maryland
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Performance Measurement Workgroup

September 21, 2022

HSCRC Quality Team

Meeting Agenda

- Total Cost of Care (TCOC) Model and SIHIS Updates
- Work Plan review and CMS Emerging Priorities for FY 2025 & beyond
- RY 2023 Quality Program Revenue Adjustment Updates
- Hospital Health Equity Workgroup Update
- Quality-Based Reimbursement (QBR) RY 2025 policy discussion
- Other topics and public comment

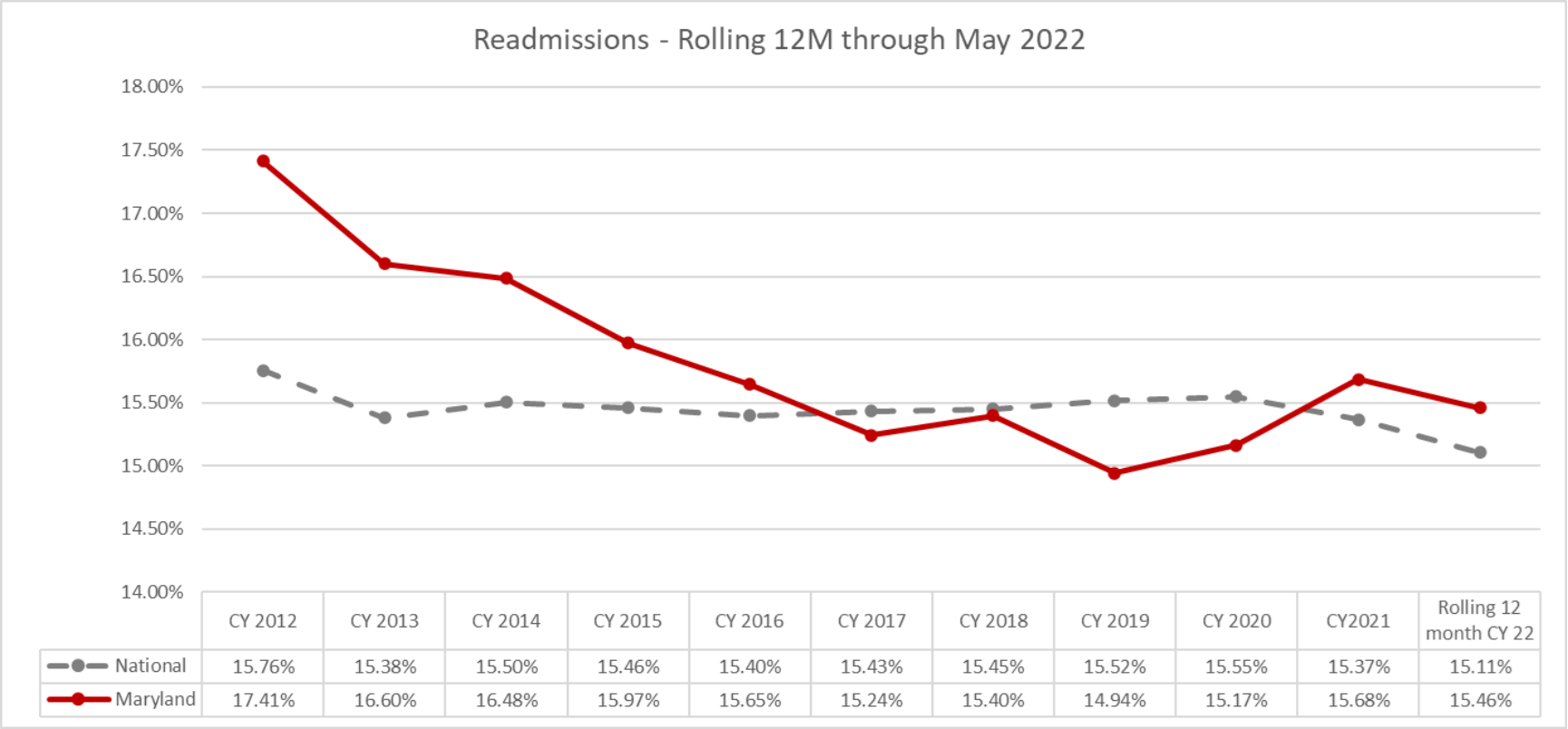
TCOC Model and SIHIS Updates

TCOC Model Year 3 Performance

Performance Measures	2021 Targets	2021 Results	Met
Annual Medicare TCOC Savings	$222M in annual Maryland Medicare TCOC per Beneficiary of savings for MY3 (2021)	$378.1million	✓
TCOC Guardrail Test	Cannot exceed growth in National Medicare TCOC per beneficiary by more than 1% per year and cannot exceed the National Medicare TCOC per beneficiary by any amount for 2+ consecutive years	0.6 percentage points above the National growth rate	✓
All-Payer Revenue Limit	All-payer growth ≤ 3.58% per capita	2.37% per capita ($1.71 billion below the maximum revenue amount)	✓
Improvement in All-Payer Potentially Preventable Conditions	Exceed the CY 2018 PPC rates for 14 Potentially Preventable Conditions (PPCs) that comprise Maryland's Hospital Acquired Condition program (MHAC)	.013 percentage point reduction	✓
Readmissions Reductions for Medicare	Maryland's aggregate Medicare 30-day unadjusted all-cause, all-site readmission rate at regulated hospitals ≤ the National Readmission Rate for Medicare FFS beneficiaries	15.64% (above the national rate of 15.41%)	X
Hospital Population Based Payment	≥ 95% of all Regulated Revenue for Maryland residents paid according to a Population-Based Payment methodology	98% of Regulated Revenues are under Maryland's 'Rate Setting System'	✓

Medicare Readmission Test

Unadjusted, 30-day, all-cause readmissions



	CY 2012	CY 2013	CY 2014	CY 2015	CY 2016	CY 2017	CY 2018	CY 2019	CY 2020	CY2021	Rolling 12 month CY 22
National	15.76%	15.38%	15.50%	15.46%	15.40%	15.43%	15.45%	15.52%	15.55%	15.37%	15.11%
Maryland	17.41%	16.60%	16.48%	15.97%	15.65%	15.24%	15.40%	14.94%	15.17%	15.68%	15.46%

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CCW Regression Results

On a risk adjusted basis Maryland has **statistically significantly** (CI less than 1) lower odds of readmission than the nation in 2020 and 2021

Risk Adjustment Variables

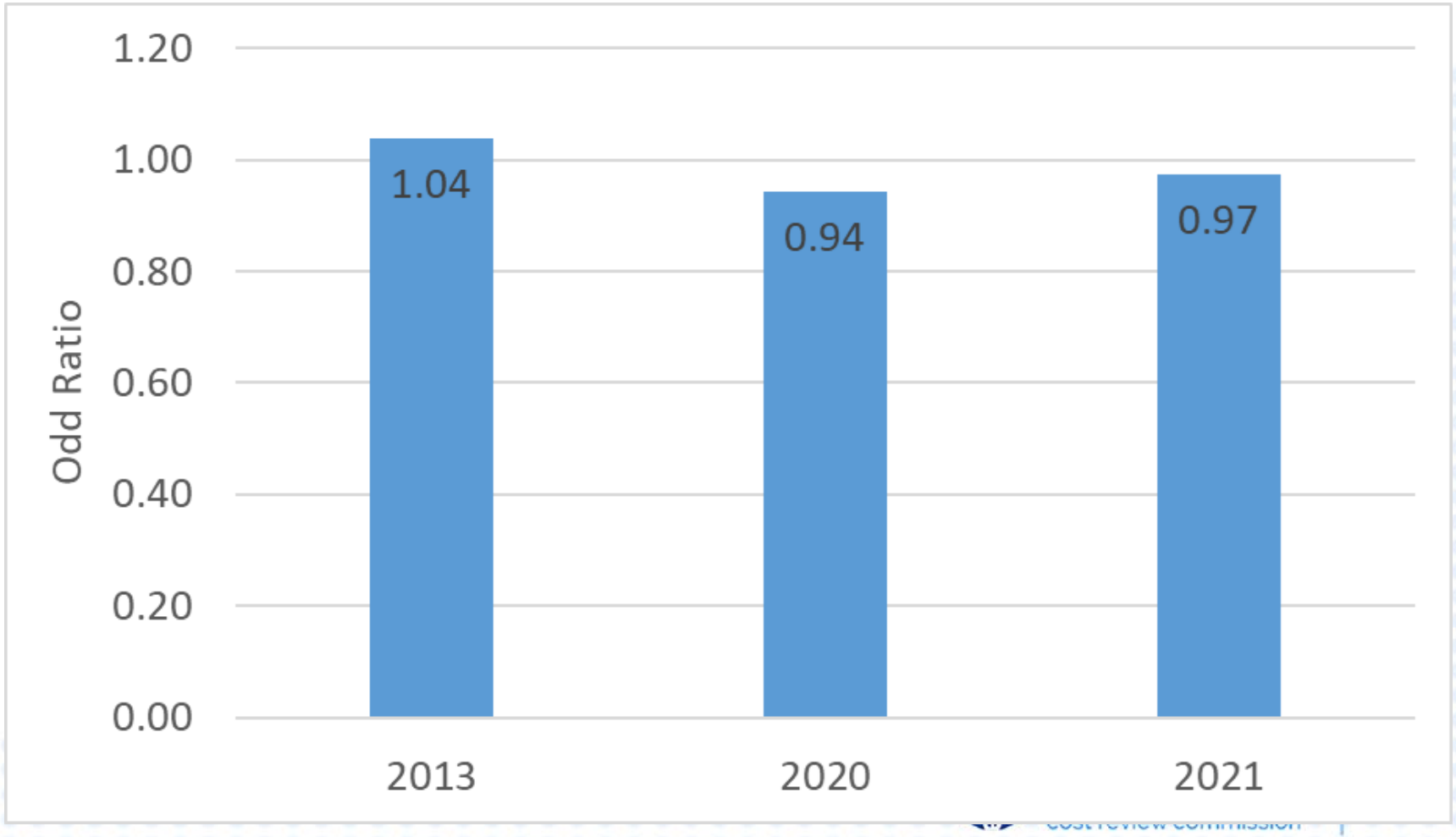
Age

Sex

Major Diagnostic Category

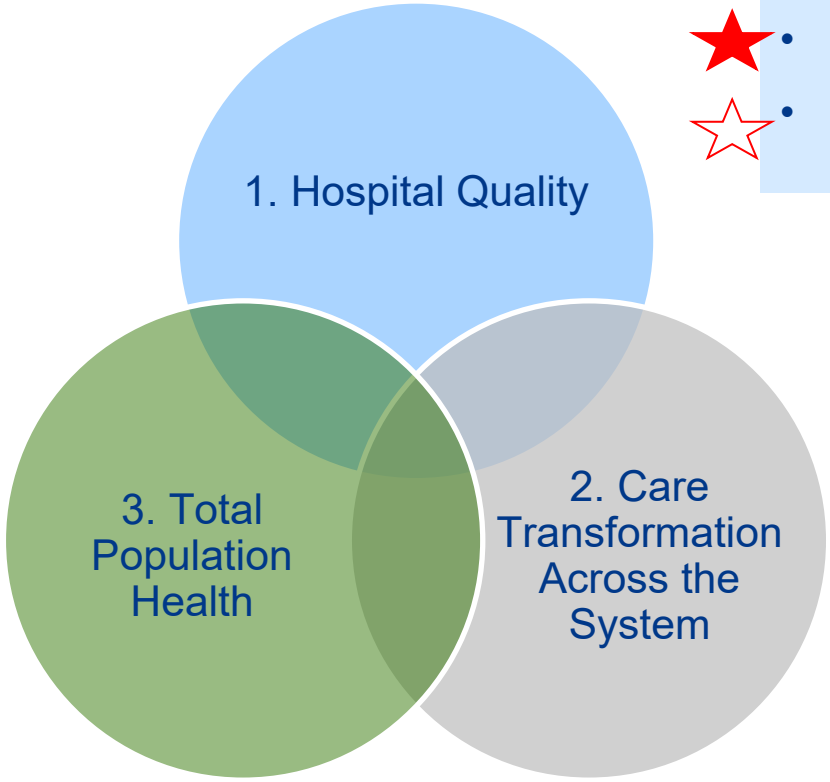
Elixhauser Comorbidity Index

COVID-19 (2020 and 2021)



