Medicare Skilled Nursing Facility Value Based Purchasing Program Overview

Lauren Davis
Senior Healthcare Policy and Data Analyst
April 18, 2018
Today’s Objectives

• Overview of Medicare **Skilled Nursing Facility Value Based Purchasing** Program

• Review Methodology

• Review Analysis
Medicare Skilled Nursing Facility (SNF) Value Based Purchasing (VBP) Program

- Program becomes effective FFY 2019 (October 1, 2018)
- Payment adjustments based on facility-specific performance compared to national standards
- Funded by SNF payment 2.0% “contribution”
- All SNFs paid under the SNF PPS are eligible (hospital-based, free-standing, SNF swing beds)
- Performance metrics are determined using historical data
- Measures are established in advance, usually in the SNF rule
SNF VBP: Program Overview

- Sole measure is SNF 30-Day All-Cause Readmission measure (SNFRM)
  - Quality achievement and improvement are both recognized
  - SNF performance is compared to national standards

- Raw SNFRM measure scores are inverted

- 60% of program contributions are redistributed back to SNFs based on a logistic exchange function
  - Program is not budget neutral nationally

- Bottom 40%+ of skilled nursing facilities must be penalized
SNF 30-Day All-Cause Readmission Measure (SNFRM)

SNFRM estimates risk-standardized rate of all-cause, unplanned hospital readmissions of Medicare SNF beneficiaries within 30 days of discharge from their most recent prior acute hospitalization

• Interim program measure

• Includes beneficiaries with fee-for-service (FFS) Medicare who were inpatients at PPS, Critical Access Hospitals, or Psychiatric Hospitals

• Hospital readmissions are identified through Medicare claims

• Readmissions within 30-day window counted regardless of whether beneficiary is readmitted directly from SNF or had been discharged from SNF

• Risk-adjusted based on patient demographics, principal diagnosis in prior hospitalization, comorbidities, etc.

Excludes planned readmissions
30-DAY RISK WINDOW STARTS  
(Prior Proximal Hospital Discharge)

Prior Proximal Hospitalization  
≤ 1 day from Prior Proximal Hospital Discharge to Index SNF Admission

Index SNF Claim

Readmission to an Acute Care Hospital

Readmission is counted as long as it occurs within 30 days of discharge from the prior proximal hospital. The readmission may end the SNF stay or it may occur after the patient is discharged from the SNF.

30-DAY RISK WINDOW ENDS  
(Prior Proximal Hospital Discharge + 30 Days)
SNF VBP Timeframes

**• FFY 2019 Program Timeframes**

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Actual Program</td>
<td>SNFRM Baseline Period</td>
<td>SNFRM Baseline Period</td>
<td>SNFRM Baseline Period</td>
<td>SNFRM Baseline Period</td>
<td>SNFRM Baseline Period</td>
<td>SNFRM Baseline Period</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SNFRM Performance Period</td>
<td>SNFRM Performance Period</td>
<td>SNFRM Performance Period</td>
<td>SNFRM Performance Period</td>
<td>SNFRM Performance Period</td>
<td>SNFRM Performance Period</td>
<td></td>
</tr>
</tbody>
</table>

**• FFY 2020 Program Timeframes**

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Actual Program</td>
<td>SNFRM Baseline Period</td>
<td>SNFRM Baseline Period</td>
<td>SNFRM Baseline Period</td>
<td>SNFRM Baseline Period</td>
<td>SNFRM Baseline Period</td>
<td>SNFRM Baseline Period</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SNFRM Performance Period</td>
<td>SNFRM Performance Period</td>
<td>SNFRM Performance Period</td>
<td>SNFRM Performance Period</td>
<td>SNFRM Performance Period</td>
<td>SNFRM Performance Period</td>
<td></td>
</tr>
</tbody>
</table>

© 2018 DataGen. May not be reproduced or distributed without prior written permission.
SNF VBP Public Reporting

• SNF performance scores ranked publically on *Nursing Home Compare*

• There is a two-phase review and correction process before public reporting
  – Quarterly confidential feedback reports to SNF on their performance
  – Preview reports of payment adjustments and ranking
  – Reports available using the Quality Improvement Evaluation System (QIES) and the CASPER reporting application

