Hospital Inpatient Quality Reporting (IQR) Program

Inpatient Value, Incentives, and Quality Reporting (VIQR) Outreach and Education Support Contractor

Overall Hospital Quality Star Ratings: July 2023 Refresh Presentation Transcript

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Donna Bullock: Hello, and welcome to today's event, *Overall Hospital Quality Star Ratings: July 2023 Refresh*. My name is Donna Bullock. I am the Hospital Inpatient Quality Reporting Program support contractor lead from the Inpatient Value, Incentives, and Quality Reporting Outreach and Education Support Contractor. I will be the moderator for today's event. Before we begin, I would like to make a few announcements. This program is being recorded. A transcript of the presentation, along with a question-and-answer summary, will be posted to the Quality Reporting Center website in the upcoming weeks. That website is www.QualityReportingCenter.com.

If you registered for this event, a link to the slides was sent out a few hours ago. If you did not receive that email, you can download the slides from the Quality Reporting Center website. This webinar has been approved for one continuing education credit. Please stand by after the event. We will display a link for the survey in the chat box. You will need to complete this survey in order to obtain continuing education credit. The survey link will not be available if you leave the event early. So, if you do need to leave prior to the conclusion of the event, use the survey link that will be sent to you in the summary email within one to two business days after the webinar. This email will contain a link to the survey, along with the information about how to obtain continuing education credit. If you did not register for the event, you may obtain that email from someone who did register. If you have questions as we move through the webinar, please type the question into the Ask A Question window. Be sure to include the associated slide number. We will answer questions as time allows after the event.

Our speakers today are Michelle Schreiber, MD, Deputy Director, Center for Clinical Standards and Quality, Director, Quality Measures and Value-based Incentives Group, Centers for Medicare & Medicaid Services; Arjun Venkatesh, MD, MHS, Project Director, Yale New Haven Health Services Corporation/Center for Outcomes Research and Evaluation; Cameron Gettel, MD, MHS, Project Lead, Yale New Haven Health Services Corporation/Center for Outcomes Research and Evaluation; Kyle,

Bagshaw, MPH, Project Lead, Yale New Haven Health Services Corporation/Center for Outcomes Research and Evaluation; and Dawn Beard, LPN, Clinical Analyst II, Star Ratings Lead, Lantana, Consulting Group.

The agenda for today's event is as follows: the introduction, Overall Star Ratings background, 2023 Star Ratings, clarifications about Star Ratings, and 2023 implementation.

This slide is a reference to the acronyms and abbreviations that may be used during today's event.

I will now turn the presentation over to Dr. Michelle Schreiber. Dr. Schreiber, the floor is yours.

Michelle Schreiber: Thank you so much. Hello, everyone. On behalf of the Centers for Medicare & Medicaid Services, I would also like to welcome you to today's 2023 Hospital Stars National Provider Call. As you heard, I am Dr. Michelle Schreiber. I'm the Deputy Director for the Center for Clinical Standards and Quality at CMS. We're really very glad that you've joined us for today's presentation. As you know, CMS has utilized the Hospital Stars methodology for a number of years in order to provide to consumers an easily understandable summary score of many hospital quality measures. Several years ago, we updated the methodology for the Hospital Stars calculations. This methodology has been successfully applied for the second time after the onset of the COVID-19 pandemic, which we believe demonstrates the resilience of the approach in the changing environment. CMS continues to actively serve it to do active surveillance, to understand the impact of COVID-19 t on the star calculation, and how those may affect future changes. In addition, we also and always consider other possible changes to the methodology, such as how to best support safety and equity, but, for today, there are no changes to announce. As you know, any proposed changes, as always, will be carefully analyzed and include opportunities for comment. Along those lines, CMS does continue to seek stakeholder comments and feedback through multiple channels to provide hospitals, patients, and other

important stakeholders with meaningful opportunities to contribute to the ongoing evolution of the Hospital Star Rating Program. Once again, thank you for joining us today. It is my pleasure now to turn the presentation over to Dr. Arjun Venkatesh to continue today's session. Arjun?

Arjun Venkatesh: Thank you, Dr. Schreiber. Thank you all for having me today. My name is Arjun Venkatesh. I'm at Yale/CORE, where I've helped lead the Overall Hospital Quality Star Ratings work since 2015.

I wanted to take a minute to give an overview of our project and a reminder about the history of our work in the methodology. Our objective has always been to develop a methodology to summarize and measure information on Care Compare in a way that is useful and easy to interpret for patients and caregivers. The first confidential reporting period or dry run for the Star Rating dates back to 2015, and the first public reporting of Overall hospital Quality Star Ratings began in 2016. We've had several updates the methodology over the years with the current methodology being used since 2021. On national provider calls, similar to this one last year, we shared data showing the impact of the CMS COVID-19 exceptions on Star Ratings. Today is an opportunity to see data, this year's refresh, as well as to better understand the impact of the pandemic on Star Rating and the methodology.

