

CHAPTER 4

**Mandated report:
Evaluating the
skilled nursing facility
value-based
purchasing program**

R E C O M M E N D A T I O N S

- 4-1** The Congress should eliminate Medicare’s current skilled nursing facility (SNF) value-based purchasing program and establish a new SNF value incentive program (VIP) that:
- scores a small set of performance measures;
 - incorporates strategies to ensure reliable measure results;
 - establishes a system for distributing rewards that minimizes cliff effects;
 - accounts for differences in patient social risk factors using a peer-grouping mechanism; and
 - completely distributes a provider-funded pool of dollars.

COMMISSIONER VOTES: YES 17 • NO 0 • NOT VOTING 0 • ABSENT 0

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- 4-2** The Secretary should finalize development of and begin to report patient experience measures for skilled nursing facilities.

COMMISSIONER VOTES: YES 17 • NO 0 • NOT VOTING 0 • ABSENT 0

Mandated report: Evaluating the skilled nursing facility value-based purchasing program

Chapter summary

As mandated by the Protecting Access to Medicare Act of 2014 (PAMA), the Secretary of Health and Human Services began to implement a value-based purchasing (VBP) program for skilled nursing facilities (SNFs) on October 1, 2018. By statute, the VBP program uses a single measure (hospital readmissions) to gauge the quality of care SNFs provided to fee-for-service (FFS) beneficiaries. Each SNF's performance on the measure determines whether it receives a reward, a penalty, or no change in payment, and the size of the payment adjustment. The VBP program is funded by a 2 percent reduction to FFS payments each year (not cumulative), and Medicare retains a portion of the amount withheld as savings.

PAMA requires the Commission to review the progress of the SNF VBP program and make recommendations as appropriate on any improvements that should be made. Our analysis found that payments were lowered for almost three-quarters of providers and the rewards and penalties were relatively small. SNFs that treated high shares of fully dual-eligible beneficiaries or whose beneficiaries were medically complex were more likely to be penalized under the program, which could create incentives for providers to avoid admitting these beneficiaries. Our assessment of the SNF VBP program revealed fundamental design flaws that recent legislated changes do not correct. Because of the shortcomings of the program, the Commission recommends that the SNF VBP program be eliminated and replaced as soon as possible.

In this chapter

- Background
- Evaluation of the skilled nursing facility value-based purchasing program
- Design of a SNF value incentive program
- A SNF value incentive program would create strong incentives to improve performance and make payments more equitable
- Recommendations

Our illustrative modeling of a new program design confirmed that a program that corrects these flaws is feasible and would not create incentives for SNFs to selectively admit certain types of beneficiaries. Given that patient experience is a key measure of a provider's quality, the Commission also recommends that the Secretary should finalize development of and begin to report patient experience measures for SNFs.

Results of the first three years of the SNF VBP program

In each of the three years of the program, the majority of providers earned back some portion of the 2 percent of payments withheld, but on net their payments remained below what they would have been without the program. Across all facilities, the annual median net adjustments lowered payments by between 0.7 percent and 1.8 percent. While the majority of providers were penalized under the program each year, there was little consistency in the size of the payment adjustments between the three years. We examined performance and found that higher payment adjustments were associated with SNFs that had lower average clinical risk scores, had lower shares of fully dual-eligible beneficiaries treated, or were larger facilities.

Shortcomings of the SNF VBP program

The Commission identified five key shortcomings of the current SNF VBP design. First, the SNF VBP program assesses performance using a single outcome measure (as required by statute, all-cause readmissions), even though quality is multidimensional. Second, the minimum stay counts to include providers in the program are too low to ensure that the program rewards performance rather than random variation. Third, the performance scoring includes “cliffs”—that is, preset numeric thresholds (also required by statute)—that may not provide enough encouragement for improvement. Fourth, the design does not address variation across SNFs in the social risk factors of their patient populations, disadvantaging SNFs with high social risk populations. Finally, the SNF VBP program does not distribute the entire pool of incentive payments (also a statutory requirement) but instead retains a portion as program savings.

In the Consolidated Appropriations Act, 2021, the Congress made three changes to the SNF VBP program. First, it gave the Secretary of Health and Human Services the authority to expand the measure set. Second, the program cannot apply to providers that do not have a minimum number of cases for each measure. Third, the measures and data submitted to calculate the measures must be validated.

