NOSORH Comments on CMS Hospital Star Rating Program

Introduction:

The National Organization of State Offices of Rural Health (NOSORH) is a nonprofit membership association supporting State Offices of Rural Health (SORHs) throughout the nation. All 50 states have a SORH. These offices vary in size, scope, organization, and in services and resources they provide. Most are organized within state health departments, while some are in universities or not-for-profit organizations. SORHs are Federally-funded to assist to Critical Access Hospitals (CAHs) in their states under the Medicare Rural Hospital Flexibility Program. In addition, SORHs administer, on behalf of the Federal Government, the Small Rural Hospital Improvement Program, designed to improved operational quality in smaller, non-CAH rural hospitals. SORHs are in a unique position to monitor the operations of CAHs and small rural hospitals and can deliver appropriate assistance to these facilities.

NOSORH provides support to SORHs, including information, training and technical services. As part of this support, NOSORH performs analyses of rural hospital and CAH performance data. The findings of these analyses are provided to SORHS as state-specific hospital profiles. These profiles are used by SORHs in the development of their state-specific hospital quality improvement efforts.

NOSORH conducted a ***comprehensive analysis of the impact on rural hospitals of the December 2017 revised methodology*** used by the Centers for Medicare and Medicaid Services (CMS) in its Hospital Star Rating Program. NOSORH's analysis looked at:

- Rural urban differences in the ***percent of scored/unscored hospitals***,
- Rural-urban differences in the ***number of measures used in calculating a hospital score***, and
- Rural-urban differences in the ***number of domains used in calculating a hospital score***.

An additional review compared scoring under both the December 2017 and previous scoring methodologies for rural hospitals.

The comprehensive analysis shows significant scoring differences between rural and urban hospitals, including troubling ***differences in the percentage of hospitals excluded from scoring*** and ***differences in the mix of measures used in scoring***. These differences raise questions about how effective rural hospital quality measurement is under the CMS Hospital Star scoring methodology. A PowerPoint presentation summarizing NOSORH's analysis of the December 2017 methodology is submitted as a separate document accompanying these comments.

NOSORH has also conducted a ***preliminary analysis of the February 2019 methodology update*** to assess whether that methodology significantly changed the

impact of the Hospital Star Rating Program on scoring for rural hospitals. This supplemental analysis repeated the examination of:

- Rural urban differences in the ***percent of scored/unscored hospitals***,
- Rural-urban differences in the ***number of domains used in calculating a hospital score***.

The results of the supplemental analysis are summarized in a separate PowerPoint presentation accompanying these comments. This analysis shows ***no substantial change in the scoring of rural hospitals*** from December 2017 methodology. There is no reason to modify the findings of NOSORH's comprehensive analysis on the effectiveness of the Hospital Star Rating Program for rural hospitals.

Based on its analyses NOSORH makes specific recommendations about potential modification of the current Hospital Star Rating Program. The recommendations address how the current rating system could be modified to establish ***multiple hospital categories and peer grouping***. This would lead to a rating system which would be more inclusive and meaningful for rural hospitals. NOSORH's recommendations are included at the end of these comments.

Analysis Methodology:

Several data files were joined to create the datasets used for the comprehensive NOSORH analysis of the December 2017 methodology. The base file for the comprehensive analysis was a December 2017 Medicare hospital general information file. This file provided information about which hospitals were scored and which were unscored. In addition, the file provided information indicating which domains were used in calculating a scored hospital's performance. The base file was linked to a second file with USDA ERS Rural-Urban Continuum Codes (RUCCs) for United States counties. This file identifies several categories of rural and urban areas at the county or county equivalent level. A third file summarizing individual hospital reporting on all 57 measures was prepared using archived flat files for December 2017. Finally, an October 2017 Medicare hospital general information file was linked to the dataset to permit comparative analysis of the new methodology with the previous one.

A similar approach was used for the analysis of the February 2019 methodology. The base file for the comprehensive analysis was a February 2019 Medicare hospital general information file. The base file was linked to a second file with USDA ERS Rural-Urban Continuum Codes (RUCCs) for United States counties. The use of an identical analytic approach permits comparison of the rural impact of the December 2017 and February 2019 analyses.

Both NOSORH analyses were conducted using the SAS Institute JMP software. Urban/rural hospital reporting and scoring results were compared. Separate CAH analyses were also prepared.

Key Analysis Findings:

- **Rural Hospital Scoring Under the December 2017 Methodology**:

    - The ***percentage of unscored rural hospitals was much higher than unscored urban hospitals***. 33% of all rural hospitals in the base file were unscored – more than twice the 15% figure for unscored urban hospitals. In addition, ***more than half (52%) of all Critical Access Hospitals*** in the base files ***were unscored***. This suggests that many rural hospitals were unable to meet the minimum reporting requirements for scoring, and that the set of measures used for scoring is a poor fit for their operations.

    - The ***star result for scored rural hospitals was based upon a significantly lower number of measures*** than was the star result of urban hospitals. ***On average, scored rural hospitals reported only 35 measures while scored urban hospitals reported 46 measures***. This disparity extended to domains upon which the star result was calculated. ***77% of scored urban hospitals had a star result based upon all 7 domains, compared to only 37% of scored rural hospitals***. This highlights the fact that urban and rural hospitals are being scored on very different sets of measures.

    A more detailed discussion of findings can be found in the accompanying presentation beginning on slide 12.

- **Comparative Rural Hospital Scoring Under December 2017 Methodology and Previous Methodology**:

    - Under the December 2017 star rating methodology:

        - The relative ***percentage of unscored rural hospitals declined***.
        - The relative ***percentage of 3-Star rated rural hospitals declined***.
        - The relative ***percentage of 4-Star and 5-Star rated rural hospitals increased***, ***as did the relative percentage of 1-Star and 2-Star rated rural hospitals***.

    - The December 2017 methodology had a substantial impact on the distribution of ratings in 2 Measure Groups/Domains:

        - Safety of Patient Care, and
        - Readmission.

        This redistribution was significant for both rural and urban hospitals.

    - The December 2017 methodology had a smaller impact on the distribution of ratings in the other 5 Measure Groups/Domains.

A more detailed discussion of these findings can be found in the presentation beginning on slide 7.

- **<u>Rural Hospital Scoring Under the February 2019 Methodology</u>**:

    - The ***percentage of unscored rural hospitals was much higher than unscored urban hospitals***. 30.7% of all rural hospitals in the base file were unscored – more than twice the 12.2% figure for unscored urban hospitals. In addition, ***almost half (47.7%) of all Critical Access Hospitals*** in the base files ***were unscored***. This suggests that many rural hospitals continue to be unable to meet the minimum reporting requirements for scoring under the February 2019 methodology. The set of measures used for scoring continues to be a poor fit for rural hospital operations.

    - Only ***19.6% of scored rural hospitals were rated 1 or 2 stars***. This was substantially lower than the ***34.0% of scored urban hospitals*** with these lesser ratings. ***40.0% of scored rural hospitals were rated 4 or 5 stars***. This was higher than the ***35.6% of scored urban hospitals*** with these better ratings. ***40***.4% of scored rural hospitals were rated 3 starts. This was significantly higher than the ***30.5% or scored urban hospitals*** with this mid-line rating.

    - The ***star result for scored rural hospitals was based upon a significantly lower number of domains*** than was the star result of urban hospitals. ***77.8% of scored urban hospitals had a star result based upon all 7 domains, compared to only 38.0% of scored rural hospitals***. In addition, the star result for ***12.8% of scored rural hospitals were based on only 3 domains*** compared to only ***4.6% of scored urban hospitals***. This highlights the fact that urban and rural hospitals are being scored on very different sets of measures.

    - Only ***5.4% of scored CAHs were rated as 1-star or 2-star hospitals***. This is compared to ***30.5% of scored acute care hospitals*** in these rating categories.

    - Only ***2% of scored Critical Access Hospitals (CAHs) have ratings based on measures in all 7 domains***. This compares with ***78.3% of scored acute care hospitals***. In addition, ***60.2% of scored CAHs have ratings based on only 3 or 4 measurement domains***. This compares with ***6.4% of scored acute care hospitals***. Note that ***only 2.3% of CAHS are scored on the Patient Safety Domain***, indicating that this is a substantial problem for the rating methodology.

    Scored rural hospitals have higher ratings, as a group, than do scored urban hospitals. This may not be the result of better-quality operations. It may instead be an artifact of the different mix of measures being used in the calculation of rural hospital scores. A more detailed discussion of findings can be found in the accompanying presentation.

Recommendations for Improved Rural Hospital Quality Scoring:

Overview: NOSORH has prepared several recommendations for how CMS could improve the usefulness of the Star Rating Program for rural hospitals. These recommendations suggest how the single rating system for all hospitals might be ***disaggregated into a more useful multi-category rating system for comparable subsets of hospitals***. The resulting multi-category system would be something akin to the hospital rating system developed for US News and World Reports. While that system is more complex than would be needed by CMS, it demonstrates the usefulness of a multi-category approach:

https://health.usnews.com/best-hospitals/rankings

A multi-category system could also incorporate a separate approach for rural hospitals consistent with the NQF Final Report on Rural-Relevant Quality Measures:

http://www.qualityforum.org/Publications/2018/08/MAP_Rural_Health_Final_Report_-_2018.aspx

Recommendation 1: Multi-Category Hospital Rating System

Create Multiple Hospital Scoring Categories: NOSORH recommends that CMS establish several separate sets of measures for hospitals ***based upon services provided and operational characteristics***. Each category should have a mix of measures appropriate for the hospitals included – measures for which the hospitals can meet the minimum reporting requirements. This approach would reduce instances of non-reporting by hospitals – for example, when hospitals without orthopedic services reports are asked to report on joint replacement outcomes. The approach would also minimize any reweighting of scores necessitated by low volume non-reporting. Each hospital category could include a core set of cross-cutting measures applicable to all facilities.

Measures in all categories should risk adjusted for hospitals such as Disproportionate Share Hospitals, Sole Community Hospitals and other facilities with larger percentages of low-income patients and uninsured patients. This could be done in a manner consistent with the principles set out by the National Quality Forum in its examination of risk adjustment for socioeconomic factors in quality assessment:

http://www.qualityforum.org/Publications/2014/08/Risk_Adjustment_for_Socioeconomic_Status_or_Other_Sociodemographic_Factors.aspx

Critical Access Hospitals (CAHs) should likely have its own category. The high percentage of CAHs not scored under the current schema points toward the need for a specific set of measures and reporting minimums appropriate for the measurement of quality in their operations. The Medicare Beneficiary Quality Improvement Project (MBQIP) measure set, currently in use for CAHs, can form

the basis of this measurement Category. This measure set is supported by the Federal Office of Rural Health Policy and has a multi-year history:

https://www.ruralcenter.org/tasc/mbqip

Recommendation 2: Hospital Peer Groups

Create Multiple Hospital Peer Groups for Additional Comparisons: NOSORH recommends that CMS create *peer groups of hospitals* for purposes of comparison. Multiple peer groups can be created ***within*** each broad hospital measurement category, using an approach similar to the county peer groups used for health status measurement in the County Health Rankings project sponsored by the Centers for Disease Control and Prevention:

http://www.countyhealthrankings.org/peer-counties-tool

Peer hospital groups can reflect the size and location of hospitals as well as patient population risk similarities. This would allow hospitals to compare themselves not only to a broader hospital category, but to a smaller group of hospitals with similar characteristics. For example, within a CAH category, a CAH with 10 beds and no surgical services or swing beds could compare its operations and ranking to similar CAHs with smaller bed capacity and limited service mix.

