CMS

Skilled Nursing Facility Value-Based Purchasing Program
FY 2024 Program Year Incentive Payment Multiplier Calculation

This infographic describes how performance scores and incentive payment multipliers are calculated for the Fiscal Year (FY) 2024 Skilled Nursing Facility Value-Based Purchasing (SNF VBP) Program year.

STEP 1

CALCULATE RISK-STANDARDIZED READMISSION RATES (RSRRs)

For the FY 2024 Program year, the Centers for Medicare and Medicaid Services (CMS) awards incentive payments to SNFs through the SNF VBP Program based on their performance on the Skilled Nursing Facility Readmission Measure (SNFRM) during a baseline period and a performance period.

a Calculate an RSRR for both the **baseline and performance periods:**

$$\left(\frac{\text{Predicted \# of readmissions}}{\text{Expected \# of readmissions}}\right) \times \begin{array}{c}\text{National} \\ \text{unadjusted} \\ \text{readmission} \\ \text{rate}\end{array} = \text{RSRR}$$

- The *predicted number of readmissions* is the number of unplanned readmissions predicted based on a SNF's performance given its unique case mix.

- The *expected number of readmissions* is the number of unplanned readmissions that would be expected if the residents at a given SNF were treated at the average SNF.

b Calculate inverted RSRRs so that higher results indicate better performance:

$$1 - \text{RSRR} = \text{Inverted RSRR}$$

Example

a SNF A's baseline period (**FY 2019**) RSRR:

$$\left(\frac{15.477}{14.761}\right) \times 0.19728 = 0.20685$$

SNF A's performance period (**FY 2022**) RSRR:

$$\left(\frac{10.342}{11.414}\right) \times 0.20071 = 0.18186$$

Example

b SNF A's baseline period (**FY 2019**) inverted RSRR:

$$1 - 0.20685 = 0.79315$$

SNF A's performance period (**FY 2022**) inverted RSRR:

$$1 - 0.18186 = 0.81814$$
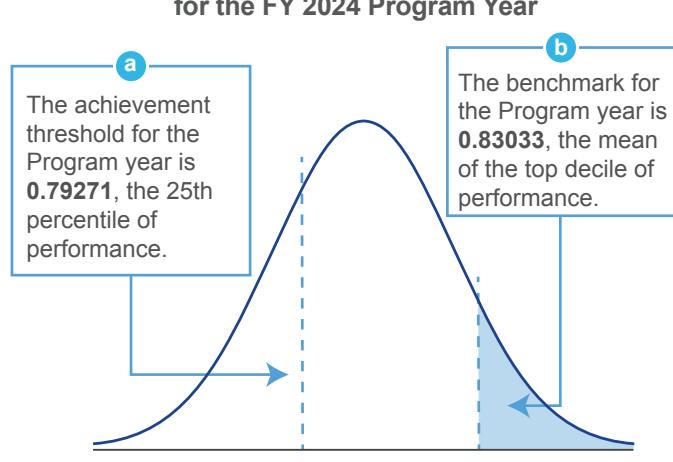
STEP 2

CALCULATE THE PERFORMANCE STANDARDS

a The *achievement threshold* is the 25th percentile of all SNFs' performance on the measure during the baseline period.

b The *benchmark* is the mean of the top decile of all SNFs' performance on the measure during the baseline period.

Both performance standards are calculated using inverted RSRRs. The FY 2024 Program year performance standards were published in the FY 2022 SNF PPS final rule (page 42513).

Official Calculation

Performance Standards for the FY 2024 Program Year

a The achievement threshold for the Program year is **0.79271**, the 25th percentile of performance.

b The benchmark for the Program year is **0.83033**, the mean of the top decile of performance.

National Baseline Period Measure Performance

STEP 3

DETERMINE PERFORMANCE SCORES FOR ALL SNFs

To determine the *performance score*, CMS first calculates the *improvement score* (scores range from 0 to 90) and the *achievement score* (scores range from 0 to 100) using the criteria and equations below. Whichever score is higher becomes the SNF's performance score.

