Project Title:

Hospital Quality Star Ratings on *Hospital Compare*

Dates:

- The Call for Public Comment ran from July 17, 2015 to September 17, 2015.
- The Public Comment Summary was made on October 26, 2015.

Project Overview:

The Centers for Medicare & Medicaid Services (CMS) has contracted with Yale-New Haven Health Services Corporation/Center for Outcomes Research and Evaluation (YNHHSC/CORE) and Lantana Consulting Group to develop the Overall Hospital Quality Star Ratings for potential public reporting on *Hospital Compare*. CORE's contract name is Development, Reevaluation, and Implementation of Hospital Outcome/Efficiency Measures. The contract number is HHSM-500-2013-13018I- T0001 Modification 000002. Lantana's contract name is Hospital Quality Initiatives Option Year 1 Measure Implementation Support. The contract number is HHSM-500-2013-13010I- HHSM-500-T0001. As part of its measure development process, CMS has requested that interested parties submit comments regarding the current methodology for this project during the second public comment period.

Project Objectives:

- The primary goal of this project is to develop overall hospital quality star ratings to improve the usability and interpretability of *Hospital Compare* for patients and consumers.
- The Overall Hospital Quality Star Ratings will provide patients and consumers with a single measure to inform them about multiple dimensions of quality, represented by the existing measures on *Hospital Compare* and capable of incorporating new measures that may be added in the future.
- The first public comment period for this project focused on the measure selection process including the proposed exclusion criteria. The second public comment period focused on gathering feedback on the current methodology and future work for the Overall Hospital Quality Star Ratings from patients, healthcare consumers, and other stakeholders.

Information About the Comments Received:

- Public comments were solicited by:
  - Email notifications to CMS listserv groups;
  - Web posts on the CMS Public Comment website; and

- o Calls for comments made during the concurrent hospital dry run and National Stakeholder Call.
- ◆ Forty-seven responses were received.
  - o Within these responses, there were over 190 individual comments covering a broad range of categories. We have summarized these comments and categorized them by topic, as shown in the subsequent sections of this report.

Preliminary Recommendations

CMS will continue to evaluate the current Overall Hospital Quality Star Ratings prior to implementation on *Hospital Compare*. CMS looks to improve the use of *Hospital Compare* by developing a consumer-friendly display of the existing measures. The star ratings are designed to complement the existing publicly reported measures on *Hospital Compare*. As measures and display options evolve and input from stakeholders is received, CMS will continue to consider improvements to the Overall Star Ratings methodology.

Stakeholder Comments—Overall Star Ratings Goals and Methodology

Overall Star Ratings Goals

- Two commenters felt that a single rating, combining diverse quality measures, oversimplifies the complex factors of assessing the value of health care.
- Three commenters expressed concern that the methodology for calculating the star ratings was too complicated.
- One commenter suggested that the methodology did not add any meaning to what was currently available on *Hospital Compare*. The commenter recommended leaving the current methodology as is.
- One commenter said that it is hazardous to create a methodology for consumers that isn't intended to promote best practices for providers.
- Another commenter expressed concern that while the methodology is not flawed from the perspective of technical expertise and competence, the approach assumes that consumers can make meaningful conclusions using the results.
- One commenter did not believe it was possible to accurately assign star ratings to hospitals based on non-comparable performance measures. The commenter added that the measures were not developed to allow for this comparison.
- One commenter supported CMS's efforts, specifically CMS's commitment to transparency and promotion of patient- and family-centered care. The commenter expressed that, at present, the information conveyed on *Hospital Compare* is highly technical and difficult for consumers to interpret.
- One commenter applauded CMS's and the contractors' efforts to develop an overall star rating that will aid beneficiaries in interpreting and using the quality information available on *Hospital Compare*.