Our guiding principles for our work have remained largely unchanged since its inception. Our goal has been to develop methods that are scientifically valid, that are inclusive of hospitals and measure information, that account for the heterogeneity of available measures in hospital reporting on Care Compare, and that can accommodate changes in the underlying measures and evolve over time. Our aim has been to ensure that the Star Ratings are aligned with the Care Compare website and with other CMS programs to ensure that there's both alignment across incentives for hospitals but also across settings and programs. We've also sought to be transparent with our methods, frequently publishing methodology report datasets and even SAS code packs to replicate the results. Finally, we have sought to be responsive to stakeholder input to a variety of different communications and engagement vehicles.

This historical timeline is busy, but it shows the extent to which we have vetted the methods and engage stakeholders in this process since the beginning of this work. We have held numerous Technical Expert Panel meetings, almost eight in total. We have converged two workgroups, one comprises the patient and patient advocates, another comprises providers and many hospital health system leaders from around the country. Those workgroups have met numerous times to reflect on the methodology and guide our implementation. We hosted multiple National Provider Calls, similar to today's, often with each refresh of the Star Ratings and with every change in the methodology. We have also posted public comment periods to solicit feedback, and, most recently and importantly, entered star ratings into a regulatory framework through rulemaking as of 2021.

Permit me, here, to speak briefly about the methodology, for those who have not had a chance to review it, and then we'll get into some of the newer results.

The current Star Ratings methodology is version 4.1. It follows seven steps. In Step 1, measures on Care Compare are selected for inclusion and Star Ratings, and scores are standardized so that they can be combined with each other. In Step 2 of the methodology, those measures, 46 in this refresh period, are grouped into five major groups. These outcome groups are Mortality, Safety of Care, and Readmission, Patient Experience, and then one group of process measures in Timely & Effective Care. For each of those groups, a separate group score is calculated as a simple average of the available measures in that group. Then, in Step 4, each of the available group scores are combined into a single hospital summary score based on policy-based ways in which outcome groups and patient experience are weighted at 22 percent and Timely & Effective Care is weighted at 12 percent. After the hospital summary scores are obtained, we apply the reporting threshold. In order for a hospital or to receive a Star Rating, they must report three measures in at least three groups, and one of those groups must be mortality or safety, given the importance of those two outcome groups to patients and caregivers. In Step 6 of the methodology, those hospitals that meet the reporting threshold are grouped into three

peer groups, based on the number of measure groups for which they have three measures of available information. The vast majority of hospitals have always been, and will be, in the five-measure group. They have more information available. Within each of those groups in Step 7, a k-means clustering algorithm is used to assign a Star Rating that compares hospitals to other hospitals in the same peer group that have like information. Those hospital Star Ratings are ultimately reported to the hospitals now, during the preview period, and then ultimately refreshed on Care Compare.

The 2023 Star Rating methodology is largely the same. We're using the same methodology is what was used in 2021 and 2022 Star Ratings. It has been vetted and approved in rulemaking. What is new is that Veterans Health Administration hospitals are now eligible to receive a Star Rating. Often, quality information from these hospitals was included in the underlying dataset, but VHA hospitals did not receive ultimate Star Ratings. In addition, there are two measure-level changes. One is a retirement, and one is an addition of a measure, as our Star Ratings are always meant to reflect the individual measure data that is being reported on Care Compare.

I'll briefly show our team here and then turn it over to Dr. Gettel. In addition to myself, you'll see we have a large team of analysts, as well as project managers, and many who have supported this work over the years. I think that their work has really helped ensure that we've been able to adhere to those guiding principles and support CMS.

I'll turn it over to Dr. Gettel.

Cameron Gettel: Thank you, Dr. Venkatesh. I'm going to pick up where he left off and talk about the 2023 Star Ratings. As Dr. Venkatesh mentioned, there are several things that are similar in the 2023 Star Ratings when compared to 2022. This slide identifies those that are the same, as well as those that are different. As Dr. Venkatesh mentioned, the overall methodology Version 4.1 is the same as in 20 23 as it was in 2022. All measure groups also still contain many measures without retirement.

What's different in 2023 is that CMS is re-evaluated and respecified individual measures, if necessary, due to COVID-19. On a related note, there's greater data availability in 2023, compared to 2022 as a result of the Extraordinary Circumstance Exception, or the ECE, which we will get into in the coming slides. Finally, again, as Dr. Venkatesh mentioned, the VA, the Veterans Hospitals, are now eligible to receive an Overall Star Rating for the first time.