The following elements are used to determine each SNF's performance score:

- The SNF's baseline period inverted RSRR, rounded to 5 decimal places (Step 1)[1]
- The SNF's performance period inverted RSRR, rounded to 5 decimal places (Step 1)[2]
- The applicable achievement threshold and benchmark for the Program year (Step 2)

a

Improvement Score

If the SNF's performance period inverted RSRR is...	Then the SNF receives...
Less than or equal to the SNF's baseline period inverted RSRR	0 points for improvement
Greater than or equal to the benchmark	90 points for improvement[3]
Greater than the SNF's baseline period inverted RSRR **but less than** the benchmark	Between 0 and 90 points for improvement as calculated using this formula[4]:

$$\left(\left[10 \times \left(\frac{\text{(SNF perf. period inverted RSRR} - \text{SNF baseline period inverted RSRR)}}{\text{(Benchmark} - \text{SNF baseline period inverted RSRR)}}\right)\right] - 0.5\right) \times 10$$

b

Achievement Score

If the SNF's performance period inverted RSRR is...	Then the SNF receives...
Less than the achievement threshold	0 points for achievement
Greater than or equal to the benchmark	100 points for achievement
Greater than or equal to the achievement threshold but less than the benchmark	Between 0 and 100 points for achievement as calculated using this formula:

$$\left(\left[9 \times \left(\frac{\text{(SNF perf. period inverted RSRR} - \text{Achievement threshold)}}{\text{(Benchmark} - \text{Achievement threshold)}}\right)\right] + 0.5\right) \times 10$$

[1] SNFs with fewer than 25 eligible stays during only the baseline period (FY 2019) are included in the SNF VBP Program for FY 2024 but are scored on achievement only. These SNFs will not receive a baseline period RSRR or improvement score, so their achievement score will equal their performance score.

[2] SNFs that did not meet the SNFRM's case minimum (25 or more eligible stays) in the performance period (FY 2022) are excluded from the SNF VBP Program for FY 2024. Payments to these SNFs in FY 2024 will not be affected by the SNF VBP Program; instead, these SNFs will receive their adjusted federal per diem rate.

[3] If a SNF's performance period inverted RSRR is less than or equal to the SNF's baseline period inverted RSRR and greater than or equal to the benchmark - that is, if the SNF satisfies both criteria - then the SNF receives 0 points for improvement.

[4] Scores are manually adjusted to 90 if greater than 90.

Example

a SNF A's performance period inverted RSRR is **0.81814**.

SNF A's baseline period inverted RSRR is **0.79315**.

The Program year's benchmark is **0.83033**.

SNF VBP Improvement Score:

$$\left(\left[10 \times \left(\frac{0.81814 - 0.79315}{0.83033 - 0.79315}\right)\right] - 0.5\right) \times 10 = 62.21356$$

b SNF A's performance period inverted RSRR is **0.81814**.

The Program year's achievement threshold is **0.79271** and the Program year's benchmark is **0.83033**.

SNF VBP Achievement Score:

$$\left(\left[9 \times \left(\frac{0.81814 - 0.79271}{0.83033 - 0.79271}\right)\right] + 0.5\right) \times 10 = 65.83732 ✓$$

SNF A's achievement score is **higher**, so it becomes the SNF's performance score.
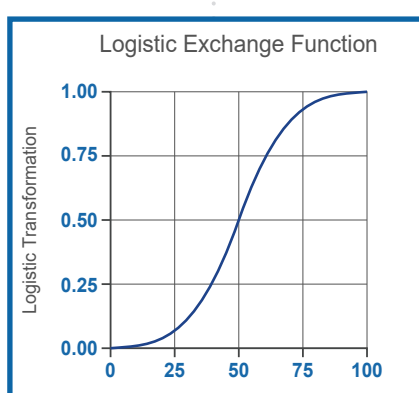
STEP 4

TRANSFORM PERFORMANCE SCORES

Take the calculated *performance scores* (ranging from 0 to 100, rounded to 5 decimal places) and transform the performance scores using the *logistic exchange function* (transformed scores range from 0 to 1).

Also referred to as an S-shaped curve.