Conclusion:

NOSORH appreciates the opportunity to provide comment to CMS on its Hospital Star Rating Program. NOSORH hopes that these comments are useful and stands ready to work with CMS on efforts to make the rating program more relevant to rural hospitals and CAHs.

Hospital Star Rating System and Rural Hospitals

Analysis of December 2017 and Previous Methodologies

National Organization of State Offices of Rural Health

July 2018

Introduction

- **NOSORH conducted an analysis of the impact on rural hospitals of the December 2017 CMS methodology used in its Hospital Star Rating System. A summary of the findings is included in this presentation.**
- **NOSORH's analysis looked at:**
  - **Rural urban differences in the percent of scored/unscored hospitals**
  - **Rural-urban differences in the number of measures used in calculating a hospital score.**
  - **Rural-urban differences in the number of domains used in calculating a hospital score.**
- **The analysis showed significant scoring differences between rural and urban hospitals. This raises questions about how effective rural hospital quality measurement is under the CMS star scoring methodology.**
- **NOSORH developed several suggestions for how the methodology might be modified to provide a better fit for rural hospital quality measurement. These are summarized at the end of this presentation.**

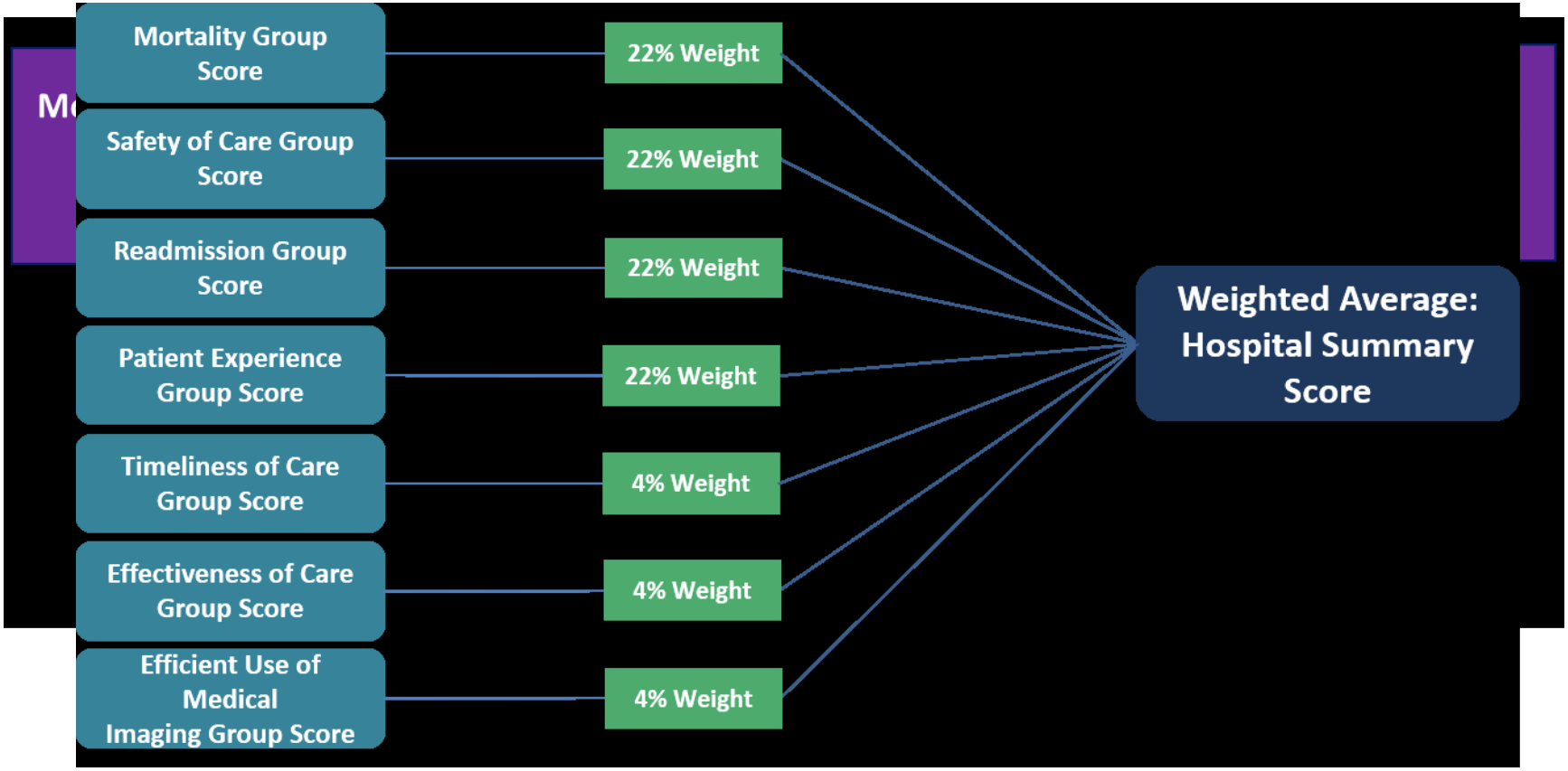
Overview: Star Rating Methodology Update

- **CMS updated the methodology used in its Hospital Star Rating in December 2017.**
  - **The focus of the update changed the categorization approach and was designed to expand the distribution of hospital ratings across the 5 star categories.**
- **The update made a minor change in the measures used to calculate the ratings.**
  - **Two of the 57 measures are dropped and replaced by two others.**
  - **There is no change in the overall number of measures [57] or the number of domains (7) into which the 57 measures are grouped.**
  - **There is also no change in the overall weight given to the each of the domains in computing the Star rating score.**

Scoring Methodology

- **A hospital's overall score is derived from a weighted assessment of 57 different hospital performance measures – not all measures are given the same weight.**
- **These measures are taken from a large dataset used in the Hospital Compare effort.**
- **The measures fall into 7 Measure Groups:**
  - **Mortality (outcome measure);**
  - **Safety of Care (outcome measure);**
  - **Readmission ((outcome measure);**
  - **Patient Experience;**
  - **Effectiveness of Care;**
  - **Timeliness of Care; and**
  - **Efficient Use of Medical Imaging.**
- **Each Measure Group is assigned its own scoring weight.**

Number of Measures in Each Group

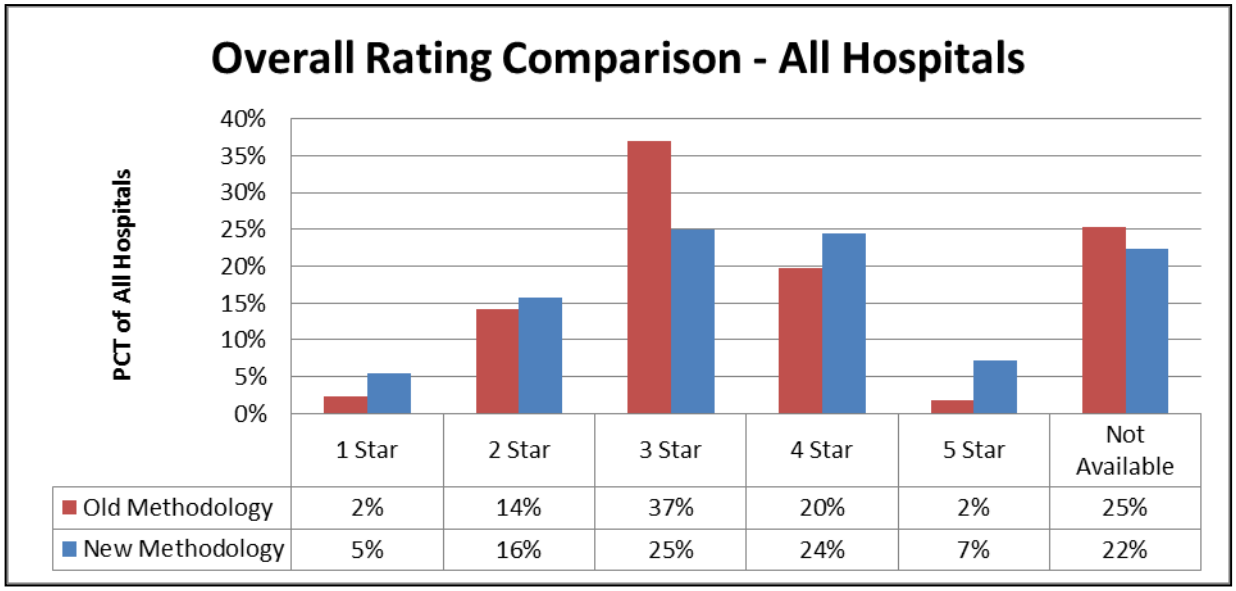


Scored and Unscored Hospitals

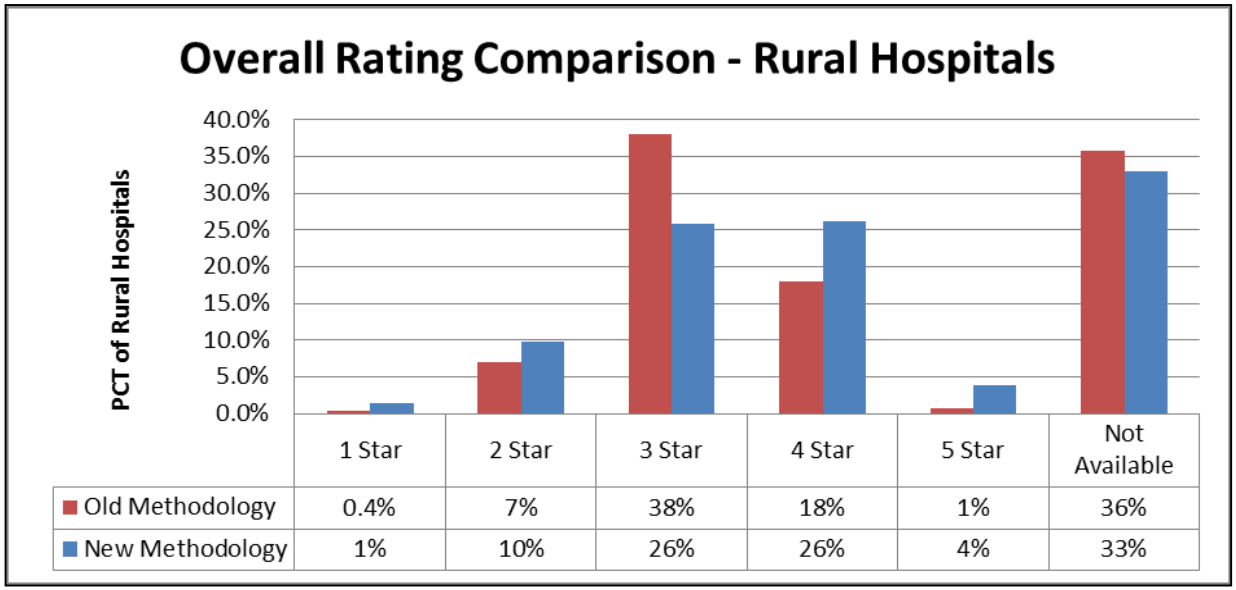
- **For a Measure Group/Domain to be considered in the overall score:**
  - **A minimum of 3 measures must be reported.**
- **For a hospital to receive an overall score:**
  - **At least 3 of the 7 Measure Groups/Domains must be scored.**
  - **At least one of the scored domains being an outcome Measure Group.**
- **Failure to meet these thresholds for measures and Measure Groups will lead to a hospital being unscored.**

