diagnosis category is displayed in column E. The expected number of readmissions for each severity level shown in column F is calculated by multiplying the number of eligible discharges (column B) by the normative readmissions per discharge rate (column E) The total number of readmissions expected for this diagnosis category is the sum of the expected numbers of readmissions for the 4 severity levels.

In this example, the expected number of readmissions for this diagnosis category is 56.5, compared to the actual number of discharges with readmissions of 45. Thus, the hospital had 11.5 fewer actual discharges with readmissions than were expected for this diagnosis category. This difference can also be expressed as a percentage or the O/E ratio.

4) Revenue Adjustment Methodology

The RRIP assesses improvement in readmission rates from base period, and attainment rates for the performance period with an adjustment for out-of-state readmissions. The policy then determines a hospital's revenue adjustment for improvement and attainment and takes the better of the two revenue adjustments, with scaled rewards of up to 2 percent of inpatient revenue and scaled penalties of up to 2 percent of inpatient revenue. The figure below provides a high level overview of the RY 2025 RRIP methodology for reference.

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30-day, All-Cause Readmission Measure

Measure Includes:
Readmissions within 30 days of Acute Case Discharge:

- All-Payer
- All-Cause
- All-Hospital (both intra- and inter- hospital)
- Chronic Beds included
- IP-Psych and Specialty Hospitals included
- Adult oncology Discharges Included

Global Exclusions:

- Planned Admissions
- Same-day and Next-day Transfers
- Rehab Hospitals
- Discharges leaving Against Medical Advice Deaths

Case-Mix Adjustment

Performance Measure: CY 2023 Case-mix Adjusted Readmission Rate, adjusted for out-of-state readmissions (Attainment); Reduction in Case-mix Adjusted Readmission Rate from CY2018 Base Period (Improvement).

Case-mix Adjustment:
Expected number of unplanned readmissions for each hospital are calculated using the discharge APR-DRG and severity of illness (SOI).

*Observed Unplanned Readmissions / Expected Unplanned Readmissions * Statewide Readmission Rate*

CY2021 used to calculate statewide averages (normative values).

CY2018 (using CY21 norms) is base period and used to set the attainment benchmark/threshold.

Revenue Adjustments

Hospital RRIP revenue adjustments are based on the better of attainment or improvement, scaled between the Max Reward and Max Penalty.

Scores Range from Max Penalty -2% & Reward+2%

All Payer Readmission Rate Change CY18-23		% IP Revenue Payment Adjustment
	A	B
Improving		2.0%
	-28.50%	2.00%
	-23.25%	1.50%
	-18.00%	1.00%
	-12.75%	0.50%
Target	-7.50%	0.00%
	-2.25%	-0.50%
	3.00%	-1.00%
	8.25%	-1.50%
	13.50%	-2.0%
Worsening		-2.0%

Improvement

Attainment

All Payer Readmission Rate CY23		RRIP % Inpatient
Lower Readmission Rate		2.0%
Benchmark	8.15%	2.00%
	9.74%	1.00%
Threshold	11.32%	0.00%
	12.90%	-1.00%
	14.49%	-2.00%
Higher Readmission Rate		-2.0%

Patient Adversity Index (PAI)

The PAI measure is continuous index of readmission risk based on the following patient factors:

- Medicaid status
- Race (Black vs. Non-Black)
- Area Deprivation Index Percentile

Within Hospital Disparity Gap

Within hospital disparity gap is calculated by a regression model that estimates the slope of PAI at each hospital after controlling for:

- Age
- Gender
- APR-DRG readmission risk

Disparity Gap Revenue Adjustments

Revenue adjustment is reward only:

Disparity Gap Change CY 2018-2020	RRIP % Inpatient Rev.
On pace for 50% Reduction Gap in 8 Years	0.25%
On pace for 75% Reduction Gap in 8 Years	0.50%