Depending on how the provisions are implemented, some elements of the program may be improved. However, fundamental flaws—the scoring, the lack of consideration of social risk factors, and using a portion of the incentive pool to achieve program savings—remain.

Design of a SNF value incentive program

In this report, the Commission recommends that the Congress replace the SNF VBP program with a SNF value incentive program (VIP) that includes the five key design elements described below. The SNF VIP design addresses the SNF VBP program flaws, and is based on the Commission’s principles for quality measurement and our previous work on redesigning Medicare quality incentive programs. The Commission’s recommended SNF VIP would:

- ***Score a small set of performance measures.*** Payments would be adjusted based on provider performance on a small set of outcome measures. The measure set should be revised as other measures, such as patient experience, become available.
- ***Incorporate strategies to ensure reliable measure results.*** A higher reliability standard would be used to determine the minimum number of stays required for a SNF to be included in scoring. To include low-volume providers in the program, the SNF VIP could score multiple years of performance.
- ***Establish a system for distributing rewards with minimal “cliff” effects.*** A simpler scoring approach would be used that awards points for every performance achieved with minimal use of thresholds, or cliffs. The continuous performance scale results in every SNF having an incentive to improve.
- ***Account for differences in patients’ social risk factors using a peer-grouping mechanism.*** Providers would be stratified into peer groups based on the social risk factors of their patient populations. A provider’s payment adjustment would vary based on its performance on a national performance scale and its performance relative to its peers. Providers in peer groups with high social risk patient populations would receive larger adjustments for attainments in quality compared with other providers.
- ***Distribute the entire provider-funded pool of dollars.*** All withheld funds would be distributed back to providers based on their performance. Though not explicitly designed to achieve program savings, improved provider performance (e.g., fewer readmissions) could lower program spending.

For illustrative purposes using currently available data, we modeled a VIP design for scoring SNF performance and adjusting SNF payments accordingly. The design

uses three measures: all-condition hospitalizations within the SNF stay, successful discharge to the community, and Medicare spending per beneficiary. We used the share of fully dual-eligible beneficiaries as the measure for social risk in the peer grouping mechanism because researchers have found it to be the most powerful measure in currently available data.

Our illustrative modeling found that a SNF VIP design is feasible. Across providers with similar shares of patients at social risk, the SNF VIP would increase payments for SNFs with better performance and reduce payments for those with worse performance. Peer grouping worked as intended: As a peer group's average share of fully dual-eligible beneficiaries increased, providers in the group had the potential to earn larger rewards for higher quality compared with SNFs in other peer groups. As a result, compared with the SNF VBP program, the SNF VIP would result in more equitable payments across SNFs. Also, unlike the SNF VBP program, the SNF VIP would reduce the incentive to avoid admitting beneficiaries at high social risk or with clinically complex needs. In general, except for hospital-based providers (which performed better than freestanding facilities), we found there were small differences in the SNF VIP payment adjustments by provider characteristics.

An improved SNF quality payment program with stronger incentives is not the only tool CMS has to encourage providers to improve. Public reporting of provider performance, including the measures used in the SNF VIP, holds providers accountable to consumers and encourages improvement. Public reporting of provider performance should include comparisons to national, state, and peer group performances. CMS should also target technical assistance to low-performing providers so they can develop the skills and infrastructure needed for successful quality improvement. In addition, CMS could expand its Requirements of Participation and the Special Focus Facility Program to more aggressively encourage providers to improve their quality of care. ■

Mandate to evaluate the value-based purchasing program for skilled nursing facilities

(c) MEDPAC STUDY.—Not later than June 30, 2021, the Medicare Payment Advisory Commission shall submit to Congress a report that reviews the progress of the skilled nursing facility value-based purchasing program established under section 1888(h) of the Social Security Act, as added by subsection (b), and makes recommendations, as appropriate, on any improvements that should be made to such program. For purposes of the previous sentence, the Medicare Payment Advisory Commission shall consider any

unintended consequences with respect to such skilled nursing facility value-based purchasing program and any potential adjustments to the readmission measure specified under section 1888(g)(1) of such Act, as added by subsection (a), for purposes of determining the effect of the socio-economic status of a beneficiary under the Medicare program under title XVIII of the Social Security Act for the SNF performance score of a skilled nursing facility provided under section 1888(h)(4) of such Act, as added by subsection (b). ■

Background

Quality payment programs can create incentives for providers to furnish efficient, high-quality care. Typically, these programs adjust Medicare payments to a provider based on its performance on quality and resource use measures, with providers receiving higher payments for good performance and lower payments for poor performance. A provider's performance during an assessment period is compared with that of other providers or with some performance scale and then converted to a provider-specific payment adjustment. This payment adjustment is applied to all Medicare payments for that provider in a later fiscal year.

