maryland
health services
cost review commission

Performance Measurement Workgroup

April 20, 2022

HSCRC Quality Team

Agenda

- NEW: FY 2023 CMS Proposed Rule

- RY 2023 COVID Updates
  - Guiding Principles
  - Stakeholder Feedback
- RY 2024 RRIP Policy Extension
- Targeting HCAHPS
- Health Equity

Guiding Principles for COVID PHE Quality Measurement

- Must have Quality Adjustments in RY 2023
- Measures should be as **inclusive** as possible
- Scores and revenue adjustments should have face validity
- Adjustments to policies should be **uniformly applied**, when possible
- Because we don't have a reasonable counterfactual (without COVID in the base period),
  - Risk adjustment must be updated to account for COVID influence, e.g., concurrent norms
  - Relative ranking approaches, such as those used by CMS, may be advantageous under these conditions
- Quality adjustments must be reasonable to **gain approval from CMMI** and the Commissioners

The CMS proposed rule that was published on 4/18 upends some of these guiding principles

RY 2023 COVID Changes: Stakeholder Feedback

Comment Letters

HSCRC received comment letters from:

- Adventist
- Hopkins
- UMMS
- Maryland Hospital Association
- MedStar
- Meritus

In general letters were supportive of concurrent norm approach but included some specific questions/concerns for staff response.

RRIP Proposal & Feedback

Staff proposal: Update normative values to use concurrent data for establishing expected readmissions (i.e., CY 2021); maintain prospectively determined improvement and attainment scales.

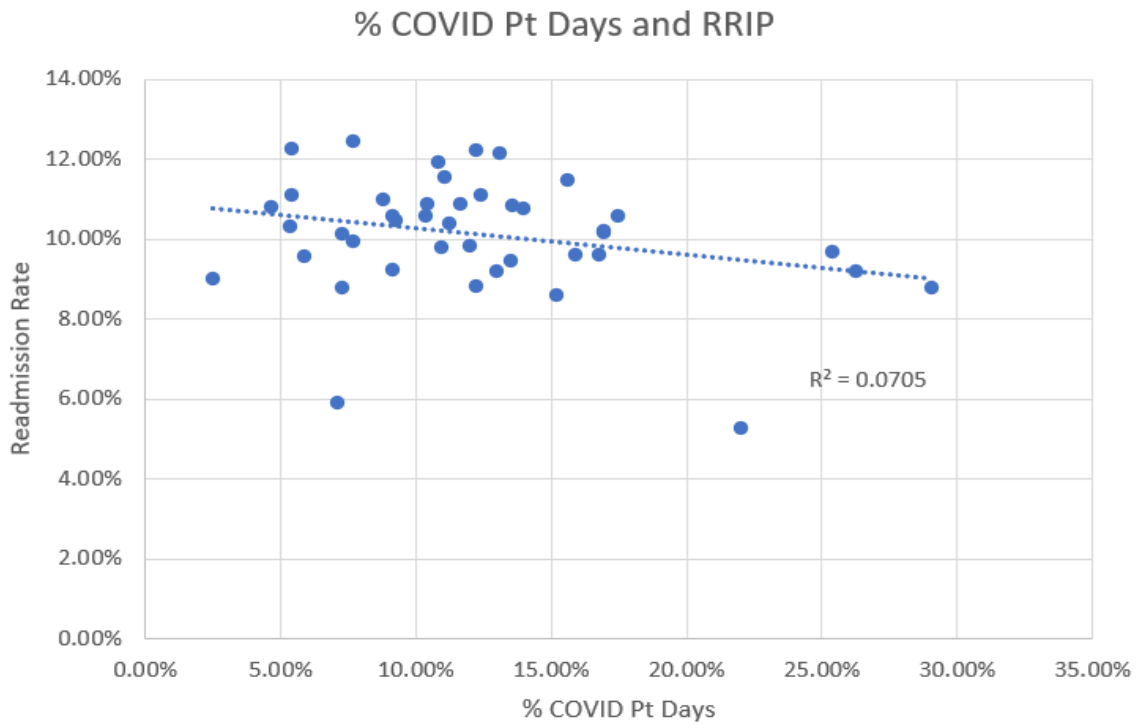
Stakeholder Feedback	Staff Response
Meritus expressed concern over staff results showing readmissions lower as COVID patient days increases	See correlation analysis and readmission rates for patients with and without COVID
MHA supports reducing pre-determined improvement goal of 4.57% to 4.37%, citing general need to reduce hospital demands during COVID time period.	Staff continues to support the RRIP redesign's pre-established improvement goal and notes that 31 hospitals meet the current goal under the more conservative Model 2
Adventist notes concern retrospective changes will negate improvements made to the existing performance target and impact future engagement in readmission reduction activities by providers.	Staff agrees it is important to maintain pre-established improvement and attainment goals. However, to reflect the novel impact of COVID, staff continues to support updated standards for calculating RY 2023 expected readmissions with the update to concurrent normative values. Moreover, staff believe that selecting retrospective adjustments for one policy (e.g., QBR) but not others (e.g., RRIP) is indicative of cherry-picking

NEW COVID Patient Days Statistic

- Stakeholders raised concerns that prior correlation analyses that compared Models with concurrent norms to % of days attributable to COVID were potentially misleading because hospitals responded to the pandemic in different ways:
  - Some cancelled elective surgeries to free up patient capacity
  - Others expanded capacity without cancelling services
- Staff have created a new statistic to address this concern: CY21 COVID Patient Days / CY19 Patient Days
  - Pre-COVID denominator allows for better understanding of the COVID burden on volume by mitigating impact of changes in utilization (e.g., cancellation of electives)
- Staff does not support correlation analyses or risk adjustments based on # of COVID days because it is a greater reflection of hospital size than COVID burden, e.g. Hopkins will always have the most COVID days regardless of pandemic response