[Image of Medicare.gov and Nursing Home Compare]
SNFRM Inverted Rate

- **SNFRM Inverted Rate** = 1 – Facility’s SNFRM Raw Rate

  \[
  \text{Higher inverted rate} = \text{better performance} \\
  \text{Lower inverted rate} = \text{worse performance}
  \]

**Example**: SNF readmissions rate of 20.449%

\[
\text{SNFRM Inverted Rate} = 1 - 0.20449 \\
\text{SNFRM Inverted Rate} = 0.79551
\]
SNF VBP Performance Standards

- **Benchmark**
  - High achievement levels (average performance score for top 10% of SNFs during baseline period nationwide)

- **Threshold**
  - Minimum achievement levels (25\textsuperscript{th} percentile of performance during baseline period nationwide)

- **Improvement threshold**
  - Each specific SNF’s performance on the SNFRM measure during the applicable baseline period

| CMS' National Performance Standards\textsuperscript{[4]} |
|---------------------------------|-----------------|
| Threshold                       | Benchmark       |
| 0.79590                         | 0.83601         |
# Measure Scoring Methodology

- **Achievement Points:**
  - Max = 100 points
  - Performance compared to:
    - Threshold (minimum performance level)
    - Benchmark (high attainment level)

<table>
<thead>
<tr>
<th>Below threshold</th>
<th>Between threshold &amp; benchmark</th>
<th>At or above benchmark</th>
</tr>
</thead>
<tbody>
<tr>
<td>0 pts.</td>
<td>1-99 pts.</td>
<td>100 pts.</td>
</tr>
</tbody>
</table>

- **Improvement Points:**
  - Max = 90 points
  - Performance compared to:
    - Prior performance (from baseline period)
    - Benchmark (high attainment level)

<table>
<thead>
<tr>
<th>At or below baseline period score</th>
<th>Above baseline period score</th>
</tr>
</thead>
<tbody>
<tr>
<td>0 pts.</td>
<td>1-90 pts.</td>
</tr>
</tbody>
</table>
## SNF VBP Measure Scoring: Achievement Points

### SNF Achievement Score Calculation

\[
\text{SNF Achievement Score} = \left( [9 \times \frac{(SNFs'\text{Perf. Period Inverted Rate} - \text{Achievement Threshold})}{(\text{Benchmark} - \text{Achievement Threshold})}] + 0.5 \right) \times 10
\]

\[
\text{SNF Achievement Score} = \left( [9 \times \frac{0.81249 - 0.79590}{0.83601 - 0.79590}] + 0.5 \right) \times 10
\]

42.2251 = **Achievement Points**

### SNF VBP Measure Scoring Table

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>SNFRM</td>
<td>SNF 30-Day All-Cause Readmission Measure</td>
<td>Raw Rate 0.18751</td>
<td>Inverted Rate[3] 0.81249</td>
<td>Raw Rate 0.18751</td>
<td>Inverted Rate[3] 0.81249</td>
<td>Threshold 0.79590</td>
<td>Benchmark 0.83601</td>
</tr>
</tbody>
</table>
## SNF VBP Measure Scoring: Improvement Points

In our analysis, improvement is not recognized due to limited data availability.

### SNF Improvement Score Calculation

- **SNF Improvement Score**
  
  $\text{SNF Improvement Score} = ([10 \times \frac{(\text{SNFs' Perf. Period Inverted Rate} - \text{SNF Baseline Period Inverted Rate})}{(\text{Benchmark} - \text{SNF Baseline Period Inverted Rate})}) - 0.5) \times 10$

- **Example Calculation**: For the SNFRM measure

  $\text{SNF Improvement Score} = ([10 \times \frac{0.81249 - 0.81249}{0.83601 - 0.81249}) - 0.5) \times 10$

