

CALCULATE RISK-STANDARDIZED READMISSION RATES (RSRRs)

The SNF VBP Program tracks SNFs' performance on the Skilled Nursing Facility Readmission Measure (SNFRM, NQF #2510) during a baseline period and a performance period.

- a** Calculate an RSRR for both the **Baseline and Performance Period**:

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

- The **predicted number of readmissions** is the number of unplanned readmissions predicted based on a SNF's performance given their 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:

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

Examples

- a** SNF A's Baseline Period RSRR (FY 2017):

$$\left(\frac{15.950}{14.932} \right) \times 0.19521 = 0.20852$$

SNF A's Performance Period RSRR (FY 2019):

$$\left(\frac{15.057}{16.593} \right) \times 0.19899 = 0.18057$$

Examples

- b** SNF A's Baseline Period inverted RSRR (FY 2017):

$$1 - 0.20852 = 0.79148$$

SNF A's Performance Period inverted RSRR (FY 2019):

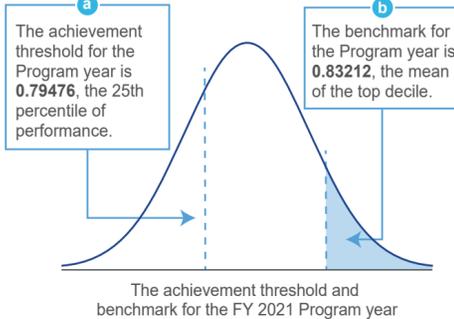
$$1 - 0.18057 = 0.81943$$

CALCULATE THE ACHIEVEMENT THRESHOLD AND BENCHMARK

- 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.

Example



DETERMINE THE PERFORMANCE SCORES FOR ALL SNFs

The following elements are used to determine SNFs' performance scores:

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

Each SNF's inverted RSRR in the performance period is used to calculate two metrics:

- Improvement score** (scores range from 0 to 90)^a
- Achievement score** (scores range from 0 to 100)

Whichever score is higher becomes the SNF's performance score.

- a** SNF VBP Improvement Score:

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

- b** SNF VBP Achievement Score:

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

^a Scores are manually adjusted to 0 if less than 0 and manually adjusted to 90 if greater than 90.

Example

- a** SNF A's performance period inverted RSRR is 0.81943.

SNF A's baseline period inverted RSRR is 0.79148.

The Program year's benchmark is 0.83212.

SNF VBP Improvement Score:

$$\left[10 \times \left(\frac{0.81943 - 0.79148}{0.83212 - 0.79148} \right) - 0.5 \right] \times 10 = 63.77461$$

Example

- b** SNF A's performance period inverted RSRR is 0.81943.

The Program year's achievement threshold is 0.79476, and the Program year's benchmark is 0.83212.

SNF VBP Achievement Score:

$$\left[9 \times \left(\frac{0.81943 - 0.79476}{0.83212 - 0.79476} \right) + 0.5 \right] \times 10 = 64.42987$$

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

TRANSFORM PERFORMANCE SCORES FOR ALL SNFs

Take the calculated **performance scores** for all SNFs (ranging from 0 to 100, rounded to 5 decimal places) and transform the performance scores using the **logistic exchange function** (values now 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 64.42987.

Logistic exchange function:

$$\frac{1}{1 + e^{-0.1(64.42987 - 50)}} = 0.808916779$$

The transformed performance score for SNF A is 0.808916779.

CALCULATE THE INCENTIVE PAYMENT POOL FOR ALL SNFs

Calculate the **incentive payment pool**:¹

$$\text{The incentive payment pool} = 60\% \text{ of } 2\% \text{ of SNF Medicare Part A fee-for-service (FFS) payments}$$

Example

The FY 2021 SNF VBP Program used FY 2018 historical payment data to estimate the incentive payment pool.

The incentive payment pool:

$$2\% \text{ of SNF Medicare Part A FFS payments: } \$25,807,538,296 \times .02 = \$516,150,765.92$$

$$60\% \text{ of the } 2\% \text{ of SNF Medicare Part A FFS payments: } \$516,150,765.92 \times .60 = \$309,690,459.55$$

CALCULATE A SCALING FACTOR

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

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

Example

The incentive payment pool is \$309.69M.

Scaling factor:

$$\frac{\$309,690,459.55}{\$148,950,964.51} = 2.0791437005$$

The scaling factor for all SNFs is 2.0791437005.

DETERMINE EACH SNF'S INCENTIVE PAYMENT ADJUSTMENT

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

Example

Incentive payment adjustment:

$$0.02 \times 0.808916779 \times 2.0791437005 = 0.0336370845$$

SNF A's incentive payment adjustment is 0.0336370845.

CALCULATE EACH SNF'S INCENTIVE PAYMENT MULTIPLIER

The **incentive payment multiplier** simultaneously accounts for the 2 percent withhold and the incentive payment adjustment.

$$\text{Incentive payment multiplier} = \frac{\text{Incentive payment adjustment (Step 7)}}{\text{2\% of SNF Medicare Part A FFS payments}} + 0.98$$

Example

Incentive payment multiplier:

$$0.0336370845 + 0.98 = 1.0136370845$$

SNF A's incentive payment multiplier is 1.0136370845.

APPLY THE LOW-VOLUME ADJUSTMENT (LVA)

SNFs with fewer than 25 eligible stays in the performance period

Adjust incentive payment multipliers (Step 8) to 1.0²

Incentive payment multipliers for SNFs with at least 25 eligible stays in the performance period will remain the same.

Example

SNF A's incentive payment multiplier remains at 1.0136370845 because it has at least 25 eligible stays in the performance period.

Example

SNF B has 20 eligible stays in the performance period, a performance score of 24.89829, and an original incentive payment multiplier of 0.9831248791.

Because SNF B has fewer than 25 eligible stays in the performance period, the performance score is adjusted to 49.23832 and the incentive payment multiplier adjusts to 1.0, a net-neutral multiplier.

Example

SNF	Eligible stays	Unadjusted incentive payment multiplier	Apply the LVA?	Adjusted incentive payment multiplier	Adjusted performance score
SNF A	27	1.0136370845	No	N/A	N/A
SNF B	20	0.9831248791	Yes	1.0	49.23832

¹ Per statute, the SNF VBP Program must withhold 2% of SNF Medicare Part A FFS payment and redistribute 50–70% of the withhold to SNFs in the form of incentive payments. CMS finalized a 60% payback percentage via rulemaking (82 FR 36619 through 36621: <https://www.federalregister.gov/documents/2017/08/04/2017-16256/medicare-program-prospective-payment-system-and-consolidated-billing-for-skilled-nursing-facilities>).

² A low-volume adjustment (LVA) policy was implemented beginning with the FY 2020 SNF VBP Program year. The following is a summary of this policy:

- SNFs with fewer than 25 stays in the performance period of a given Program year, regardless of the number of stays in the baseline period, will automatically receive a net-neutral incentive payment multiplier of 1.0 for that Program year. This means that payment will not be impacted by the SNF VBP Program. These SNFs are also assigned a neutral performance score and rank.
- SNFs with 25 stays or more in the performance period of a given Program year and fewer than 25 stays in the baseline period will be scored on achievement only. These SNFs will not be scored on improvement. The achievement score will equal the performance score.

This policy was discussed and finalized on pages 39278 through 39280 of the FY 2019 SNF PPS final rule: <https://www.federalregister.gov/documents/2018/08/08/2018-16570/medicare-program-prospective-payment-system-and-consolidated-billing-for-skilled-nursing-facilities>.