The ECE impact is identified on this slide. The percentage of included data months in each measure group that was collected after June 30, 2020, is shown on the slide for both 2022, on the left, and 2023, on the right. The ECE period was January 1, 2022, June 30, 2020. We can see that, in 2022, there were several measure groups that had no data month after June 30, 2020. However, in 2023, much more of the data month and the data availability is after that COVID-19 ECE period. Several measure groups, Patient Experience and Timely & Effective Care, as identified on the slide, have 100 percent of their data availability beyond the ECE period. In total, 68 percent of all data months across all measures and across all measure groups, within the 2023 Star Ratings, were collected after the ECE period.

This slide is another data visualization and presentation of what was presented on the prior slide. On the right, in the blue, we can see those data months that are after the ECE period, again, stratified by each of the measure groups. In total, at the bottom, 68 percent are after the ECE period, and 32 percent of the data months still remain before the ECE. However, this is markedly increased in comparison to 2022.

What does this mean for Star Ratings in the COVID-19 world? As of January 2023 Care Compare data, most star rating measures have data periods that are entirely post-June 2020. The July 2023 release may represent a new normal for Star Ratings.

Now, getting into the data, here is a little bit more about the 2023 Star Ratings; 2022 Star Ratings included 3122 hospitals. The 2023 Star Ratings included 3076 hospitals. A net of just 46 fewer hospitals received a Star Rating in 2023.

This included 236 hospitals that no longer met criteria to have a Star Rating. Of those, 27 hospitals no longer were included in the dataset, potentially due to mergers or hospital closures, and 209 hospitals had data, but they were no longer meeting Star Rating criteria. On the inflow, 190 hospitals newly met criteria for Star Ratings, therefore, representing the net of 46 fewer hospitals receiving a 2023 Star Ratings.

Now, looking at the hospitals with Star Ratings by peer group, on the left, you can see in a light blue, the 2022 Star Ratings, based on July 2021 data. On the right and in dark blue, you can see 2023 Star Ratings, based on January 2023 data. The vast majority of hospitals that never see Star Ratings in both years were within peer group five, over three quarters, in fact, and that remained stable across the two years. Compared to 2022 Star Ratings, however, there were slightly fewer hospitals in the three and four group peer groups, as shown on the slide.

The overall distribution of the Star Ratings also has maintained stability between 2022 and 2023. For both years, you can see when the majority of hospitals received a two, a three, or a four-star rating. That, again, maintained stability across the years.

Looking at the data on a little bit deeper level, this slide shows the Star Ratings distribution by peer groups. On the left is the 2022 Star Ratings, again stratified by the peer group, 3, 4, and five in the columns. On the right are the 2023 Star Ratings, again, stratified by peer groups. Each cell shows the number of hospitals that received that number of stars. Across the years, the distribution between two and three stars in yellow and gray, respectively, were similar as an example. Another key point from this slide is the majority of hospitals, again, were in peer group five. In looking at the distributions, between 2022 and 2023, again, they were stable as to how many and what proportion received one star, two stars, three stars, four stars, and five stars between the years.

In the next slide, look at hospitals that dropped out of 2023 Star Ratings, particularly. As I mentioned on the previous slide, or the earlier slide,

there were 209 hospitals that had January 2023 data, but they will not receive a Star Rating in 2023, despite them receiving a Star Rating in 2022. There were two main reasons why these hospitals "dropped out" of Star Ratings. The first, you can see in yellow, is related to the mortality measure group. In 2022, of these 209 hospitals, over 75 percent reported at least three mortality measures, therefore, meeting the three measure criteria for that measure group to be included. Conversely, in 2023, the number of measures reported was less than three or four. For over 75 percent of these hospitals, at least 209 hospitals, therefore, did not meet the criteria for this measure group to be included. Patient Experience is also shown in yellow. In 2022, over 50 percent reported at least, of these 200 hospitals, reported at least eight measures. Therefore, again, they meet criteria for this measure group to be included. However, of these 209 hospitals, in 2023, more than half did not report the required, at least three measures, for the measure group to be included.

This slide expands upon the prior slide, and it looks at the specific measures in a more granular fashion. On the left are mortality group measures and, on the right, are the Patient Experience measures that I mentioned on the prior slide. In the light blue bars are the 2022 Star Ratings and the proportion of hospitals that reported that individual measure. In the dark blue are the same measures, but for the 2023 Star Ratings. One key point from this slide is the COPD mortality measure, which, among these 209 hospitals, over 90 percent reported that measure in 2022 Star Ratings. However, about 20 percent of those 209 hospitals still reported that same measure within 2023 Star Ratings. Again, another mortality measure was heart failure, which saw a decline for 2022 to 2023 reporting. Similarly, to the right side of the screen, the HCAHPS measure had approximately 60 percent of these hospitals reporting the measure in 2022. About 40 to 45 percent report the measure within 2023 Star Ratings.