  $0 = \text{Improvement Points}$

### Table: SNF VBP Measure Scoring

<table>
<thead>
<tr>
<th>Measure ID</th>
<th>Measure Name</th>
<th>Performance Period</th>
<th>Baseline Period</th>
<th>CMS' National Performance Standards</th>
<th>Achievement Points Earned</th>
<th>Improvement Points Earned</th>
<th>Estimated SNF Performance Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>SNFRM</td>
<td>SNF 30-Day All-Cause Readmission Measure</td>
<td>0.18751</td>
<td>0.81249</td>
<td>0.79590</td>
<td>42.2251</td>
<td>0.0000</td>
<td>42.2251</td>
</tr>
</tbody>
</table>

The SNF receives the higher point value of achievement or improvement. In this example, a score of 42.2251 is assigned to the SNFRM measure.
SNF VBP Payment Percentage Calculation

- SNFRM scores for all SNFs nationwide are compared to determine VBP payouts/impacts
- Comparison of SNFRM scores are plugged into logistic exchange function
- SNF VBP logistic exchange function scaling factor is used to ensure redistribution of 60% of SNF VBP contribution dollars

\[
\text{SNF VBP Logistic Exchange Function} = \left[ \frac{1}{1 + e^{-0.1 \times \text{SNFRM Score} - 50}} \times \text{SNF VBP Logistic Payout Function Scaling Factor} \right]
\]

\[
\text{SNF VBP Payment Percentage} = \frac{1}{1 + e^{-0.1 \times (42.2251 - 50)}} \times \text{SNF VBP Logistic Payout Function Scaling Factor}
\]

\[
1.574 \times \frac{1}{1 + e^{-0.1 \times (42.2251 - 50)}} = \text{SNF VBP Payment Percentage}
\]

\[
49.6\% = \text{SNF VBP Payment Percentage}
\]

In this example, this SNF would receive 49.6% of their SNF VBP contribution and would lose from the program.
SNF VBP Impact Calculation

- **SNF VBP Payout** = [SNF 2.0% Program Contribution x SNF VBP Payment Percentage]

- **Annual Program Impact** = [SNF VBP Payout - SNF 2.0% Program Contribution]

For example, assume this SNF’s Medicare Revenue = $1,000,000.

(2.0% X $1,000,000) x 49.6% = \textit{SNF VBP Payout}

\[
20,000 \times 49.6\% = \textit{SNF VBP Payout}
\]

\[
9,920 = \textit{SNF VBP Payout}
\]

\[
$9,920 - $20,000 = \textit{Annual Program Impact}
\]

\[
-10,080 = \textit{Annual Program Impact}
\]
SNF VBP Logistic Exchange Function Scaling Factor Calculation

- SNF VBP Logistic Exchange Function is used to determine program payouts
- SNF VBP Scaling Factor is set at the value that redistributes 60% of SNF contributions (it is not a budget neutral program)

\[
Payout_{\text{Pre-Scaling}} = \frac{1}{1 + e^{-0.1(x - 50)}} \times \text{Contribution} \times \text{Scaling Factor}
\]

<table>
<thead>
<tr>
<th>SNFRM Score</th>
<th>Contribution</th>
<th>Payout (Pre-Scaling)</th>
<th>Actual % Payout (Scaling Factor = 1.468932)</th>
<th>Payout (Scaling Factor = 1.468932)</th>
</tr>
</thead>
<tbody>
<tr>
<td>SNF A</td>
<td>42.5343</td>
<td>$100</td>
<td>$32.16</td>
<td>47.24%</td>
</tr>
<tr>
<td>SNF B</td>
<td>6.5456</td>
<td>$100</td>
<td>$1.28</td>
<td>1.88%</td>
</tr>
<tr>
<td>SNF C</td>
<td>4.7898</td>
<td>$100</td>
<td>$1.08</td>
<td>1.58%</td>
</tr>
<tr>
<td>SNF D</td>
<td>75.6789</td>
<td>$100</td>
<td>$92.88</td>
<td>136.43%</td>
</tr>
<tr>
<td>SNF E</td>
<td>61.5221</td>
<td>$100</td>
<td>$75.99</td>
<td>111.63%</td>
</tr>
<tr>
<td>SNF F</td>
<td>27.6764</td>
<td>$100</td>
<td>$9.69</td>
<td>14.23%</td>
</tr>
<tr>
<td>SNF G</td>
<td>21.5146</td>
<td>$100</td>
<td>$5.48</td>
<td>8.04%</td>
</tr>
<tr>
<td>SNF H</td>
<td>15.9723</td>
<td>$100</td>
<td>$3.22</td>
<td>4.73%</td>
</tr>
<tr>
<td>SNF I</td>
<td>70.0486</td>
<td>$100</td>
<td>$88.13</td>
<td>129.46%</td>
</tr>
<tr>
<td>SNF J</td>
<td>92.2851</td>
<td>$100</td>
<td>$98.56</td>
<td>144.78%</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>$1,000</td>
<td>$408.46</td>
<td></td>
</tr>
<tr>
<td>60% of Total</td>
<td></td>
<td></td>
<td>$600</td>
<td></td>
</tr>
</tbody>
</table>