The Protecting Access to Medicare Act of 2014 required the Secretary to implement a value-based purchasing (VBP) program for skilled nursing facilities (SNFs) that would affect fee-for-service (FFS) payments beginning on October 1, 2018. By statute, the program rewards or penalizes SNFs based on their rates of readmission to an acute care hospital. The statute also specifies the funding for the incentive payments and the distribution of those payments to SNFs. The law requires the Commission to review the progress of the SNF VBP program and make recommendations as appropriate on any improvements that should be made (see text box on the mandate). This chapter fulfills that mandate.

The Commission identified five key shortcomings of the current VBP program that could be corrected with an alternative value incentive program (VIP) design. Therefore, the Commission recommends that the Congress eliminate the current VBP and replace it with the alternative VIP as soon as practicable.

Previous related Commission work

The Commission has developed a general set of principles for how Medicare quality incentive programs should be designed (Medicare Payment Advisory Commission 2018). The Commission has applied its principles to evaluate the current hospital and Medicare Advantage (MA) quality incentive programs and to design replacement programs, and it has recommended that the Congress mandate the implementation of the Commission's hospital value incentive program (HVIP) and MA VIP in place of the current programs (Medicare Payment Advisory Commission 2020, Medicare Payment Advisory Commission 2019a, Medicare Payment Advisory Commission 2019b). The proposed SNF VIP design builds on the Commission's principles and recommended designs for hospital and MA VIPs.

In 2016, pursuant to a statutory mandate in the Improving Medicare Post-Acute Care Transformation Act of 2014, the Commission recommended design features for a unified prospective payment system (PPS) that

would establish payments for all post-acute care (PAC) providers—SNFs, home health agencies, inpatient rehabilitation facilities, and long-term care hospitals. The goal of a unified payment system is to pay similar rates for similar patients, regardless of PAC setting. In its report on a PAC PPS, the Commission recommended that a value-based purchasing program be implemented concurrently to tie Medicare’s payments to provider performance (Medicare Payment Advisory Commission 2016). This recommendation is consistent with the Commission’s principle that Medicare payments should not be made without considering the quality of care delivered to beneficiaries (Medicare Payment Advisory Commission 2018). With an eye toward common measurement across the four PAC settings, over the past two years the Commission has developed and tested uniform PAC quality and resource use measures and has used the quality measures in its assessments of the adequacy of payments to PAC providers (see the March 2021 report to the Congress).

In September 2019, the Commission discussed including these uniform PAC measures in a PAC VIP that would tie a portion of a provider’s payments to quality and resource use. Given the overlap of the types of patients receiving PAC in different settings, a single PAC VIP would allow comparisons of patient outcomes and quality of care across PAC settings. By tying payments to outcome measures, a PAC VIP would be an essential element of a unified payment system for PAC. In the Consolidated Appropriations Act, 2021, the Commission was mandated to report on a prototype value-based payment program under a unified prospective payment system for PAC services by March 15, 2022. The proposed replacement for the current VBP program for SNFs would give these providers valuable experience under a design that is likely to form the basis of a program that spans all PAC providers under a unified payment system.

Evaluation of the skilled nursing facility value-based purchasing program

As part of our mandate, we describe the design of the SNF VBP program and review results of the first three years of the program based on available data. Our analysis found that payments were lowered for almost three-quarters of providers, the rewards and penalties were relatively small, and there was little consistency in the size of a provider’s

payment adjustment across years. Our assessment of the SNF VBP program revealed fundamental flaws, including:

- the use of a single measure to gauge performance,
- a minimum case count that is too low to ensure reliable results for low-volume providers,
- a scoring approach that may not provide enough encouragement for improvement,
- a failure to address variation across SNF patient populations with respect to their social risk factors, and
- an incentive pool that is used to achieve program savings and reward providers.