COVID Pt Days and CY21 RRIP

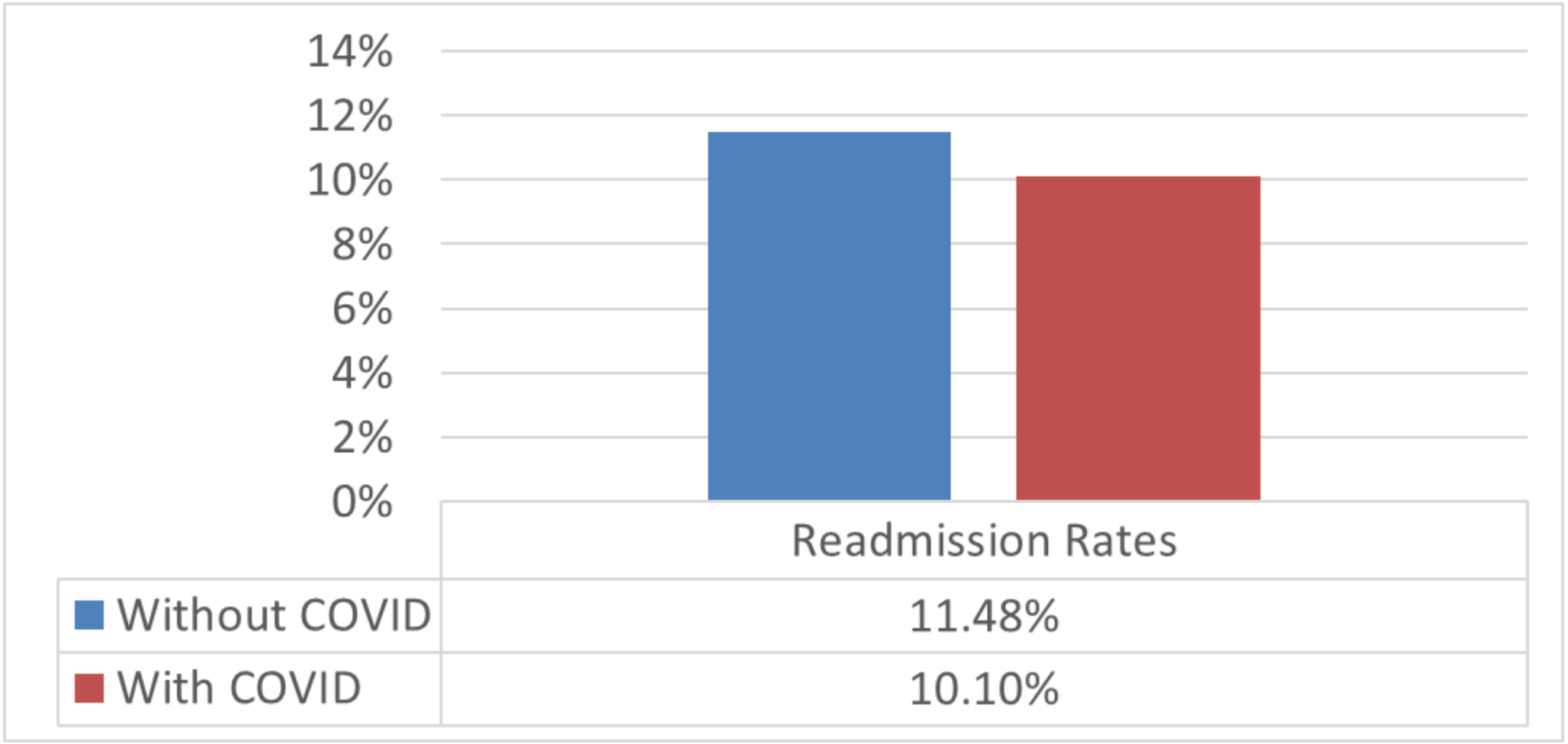
- Staff used CY21 COVID Pt Days / CY 19 Pt Days to calculate % COVID pt days



- As % COVID Pt Days increase, readmission rates decrease
- R^2= .0705
- P-Value= .09
- Coefficient= -.07

For every 1% increase in COVID pt days, there's an expected decrease in readmission rates by .07%. However, COVID Pt Days only account for ~7% of the variation we're seeing in performance and the relationship is not statistically significant.