Appendix II. Analyses of Medicare Readmissions

Based on analyses, HSCRC staff believe that patients admitted in Maryland have gotten sicker since 2018 (i.e., higher rate of comorbidities) and that this increase in case mix acuity is greater in Maryland than the increase seen nationally. These analyses support what hospitals have reported anecdotally. To examine the change in patient case mix over time from 2018 through 2022, HSCRC staff first used the CCW data to estimate readmission risk in 2018. Then, the annual predicted readmission risk was calculated for CYs 2019 through 2022 by applying the 2018 coefficients for each comorbidity. Changes in the predicted readmission rates indicate that there are differences in the population at-risk for readmissions. Specifically, increases in the predicted readmission rate would indicate that the at-risk population was composed of patients with comorbidities or other risk factors with a higher risk of readmission. Decreases in the predicted readmission rate would indicate the at-risk population was composed of patients with lower risk for readmission than in 2018. Furthermore, differences between the predicted and actual readmission rates reflect how well Maryland performed relative to what was expected based on 2018. We specified two models: One adjusting for age groups, race, sex, dual eligibility status, and the 38 Elixhauser comorbidity flags, and another with just the Elixhauser comorbidity flags. While the results are similar, this report includes the simpler model that only contained the Elixhauser comorbidity flags so that it could focus on changes in health status over time. In addition, the analysis was run for all ages combined, and then for those under 65 versus those 65 and older; given the similarities in results, we have focused on the 65+ model since it is majority of the at-risk population for Medicare and this aligns with the national readmissions measures that restrict to those 65 and older.

The Figure 1 below shows the predicted readmission rate nationally and for Maryland increased by 2.95 and 4.74 percent respectively. The increase in the predicted readmission rate in Maryland indicates that the patients admitted to Maryland hospitals in 2022 were sicker than the patients admitted in 2018, and the increase in case mix index was higher in Maryland than it was nationally.

Figure 1. Predicted and Actual Maryland and National Readmissions

CCW Analysis		HSCRC Readmission Predictions for 65+ Yrs (CY Dec - Nov)				
Provider	Index Stay Year	Actual Admissions	Actual Readmissions	Predicted Readmission Rate	Actual Readmission Rate	Readmission Rate Difference
National	2018	6,866,364	976,561	14.22%	14.22%	0.00%
National	2019	6,786,204	967,802	14.40%	14.26%	-0.14%
National	2020	5,602,629	789,957	14.62%	14.10%	-0.52%
National	2021	5,354,330	758,226	14.62%	14.16%	-0.46%
National	2022	5,282,350	747,517	14.64%	14.15%	-0.49%
Change from 2018 to 2022				**2.95%**	**-0.49%**	
Maryland	2018	149,748	21,229	14.55%	14.18%	-0.38%
Maryland	2019	146,970	20,177	14.72%	13.73%	-0.99%
Maryland	2020	121,924	16,767	15.00%	13.75%	-1.25%
Maryland	2021	122,250	17,495	15.10%	14.31%	-0.79%
Maryland	2022	121,574	17,226	15.24%	14.17%	-1.07%
Change from 2018 to 2022				**4.74%**	**-0.07%**	
Prediction using 2018 national data as baseline						
Model is adjusted for 38 Elixhauser comorbidity flags (ICD-10 version)						