The Consolidated Appropriations Act, 2021, corrected some of the flaws. However, the Commission concluded that more changes are needed and that the SNF VBP program should be immediately eliminated and replaced with a more effective design that addresses its flaws.

Design of Medicare’s SNF value-based purchasing program

Medicare began adjusting FFS payments through the SNF VBP program on October 1, 2018.¹ The VBP program must use a measure of hospital readmissions to gauge SNF quality of care provided to FFS beneficiaries. Each SNF’s performance on the measure determines whether it receives a reward, penalty, or no change in payment and the size of any payment adjustment. The VBP program is funded by a 2 percent reduction to payments each year (not cumulative), and Medicare retains a portion of the amount withheld as savings. The text box summarizes other value-based purchasing efforts to date.

Performance measure

To gauge SNF performance, the statute requires that the program use one measure—an all-cause hospital readmission rate that will be replaced with an all-condition potentially preventable hospital readmission rate as soon as practicable. Until the recent legislation expanded its authority, CMS stated that it did not have the authority to add measures to the program (Centers for Medicare & Medicaid Services 2018a, Centers for Medicare & Medicaid Services 2017, Centers for Medicare & Medicaid Services 2016). CMS plans to submit a potentially preventable hospital readmission rate measure to the National Quality Forum for endorsement, which CMS views as a preliminary step to including a measure in any

Medicare and Medicaid value-based purchasing activities

CMS began to implement Medicare value-based purchasing (VBP) programs in 2012 for dialysis centers and inpatient acute care hospitals. In 2015, CMS implemented a Value Modifier program for clinicians, which has been incorporated into the broader Quality Payment Program that began affecting clinician payment in 2019. In 2018, VBP programs began affecting payment for skilled nursing facilities (SNFs) and, on a demonstration basis, home health agencies. The programs vary in number and type of measures used to gauge performance, the duration of the period used to evaluate performance, how performance is translated into a payment adjustment, the size of the incentive payments, and whether the programs are budget neutral.

Before the SNF VBP program, CMS conducted a three-year voluntary nursing home (most SNFs are dually certified as SNFs and nursing homes) value-based purchasing demonstration in three states (Arizona, New York, and Wisconsin) that evaluators concluded had little impact on spending or quality (Grabowski et al. 2017, L & M Policy Research 2013). The demonstration offered bonus payments to facilities that lowered program spending and achieved or improved their quality performance (as measured by avoidable hospitalizations, other short-term stay and long-term stay quality measures, staffing levels, and survey inspections). The lackluster results were partly due to the demonstration VBP design features. Before a facility could earn a bonus payment, each state's participating facilities together had to achieve program savings, which were used to fund incentive payments. By tying payouts to other facilities' behavior, the performance of an individual nursing home's performance did not guarantee success under the program. Further, the multiple performance measures and complex reward structure made it difficult for homes to gauge whether changes in their behavior would translate into a reward. In addition, the incentive payments were small, and

nursing home administrators reported they made few changes in response to the demonstration. Lags between performance and payouts further undercut provider incentives to improve. Takeaways about the design of a VBP program included the following: keep the payment and incentive structure simple; increase the size of the incentive pool; base payouts on an individual provider's performance (not contingent on providers' performance collectively); and provide more timely payouts based on provider performance (Grabowski et al. 2017, L & M Policy Research 2013).

Many state Medicaid programs (25, including the District of Columbia) have some form of quality-related incentive program in making fee-for-service payments to nursing homes (Medicaid and CHIP Payment and Access Commission 2019). About half of the programs use at least one quality-of-care metric (rates of pressure ulcers and use of antipsychotic medications are the most common), about half use staffing measures (staffing hours per resident day and measures of staff retention or turnover are the most common), and 10 use a combination of the 2. Ten programs include resident satisfaction or some other quality of life measure. Although many programs do not measure readmissions, by encouraging nursing facilities to improve their care, these programs may indirectly affect the facilities' readmission rates.