Impact on Hospital Star Rating Distribution - 1

- **The new methodology had a significant impact on the rating distribution of hospitals.**
  - **<u>All Hospitals</u>:**
    - **The relative percentage of 3-Star rated hospitals declined.**
    - **The relative percentage of 4-Star and 5-Star rated hospitals increased, as did the relative percentage of 1-Star and 2-Star rated hospitals.**
    - **The relative percentage of unscored hospitals declined.**
  - **<u>Rural Hospitals</u>:**
    - **The relative percentage of 3-Star rated hospitals declined.**
    - **The relative percentage of 4-Star and 5-Star rated hospitals increased, as did the relative percentage of 1-Star and 2-Star rated hospitals increased.**
    - **The relative percentage of unscored hospitals declined.**



	1 Star	2 Star	3 Star	4 Star	5 Star	Not Available
Old Methodology	2%	14%	37%	20%	2%	25%
New Methodology	5%	16%	25%	24%	7%	22%

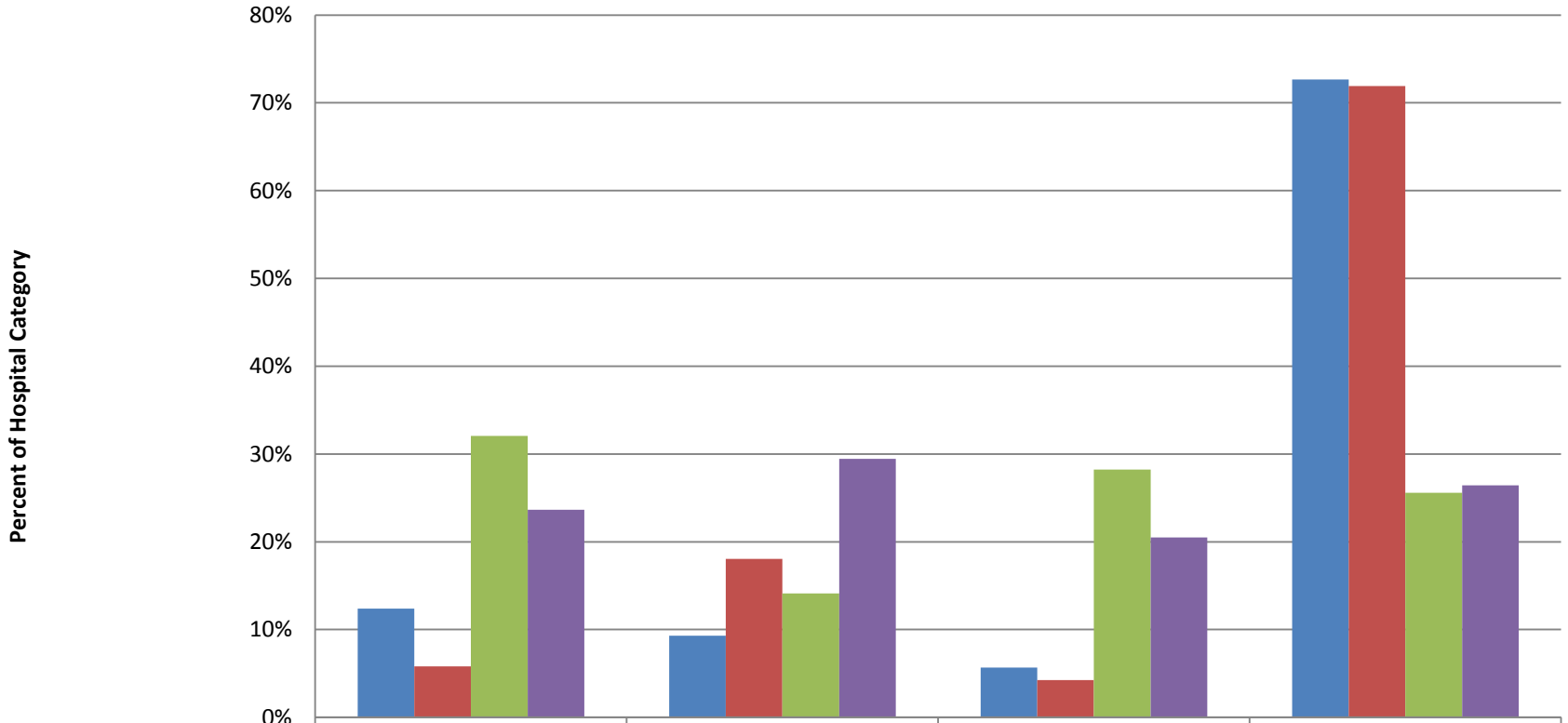


	1 Star	2 Star	3 Star	4 Star	5 Star	Not Available
Old Methodology	0.4%	7%	38%	18%	1%	36%
New Methodology	1%	10%	26%	26%	4%	33%

Impact on Hospital Star Rating Distribution - 2

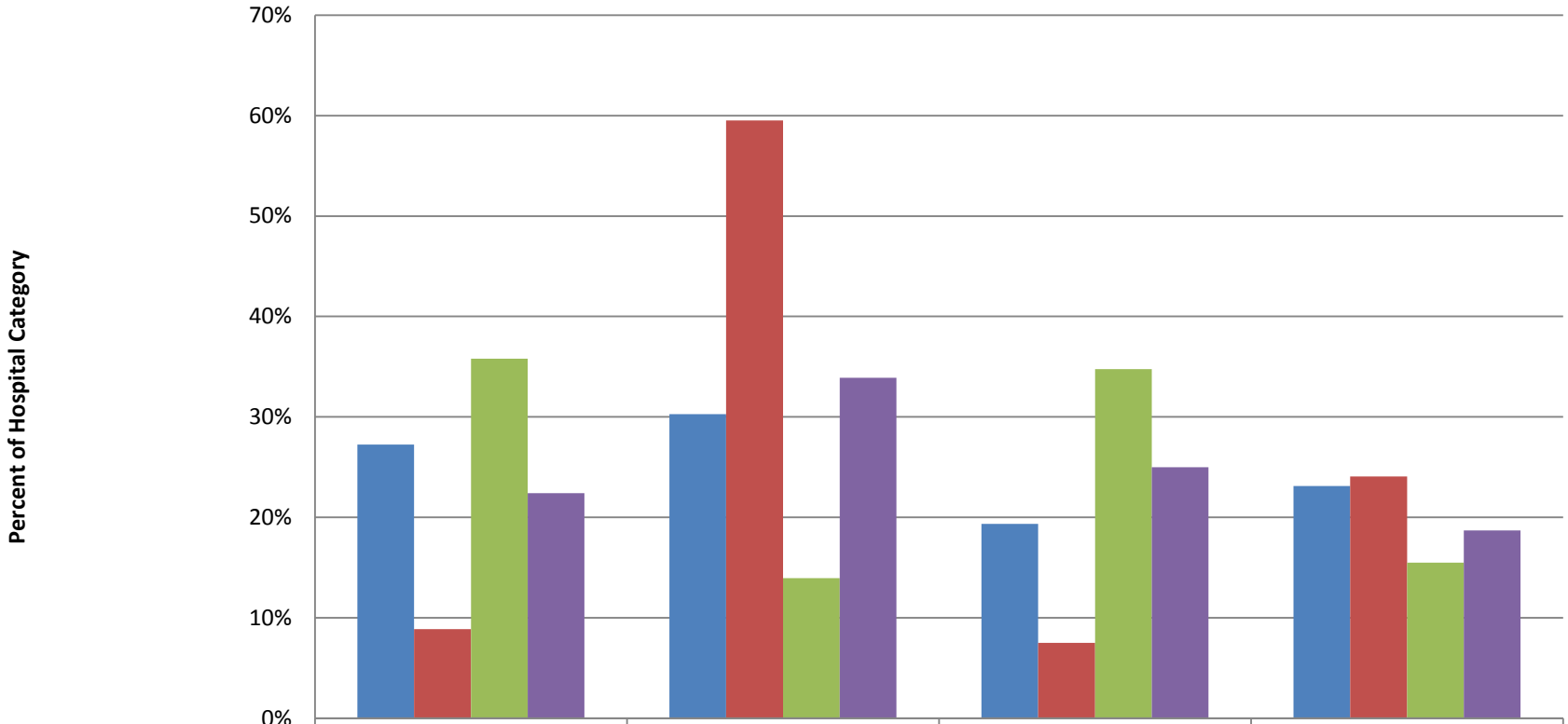
- **The new methodology had a substantial impact on the distribution of ratings in 2 Measure Groups/Domains:**
  - **Safety of Patient Care**
  - **Readmission.**
  - **This redistribution was significant for both rural an urban hospitals.**
- **The new methodology had a smaller impact on the distribution of ratings in the other 5 Measure Groups/Domains.**
- **The new methodology had a limited impact on the percentage of unscored hospitals.**

Safety of Care - Methodology Comparison - Rural/Urban Hospitals



	Above the national average	Same as the national average	Below the national average	Not Available
Rural - New Methodology	12%	9%	6%	73%
Rural - Old Methodology	6%	18%	4%	72%
Urban - New Methodology	32%	14%	28%	26%
Urban - Old Methodology	24%	29%	20%	26%

Readmission - Methodology Comparison - Rural/Urban Hospitals



	Above the national average	Same as the national average	Below the national average	Not Available
Rural - New Methodology	27%	30%	19%	23%
Rural - Old Methodology	9%	60%	8%	24%
Urban - New Methodology	36%	14%	35%	15%
Urban - Old Methodology	22%	34%	25%	19%

Limitations of the Hospital Star Rating System - 1

- **The Hospital Star Rating system, under both the old and new methodology, faces <u>two significant problems</u>:**
  - **<u>Not all hospitals are included in the rating</u>: It should be noted that, under both new and old methodologies, *not all hospitals are scored*.**
    - **Some hospitals do not report on a sufficient number of measures, and may not meet the minimum reporting requires established by CMS for scoring.**
    - **This has been a particular issue for rural hospitals, and is not addressed by changes in the new methodology.**

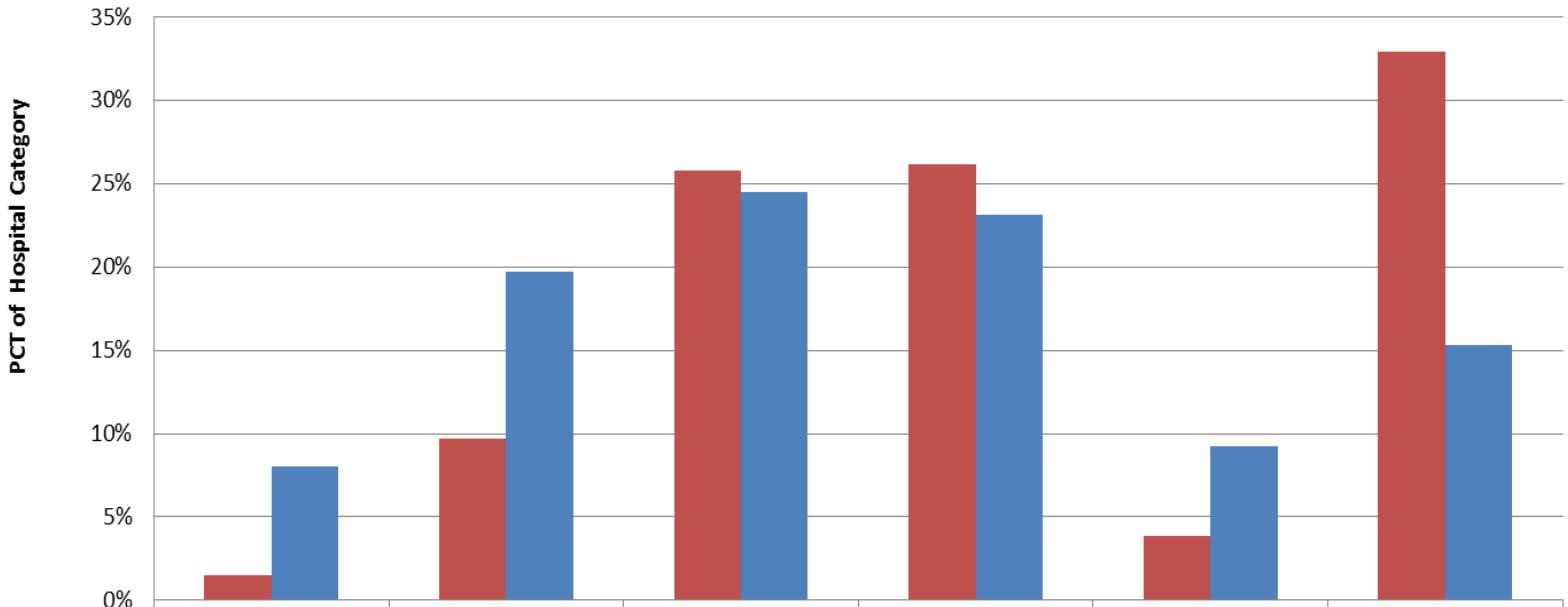
Limitations of the Hospital Star Rating System - 2

