maryland
health services
cost review commission

Performance Measurement Workgroup

March 16, 2022

HSCRC Quality Team

Agenda

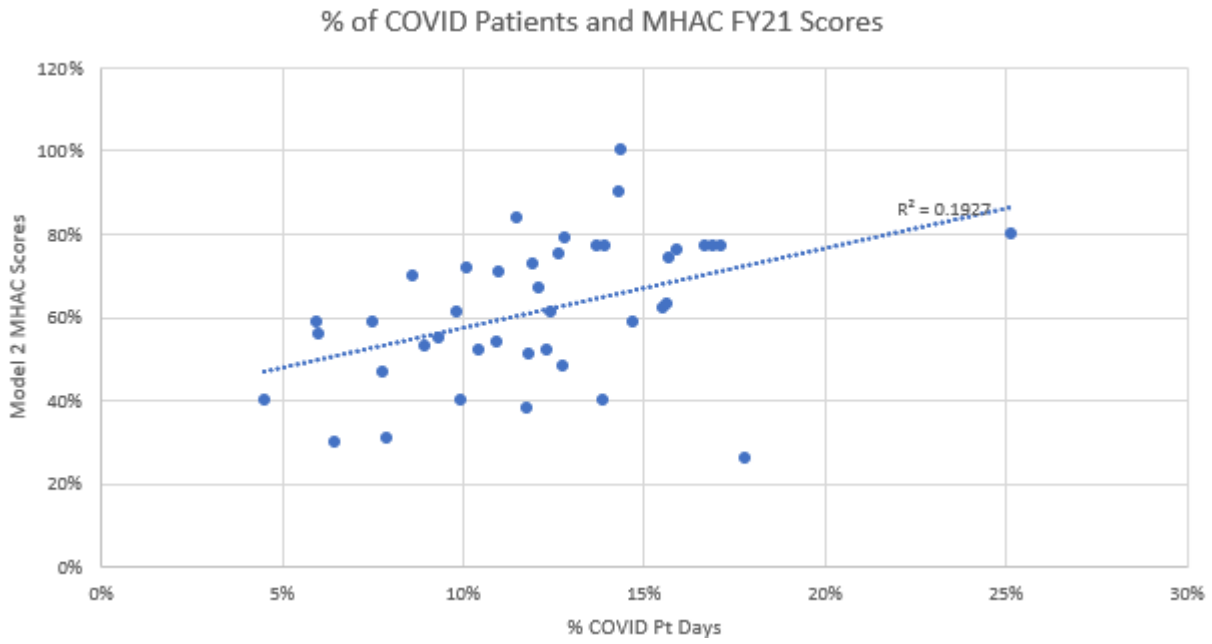
- COVID analyses update
  - Recap from 3/2/22 Mtg; correlations update
  - Modeling of QBR -findings
- RRIP RY 2024 draft policy discussion
  - Improvement and Attainment
  - Patient Adversity Index (PAI)
- eCQM update

Overview of COVID Analysis and Adjustment Updates

MHAC and RRIP Recap

- Reviewed use of concurrent norms with COVID patients included with PMWG, CMMI, and Commissioners
- Providing by hospital revenue adjustments modeled using FY 2021 for budgetary purposes (see attached Excel file with hospital results modeled)
- Correlated MHAC scores and readmission rates with percent COVID days by hospital

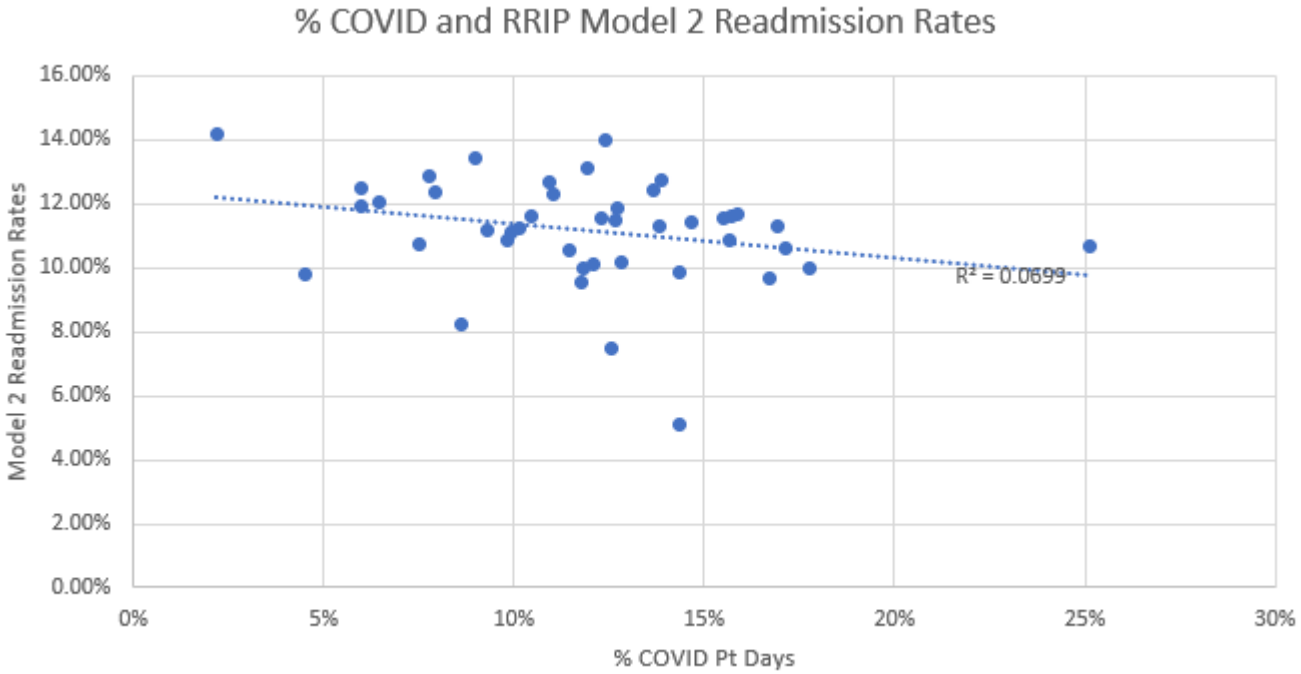
% COVID Pt Days and Model 2 MHAC Scores (Concurrent Norms)



- As % COVID pt days increases, MHAC scores increase
- R^2= 0.1927
- P-Value= 0.004
- Removes UMROI and Levindale as an outlier because it had ~0% COVID patients

Although the relationship is statistically significant, it only explains 19% of the variation in performance and the Model does not appear to penalize hospitals for having more COVID patients.

% COVID Pt Days and Model 2 RRIP Scores (Concurrent norms)



- As % COVID Pt Days increases, readmission rates decrease
- R^2=.0699
- P-value= .087
- Removes UMROI and Levindale as an outlier because they had ~0% COVID patients

Although the relationship is statistically significant, it only explains 7% of the variation in performance and the Model does not appear to penalize hospitals for having more COVID patients.

MHAC and RRIP Correlation Conclusion

- MHAC- % COVID Pt Days explains only 19% of the variation in Model 2 MHAC scores
- RRIP- % COVID Pt Days explains only 7% of the variation in Model 2 Readmission rates
- Model 2 does not appear to penalize hospitals for having more COVID patient days for both programs
- Therefore, Staff proposes to use Model 2 for RY23 Quality adjustments

Disparity Gap

- Given this is an upside improvement only program, staff propose minimal changes
  - Only change will be removal of COVID patients from performance period

MHAC Revenue Adjustment Scale

- Staff modeled changing the MHAC revenue adjustment scale to reflect the changes in scores:
  - Currently with modeling the hold harmless zone for Model 2 is from 56-66%
  - Will update with final results so that the hold harmless zone is a 10 percentage point gap centered around the state average

RY 23 Quality-Based Reimbursement: COVID Analyses

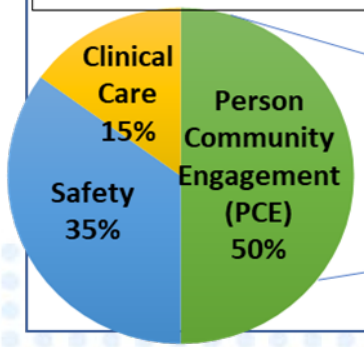
RY 2023-2024 QBR

Performance Measures → **Standardized Measure Scores** → **Hospital QBR Score & Revenue Adjustments**