A study of eight older Medicaid pay-for-performance programs (in Colorado, Georgia, Iowa, Kansas, Minnesota, Ohio, Oklahoma, and Utah between 2001 and 2009) found inconsistent improvement across the various quality measures (Werner et al. 2013). Measures that counted more for incentive payouts yielded larger improvements, while measures that counted less either did not improve or worsened (Konetzka et al. 2016). The researchers concluded that providers may have redirected their resources toward measures that were more heavily rewarded by the VBP program. ■

VBP program (Centers for Medicare & Medicaid Services 2020c). After the endorsement review is complete, CMS will assess the timing of a transition to the new measure (Centers for Medicare & Medicaid Services 2020c).

CMS defined the all-cause measure as the risk-standardized rate of SNF stays with any hospital readmissions (excluding planned readmissions) that occur within 30 days of discharge from an acute care hospital, critical

access hospital, or psychiatric hospital. CMS stated that this measure gauges failed transitions from the hospital. By excluding readmissions that occur further out from the hospital discharge, the readmissions that are counted are more likely to be related to poor transitions. The risk adjustment includes the age and sex of the beneficiary, an end-stage renal disease indicator, disability as the original reason for entitlement, principal diagnosis, surgical groups, comorbidities and presence of multiple comorbidities based on Medicare's hierarchical condition categories, the length of stay of the qualifying hospital stay, any time spent in the intensive care unit during the qualifying hospital stay, and the count of hospital stays during the previous year before the qualifying hospital stay.

The Consolidated Appropriations Act, 2021, authorized the Secretary of Health and Human Services to add measures to the program, up to a maximum of 10 measures. The new measures may include measures of functional status, patient safety, care coordination, or patient experience. The Act also calls for validation of the data collected for the new measures similar to the validation of the inpatient hospital measures. The expanded measure set can affect payments beginning in fiscal year 2024.

Minimum stay counts

The Protecting Access to Medicare Act of 2014 requires the Secretary to devise a methodology to achieve a high level of reliability and validity of the measures, especially for providers with a low volume of admissions. Reliability refers to the ability of a measure to distinguish performance among providers.² Requiring more stays to calculate a measure increases a measure's reliability but excludes providers that do not meet the minimum stay count (small providers). Validity refers to whether the measure captures what it purports to measure.

To address reliability concerns for low-volume providers, CMS established a minimum volume requirement (25 stays) in fiscal year 2020 (the second year of the program). As a result of this requirement, 16 percent of providers were assigned an adjustment that effectively holds them harmless under the program because they did not have sufficient volume. Although pooling multiple years for low-volume providers could address the problem of too few observations, CMS rejected this approach because additional factors could affect the performances of low-volume SNFs and undermine comparisons across providers (Centers for Medicare & Medicaid Services 2018a, Centers for Medicare & Medicaid Services 2018b).

CMS established the minimum stay count based on two analyses. First, it compared the level of agreement among providers' performance scores when calculated using random split samples of their stays. The agreement between samples was deemed "moderate" (correlations of 0.447) for providers with at least 25 cases (RTI International 2018). Second, CMS examined the annual volume of stays at SNFs and estimated the number of SNFs that would be excluded with various minimum counts. In CMS's analytic sample, if the minimum annual count had been set at 50 stays, 34 percent of facilities would be excluded from the VBP program, but requiring 25 stays a year would exclude only 15 percent of providers (RTI International 2018). CMS opted for the lower threshold.

To assess the validity of the measure, CMS evaluated the correlation between readmissions and four measures of quality for short-stay residents and four ratings included in the Five-Star Nursing Home Compare (now Care Compare).³ The correlations were very low but statistically significant for seven of the eight comparisons (RTI International 2015). The contractor concluded that readmission rates were related to these other dimensions of quality and therefore valid. CMS also submitted the readmission measure specification to the National Quality Forum who endorsed the measure as important, scientifically sound, relevant, and feasible (National Quality Forum 2021).

The Consolidated Appropriations Act, 2021, mandates that the SNF VBP program exclude providers that do not meet the minimum stay counts for each measure beginning in fiscal year 2023.

Performance score

The statute requires that each SNF's performance be gauged for improvement and achievement, and the incentive payment must be based on the higher of the two. Performance scores must reflect each SNF's relative ranking, and they must result in higher payments for higher performers. Providers in the lowest 40 percent of the ranking must receive payment lower than they otherwise would have had the VBP program not been implemented.