Readmission Rates with and without COVID CY 2021



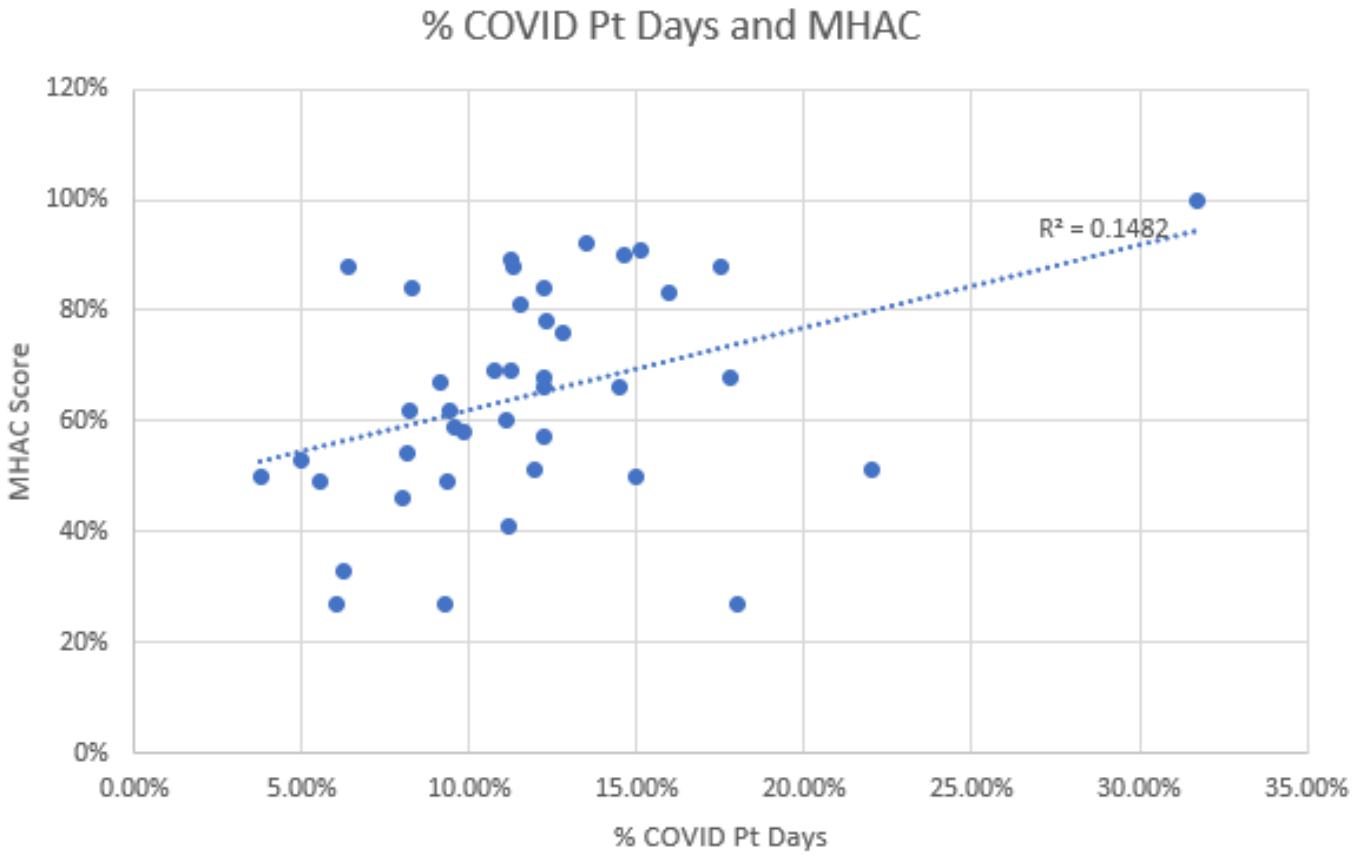
Discharges with COVID had a lower readmission rate statewide; At 33 hospitals, patients with COVID had a readmission rate that on average was almost 3 percentage points lower.

RY 2023 MHAC Proposal & Feedback

Staff proposal: Update normative values to include post-COVID or concurrent data (CY19 Jan-Jun + CY20 July-Dec) and modify revenue adjustment scale to be a 10 percentage point range centered on the mean hospital score.

Stakeholder Feedback	Staff Response
Decrease max penalty to 1 percent; MHA letter proposes reduction in max penalties but not rewards with general concern of COVID causing deterioration beyond hospital control.	• Staff argues that adjustments for COVID address COVID confounding, noting statewide improvements during the COVID timeframe, and continues to support rewards/penalties up to 2 percent. • Staff remains concerned on meeting CMMI aggregate at-risk requirement (see Appendix slide for RY21 aggregate at-risk)
MHA proposes that the reward/penalty cutpoint be established using final RY21s average score relative to 60-70 percent cutpoint and apply to the RY23s average score.	• In RY21 the cutpoint was determined through prospective score modeling and not based on results. If based on results, staff would have increased the cutpoint to 67%-77% • Staff believes it is reasonable to center the cut point around hospital average at this time but in the future want to return to setting the cutpoint prospectively.

COVID Pt Days and CY21 MHAC Scores



- As % COVID Pt Days increase, MHAC scores increase
- R^2= .1482
- P-Value= .01
- Coefficient= 1.5

Although the relationship is statistically significant, COVID Pt Days only account for ~15% of the variation we're seeing in performance. Also, for every 1 % point increase in COVID pt days, there's a 1.5 point increase in MHAC scores.

QBR Proposal & Feedback

Staff proposal:

- **Mortality:** Use Model 2a CY 2021 that risk-adjusts for patient COVID status and hospital COVID burden (% COVID days); apply CY 2021 coefficients to CY 2019 base for improvement.
- **AHRQ Patient Safety Index:** Remove COVID per AHRQ
- **Medicare Total Follow-up:** No changes to process measure
- **Care Compare Measures** (HCAHPS, NHSN, Hip/knee complication): No changes to measures but revise revenue adjustment scale.

Stakeholder Feedback	Staff Response
Meritus is concerned percent COVID days and suggests gross patient days	Staff has demonstrated that quality revenue adjustments for hospitals with higher shares of COVID (both relative to 2019 and 2021 volumes) are not adversely impacted and remain concerned over any adjustment that relies on hospital size versus COVID burden. Staff further believes that the risk adjustment for COVID patients and hospital percent COVID adequately addresses the confounding that the COVID-19 pandemic presents
Support reduction in QBR cut point	Staff agree to modifying the cut point based on the analysis of national data to determine degradation. For preliminary rate adjustments in July 2022 the cut point will be 30%; this will be updated for January rate orders.
MedStar concern on mortality risk adjustment for patients in DRG 137	The risk model performed well on average for discharges with a principal diagnosis of COVID (statewide O/E mortality ratio of 1.03)