Between 2022 and 2023 Star Ratings, there were shifts in peer grouping. However, about 86 percent remained in the same peer group from year to year, and that is shown in the purple, diagonal from top left to bottom right.

Again, with most hospitals being within peer group five, we can see that 95 percent, from 2022 to 2023, of peer group five hospitals remained within peer group five.

There were slight shifts between 2022 and 2023 Star Ratings. Again, on the diagonal purple, approximately 45 percent of the hospitals maintained the exact same star rating. That was 1358 hospitals. There were several hospitals, 727 for example, that went up one or more stars, as shown in the light blue. There were 801 hospitals in the pink that went down one or more stars from 2022 to 2023. We can also see on this slide, the light yellow at the bottom of the screen, the 190 hospitals that newly received a Star Rating, as mentioned on an earlier slide. In orange on the right, there were 236 that no longer will receive a Star Rating in 2023, despite them receiving one in 2022.

In summary, only 46 fewer hospitals will receive an Overall Star Rating in 2023 than in 2022. This is the smallest decrease from year-to-year comparisons between Star Rating refreshes. The decreasing COPD cohort size is one of the main reasons for hospitals dropping out of Star Ratings and some of the shifts we saw in peer grouping. We finally anticipate that the results reflect the new baseline for Star Ratings moving forward, given the ongoing impact of COVID-19 and the ECE policy, which I presented.

I will turn it over to Kyle Bagshaw for the final portion.

Kyle Bagshaw: Thank you, Dr. Gettel, I'm now going to offer a few clarifications about the Overall Star Ratings and respond to some common stakeholder questions. The first common question is: Why are Star Ratings not released in the same month each year?

CMS considers many factors in the decision of when to release Star Ratings each year, using criteria within the bounds of rulemaking to maximize the available information, consistent with the Overall Star Rating guiding principles. For example, the 2022 Star Ratings use data published on Care Compare as of July 2021, resulting in 3122 hospitals receiving a Star Rating that year.

If July 2022 Care Compared data were similarly used to calculate the 2023 Star Rating, it would have resulted in many fewer hospitals receiving a Star Rating, just 2436 across all peer groups. This was primarily due to suppression of pneumonia and patient safety indicator measure scores in the July 2022 data. Instead of using January 2023 data with scores for those measures no longer suppressed, results in a similar number of hospitals, 3076, receive a star rating, as did in 2022. CMS, therefore, decided to calculate the 2023 Star Rating, using the January 2023 Care Compare data, to be most inclusive of hospitals and measure information.

The second common question is: Why are Star Rating peer groups based on the number of measure groups reported, rather than any other hospital characteristics?

Here, grouping, based on this methodology on the number of measure groups with at least three measures reported by each hospital, was introduced to the Star Ratings methodology in 2021 with the goal of making more like-to-like comparisons among hospitals. These peer groups correspond with differences based on other hospital characteristics, such as size, volume, case or service mix, while reflecting patterns in the measure information available for comparison. In 2023 Star Ratings, 194 hospitals, or 6 percent of those with Star Ratings, fall into the three-measure group peer group; 462, or 15 percent, into the four-group peer group; and 2420, or 79 percent, into the five-group peer group.

This table shows the number of hospitals in each peer group with at least three measures in each measure group. By definition, all hospitals in the five-measure group peer group do have at least three measures in each group. In comparison, we see that among those in the four-group peer group, 73 percent have three-plus mortality measures, and just 30 percent have three-plus safety measures. On the other hand, more than 97 percent have at least three measures in each of the three remaining groups. That is, the key difference between peer group four and peer group five hospitals is the availability of information and the Mortality and Safety of Care measure groups.

Similarly, we see that hospitals in peer group three are less likely to have at least three measures in either Readmission or Timely & Effective Care groups than do those in peer group four. Overall, this shows how peer grouping in this way reflects key differences in measure reporting patterns between hospitals in each of the peer groups.

We can see that grouping based on measure information in this way corresponds to other hospital characteristics. For example, hospitals in the five-measure peer group are more likely to be non-critical access, non-safety net, DSH Payment Eligible, and/or large teaching hospitals. As shown in this table, 99 percent of peer group five hospitals are non-critical actors, compared to just around 65 percent among peer groups three and four and just 32 percent among hospitals with too few measures to receive a Star Rating. Similarly, we see that 87 percent of peer group five hospitals are non-safety net versus 45 or so percent for those in the other peer groups; 78 percent of peer group five hospitals are DSH Payment Eligible versus 64 percent or so. Ten percent of peer group five hospitals are large teaching hospitals compared to less than 2 percent in the other peer groups. While the peer groups are not exactly the same as any of these characteristics, that does allow that Star Rating to reflect the heterogeneity within those characteristics by making comparisons between hospitals with similar availability of information.