Statewide Integrated Healthcare Improvement Strategy (SIHIS): Goals Across Three Domains

Total Cost of Care Model (2019-2028)



Hospital Quality

- ★ Reduce avoidable admissions (ambulatory sensitive conditions)
- ☆ Improve Readmission Rates by Reducing Within-Hospital Disparities

Care Transformation Goals

- Increase the amount of Medicare TCOC or number of Medicare beneficiaries under value-based care models*
- ★ Improve care coordination for patients with chronic conditions

Total Population Health Goals

- Priority Area 1 (Diabetes): Reduce the mean BMI for adult Maryland residents
- Priority Area 2 (Opioids): Improve overdose mortality
- Priority Area 3 (Maternal and Child Health Priority Area):
  - Reduce severe maternal morbidity rate
  - Decrease pediatric asthma-related emergency department visit rates for ages 2-17

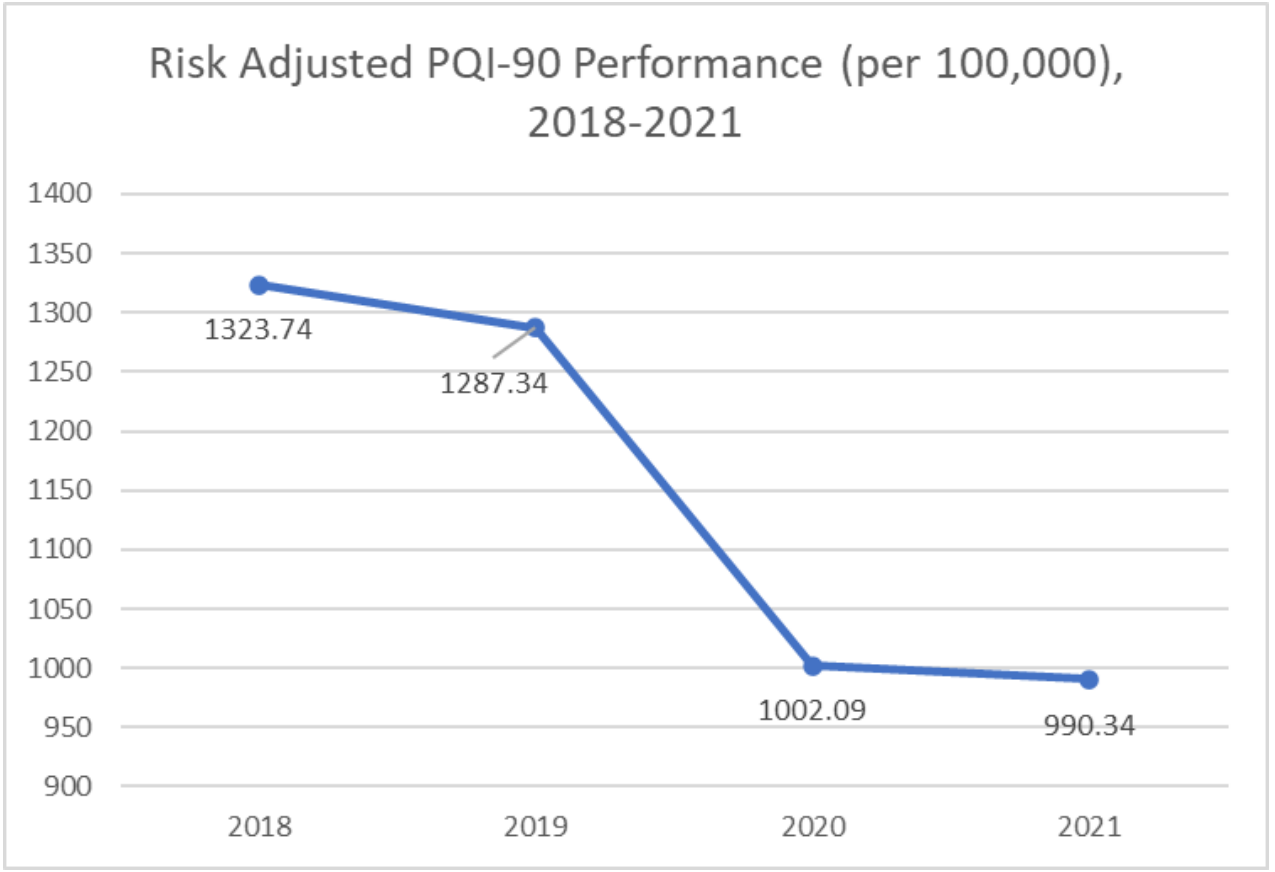
*Value-based models including the Care Redesign Program, Care Transformation Initiatives, and qualifying successor models.

Timely Follow Up: by Year

	CY2018	CY2019	CY2020	CY2021
Maryland	70.85%	71.45%	67.90%	70.07%
US	66.82%	69.00%	64.75%	67.68%

- CY 2020 State and Nation saw a drop in TFU rates, likely due to disruptions caused by COVID
- There was recovery in CY 2021, but State did not meet Year 3 milestone (72.38%)
- State maintained performance that was ~2.5 % points higher than Nation despite missing target in CY2021
- Statewide there was a decrease in TFU rates by 1.10% (2018-2021); however, nationally there was a decrease of 1.30%

PQI-90 By Year



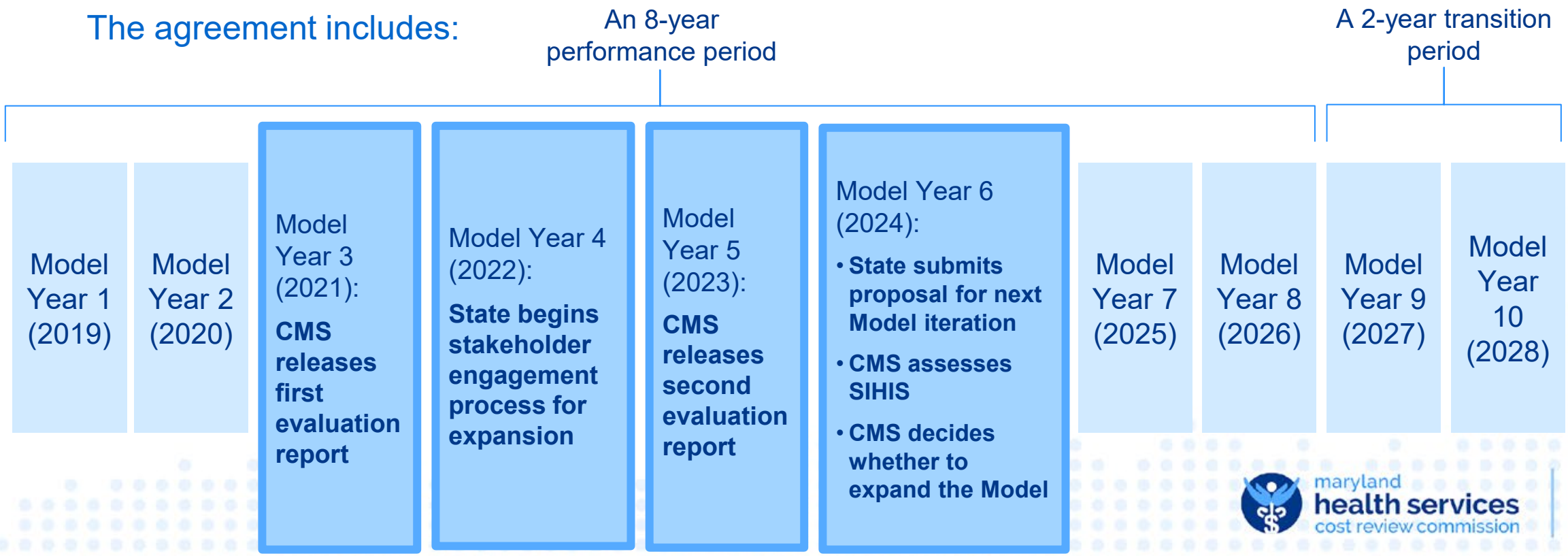
Much of the improvement could be due to COVID, a rebound in avoidable admissions is possible

TCOC Model: Moving Forward

The Maryland Total Cost of Care Model State Agreement states:

> "Under this Model, CMS and the State will test whether statewide healthcare delivery transformation, in conjunction with Population-Based Payments, improves population health and care outcomes for individuals, while controlling the growth of Medicare Total Cost of Care."

The agreement includes:



What is Expansion?

"Expansion" means that **all or some portion of the TCOC Model could be extended long term,** without the need to renegotiate agreements with CMMI.

§1115A(c) of the Social Security Act requires the following to happen to expand a Model:

- CMMI must determine that expansion is expected to—
  - **reduce spending** without reducing the quality of care; or
  - **improve the quality of patient care** without increasing spending;
- CMS's Chief Actuary must certify that expansion would **reduce** (or would not result in any increase in) **net Medicare spending**

A **positive independent evaluation** is necessary for, but does not guarantee, TCOC Model expansion.

If the Model is not expanded, CMMI could decide to **test a new model or return Maryland to the national prospective payment system.**

PMWG Work Plan and Deliverables

Detailed Work Plan in Separate Word Document

Timeline of Deliverables (See PMWG Workplan document)

Month	Commission Meetings	CMMI	HSCRC/Other
October 2022	Draft QBR		
November	Final QBR Draft MHAC Draft Hospital Population Health Policy		RY2023 Revenue Adjustments
December	Final MHAC Draft RRIP Final Hospital Population Health Policy Draft PAU Measurement Policy	Annual report including Year 3 SIHIS Update	
January 2023	Final RRIP Final PAU Measurement Policy		
February/March			
April			Internal TCOC Model Expansion Recommendations
May	Draft PAU Savings RY 2024 report (in Draft Update Factor Policy)		RY 2024 Revenue Adjustments
June	Final PAU Savings RY 2024 report (in Final Update Factor Policy)	Exemption Request	

CMS IPPS Final Rule FFY 2023 Emerging Priorities

Hospitals and the Impact of Climate Change and Health Equity: CMS believes that the health care sector could more effectively prepare for climate threats and is committed to helping providers in the following areas:

- determining likely impacts on patients to help mitigate them;
- anticipating and planning for continuous operations in climate-related emergencies; and,
- Understanding how to reduce emissions and track progress

Principles for Measuring Health Care Quality Disparities: Consistent with Executive Order 13985 on Advancing Racial Equity and Support for Underserved Communities through the federal government, CMS' Equity Plan for Improving Quality in Medicare, and CMS' strategic pillar to advance equity, CMS is committed to addressing persistent inequities in health outcomes in the U.S. through improving data collection to better measure and analyze disparities across programs and policies.

Continuing to Advance Digital Quality Measurement: As part of CMS' modernization their digital quality measurement enterprise, CMS issued an RFI to gather comment on continued advancements to digital quality measurement and the use of the Fast Healthcare Interoperability Resources (FHIR®) standard for electronic clinical quality measures (eCQMs). Comments will be used to revise the digital quality measures definition, advance digital data standards, and achieve FHIR eCQM reporting across quality reporting programs, and specifically for the Hospital IQR Program.

Establishment of a "Birthing-Friendly" Hospital Designation: Reducing maternal morbidity and mortality is a priority of the Biden-Harris Administration. To build on the White House Blueprint for Addressing the Maternal Health Crisis, CMS will establish a "Birthing-Friendly" hospital designation — a publicly-reported, public-facing hospital designation on the quality and safety of maternity care beginning in Fall 2023.