- Another commenter also supported the efforts to make information more accessible for consumers, but suggested CMS improve the Overall Star Ratings methodology.
- One commenter recommended that CMS ensure the star ratings provide meaningful and accurate hospital quality information that helps patients make informed decisions and access high quality health care.
- One commenter admired and respected the work done by the team. While the commenter disagreed with some of the team's policies at times, the commenter had full faith in the rigor and integrity of the team's work.
- One commenter stated that consumers are familiar with star ratings systems, as they are very common among the hospitality and travel industries. The commenter understood the desire to make *Hospital Compare* data more easily interpretable. However, the commenter expressed concern that the data is too complex to convey meaningful information.
- One commenter supported all efforts to provide consumers and hospitals with actionable data on hospital quality and were happy to discuss methodology recommendations in great detail.
- One commenter said that introducing a five-star rating system is an opportunity to greatly improve *Hospital Compare*.

<u>CMS Response:</u>

Thank you for your comments and recommendations for the *Hospital Compare* Overall Hospital Quality Star Ratings methodology report. The goal of the project is to improve the usability and interpretability of the current quality measures on *Hospital Compare* for patients and consumers. While the methodology may appear complex, it is important that the approach for combining multiple measures into one score is scientifically sound; that is, it is statistically meaningful and can be easily recognized and interpreted by consumers. CMS will continue to display the individual measure scores as developed so that consumers can continue to review this information. The overall star ratings are meant to summarize the aspects of hospital quality captured by existing measures, which include many aspects of quality across multiple dimensions. Many patient advocacy groups and government entities have requested clearer display options for consumers such as star ratings.

CMS will consider comments to enhance the Overall Hospital Quality Star Ratings methodology.

Single Summary Star vs Domain Star Ratings

- One commenter supported the use of a Likert scale methodology for presenting results to consumers, but recommended also including star ratings for the seven measure groups.
- Two commenters felt that it was unlikely that a single summary star rating would help consumers gain insight into hospital quality related to their individual reasons

for seeking care. One commenter added that ratings for specific measure topics would be more helpful.

- Six commenters felt that a star rating system should be applied to specific measure topics such as heart attack care or applied for different care settings.
- One commenter added that the heterogeneous nature of hospitals and healthcare services makes it difficult to create a single indictor that is relevant to all consumers. The commenter described the challenge of summarizing various combinations of individual measures reported by hospitals into a single measure. The commenter felt that the variability in hospitals' reporting would limit one's ability to make direct comparisons.
- One commenter questioned whether a single summary star rating could provide consumers with an accurate picture of hospital quality. The commenter questioned whether the measures available at this time would enable CMS to create a single, methodologically sound rating of all aspects of hospital quality.
- One commenter disagreed with the assumption that creating a single quality score adds value for consumers. The commenter added that the star ratings do not have a purpose other than to aggregate measures currently on the website.
- One commenter strongly urged CMS to provide a star rating for each dimension of quality and opposed posting the Overall Star Ratings without ratings for individual dimensions.
- Another commenter felt that CMS should consider a topical rating system that provides patients with an easy way to compare hospitals relevant to the care that they are seeking. This commenter added that a single star rating system oversimplifies the complexity of healthcare quality.
- A commenter stated that collapsing the measures into one rating is the opposite of the kind of information that allows consumers to understand the quality of a provider.
- Another commenter said that, since the measures included are not all-encompassing relative to the scope of services offered by hospitals, the star ratings can be misleading. The commenter recommended that consumers review measures associated with specific elements of care.

CMS Response:

Thank you for your comments and recommendations. CMS will consider comments to enhance the methodology.

Many commenters felt that domain-level or measure-type star ratings would be helpful for consumers. CMS will continue to evaluate the feasibility of developing a methodology that provides consumers with star ratings for dimensions of quality as well as overall quality. CMS will also evaluate options for displaying group scores, which reflect topical information about hospital quality for specific dimensions such as the timeliness of care or mortality.

Use of Existing Measures

- Two commenters stated that the star ratings could be misleading for consumers and recommended that CMS focus on improving the existing measures and current display on *Hospital Compare*.
- One commenter supported the majority of CMS's principles in developing the Overall Star Ratings, but disagreed with the use of existing measures. The commenter added that these measures were not chosen with the goal of star ratings in mind and that many measures were not constructed in such a way that they could accurately depict the intended distinctions within care.
- Three commenters stated that the data used in the overall star ratings was too old to assist patients in their decision making. The commenters felt the data would not reflect the current performance of a hospital.