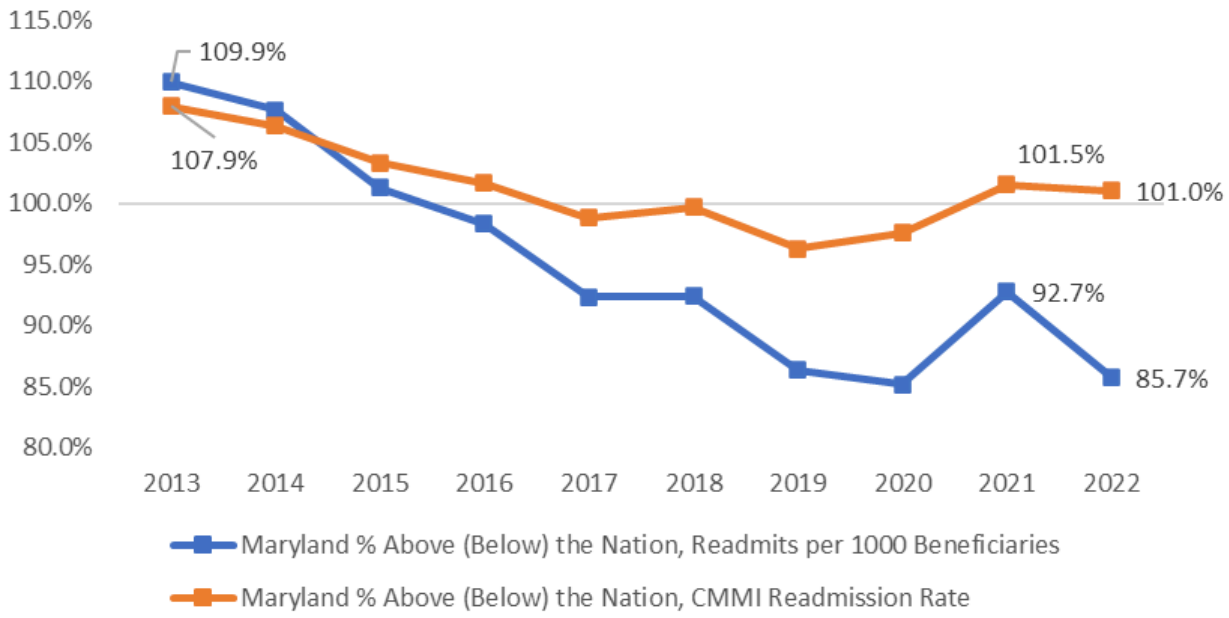
Figure 1 also shows the difference between the predicted and observed readmission rates. In CY 2022, Maryland had an actual readmission rate that was 1.07 percent lower than the predicted readmission rate, and this was more than twice as much as the gap between predicted and actual seen nationally (0.49 percent lower). Overall, staff contend that these analyses support the assertion that Maryland patients are sicker in 2022 than in 2018 and this increase in case mix severity is higher than what was seen nationally.

1) Per Capita Readmissions

Another approach to controlling for different admitting populations is to examine the number of readmissions per beneficiary rather than the readmission rate. This removes changes in the nature of the admitted population (the denominator in the traditional readmission rate) and focuses on just the number of readmissions across the entire population. Figure 2 compares Maryland's performance versus the Nation using readmissions per 1000 and the unadjusted CMMI readmission rate. Performance shows that in 2013 both the unadjusted and per capita readmission rates for Maryland were higher than the Nation by 7.9 percent and 9.9 percent, respectively. Starting in 2016 and 2017, the per capita and the unadjusted readmission rate dropped to below the national rate until 2021 where the unadjusted rate again is higher

than the Nation but the per capita rate is below the Nation. And while there was erosion in 2021 Maryland, in CY 2022 the per capita rate drops to 14.3 percent lower than the nation. This means that fewer Medicare beneficiaries are readmitted in Maryland than nationally and it aligns with the idea that those who are admitted in Maryland have a higher case mix acuity than the Nation and thus a higher unadjusted readmission rate.

Figure 2: Maryland's Performance Versus the Nation Under Unadjusted Readmission Rate and Readmissions per 1000[15]