IPPS FY 2023 Final Rule Measure Pausing or Refinement Policies in Response to COVID-19 PHE in Hospital P4P Programs

- Examples of PHE external factors that may affect quality measurement include changes to clinical practices to accommodate safety protocols for medical personnel and patients, as well as unpredicted changes in the number of patient stays and facility-level cases
- **VBP:** Pausing the Hospital Consumer Assessment of Healthcare Providers and Systems (HCAHPS) and five Hospital Acquired Infection (HAI) measures, for the purposes of scoring and payment for the FY 2023 program year
- **HRRP:** FY 2023 pausing use of Hospital 30-Day, All-Cause, Risk-Standardized Readmission Rate measure following Pneumonia Hospitalization; the program will resume use of the measure beginning with the FY 2024 program with COVID excluded and added risk adjustment using 12 month history of COVID
- **HACRP:**
  - FY 2023 Pausing CMS PSI 90 and five CDC NHSN HAI measures and revenue adjustments
  - Pausing CY 2021 CDC NHSN HAI measures data from the FY 2024 HAC Reduction Program Year
  - For PSI 90 measure:
    - adjusting the minimum volume threshold beginning with the FY 2023 program year
    - risk-adjusting for history of COVID-19 diagnosis beginning with the FY 2024 program year
    - Requesting stakeholder input on two digital National Healthcare Safety Network (NHSN) measures: the Healthcare-associated *Clostridioides difficile* Infection Outcome measure and Hospital-Onset Bacteremia & Fungemia Outcome measure
- CMS notes they will calculate measure rates for all measures and publicly report those rates where feasible and appropriately caveated

RY 2023 Quality Program Revenue Adjustment Updates

RY 2023 Quality Program Revenue Adjustments

- CMS programs:
  - Value-Based Purchasing (VBP) -- No revenue adjustments
  - Hospital Acquired Conditions Reduction Program (HACRP) -- No revenue adjustments
  - Hospital Readmission Reduction Program -- **Adjusted for COVID scaled penalty only up to 3%**
- Maryland may not implement revenue adjustments for QBR and MHAC based on CMS concerns; adjust RRIP to use concurrent normative values that take into account COVID
- Maryland must continue to meet aggregate at-risk requirements
  - Potential Risk: Requires RRIP penalty of at least -1.76%; rewards can be adjusted
  - Realized Risk: Is met based on HSCRC staff estimates with PAU only

RY 2023 Estimated Revenue Adjustment Estimates

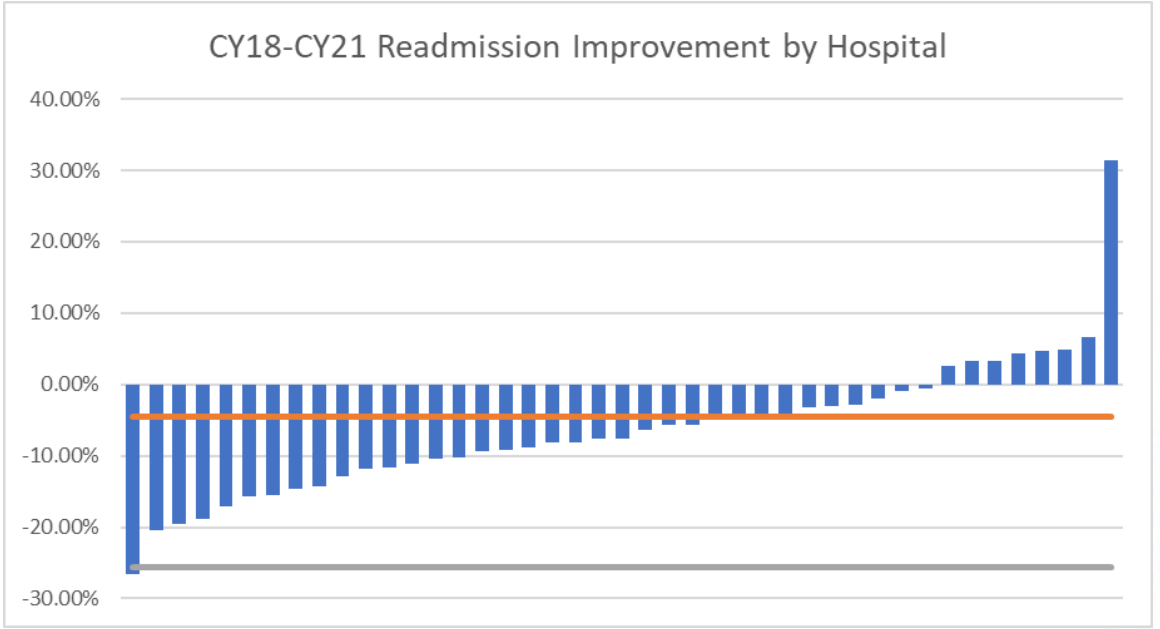
RRIP Only	Historical Norms	Concurrent Norms
State Total	**$86,473,592**	**$54,986,599**
Penalty	**-$4,325,491**	**-$9,308,344**
% Inpatient	**-0.04%**	**-0.09%**
Reward	**$90,799,083**	**$64,294,943**
% Inpatient	**0.83%**	**0.59%**

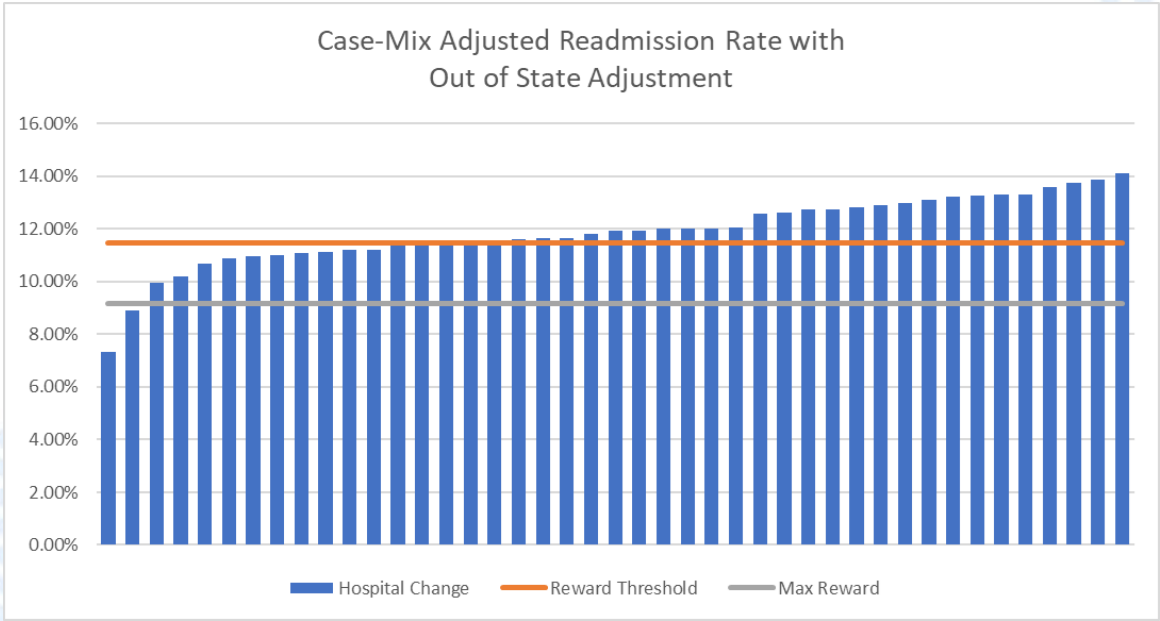
Concurrent norms with COVID included, lowers net revenue adjustments as expected.

With Concurrent Norms:

- 11 hospitals penalized
- 33 hospitals rewarded
  - 9 attainment (2 max reward)
  - 24 improvement (1 max reward)

Given CMS test and COVID PHE, should HSCRC provide full rewards?





Hospital Health Equity Workgroup Update

Summer 2022

Goals

1. Adopt a definition of health equity
2. To stratify quality measure outcomes by social demographic variables of interest such as race, geography, SES, etc. to glean disparities
3. To discuss, explore, and identify methodological approaches to measuring health equity in the Maryland hospital quality programs

1. Adopt a definition of health equity

- Presented CMS and CDC Health Equity Definition
- Feedback: tailor to the responsibility of Maryland hospitals and the HSCRC

Proposed HSCRC Health Equity Definition

Equity in Hospital Quality is achieved when every person has an equal opportunity to access and receive efficient, high-quality healthcare and no one is disadvantaged due to their social position or other socially determined circumstances.

2. Stratify measure outcomes to glean disparities

- Measures:
  - 14 Payment Potentially Preventable Complications (PPCs)
  - IP Mortality
  - Timely Follow-Up

- Risk-Adjusted:
  - PPCs and Mortality: age, sex, adm_drg, adm_rom
  - Timely Follow-Up: age, sex

- Stratified by:
  - Race
  - ADI
  - Payer

3. Discuss, explore, and identify methodological approaches to measuring health equity

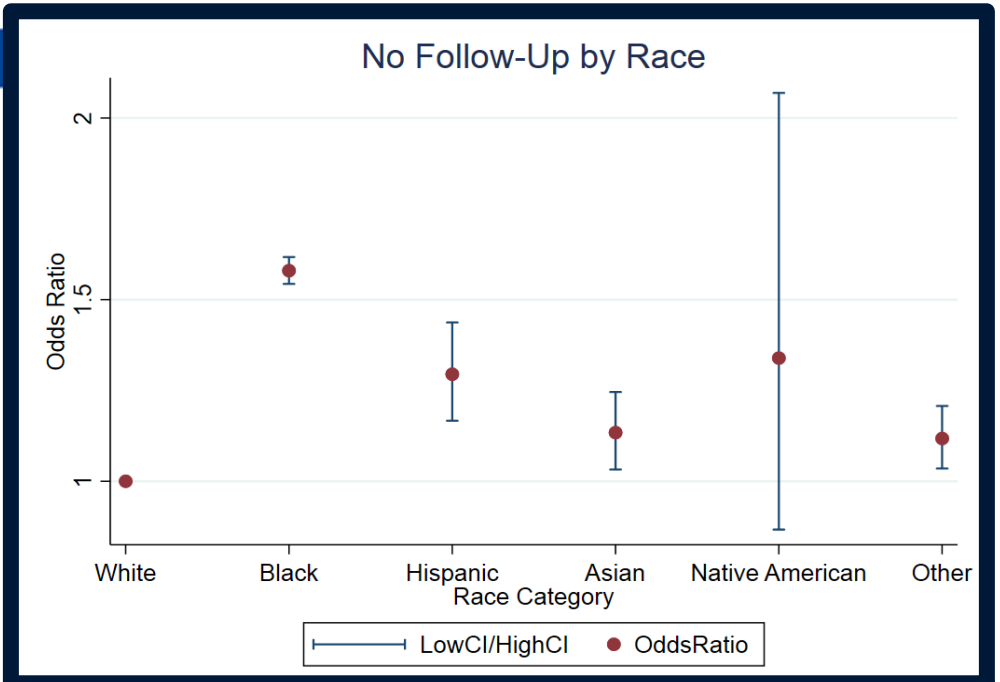
1. Separate exposures and outcomes (i.e.,: separate measure for each combo of exposures and outcomes)
2. **Composite for exposures independent of outcome (i.e.,: composite exposure that can be applied to any outcome)**
3. Composite exposure and composite outcomes (i.e.,: composite exposure for an event-free stay outcome)

