

5-Star Analysis Update

LeadingAge State Executives

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Today's Objectives

- Review recent changes to the 5-Star Rating System
- Explain new methodology for imputing rates and rescaling for facilities with missing data
- Demonstrate how these changes will affect the 5-star analysis
- Q&A

Most Recent Changes to Nursing Home Compare and 5-Star Rating System

- April 2016, CMS began posting data for six new quality measures (QMs) on Nursing Home Compare
 - Four short-stay measures
 - Three are claims-based
 - 1 MDS-based
 - Two long-stay measures
 - Both MDS-based
- Beginning with the July 2016 ratings, five of the new measures are used in the calculation of the Five-Star Quality Ratings (QM ratings)

New Quality Measures

1. Percentage of short-stay residents who were successfully discharged to the community (Claims-based)
2. Percentage of short-stay residents who have had an outpatient emergency department visit (Claims-based)
3. Percentage of short-stay residents who were re-hospitalized after a nursing home admission (Claims-based)
4. Percentage of short-stay residents who Improved Performance in Transfer, Locomotion and Walking (MDS-based)
5. Percentage of long-stay residents whose ability to move independently worsened (MDS-based)
6. Percentage of long-stay residents who received an antianxiety or hypnotic medication (MDS-based). **Note: This measure will not be incorporated into the 5-star rating system due to concerns about its specificity and appropriate thresholds.**

Changes to the 5-Star QM Calculations

- Using 4 quarters of data rather than 3 for determining QM ratings
- Reducing the minimum denominator for all measures to 20 summed across four quarters
- Using national cut points for assigning points for the ADL QM rather than state-specific thresholds
- New calculations will be used for facilities that have missing data or an inadequate denominator size for one or more QMs
- The new measures will have 50% weight of the measures used before July 2016. In January, they will have the same weight (100 points each)

New Scoring Rules

- For each QM, 20 to 100 points (up to 50 points for each of the new QMs) are assigned based on NH performance
- Total score ranges between 275 and 1,350 points in July and between 325 and 1,600 in January 2017
- Some QMs are scored slightly different from others based on prevalence and national distribution
- Cut points are based on QM distributions averaged across the 4 quarters of 2015. For the claims based QMs, they are based on the period of Q3 2014 – Q2 of 2015

Demo of Updated Analysis

- Normal Report
 - approximately 72% of facilities nationwide will see only a few changes to the LeadingAge 5-Star Analysis

Missing Data and Imputation

- QM rates can be calculated if at least 20 residents' assessments are available for the LS and SS MDS-based QMs. Claims-based QMs must have 20 NH stays over the course of a year
- If not, all available data from facility is used and remaining assessments or stays are **imputed** to get the facility to the minimum sample of 20
- Example: facility has data for 10 assessments; remaining 10 would be imputed **using the state average** to get the minimum sample size

New Imputation Strategies

- **Scenario 1:** NH has adequate sample size for at least 5 of the 9 LS QMs, values for remaining LS QMs are imputed
- **Scenario 2:** NH has adequate sample size for at least 4 of the 7 SS QMs (must include at least one of the claims-based QMs), values are imputed for the remaining SS QMs
- **Scenario 3:** NH has adequate sample size on 4 or fewer LS QMs, the QM rating is based on the SS Measures only. No LS QMs are used in determining the QM rating
- **Scenario 4:** NH has adequate sample size for 3 or fewer SS QMs or no claims-based QMs, the QM rating is based on the LS measures only. No SS measures are used in determining the QM rating.
Exception: A small number of NHs have adequate sample sizes for all 4 MDS-based SS QMs but none of the claims-based QMs. Values are not imputed for the claims-based measures, however points are assigned to the MDS-based QMs.

Rating Methodology

- After any imputation for individual QMs, points are summed across all QMs to create a total score for each facility
- Facilities that receive a QM rating:
 - Have points for all the QMs
 - Have points for only the 9 LS QMs (long-stay facilities)
 - Have points for the 9 LS QMs and the 4 MDS-based SS
 - Have points for only the 7 SS QMs (short-stay facilities)
 - Have points for only the 4 MDS based SSQMs
- No values are imputed for NHs with data on fewer than 5 LS and fewer than 4 SS QMs. No QM rating is generated for these NHs
- To ensure all NHs are scored on the same scale, the total score is rescaled for long and short-stay facilities

Rescaling

- When the facility has data for only LS QMs, the average of these point values is assigned for each of the seven (missing) SS measures and the total score is recalculated
- When the facility has data for the 9 LS QMs and the 4 MDS based SS QMs but no claims-based QMs, the average of the point values for the MDS based SS QMs is used for each of the 3 missing claims-based QMs
- When the facility has data for only the seven SS measures, the average of their point values is assigned to each of the 9 LS measures
- When the facility has data for only the 4 MDS-based SS QMs but none of the LS QMs or the claims-based QMs, the average of the point values for the MDS-based SS QMs is assigned for each of the 9 missing LS measures and each of the 3 missing claims based measures

Demo of updated Analyses

- **Report with imputed rates** - NHs will receive a partial analysis and instructions on how to use report in conjunction with CASPER
- **Report with rescaled points** – NHs will receive a complete analysis

How does this update affect NHs?

5 Star Analysis Report: Facility Rating Category	QM Analysis Type	July 2016		August 2016	
		Count	Percentage	Count	Percentage
No QM Rating	No analysis	164	1.05%	157	1.00%
Imputed Rates	Partial analysis	2,406	15.38%	2,408	15.40%
Re-scaled Points	Complete analysis	1,948	12.45%	1,949	12.46%
No Imputation or Re- scaling		11,126	71.12%	11,124	71.13%
Total		15,644	100.00%	15,638	100.00%

Sample CASPER Provider Report

MDS 3.0 Short-Stay Measures								
<i>Higher percentages are better.</i>								
Percentage of residents who made improvements in function ^{2,3}	d<20	d<20	d<20	NA	62.3% ⁷	20.00	65.9%	63.0%

<i>Lower percentages are better.</i>								
Percentage of residents who self-report moderate to severe pain	4.8%	5.0%						

CMS provides imputed measure adjusted rates and points

	Observed Rate ⁴	Expected Rate ⁵	Risk-Adjusted Rate ⁶	Rating Points ¹	Risk-Adjusted Rate	Risk-Adjusted Rate
Claims-Based Measures						
<i>A higher percentage is better.</i>						
Percentage of residents who were successfully discharged to the community ^{2,3}	NA	NA	20.2% ⁷	10.00	50.6%	50.7%
<i>Lower percentages are better.</i>						
Percentage of residents who were re-hospitalized after a nursing home admission ^{2,3}	10.0%	17.2%	12.6%	50.00	19.8%	21.1%
Percentage of residents who had an outpatient emergency department visit ^{2,3}	3.3%	9.0%	4.1%	50.00	9.7%	11.5%

Total Quality Measure Points

Total QM points with new quality measures weighted 50%	970.00
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Questions?

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