Finally, the last common question is: Can hospitals influence their Star Ratings by choosing which measures to report?

Hospitals participating in CMS programs are required to collect data for measures reported on Care Compare. Each underlying measure has established thresholds, such as minimum case count, for a hospital score to be publicly reported to ensure reliable measurement. If the hospital does not meet thresholds for a measure, its score is not reported publicly and does not factor into Star Ratings. However, in general, hospitals do not have a choice in measures for which their data is collected and reported, and their scores for all measures for which they meet the pre-established reporting thresholds will be factored into their Star Rating.

I would like now to introduce Dawn Beard of Lantana to present some final information related to implementation of the upcoming 2023 release of the Star Ratings.

Dawn Beard: Thank you, Kyle. We would like to highlight a couple of the implementation dates for the 2023 Overall Star Rating publication. The first is on my May 2, CMS intends to have the July 2023 Hospital Specific-Reports, also known as HSRs, available. For the first time, the HSR can be accessed directly from the Hospital Quality Reporting System and will not be accessed by the Manage File Transfer application. We intend to post the instructions on how to access the Star Ratings HSR on the QualityNet Star Ratings Hospital-Specific Report web page for reference, as well as it will be included in the HSR announcement that will be sent out on May 2 when the reports are sent. Second, the July 2023 preview period will begin on May 3 and continue through midnight on June 1. As a reminder, it's the intention of the preview period for providers to review the Star Ratings data prior to being publicly reported on Care Compare. The preview period is not a review and correction period, where providers can send corrected data, as the data included in the calculation has already been publicly reported in January 2023. Lastly, CMS intends to publish the July 2023 Overall Star Rating on Care Compare on July 26. However, please note, release dates are subject to change at CMS discretion.

This slide provides links for resources for providers. CMS provides resource documents to support the release of Overall Star Ratings. These documents are the Comprehensive Methodology Report, the Quarterly Updates and Specification Report, a Mock HSR, a user guide, and the Frequently Asked Questions document. These documents can be found on the QualityNet Overall Star Ratings web pages. These documents are also updated every time we release Overall Star Ratings. Questions concerning Overall Star Ratings can be submitted to the team by using the Quality Net Question and Answer Tool. Once logged into this, under the Program drop-down, please select Overall Hospital Star Ratings, and then choose your specific topic.

This will ensure that your questions are sent directly to our Star Rating team. Now, I'll turn it back over to Donna for our question-and-answer portion of the call.

Donna Bullock: Thank you, Dawn. We now have time for some questions. Please type your question into the Ask A Question window, and be sure to include the associated slide number. Our first question is: Will PSI-90 be part of the 2023 Star Ratings. CMS chose to withheld the FY 2024 rate for VBR.

Arjun Venkatesh: Hi, this is Arjun. Thanks for that question. A few things can help answer that: One, in prior rulemaking, it has been sort of indicated that the metric inclusion and exclusion criteria for Star Ratings are well set, and they are separate of payment determinations. So, in following that, if PSI-90 is part of a refresh, and it is included in the January 2023 refresh, then, based on the inclusion and exclusion criteria for Star Ratings, the measure would be included as it has been in the past.

Donna Bullock: Thank you very much. We'll move on to our next question. How are peer groups determined, as seen in Step 6 of Star Ratings methodology?

Arjun Venkatesh: So, the peer grouping methodology was first introduced in version four of the methodology in 2021. It's now been through several iterations of implementation and refresh, and that methodology is one that's based on grouping hospitals based on the available measure information. So, hospitals are grouped into either a three-measure peer group, four-measure peer group, or five-measure peer group, based on the number of measure groups in which they have three measures. After that peer grouping, the k-means clustering is applied, so that hospitals are compared to like hospitals with respect to their available information for Star Ratings.

Donna Bullock: Thank you. Our next question is: What measure is OP-30, that was retired?

Arjun Venkatesh: I'm going to defer to our team on this one because I believe that may be a typo in the presentation. Does someone from the LT team want to jump in?

Kyle Bagshaw: Hello. This is Kyle. Yes, that's correct. It was a typo. It should have been OP-33, the percentage of patients receiving appropriate radiation therapy for cancer that has spread to the bone. So, that measure has been retired.

Donna Bullock: Thank you. Here's our next question. For hospitals that don't meet minimum reporting threshold for all five groups, using the three-group peer group, can you confirm this would include hospitals that meet the three-group minimum, but have less than three measures in one or two of the other measure groups?