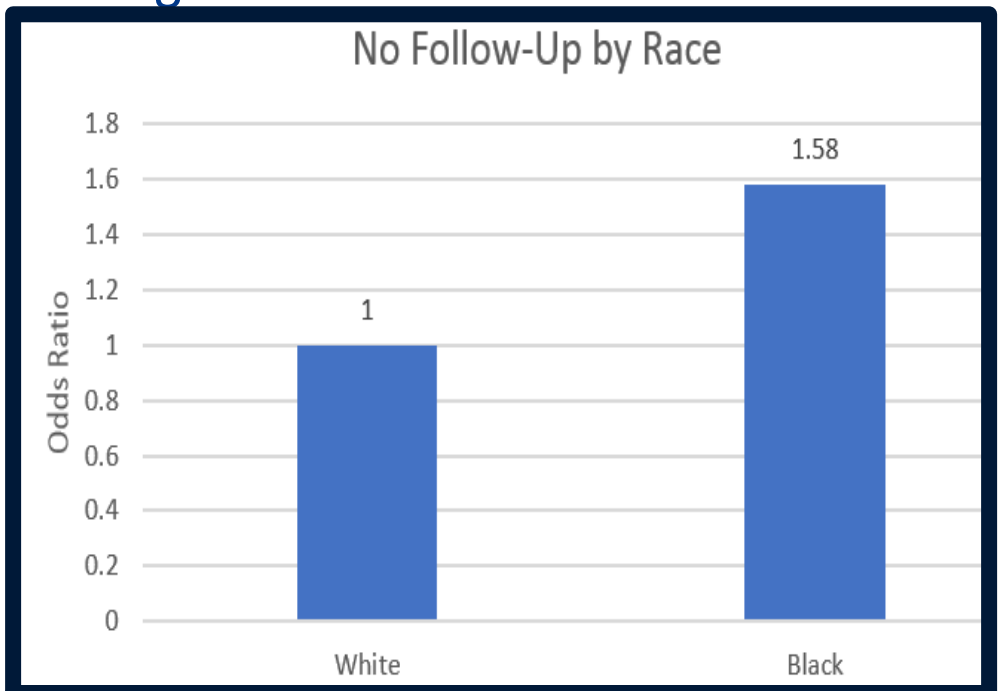
Timely Follow- Up Medicare Disparities

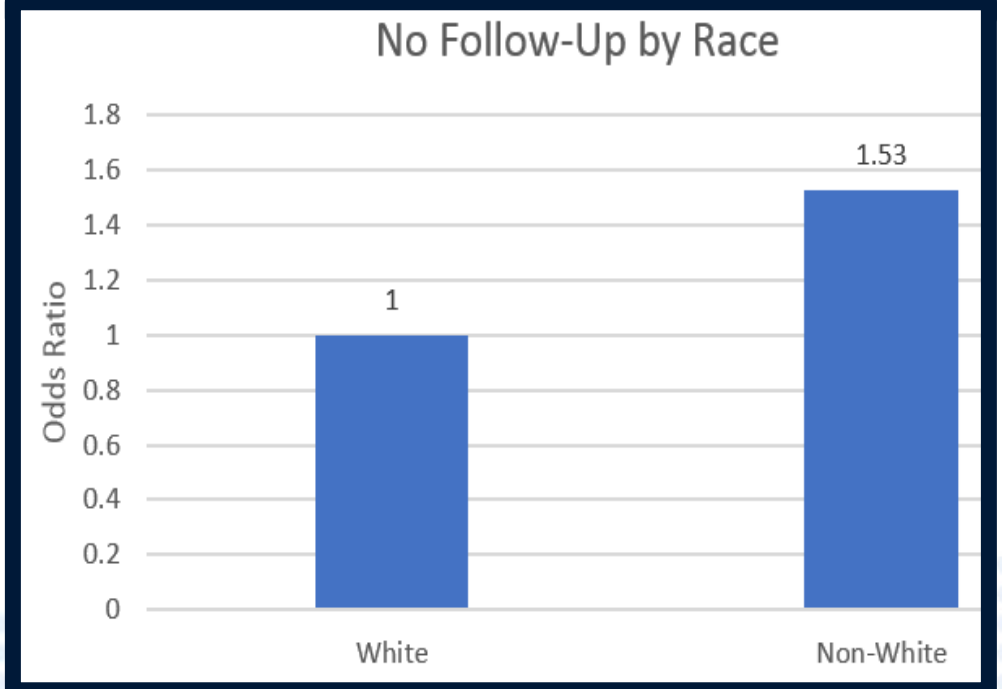
Stratification for process measure

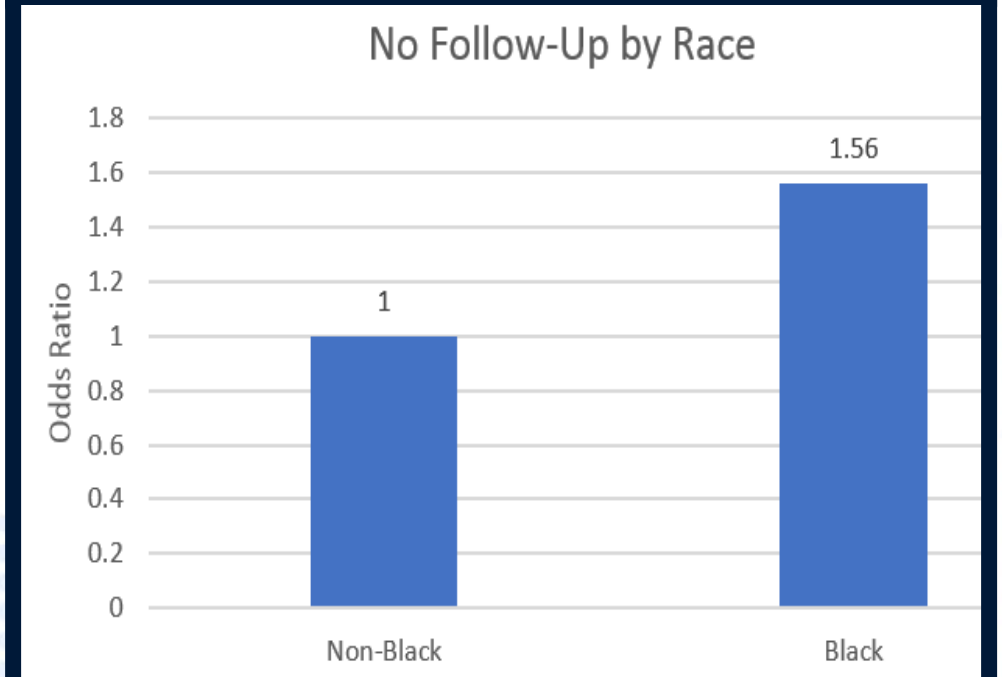
- Risk adjusted for age and sex
- CY 2018-2021
- CCLF Medicare dataset
- Odds ratio: measure of association between an exposure and an outcome
  - OR=1 Exposure does not affect odds of outcome
  - OR>1 Exposure associated with higher odds of outcome
  - OR<1 Exposure associated with lower odds of outcome