- **Not all hospitals are not scored on the same measures: It also should be noted that *most scored hospitals are not scored on all 57 measures*.**
  - **In some cases this results from a measure being *not applicable* to a given hospital. For example, a critical access hospital may not offer joint replacement and could not be scored on measures related to these procedures.**
  - **In other cases a hospital may an *insufficient number* of incidents to meet the measurement minimum.**
    - **The Star Rating methodology adjusts the scoring to adjust for missing measures and missing domains – *reweighting scores* to compensate and keep the total fixed. These adjustments create potential distortions in what is being measured.**

Implications for Rural Hospitals - 1

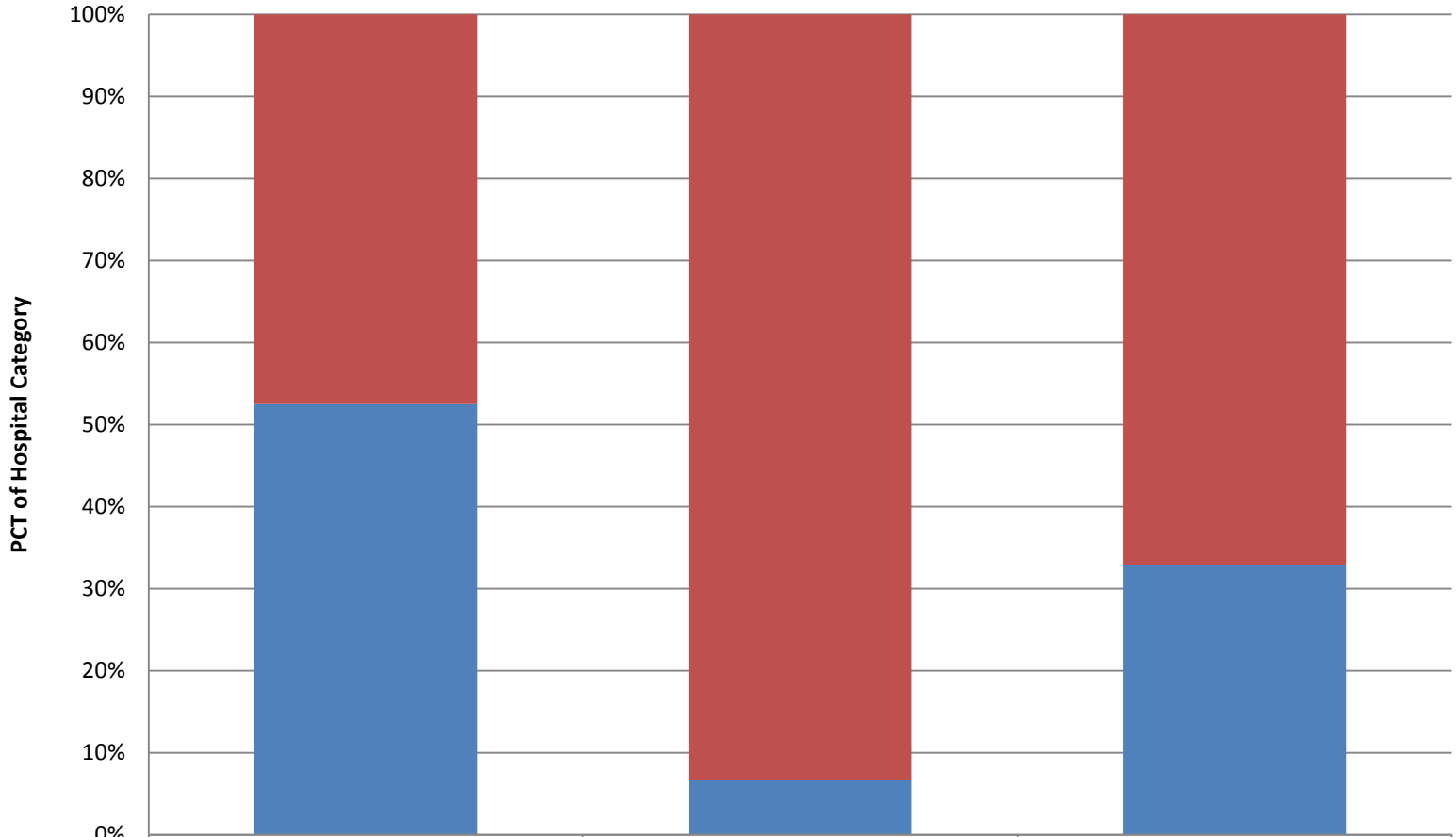
- **Rural hospitals are *inordinately impacted* by these two problems of the Hospital Star Rating system:**
  - **A large percentage of rural hospitals are excluded from rating.**
    - **33% of rural hospitals are unscored.**
    - **By comparison, only 15% of urban hospitals are unscored.**
    - **The exclusion of such a large proportion of rural hospitals is problematic.**
    - **Future modifications of the methodology should be considered to expand the rating system to a much higher percentage of all hospitals.**
  - **This is a particular problem for Critical Access Hospitals (CAHs). More than half (52%) of all CAHs are excluded from rating.**

Overall Rating Comparison - Rural and Urban Hospitals



	1 Star	2 Star	3 Star	4 Star	5 Star	Not Available
Rural Hospitals	1%	10%	26%	26%	4%	33%
Urban Hospitals	8%	20%	25%	23%	9%	15%

Rural Hospitals Unscored Under New Methodology



	Critical Access Hospitals	Rural Acute Care Hospitals	All Rural Hospitals
Scored	48%	93%	67%
Unscored	52%	7%	33%

Implications for Rural Hospitals - 2

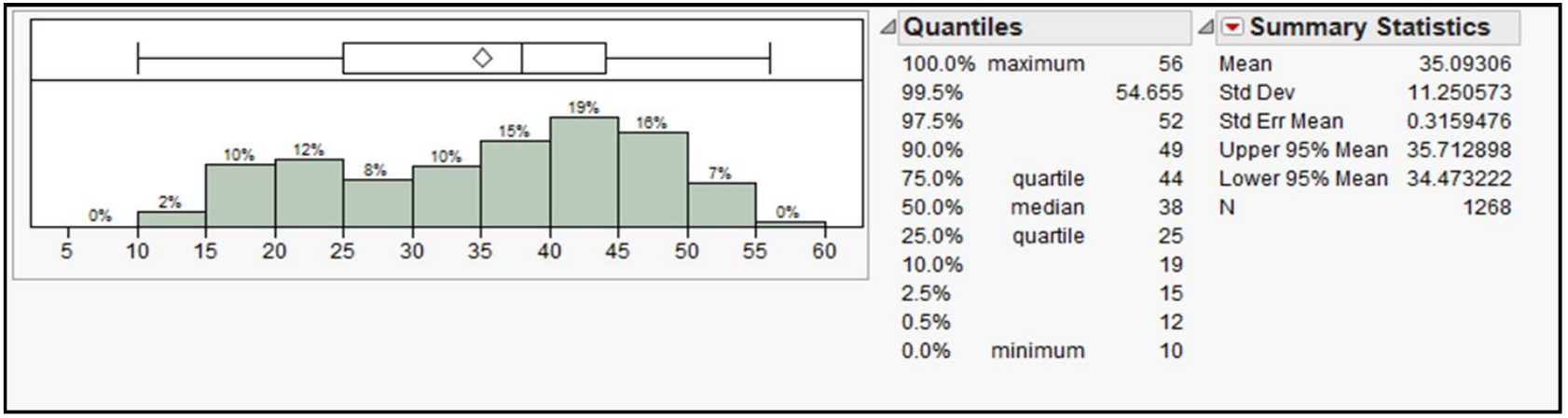
- **Rural hospitals are rated on a different basis than urban hospitals.**
  - **The score adjustment methodology leads rural hospitals to be scored on a very different set of measures than are urban hospitals.**
  - **Both the *total number of measures* and the *specific mix of measures* are different for urban and rural hospitals.**
  - **This is a classic "apples and oranges' problem, and calls into question the usefulness of the Star Rating for consumers.**
  - **Future modifications of the methodology should be considered so that comparisons are made on the basis of equivalent measurement.**

Comparison: Number of Measures in Rating

- **50% of rural scored hospitals are rated on 38 or fewer measures.**
  - **By comparison, only 18% of urban scored hospitals are rated on that small a number of measures.**
- **70% of urban scored hospitals are rated on 45 or more measures.**
  - **By comparison, only 24% of rural scored hospitals are rated on that many measures.**
- **Rural scored hospitals are, on average, rated on 35 measures, while urban scored hospitals are, on average, rated on 46 measures.**

Star Rating – Measures Reported – December 2017

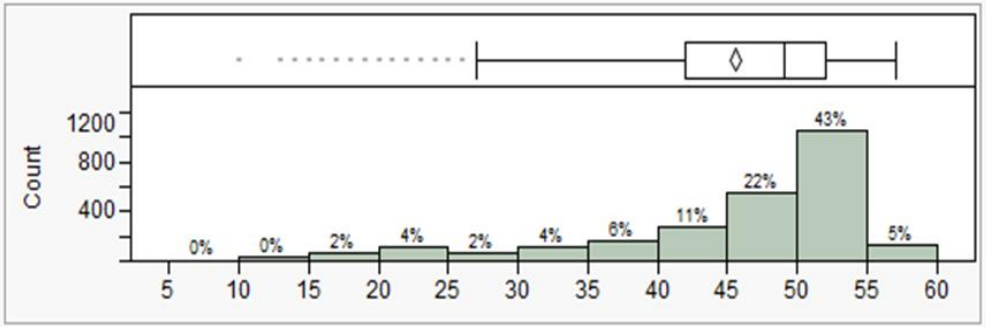
Number of Measures Reported - Rural Scored Hospitals



Quantiles		
100.0%	maximum	56
99.5%		54.655
97.5%		52
90.0%		49
75.0%	quartile	44
50.0%	median	38
25.0%	quartile	25
10.0%		19
2.5%		15
0.5%		12
0.0%	minimum	10

Summary Statistics	
Mean	35.09306
Std Dev	11.250573
Std Err Mean	0.3159476
Upper 95% Mean	35.712898
Lower 95% Mean	34.473222
N	1268