Models Under Evaluation for IP Mortality

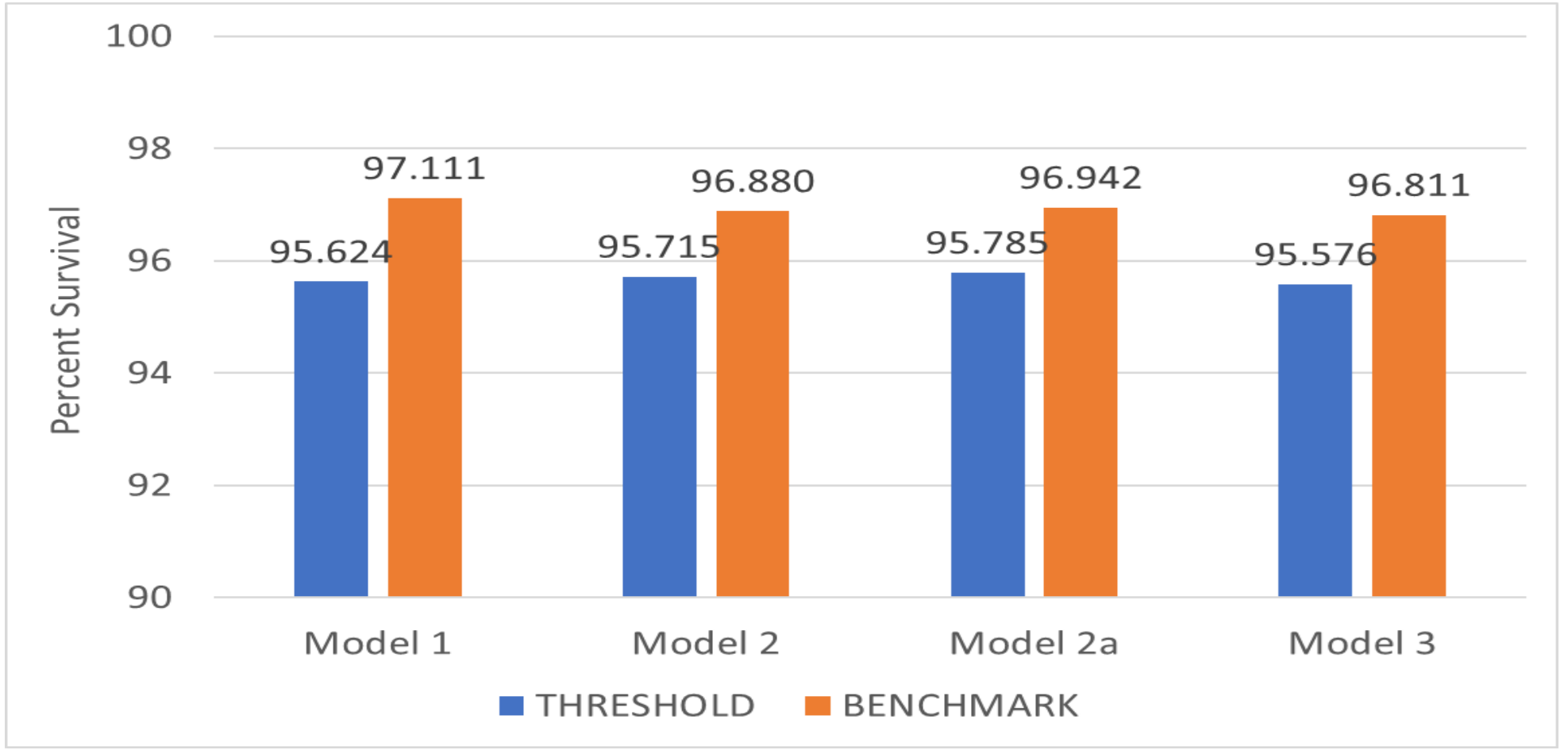
IP Mortality is 10 percent of QBR score

Model	Model 1	Model 2	Model 2a	Model 3
Description	Original 2019 base period regression including COVID discharges in performance period	Concurrent CY 2021 regression **including** COVID discharges	Concurrent CY 2021 regression **including** COVID discharges + discharge level COVID flag	Concurrent CY 2021 regression **excluding** COVID-19 discharges

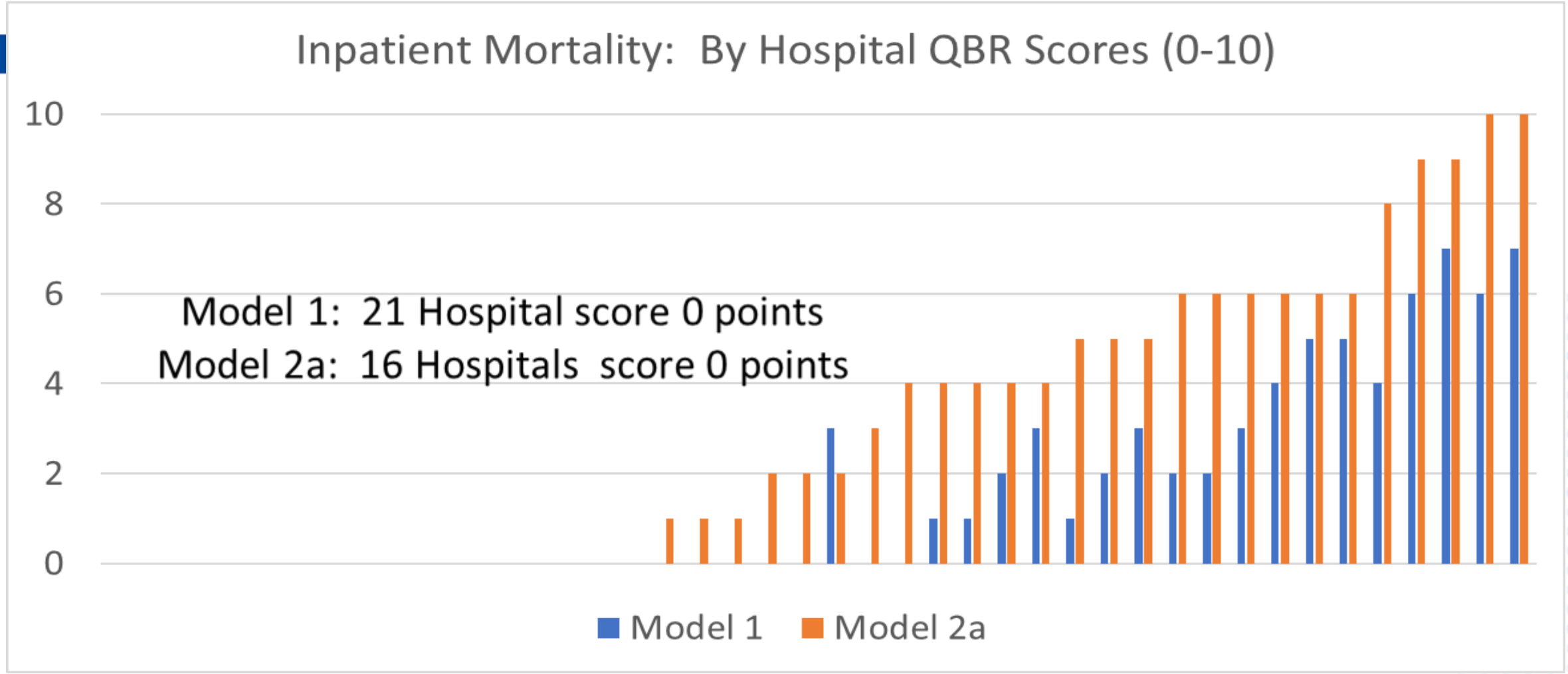
Originally tested models and found strong correlation between mortality rates and COVID days. Added hospital level percent COVID days to all models and correlation is low.

