



Overall Hospital Quality Star Ratings: July 2024 Refresh

April 25, 2024

Speakers



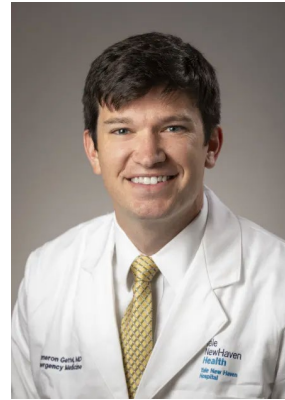
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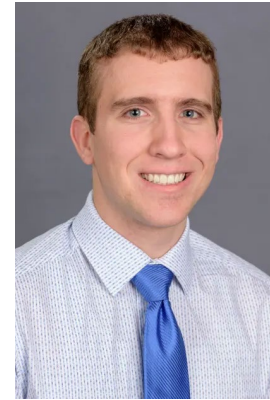
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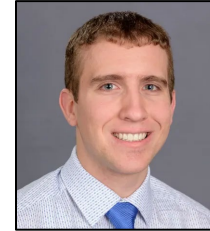
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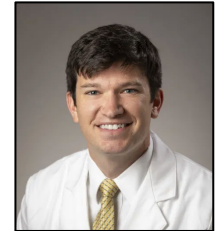
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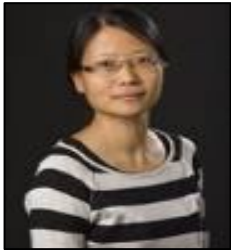
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Agenda

- **Introduction** [*Michelle Schreiber*]
- **Overall Star Ratings Background** [*Cameron Gettel*]
- **2024 Star Ratings** [*Cameron Gettel*]
- **FAQs About Star Ratings** [*Kyle Bagshaw*]
- **2024 Implementation** [*Dawn Beard*]

Acronyms and Abbreviations

AMI	Acute Myocardial Infarction	N/A	Not Applicable
CABG	Coronary Artery Bypass Graft	NPC	National Provider Call
CAH	critical access hospitals	PCT	Percentile
CMS	Centers for Medicare & Medicaid Services	PFE	Person & Family Engagement
Com.	Comment	PN	Pneumonia
Comp	Complication	Prov	Provider
COPD	Chronic Obstructive Pulmonary Disease	PSI	Patient Safety Indicators
DSH	Disproportionate Share Hospitals	Pub.	Public
ECE	Extraordinary Circumstance Exception	TEP	Technical Expert Panel
FAQ	Frequently Asked Questions	VHA	Veterans Health Affairs
HAI	Hospital-Acquired Infections	V	Version
HF	Heart Failure	Vs	Versus
HVBP	Hospital Value-Based Purchasing	WG	Workgroup
Max.	Maximum	YNHHS/ CORE	Yale New Haven Health Services Corporation/Center for Outcome Research and Evaluation
Min.	Minimum		

Michelle Schreiber, MD

Deputy Director, Center for Clinical Standards and Quality

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Introduction

Cameron Gettel, MD, MHS
Project Lead, YNHHS/CORE

Overall Star Ratings Background

Project Overview and History

- **Objective:**

Develop a methodology to summarize quality measure information published to the [Care Compare on Medicare.gov](https://www.carecompare.com) in a way that is useful and easy to interpret for patients/caregivers.