Arjun Venkatesh: Sure. So, the measure reporting threshold sets a minimum amount of information as the questioner asks, which is that it requires three measure groups, each of which must include three measures, and that must include mortality or safety. Sorry. It is true that if a hospital has additional measure groups with fewer than three measures, those scores are counted towards their hospital summary score, and, in turn, the Star Ratings.

That is consistent with prior analyses and prior communications that have actually put this question out to both public comment, examined the impact of including those additional measures, and ultimately concluded, based on input from a variety of workgroups, TEPs, stakeholders, that being inclusive of those measures is most consistent with the guiding principles for Star Ratings, to include as much measure information that's available, so that, as patients, families, and caregivers, look at Star Ratings on Care Compare, they reflect the most number of measures that are available for that given hospital in the Star Ratings.

Donna Bullock: All right. Thank you. Would submitting more measures than the minimum be more favorable to increase our scores?

Arjun Venkatesh: So, in general, the submission of measures is not a voluntary decision. I know we presented some of that in the earlier slide around this. In general, whether or not measures are available for a given hospital is less a voluntary decision as opposed to whether or not the hospital's case mix and service mix meet the minimum criteria or minimum case counts for each individual measure.

So, in most cases, hospitals that have a sufficient number of cases to report an individual measure are required to do so because of programmatic requirements. In turn, those measures are reported on Care Compare and available for Star Ratings.

Donna Bullock: Great. Thank you very much. Is January 2023 the quarterly Care Compare reporting? Sorry. Is January 2023 the quarterly Care Compare reporting being used for the July 2023 Hospital Overall Star Ratings?

Arjun Venkatesh: Yes, that's correct that the January 2023 refresh is being used for the July publication of Star Ratings. This is consistent with what's been in prior rulemaking, as well as prior refreshes. What that allows for is to ensure that the Star Ratings, when calculated, allow for any of subsequent changes, modifications, edits that might occur within individual measures. That ensures that there's more predictability around Star Ratings. As well, it allows for hospitals to see individual measures refreshed, understand those, assess score changes, and then have some better anticipation for subsequent star refreshes.

Donna Bullock: Thanks so much. Our next question: When will the next Star Rating be available?

Arjun Venkatesh: As indicated in the presentation, the Star Ratings should be refreshed as part of the July 2023 refresh. That is usually preceded by the preview period, and those preview reports will include detailed information about the Star Ratings, as they happened in prior reporting periods. I'll defer to others on the call who have an exact date or some guidance around the preview reports.

Dawn Beard: Arjun, this is Dawn. Thank you. Again, as we mentioned, CMS intends to open review on May 3. Also, the HSRs will be opened or should be available on May 2. Again, those dates may change at CMS discretion.

Donna Bullock: Thanks, everyone. Our next question, slide 19: How are hospitals put into peer groups? Where do you find that information?

Arjun Venkatesh: I think this is consistent with the prior question around the peer group in methodology. In general, for a given hospital to see or understand their own peer group assignment, it's probably best to look at a preview report for a given reporting period. We understand that hospitals may have more cases and have more measures reported one period versus another. So, it's really important to look at your report for a given reporting period. In that, look at which measure groups your hospital has greater than three measures, and, if there are three of the groups, four of the groups, five of the groups, that helps you determine how your hospital is assigned to a given peer group.

Donna Bullock: Thank you very much. Slide 17, the July 2023 release may represent a "new normal" for Star Ratings. Does this mean that we should expect yearly refreshes in July moving forward?

Arjun Venkatesh: The "new normal" here was really with respect to the pandemic and available measure information. As a reminder to those who saw the slides before, the prior Star Ratings refresh really included more measure-level information from before the pandemic because individual measure periods are specified at the individual measure level. In this July 2023 release, the vast majority of information, now measure-level information, is from after the start of the pandemic and after the data exception. So, that's really what the "new normal" is with respect to. I think, in the future, it has sort of been the general cadence that CMS has published Star Ratings on an annual basis. Within the rule, there is latitude to use a measurement period from the preceding year, and that has really been used in order to optimize both and balance, I should say, the availability of current information in the Star Ratings, while also sort of minimizing some of the unintended impacts that COVID-19 may have had on measure scores. So, I think that that general cadence and sort of adhering to those principles that are in the rule will be the path going forward. I'll leave it to CMS if there is sort of anything else they wanted to add.

Michelle Schreiber: Arjun, thank you. It's Dr. Schreiber. We think that the annual cadence works well and agree that this now really represents kind of the new normal of data post COVID-19.

Donna Bullock: Thank you, Dr. Schreiber. The next question is: Do you know what accounts for the increase in the proportion of hospitals receiving a one-star rating?

