Via Electronic Submission

DATE: March 29, 2019

TO: Yale New Haven Health Services Corporation – Center for Outcomes Research
               and Evaluation (CORE)
               Development, Reevaluation, and Implementation of Outcome/Efficiency
               Measures for Hospital and Eligible Clinicians, Option Period 5
               Contract number: HHSM-500-2013-13018I, Task Order HHSM-500-T0001

               Lantana Consulting Group, Inc.
               MIDS III Hospital Compare Support Contract (HCSC)
               Contract number: 75FCMC18D0029/75FCMC18F0001

RE: **Overall Hospital Quality Star Rating on Hospital Compare Public Input
               Request**

On behalf of the New Jersey Hospital Association (NJHA) and its over 400 hospital, health system,
PACE and post-acute members, thank you for the opportunity to provide comments on the Overall
Hospital Quality Star Ratings.

NJHA appreciates that CMS and its partners, CORE and Lantana, are soliciting input from
stakeholders on these important ratings. Concerns around the methodology and overall ratings are
widespread in the provider community, which fears these shortcomings confuse rather than assist
healthcare consumers as they seek to learn more about healthcare quality. The decision to delay
publishing the July 2018 update and reevaluate certain aspects of the methodology was prudent
and welcomed by our members. While the February 2019 update was not postponed to address
similar issues, the opportunity to comment is very much appreciated.

Patients, families and communities deserve clear and meaningful quality information to help them
make important healthcare decisions. That is why we have long supported transparency on quality.
NJHA has taken the lead in educating New Jersey healthcare consumers. Our NJ Care Compare
website, first established in 2007, is a service to empower patients looking for healthcare quality
data and help them navigate the complex web of report cards and quality data. We believe
educating patients about healthcare quality is a critical part of our collective efforts to make
healthcare safer and more efficient.

We continue to strongly support one of the foundational goals of star ratings – to make the data on
Hospital Compare easier for consumers to use and understand. However, we remain concerned

that this laudable goal is supported by a star ratings approach that does not provide an accurate picture of hospital quality performance. Since CMS began work on overall star ratings in 2015, healthcare organizations have repeatedly shared concerns about the star ratings methodology.

NJHA urges CMS to remove the existing star ratings from Hospital Compare while its important work of improving the methodology continues. We appreciate the desire for the ratings to reflect the most current quality data. Yet CMS's public comment underscores the many problems with the current methodology. Unless and until the ratings methodology is improved, it will be difficult for hospitals and the public to have confidence that star ratings portray hospital performance accurately.

The roughly one dozen potential changes to the star ratings methodology outlined in the request for comment attempt to address several important issues with star ratings and merit serious consideration. However, **NJHA asserts that only three of the proposals should be pursued further at this time – empirical criteria for measure groups, peer grouping star ratings among similar hospitals, and using an "explicit" scoring approach.** The remaining proposals either fail to address important shortcomings with star ratings, or we simply do not have enough information to judge their impact.

NJHA also urges CMS to consider other steps to improve star ratings that are not addressed in the draft report. We believe it is important that these steps be taken prior to considering implementation of any other changes to the star ratings. Specifically, CMS should: engage experts on latent variable models (LVM) to ensure its calculation approach is executed correctly; examine how to mitigate the impact of outliers in calculating readmissions measures in the ratings; develop an alternative approach to star ratings in which, instead of an overall rating, hospitals receive ratings on specific clinical conditions or topic areas.

NJHA supports CMS's proposed new clinical and empirical criteria for creating and maintaining star ratings measure groups. CMS would use a three-step approach: an initial grouping based on clinical coherence, a statistical "confirmatory factor analysis" that explores the extent to which there is a single factor that explains performance in the measure group and ongoing monitoring to ensure balance across the measures within the group.

We believe the confirmatory factor analysis would be especially helpful and important to implement. The fundamental premise of the LVM approach used in star ratings is that one can summarize the performance of the measures on an aspect of care (e.g., safety, mortality) into a single score that accounts for both actual performance and unobserved (or latent) performance. One way to test whether that assumption holds true is to use a confirmatory analysis to determine the extent of variation that is explained by the model. Performing this analysis on an ongoing basis would provide a stronger empirical basis for the measure groups, and identify groups that may need to be revised in the future.

NJHA agrees with CMS that the weights applied to the measures used in the LVM need to be revised. In particular, there is no reason to believe it is appropriate for the PSI-90 measures or

the hospital-wide readmissions measure to be so disproportionately weighted in the calculation of star ratings such that they drown out the effect of other better – or at least equally good – measures in the safety and readmissions domains. By working with experts in LVM, it will be possible for CMS to develop a solution to this problem that is both mathematically correct and leads to a more rational approach for addressing measurement precision in star ratings, thereby improving the ratings accuracy, stability and balance.