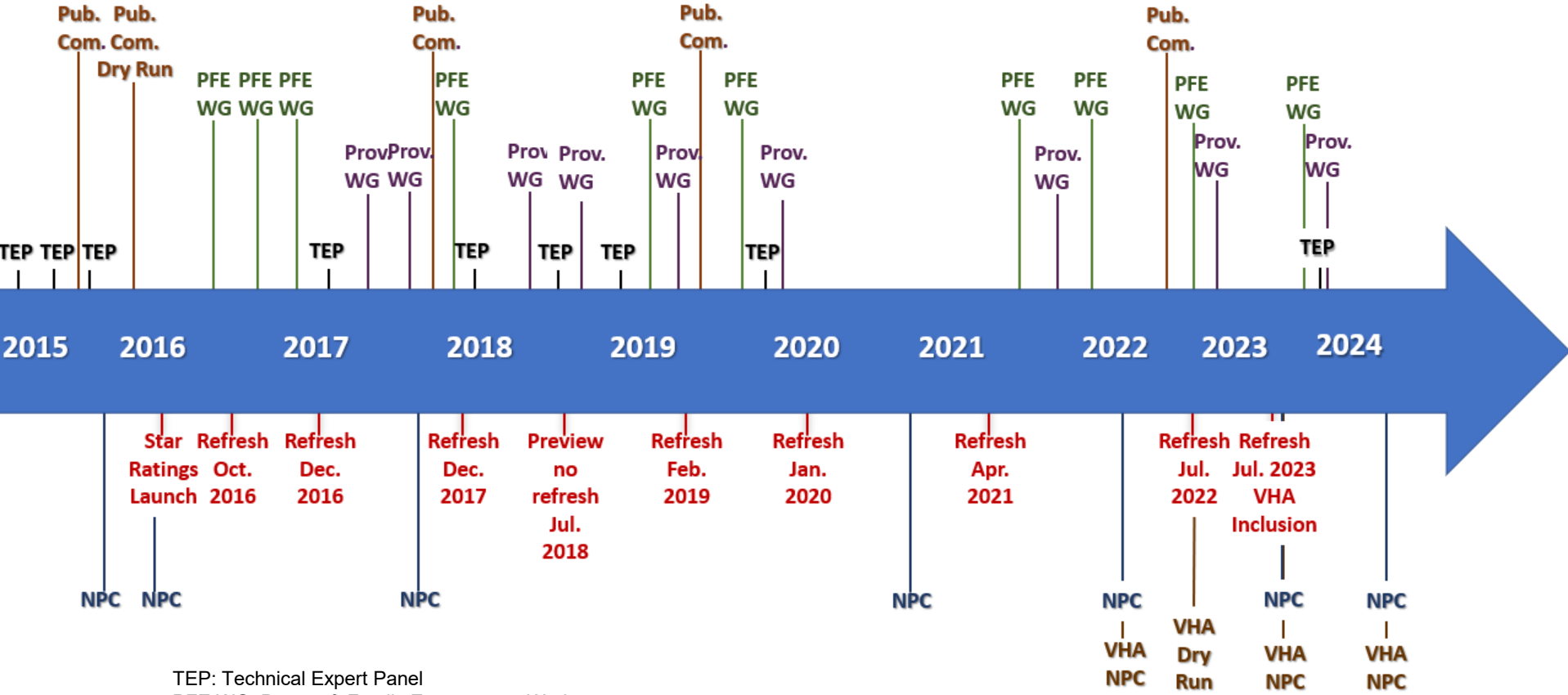
- **History:**

- 2015 - Star Ratings Dry Run (Version (V)1.0)
- 2016 - Star Rating officially launched (V2.0)
- 2017 - Star Ratings methods updated (V3.0)
- 2021 - Star Ratings methods updated (V4.1)
- 2022 - First Star Ratings refresh impacted by CMS COVID-19 exception (V4.1)

Guiding Principles

- Use methods that:
 - Are scientifically valid.
 - Are inclusive of hospitals and measure information.
 - Account for heterogeneity of available measures and hospital reporting.
 - Accommodate changes in the underlying measures.
- Aims to fulfill:
 - Alignment with [Care Compare on Medicare.gov](https://www.cms.gov/medicare/medicare-claim-coverage/care-compare) and other CMS programs.
 - Transparency of methods.
 - Responsiveness to stakeholder input.

Historical Timeline



TEP: Technical Expert Panel
 PFE WG: Person & Family Engagement Workgroup
 Prov. WG: Provider Leadership Work Group
 NPC: National Provider Call
 VHA: Veterans Health Administration

Cameron Gettel, MD, MHS
Project Lead, YNHHS/CORE

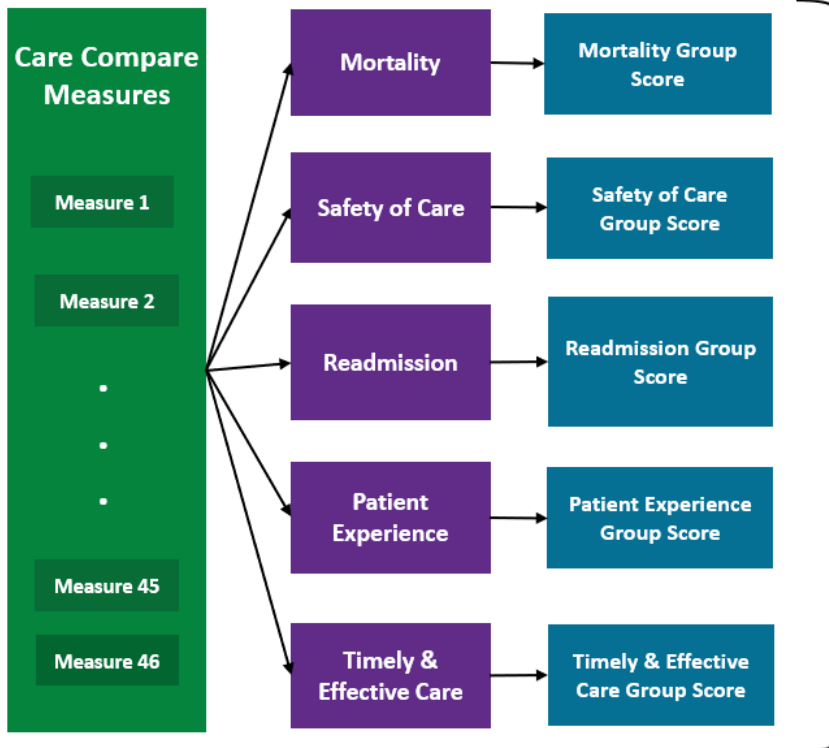
Current Star Ratings Methodology

Current Overall Star Rating Methodology

Step 1: Select Measures
Apply measure selection criteria each refresh and standardize scores