Number of Measures Reported - Urban Scored Hospitals



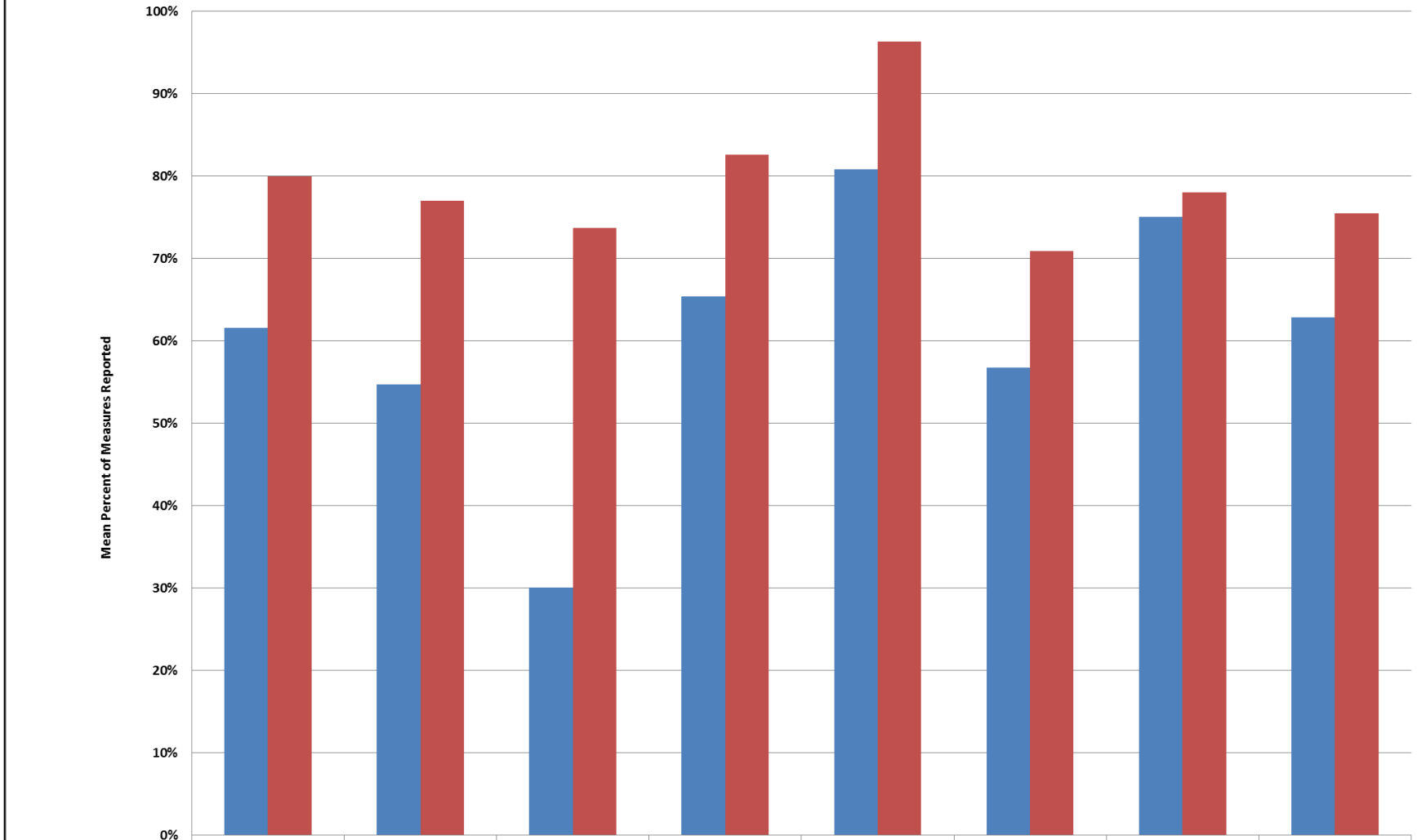
Quantiles		
100.0%	maximum	57
99.5%		56
97.5%		55
90.0%		53
75.0%	quartile	52
50.0%	median	49
25.0%	quartile	42
10.0%		31
2.5%		20
0.5%		15
0.0%	minimum	10

Summary Statistics	
Mean	45.622774
Std Dev	9.3180778
Std Err Mean	0.1896128
Upper 95% Mean	45.994595
Lower 95% Mean	45.250954
N	2415

Comparison: Mix of Measures in Rating

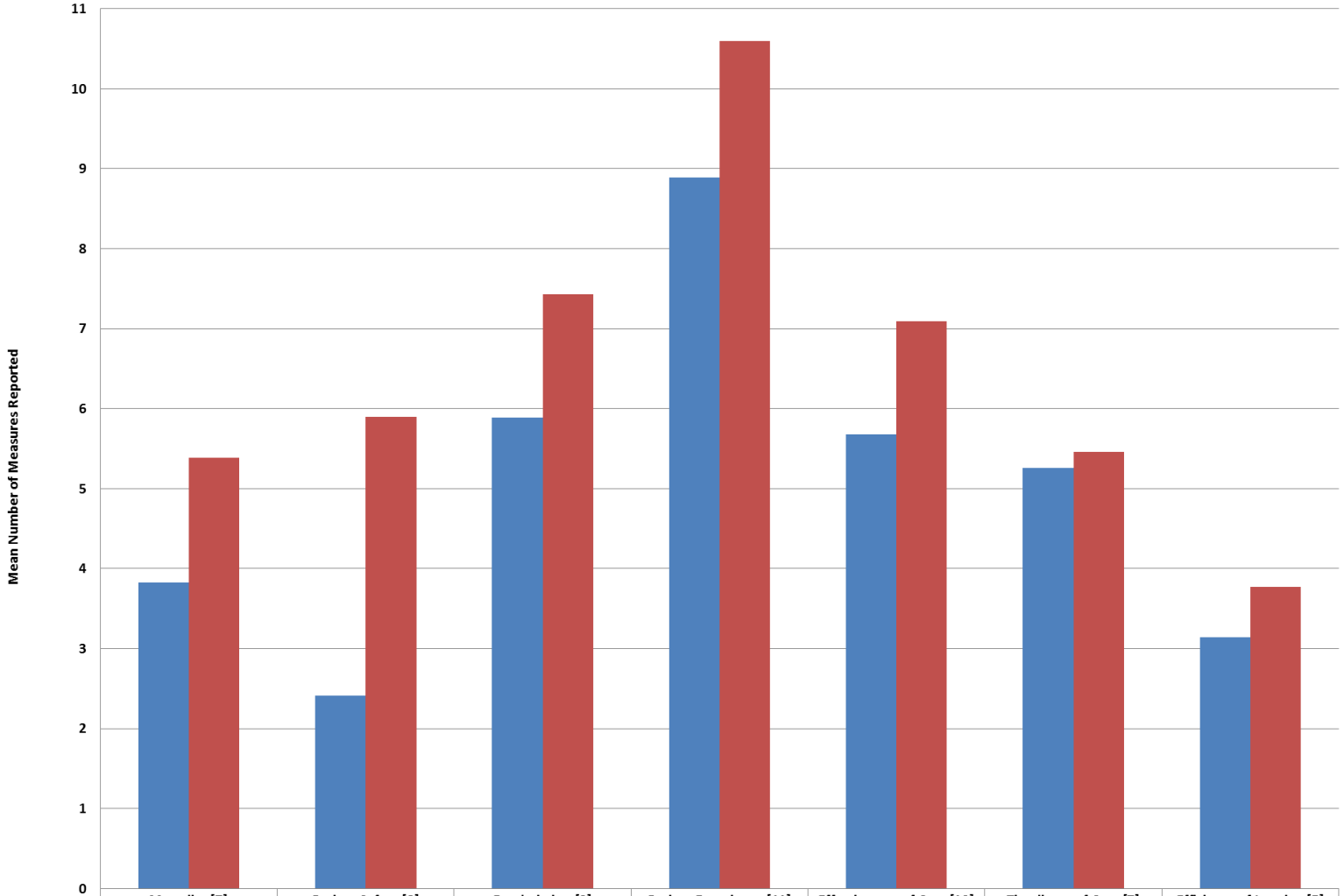
- **Neither rural nor urban hospitals, as a group are rated on *all* 57 measures established for the Hospital Star Rating system.**
  - **Rural scored hospitals, on average, are rated on only 62% of all possible measures.**
  - **This is a much smaller subset than urban scored hospitals, which are rated, on average, on 80% of all possible measures.**
- **In each of the 7 Measure Groups/Domains rural scored hospitals similarly are rated on a smaller set of measures than are urban scored hospitals. This necessitates a greater degree of reweighting of scores.**
- **The greatest rural/urban disparity is in the Patient Safety domain where rural hospitals, on average, are rated on fewer than half the measures than are used for urban hospitals.**

Hospital Star Ratings - New Methodology - Percent of Measures Reported - Scored Hospitals



	All [57]	Mortality [7]	Patient Safety [8]	Readmission [9]	Patient Experience [11]	Effectiveness of Care [10]	Timeliness of Care [7]	Efficiency of Imaging [5]
Scored Rural Hospitals	62%	55%	30%	65%	81%	57%	75%	63%
Scored Urban Hospitals	80%	77%	74%	83%	96%	71%	78%	76%

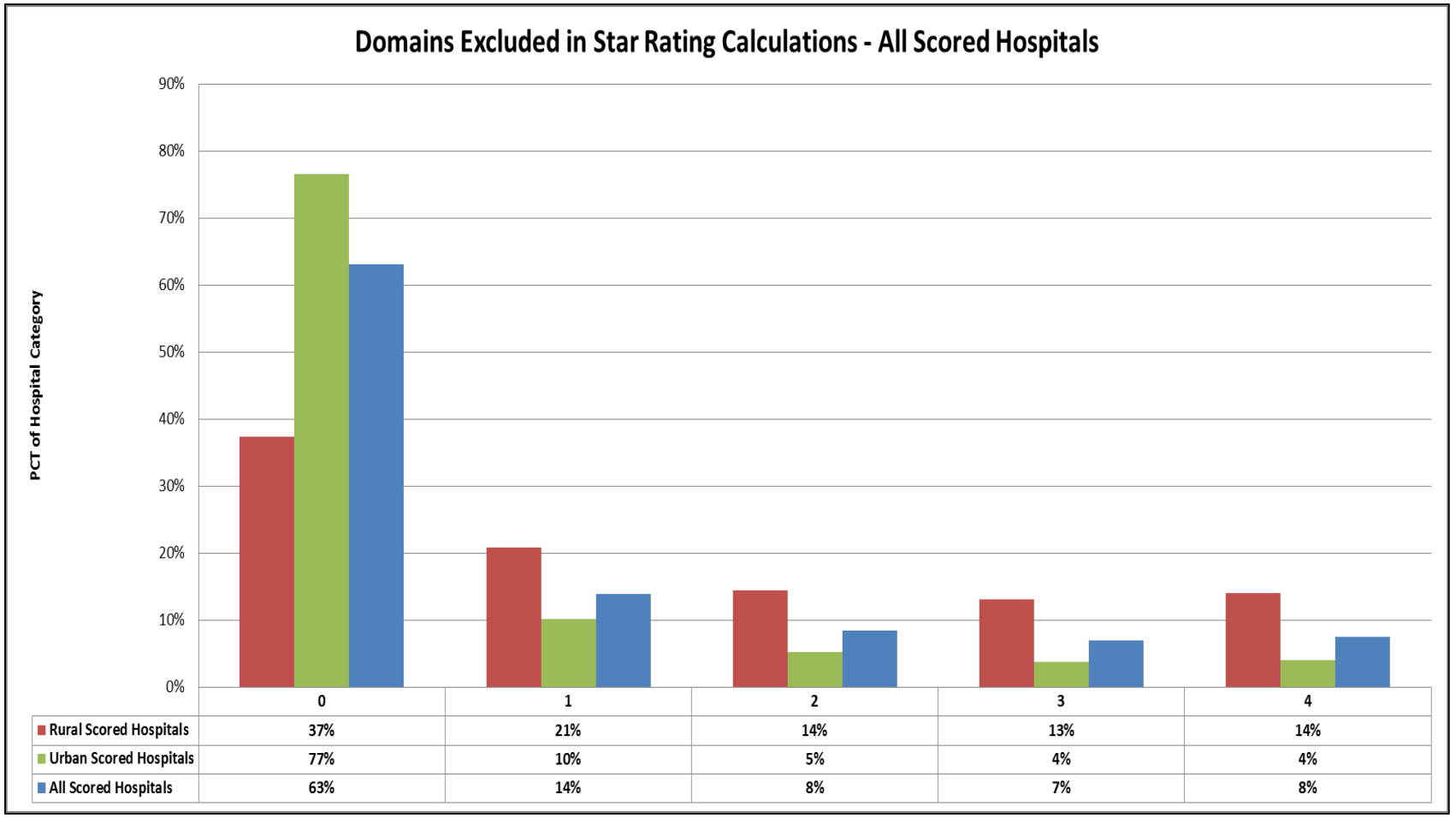
Hospital Star Ratings - New Methodology - Number of Measures Reported - Scored Hospitals