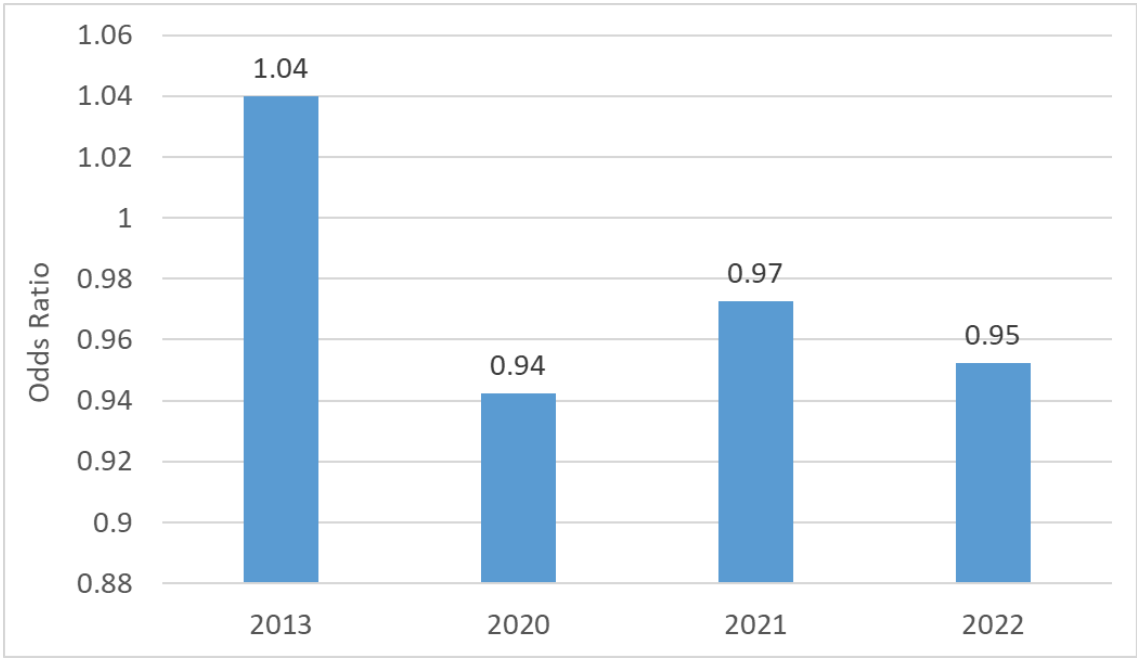
2) Risk-Adjusted Medicare Readmission Rates

As discussed in the previous exemption request and above, reductions in inpatient utilization and differential COVID impacts, have increased the case mix index for patients admitted to the hospital in Maryland compared to the nation. Thus the staff continue to advocate for a risk-adjusted readmission measure and appreciate the CMMI team's agreement to collaborate with Maryland to develop a risk-adjusted readmission measure for consideration. By moving to a risk-adjusted measure, Maryland's performance on readmissions can be more fully evaluated since differences in the admitted population are removed. Currently, HSCRC staff has run regression models for Medicare beneficiaries who were 65 and older using

[15] HSCRC calculation based on 100% Maryland and National Hospital Claim files received annually.

the CCW data for 2013, 2020, 2021, and 2022 controlling for age, sex, COVID-19 status (for post-2020 models), Major Diagnostic Category (MDC) and the Elixhauser Comorbidity Index[16]. The results of these models show that in 2021 and 2022, despite higher unadjusted readmissions, Maryland patients had statistically significantly lower odds of being readmitted (2021 OR 0.97, CI 0.956-0.989; 2022 OR 0.95, CI 0.936-0.969). Figure 3 shows the odds ratios for each year. For CY 2022, the odds ratio of 0.95 means that Maryland Medicare FFS patients had a 5 percent lower odds of being readmitted than national patients. We then tested removing the Elixhauser Comorbidity Index for CY 2020, CY 2021, and CY 2022; for CY 2020 the OR increased to 0.972 but Maryland still performed statistically better than the Nation (CI 0.952-0.993) but for CY 2021 and CY 2022 the OR increased and there no longer was a statistically significant difference between MD and the nation. We believe this shows that during CY 2021 and again in CY 2022, MD admissions had higher comorbidities than national admissions (or 2020 admissions), which accounts for the higher unadjusted readmission rate. Again the HSCRC staff appreciate the collaboration with CMMI on developing a risk-adjusted readmission rate for comparing Maryland to the nation.

Figure 3: Odds Ratio for Risk-Adjusted Readmission Rates for Maryland vs. Nation



[16] The Elixhauser Comorbidity Index has ICD-9 and ICD-10 versions with different comorbidity flags. Staff tested using the actual version that corresponded with the time period and using the comorbidity flags that were common across both versions. The results did not meaningfully differ, so the results presented here use the common flags.