Step 2: Group Measures
Similar to HVBP and existing Care Compare display

Step 3: Calculate Group Score
Simple average of available measure scores, then standardized for combination



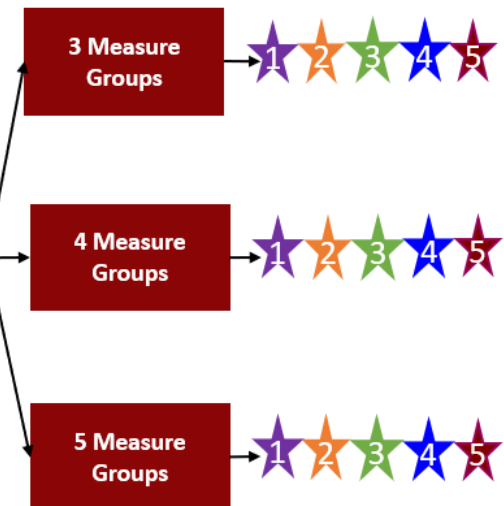
Step 4: Generate Summary Score
Policy-based weighted average of available hospital group scores



Step 5: Apply Reporting Thresholds
Hospitals must report 3 measures in at least 3 groups (one of which must be Mortality or Safety)

Step 6: Apply Peer Grouping
Group hospitals by number of measure groups with at least 3 measures

Step 7: Calculating Star Ratings
Use k-means clustering within each peer group to categorize summary scores into 5 star ratings



<https://www.federalregister.gov/documents/2020/12/29/2020-26819/medicare-program-hospital-outpatient-prospective-payment-and-ambulatory-surgical-center-payment>

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Project Lead, YNHHS/CORE

2024 Star Ratings

Extraordinary Circumstances Exception (ECE) Impact

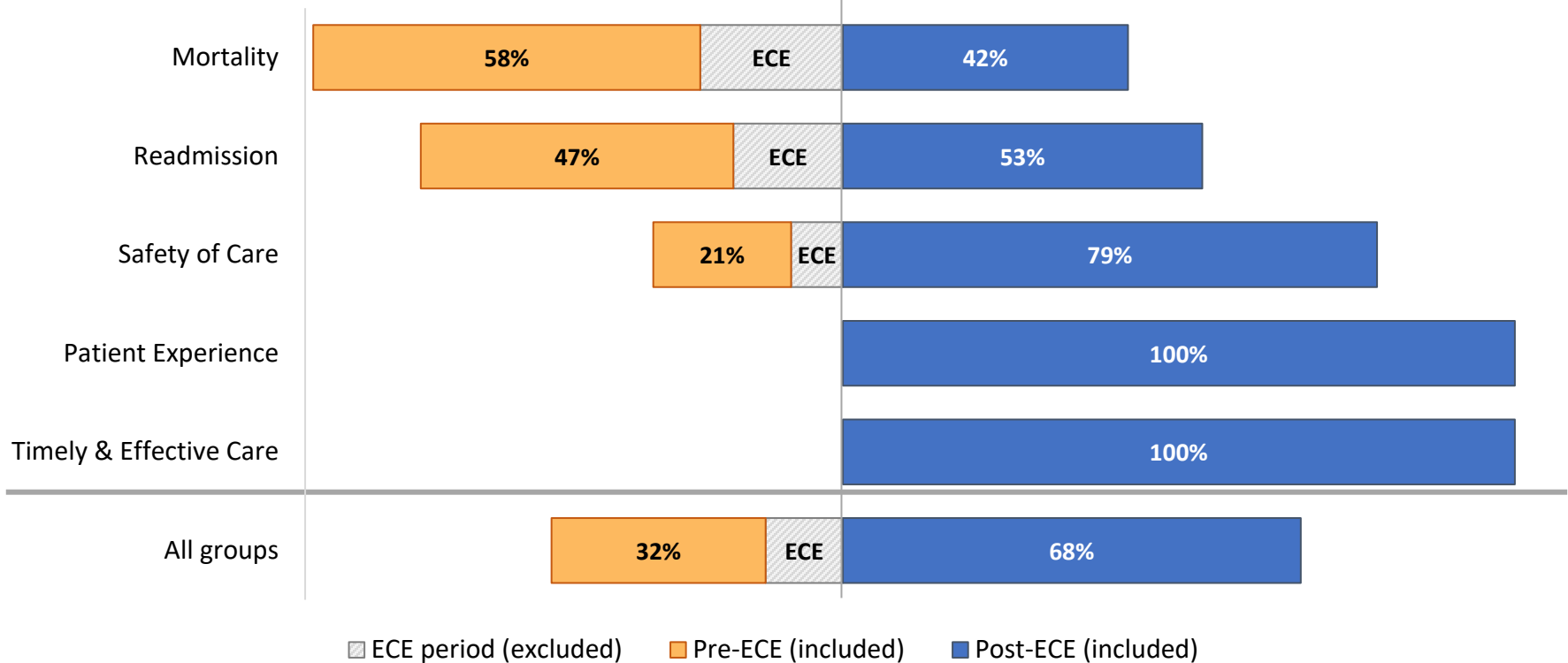
The percentage of included data-months in each measure group that was collected after June 30, 2020 (the COVID-19 ECE period was January 1, 2020–June 30, 2020):

Measure Group	2023	2024
Mortality	42%	82%
Readmission	53%	85%
Safety of Care	79%	86%
Patient Experience	100%	100%
Timely and Effective Care	100%	100%

89% of all data-months included in 2024 Star Ratings were collected after June 30, 2020.