Odds Ratios for Race Categories

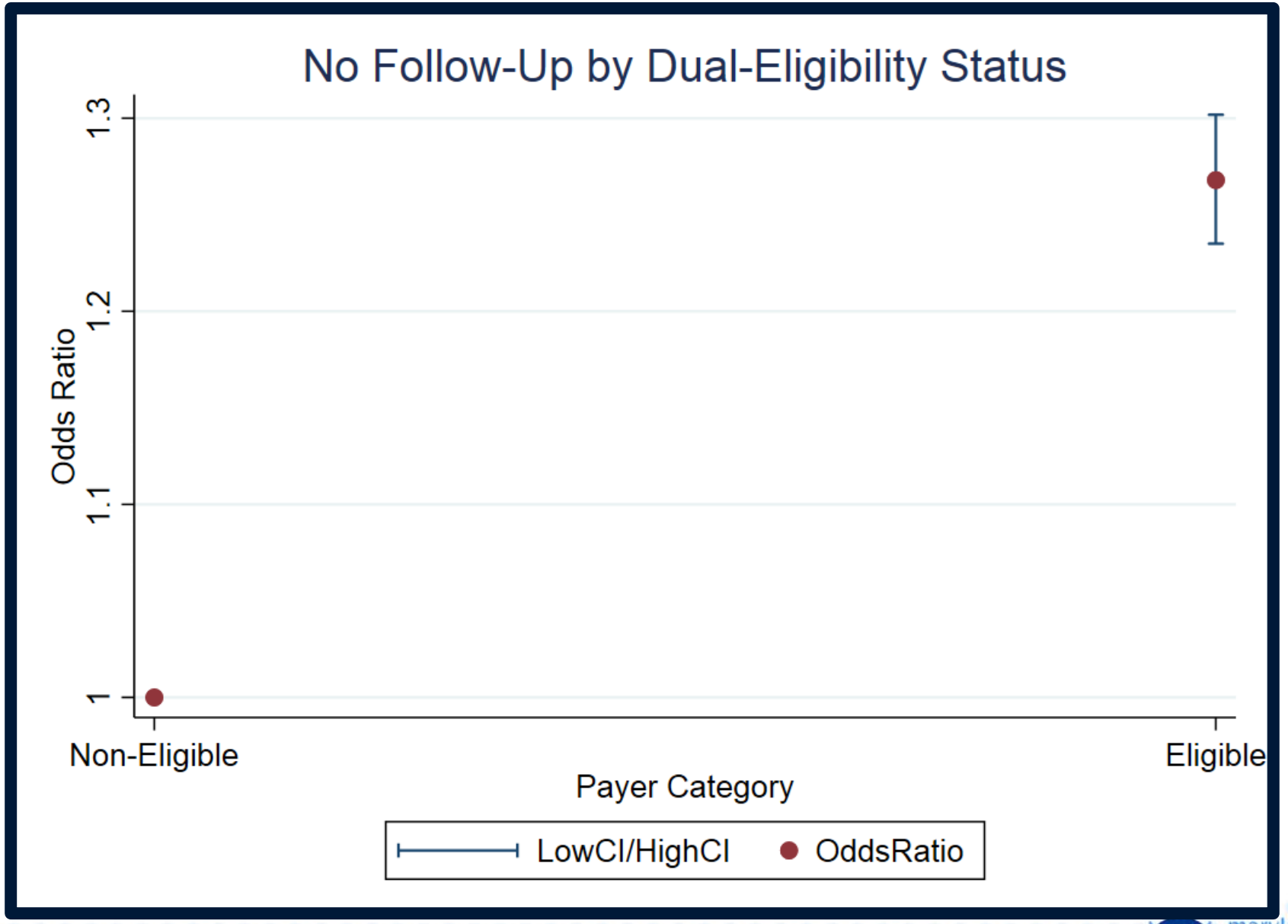








Payer



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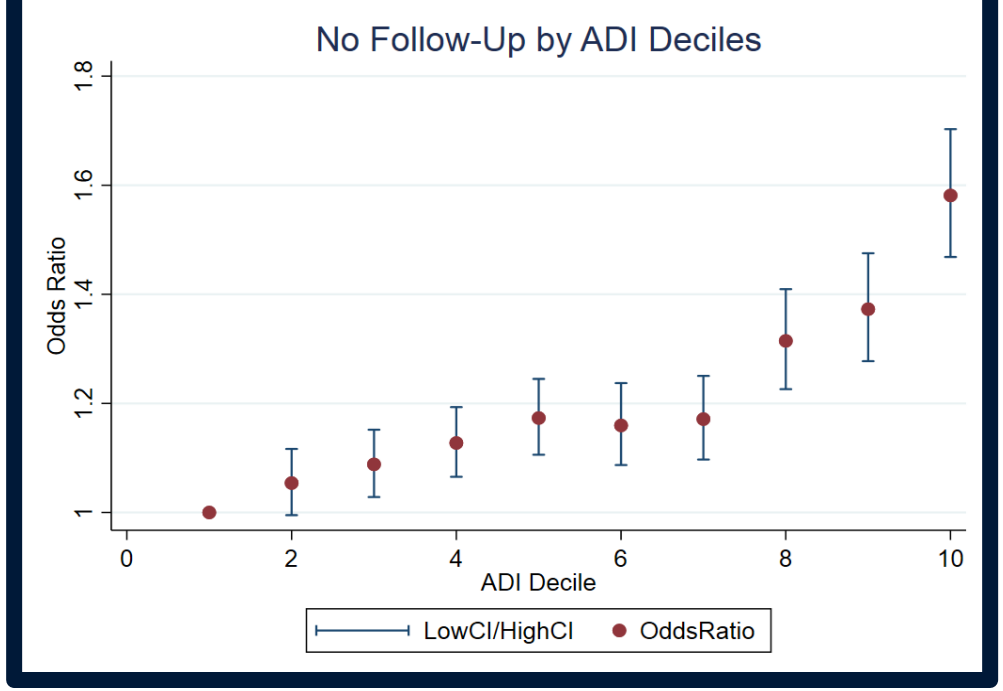
ADI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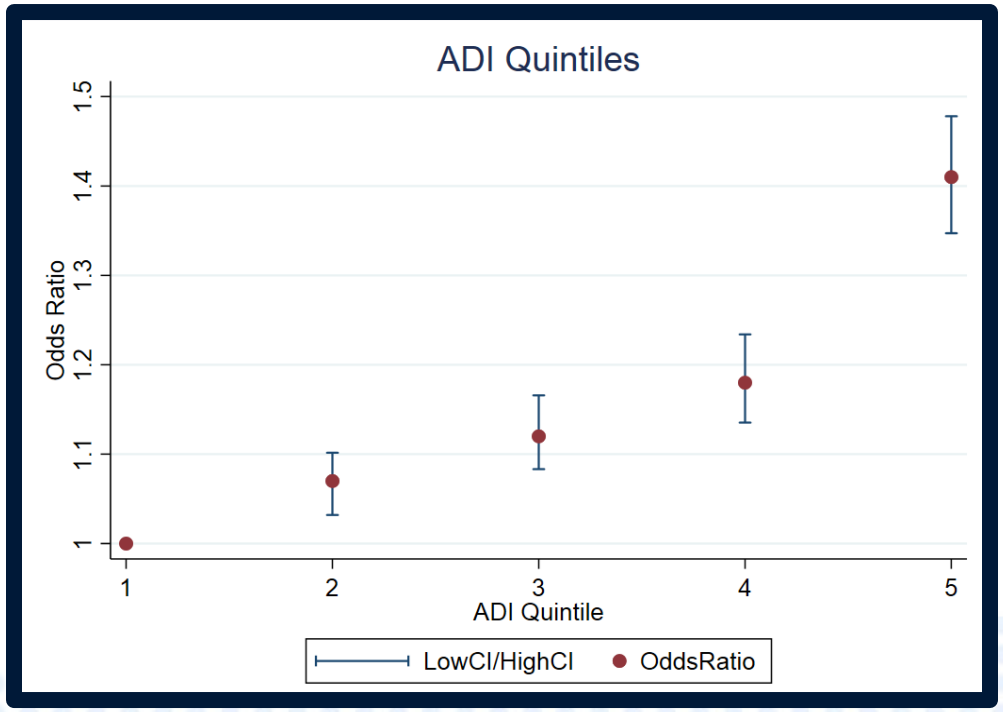
ADI Quintiles
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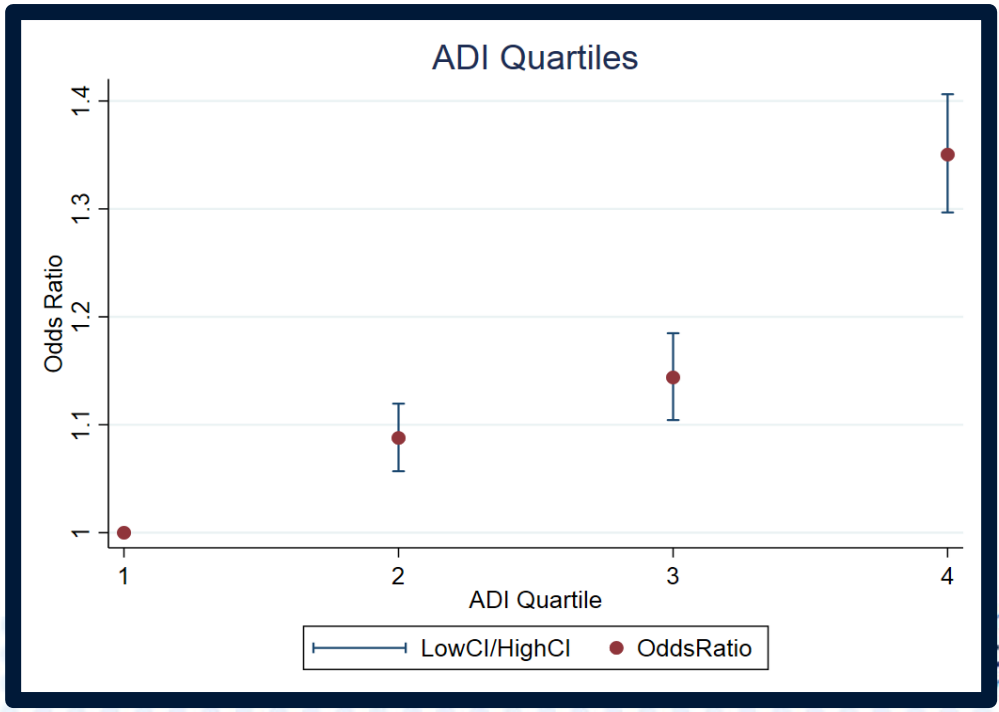
ADI Quartiles
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LowCI/HighCI
OddsRatio

RY 2025 QBR Policy

QBR Program RY 2024 Measures, Scoring and Revenue Adjustment Methodology

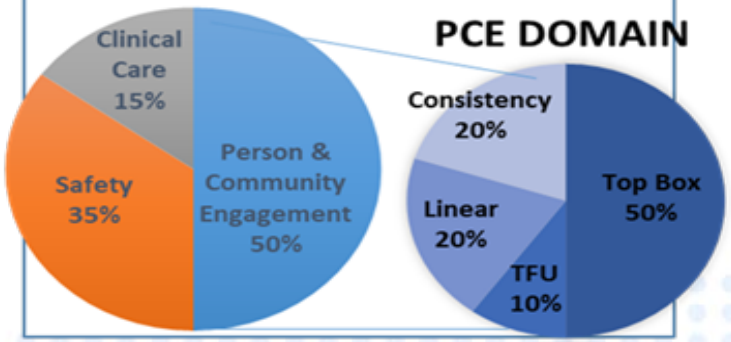
Performance measures

QBR measures by domain:

Person and Community Engagement (PCE)-9 measures: follow-up after chronic conditions exacerbation measure; 8 HCAHPS categories top box, NEW: 4 HCAHPS categories linear score.

Safety- (6 measures: 5 CDC NHSN HAI categories; all-payer PSI 90 measure)

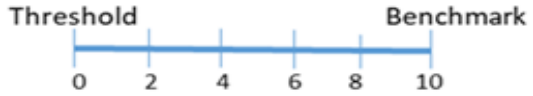
Clinical Care- (inpatient mortality, THA/TKA complications)



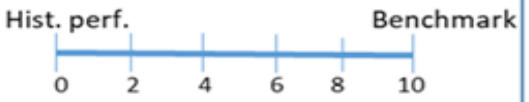
Standardized measure scores

Individual measures are converted to 0–10 points:

Points for attainment are based on performance versus a national threshold (median) and benchmark (top 5%)



Points for improvement are based on performance versus base (historical perf.) and benchmark



Final score is the better of the two scores (improvement or attainment)

Hospital QBR score and revenue adjustments

Hospital QBR score is the sum of earned points / possible points with domain weights applied

Scale of 0–80%

Max penalty -2% & reward +2%

Abbreviated Pre-Set Scale	QBR Score	Financial Adjustment
Max Penalty	0%	-2.00%
	10%	-1.51%
	20%	-1.02%
	30%	-0.54%
Penalty/Reward Cutpoint	41%	0.00%
	50%	0.46%
	60%	0.97%
	70%	1.49%
Max Reward	80%+	2.00%

Final RY 2024 QBR Staff Recommendations

1. Continue Domain Weighting to determine hospitals' overall performance scores as follows: Person and Community Engagement (PCE) - 50 percent, Safety (NHSN and AHRQ Patient Safety Index composite) - 35 percent, Clinical Care - 15 percent.
    a. Within the PCE domain, pilot including four linear measures weighted at 10% of QBR score; remove associated revenue at risk from top box.
    b. Within the PCE domain, continue to include timely follow-up after acute exacerbation of a chronic condition weighted at 5% of QBR score; currently, Medicare only measure.
2. Collaborate with partners to implement statewide HCAHPS improvement initiative, which can focus on root causes of HCAHPS performance and the sharing of best practices for improvement.
3. Develop monitoring reports for measures that expand the scope of the policy and align with the goals of the TCOC Model that will be considered for adoption in RY 2025:
    a. 30-day all-payer, all-cause mortality;
    b. Follow-up for acute exacerbation of chronic conditions for Medicaid; and
    c. Follow-up after hospitalization for mental illness.

Final RY 2024 QBR Staff Recommendations

4. Collaborate with CRISP to develop infrastructure for collection of hospital electronic clinical quality measures (e-CQMs) and core clinical data elements:
    a. Require hospitals to submit the CY 2022 ED-2 eCQM and consider for re-adoption in future rate years; and
    b. Explore development of hospital eCQM for inpatient/outpatient all-payer THA-TKA complications.
5. Maintain the pre-set scale (0-80 percent with cut-point at 41 percent), and continue to hold 2 percent of inpatient revenue at-risk (rewards and penalties) for the QBR program.
6. Adjust retrospectively the RY 2024 QBR pay-for-performance program methodology as needed due to COVID-19 Public Health Emergency and report any changes to Commissioners.

QBR Program Redesign, RY 2024 and Beyond

1. Person and Community Engagement
    a. HCAHPS
    b. ED Wait Times
    c. Timely Follow-up
2. Safety
    a. NHSN Measures
    b. PSI-90 Composite Measure
3. Clinical Care Domain
    a. Mortality measure
    b. THA-TKA Complications

Strategies/Framework to Improve HCAHPS

Administrative Leadership Accountability:

- HSCRC to work with MHA to identify hospital the key hospital staff accountable for HCAHPS performance.
  - ***Anticipated Timeline:*** *by December 2022.*

Data Analysis and Data Sharing:

- HSCRC will conduct or facilitate data analysis of HCAHPS data to stratify hospital-specific reporting on performance on top box scores, linear scores, and patient-specific demographic factors that may be contributing to hospital-specific trends or that may indicate disparities in performance.
  - ***Anticipated Timeline:*** *We anticipate beginning analyses as of January 2023.*

Hospital Sharing and Adoption of Best Practices:

- Hospitals will be surveyed on approaches they have implemented to improve their performance. Hospitals will be convened to share their experiences in designing and implementing best practices
  - ***Anticipated Timeline:*** *Beginning in CY 2023 and continuing into CY 2024.*

HCAHPS Best Practices Organizational Factors

In a study of organizational factors that may improve patient experience, interviews of staff and patient representatives were conducted at eight geographically spread out organizations that included three inpatient hospitals known for such improvements. The study identified the following processes for improving patient-centered care:

1. strong, committed senior leadership,
2. clear communication of strategic vision,
3. active engagement of patient and families throughout the institution,
4. sustained focus on staff satisfaction,
5. active measurement and feedback reporting of patient experiences,
6. adequate resourcing of care delivery redesign,
7. staff capacity building,
8. accountability and incentives and
9. a culture strongly supportive of change and learning.[1]

[1] Luxford, Karen, Dana Gelb Safran, and Tom Delbanco. “Promoting Patient-Centered Care: A Qualitative Study of Facilitators and Barriers in Healthcare Organizations with a Reputation for Improving the Patient Experience.” *International Journal for Quality in Health Care*, vol. 23, no. 5, 2011, pp. 510–515.

Patient-Provider Communication Best Practices to Improve HCAHPS

One publication provided a summary of current literature that lays out best practices that hospitals can employ to improve physician-patient communication, specifically targeting the HCAHPS survey. [1] The article outlined Best Practices summarized in the figure below.