Appendix III. RRIP Modeling, CY23 YTD Readmission Rates, CY22 Norms

The modeling establishes the reward and penalty performance standards as outlined below. This represents a hypothetical analysis since hospitals were not under the policy. In general, actual results are more favorable than modeled results.

MaxReward	2.00%
MaxPenalty	-2.00%

ImpTarget	-1.28%
ImpMaxRewardScore	-22.28%
ImpMaxPenaltyScore	19.72%
AttTarget	11.22%
AttMaxRewardScore	9.14%
AttMaxPenaltyScore	15.19%

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						Improvement Scaling			Attainment Scaling				Final Adjustment		
HOSPITAL ID	HOSPITAL NAME	RY 23 Permanent Inpatient Revenue**	CY 2022 Case Mix Adjusted Readmission Rate (RY 2026 Base)	CY 2023 YTD Case Mix Adjusted Readmission Rate (Modeling Performance)[1]	CY22-CY23 YTD% Change in Case Mix Adjusted Rate*	Target	% Revenue Adjustment	$ Revenue Adjustment	CY 2023 YTD Case Mix Adjusted Rate with Out-of-State Adjustment*	Target (top 35th %)	% Revenue Adjustment	$ Revenue Adjustment	$ Better of Attainment or Improvement	% Revenue Adjustment	Revenue Adjustment Based on Improvement or Attainment*
210001	MERITUS	$236,441,777	12.04%	12.37%	2.74%	-1.28%	-0.38%	-$898,479	12.98%	11.22%	-0.88%	-$2,080,688	-$898,479	-0.38%	Imp
210002	UNIVERSITY OF MARYLAND	$1,419,452,964	11.07%	11.18%	0.99%	-1.28%	-0.22%	-$3,122,797	11.49%	11.22%	-0.13%	-$1,845,289	-$1,845,289	-0.13%	Att
210003	PRINCE GEORGE	$282,004,743	9.53%	9.49%	-0.42%	-1.28%	-0.08%	-$225,604	11.29%	11.22%	-0.03%	-$84,601	-$84,601	-0.03%	Att
210004	HOLY CROSS	$397,412,083	11.04%	11.59%	4.98%	-1.28%	-0.60%	-$2,384,472	12.76%	11.22%	-0.77%	-$3,060,073	-$2,384,472	-0.60%	Imp
210005	FREDERICK MEMORIAL	$255,798,612	11.25%	11.17%	-0.71%	-1.28%	-0.05%	-$127,899	11.79%	11.22%	-0.28%	-$716,236	-$127,899	-0.05%	Imp
210006	HARFORD	$68,386,364	13.21%	13.92%	5.37%	-1.28%	-0.63%	-$430,834	14.09%	11.22%	-1.44%	-$984,764	-$430,834	-0.63%	Imp
210008	MERCY	$216,769,130	12.40%	14.64%	18.06%	-1.28%	-1.84%	-$3,988,552	14.96%	11.22%	-1.88%	-$4,075,260	-$3,988,552	-1.84%	Imp
210009	JOHNS HOPKINS	$1,702,715,898	11.82%	12.19%	3.13%	-1.28%	-0.42%	-$7,151,407	13.07%	11.22%	-0.93%	-$15,835,258	-$7,151,407	-0.42%	Imp
210011	ST. AGNES	$233,444,507	12.35%	11.79%	-4.53%	-1.28%	0.31%	$723,678	11.86%	11.22%	-0.32%	-$747,022	$723,678	0.31%	Imp
210012	SINAI	$515,384,553	11.24%	11.93%	6.14%	-1.28%	-0.71%	-$3,659,230	12.06%	11.22%	-0.42%	-$2,164,615	-$2,164,615	-0.42%	Att
