Technical Notes for Star Ratings Tukey Outlier Deletion Simulations

There are four tabs in the Tukey Outlier Deletion Simulations Excel file. The data on each tab are explained below. These simulations include identification of Tukey outer fence outliers which are defined as measure scores that are below a certain point (first quartile−3.0 × (third quartile−first quartile)) or above a certain point (third quartile + 3.0 × (third quartile−first quartile)).

Part C Outlier Cutoffs: This tab shows the simulated upper and lower Tukey outer fence outlier cutoffs for the 2022 and 2023 Star Ratings for each applicable Part C Star Ratings measure. If the calculated outlier cutoff is below the minimum or exceeds the maximum value for the given measure, then the minimum or maximum value is displayed as the cutoff.

Part D Outlier Cutoffs: This tab shows the simulated upper and lower Tukey outer fence outlier cutoffs for the 2022 and 2023 Star Ratings for each applicable Part D Star Ratings measure for each type of contract (MA-PD and PDP). If the calculated outlier cutoff is below the minimum or exceeds the maximum value for the given measure, then the minimum or maximum value is displayed as the cutoff.

2022 Star Ratings Cut Points: This tab shows two sets of cut points for the 2022 Star Ratings: (1) the actual cut points as calculated for the 2022 Star Ratings, and (2) simulated cut points for the 2022 Star Ratings calculated including Tukey outlier deletion. Neither set of cut points includes guardrails. The actual cut points are identified by 'Actual' in the 'Actual/Simulated Cut Points' column and blue highlighting, and the simulated cut points are identified by 'Simulated' in the 'Actual/Simulated Cut Points' column.

2023 Star Ratings Cut Points: This tab shows two sets of cut points for the 2023 Star Ratings: (1) the actual cut points as calculated for the 2023 Star Ratings including guardrails based on the actual 2022 Star Ratings cut points, (2) simulated cut points for the 2023 Star Ratings calculated including Tukey outlier deletion and guardrails based on the simulated 2022 Star Ratings cut points that included Tukey outlier deletion. The actual cut points are identified by 'Actual' in the 'Actual/Simulated Cut Points' column and blue highlighting, and the simulated cut points are identified by 'Simulated' in the 'Actual/Simulated Cut Points' column.

On both the 2022 Star Ratings Cut Points and 2023 Star Ratings Cut Points tabs, the four cut point thresholds are listed for each measure. These thresholds may be interpreted as shown in the following example for the actual 2023 Star Rating cut points for Breast Cancer Screening (C01).

- The 'Cut Point for 1 to 2 Stars' is 43. This means scores less than 43% correspond to 1 star.
- The 'Cut Point for 2 to 3 Stars' is 62. This means scores greater than or equal to 43% and less than 62% correspond to 2 stars.
- The 'Cut Point for 3 to 4 Stars' is 70. This means scores greater than or equal to 62% and less than 70% correspond to 3 stars.
- The 'Cut Point for 4 to 5 Stars' is 77. This means scores greater than or equal to 70% and less than 77% correspond to 4 stars, and scores greater than or equal to 77% correspond to 5 stars.