	Mortality [7]	Patient Safety [8]	Readmission [9]	Patient Experience [11]	Effectiveness of Care [10]	Timeliness of Care [7]	Efficiency of Imaging [5]
Scored Rural Hospitals	3.8	2.4	5.9	8.9	5.7	5.3	3.1
Scored Urban Hospitals	5.4	5.9	7.4	10.6	7.1	5.5	3.8

Comparison: Mix of Domains in Rating

- **Not all scored hospitals get their ratings based on all 7 Measure Groups/Domains.**
  - **Only 37% of rural scored hospitals are rated on the full set of domains. This is far lower than the 77% of urban scored hospitals rated on the 7 domains.**
  - **More than a quarter (27%) of rural scored hospitals are rated on only 3 or 4 domains. In comparison only 4% of urban scored hospitals are rated on so few domains.**



	0	1	2	3	4
Rural Scored Hospitals	37%	21%	14%	13%	14%
Urban Scored Hospitals	77%	10%	5%	4%	4%
All Scored Hospitals	63%	14%	8%	7%	8%

Summary

- **Rural hospitals continue to show substantial scoring differences from urban hospitals under the revised methodology.**
  - **The percentage of unscored rural hospitals continues to be significantly higher than that of urban hospitals. This is a particular issue for Critical Access Hospitals.**
  - **The number of measures reported by rural hospitals is lower than the number of measures reported by urban hospitals.**
  - **Rural hospitals are scored on fewer measurement domains than urban hospitals, requiring significant re-weighting of their scores.**
- **Additional changes in the scoring methodology will be needed to make the Hospital Star Rating Program more useful for rural hospitals.**

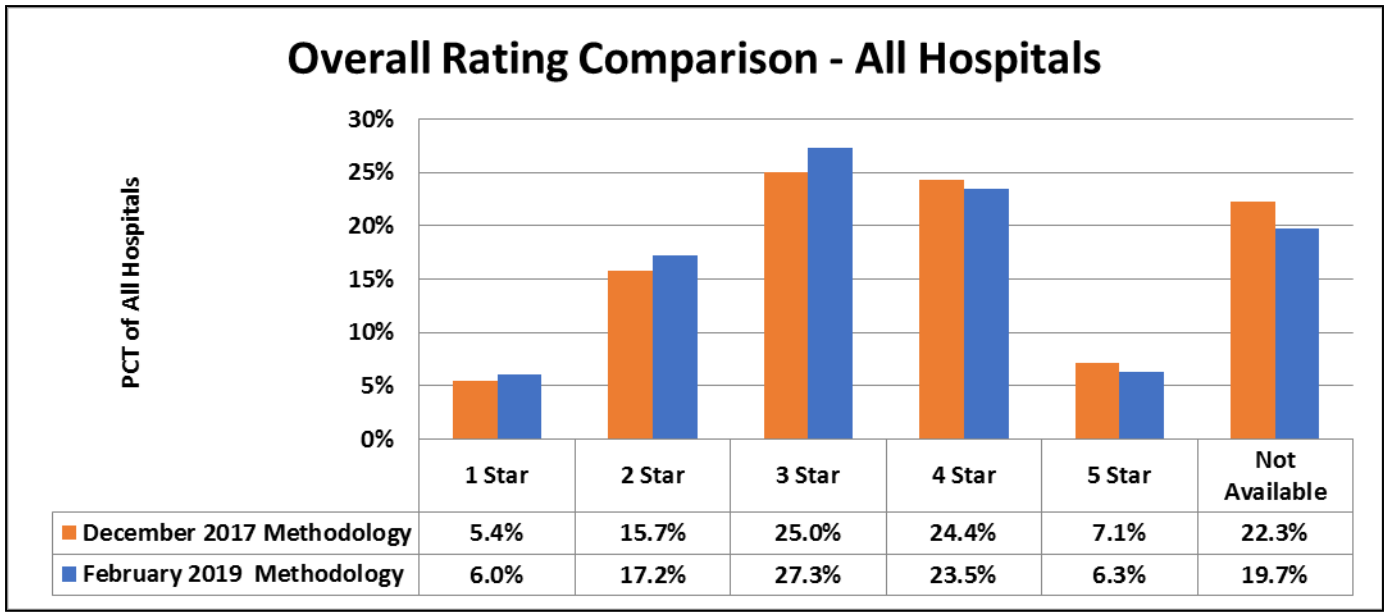
Hospital Star Rating System and Rural Hospitals - Analysis of February 2019 Methodology

National Organization of State Offices of Rural Health

March 2019

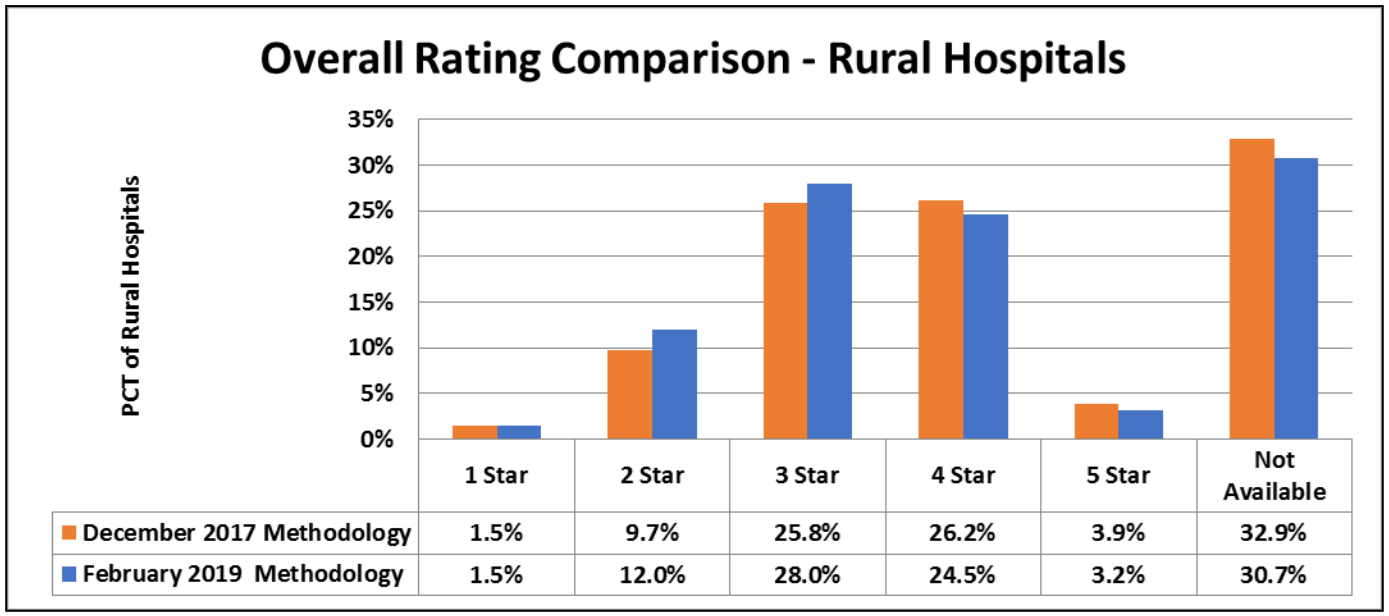
Introduction

- **NOSORH conducted a preliminary analysis of the impact on rural hospitals of the February 2019 CMS methodology used in its Hospital Star Rating System. A summary of the findings is included in this presentation.**
- **NOSORH's analysis looked at:**
  - **Rural urban differences in the percent of scored/unscored hospitals,**
  - **Rural-urban differences in the number of domains used in calculating a hospital score, and**
  - **Comparisons of these disparities under the December 2017 methodology and the February 2019 methodology.**
- **The analysis showed significant scoring differences between rural and urban hospitals. This raises questions about how effective rural hospital quality measurement is under the CMS star scoring methodology.**
- **The analysis shows limited changes in rural hospital impact from the implementation of the February 2019 methodology.**



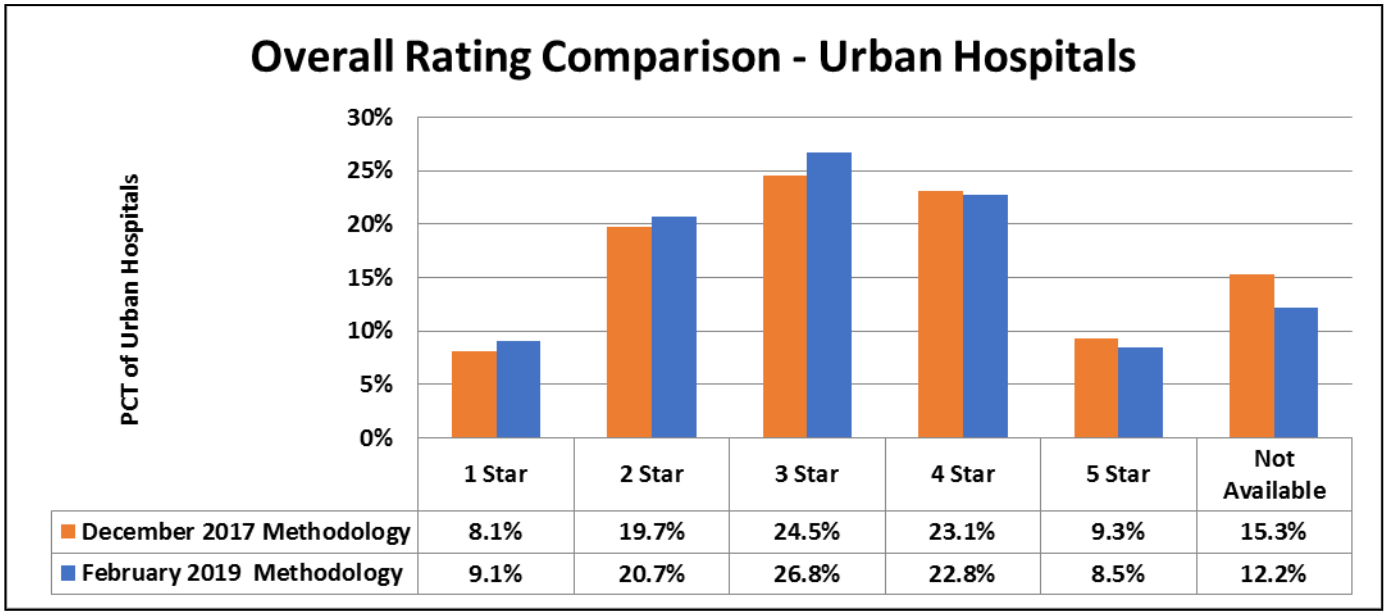
	1 Star	2 Star	3 Star	4 Star	5 Star	Not Available
December 2017 Methodology	5.4%	15.7%	25.0%	24.4%	7.1%	22.3%
February 2019 Methodology	6.0%	17.2%	27.3%	23.5%	6.3%	19.7%