In the star ratings LVM approach, CMS calculates a numerical "loading factor" for each star ratings measure. The higher a measure's loading factor, the more it drives performance within a particular measure group. However, the loading factors within the patient safety measure group have fluctuated significantly, even though performance on the underlying measures has not appreciably changed. Furthermore, two measures in particular – the PSI composite measure, and hip/knee complications – have a disproportionate influence on the safety score, even though the infection measures within the safety group arguably reflect more significant safety issues.

CMS asserts that at least some of the loading factor fluctuation and imbalance stem from the agency's approach to dealing with measure precision. CMS's current calculation of the LVM uses "denominator weights" in which hospitals are scored more heavily on measures that include larger numbers of patients. CMS offers three alternative approaches to this issue – confidence interval-based weights (in which the weights account for the confidence intervals of each measure's calculation), logarithm of the denominator-based weights and simply eliminating the denominator weights altogether.

CMS indicates that its preference would be to use a combination of current denominator weights and logarithm of the denominator weights. However, the data in the public comment document show that the confidence-interval-based weights best improve the LVM model fit for the safety group, as well as the balance and stability of the safety measure group's loading factors. NJHA is concerned that continuing to use the current approach of denominator-based weights would only perpetuate the problems with star ratings.

NJHA believes CMS should continue to explore approaches to creating peer groups for star ratings as a short-term strategy to address the potential biases in star ratings. However, we also urge CMS to pursue further improvements to the risk-adjustment approaches of its existing star ratings, as direct risk adjustment approaches may obviate the need for peer grouping in the future.

To date, hospitals caring for sicker patients and poorer patients tend to fare worse on star ratings. Specifically, teaching hospitals, hospitals that report on larger numbers of star ratings measures, and hospitals receiving the highest disproportionate share hospital (DSH) payments (a proxy for the extent to hospitals serve the poor) all have ratings that are, on average, lower than other hospitals.

The basic notion of peer grouping is that it is fairer to compare hospitals that are similar to one another than it is to compare hospitals with very different characteristics. Furthermore, peer grouping is a viable approach to leveling the playing field in comparing hospital performance.

Indeed, CMS already uses a peer grouping approach in its Hospital Readmissions Reduction Program (HRRP) by placing hospitals into peer groups based on the proportion of dual-eligible patients they treat. This has resulted in some lowering of penalties for those caring for the poorest communities.

We urge CMS to explore peer group stratification approaches as an interim step to improving the fairness of star ratings. The most promising variables to use in peer grouping should include those found to have an association to star ratings that are generally outside the control of hospitals. These include the number of reported measures and the proportion of dual-eligible patients. CMS could consider peer groupings using only one of those two variables, or a peer grouping based on a composite of those two variables.

NJHA believes a less complex "explicit" approach to scoring hospital star ratings may be the most promising long-term option for improving star ratings. CMS's current approach to star ratings employs complex statistical modeling techniques (i.e., LVM, k-means clustering). We appreciate that CMS's intent in using these techniques was to create a rating that accounts for as many statistical vagaries as possible across the highly heterogeneous measures included in star ratings.

Yet, as noted above, the current methodology has led to an inaccurate and potentially biased picture of hospital quality. In addition, the use of such a statistically intensive methodology makes the ratings of virtually no use to hospital quality improvement efforts because it is nearly impossible for hospitals to predict how well they may perform on star ratings and the extent to which performance on any single measure drives their overall ratings.

CMS has indicated in the past that it views the star ratings system as a tool for patients that was not intended to be used by hospitals to support quality improvement efforts. But the reality is that any data that are reported publicly can and do drive hospitals to seek to improve their performance or maintain a high level of performance. A star ratings approach with less uncertainty could help hospitals better benchmark their performance against others. Furthermore, hospitals are reporting that private sector payers are increasingly expressing interest in using star ratings for contracting purposes.

For these reasons, and most importantly in the best interests of healthcare consumers, the continued use of a star ratings approach that is inherently unpredictable and not tied to hospital quality improvement efforts may no longer be tenable. We encourage CMS to continue exploring a more explicit approach to star ratings. We acknowledge that a more explicit system would involve some choices about what measures to include, how to weight particular measures and what performance targets to set. CMS could consider adopting some more empirically based approaches to assist in this work. For example, to identify the weights for particular groups of measures, CMS could undertake systematic surveying of patients to identify the aspects of quality that would be of the greatest importance to them. In addition, the criteria proposed in the public comment document for creating and maintaining measure groups could be adapted for use in a more explicit approach to star ratings.

Again, we thank CMS and its partners for the opportunity to comment on the Overall Hospital Quality Star Ratings and appreciate the work that is being done. Should you have any questions, please do not hesitate to contact Jonathan Chebra, Senior Director, Federal Affairs, at 609-275-4000.

CC: The Honorable Seema Verma
               Administrator, Centers for Medicare & Medicaid Services