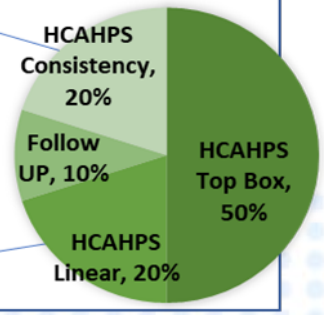
QBR Measures by Domain:

- Person and Community Engagement (PCE)(9 Measures: 8 HCAHPS categories; Follow-up after chronic conditions exacerbation (Medicare))
  NEW proposed RY 2024 update: add HCAHPS linear score =10% QBR score (20% of PCE domain)
- Safety (6 Measures: 5 CDC NHSN HAI Categories; All-payer PSI 90)
- Clinical Care (Inpatient Mortality, THA/TKA Complication)

Overall QBR Domains

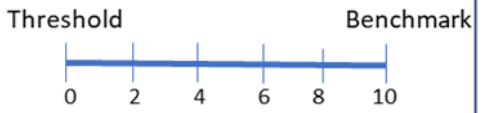


PCE Domain

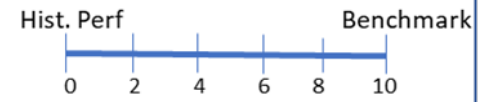


Individual Measures are Converted to 0-10 Points:

Points for Attainment Compare Performance to a National Threshold (median) and Benchmark (top 5%)



Points for Improvement Compare Performance to Base (historical perf) and Benchmark



Final Points are Better of Improvement or Attainment

Hospital QBR Score is Sum of Earned Points / Possible Points with Domain Weights Applied

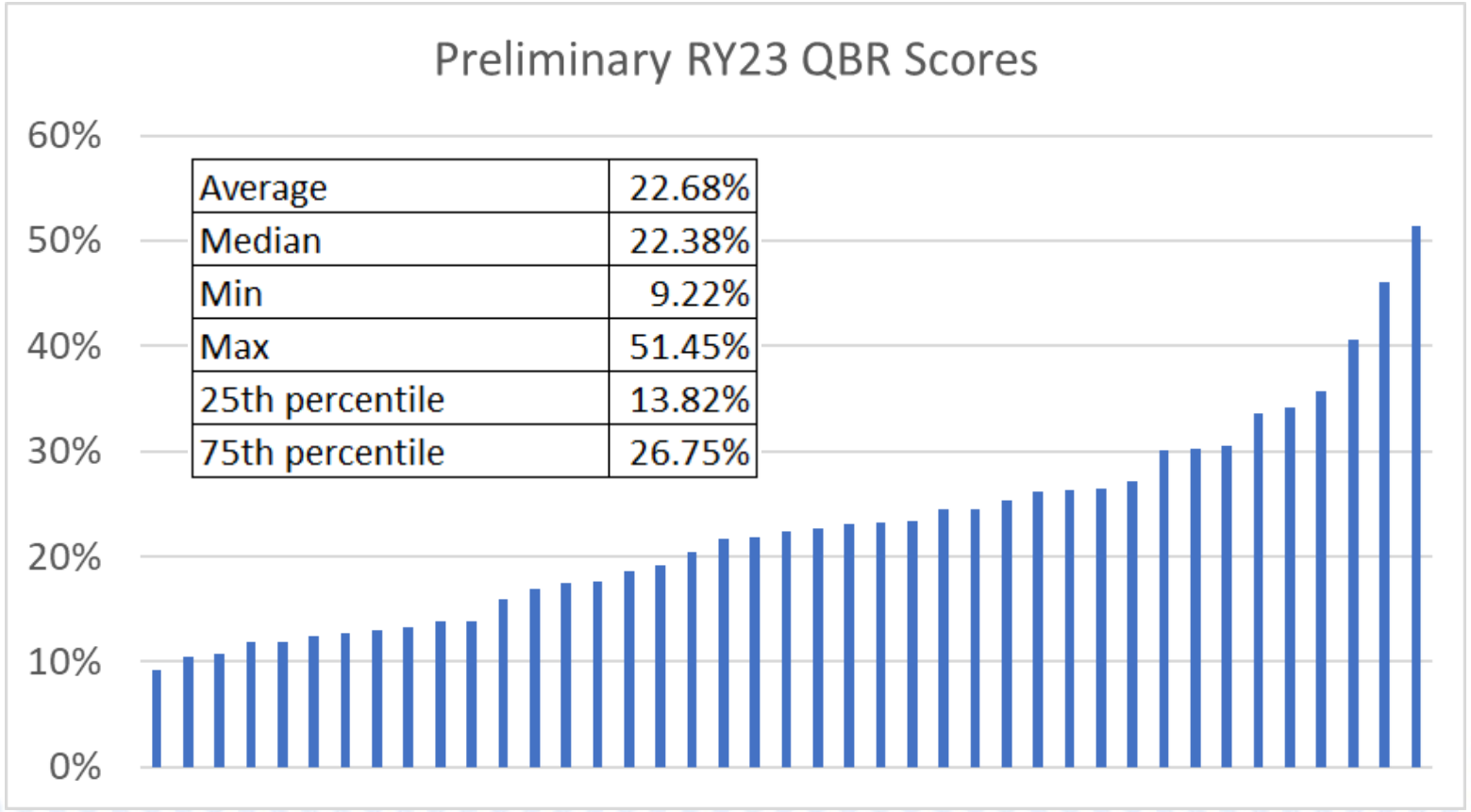
Scale Ranges from 0-80%

Max Penalty 2% & Reward +2%
NEW proposed RY 2024 update: Allow hospitals to receive up-front investment for HCAHPS improvement with 1 year payback.

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%

QBR Modeling: Preliminary Maryland Hospital Scores

- Modeled preliminary QBR scores using most recently available data
  - Care Compare January 2022 Release (July 2020-March 2021)
  - CY 2021 YTD for mortality, PSI (without COVID), and timely follow-up