- **The February 2019 methodology resulted in:**
  - **a small reduction in unscored hospitals,**
  - **a small reduction in 4 and 5 star rated hospitals, and**
  - **A small increase in 1, 2 and 3 star rated hospitals.**
- **The overall percent of unscored hospitals remained high, with almost 1 of 5 hospitals not being scored.**



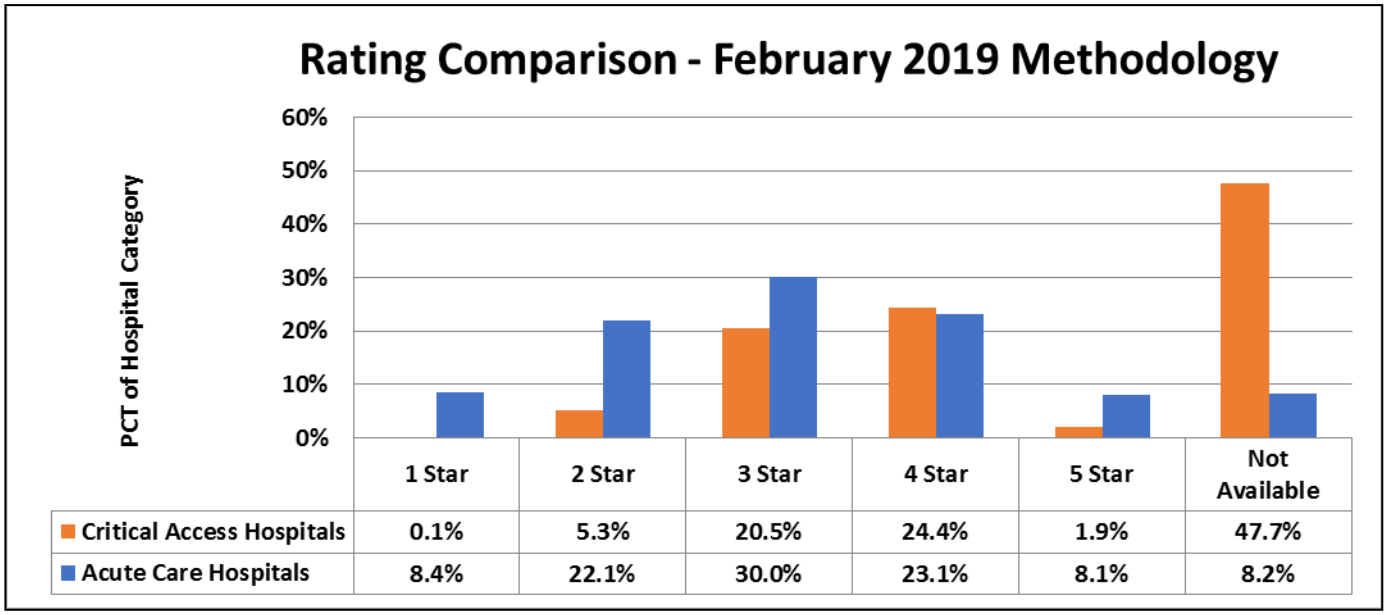
	1 Star	2 Star	3 Star	4 Star	5 Star	Not Available
December 2017 Methodology	1.5%	9.7%	25.8%	26.2%	3.9%	32.9%
February 2019 Methodology	1.5%	12.0%	28.0%	24.5%	3.2%	30.7%

- **The February 2019 methodology resulted in:**
  - **a small reduction in unscored rural hospitals,**
  - **a small reduction in 4 and 5 star rated rural hospitals, and**
  - **A small increase in 2 and 3 star rated rural hospitals.**
- **The overall percent of unscored rural hospitals remained high, with almost 1 of 3 hospitals not being scored.**



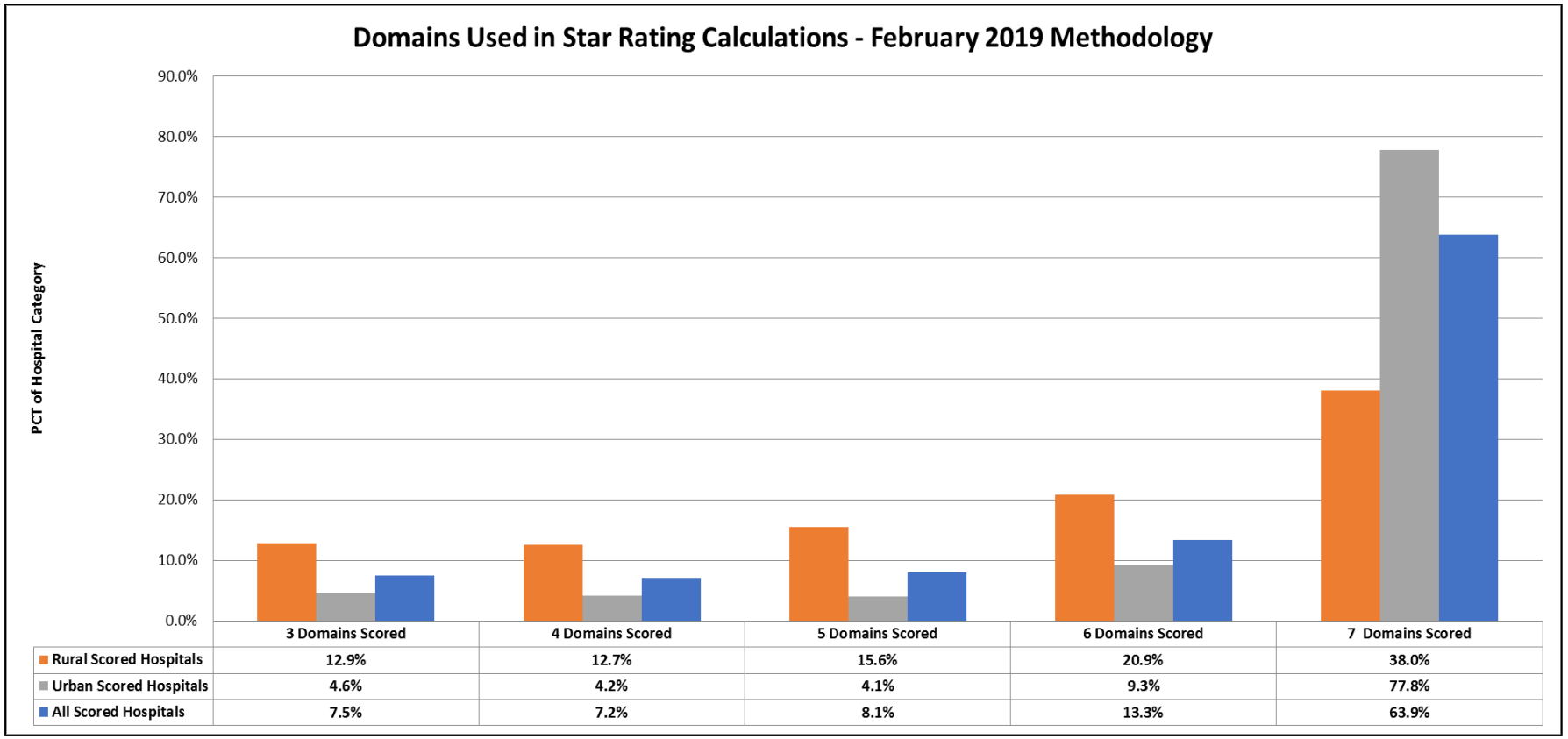
	1 Star	2 Star	3 Star	4 Star	5 Star	Not Available
December 2017 Methodology	8.1%	19.7%	24.5%	23.1%	9.3%	15.3%
February 2019 Methodology	9.1%	20.7%	26.8%	22.8%	8.5%	12.2%

- **The February 2019 methodology resulted in:**
  - **a small reduction in unscored urban hospitals,**
  - **a small reduction in 4 and 5 star rated urban hospitals, and**
  - **A small increase in 1, 2 and 3 star rated urban hospitals.**
- **The overall percent of unscored urban hospitals remained relatively low compared with rural hospitals - almost 1 of 8 urban hospitals are not being scored.**



	1 Star	2 Star	3 Star	4 Star	5 Star	Not Available
Critical Access Hospitals	0.1%	5.3%	20.5%	24.4%	1.9%	47.7%
Acute Care Hospitals	8.4%	22.1%	30.0%	23.1%	8.1%	8.2%

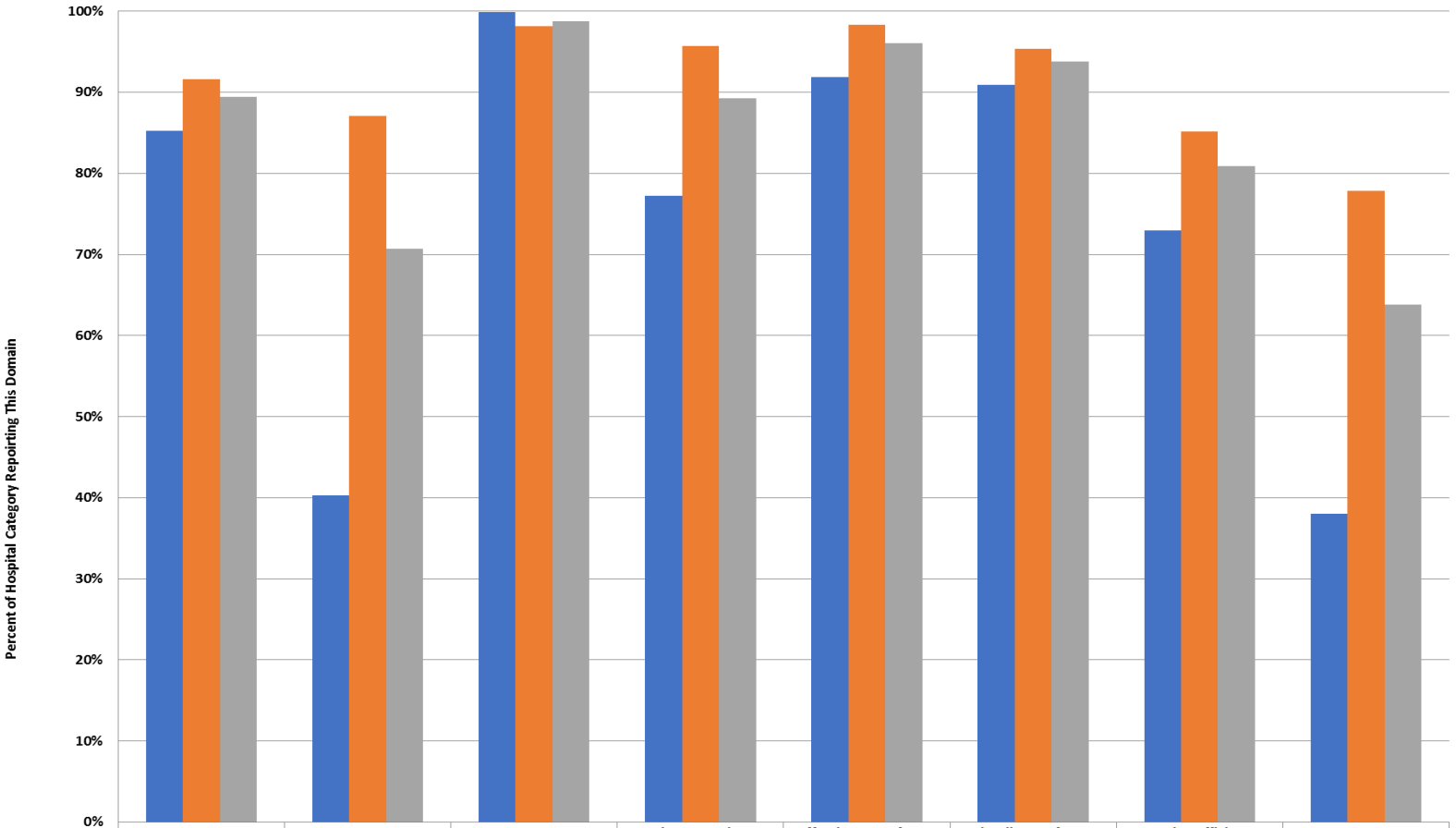
- **Almost half (47.7%)of all Critical Access Hospitals (CAHs) are unscored under the February 2019 methodology. Fewer than 1 in 12 Acute Care hospitals (8.2%) are unscored. This reflects inability of the methodology to measure CAH operations.**
- **Very few CAHs (5.4%) are scored with 1 or 2 stars. This compares with almost a third (30.5%) of Acute Care Hospitals.**
- **The bulk of scored CAHs receive either 3 or 4 stars under the methodology.**