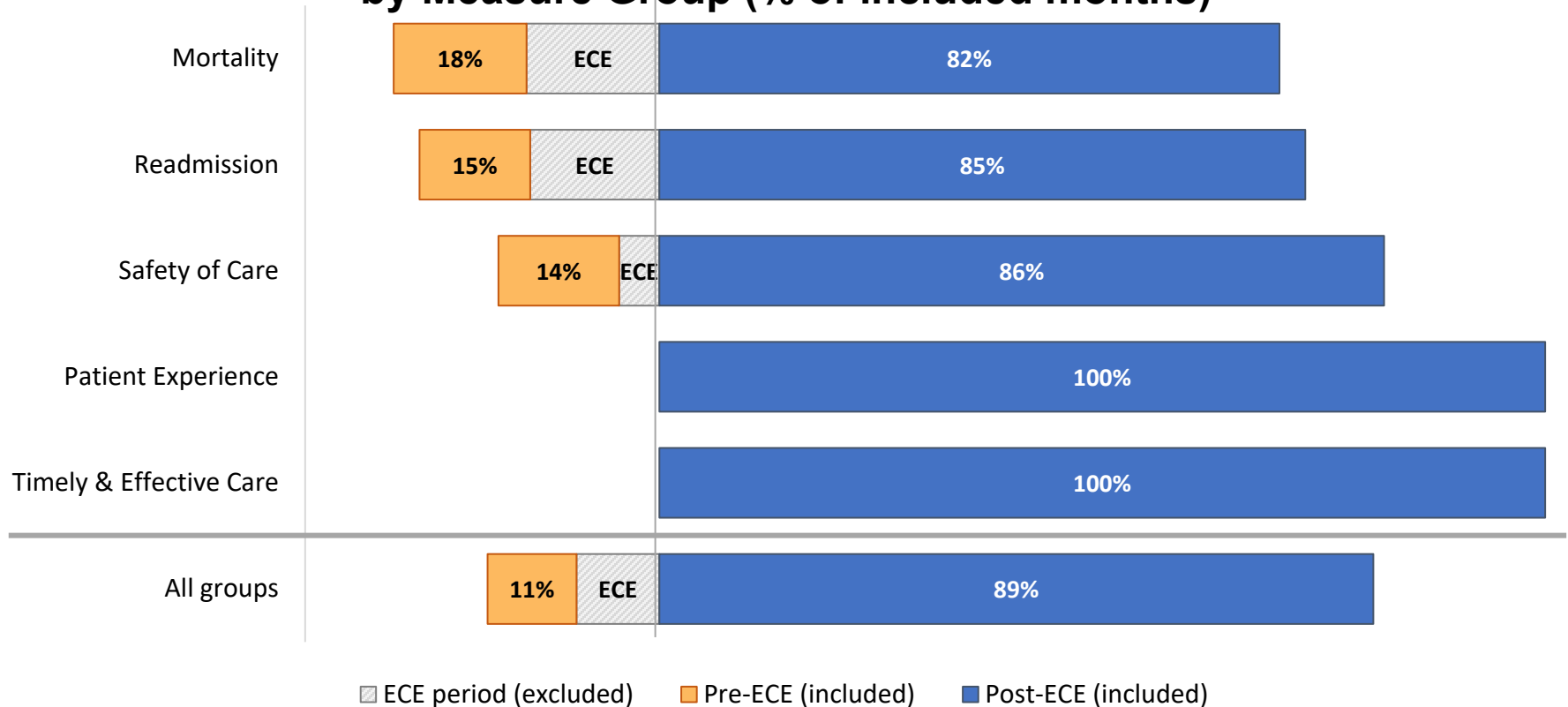
Measure Data Availability in 2023

**Measure Data Availability
by Measure Group (% of included months)**



Measure Data Availability in 2024

**Measure Data Availability
by Measure Group (% of included months)**



Number of Hospitals with a Star Rating

2023 Star Ratings:
3076 Hospitals

2024 Star Ratings:
2847 Hospitals

Compared to 2023 Star Ratings, a net of 229 fewer hospitals receive a Star Rating using January 2024 data.

- 265 hospitals no longer meet criteria* to have a Star Rating.
 - 27 hospitals no longer included in dataset.
 - 238 hospitals have data but no longer meet Star Rating criteria*.
- 36 hospitals newly meet criteria* for Star Rating.

*At minimum, 3 measures in each of at least 3 groups (including at least Mortality or Safety of Care)

Number of Hospitals with a Star Rating by Peer Group

Compared to 2023 Star Ratings, slightly fewer hospitals in the 3- and 5-measure group peer groups have a 2024 Star Rating.