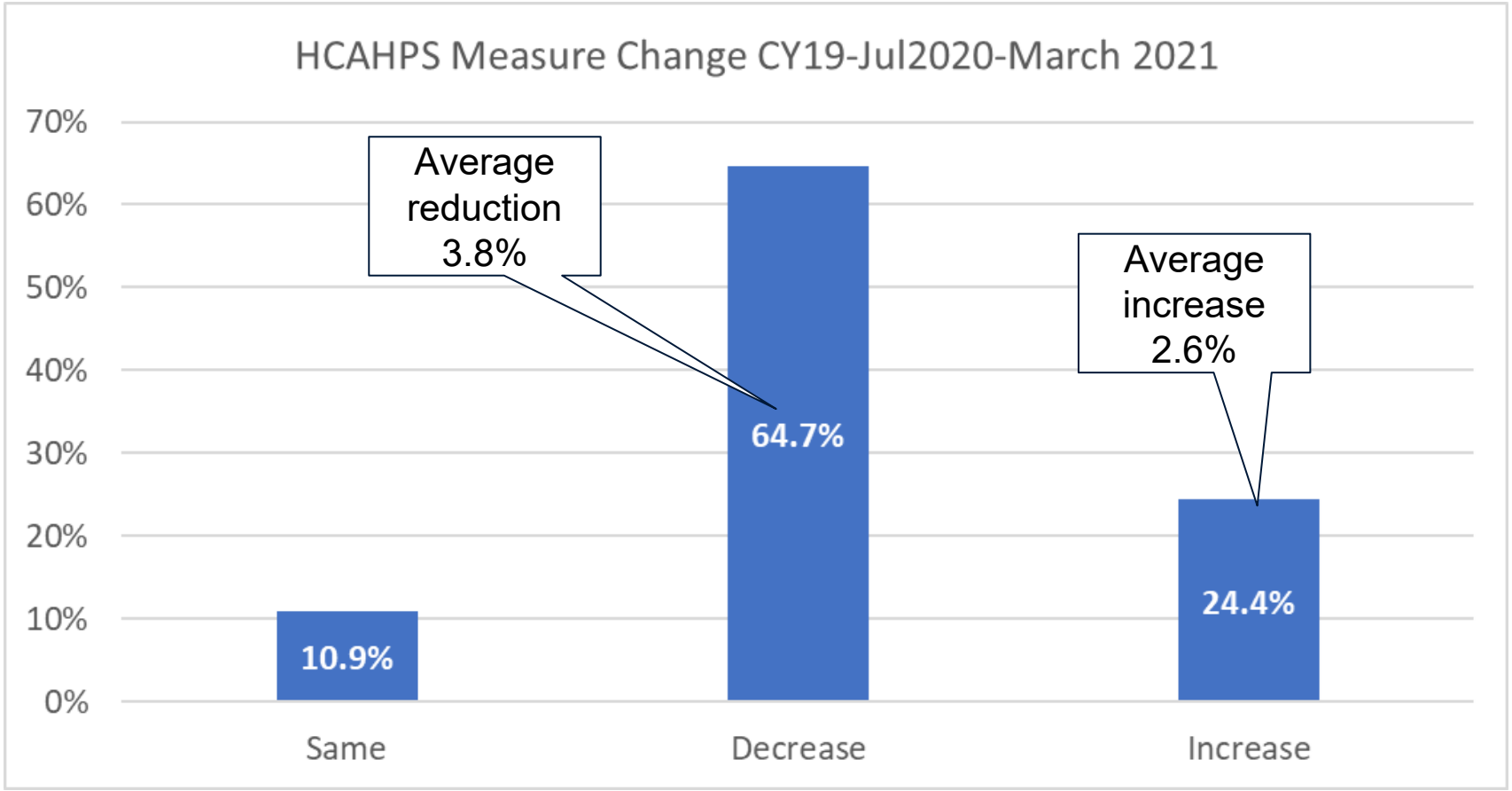


Reward Cutpoint:
41 Percent

(41% = National Average Score with QBR Weights)

RY 2021 Maryland average QBR score was 34%

National HCAHPS Change (n=2541 hospitals)



Nationally there has been a reduction in HCAHPS measure scores. Analyses from BRG show similar reductions in the safety domain.

QBR Modeling: Cut-point Analyses

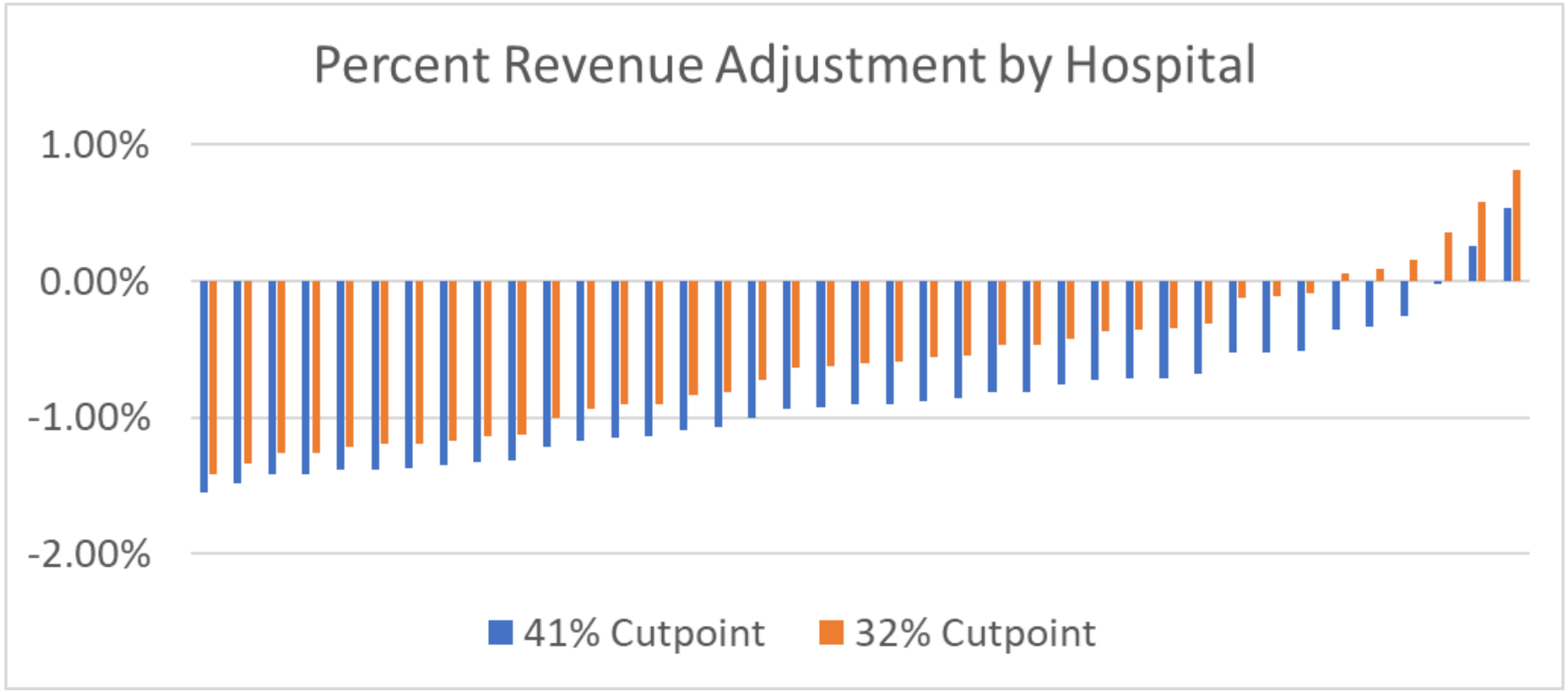
Cut Point Analysis	National Average		
	CMS VBP	QBR Weighted	QBR Weighted w/o Clinical Care
FFY16	39.45%	42.67%	--
FFY17	35.56%	39.93%	--
FFY18	37.43%	42.00%	--
FFY19	38.12%	40.90%	--
FFY20	38.49%	39.63%	--
FFY21	33.88%	36.60%	33.08%
Estimated National Scores with most recent data		25.68%*	27.08%
Difference from FFY21		10.92%	6.00%

*Mortality (clinical care domain) scores were not calculated, instead average mortality score for MD hospitals was used.

Prior to COVID (pre FFY21) average national performance was 41%. Commissioners established this as cut point.

Staff proposal:
Reduce the 41% cutpoint by 6-11% to reflect lower national scores.

Revenue Adjustment Modeling



Statewide Net Revenue Adjustment:

41%: -$91M

32%: -$61M
(reduced cut point by 9%--midpoint between 6-11%)

Update on Inpatient Mortality

- Current QBR modeling does not include any changes for COVID
  - Because performance standards are also adjusted, do not anticipate significant changes in the mortality scoring under different models

Model	Description	Base Period	Performance Period	Risk Adjustment Period
Model 1	Original base period normative value	01/01/2019 – 12/31/2019	07/01/2020 – 06/30/2021	01/01/2019 – 12/31/2019
Model 2	Concurrent normative values including COVID-19 patients	01/01/2019 – 12/31/2019	07/01/2020 – 06/30/2021	07/01/2020 – 06/30/2021
Model 2A	Concurrent normative values including COVID-19 patients and included COVID as covariate	01/01/2019 – 12/31/2019	07/01/2020 – 06/30/2021	07/01/2020 – 06/30/2021
Model 3	Concurrent normative values excluding COVID-19 patients	01/01/2019 – 12/31/2019	07/01/2020 – 06/30/2021	07/01/2020 – 06/30/2021
Model 3A	Concurrent normative values excluding COVID-19 patients and using 80% cumulative death threshold from Model 2	01/01/2019 – 12/31/2019	07/01/2020 – 06/30/2021	07/01/2020 – 06/30/2021

Initial models showed high correlations between hospital mortality rates and percent COVID days. **Thus, reran models controlling for percent COVID days at the hospital.**

Staff prefers Model 2 since it aligns with MHAC and RRIP; Model 2 controlling for percent COVID days shows lower correlations, similar to MHAC and RRIP.