	3 Domains Scored	4 Domains Scored	5 Domains Scored	6 Domains Scored	7 Domains Scored
Rural Scored Hospitals	12.9%	12.7%	15.6%	20.9%	38.0%
Urban Scored Hospitals	4.6%	4.2%	4.1%	9.3%	77.8%
All Scored Hospitals	7.5%	7.2%	8.1%	13.3%	63.9%

- **Only 38% of rural scored hospitals have ratings based on measures in all 7 domains. This compares with more than twice as many (77.8%) urban scored hospitals.**
- **25.6% of rural scored hospitals have ratings based on only 3 or 4 measurement domains. This compares with 14.7% of urban scored hospitals.**
- **These figures demonstrate the very different mix of measures used to score rural and urban hospitals.**

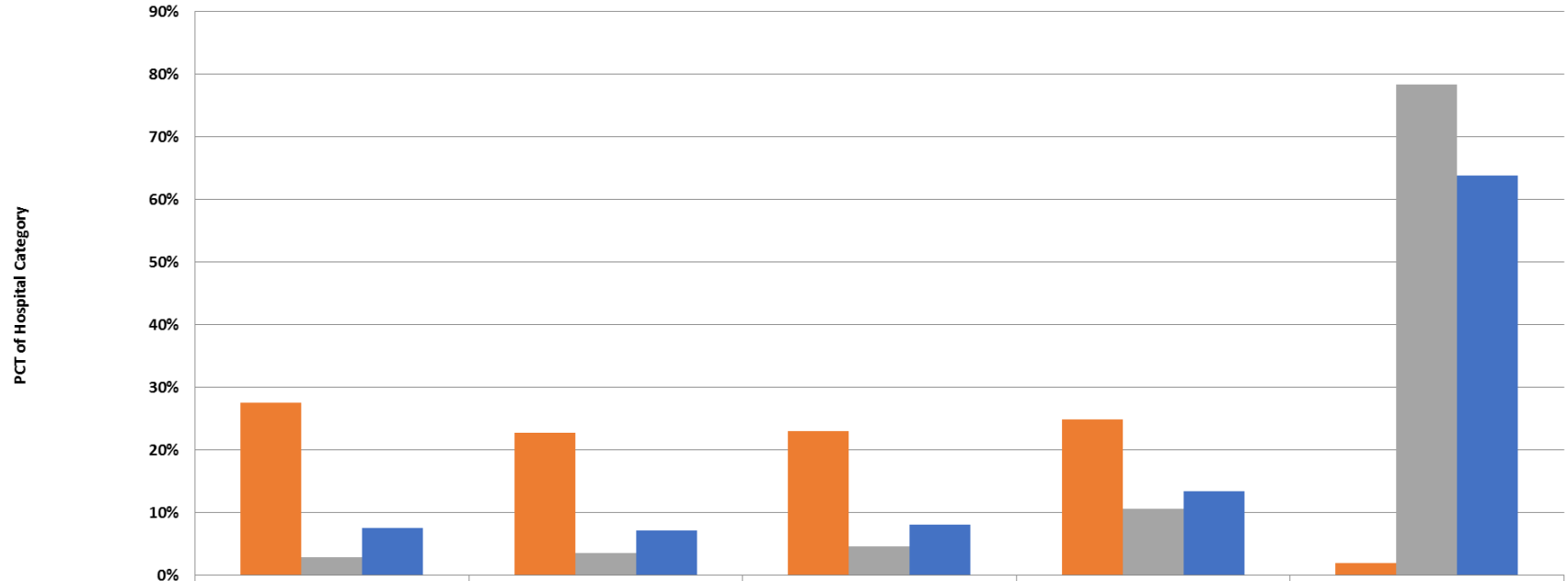
Hospital Star Ratings - February 2019 Methodology - Domains Reported - Percent of Hospitals



	Mortality Domain	Safety of Care Domain	Readmission Domain	Patient Experience Domain	Effectiveness of Care Domain	Timeliness of Care Domain	Imaging Efficiency Domain	All Domains
Scored Rural Hospitals	85.3%	40.3%	99.9%	77.2%	91.9%	90.9%	73.0%	38.0%
Scored Urban Hospitals	91.6%	87.1%	98.1%	95.7%	98.3%	95.4%	85.2%	77.8%
All Scored Hospitals	89.4%	70.7%	98.8%	89.2%	96.1%	93.8%	80.9%	63.9%

- **Scored rural hospitals have reporting disparities with scored urban hospitals in the *Safety of Care*, *Imaging Efficiency*, and *Patient Experience* domains.**

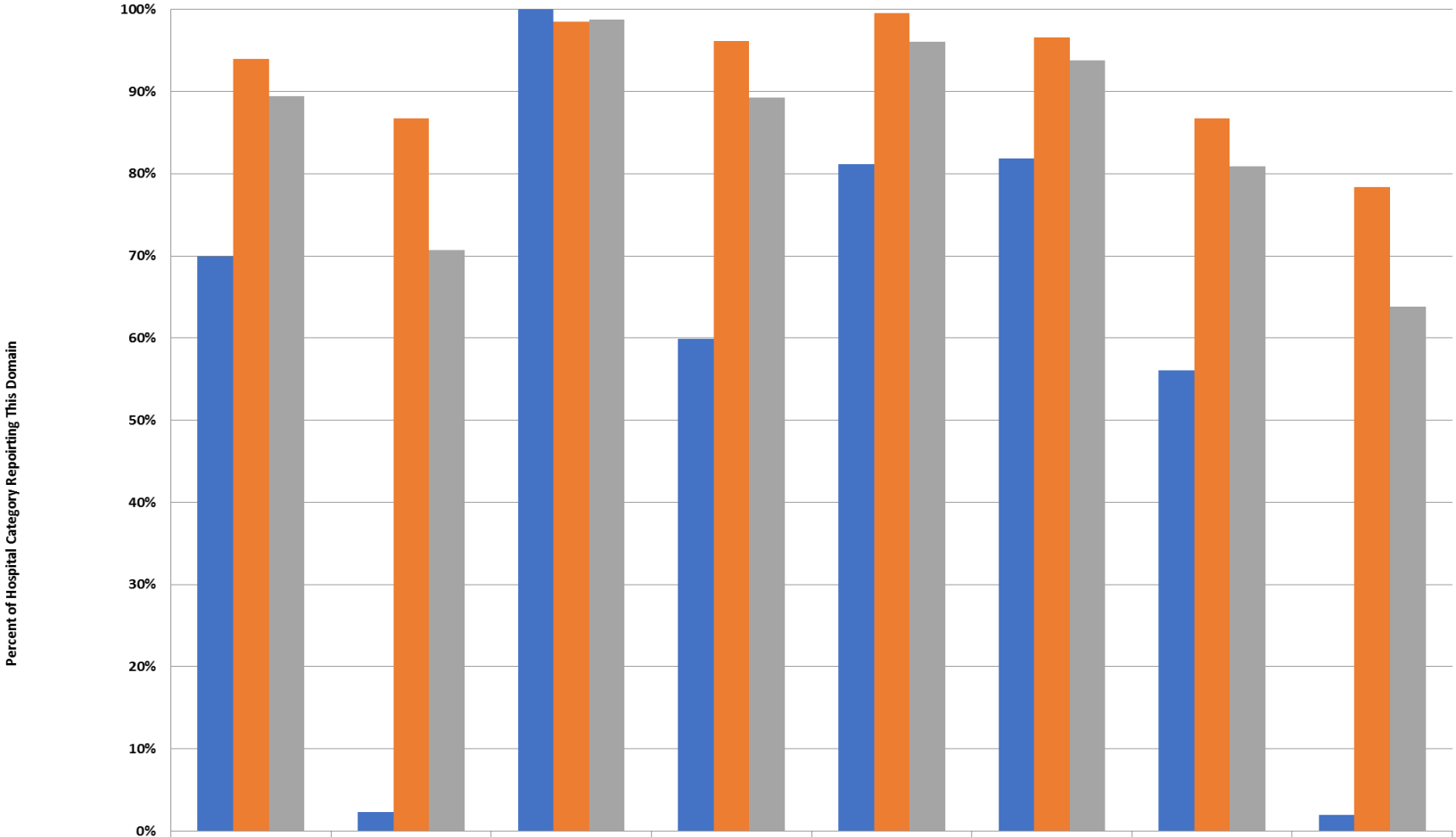
Domains Used in Star Rating Calculations - February 2019 Methodology



	3 Domains Scored	4 Domains Scored	5 Domains Scored	6 Domains Scored	7 Domains Scored
Scored Critical Access Hospitals	27.5%	22.7%	23.0%	24.8%	2.0%
Scored Acute Care Hospitals	2.8%	3.6%	4.6%	10.7%	78.3%
All Scored Hospitals	7.5%	7.2%	8.1%	13.3%	63.9%

- **Only 2% of scored Critical Access Hospitals (CAHs) have ratings based on measures in all 7 domains. This compares with 78.3% of scored acute care hospitals.**
- **60.2% of scored CAHs have ratings based on only 3 or 4 measurement domains. This compares with 6.4% of scored acute care hospitals.**
- **These figures demonstrate the poor conformity of the measurement methodology with CAH operations.**

Hospital Star Ratings - February 2019 Methodology - Domains Reported - Percent of Hospitals



	Mortality Domain	Safety of Care Domain	Readmission Domain	Patient Experience Domain	Effectiveness of Care Domain	Timeliness of Care Domain	Imaging Efficiency Domain	All Domains
Scored Critical Access Hospitals	69.9%	2.3%	100.0%	59.9%	81.1%	81.8%	56.0%	2.0%
Scored Acute Care Hospitals	94.0%	86.7%	98.5%	96.1%	99.6%	96.6%	86.7%	78.3%
All Scored Hospitals	89.4%	70.7%	98.8%	89.2%	96.1%	93.8%	80.9%	63.9%

- **Scored CAHs have significant reporting disparities with scored acute care hospitals in the *Safety of Care*, *Imaging Efficiency*, *Patient Experience, and Mortality* domains.**