CMS Response:

Thank you for your comments and recommendations. CMS will consider comments to enhance the Overall Hospital Quality Star Ratings methodology. The majority of measures on *Hospital Compare* have undergone a multi-stakeholder evaluation and thoughtful development process. As measures are determined to no longer meaningfully drive quality improvement or reflect variation in quality among hospitals, they will be retired and removed from *Hospital Compare*.

Stakeholder Comments—Measure and Measure Group Thresholds

- One commenter was concerned about the likelihood that the measure groups and measures will result in a misleading assignment of star ratings. The commenter added that the number of measures for calculating these ratings should be determined by how many measures are necessary to provide a relatively stable estimate of a hospital's score.

CMS Response:

Thank you for your comments and recommendations. CMS considered the minimum measure and measure group thresholds for public reporting by examining the face validity of minimum measure requirements, statistical tests of reliability, and by evaluating the relationship between measure group thresholds and hospital reporting. The minimum threshold selected has a reliability level of 0.75 for all measure groups and strong face validity when evaluated by the Technical Expert Panel (TEP). CMS will continue to evaluate and enhance the Overall Star Ratings methodology and thresholds for public reporting as measures on *Hospital Compare* change and improve.

Stakeholder Comments—Measure Inclusions and Exclusions

- One commenter supported the criteria for measure inclusion, given the measures that are currently available. In addition, the commenter would like CMS to consider additional measure exclusions to result in a more suitable combination that is meaningful for patients and consumers.
- Three commenters expressed concern for the accuracy of the data for measures included in the Overall Star Ratings methodology.
- One commenter recommended CMS develop additional measure exclusions to ensure the measures are widely available and meaningful to consumers.
- Another commenter recommended selecting a small set of measures that show quality of care instead of including the majority of the measures available on *Hospital Compare*.
- One commenter agreed with the recommendation to exclude Medicare Spending per Beneficiary (MSPB) measure, as well as the acute myocardial infarction (AMI) payment and heart failure (HF) payment measures.
- One commenter was concerned that the star ratings may significantly change from year to year, based on the measures on *Hospital Compare*.
- One commenter recommended removing multiple measures from the star ratings, including the following:
  - Abdomen Computerized Tomography (CT) use of Contract Material;
    - The commenter felt this measure was financially oriented rather than evidence-based.
  - Thorax CT use of Contract Material;
    - The commenter felt this measure was financially oriented rather than evidence-based.
  - Healthcare Personnel Influenza Vaccination;
    - The commenter felt that, unless a facility had chosen to require mandatory vaccination, this measure could be misinterpreted.
  - 30-day readmission measures; and
    - Commenter considered these measures to be based on patient compliance rather than care provided by the hospital.
  - 30-day mortality measures.
    - Commenter considered these measures to be based on patient compliance rather than care provided by the hospital.
- One commenter requested the removal of the mortality and readmission measures. This commenter felt including these measures would lead to misclassification of hospitals, thereby misinforming consumers.
- One commenter asked CMS to reconsider the inclusion of the readmission measures or reconsider the weight of these measures.
- One commenter requested the removal of all process measures, arguing that these measures are similar to the structure measures excluded from the star ratings. This commenter added that process measures are less valuable given the development of outcomes measures.

- One commenter added that star ratings should develop a minimum timeframe for including measures that are added to *Hospital Compare*. The commenter noted that the Hospital Value Based Purchasing (HVBP) program waits a year after a measure is posted on *Hospital Compare* before inclusion.
- One commenter recommended the removal of measures with negligible differences between star ratings. The commenter added that this would indicate little variability in performance across hospitals.
- One commenter felt it would be more appropriate to build an overall rating system around a core set of quality metrics that are highly valid, reliable, and widely reported.

CMS Response:

Thank you for your comments and recommendations. CMS previously held a public comment focused on the measure selection criteria for this project. The principles and criteria for measure selection were vetted through stakeholder and expert input including heavy deliberation with the TEP. CMS will continue to evaluate the measure inclusion and exclusion criteria to ensure measures are added or removed in an effective and timely way for future implementation. CMS aims to include as many of the current measures displayed on *Hospital Compare* as possible.