QBR Next Steps

- Review retrospective adjustments with Commissioners and CMMI
- Finalize mortality analysis with concurrent norms and rerun modeling using whole CY 2021
- Adjust QBR revenue adjustment scale by estimated national decline

RY 2024 RRIP Draft Policy Discussion

RY 2024 RRIP Considerations

- **Measure:** No proposed measure updates
  - Reminder - HSCRC has removed pediatric oncology cases in RY 2023 onward, per the measure stewards.
- **Improvement Target:** Continue with the RRIP redesign goal of a 7.5 percent improvement from 2018-2023
  - CY2022 Improvement goal: 6.05%
- **Attainment Target:** No updates at this time
- Disparity Gap: TBD
- New measure for **Monitoring Report**: EDAC
- COVID changes
  - Use FY 2021 (i.e., post-covid time period) for statewide norms to allow better prospective tracking. Still measure improvement from CY 2018.
  - Additional retrospective changes will be considered to account for COVID

eCQM Data Collection Update - from CRISP/Medisolv Partners

Hospital eCQM Data Collection

Peggy Oehlmann, Program Manager for Quality & Transformation, CRISP

Zahid Butt, MD, CEO, Medisolv

Hospital Reporting of Electronic Clinical Quality Measures (eCQMs)

- CRISP and Medisolv supporting HSCRC goals for hospital reporting of eCQMs
- Optional submission of 2021 measures in Spring 2022
- Hospitals required to submit 4 measures quarterly, with the first submission window opening in July 2022 for Q1 & Q2 2022
- Data submitted via Quality Reporting Document Architecture (QRDA) I
- For 2023 and beyond, ED-2 and eOPI-1 are required, other required measures TBD
- Data to be uploaded to Medisolv ENCOR portal via CRISP Portal (ULP)
- While these measures align with federal IQR measures, it does not replace IQR Reporting

Note: Timelines for data submission for this initiative are separate and distinct from federal IQR submission.

eCQM Reporting for MD Hospitals CY 2021-2023

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**	**2 required eCQMs 4 qtrs of data submitted to CRISP/Medisolv. Additional eCQM requirements TBD**
Data Submission	**1/15/2022 – 3/31/2022**	**See # 2**	**TBD**
ED-2: Decision to Admit to Admission Median Time	**Optional**	**Required**	**Required**
PC-01: Elective Delivery	Optional	Optional	TBD
PC-02: Cesarean Birth	Optional	Optional	TBD
PC-05: Exclusive Breast Milk Feeding	Optional	Optional	TBD
PC-06: Unexpected complications in term newborns	Optional	Optional	TBD
STK-2: Discharged on Antithrombotic Therapy	Optional	Optional	TBD
STK-3: Anticoagulation Therapy for A. Fibrillation /Flutter	Optional	Optional	TBD
STK-5: Antithrombotic by Day 2	Optional	Optional	TBD
STK-6: Discharged on Statin Medication	Optional	Optional	TBD
VTE-1: VTE Prophylaxis	Optional	Optional	TBD
VTE-2: ICU VTE Prophylaxis	Optional	Optional	TBD
OPI-01 Safe use of Opioids	**Optional**	**Required**	**Required**
Severe Hypoglycemia			TBD
Severe Hyperglycemia			TBD

eCQM Reporting Schedule for MD Hospitals CY 2022

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
   - 27 Hospitals indicated willingness to submit 2021 pilot data
   - If interested in pilot, contact Ken McCormick (kmccormick@medisolv.com) or Jenna Pickard (jpickard@medisolv.com)

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

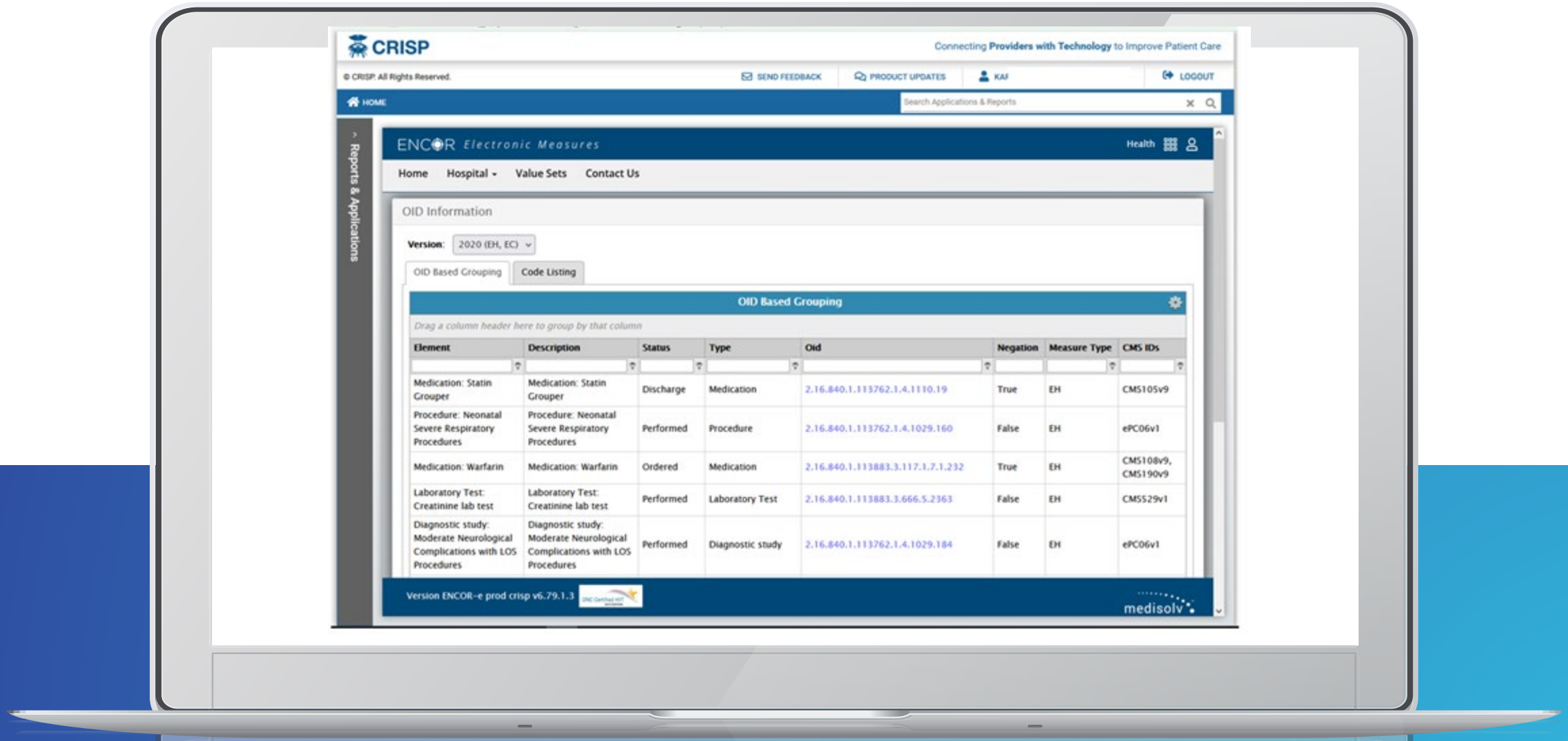
Medisolv Update on ENCOR Tool for HSCRC Reporting

Link to Medisolv platform will be available on CRISP Portal (eg, ULP)