Peer group	2023 Star Ratings (January 2023 Data)			2024 Star Ratings (January 2024 Data)		
	3	4	5	3	4	5
Total	194 (6.3%)	462 (15.0%)	2420 (78.7%)	115 (4.0%)	465 (16.3%)	2267 (79.6%)

Overall Star Ratings Distribution

Distributions of Star Ratings across all hospitals are very similar across 2023 and 2024 Star Ratings.

	2023 Star Ratings (January 2023 Data)	2024 Star Ratings (January 2024 Data)
1	250 (8.1%)	277 (9.7%)
2	668 (21.7%)	595 (20.9%)
3	872 (28.3%)	828 (29.1%)
4	803 (26.1%)	766 (26.9%)
5	483 (15.7%)	381 (13.4%)
Total	3076	2847

Star Ratings Distributions by Peer Group

Distributions of Star Ratings across peer groups are quite similar across 2023 and 2024 Star Ratings, especially for 2-, 3-, and 4-star hospitals.

Peer group:	2023 Star Ratings (January 2023)			2024 Star Ratings (January 2024)		
	3 (N=194)	4 (N=462)	5 (N=2,420)	3 (N=115)	4 (N=465)	5 (N=2267)
1-star	22 (11.3%)	25 (5.4%)	203 (8.4%)	3 (2.6%)	44 (9.5%)	230 (10.1%)
2-star	40 (20.6%)	84 (18.2%)	544 (22.5%)	24 (20.9%)	93 (20.0%)	478 (21.1%)
3-star	73 (37.6%)	128 (27.7%)	671 (27.7%)	36 (31.3%)	120 (25.8%)	672 (29.6%)
4-star	37 (19.1%)	130 (28.1%)	636 (26.3%)	35 (30.4%)	131 (28.2%)	600 (26.5%)
5-star	22 (11.3%)	95 (20.6%)	366 (15.1%)	17 (14.8%)	77 (16.6%)	287 (12.7%)

Why did hospitals drop out of 2024 Star Ratings?

- 238 hospitals with January 2024 data do not get a Star Rating but did have a 2023 Star Rating.
- These hospitals were less likely to report at least 3 measures in the Safety of Care and Mortality measure groups.

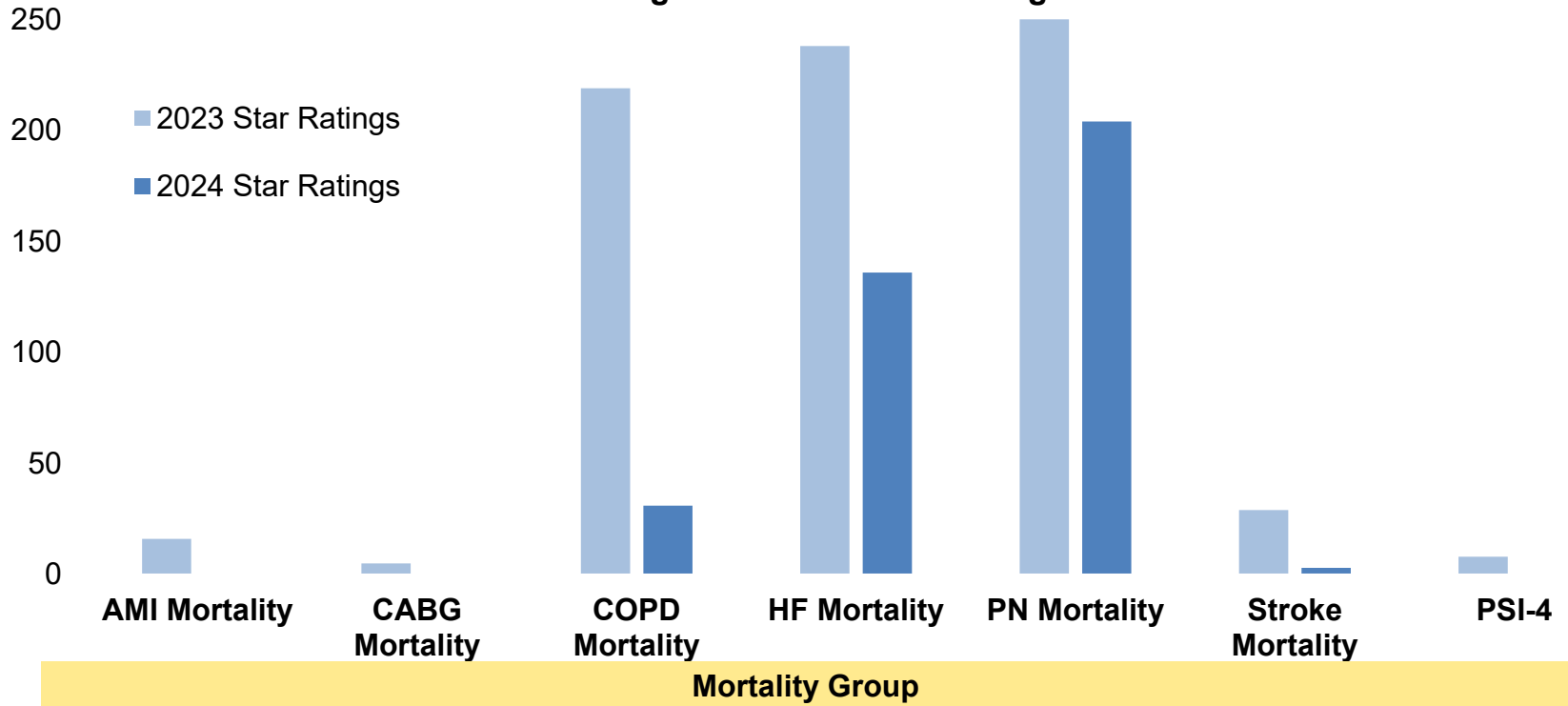
of Measures by Measure Group for Hospitals with Star Rating in 2023 and not 2024 (N=238)