Topped Out/Retired Measure(s)

- Two commenters requested the removal of AMI and Surgical Care Improvement Project (SCIP) measures given that these measures were designated as "topped out" by CMS.

CMS Response:

Thank you for your comments and recommendations. CMS will review these recommendations and revise the included measure list as needed prior to any future implementation of the star ratings. CMS has outlined several principles and criteria to exclude measures from star ratings to ensure reliable and inclusive reporting.

Stakeholder Comments—Methodology and Calculation

Star Ratings Classification

- One commenter recommended two approaches to improving the star ratings classification: Winsorize extreme outliers and/or utilize an absolute threshold approach.
- One commenter suggested that certain measures included in the star ratings do not allow for meaningful distinctions between hospitals or significant variation from the national mean. The commenter added that differences in star ratings between hospitals were not accurate reflections of reality. The commenter recommended

CMS be transparent in reporting to consumers the significant differences between hospitals based on star ratings.

- One commenter suggested the Overall Star Ratings methodology was inferring differences between hospitals that are not present.
- One commenter recommended that CMS combine the five-star and four-star ratings as well as the one-star and two-star ratings.
- One commenter asked for a simpler display of results such as "better," "same as," and "worse than."
- One commenter said that it was discouraging to know that while hospitals may be improving, they may be listed as a lower star, despite not being meaningfully different from hospitals with a higher star.
- One commenter felt that if stars were assigned, CMS must be able to effectively substantiate that a three-star hospital is more likely to deliver higher quality of care than hospitals with fewer stars and lower quality of care than those with more stars.
- Another commenter expressed concern that the change from a three-point scale ("better than," "same as," or "worse than national average") to a five-star rating scale could lead to discrepancies between a hospital's performance on the majority of individual measures and that hospital's performance on star ratings, ultimately confusing consumers.
- Another commenter said that CMS's effort to develop star ratings was creating an artificial methodology to draw distinctions where there are no distinctions to be made between hospitals. The commenter added that the stars are narrowly distributed and arbitrarily assigned.
- Another commenter suggested contractors explore alternative options for translating summary scores, specifically an approach in which the national average star rating is four stars.
- Two commenters felt that the methodology required a certain percentage of hospitals in each of the star levels.
- One commenter felt that the methodology forces the data into a normal distribution.
- Another commenter felt that the scale of the star ratings could be expanded (more than just five star levels) to provide for greater differentiation between hospitals.
- One commenter recommended that CMS use the SAS cluster analysis used in the Hospital Consumer Assessment of Healthcare Providers and Systems (HCAHPS) Star Ratings.
- One commenter expressed concern that the star ratings may minimize the quality signal of other metrics, citing potential inconsistencies between non-CMS state rankings and the Overall Hospital Quality Star Rating.
- One commenter recommended using an achievement approach to calculating star ratings as each hospital will submit a different number of measures for reporting. The commenter added that eventually measures will be "topped-out" and the difference between five stars and three stars will be too small to report.

CMS Response:

Thank you for your comments and recommendations. CMS is continuing to evaluate recommendations for modifications to the methodology in order to ensure statistically meaningful differences between star categories. Please note that the approach to star ratings classification for the Overall Star Ratings does not use fixed cutoffs or percentiles for categorizing hospitals; rather, the approach uses a statistical clustering algorithm to categorize a hospital's summary score into one of five star categories.

Standardized Measure Scores

- One commenter asked for guidance in interpreting the range of the standardized measure scores.

CMS Response:

Thank you for your comments and recommendations. CMS appreciates this feedback and will use comments to improve the information given to both providers and consumers.

Improvement

- One commenter asked for a tab in the hospital-specific report (HSR) that ranked an "Opportunity Score" by measure from biggest to smallest.
- One commenter felt improvement should be a focus of the methodology as this is inconsistent with other CMS report cards that explicitly promote improvement.
- One commenter felt that the star ratings undermine providers' honest attempts at improvement no matter what technical elements and adjustments are proposed.

CMS Response:

Thank you for your comments and recommendations. CMS will continue to re-evaluate and enhance the methodology based on stakeholder feedback. The star ratings are intended to display data in a clear, concise manner for consumers.