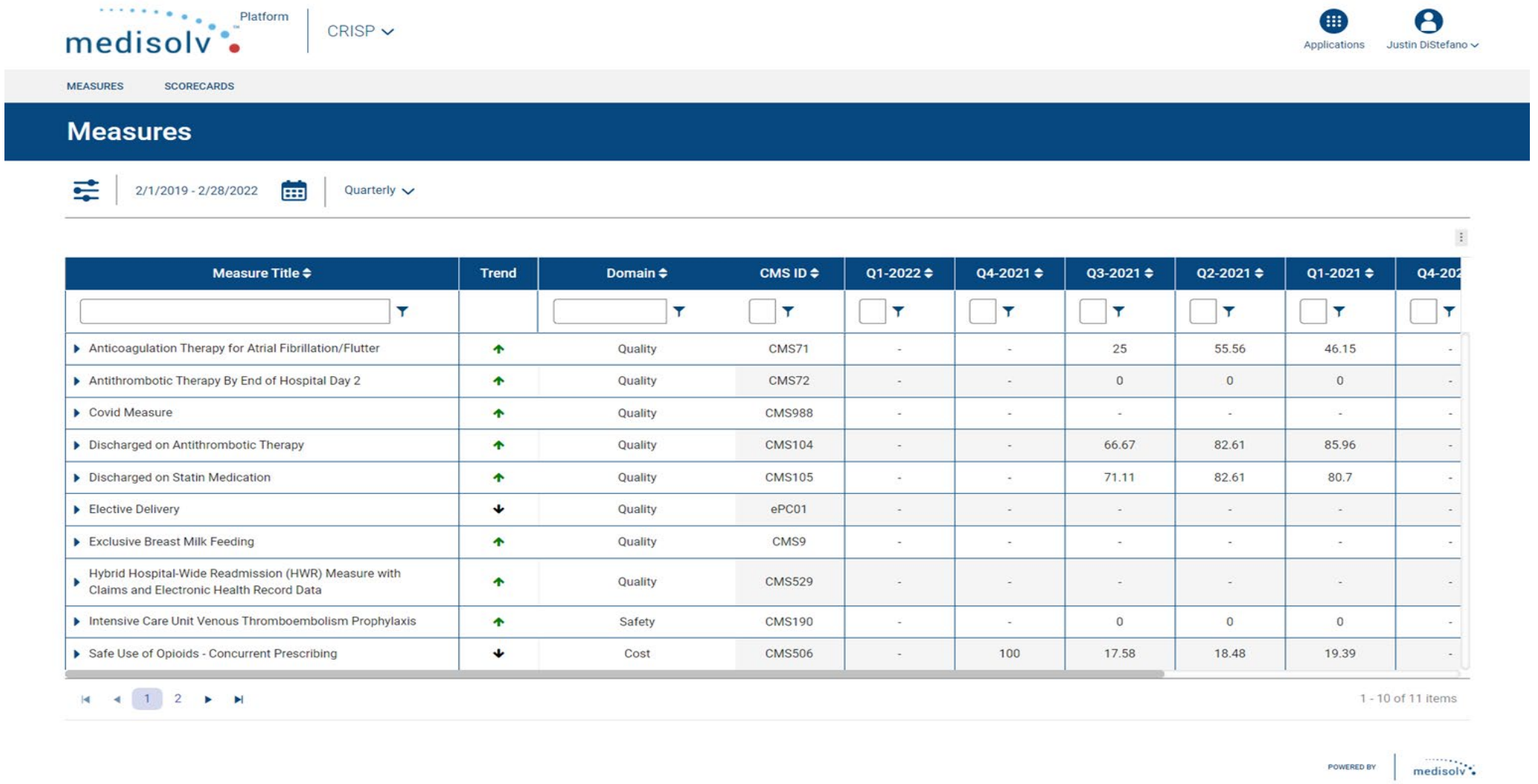
Three Sections of the platform include:

- Medisolv Submission Platform (MSP) for uploading data
- Drill down to Measure performance detail for Hospital staff
- Aggregate performance data for each hospital by measure