To meet these requirements, CMS designed separate improvement and achievement scores, with a facility's total performance score equaling the higher of the two. The improvement score awards points if a SNF's readmission rate during the performance period is lower

**TABLE
4-1**

Baseline and performance periods for SNF VBP program payment adjustments

Program year	Payment year	Baseline period	Performance period
Year 1	FY 2019	CY 2015	CY 2017
Year 2	FY 2020	FY 2016	FY 2018
Year 3	FY 2021	FY 2017	FY 2019

Note: SNF (skilled nursing facility), VBP (value-based purchasing), FY (fiscal year), CY (calendar year). The VBP program began affecting SNF payment in FY 2019.

than its rate during a baseline period, with more points awarded for larger improvement up to a maximum of 90 points. The achievement score awards points based on how much better a facility’s performance is relative to a threshold (set at the 25th percentile, the lowest quartile of performance) of the distribution of readmission rates during the baseline period, referred to as the “achievement threshold.” A provider whose readmission rate is below the 25th percentile receives no achievement points. The maximum for reaching the achievement benchmark is 100 points.

To convert performance into an incentive payment, CMS uses an S-shaped (logistic) exchange function to translate total performance scores into a multiplier that is applied to payments. A multiplier less than 1.0 reduces payments for lower performing SNFs and a multiplier greater than 1.0 increases payments for higher performing SNFs. CMS stated that it selected this functional form over others to maximize the number of SNFs receiving a positive adjustment while fulfilling the statutory requirement that SNFs in the bottom 40th percentiles have their payments lowered by the adjustment (Centers for Medicare & Medicaid Services 2018a). CMS noted that the functional form would not yield the largest adjustment for the best performers, but the agency thought it was more important to have more SNFs receive a positive payment adjustment.

The baseline and performance periods are one year, with the baseline period preceding the performance period by two years (Table 4-1). For example, for payments in fiscal year 2019, the baseline and performance periods were calendar years 2015 and 2017, respectively, which means that a SNF’s performance in 2017 relative to 2015 influenced its Medicare payments in 2019. As required by statute, CMS publishes the achievement threshold

and benchmark standards 60 days before the start of the performance period for each payment year. For example, the achievement threshold and benchmark for payments in fiscal year 2021 were published in August 2018. (Note that CMS transitioned from calendar year to fiscal year periods beginning with fiscal year 2020 payment adjustments.)

If a provider has fewer than 25 stays in the baseline period, an improvement score is not calculated for it. If that same provider has at least 25 stays in the performance period, its performance score will be based on achievement. If a provider has fewer than 25 stays in the performance period, neither an improvement score nor an achievement score is calculated. The provider is assigned an incentive multiplier of 1.0 so that its payments are unaffected by the program.