Measure Groups

- One commenter noted that some measures are highly correlated with the group score, while they are not seen as clinically validated. This commenter specifically stated that the PSI-90: Patient Safety Indicators measure was highly correlated with the Safety group score, while clinically validated measures like the Centers for Disease Control & Prevention (CDC) measures had a much weaker association with the Safety group score.
- One commenter recommended using fewer measure groups so that the overall star ratings would align with the HVBP program.
- One commenter expressed concern that categorizing measures by measure type is not likely to provide meaningful information for consumers.
- One commenter recommended CMS base the measures and measure groups included in the star ratings on the inclusions criteria for the HVBP program and the Hospital Readmission Reduction Program (HRRP).

CMS Response:

Thank you for your comments and recommendations. CMS aims to be as inclusive as possible in selecting measures from those existing on *Hospital Compare*. We will continue

to evaluate these recommendations with respect to both the calculation of group scores and the current Overall Star Ratings methodology.

Weighting

- One commenter felt that the outcome and patient experience measure groups should not be weighted as high as they are due to variables that affect performance outside of an organization's control.
- Two commenters requested the weight of the Readmission group be lowered.
- One commenter recommended that Mortality and Safety groups also have lower weights.
- One commenter urged CMS to reconsider the weights given to the measure groups and give more justification for each weight.
- One commenter agreed that the weighting should be similar to the HVBP program; however, the commenter preferred that CMS consider adding a summary of hospital performance in the HVBP, HRRP, and Hospital Acquired Infection (HAI) programs for consumers.
- One commenter requested a lower weight for the Patient Experience group due to no strong correlation between HCAHPS and outcomes. The commenter added that this group does not include patient-report outcomes, and it is of lesser value to know if people have a good experience at a hospital if that hospital has poor outcomes.
- One commenter recommended, of the options given, the weights used in the star ratings dry run.
- One commenter said that if a hospital has missing groups, no weight should be redistributed to the process measure groups.
- Another commenter expressed concern that the weighting methodology used to address missing data is not intuitive and very different from other approaches.
- One commenter suggested that their hospitals results were incorrect as their weights were not re-distributed despite having two groups with fewer than three measures reported.
- One commenter expressed concern that the policy-based weighting scheme negates the statistical advantage of using empirically-determined loadings.
- Two commenters asked CMS to reconsider having equal weights for each measure within a measure group.

CMS Response:

Thank you for your comments and recommendations. CMS will continue to evaluate these recommendations and the current methodology. Please note that the principles used in the methodology will continue to evolve with updates to measures and measure groups through future reporting. Of note, the current methodology applies the measure and measure group minimum thresholds after group scores have been calculated. If a hospital satisfies these minimum thresholds, any additional measures or measure groups available

are included in that hospital's star rating. In this case, the weights would not be re-distributed.

Latent Variable Model (LVM)

- One commenter appreciated the use of the latent variable model (LVM) as this analytic approach seeks to measure dimensions of quality that cannot be measured directly but can be estimated based on existing measures.
- One commenter felt that LVM did not allow for consistent comparisons between the star ratings and the current measure scores available on *Hospital Compare*. The commenter recommended a simpler approach.
- One commenter expressed concern with the measure loadings used within the LVM methodology. The commenter added that there is some bias with the HCAHPS measures having such high loadings.
- One commenter argued that no single, underlying factor of hospital performance exists. The commenter added that latent traits leading to strong performance on mortality measures are likely very different from the latent traits leading to strong performance on other measure groups.
- Another commenter requested CMS provide a tutorial on LVM to the hospital community, as this would ensure maximum transparency of the rating methods and would allow hospital to use the ratings to identify opportunities for improvement.
- One commenter expressed concern that if a measure does not correlate well within a group, it may not be due to random error; the measure could be evaluating an important part of quality that the other measures in the group are missing.
- One commenter was concerned with the high impact that the PSI-90 measure has on the Safety group score.
- One commenter recommended removing the aspect of the methodology that gives more influence to measures that appear to have consistent performance among hospitals.