Measure Group	2023 (January 2023 Data)					2024 (January 2024 Data)				
	Min	25th Pct	Median	75th Pct	Max	Min	25th Pct	Median	75th Pct	Max
Mortality	0	3	3	3	7	0	1	2	2	4
Safety	0	1	2	3	8	0	0	1	2	4
Patient Experience	2	5	5	7	11	0	3	4	5	9
Readmission	0	0	8	8	8	0	0	8	8	8
Timely/ Effective Care	1	5	7	8	12	0	5	7	8	11

Largest Drops for COPD/HF Mortality and Safety of Care

- Most hospitals with 2023 Star Ratings but no 2024 Star Ratings only had 3 Mortality measures in 2023.
- Lower reporting of chronic obstructive pulmonary disease (COPD) and/or heart failure (HF) Mortality are likely causing many of these hospitals to not meet Star Ratings reporting criteria.

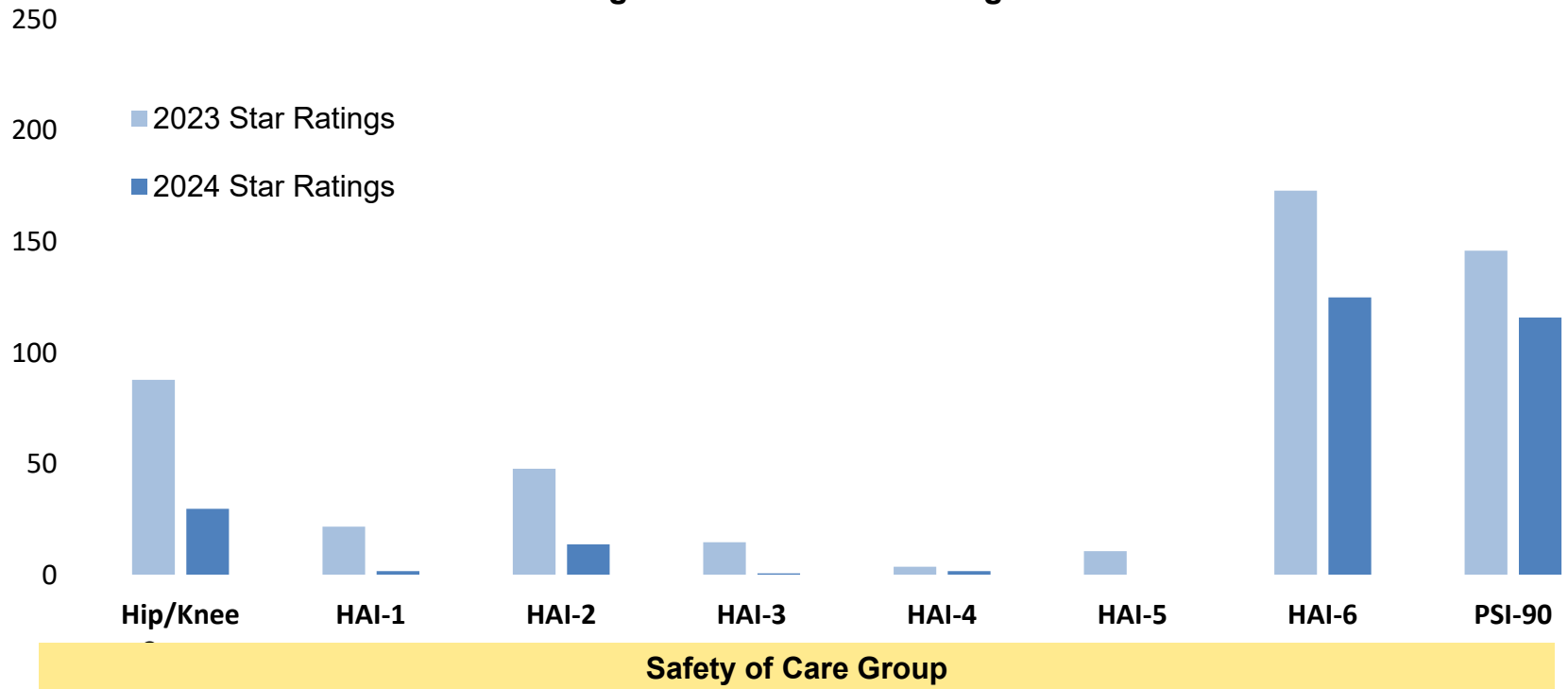
2023 vs. 2024 Mortality Measure Reporting Rates: Hospitals with a 2023 Star Rating but no 2024 Star Rating



Largest Drops for COPD/HF Mortality and Safety of Care

- Many hospitals with 2023 Star Ratings but no 2024 Star Ratings already had less than 3 Safety of Care measures.
- Additional drops in Safety reporting meant most of these hospitals could not have the 3+ measures in either Safety or Mortality needed to receive a Star Rating.