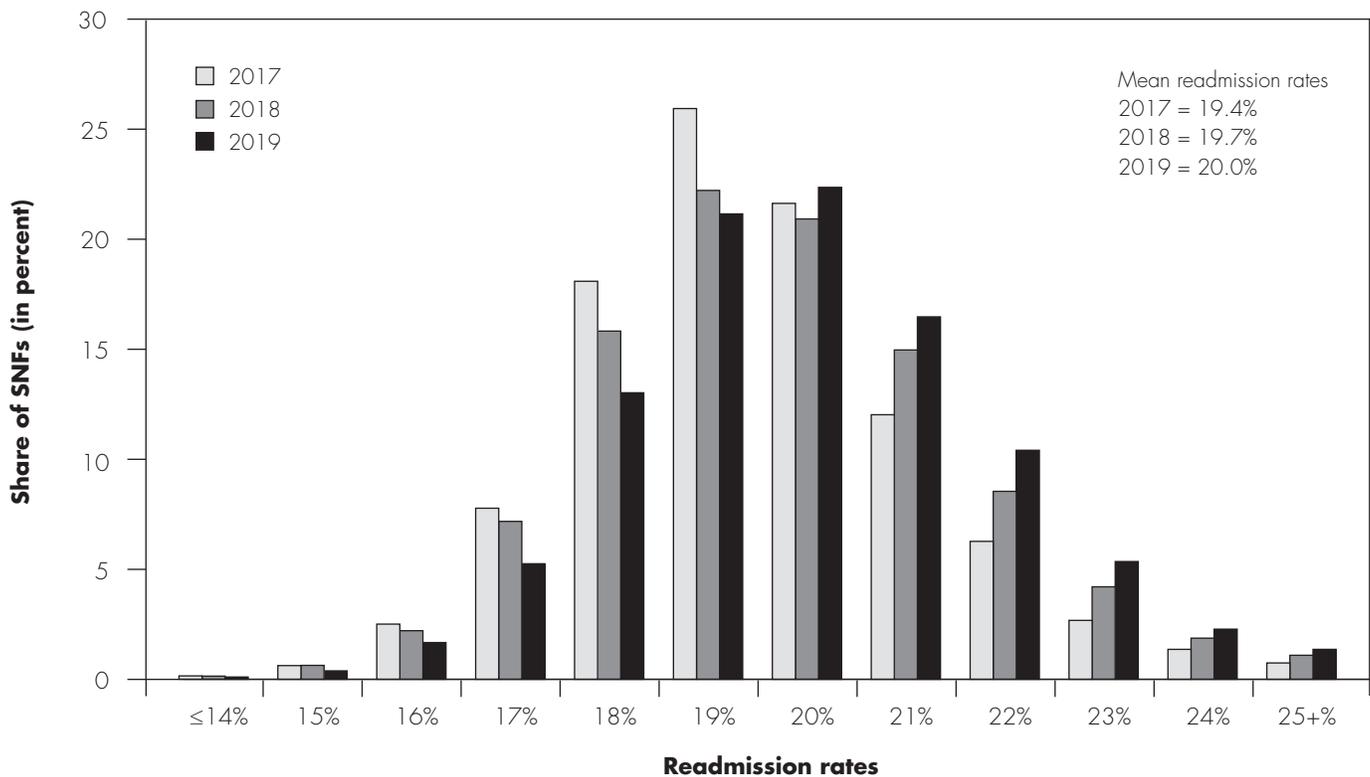
Funding the value-based purchasing program

As required by statute, incentive payments are financed by an across-the-board 2 percent reduction to the payment rate. The statute also requires that total incentive payments equal between 50 percent and 70 percent of the total reduction, with the program retaining the remainder as savings. CMS opted to pay out 60 percent of the withheld amounts, retaining 40 percent as savings. The lowest performing facilities will earn back almost none of the withheld amount, while the higher performers can earn incentive payments that, on net, increase their payments.

Before the beginning of each fiscal year, payment rates are increased by the annual update and then adjusted to reflect a combination of the 2 percent withhold and each facility’s incentive payment percentage. This percentage is applied to each claim during the fiscal year such that payments are lowered for SNFs with poorer performance and increased for SNFs with better performance.

FIGURE 4-1

Readmissions varied in each performance period of the SNF VBP program



Note: SNF (skilled nursing facility), VBP (value-based purchasing). Calendar year 2017 is the performance period for payment adjustments that affected payments for fiscal year 2019 (the first year of the program); fiscal year 2018 is the performance period for fiscal year 2020 (the second year of the program); fiscal year 2019 is the performance period for fiscal year 2021 (the third year of the program). The analysis excludes SNFs from any year in which they had fewer than 25 stays.

Source: MedPAC analysis of CMS SNF value-based purchasing data.

Impact of the coronavirus pandemic on the SNF VBP program

In the fiscal year 2019 final rule for SNF payments, CMS adopted an “extraordinary circumstances exception policy” to provide relief to providers facing extreme and uncontrollable circumstances. On March 20, 2020, CMS implemented this policy and announced that it would exclude qualifying claims submitted between January 1 and June 30, 2020, from calculating the VBP adjustments for fiscal year 2022 payments (Centers for Medicare & Medicaid Services 2020c). In September 2020, CMS announced that the agency would calculate measure results using data from the second to fourth quarter of 2019 and third quarter of 2020 (excluding the first and

second quarters of 2020) for calculating fiscal year 2022 payments (Centers for Medicare & Medicaid Services 2020b). In April 2021, CMS proposed to suppress the readmission measure for the FY 2022 SNF VBP program year because circumstances caused by the pandemic have affected the measure and the resulting performance scores significantly. To maintain compliance with the existing payback percentage policy in statute, they proposed to apply the same payment adjustment to all eligible SNFs. This adjustment would reflect the 2 percent withhold net of the program’s 40 percent retained as savings, but would not incorporate any adjustment for performance (Centers for Medicare & Medicaid Services 2021).