Staff believe Model 2a is most appropriate for controlling adequately for COVID

Performance Standards for Models



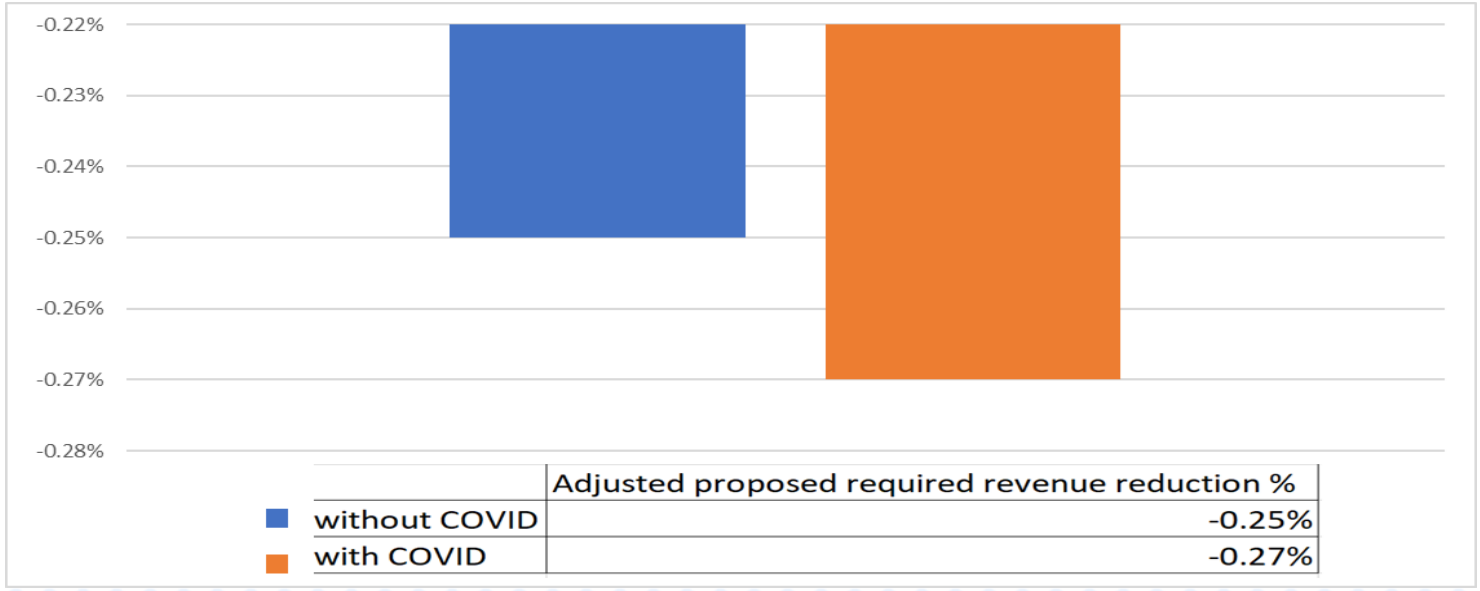
Performance standards for scoring differ slightly by model.



All but one hospital have higher score with Model 2a COVID risk-adjustment despite higher performance standards. Significant number of hospitals do not score any points.

PAU RY23 Statewide Reduction with and without COVID

- Adjustment for COVID in the PAU Shared Savings program is potentially needed
  - Additional risk adjustment, such as concurrent norms, is not possible:
    - AHRQ risk adjustment does not take into account COVID
    - Readmissions in PAU are not case-mix adjusted
- To account for COVID, staff recommends omitting COVID cases for determining:
  - The statewide shared savings reduction, and
  - By-hospital performance; associated revenue with and without COVID was highly correlated (R=.9996)



CMS FY 2023 IPPS Proposed Rule: Impact of Value-Based Purchasing Programs

Summary of Potential Changes for FY2023

CMS Program	Proposed Changes	% At Risk
HVBP	Suppress HCAHPS, NHSN, 30 day mortality pneumonia data. Exclude COVID pts from THA/TKA complications and other mortality measures CMS will not calculate a Total Performance Score-VBP revenue neutral for hospitals	0%
HACRP	Suppress all HACRP measures (CMI PSI 90 + 5 NHSN HAI measures) from the calculation of the Total HAC Score ▸ CMS PSI 90 will not be calculated or reported due to COVID risk-adjustment concerns Hospitals will not be penalized for FY2023	0%
HRRP	Suppress Pneumonia measure due to impact of COVID Covariate adjustment for patients with history of COVID in the 12 months prior to index admission for all six readmission measures	3%