CMS Response:

Thank you for your comments and recommendations. CMS will continue to evaluate these recommendations and the current methodology. The LVM approach was selected and designed for this application after extensive TEP consultation and multi-stakeholder input. The LVM approach confers several strengths including the ability to account for the relationship between measures. Please also note that the measure loadings will potentially change as included measures and hospital performance results evolve over time.

Stakeholder Comments—Patient Experience

- Eight commenters requested that the HCAHPS measures be excluded from the Overall *Hospital Compare* star ratings. Many commenters said that inclusion of these measures results in overlap between the Overall Star Ratings and the current HCAHPS Star Ratings, which could be more confusing for consumers.

- Two commenters expressed concern regarding the alignment between the Overall Star Ratings and the HCAHPS Star Ratings. One commenter recommended CMS use the same HCAHPS domains across both star rating systems.
- One commenter suggested that CMS more explicitly clarify the minimum response threshold of 100 surveys for the HCAHPS measures.

CMS Response:

Thank you for your comments and recommendations. CMS will continue to evaluate these recommendations and the current methodology. As a separate star rating system, HCAHPS has conducted their own stakeholder engagement as well as consumer testing which revealed that consumers appreciate the HCAHPS measures and star ratings. The Patient Experience group in the Overall Hospital Quality Star Rating has a high correlation with the HCAHPS weighted average scores. The Patient Experience group is also designed to accommodate any future patient experience measures developed that may not be included in the HCAHPS Star Rating.

Stakeholder Comments—Implementation

Timeline

- One commenter expressed concern that the Star Ratings developers will not update the measures in time for each quarter of proposed reporting. The commenter requested a detailed plan for how this continued reevaluation would occur.
- One comment expressed concern that the methodology and results were not ready for implementation based on the dry run materials and the National Stakeholder Call.

CMS Response:

Thank you for your comments and recommendations. CMS will continue to evaluate the methodology as well as a feasible timeline for future implementation.

Future Reporting

- One commenter asked for CMS to publish the highest standardized scores possible for provider review.
- One commenter had concerns around the continuation of star ratings updates as new measures are adopted into reporting programs. The commenter requested clarification on the evolution of CMS's measure criteria and on the time-lag for measure adoption into star ratings.

CMS Response:

Thank you for your comments and recommendations. CMS will continue to improve the information provided to both consumers and providers. CMS will also evaluate the plan for updating the star ratings in order to include and remove measures. In addition, CMS will consider options to tailor information in order to support consumers and providers through *Hospital Compare* displays and preview reports.

Stakeholder Comments—Star Ratings Interpretation and Display

- One commenter said that the format was very user-friendly to the public.
- Four commenters felt that the star ratings would be confusing or may be misleading to consumers.
- One commenter appreciated CMS's attempts to make it easier for consumers to understand the data on the *Hospital Compare* website.
- One commenter had concerns that the average consumer would not be able to understand the methodology. This commenter did not believe the methodology would enable consumers to make meaningful differentiations when selecting hospitals.
- Two commenters requested that consumers be informed of what each star category means in regards to quality.
- One commenter added that there should be a display of the percentage of hospitals in each star category.
- One commenter requested that it be made clear to consumers which measures are included in the star ratings.
- One commenter expressed confusion regarding recent star ratings efforts, including recent hospital star rating efforts on the website, "Yelp."
- One commenter said that roll-up of group scores into the star rating might be hard to interpret given the multiple groups used as inputs. The commenter added that the HCAHPS Star Rating suggests some benefit for breaking down the star rating.
- One commenter believed the development of an overall star rating system could help summarize quality information but was concerned that it was challenging to translate into a methodology that was simple and meaningful to consumers.
- One commenter asked for the framework to be aligned with the work done by the *Nursing Home Compare* Star Ratings, which uses dimensions of inspections, staffing, and quality.
- One commenter said the proposed methodology would provide information for patients that is useful, but expressed that it is important to ensure this information is presented in a manner that is comprehensible and useful.
- One commenter requested that CMS summarize data across the same time period and ensure that the reporting period is prominently displayed.

CMS Response:

Thank you for your comments and recommendations. CMS will use this information to improve the information provided to both consumers and providers.