210015	FRANKLIN SQUARE	$338,396,055	11.21%	12.31%	9.81%	-1.28%	-1.06%	-$3,586,998	12.38%	11.22%	-0.58%	-$1,962,697	-$1,962,697	-0.58%	Att
210016	WASHINGTON ADVENTIST	$225,684,639	11.10%	11.91%	7.30%	-1.28%	-0.82%	-$1,850,614	13.13%	11.22%	-0.96%	-$2,166,573	-$1,850,614	-0.82%	Imp
210017	GARRETT COUNTY	$25,525,538	5.50%	7.01%	27.45%	-1.28%	-2.00%	-$510,511	11.90%	11.22%	-0.34%	-$86,787	-$86,787	-0.34%	Att
210018	MONTGOMERY GENERAL	$88,807,087	11.01%	10.02%	-8.99%	-1.28%	0.73%	$648,292	10.68%	11.22%	0.52%	$461,797	$648,292	0.73%	Imp
210019	PENINSULA REGIONAL	$308,473,682	10.90%	10.81%	-0.83%	-1.28%	-0.04%	-$123,389	11.53%	11.22%	-0.15%	-$462,711	-$123,389	-0.04%	Imp
210022	SUBURBAN	$227,224,802	10.32%	11.25%	9.01%	-1.28%	-0.98%	-$2,226,803	12.25%	11.22%	-0.52%	-$1,181,569	-$1,181,569	-0.52%	Att
210023	ANNE ARUNDEL	$385,505,885	11.95%	12.22%	2.26%	-1.28%	-0.34%	-$1,310,720	12.83%	11.22%	-0.81%	-$3,122,598	-$1,310,720	-0.34%	Imp
210024	UNION MEMORIAL	$283,598,962	12.53%	12.85%	2.55%	-1.28%	-0.37%	-$1,049,316	12.97%	11.22%	-0.88%	-$2,495,671	-$1,049,316	-0.37%	Imp
210027	WESTERN MARYLAND HEALTH SYSTEM	$190,230,034	10.44%	10.99%	5.27%	-1.28%	-0.62%	-$1,179,426	12.16%	11.22%	-0.47%	-$894,081	-$894,081	-0.47%	Att
210028	ST. MARY	$98,242,476	11.74%	10.10%	-13.97%	-1.28%	1.21%	$1,188,734	11.15%	11.22%	0.07%	$68,770	$1,188,734	1.21%	Imp
210029	HOPKINS BAYVIEW MED CTR	$455,171,792	12.27%	12.68%	3.34%	-1.28%	-0.44%	-$2,002,756	12.93%	11.22%	-0.86%	-$3,914,477	-$2,002,756	-0.44%	Imp
210030	CHESTERTOWN	$7,023,612	5.85%	9.31%	59.15%	-1.28%	-2.00%	-$140,472	10.74%	11.22%	0.46%	$32,309	$32,309	0.46%	Att
210032	UNION HOSPITAL OF CECIL COUNT	$90,564,569	12.24%	11.21%	-8.42%	-1.28%	0.68%	$615,839	14.99%	11.22%	-1.90%	-$1,720,727	$615,839	0.68%	Imp
210033	CARROLL COUNTY	$157,367,331	11.34%	12.07%	6.44%	-1.28%	-0.73%	-$1,148,782	12.78%	11.22%	-0.78%	-$1,227,465	-$1,148,782	-0.73%	Imp
210034	HARBOR	$129,425,148	12.67%	13.52%	6.71%	-1.28%	-0.76%	-$983,631	13.72%	11.22%	-1.26%	-$1,630,757	-$983,631	-0.76%	Imp
210035	CHARLES REGIONAL	$98,358,514	9.93%	9.42%	-5.14%	-1.28%	0.37%	$363,927	10.97%	11.22%	0.25%	$245,896	$363,927	0.37%	Imp
210037	EASTON	$119,931,603	9.06%	9.35%	3.20%	-1.28%	-0.43%	-$515,706	10.18%	11.22%	1.00%	$1,199,316	$1,199,316	1.00%	Att
210038	UMMC MIDTOWN	$137,864,557	11.89%	12.71%	6.90%	-1.28%	-0.78%	-$1,075,344	12.85%	11.22%	-0.82%	-$1,130,489	-$1,075,344	-0.78%	Imp