RY 2021 Potential Risk

Potential Risk:
Potential at risk for MHAC, RRIP, and QBR set by commission.
Potential at risk for PAU Savings is the maximum penalty received by any hospital.
Medicare Performance Adjustment is Calculated using 1% potential risk * Medicare FFS $ used in calculation / all-payer IP revenue

Maryland - Potential Inpatient Revenue at Risk absolute values

% of MD All-Payer Inpatient Revenue	RY 2014	RY 2015	RY 2017	RY 2018	RY 2019	RY 2020	RY 2021
MHAC	2.0%	3.0%	3.0%	3.0%	2.00%	2.00%	2.00%
RRIP			2.0%	2.0%	2.00%	2.00%	2.00%
QBR	0.5%	0.5%	2.0%	2.0%	2.00%	2.00%	2.00%
Subtotal	**2.5%**	**3.5%**	**7.0%**	**7.0%**	**6.0%**	**6.0%**	**6.0%**
PAU Savings	0.41%	0.49%	3.69%	1.42%	1.29%	1.13%	0.90%
Medicare Performance Adjustment						0.24%	0.43%
MD Aggregate Maximum At Risk	**2.91%**	**3.99%**	**10.7%**	**8.4%**	**7.3%**	**7.4%**	**7.3%**

National - Potential Inpatient Revenue at Risk absolute values

% of National Medicare Inpatient Revenue	FFY 2014	FFY 2015	FFY2017	FFY2018	FFY2019	FFY2020	FFY2021
HAC		1.0%	1.0%	1.0%	1.0%	1.0%	1.0%
Readmissions	2.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%
VBP	1.3%	1.5%	2.0%	2.0%	2.0%	2.0%	2.0%
Medicare Aggregate Maximum At Risk	**3.25%**	**5.5%**	**6.0%**	**6.0%**	**6.0%**	**6.0%**	**6.0%**
Annual MD-US Difference	**-0.34%**	**-1.51%**	**4.69%**	**2.42%**	**1.29%**	**1.37%**	**1.33%**

RY 2021 Realized Risk

Realized at Risk: Realized at risk calculated as the average of the absolute value of all hospital adjustments for that program.

Maryland - Realized Inpatient Revenue at Risk

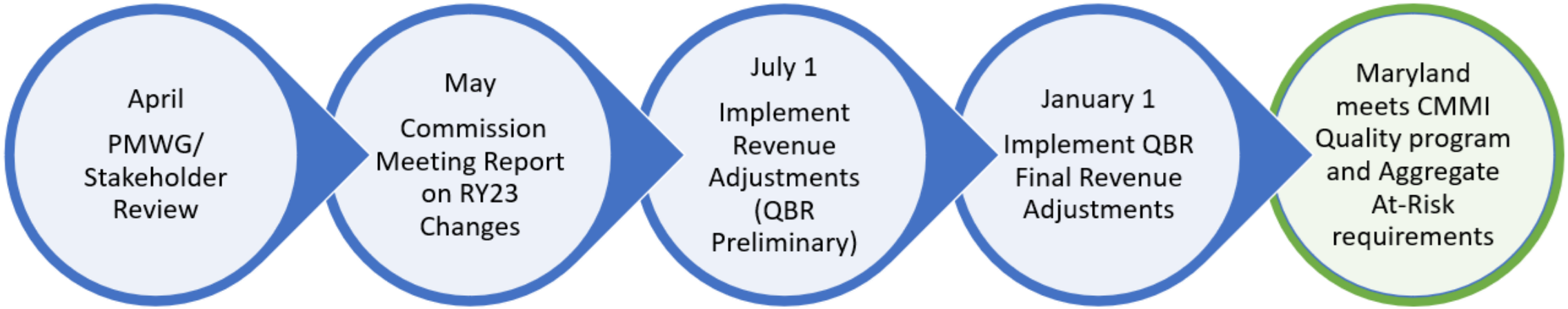
% of MD All-Payer Inpatient Revenue	RY 2014	RY 2015	RY 2016	RY 2017	RY 2018	RY 2019	RY 2020	RY 2021
MHAC	0.22%	0.11%	0.18%	0.40%	0.50%	0.25%	0.33%	0.58%
RRIP			0.15%	0.57%	0.61%	0.58%	0.67%	0.53%
QBR	0.11%	0.14%	0.30%	0.26%	0.59%	0.64%	0.60%	0.43%
Subtotal	0.34%	0.25%	0.63%	1.23%	1.70%	1.47%	1.60%	1.53%
PAU Savings	0.29%	0.34%	0.30%	1.63%	0.57%	0.61%	0.62%	0.46%
Medicare Performance Adjustment							0.18%	0.31%
MD Aggregate Maximum At Risk	**0.62%**	**0.59%**	**0.93%**	**2.86%**	**2.26%**	**2.08%**	**2.40%**	**2.30%**