Stakeholder Comments—Transparency and Stakeholder Involvement

Stakeholder Involvement

- One commenter asked what consumer voice was included in the development process.
- One commenter felt there was not enough opportunity to comment on the methodology during development.
- One commenter recommended that CMS convene a focus group of actual Medicare beneficiaries to understand what consumers find important in hospital care.
- One commenter encouraged continued public input through the evolution of the methodology including additional dry runs prior to implementation.

CMS Response:

Thank you for your comments and recommendations. CMS contractors worked with multiple stakeholders, including both a TEP that was comprised of patients and caregivers, as well as a workgroup of patients and patient advocates recruited by the National Partnership for Women and Families (NPWF). CMS also held two public comment periods and a hospital dry run to elicit feedback on the measure inclusion criteria and the overall methodology. CMS will continue to collect and evaluate feedback from stakeholders regarding the methodology and display of star ratings along with long-standing efforts to improve *Hospital Compare*.

Transparency

- Two commenters requested an Overall Star Ratings SAS package.
- One commenter expressed concern with the star ratings being in compliance with the Paperwork Reduction Act (PRA) and the Data Quality Act (DQA).
- Four commenters requested access to all data used in order to replicate the star ratings.
- Another commenter added that it would be helpful to review previous data in order to test the sensitivity of the methodology.
- One commenter said that stakeholders should be able to easily replicate the methodology for accountability, transparency, and improvement.
- One commenter expressed concern that some of their data is listed as missing in the star ratings, but the results are currently publicly reported on *Hospital Compare*.

CMS Response:

Thank you for your comments and recommendations. CMS has an ongoing priority of transparency within all development work including the current provision of SAS packages for outcomes measures. While the SAS package for the Overall Star Ratings is not available at this time, CMS will maintain transparency by providing the SAS package, when feasible. CMS will continue efforts to publicly report all data needed for providers to validate their results.

Please note that CMS used April 2015 data to calculate hospital results for the August 2015 hospital dry run. Therefore, the measures and measure scores for a given hospital in the dry run materials may be different from the information publicly available on *Hospital Compare*, as the website's data was updated in July 2015.

Stakeholder Comments—Other CMS Programs and Star Ratings Programs

- One commenter expressed concern of double jeopardy, reporting the star ratings at the same time as the current public reporting and payment programs.
- One commenter expressed concern that the differences between the methodologies used to calculate HCAHPS and the Overall Star Ratings would produce different results large enough to affect payment and consumer sentiment.
- One commenter urged CMS to use consistent, state-of-the-art methods in all performance measurement and performance-based payment programs.
- One commenter said the methodology was too complicated and not aligned with other CMS initiatives; for example, a hospital with an average star rating and high HVBP results.
- One commenter requested CMS clarify how this star rating differs from existing star ratings. In addition, this commenter urged CMS not to oversimplify a complex and individualized decision for patients' choices of care.
- One commenter requested CMS learn from lessons in developing other star ratings to improve the current methodology.
- Another commenter said the lack of consistency causes confusion, contributes to increased difficulty in discriminating hospital performance, and compromises the ability of patients and consumers to interpret the ratings.

CMS Response:

Thank you for your comments and recommendations. One of CMS's goals is to stay consistent with the development of star ratings across Compare websites, when feasible. However, there are many reasons for differences in the methodologies used across settings. In the case of the Overall Hospital Quality Star Ratings, these differences include the number and type of measures reported on *Hospital Compare*. Hospitals will vary in the number and type of measures they report; therefore, the methodology was designed to accommodate star ratings that only reflect available measures.

Stakeholder Comments—Maryland Hospitals

- Five commenters expressed concerns regarding the inclusion of Maryland hospitals in the Overall Hospital Star Rating.
- Two commenters requested Maryland hospital data be examined due to the differences in Present on Admission (POA) code use in comparison to other states.

CMS Response:

Thank you for your comments and recommendations. CMS will continue to evaluate the differences in POA code use for Maryland hospitals.

Stakeholder Comments—Hospital Burden

- One commenter felt hospital personnel are being asked to work on too many initiatives and measures, asking that more non-direct patient care initiatives be incorporated through longer time plans.
- One commenter stated that increasing public reporting is detracting from the main mission of providing patient care.