CRISP Portal (ULP) Access

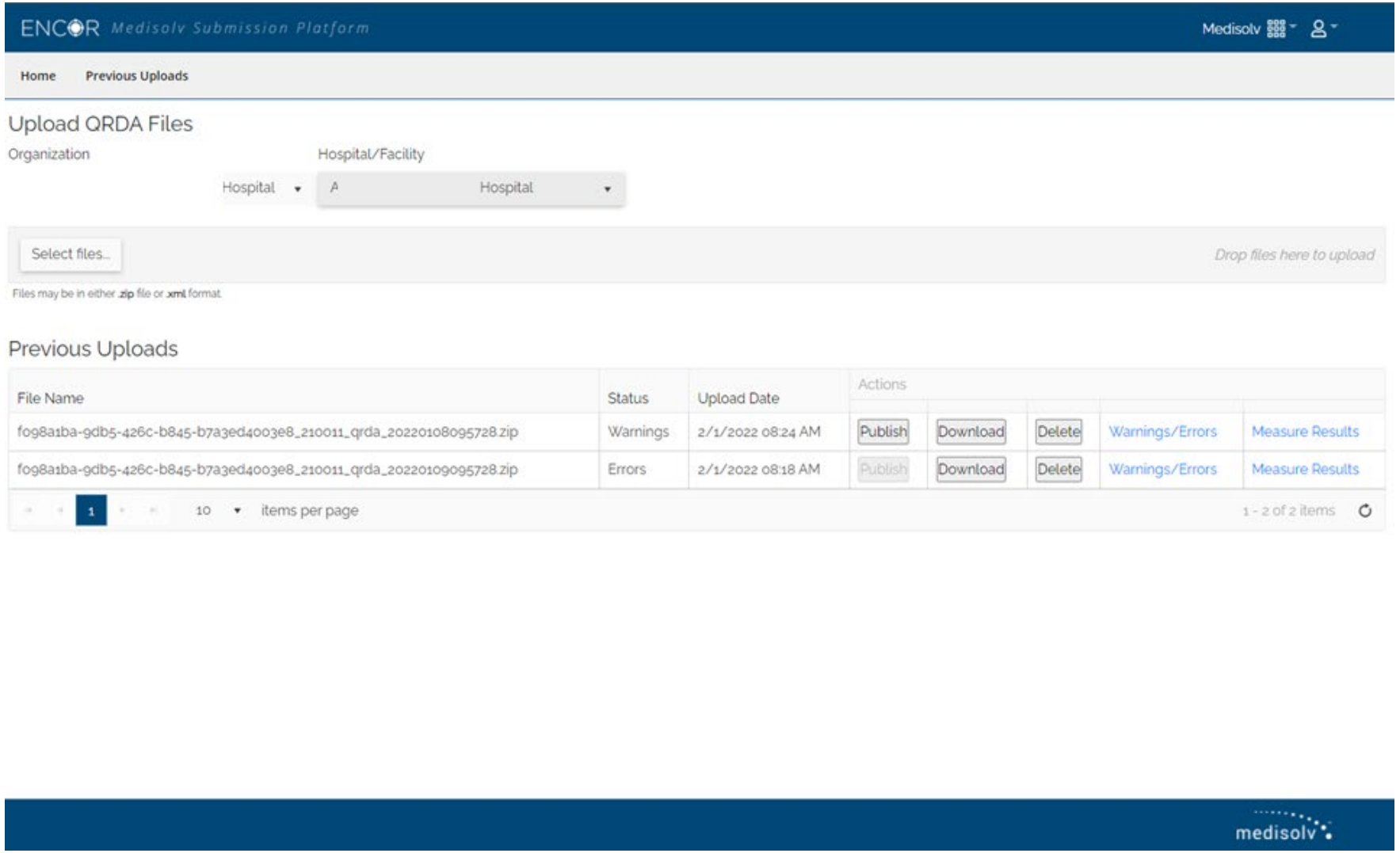


Measure aggregate results for HSCRC Reporting

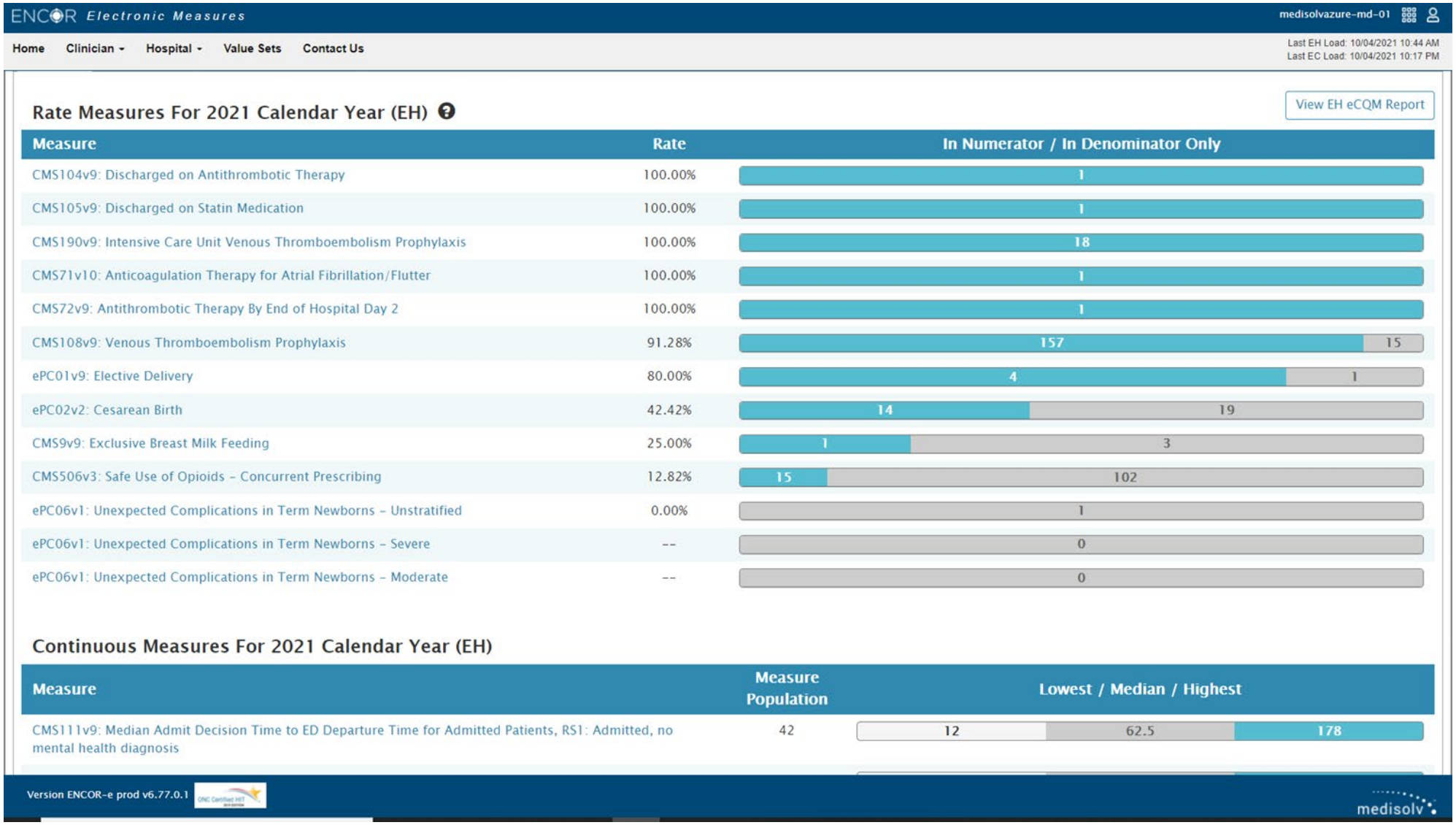


Measure Title	Trend	Domain	CMS ID	Q1-2022	Q4-2021	Q3-2021	Q2-2021	Q1-2021	Q4-202
Anticoagulation Therapy for Atrial Fibrillation/Flutter	↑	Quality	CMS71	-	-	25	55.56	46.15	-
Antithrombotic Therapy By End of Hospital Day 2	↑	Quality	CMS72	-	-	0	0	0	-
Covid Measure	↑	Quality	CMS988	-	-	-	-	-	-
Discharged on Antithrombotic Therapy	↑	Quality	CMS104	-	-	66.67	82.61	85.96	-
Discharged on Statin Medication	↑	Quality	CMS105	-	-	71.11	82.61	80.7	-
Elective Delivery	↓	Quality	ePC01	-	-	-	-	-	-
Exclusive Breast Milk Feeding	↑	Quality	CMS9	-	-	-	-	-	-
Hybrid Hospital-Wide Readmission (HWR) Measure with Claims and Electronic Health Record Data	↑	Quality	CMS529	-	-	-	-	-	-
Intensive Care Unit Venous Thromboembolism Prophylaxis	↑	Safety	CMS190	-	-	0	0	0	-
Safe Use of Opioids - Concurrent Prescribing	↓	Cost	CMS506	-	100	17.58	18.48	19.39	-

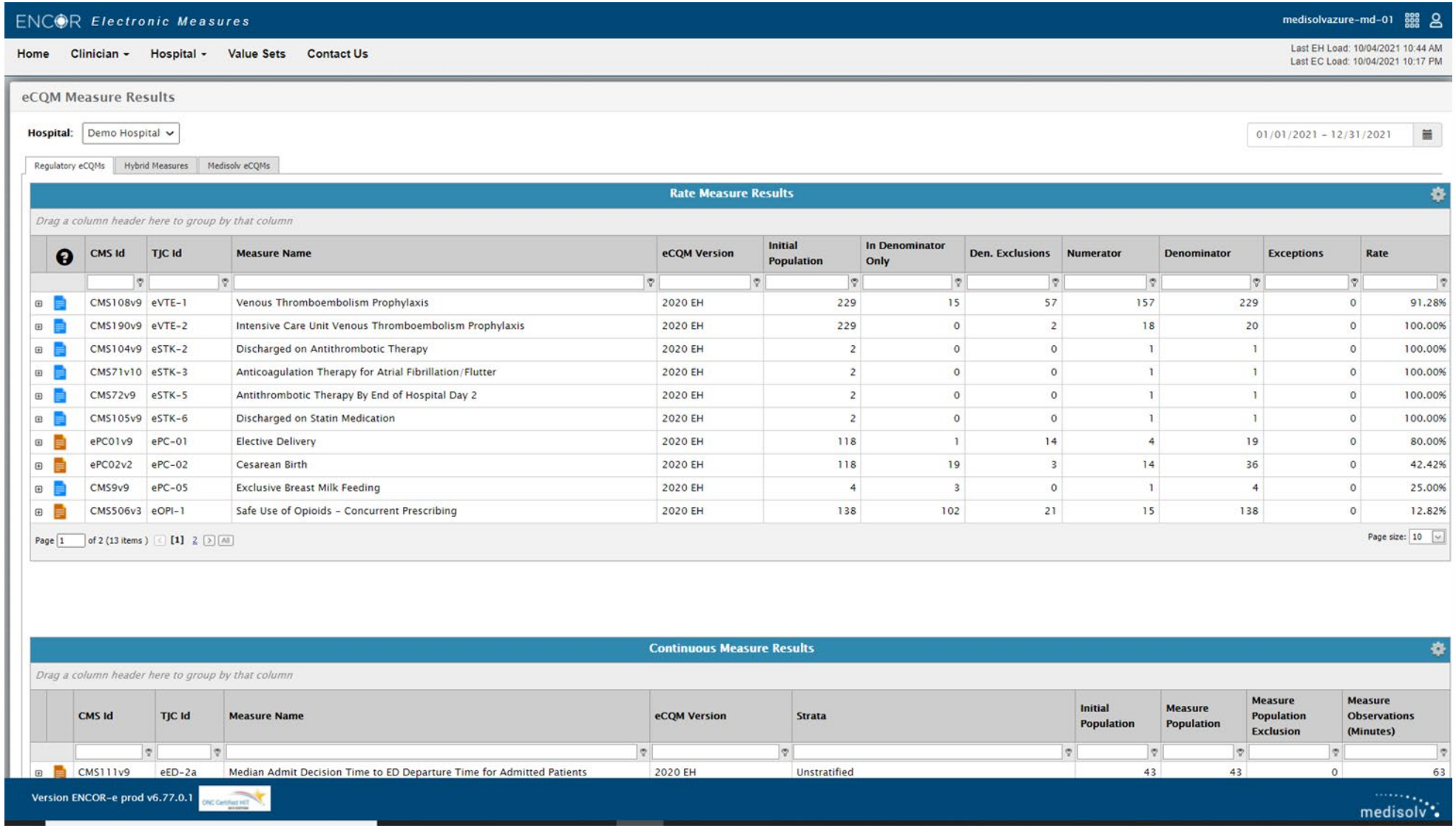
Medisolv Submission Portal (MSP)