210039	CALVERT	$82,099,977	9.86%	10.25%	3.96%	-1.28%	-0.50%	-$410,500	11.18%	11.22%	0.04%	$32,840	$32,840	0.04%	Att
210040	NORTHWEST	$157,220,825	11.86%	12.97%	9.36%	-1.28%	-1.01%	-$1,587,930	13.11%	11.22%	-0.95%	-$1,493,598	-$1,493,598	-0.95%	Att
210043	BWMC	$326,459,954	11.20%	12.41%	10.80%	-1.28%	-1.15%	-$3,754,289	12.49%	11.22%	-0.64%	-$2,089,344	-$2,089,344	-0.64%	Att
210044	G.B.M.C.	$254,895,213	10.74%	10.70%	-0.37%	-1.28%	-0.09%	-$229,406	10.90%	11.22%	0.32%	$815,665	$815,665	0.32%	Att
210048	HOWARD COUNTY	$214,071,732	12.79%	12.96%	1.33%	-1.28%	-0.25%	-$535,179	13.24%	11.22%	-1.02%	-$2,183,532	-$535,179	-0.25%	Imp
210049	UPPER CHESAPEAKE HEALTH	$201,124,139	11.96%	12.44%	4.01%	-1.28%	-0.50%	-$1,005,621	12.67%	11.22%	-0.73%	-$1,468,206	-$1,005,621	-0.50%	Imp
210051	DOCTORS COMMUNITY	$176,421,777	9.61%	9.20%	-4.27%	-1.28%	0.28%	$493,981	10.78%	11.22%	0.43%	$758,614	$758,614	0.43%	Att
210056	GOOD SAMARITAN	$191,497,544	14.49%	13.44%	-7.25%	-1.28%	0.57%	$1,091,536	13.49%	11.22%	-1.14%	-$2,183,072	$1,091,536	0.57%	Imp
210057	SHADY GROVE	$321,044,393	9.74%	10.54%	8.21%	-1.28%	-0.90%	-$2,889,400	11.23%	11.22%	0.00%	$0	$0	0.00%	Att
210058	REHAB & ORTHO	$74,199,749	11.03%	6.24%	-43.43%	-1.28%	2.00%	$1,483,995	6.24%	11.22%	2.00%	$267,119	$1,483,995	2.00%	Imp
210060	FT. WASHINGTON	$31,642,518	9.27%	10.07%	8.63%	-1.28%	-0.94%	-$297,440	13.23%	11.22%	-1.01%	-$319,589	-$297,440	-0.94%	Imp
210061	ATLANTIC GENERAL	$45,367,141	9.68%	11.06%	14.26%	-1.28%	-1.48%	-$671,434	12.44%	11.22%	-0.61%	-$276,740	-$276,740	-0.61%	Att
210062	SOUTHERN MARYLAND	$196,475,930	9.81%	10.41%	6.12%	-1.28%	-0.70%	-$1,375,332	12.59%	11.22%	-0.69%	-$1,355,684	-$1,355,684	-0.69%	Att
210063	UM ST. JOSEPH	$280,257,927	12.24%	11.56%	-5.56%	-1.28%	0.41%	$1,149,058	11.77%	11.22%	-0.28%	-$784,722	$1,149,058	0.41%	Imp
210064	LEVINDALE	$66,200,891	9.92%	12.80%	29.03%	-1.28%	-2.00%	-$1,324,018	12.80%	11.22%	-0.79%	-$522,987	-$522,987	-0.79%	Att
210065	HOLY CROSS GERMANTOWN	$79,412,195	11.70%	11.68%	-0.17%	-1.28%	-0.11%	-$87,353	11.73%	11.22%	-0.26%	-$206,472	-$87,353	-0.11%	Imp
STATEWIDE		**$11,393,598,820**						**-$46,102,604**				**-$62,592,027**	**-$30,305,977**		
Penalty								-$53,861,644				-$66,474,353	-$40,409,780		
Reward								$7,759,040				$3,882,326	$10,103,803		

Percentages have been rounded for display. Final scaling values are rounded to two decimal places.
*2023 Jan-Dec Prelim data