Arjun Venkatesh: Anytime a change is detected in either the number or proportion of hospitals, in any of the Star Ratings categories, it tends to be multi-factorial. I think it's important to recognize that, when comparing any period to the preceding period, that we expect and have detects changes between every period because there's changes in the underlying measures that are included in Star Ratings. There's changes in the underlying distribution of those measure scores. Some of those measures have sort of absolute scores like a process measure, but many of those other individual measures are comparative in nature. So, that can change a given hospital's individual measure score that goes into their Star Ratings calculation. Then, finally, within the Star Ratings methodology, based on sort of overall aggregate performance, we do see some changes in distributions over time. So, sort of a combination of each of these likely results in changes in terms of the number of hospitals within a given Star Ratings category.

We do perform analysis for CMS that sort of do surveillance on these numbers over time periods. They look at the general distribution. What does it look like by peer group? In general, what we have found is that they've been fairly consistent within a range, and that we expect some numbers to go up and down a little bit, but, generally speaking, the distribution remains fairly similar. Hospitals sort of within each star category seemed to match up pretty well with their underlying measure scores and group scores.

Donna Bullock: Thanks so much. Here's our next question. Do you have data about the number of critical access hospitals that dropped out of reporting?

Arjun Venkatesh: So, that's something I think we can take back and do more detailed analyses on. We do, to some degree, monitor some changes in the hospitals that are available for reporting.

It's complicated because, sort of saying that they dropped out of reporting, may not necessarily be the case. There are many critical access hospitals that report just enough measures to be right at the cusp of the measure threshold for a Star Rating. So, we do see, on a regular basis, historically, some critical access hospitals will go in and out of having the Star Rating reported but still remain on Care Compare and have many individual measures reported, but that is largely driven by the fact that they are very near that minimum measure threshold. So, that's something we can take back and report back on in the future.

Donna Bullock: All right. Thank you. Our next question: How does a hospital choose not to report their mortality measures? I thought these were required and based on claims data.

Arjun Venkatesh: I think that question is absolutely true, in general. In general, the mortality measures are essentially calculated and based on claims data, and they are reported as long as the given hospital meets the minimum requirements. In this case, it's often 25 index hospitalizations for a given condition. It is possible that a hospital may go below that threshold, not have a sufficient number of index hospitalizations in a given measurement period. That may result in that hospital no longer reporting that measure. Similarly, changes to measure specifications can impact that number. So, you know, changes to the COPD measure specifications that excluded cases in which COVID-19 was present resulted in reduced numbers of cases, index hospitalization cases, for the COPD measures. That may result in fewer hospitals reporting those metrics. So, it's less of a voluntary decision, as opposed to what we observe and what's reflected in the data. Really, what we're summarizing is what's already in the individual measure specifications.

Donna Bullock: Thank you. Newly received Star Rating. Did these include hospitals that didn't have the minimum reporting criteria for the 2022 overall star but did have minimum for prior overall star releases?

Arjun Venkatesh: That is one, probably the primary, way in which hospitals would fall into that category. Really, what that reflects is hospitals that did not have a Star Rating in the prior refresh but did have one in the 2023 refresh.

My guess is that the most predominant reason for that is what the questioner asked, which is that they did not meet the minimum threshold, and now do. Another possible reason is if it was a new hospital that was opened and didn't exist previously. It's also possible and worth noting that we report that, really, within a single period comparison.

So, it's possible that a hospital had received Star Ratings, historically in prior years, and did not meet the reporting threshold for that one prior period. Now, it is reporting the Star Ratings. So, it does not necessarily mean that it is new and never previously reported; it is just new from in 2023 from 2022.

Donna Bullock: Thank you. Here's our next question: Could you discuss further any impact to a standalone critical access hospital that doesn't submit NHSN HAI data on the hospital's Star Rating? Overall, is there discussion going on regarding how to compare apples to apples with the Star Ratings, critical access hospitals compared to IPPS hospitals?

Arjun Venkatesh: So, I can take this from a technical perspective of Star Ratings, then I'll defer to the CMS team and Dr. Schreiber regarding Critical Access Hospitals broadly. The Star Ratings methodology is designed to be a summary or an aggregation of available individual hospital information. So, we don't generate any individual measure scores. We don't generate any new numbers or new scores for Star Ratings. We merely aggregate the existing scores that are already publicly reported at the individual measure level. So, if any type of hospital, be that critical access or not, does not have the NHSN safety measures, it's highly unlikely then that they will meet the reporting requirements to receive a Safety of Care measure group score. What that means is, that, within the requirements of Star Ratings, a hospital would really have to have at least three mortality measures reported in turn to receive a Star Rating, and those mortality measures would be disproportionately weighted because a Safety of Care score may not be available, or it might be that the Safety of Care scores are based on a limited number of measures. This is a fairly rare occurrence. In our observation, it tends to be that reporting for one group is fairly correlated with reporting in other outcome groups.