CMS Response:

Thank you for your comments and recommendations. The Overall Hospital Quality Star Ratings is intended to facilitate patient and consumer use of *Hospital Compare*. However, CMS will continue to evaluate hospital burden with every new development. The Overall Hospital Quality Star Ratings should be low burden to hospital as no new or additional data is required for submission and all information is already reported and displayed on *Hospital Compare*.

Stakeholder Comments—Hospital Characteristics

Measure Type

- One commenter felt that certain hospital types, such as larger hospitals, teaching hospitals, and hospitals serving a high proportion of low-income patients will receive lower star ratings while still providing quality care.
- One commenter requested CMS stratify the star ratings results by hospital type and make the analyses public for review.
- Another commenter requested the investigation of any possible biases towards certain types of hospitals within star ratings.

CMS Response:

Thank you for your comments and recommendations. CMS will continue to evaluate the impact of hospital characteristics on the star ratings.

Hospital Size

- One commenter expressed concern that low volume hospitals will have a lower star rating.
- One commenter expressed concern that large hospitals will disproportionally drive the latent variable model.
- One commenter asked to stratify results by hospital size to provide more helpful information for consumers to review.

<u>CMS Response:</u>

Thank you for your comments and recommendations. CMS will continue to evaluate the impact of hospital size within the current methodology. Please note that in the current methodology, hospital star ratings are based on available information for a given hospital. As such, as long as a hospital meets minimum measure and minimum measure group thresholds, a reliable star rating can be calculated. Minimum case counts for each individual measure are set distinct from the thresholds for star ratings. The star ratings methodology is not systematically designed to penalize or preclude hospitals with smaller volumes from the star ratings.

Critical Access Hospitals

- Two commenters expressed issues during the dry run with the data for Critical Access Hospitals (CAHs). One commenter requested an additional dry run with corrected data.
- One commenter requested that data be made available for validation.
- One commenter asked CMS to either exclude or require full participation from CAHs as these hospitals are able to choose which data they submit.

<u>CMS Response:</u>

Thank you for your comments and recommendations. CMS will continue to evaluate CAH results within the current methodology. Please note that this was a one-time data reporting error, and CMS will continue to work to ensure data accuracy for all publicly reported measures.

Stakeholder Comments—Out of Scope

Measure Information

- One commenter asked for clarification on the 30-day readmission measure and the planned readmission algorithm.

CMS Response:

Thank you for your comments and recommendations for the Overall Hospital Quality Star Ratings on *Hospital Compare*. All measures included in the star ratings methodology have identical calculation specifications to the measures currently reported on *Hospital Compare*. This comment is out of scope for the project, but all questions about the 30-day all-cause readmission measures can be directed to cmsreadmissionmeasures@yale.edu.

Socioeconomic Status and Measure Risk Adjustment

- Ten commenters requested that CMS risk adjust the star ratings for patient-level socioeconomic status (SES).
    - One commenter added that while CMS may not have the authority to risk adjust for SES in HRRP, CMS does have that authority in star ratings.
    - Another commenter recommended an approach similar to the approach described in Medicare Payment Advisory Commission's (MedPAC) June 2013 Report to the Congress: Medicare and the Health Care Delivery System.

CMS Response:

Thank you for your comments and recommendations for the Overall Hospital Quality Star Ratings on *Hospital Compare*. These comments are considered out of scope for the current project as they are directed at the risk-adjustment methodology for measures currently on *Hospital Compare*. The methodology is designed to use existing measures, therefore allowing for the underlying risk adjustment to be carried through to the star ratings.

Overall Analysis of the Comments and Recommendations

CMS will continue to evaluate the current Overall Hospital Quality Star Ratings prior to implementation on *Hospital Compare*. CMS looks to improve the use of *Hospital Compare* by developing a consumer-friendly display of the existing measures. The star ratings are designed to be a complementary display to the existing publicly reported measures on *Hospital Compare*. As measures and display options evolve and input from stakeholders is received, CMS will continue to consider improvements to the Overall Star Ratings methodology.