[1] Dutta, Suparna, and Syeda Uzma Abbas. "HCAHPS And The Metrics Of Patient Experience: A Guide For Hospitals And Hospitalists." *Hospital Medicine Practice*, vol. 3, no. 6, June 2015. Available at http://medicine.med.miami.edu/documents/Patient_Satisfaction_6-15.pdf

Demonstrating Courtesy and Respect	Best Practices for Improving Listening	Best Practices for Explaining
• Knock before entering a patient's room. • Greet the patient by name. • Introduce yourself and your role. • Review the chart prior to entering the room. • Treat every concern brought up as important and ex-plain why you prioritize certain concerns over others in the hospital. • Ask the patient for permission to conduct a physical examination. • At the end of an encounter, ask for questions in an open-ended fashion • End the hospital stay on a positive note.	• Avoid interrupting the patient. • Take notes so they know you take their concerns seri-ously • Summarize key points of a discussion. • Pay attention to nonverbal cues, and acknowledge emotions. • Sit at the bedside. • Use social touch to convey empathy. • Be comfortable with silence: allow 5 seconds to re-sume conversation when there is a pause. • Watch your body language; don't appear hurried, bored or fidgety; don't cross your arms.	• Avoid medical jargon. • Explain physical examination findings as you are conducting the examination. • Use the teach-back method to ensure understanding; utilize open-ended questions. • Explain procedures/testing before they are ordered/ performed. • Write out important information, if needed (use white-boards in rooms). • Give patients a way to contact you with any questions after the hospital stay.

ED Wait Times

1. What is it?
   - One measure of ED Throughput - ED-2b: Decision to Admit until IP Admission - designed to reduce “ED Boarding”
1. What we discussed?
   - Maryland’s continued poor performance on ED wait times
   - Belief that poor performance on HCAHPS could be improved if ED wait times improved
   - Discontinuation of ED wait time measures, including most recently the eCQM
1. What we reported to CMMI/decided?
   - Per Commission directive to include ED wait times, HSCRC will pursue eCQM data reporting capability

eCQM Reporting Timeline

1. Calendar Year 2021 "Test Run" Submission of Data- Hospitals to optionally submit to CRISP/Medisolv the same QRDA 1 files they submitted to CMS in Spring 2022
   - 4 eCQM's with 2 quarters of CY 2021 performance period data
   - > 50% Hospitals submitted 2021 pilot data

2. Calendar Year 2022 Required Data Submission- Starting with Q 1, 2022 performance period, all hospitals submit to CRISP/Medisolv quarterly data: 2 required eCQM's and 2 optional eCQM's from the table below according to the following submission schedule:

Performance Period Submission Windows

Q1 2022 data	Open: 7/15/2022	Close: 09/30/2022*
Q2 2022 data	Open: 7/15/2022	Close: 09/30/2022*
Q3 2022 data	Open: 10/15/2022	Close: 12/30/2022
Q4 2022 data	Open: 1/15/2023	Close: 3/31/2023

*ECE Requests due by September 16, 2022.

eCQM Measures by Year

Performance Year	CY 2021	CY 2022	CY 2023
# eCQMs/Reporting Period	**4 eCQMs submitted to CMS 2 qtrs. of data**	**2 required + 2 optional eCQMs 4 qtrs. of data submitted to CRISP/Medisolv**	**PROPOSED four required + 2 optional eCQMs 4 qtrs of data submitted to CRISP/Medisolv.**
Data Submission	**Spring 2022**	**See # 2**	**TBD**
ED-2: Decision to Admit to Admission Median Time	**Optional**	**Required**	**Required**
PC-01: Elective Delivery	Optional	Optional	Optional
PC-02: Cesarean Birth		Optional	Optional
PC-05: Exclusive Breast Milk Feeding	Optional	Optional	Optional
PC-06: Unexpected complications in term newborns	Optional	Optional	Optional
PC-07: Severe Obstetric Complications			Optional
STK-2: Discharged on Antithrombotic Therapy	Optional	Optional	Optional
STK-3: Anticoagulation Therapy for A. Fibrillation /Flutter	Optional	Optional	Optional
STK-5: Antithrombotic by Day 2	Optional	Optional	Optional
STK-6: Discharged on Statin Medication	Optional	Optional	Optional
VTE-1: VTE Prophylaxis	Optional	Optional	Optional
VTE-2: ICU VTE Prophylaxis	Optional	Optional	Optional
OPI-01 Safe use of Opioids	**Optional**	**Required**	**Required**
Severe Hypoglycemia			Proposal to Require
Severe Hyperglycemia			Proposal to Require

CY 2023 New Required eCQMs?

- Hyper- and Hypo-glycemia:
  - Safety events are priority for CMS; could be considered in the future for MHAC or QBR
  - These events “are associated a range of harms, including increased in-hospital mortality, infection rates, and hospital length of stay” (NQF documentation of developer rationale)
  - Impact all hospitals
  - NQF Endorsed, measure steward is CMS

- Obstetric morbidity and c-section rates
  - CMS focus (required starting in CY 2024) and related SIHIS priority
  - Currently tracking statewide, unadjusted rate; SMM is a risk-adjusted measure
  - Impacts the 36 birthing hospitals (CON for OB beds)

Timely Follow-Up After Discharge Measure

1. What is it?
    a. Measure of timely follow-up after an acute exacerbation of 6 specified chronic conditions
2. What we discussed?
    a. Measure expansion
        i. Expanding to include Medicaid beneficiaries
        ii. Expanding to include behavioral health-related hospitalizations
3. What we reported to CMMI/decided?
    a. Work with PMWG to develop a **monitoring report** for Medicaid and/or Behavioral Health
    b. Potential inclusion of Medicaid and/or Behavioral Health in future payment policy

Timely Follow-up for Medicaid

- Hospitals are currently receiving monitoring reports for TFU for medicaid
- Should Medicaid be added to the QBR program for payment or continue to be monitored?

	2018	2019	2020	2021
Medicaid	51.69%	52.75%	51.72%	52.13%
Medicare FFS	0.7085	0.7145	0.679	0.7007
Combined	61.18%	62.16%	60.52%	60.99%

Safety Domain

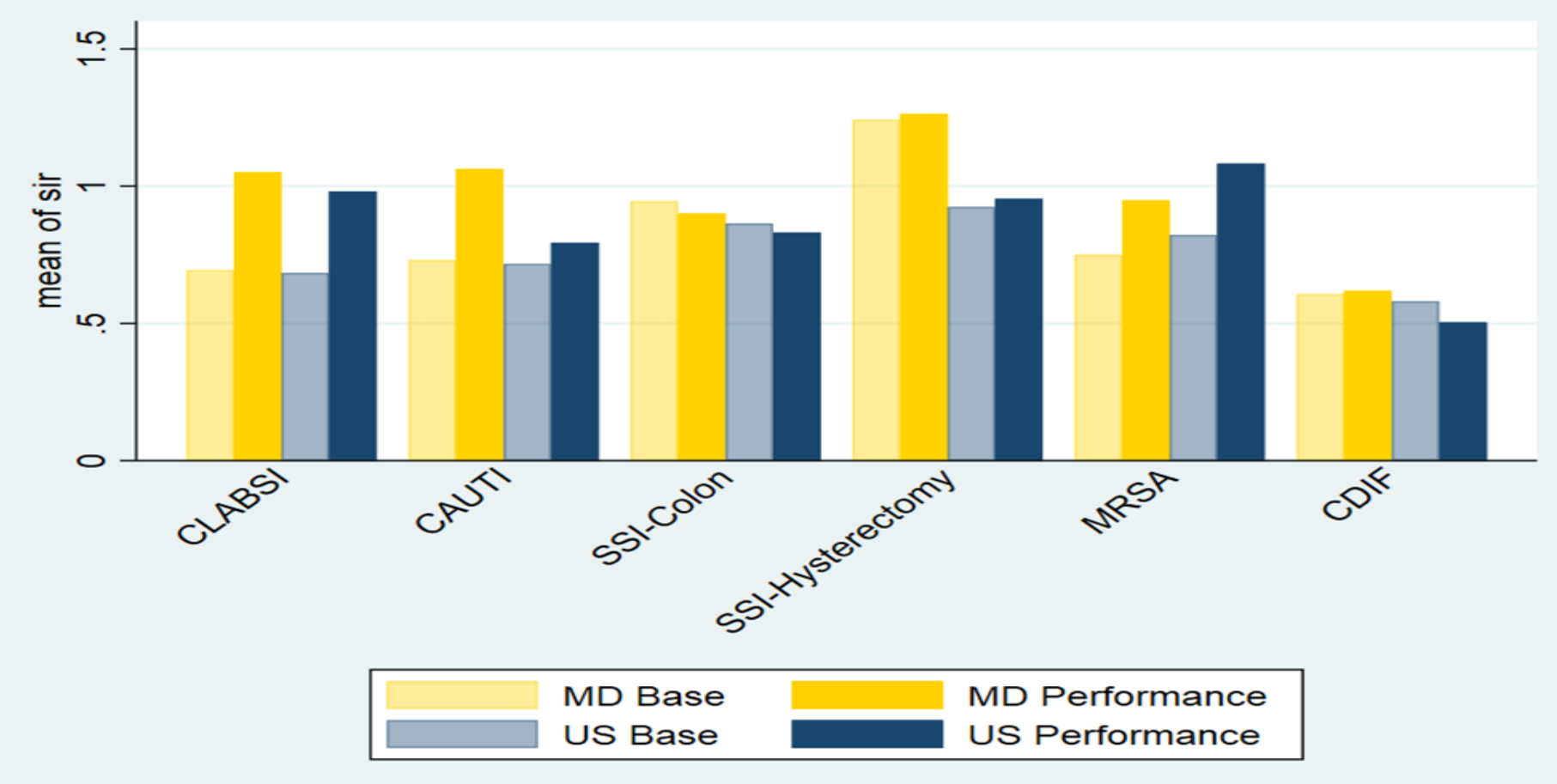
1. What is it?
    a. 5 NHSN Measures
    b. PSI-90 Composite
2. What we discussed?
    - Trend Analysis; Historical Analysis; Peer Group Analysis; CDC data analysis
    - Maintain focus on NHSN measures consistent with federal VBP
1. What we reported to CMMI/decided?
    - Maryland performs comparably or better than the national average on all but the SSI for hysterectomy measure
    - Consider for future adding more innovative and less burdensome “digital” measures to QBR (e.g., Hospital Onset Bacteremia (HOB) early adoption statewide) that can replace current chart-abstracted measures if allowed by CMS

Safety Domain: Maryland Performance on Par with Nation for NHSN Measures in 2019*