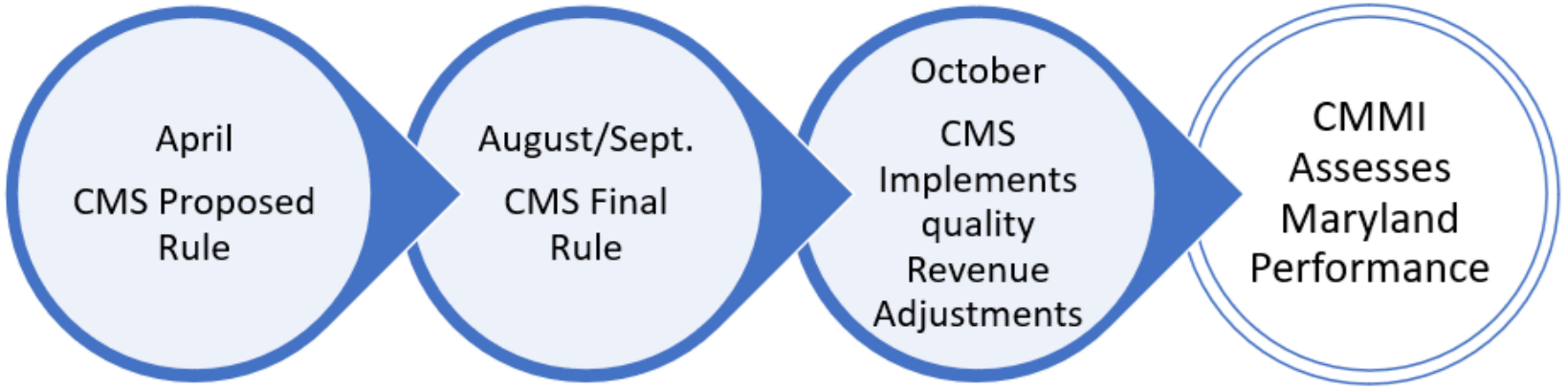
National - Realized Inpatient Revenue at Risk absolute values

% of National Medicare Inpatient Revenue	FFY 2014	FFY 2015	FFY2016	FFY2017*	FFY2018*	FFY2019*	FFY2020*	FFY2021*
HAC		0.22%	0.23%	0.24%	0.24%	0.25%	0.25%	0.25%
Readmits	0.28%	0.52%	0.51%	0.61%	0.56%	0.57%	0.58%	0.57%
VBP	0.20%	0.24%	0.40%	0.51%	0.53%	0.51%	0.55%	0.58%
Medicare Aggregate Maximum At Risk	**0.47%**	**0.97%**	**1.14%**	**1.36%**	**1.33%**	**1.34%**	**1.38%**	**1.40%**
Annual MD-US Difference	**0.15%**	**-0.38%**	**-0.20%**	**1.50%**	**0.93%**	**0.74%**	**1.02%**	**0.90%**

*HSCRC estimated CMS numbers based on publicly available files and this is subject to change.

Incompatible Timelines





Implications for Maryland

- Confirming with CMMI that if Final Rule waives programs that Maryland can also waive programs (HVBP and HACRP)

- **Preliminary Proposal:** Delay implementation of RY 2023 revenue adjustments until January 1, pending Final Rule from CMS
  - HSCRC staff will recommend waiving of QBR and MHAC
  - HSCRC staff will develop risk-adjusted readmission measure that takes into account COVID:
    - Use current proposed Model 2 (concurrent norms)
    - Develop regression-based model with additional risk-adjustment for COVID
    - Consider making penalty only to align with federal government p4p's given unprecedented changes to national policies.

- Work with CMMI to ensure quality waivers and aggregate at-risk are not impacted

Summary of Potential Changes for FY2024

CMS Program	Proposed Changes
HVBP	• Goal is to continue resuming the use of measure data for scoring and payment adjustment purposes beginning with the FY 2024 program year • Resume use of updated pneumonia 30-day mortality measure that adjusts for COVID

HACRP	• Suppress CY2021 HAI data from the FY2024 HACRP;
	  ○ Performance period: CY2022
	• COVID-19 risk adjustment for PSI 90
	  ○ Performance period: CY2021 and Jan-Jun CY2022

HRRP	• Resume Pneumonia measure but exclude COVID-19 patients • Covariate adjustment for patients with history of COVID in the 12 months prior to index admission for all six readmission measures

RY 2024 RRIP Details

Extended RY 2023 Policy to RY 2024

- Staff presented a report extending the RY 2023 RRIP policy at the April Commission meeting
  - Staff believe since the 5-year improvement target on readmissions and SIHIS goal on disparities are already established that the Commissioners did not need to vote
  - Continues recommendation that retrospective changes could be made as needed due to COVID

- Program details:
  - No change to readmission or disparity gap metric beyond updating to v39 of 3M APR Grouper
  - Time periods:
    - Base period for improvement and attainment: CY 2018
    - Normative values: CY 2021 post-covid
    - Performance period: CY 2022

- Improvement target: -6.05%

- Attainment target: 2018 65th percentile + improvement

- Disparity Gap Goal: rewards start at a reduction of 22.89% and are capped at a reduction of 40.54% (note due to RY2021 policy suspension these numbers are a year behind the overall readmission improvement)

Targeting HCAHPS Improvement

MHCC HCAHPS Data Collection Update

- Thank you to MD Hospitals, who submitted Q3-2021 HCAHPS data by January 12, 2022, and Q4-2021 data by April 13, 2022
- HSCRC looks forward to working with MHCC on a “deep dive” review of line-item HCAHPS over the next year, including questions such as:
  - Divergence in patient experience across service lines, demographics, hospitals, question composites?
  - “Lessons learned” from high-performing hospitals
  - More timely HCAHPS data receipt → closer to real-time **QBR Scoring reports**
- HSCRC also looks forward to working with the Maryland Hospital Association and MD hospitals to improve HCAHPS over the life of the TCOC Model, per our re-commitment in the QBR Redesign

Recommendation: Expand Sharing of HCAHPS Best Practices

- CMS in its quality exemption approval letter for this year:
  - Encourages the State to prioritize strategies to investigate the root cause of poor HCAHPS performance
  - Create a formalized platform for hospitals to share HCAHPS best practices
  - Invest in infrastructure to capture patient-level-data
  - Establish statewide improvement goals in future years
- Staff looks forward to collaborating with partners:
  - Hospitals,
  - MHA as a convener,
  - MHCC as they are establishing an infrastructure to collect patient level HCAHPS data beginning in CY 2022

Health Equity Update

US News Health Equity Index for Hospitals and Hospital System

- US News is building a Health Equity Index for Hospitals and Hospital Systems
  - Access
  - Social Determinants of Health
  - Health Outcomes

- Relevance
  - Allows for comparison to the nation and to other states
  - Potential adoption of measures

US News' Health Equity Measures

- Debuted two health equity measures in 2021
  - Elective Care Measure- How well the surrounding community is represented in the population treated by the hospital.
  - Preventive Care Measure- How effectively preventive care for Black residents in a hospital's service area reduces potentially avoidable hospitalizations.