Impact = Actual Payout $ - Contribution
SNF 30-Day Potentially Preventable Readmission Measure (SNFPPR)

- CMS will replace the SNFRM with the SNFPPR in future rulemaking

Adopts the SNFRM methodology and assesses risk-standardized rate of unplanned, potentially preventable readmissions (PPRs) for Medicare FFS SNF patients within 30 days of discharge from the most recent prior hospitalization
- Includes PPRs before a beneficiary is discharged from a SNF (Within-PAC Stay) and PPRs after a beneficiary is discharged from a SNF
- Within-PAC Stay list of potentially preventable conditions is applied before SNF discharge, and the Post-Discharge list is applied for the remainder of the 30 days after SNF discharge, if any
- Risk-adjusted based on patient demographics, principal diagnosis in prior hospitalization, comorbidities, etc.

Excludes planned readmissions
### SNF VBP Impact Analysis Worksheet

#### Medicare Skilled Nursing Facility Value Based Purchasing (SNF VBP) Analysis

**Federal Fiscal Year (FFY) 2019 Estimated Program Performance**

<table>
<thead>
<tr>
<th>Measure ID</th>
<th>Measure Name</th>
<th>SNF Performance</th>
<th>CMS’ National Performance Standards</th>
<th>Achievement Points Earned</th>
<th>Improvement Points Earned</th>
<th>Estimated SNF Performance Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>SNFRM</td>
<td>SNF 30-Day All-Cause Readmission Measure</td>
<td>0.18751</td>
<td>0.18751</td>
<td>0.81249</td>
<td>0.79590</td>
<td>0.83601</td>
</tr>
</tbody>
</table>

#### SNF VBP Score Estimates

- **SNF Performance Score (Higher of Achievement and Improvement)**: 42.2251

#### SNF VBP Contribution Amount

- **Estimated Revenue**: $2,201,000
- **VBP Contribution Percentage**: 2.00%
- **Program Contribution (B X C)**: $44,000

#### Estimated SNF VBP Program Impact

- **Logistic Exchange Function**: 

![Logistic Exchange Function](image)

- **SNF Performance Score**: SNF’s Performance Score and Payment Percentage
- **Breakeven Score**: Payment Conversion Line

#### SNF VBP Performance Rank

- **SNFRM Inverted Performance Rate**: 0.81249
- **Estimated SNF Performance Score**: 42.2251
- **Rank within State**: 79 of 139
- **Rank within U.S.**: 6,777 of 15,404

---

© 2018 DataGen. May not be reproduced or distributed without prior written permission.
SNF VBP Logistic Exchange Function Graph

Logistic Exchange Function

- SNF VBP Payout Percentage
- SNF Performance Score

- SNF's Performance Score and Payment Percentage
- Breakeven Score
- Payment Conversion Line
The percent impacts shown are estimates using CY 2015 as a performance period and a baseline period. The actual performance period in the FFY 2019 program will be CY 2017 and therefore impacts may change.
Collaboration

- Both hospitals and SNFs get penalized by Medicare for readmissions
- SNFs and hospitals can work together to decrease readmissions