So, that sort of scenario, while I'm sure it certainly occurs in the dataset, is probably not as frequent as many people would anticipate. Regarding sort of the broader, Critical Access Hospital and safety reporting initiatives, I'll defer to Dr. Schreiber.

Michelle Schreiber: Thank you. To some degree, Critical Access Hospitals choice of participating, and some of these programs are not. In addition, the use of the peer grouping, the three group, four group, five group categories, was meant for those smaller hospitals, including Critical Access Hospitals. Some of the smaller rural hospitals have the opportunity to have more like-to-like comparisons. In other words, those organizations, those hospitals, that report fewer categories tend to be those hospitals that are smaller, or the Critical Access Hospitals, that are then compared with that care group, as opposed to the large academic hospitals, which tend to be those who have data in all five categories. So, this was actually an attempt to make it more like-to-like for critical access and small rural hospitals.

Donna Bullock: Thanks, everyone. Here's our next question. How do we know what peer group we are in?

Arjun Venkatesh: I think I answered that one when we were talking about how to use your preview report and how to think about the methodology. I think we can go to the next question.

Donna Bullock: All right. What are the minimum criteria to receive a Star Rating? Is it three minimum measures in mortality and safety or three minimum measures in mortality and HCHAPS?

Arjun Venkatesh: It's a little bit between those two. I'll say it slowly enough, to explain it in parts. The minimum threshold required in order to receive an Overall Hospital Quality Star Rating is to report a minimum of three measures in three measure groups, of which one must be mortality or safety. So, it's an "or" statement between mortality and safety, and patient experience is not required in order to get a Star Rating. It is that you have to have three measures and three groups, of which one must be mortality or safety.

Having looked at this data over time, and over many, many years, it's rarely the three measures in three group aspect of the threshold that is often the determination of whether a hospital gets Star Ratings. Usually, the median and mean number of measures reported by hospitals nationally is in the mid-twenties, but it's rather the requirement that mortality or safety be reported because of the importance of those two outcome groups, particularly to patients and also to CMS issues.

Donna Bullock: Thank you very much. We have time for just another couple of questions. Do the peer groups impact how the subsequent star assignments are made?

Arjun Venkatesh: Yes. They absolutely do. Peer grouping is a step of the methodology. I think it's Step 6. It occurs prior to k-means clustering, which is used to assign Star Ratings. What that means is that hospitals, when they receive a Star Rating, are only compared, their hospital summary score is only compared, to other hospitals in the same peer group. So, hospitals in the three-measure group peer group are only compared to other hospitals in the three-measure peer groups to get a Star Rating and not compared to any of the hospitals that are in the five-measure peer group when it comes to Star Ratings classification.

That said, in earlier steps of the methodology, often, above and beyond the methodology, for example, on an individual measure, it's possible that an individual measure's calculation approach includes all hospitals together, and that that hospital may have a score in comparison to other hospitals. Yet, when it comes to Star Ratings classification, that final k-means clustering stuff, that's limited to the hospitals in your same peer group. So, that is a like-to-like comparison.

Donna Bullock: Thank you very much, and here is our last question: Is there any consideration to calculating peer groups by dual eligibility?

Arjun Venkatesh: So, in prior rulemaking, CMS presented some options, as well as some considerations, around including dual eligibility status in the Star Ratings calculation.

The comments received were fairly mixed, and, subsequently, there has been a publication from our group regarding considering the dual eligibility status in Star Ratings, as well. Sort of taken together, the findings did not overwhelmingly support including dual eligibility status at the aggregate Star Ratings level, rather, and this is consistent with the feedback we've received from our Technical Expert Panel and workgroups, to consider dual eligibility status as a social risk factor that may require adjustment or inclusion in calculations at the individual measure level.

You can think of a simple example for this has been evolving methods around readmission measurement, readmission payment programs, and readmission discussion. There has been a broader discussion around the use of dual eligibility status versus, for example, a safety measure around whether or not an infection occurred or a central line-associated infection occurred. A less conceptual model by which dual eligibility status would be part of performance or quality measurement is less clear. So, as a result, we have consistently gotten feedback from a variety of different stakeholders that those decisions regarding any sort of social risk factors are better applied at the individual measure level, rather than an aggregate.

Michelle Schreiber: Arjun, this is Dr. Schreiber. I'd like to just add to the conversation, too, for listeners to be sure and look at the proposal in the IPPS rule that came out several weeks ago. Dual eligibility is used as a way to modify scoring methodology, so that those hospitals who perform very well in their performance with dual eligible patients can actually generate additional points for value-based purchasing. It is CMS's attempt to really reward care for excellence in underserved populations.

Donna Bullock: Thank you, Dr. Schreiber. Thank you, stars team. That is all the time that we have for questions today. Next slide, please.

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