2023 vs. 2024 Safety of Care Measure Reporting Rates: Hospitals with a 2023 Star Rating but no 2024 Star Rating



Shifts in Peer Grouping between 2023 and 2024 Star Ratings

- Most hospitals, 2,604 (93%) remain in the same peer group in 2024 as 2023.
- Hospitals in Peer Group 3 and 4 less likely to remain in same peer group and more likely to no longer receive a Star Rating compared to those in Peer Group 5.

2023 Stars Peer Group	2024 Stars Peer Group				Total
	3	4	5	N/A	
3	77 (39.7%)	13 (6.7%)	0 (0.0%)	104 (53.6%)	194
4	23 (5.0%)	286 (62.0%)	25 (5.4%)	128 (27.8%)	462
5	2 (.08%)	144 (6.0%)	2241 (92.6%)	33 (1.4%)	2420
N/A	13 (.81%)	22 (1.4%)	1 (0.06%)	1569 (97.8%)	1605
Total	115	465	2267	1834	4681

Stayed in same peer group (2,604)

Went down 1 or more peer groups (169)

Went up 1 or more peer groups (38)

No longer received Star Rating (265)

Newly received Star Rating (36)

Shifts in Star Ratings Between 2023 and 2024 Star Ratings

Among 2,811 hospitals rated in 2023 and 2024, 1,432 (51%) kept their same rating, 607 (22%) increased by one star, and 772 (27%) decreased by one star.

2023 Star Rating	2024 Star Rating						Total
	1	2	3	4	5	N/A	
1	139 (55.6%)	71 (28.4%)	12 (4.8%)	3 (1.2%)	0 (0.0%)	25 (10.0%)	250
2	117 (17.5%)	295 (44.2%)	175 (26.2%)	23 (3.4%)	3 (0.45%)	55 (8.2%)	668
3	19 (2.2%)	171 (19.6%)	372 (42.7%)	207 (23.7%)	19 (2.2%)	84 (9.6%)	872
4	2 (0.25%)	48 (6.0%)	226 (28.1%)	370 (46.1%)	94 (11.7%)	63 (7.8%)	803
5	0 (0.0%)	1 (0.21%)	37 (7.7%)	151 (31.3%)	256 (53.0%)	38 (7.9%)	483
N/A	0 (0.0%)	9 (0.56%)	6 (0.37%)	12 (0.75%)	9 (0.56%)	1569 (97.8%)	1605
Total	277	595	828	766	381	1834	4681

Maintained same Star Rating (1432)

Went down 1 or more stars (772)

Went up 1 or more stars (607)

No longer received Star Rating (265)

Newly received Star Rating (36)

Summary

- The large majority of data used in the 2024 Star Rating are post-COVID-19 ECE waiver period.
- A net of 229 fewer hospitals received a Star Rating, continuing a trend observed previously of fewer hospitals reporting sufficient measure information to be eligible for a Star Rating.
- Decreases in COPD/HF Mortality & Safety measure reporting are the main drivers for hospitals dropping out of Star Ratings and shifting peer groups.
- Peer grouping assignment and Star Ratings were fairly stable from 2023 to 2024.

Kyle Bagshaw, MPH
Project Lead, YNHHS/CORE

FAQs About Star Ratings

FAQ #1

Why are Star Ratings not released in the same quarterly refresh each year?

The Timing of Star Ratings

- CMS has selected refresh criteria within the bounds of rulemaking (once every year, with data from within the previous 12 months) that maximize available information consistent with principles.
- For the 2024 Star Rating, we picked a data period that:
 1. **Maximizes** the number of hospitals eligible.
 2. **Minimizes** impact of pre-covid or ECE data.
 3. **Accommodates** any individual measure updates and recalculations.
- The October 2023 PSI-90 measure refresh was delayed to January 2024.

FAQ #2

Why are Star Ratings peer grouped based on the number of measure groups rather than any other hospital characteristics?

Peer Grouping

- Peer grouping was introduced to the Star Ratings methodology in 2021 with the goal of making like-to-like comparisons among hospitals in the program.
 - Peer measure groups correspond to hospital differences (e.g., size, volume, case and service mixes).
- Hospitals by peer measure group:
 - 3 measure peer group – 115 (4.0%)
 - 4 measure peer group – 465 (16.3%)
 - 5 measure peer group – 2,267 (79.6%)

Peer Grouping

- Compared to the 5-measure peer group, fewer hospitals in the 4-measure peer group have at least 3 measures in either Mortality or Safety of Care.
- Compared to the 4-measure peer group, fewer hospitals in the 3-measure peer group have at least 3 measures in either Readmission or Patient Experience.