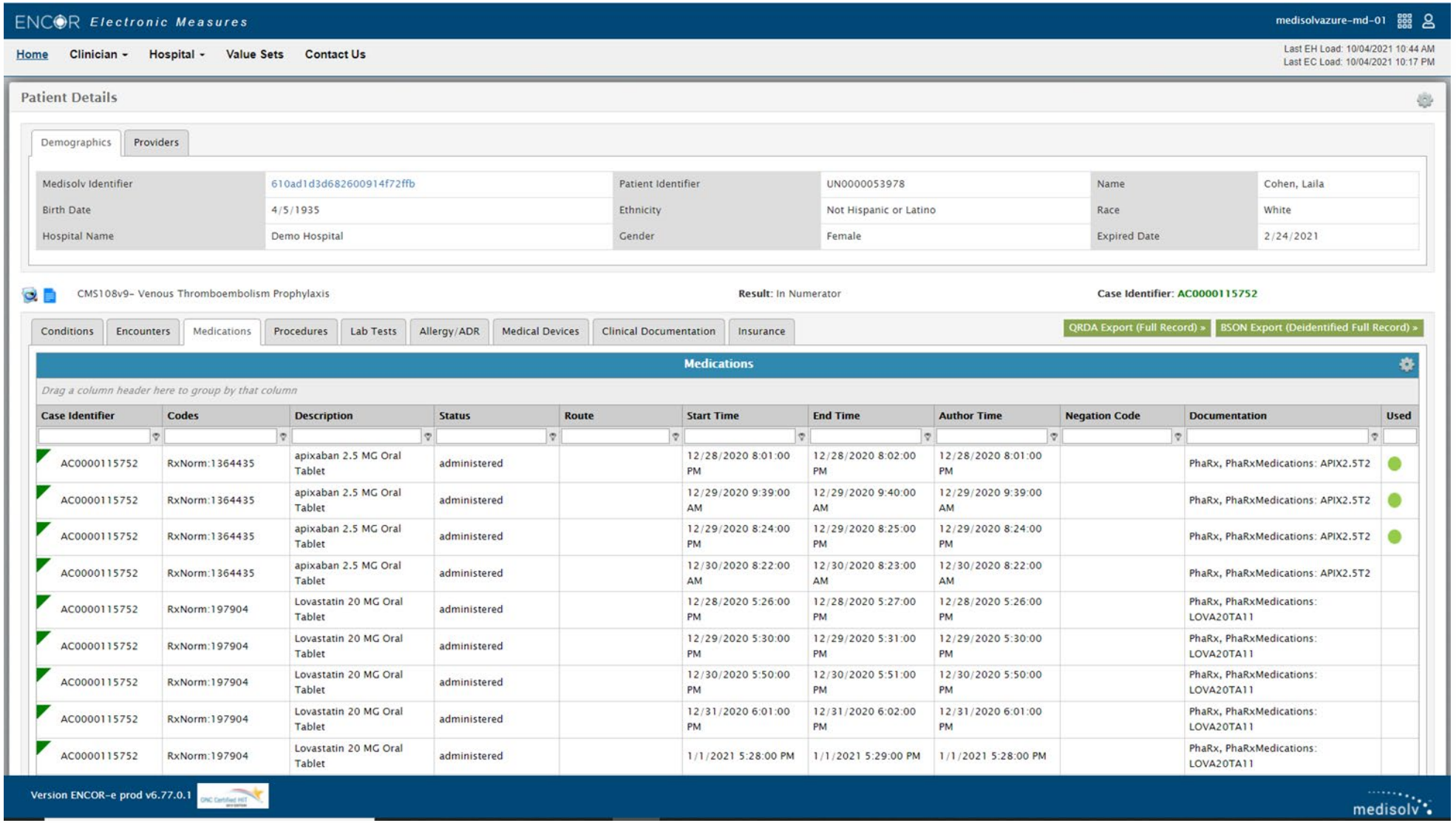
Medisolv ENCOR – EH Home Page



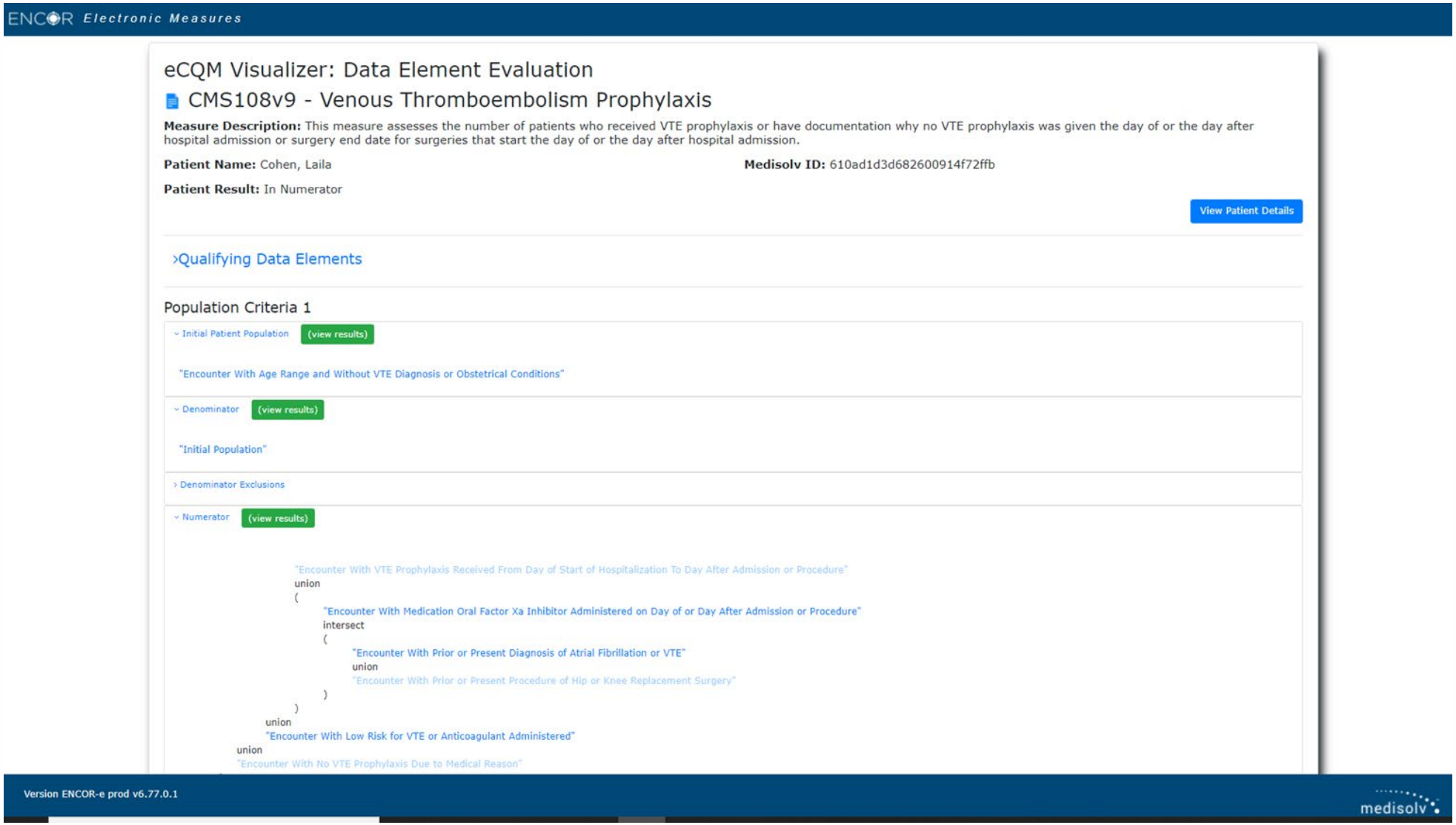
Medisolv ENCOR – EH eCQM Results



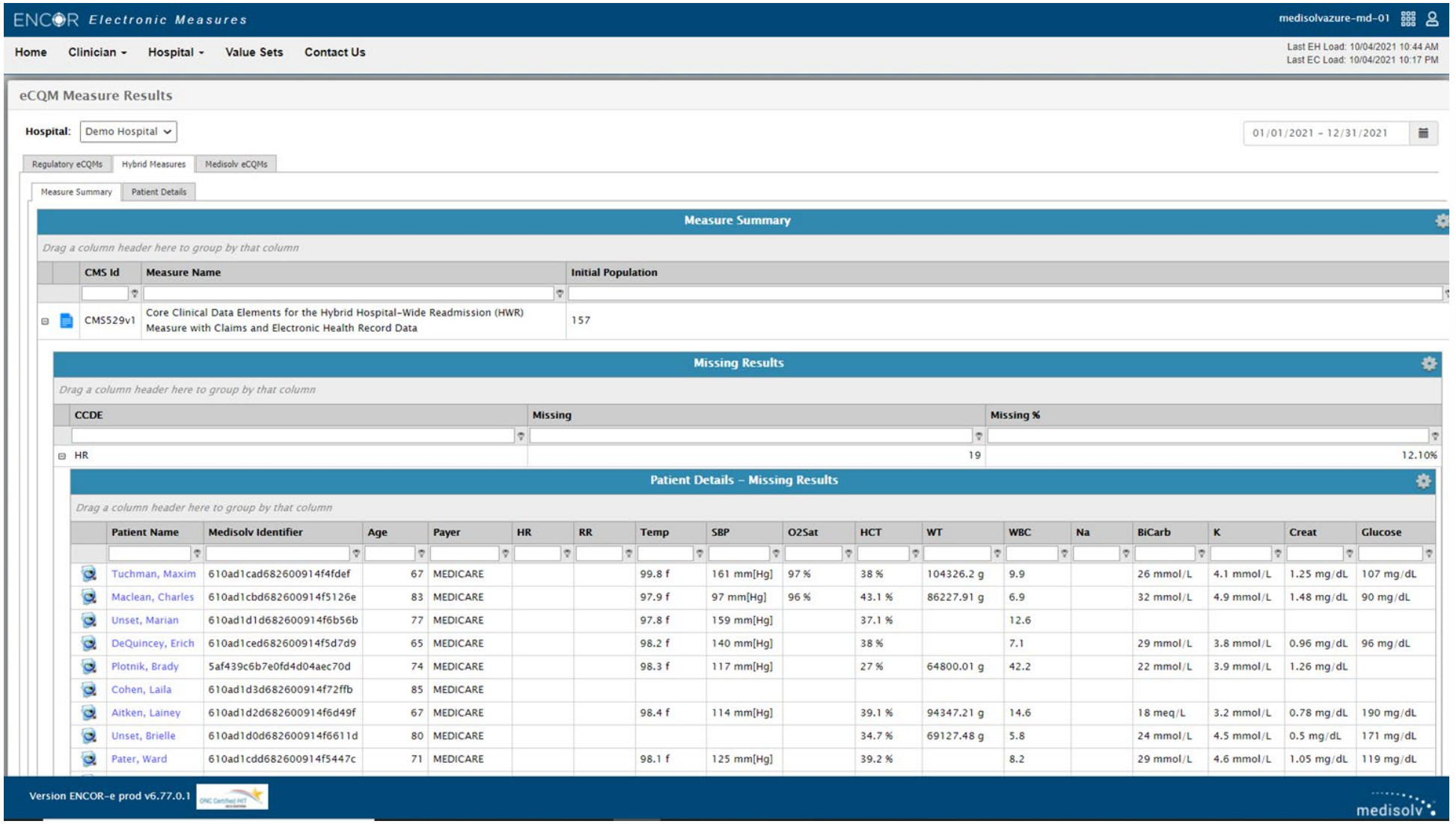
Medisolv ENCOR - VTE 1 Encounter Details (Medications)



Medisolv ENCOR - VTE 1 Measure logic Visualizer



Medisolv ENCOR - Hybrid HWR CCDE Missing Analysis



Questions?

Email: HospitalQuality@crisphealth.org

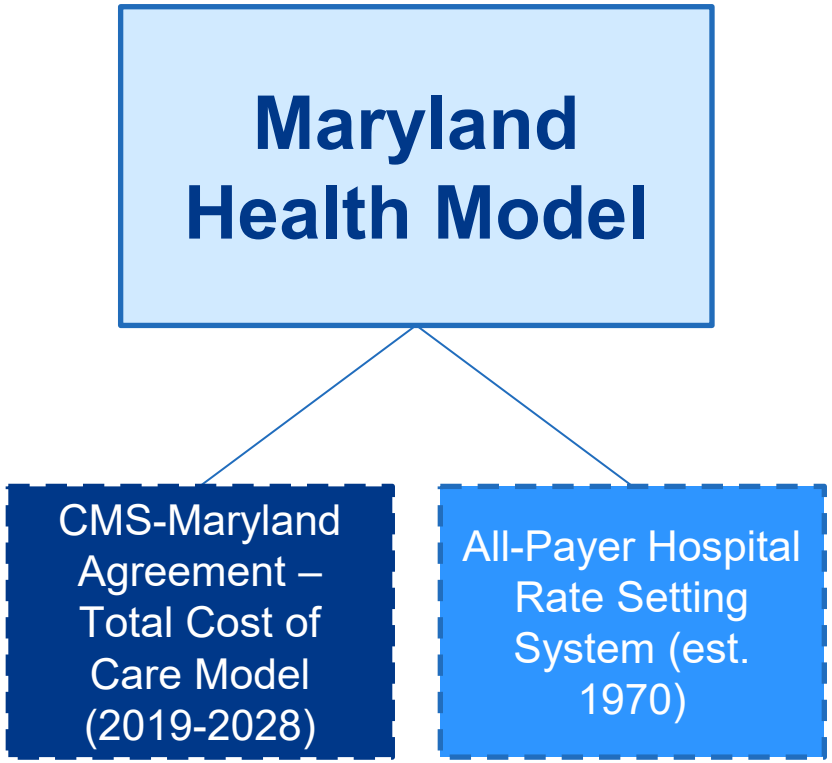
THANK YOU!

Next meeting: April 20, 2022

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

APPENDIX

Maryland's Unique Healthcare Payment System



Strengths of the Maryland Health Model:

- Enables **cost containment** for the public
- Ensures all-payer **hospital charges correlate with costs**
- Guarantees **equitable funding of Uncompensated Care**
- Creates **transparency and cost savings** for the public and a **stable financing system** for hospitals
- Funds **investments in population health**
- Establishes Maryland as a **leader in linking quality and payment**
- Provides **support for pioneering state healthcare infrastructure** and subject matter expertise
- Incentivizes **care transformation** across all settings of care
- Invests **in primary care**
- Allows for **innovation**

The Model Allows for Innovation

The Model directly supports hospital-led innovations that improve care delivery and health outcomes in several ways, including:

Hospital regulated margins have increased by approximately 50% under the global budget system.

- GBRs guarantee stable revenue even as avoidable utilization decreases, resulting in increased funding available for hospitals to invest in innovations that improve care and help manage health.
- HSCRC data indicates that hospitals are currently using most of these excess margins to subsidize physicians.

HSCRC policies consider volumes of highly innovative services separately to ensure adequate funding.

HSCRC's CDS-A Drug Funding policy*

- Funds new innovations in pharmaceuticals that affect all hospitals.

HSCRC's Complexity and Innovation policy*

