The Centers for Medicare & Medicaid Services (CMS) Five-Star Quality Measure Rating Excel Calculation Tool Methodology

This document outlines background information and general steps required to generate nursing home Long-Stay, Short-Stay and Overall Five-Star Quality Measure (QM) Ratings, consistent with Five-Star QM Ratings posted on the Medicare Nursing Home Compare website, as performed within the Nursing Home Compare Five-Star Quality Measure Rating Calculation Tool. The Microsoft Excel tool was developed in accordance with the *Design for Nursing Home Compare Five-Star Quality Rating System: Technical Users' Guide*. The Technical Users' Guide (TUG) is available for direct download from the CMS website.

In April 2019, CMS introduced separate ratings for short-stay and long-stay measures to reflect the level of quality provided for these two subpopulations in nursing homes. Each facility will continue to have an overall QM rating, which will be equally based on the short- and long-stay quality ratings. Additionally, CMS added the long-stay hospitalization measure and a measure of long-stay emergency department (ED) transfers to the rating system. CMS replaced two short-stay QMs, pressure ulcers and successful discharge to community, with two similar measures from the Skilled Nursing Facility Quality Reporting Program. These replacements are to avoid duplication and reduce confusion amongst website users. Furthermore, the QM of long-stay residents who were physically restrained will no longer be included in the rating system.

Effective April 2019, Five-Star QM Ratings are based on four-quarter risk-adjusted rates from three short-stay claims-based and two long-stay claims-based QMs, as well as four-quarter averages from eight long-stay and four short-stay MDS 3.0 QMs. These values are provided in your facility's *Five-Star Preview Report* available from CMS.

Information regarding the availability and location of your facility's *Five-Star Preview Report* can be found at the Quality Improvement and Evaluation System (QIES) Technical Support Office website. Similar instructions are also available on our QIN-QIO website under Nursing Home Quality Improvement Collaborative.

Since the *Five-Star Preview Reports* remain within a Certification and Survey Provider Enhanced Reports (CASPER) folder for only two months, we recommend saving these reports to your computer once you have them downloaded.

Please note this Excel tool is designed to use values displayed in your facility's *Five-Star Preview Report*, which reflect any needed imputation of missing data; use of QM values obtained from other data sources is not supported. For detailed information regarding imputation of points, reference the sub-section titled *Missing Data and Imputation* located under the *Quality Measure Domain* section of the TUG.

After any needed imputation of individual QM values, points are assigned for each measure based on facility performance relative to the national distribution of the QM as referenced in the TUG sub-section titled *Scoring Rules for the Individual QMs* located under the *Quality Measure Domain*. Long-stay QM points are summed to create a long-stay QM score. Short-stay QM points are summed to create an unadjusted short-stay QM score, and an adjustment factor is applied to create an adjusted short-stay QM score. The total QM score is the sum of the long-stay QM score and adjusted short-stay QM score.

Facilities that receive an overall QM rating are in one of the following categories:

- They have points for all QMs.

- They have points for only the 10 long-stay QMs (long-stay facilities).

- They have points for only the seven short-stay QMs (short-stay facilities)

- They do not have sufficient data for either the long-stay or the short-stay QMs. No QM ratings are generated for these nursing homes.