- New measures of health equity
  - Access to Care for Low Income Patients
  - Racial Disparities in Unplanned Readmissions
  - Charity Care Provision for Uninsured Patients

Health Equity in Quality Programs

- Current Status
  - PAI
  - CRS Detail-Level Reports
- Present Work
  - Creating programs to add demographic information to quality reports
  - Chartering documents for a potential health equity workgroup
  - Attending webinars and workshops relevant to health equity
- Goals
  - Identify disparities experienced by Maryland's residents in hospitals
  - Create incentives for hospitals to address the disparities

Health Equity Workgroup

- Intersection of Hospital Quality and Health Equity
- Develop/adopt HSCRC Health Equity definition
- Stratify current reports by variables of interest
- Incentives to improve within-hospital disparities in Quality programs
- Identify/develop measures of health equity germane to hospital quality

Appendix

RY 2021 Potential Risk

Potential Risk:
Potential at risk for MHAC, RRIP, and QBR set by commission.
Potential at risk for PAU Savings is the maximum penalty received by any hospital.
Medicare Performance Adjustment is Calculated using 1% potential risk * Medicare FFS $ used in calculation / all-payer IP revenue

Maryland - Potential Inpatient Revenue at Risk absolute values

% of MD All-Payer Inpatient Revenue	RY 2014	RY 2015	RY 2017	RY 2018	RY 2019	RY 2020	RY 2021
MHAC	2.0%	3.0%	3.0%	3.0%	2.00%	2.00%	2.00%
RRIP			2.0%	2.0%	2.00%	2.00%	2.00%
QBR	0.5%	0.5%	2.0%	2.0%	2.00%	2.00%	2.00%
Subtotal	**2.5%**	**3.5%**	**7.0%**	**7.0%**	**6.0%**	**6.0%**	**6.0%**
PAU Savings	0.41%	0.49%	3.69%	1.42%	1.29%	1.13%	0.90%
Medicare Performance Adjustment						0.24%	0.43%
MD Aggregate Maximum At Risk	**2.91%**	**3.99%**	**10.7%**	**8.4%**	**7.3%**	**7.4%**	**7.3%**

National - Potential Inpatient Revenue at Risk absolute values

% of National Medicare Inpatient Revenue	FFY 2014	FFY 2015	FFY2017	FFY2018	FFY2019	FFY2020	FFY2021
HAC		1.0%	1.0%	1.0%	1.0%	1.0%	1.0%
Readmissions	2.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%
VBP	1.3%	1.5%	2.0%	2.0%	2.0%	2.0%	2.0%
Medicare Aggregate Maximum At Risk	**3.25%**	**5.5%**	**6.0%**	**6.0%**	**6.0%**	**6.0%**	**6.0%**
Annual MD-US Difference	**-0.34%**	**-1.51%**	**4.69%**	**2.42%**	**1.29%**	**1.37%**	**1.33%**

RY 2021 Realized Risk

Realized at Risk: Realized at risk calculated as the average of the absolute value of all hospital adjustments for that program.

Maryland - Realized Inpatient Revenue at Risk

% of MD All-Payer Inpatient Revenue	RY 2014	RY 2015	RY 2016	RY 2017	RY 2018	RY 2019	RY 2020	RY 2021
MHAC	0.22%	0.11%	0.18%	0.40%	0.50%	0.25%	0.33%	0.58%
RRIP			0.15%	0.57%	0.61%	0.58%	0.67%	0.53%
QBR	0.11%	0.14%	0.30%	0.26%	0.59%	0.64%	0.60%	0.43%
Subtotal	0.34%	0.25%	0.63%	1.23%	1.70%	1.47%	1.60%	1.53%
PAU Savings	0.29%	0.34%	0.30%	1.63%	0.57%	0.61%	0.62%	0.46%
Medicare Performance Adjustment							0.18%	0.31%
MD Aggregate Maximum At Risk	**0.62%**	**0.59%**	**0.93%**	**2.86%**	**2.26%**	**2.08%**	**2.40%**	**2.30%**

National - Realized Inpatient Revenue at Risk absolute values

% of National Medicare Inpatient Revenue	FFY 2014	FFY 2015	FFY2016	FFY2017*	FFY2018*	FFY2019*	FFY2020*	FFY2021*
HAC		0.22%	0.23%	0.24%	0.24%	0.25%	0.25%	0.25%
Readmits	0.28%	0.52%	0.51%	0.61%	0.56%	0.57%	0.58%	0.57%
VBP	0.20%	0.24%	0.40%	0.51%	0.53%	0.51%	0.55%	0.58%
Medicare Aggregate Maximum At Risk	**0.47%**	**0.97%**	**1.14%**	**1.36%**	**1.33%**	**1.34%**	**1.38%**	**1.40%**
Annual MD-US Difference	**0.15%**	**-0.38%**	**-0.20%**	**1.50%**	**0.93%**	**0.74%**	**1.02%**	**0.90%**

*HSCRC estimated CMS numbers based on publicly available files and this is subject to change.

THANK YOU!

Next meeting: May 18, 2022

email questions/comments: hscrc.quality@maryland.gov