- Supports academic medical centers (AMCs) leadership in developing emerging therapies and technologies.

*See policy slides for further details

Innovative Drug Funding

CDS-A: How it Works

- The CDS-A is a schedule that measures volume and changes in use of certain high-cost physician-administered outpatient drugs (mostly oncology and infusion drugs).
- Under the CDS-A, HSCRC worked with stakeholders to establish a standard Statewide list of high use, high costs drugs that is updated annually and includes pre-populated templates for each hospital.

Funding

HSCRC adjusts GBRs:

- Prospectively through the annual update factor to reflect differentially higher inflation for innovative drugs identified in the CDS-A
- Retrospectively to adjust the GBR for the change in the volume of these drugs from the prior period (50% permanent, 50% one-time)

Together, these approaches ensure funding at 100% of Average Sales Price (or 340-B prices for 340-b hospitals).

Complexity & Innovation Policy

How it Works

- Adjusts GBR to **support highly specialized, innovative care** in Maryland.
- Creates a prospective **budgetary amount for certain cases deemed high intensity or innovative** based on historical growth (e.g. organ transplant cases, CAR-T).

Qualifying Hospitals

- Academic Medical Centers qualify automatically for this policy because they have more than 500 beds, an intern/resident to bed ratio of .60 or higher, and an Inpatient Case-mix Index greater than 130% of the statewide average.
- Community hospitals can qualify retrospectively if they meet certain requirements.

Methodology

- In-state inpatient cases are deemed highly specialized if the qualifying medical centers:
  - Comprise 95% or more of an ICD-10 procedure code
  - Cases have a case-mix index of 1.5 or greater
- Prospective funding amount is equivalent to historical average growth and reflective of 100% variable cost factor for supplies and drugs, 50% for all other charges
- Removes cases from market shift, demographic adjustment, and PAU methodologies