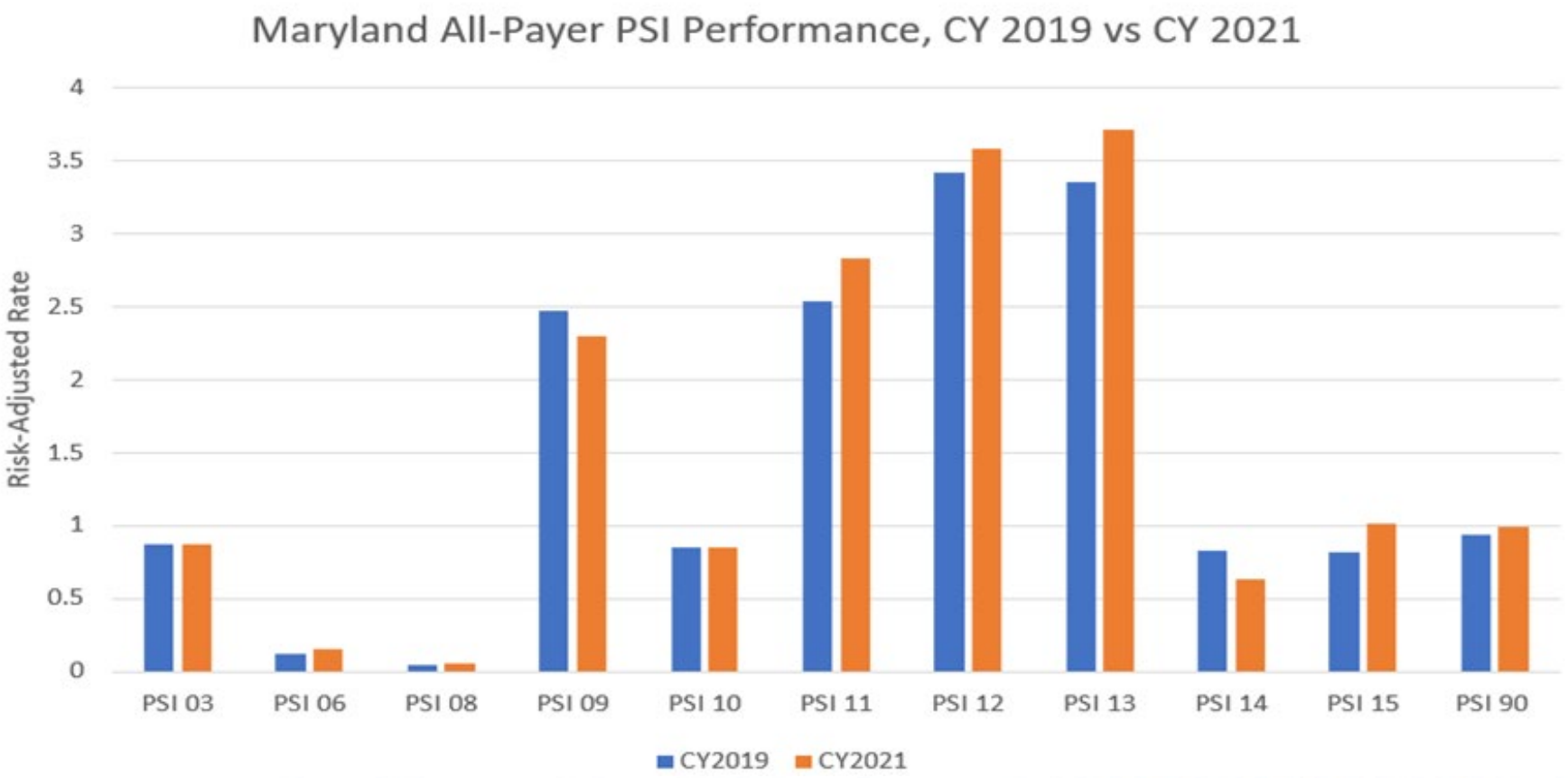
- In 2019, for five out of six NHSN measures, the median hospital in Maryland performed better (had lower SIRs) than the national median hospital; SSI hysterectomy is the exception
- Trend analysis from CY 2016-2019 shows most NHSN measures improved over time (except for SSI)
- Peer group analysis done using the K-nearest neighbor approach (assign a peer group of 15 similar national hospitals to each MD facility):
  - Maryland compared worse than its peers 50-60% of the time in CY 2016-2018,
  - The State improved performance and compared better than its peers just over 50% in CY 2019.
- The CDC 2019 National and State HAI Progress Report indicates:
  - 64-94 percent of Maryland hospitals have SIRs statistically similar to national rate
  - No statistically significant change on any NHSN measure between 2018 and 2019 for Maryland.

*Analysis included unweighted means, weighted means (weighted based on hospital volume), and medians using CMS Hospital Compare data.

NHSN SIRs CY 2019 Compared to Q4 CY 2020 - Q3 CY 2021, Maryland Versus the Nation

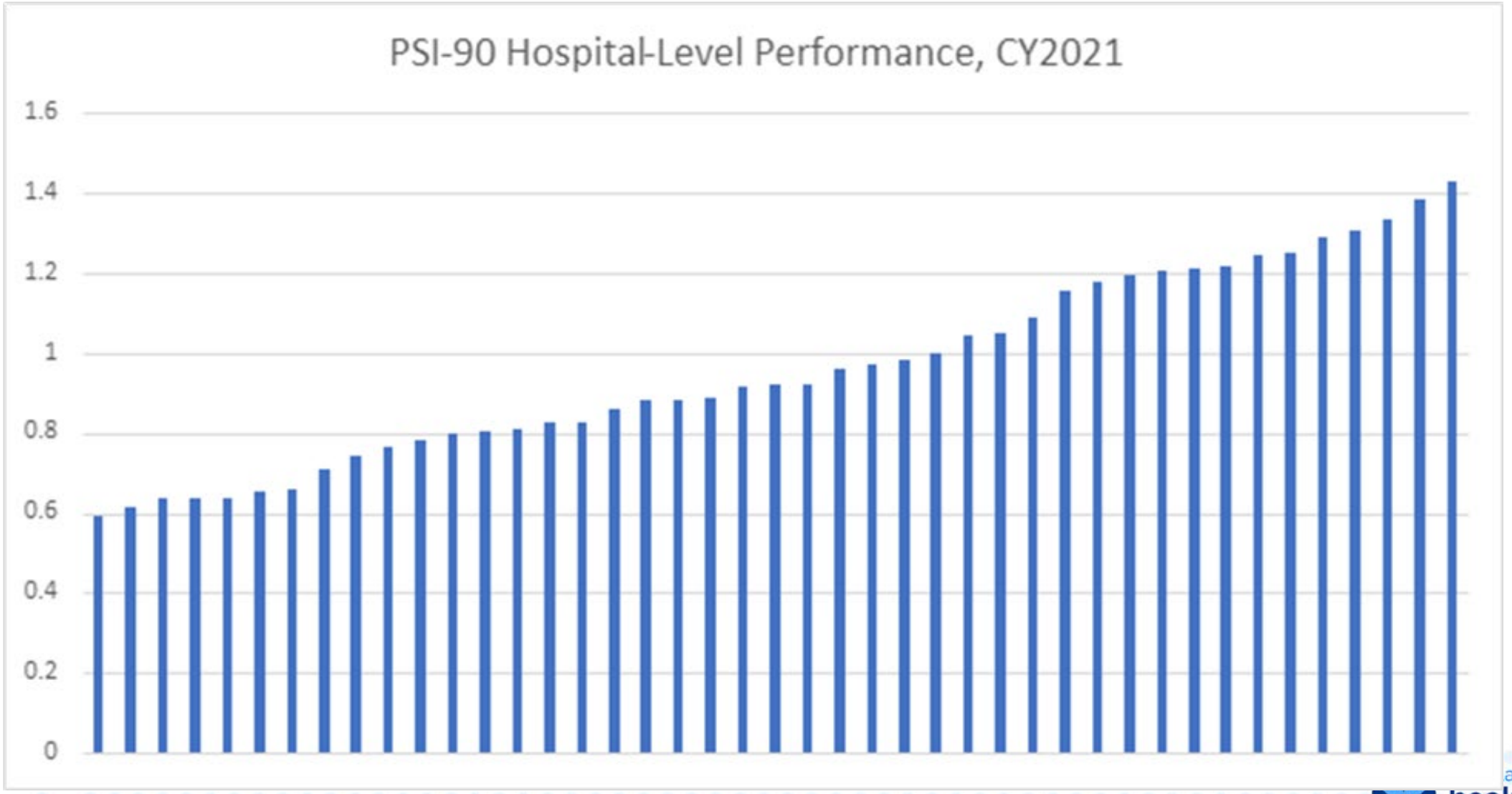


PSI 90 CY 2021 Compared to CY 2019, Higher for Respiratory and Infections, Likely Impacted by the COVID PHE, Similar to CDC NHSN Measures



PSI 03 Pressure Ulcer Rate
PSI 06 Iatrogenic Pneumothorax Rate
PSI 08 In-Hospital Fall With Hip Fracture Rate
PSI 09 Perioperative Hemorrhage or Hematoma Rate
PSI 10 Postoperative Acute Kidney Injury Requiring Dialysis Rate
PSI 11 Postoperative Respiratory Failure Rate
PSI 12 Perioperative Pulmonary Embolism (PE) or Deep Vein Thrombosis (DVT) Rate
PSI 13 Postoperative Sepsis Rate
PSI 14 Postoperative Wound Dehiscence Rate
PSI 15 Abdominopelvic Accidental Puncture or Laceration Rate

PSI 90 Wide Variation in Maryland Hospital Performance CY 2021



Clinical Care Domain: 30-Day Mortality Measure

1. What is it?
    a. An all-payer measure that captures deaths that occur 30 days after a hospitalization
2. What we discussed?
    a. Concerns with current IP measure and desire to align with CMS 30-day mortality measures
    b. Risk-adjustment and other measure specifications that we cannot implement on an all-payer basis
3. What we reported to CMMI/decided?
    a. Additional analysis necessary
        - Challenges:
            1. lack of correlation with current IP measure
            2. need to append hospice flag from CCLF
    b. Work with PMWG to determine whether measure can be included in RY 2024 for monitoring or payment
        - In future with eCQM capabilities, move to hybrid version of mortality measure

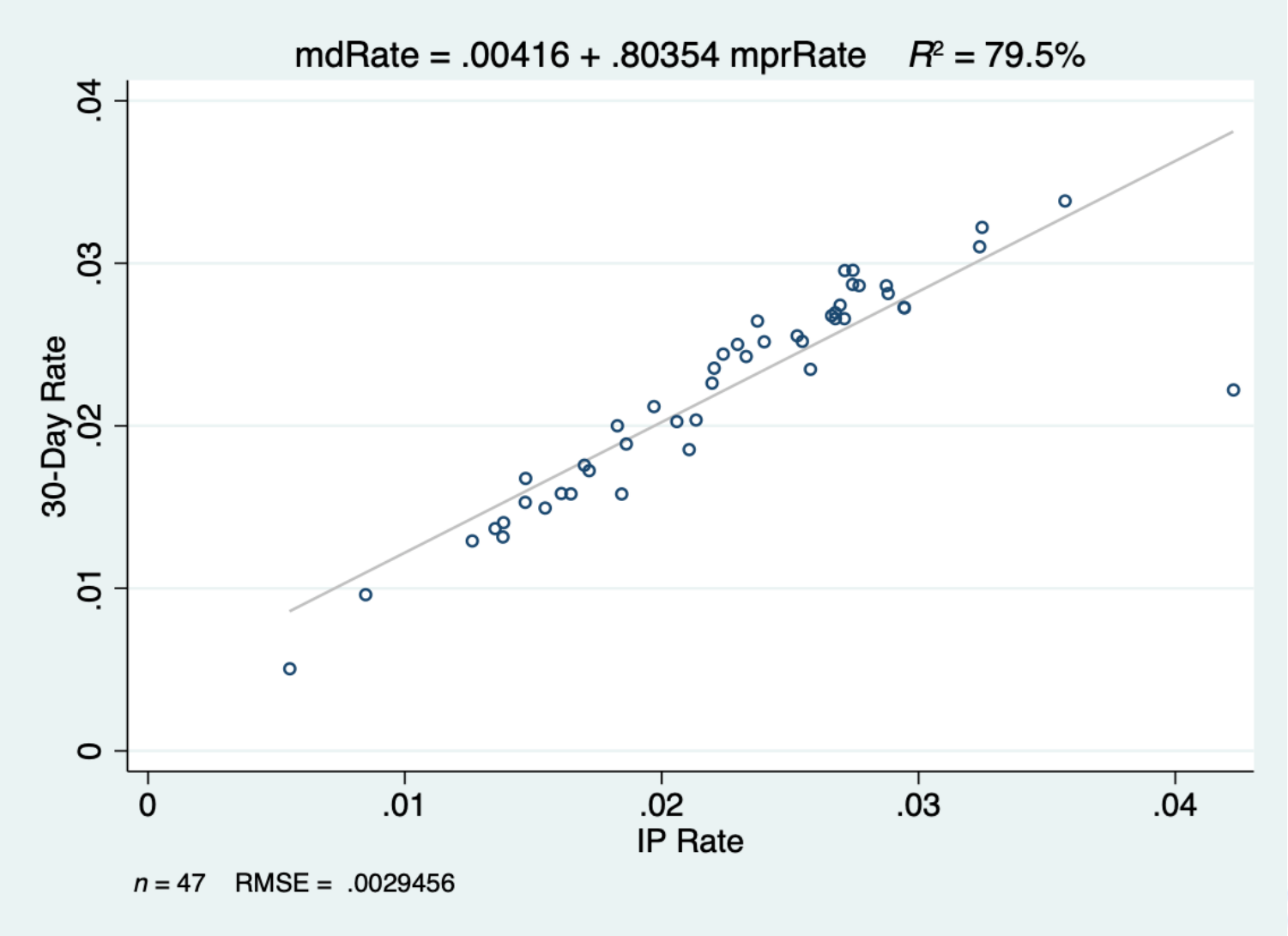
30-Day Mortality Updates

- **Concept:** Use draft CMS claims based, all condition, mortality measure methodology with similar IP mortality measure risk-adjustment
  - Service lines and selection of random hospitalization are from CMS measure
  - Risk adjustment variables from HSCRC IP measure
  - Two-thirds of deaths occur in hospital; however, HSCRC staff believe the post hospitalization deaths are important indicator of quality