Logistic exchange function:

$$f(X_i) = \frac{1}{1 + e^{-0.1(X_i - 50)}}$$

The SNF's performance score (Step 3)

Example

SNF A's performance score is **65.83732**.

Logistic exchange function:

$$\frac{1}{\left(1 + e^{-0.1(65.83732 - 50)}\right)} = 0.829732419$$

The transformed performance score for SNF A is **0.829732419**.

Logistic Exchange Function

(Graph: Logistic Transformation vs Performance Score, y-axis from 0.00 to 1.00, x-axis from 0 to 100)

STEP 5

CALCULATE THE INCENTIVE PAYMENT POOL

Calculate the *incentive payment pool:*[1]

$$\begin{array}{c}\text{Incentive} \\ \text{payment pool}\end{array} = \begin{array}{c}\text{60\% of 2\% of SNF Medicare} \\ \text{fee-for-service (FFS)} \\ \text{Part A payments}\end{array}$$

[1] Per statute, the SNF VBP Program must withhold 2% of SNF Medicare FFS Part A payments and then redistribute 50%–70% of the withhold to SNFs in the form of incentive payments. CMS finalized a 60% payback percentage in the FY 2018 SNF PPS final rule (pages 36619–36621).

Official Calculation

The FY 2024 SNF VBP Program used FY 2021 historical payment data to estimate the incentive payment pool.

2% of SNF Medicare FFS Part A payments: **$23,501,739,454 x .02 = $470,034,789.08**

60% of the 2% of SNF Medicare FFS Part A payments:

$470,034,789.08 x .60 = $282,020,873.45

The incentive payment pool is **$282.02M**.

STEP 6

CALCULATE A SCALING FACTOR

Each SNF's calculated *scaling factor* ensures that the sum of all included SNFs' incentive payment adjustments equals the incentive payment pool.

$$\begin{array}{c}\text{Scaling} \\ \text{factor}\end{array} = \frac{\text{Incentive payment pool (Step 5)}}{\sum\left(0.02 \times \begin{array}{c}\text{Total} \\ \text{Medicare} \\ \text{payments} \\ \text{to SNF}\end{array} \times \begin{array}{c}\text{SNF's} \\ \text{transformed} \\ \text{performance} \\ \text{score (Step 4)}\end{array}\right)}$$

Official Calculation

The incentive payment pool is **$282.02M**.

Scaling factor:

$$\frac{\$282,020,873.45}{\$148,728,147.06} = 1.896217219$$

The scaling factor for all SNFs is **1.896217219**.

STEP 7

DETERMINE EACH SNF'S INCENTIVE PAYMENT ADJUSTMENT

$$\begin{array}{c}\text{Incentive} \\ \text{payment} \\ \text{adjustment}\end{array} = 0.02 \times \begin{array}{c}\text{SNF's} \\ \text{transformed} \\ \text{performance} \\ \text{score (Step 4)}\end{array} \times \begin{array}{c}\text{Scaling} \\ \text{factor} \\ \text{(Step 6)}\end{array}$$

Example

Incentive payment adjustment:

0.02 x 0.829732419 x 1.896217219 = 0.0314670577

SNF A's incentive payment adjustment is **0.0314670577**.

STEP 8

CALCULATE EACH SNF'S INCENTIVE PAYMENT MULTIPLIER

The *incentive payment multiplier* simultaneously accounts for the 2 percent withhold and the incentive payment adjustment. CMS applies each SNF's incentive payment multiplier to the SNF's adjusted federal per diem rate.

$$\begin{array}{c}\text{Incentive payment} \\ \text{multiplier}\end{array} = \begin{array}{c}\text{Incentive payment} \\ \text{adjustment} \\ \text{(Step 7)}\end{array} + 0.98$$

Example

Incentive payment multiplier:

0.0314670577 + 0.98 = 1.0114670577

SNF A's incentive payment multiplier is **1.0114670577**.

When CMS makes payments for SNF A's Medicare FFS Part A claims in FY 2024, SNF A's adjusted federal per diem rate is multiplied by SNF A's incentive payment multiplier.

Note: In the examples above, the final digit of the calculated values might not exactly match actual SNF VBP Program results due to rounding.