Peer Group	% of Hospitals Reporting Group for July 2024 Star Ratings (January 2024 data)				
	Mortality	Safety of Care	Readmission	Timely & Effective Care	Patient Experience
3 Measure Groups (N=115)	66 (57.4%)	51 (44.3%)	75 (65.2%)	107 (93.0%)	46 (40.0%)
4 Measure Groups (N=465)	318 (68.4%)	157 (33.8%)	464 (99.8%)	462 (99.4%)	459 (98.7%)
5 Measure Groups (N=2267)	2267 (100%)	2267 (100%)	2267 (100%)	2267 (100%)	2267 (100%)

Peer Grouping

- Hospitals in the 5-measure peer group are more likely to be larger teaching hospitals, Disproportionate Share Hospitals (DSH) payment eligible, non-critical access hospitals (CAHs) and non-safety net compared to hospitals in the 3-measure and 4-measure peer groups.

	Total Number of Hospitals (N=4626)	3 Measure Peer Group (N=115)	4 Measure Peer Group (N=465)	5 Measure Peer Group (N=2267)	Unrated (N=1779)
Non-CAH	3286	82 (71.30%)	343 (73.76%)	2258 (99.60%)	603 (33.90%)
Non-Safety Net	3239	75 (65.22%)	332 (71.40%)	1843 (81.30%)	989 (55.59%)
DSH Payment Eligible	2719	54 (46.96%)	260 (55.91%)	2027 (89.41%)	378 (21.25%)
Teaching (>=100) residents	274	1 (0.87%)	6 (1.29%)	266 (11.73%)	1 (0.06%)

FAQ #3

Do hospitals influence Star Ratings by choosing which measures to report?

Public Reporting

- Hospitals participating in CMS programs are required to collect data for measures reported [Care Compare on Medicare.gov](https://www.medicare.gov).
- Each underlying measure has established thresholds (such as minimum case count) for a hospital's score to be publicly reported to ensure reliable measurement.
- If a hospital does not meet threshold for a measure:
 - Its score is not reported publicly.
 - Its score does not factor into Star Ratings.
- However, in general, hospitals do not have a choice in measures for which their data is collected.

FAQ #4

Why did my hospital's Star Rating change?

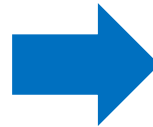
Changes in Star Ratings

- Many hospitals (51%) got the same Star Rating in 2024 as 2023.
- The Star Rating can change when a hospital's performance on underlying measures shifted *relative to its peers*:
 - It may have performed better or worse than the prior year.
 - It may have performed similarly but its peers collectively performed better or worse.
 - Shifts in groups or measures with greater weight will be more likely to result in Star Rating changes.
- Hospitals initially closer to cutoff between ratings may be more susceptible to shifts.
- Change in peer group assignment results in comparison to different peers.

Changes in Peer Groups

- Most hospitals (93%) are in the same peer group as last year, but some move to a higher or lower peer group.
- Hospitals may shift based on reporting of individual measures:
 - Meeting or not meeting measure-level requirements such as case counts or minimum sample size.

- ✓ 5 Mortality measures
- x **2 Safety measures**
- ✓ 4 Readmission measures
- ✓ 8 Patient Experience measures
- ✓ 4 Timely & Effective Care measures



- ✓ 5 Mortality measures
- ✓ **3 Safety measures**
- ✓ 4 Readmission measures
- ✓ 8 Patient Experience measures
- ✓ 4 Timely & Effective Care measures

2023: Peer Group 4

2024: Peer Group 5

- The Star Rating is designed to be flexible as the universe of hospitals and quality information evolves.

Dawn Beard, LPN

Clinical Analyst II, Star Ratings Lead, Lantana Consulting Group

Implementation

2024 Implementation

- Hospital-Specific Reports are scheduled to be available on May 3.
- The preview period scheduled for May 6–June 4.
- The 2024 Star Ratings go live is scheduled for July 31.

Thank You

- For more information regarding Star Ratings, visit <https://qualitynet.cms.gov/inpatient/public-reporting/overall-ratings>.
- Please submit additional questions to the [QualityNet Question and Answer Tool](https://cmsqualitysupport.servicenow.com/qnet_qa):
https://cmsqualitysupport.servicenow.com/qnet_qa

Overall Hospital Quality Star Ratings: July 2024 Refresh

Questions

Continuing Education Approval

This program has been approved for [continuing education credit](#) for the following boards:

- **National credit**
 - Board of Registered Nursing (Provider #16578)
- **Florida-only credit**
 - Board of Clinical Social Work, Marriage & Family Therapy and Mental Health Counseling
 - Board of Registered Nursing
 - Board of Nursing Home Administrators
 - Board of Dietetics and Nutrition Practice Council
 - Board of Pharmacy

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