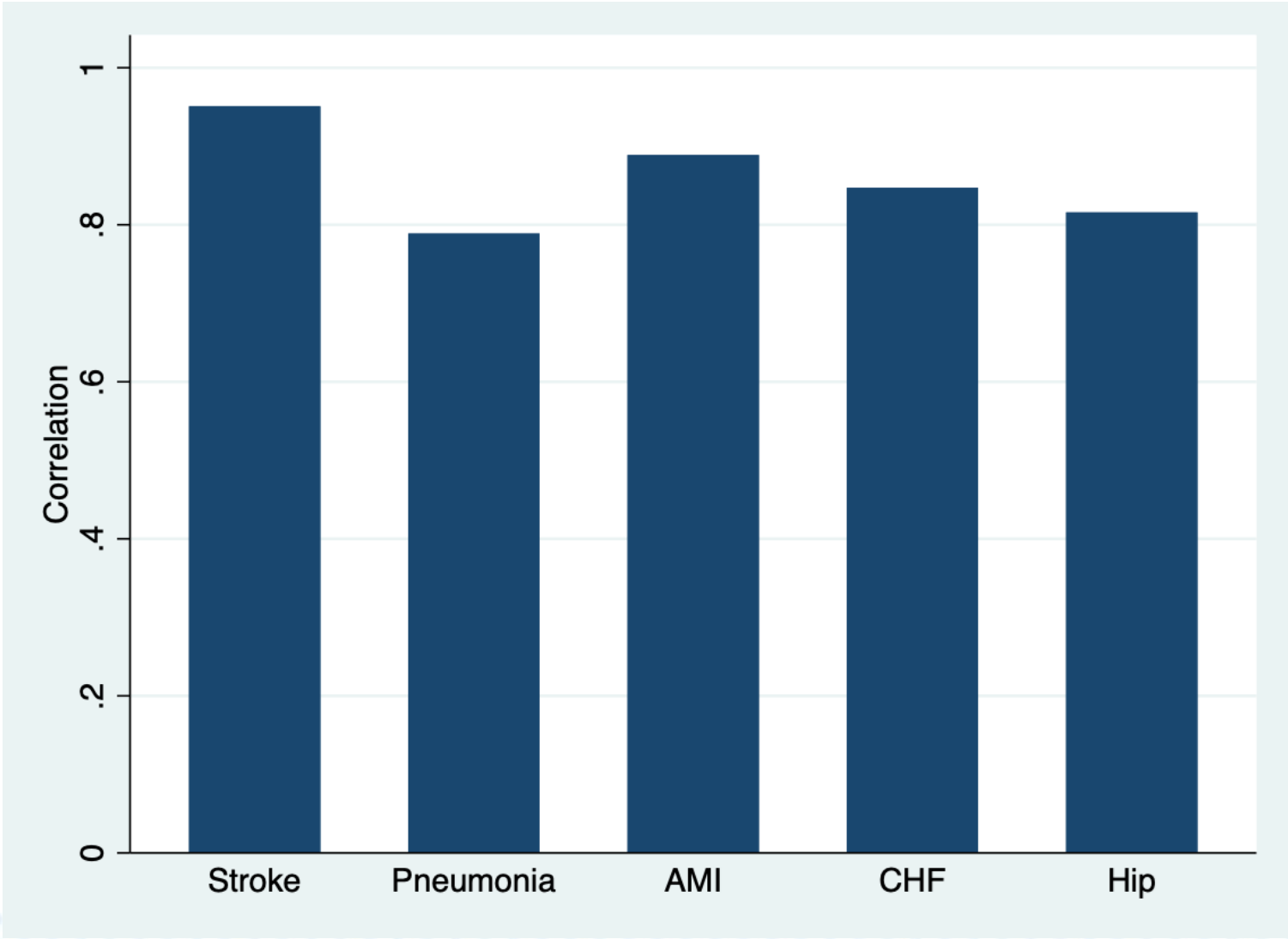
Background

- Mathematica analysis found low correlation between IP and proposed 30-day mortality measure at hospital level
  - Is this caused by substantive differences between the measures?
  - Is it an artifact of the way in which the 30-day measure was coded?
- HSCRC independently programmed 30-day measure
  - No indication of programming issues w/ Mathematica measure
- Compared correlation between IP and 30-day results at various stages of measure implementation

IP vs. 30-Day, Unadjusted



Step 3 IP vs. 30-Day, Adjusted, Selected DRGs



Step 3 IP vs. 30-Day, Adjusted, All DRGs

Takeaways

- Correlations for unadjusted and within-DRG OE's are acceptable and consistent with literature
- Correlation for adjusted measures with all DRG's is lower than unadjusted
- Staff will continue to evaluate risk adjusted model and whether any low volume DRGS should be excluded
- Plan is to develop reports on claims-based 30 day measure for hospital monitoring in CY 2023
    - Move to hybrid measure with additional clinical risk-adjustment for payment program in future years

Mortality - options for RY 2025 and moving forward

RY 2025:

- Use IP mortality in QBR
- Adopt 30-day claims-based mortality measure for monitoring for CY 2023

RY 2026-2027

- Transition to 30-day hybrid mortality measure for attainment and improvement

Comment letters from Medstar, Hopkins, and UMMS supported moving to a 30-day measure but requested time for monitoring

THA/TKA Complications Measure

1. What is it?
    a. Assesses occurrence of medical and/or surgical complications following hospitalization for THA/TKA
2. What we discussed?
    a. Measure expansion
        i. Expand Inpatient to All-Payers
        ii. Expand to Medicare Outpatient
        iii. Expand to both Medicare Outpatient and All-Payer Outcomes
3. What we reported to CMMI/decided?
    a. Strategy for inclusion of outpatient measure
    b. PMWG explore adapting CMS claims-based IP THA/TKA to all-payer
    c. Adaptation of provides eCQM measure to hospitals
        i. Measure is IP and OP and all-payer (18+)

Hip Knee Arthroplasty Measures

Measure	Program
1)Inpatient risk standardized complications measure based on Medicare claims data	CMS IQR, VBP, CMS Comprehensive Care Joint Replacement (CJR) Program
2)Inpatient patient reported outcome measure (PROM) based on claims and surveys	CJR PRogram
3)Inpatient and outpatient complications measure based on electronic health records	CMS Measuring Outcomes in Orthopedics Routinely (MOOR) Project*
4)Inpatient and outpatient PROM measure based on electronic health records and survey (MOOR project)	CMS MOOR Project
5)Outpatient/ambulatory PROM, a process measure based on chart abstraction and survey	Joint Commission Certification for Hip and Knee Replacement

*The MOOR project is measured at physician level and also includes development of two drug measures of opioid use and adverse drug events.

Hip Knee Arthroplasty Complications: Measure Options

	Inpatient	Inpatient and Outpatient
Medicare	1) CMS THA/TKA complications claims measure (IQR, VBP, CJR) 2) CMS inpatient PROM measure (CJR)	Measures 1) and 2) (**adapted for outpatient**)
All- Payer	Measures 1) and 2) (**adapted for all-payer**) 5) Joint Commission Outpatient/ambulatory PROM, a process measure based on chart abstraction and survey; the outcome is administration of the PROM survey, not the results.	3) CMS inpatient and outpatient complications measure based electronic health records (EHR) (**adapted for hospital**) 4) CMS's inpatient and outpatient PROM measure based on EHR and survey (**adapted for hospital**)

QBR Revenue Adjustment Scale

- Revenue adjustment scale ranges from 0-80 percent, with rewards starting at scores >41 percent
- Reward/penalty cut-point needs to ensure hospitals in Maryland are not rewarded for performance that is below the national average
- Cut-point estimated by weighting national scores by QBR weights and calculating national average
  - More recent data indicates that national average is as low as 30%
- **For now, staff are proposing to maintain the 41 percent cut-point but will review more recent data prior to finalizing revenue adjustment**

Abbreviated Pre-Set Scale	QBR Score	Financial Adjustment
Max Penalty	0%	-2.00%
	10%	-1.51%
	20%	-1.02%
	30%	-0.54%
Penalty/Reward Cutpoint	41%	0.00%
	50%	0.46%
	60%	0.97%
	70%	1.49%
Max Reward	80%+	2.00%

Cut Point Analysis	National Average	
	CMS VBP	QBR Weighted
FFY16	39.45	42.67
FFY17	35.56	39.93
FFY18	37.43	42.00
FFY19	38.12	40.90
FFY20	38.49	40.24
FFY 21*	33.88	38.53
Average	37.15	40.71

*Linear Scores Added to PCE Domain

RY 2025 QBR Draft Recommendations (slide 1 of 2)

1. Continue Domain Weighting as follows for determining hospitals' overall performance scores: Person and Community Engagement (PCE) - 50 percent, Safety (NHSN measures) - 35 percent, Clinical Care - 15 percent.
   a. Within the PCE domain, continue to include four linear HCAHPS measures weighted at 10% of QBR score; remove associated revenue at risk from top box.
2. Publish monitoring reports for measures that will be considered for adoption after RY 2025:
   a. 30-day all-payer, all-cause mortality (claims based)
   b. Follow-up for acute exacerbation of chronic conditions for Medicaid
3. Implement the HCAHPS improvement framework with key stakeholders.

RY 2025 QBR Draft Recommendations (slide 2 of 2)

4. Continue collaboration with CRISP on infrastructure to collect hospital electronic clinical quality measures and core clinical data elements; For CY 2023 require submission of:
   a. ED-2 eCQM for monitoring; consider for re-adoption after RY 2025 (in CY 2024)
   b. Safe Opioid Use eCQM for monitoring
   c. Hyper- and Hypo-glycemia eCQMs for monitoring
   d. Two additional eCQMs of the hospital's choosing
   e. Clinical data elements for 30-day mortality hybrid measure beginning July 2023
5. Maintain the pre-set scale (0-80 percent with cut-point at 41 percent), and continue to hold 2 percent of inpatient revenue at-risk (rewards and penalties) for the QBR program.
   a. Retrospectively evaluate 41 percent cutpoint using more recent data to calculate national average score

THANK YOU!

Next Meeting: Wednesday, October 19, 2022

Appendix

Timely Follow-Up Medicare Disparities

TFU Race P-Values and Confidence Intervals

TFU	Coefficient	P-Value	CI
White (reference)			
Black	1.58	0.000	1.54327 - 1.617271
Hispanic	1.29	0.000	1.16656 - 1.437201
Asian	1.13	0.009	1.032286 - 1.24558
Native Am.	1.34	0.188	.8667726 - 2.069123
Other	1.12	0.005	1.035075 1.207124
Non-White	1.53	0.000	1.490924 1.560023
Black	1.58	0.000	1.546649 1.620912
Non-Black vs Black (Non-Black reference)	1.56	0.000	1.524401 1.596121

TFU ADI P-Values and Confidence Intervals

Decile	Coefficient	P-Value	CI
1 (reference)			
2	1.05	0.073	.9950297 1.116429
3	1.09	0.003	1.028237 1.151736
4	1.13	0.000	1.065353 1.193154
5	1.17	0.000	1.105821 1.244835
6	1.16	0.000	1.08687 1.237152
7	1.17	0.000	1.097061 1.250391
8	1.31	0.000	1.226073 1.409509
9	1.37	0.000	1.277403 1.475291
10	1.58	0.000	1.468476 1.702841

Quintile	Coefficient	P-Value	CI
1 (reference)			
2	1.07	0.000	1.031972 1.101554
3	1.12	0.000	1.083251 1.165834
4	1.18	0.000	1.135306 1.234002
5	1.41	0.000	1.347172 1.478002

Quartile	Coefficient	P-Value	CI
1 (reference)			
2	1.09	0.000	1.056931 1.119599
3	1.14	0.000	1.104371 1.184823
4	1.35	0.000	1.296762 1.40627

maryland health services cost review commission