**TABLE
4-2****Under the VBP program, payments to the majority of SNFs were lowered****Share of SNFs earning an adjustment to payments**

Payment year	Relatively large reduction	Relatively small reduction	Essentially no change	Relatively small increase	Relatively large increase
FY 2019	49%	18%	12%	14%	7%
FY 2020	62	12	6	5	14
FY 2021	56	14	9	9	13

Note: VBP (value-based purchasing), SNF (skilled nursing facility), FY (fiscal year). The table shows the share of SNFs that experienced changes in payments relative to if there were no program. The analysis excludes SNFs with less than 25 stays a year (held harmless). A “relatively large reduction” is defined as a reduction equal to or greater than 1.5 percent. A “relatively small reduction” is defined as a reduction between 0.5 percent and 1.49 percent. “Essentially no change” is defined as an adjustment between a 0.49 percent reduction and 0.49 percent increase. A “relatively small increase” is defined as an increase between 0.5 percent and 1.49 percent. A “relatively large increase” is defined as an increase equal to or greater than 1.5 percent. FY 2019 was the first year that the VBP program affected payments; FY 2020 was the second year of the program; FY 2021 was the third year of the program. In FY 2020 and FY 2021, the total percentage of SNFs is greater than 100 due to rounding.

Source: MedPAC analysis of SNF VBP program data from CMS.

Results of the SNF VBP program

Each year, about three-quarters of providers had their Medicare payments reduced by the program (fiscal years 2019, 2020, 2021), though the size of the adjustments varied from year to year. In each year, more SNFs had their performance based on achievement rather than on improvement from a baseline period. SNFs that are small, treated sicker beneficiaries, or treated higher shares of fully dual-eligible beneficiaries (defined as beneficiaries with full Medicaid benefits for least one month during the year) had worse performance than other SNFs. These results suggest that the program would be improved with a higher minimum stay count and an adjustment for social risk factors.

Readmission rates for the performance periods

Between 2017 (the performance period for payments in fiscal year 2019) and 2019 (the performance period for payments in fiscal year 2021), the mean readmission rates increased (worsened) slightly from 19.4 percent to 20.0 percent. The readmission rates and the amount of variation across providers indicate room for improvement and support using the readmission rate measure to gauge performance (Figure 4-1). Providers at the 90th percentile had readmission rates that averaged 27 percent higher than providers at the 10th percentile, while rates at the 75th percentile averaged 13 percent higher rates than the rates at the 25th percentile.

Payment adjustments under the SNF VBP program

Across the first three years of the SNF VBP program, the median VBP adjustments lowered payments by between 0.7 percent and 1.8 percent. Each year, about three-quarters of providers had their Medicare payments reduced by the program. The largest reward across the three program years ranged from 1.6 percent to 3.1 percent (net increase in payments). These results are partly explained by the statutory requirement that the program must lower payments for 40 percent of providers, as well as the scoring, and the modest size of the withhold used to fund the incentive payments (2 percent). Also, as more SNFs are penalized, then the rewards for the high performers are larger so that incentive pool of dollars to be distributed to providers is spent out.

To further examine performance under the VBP program, we categorized SNFs into five groups based on the relative size of their payment adjustment in each year (Table 4-2). Providers that were held harmless by the program because they did not have 25 stays were excluded from the analysis. The five groups consisted of SNFs with (1) a relatively large decrease to the payments (at least a 1.5 percent reduction); (2) a relatively small decrease (reduction between 0.5 percent and 1.49 percent); (3) an adjustment that was close to zero (changes between a 0.49 percent decrease percent and a 0.49 percent increase); (4) a relatively small increase (between 0.5 percent and 1.49 percent); and (5) a relatively large increase (1.5 percent or more).

**TABLE
4-3****VBP program payment adjustments were based on achievement rather than improvement for the majority of SNFs**

Payment year	Payments decreased under VBP program			Payments increased under VBP program	
	Performance score based on achievement score	Performance score based on improvement score	Achievement and improvement score = 0	Performance score based on achievement score	Performance score based on improvement score
FY 2019	43%	9%	21%	23%	4%
FY 2020	28	11	39	18	5
FY 2021	34	10	30	22	4

Note: VBP (value-based purchasing), SNF (skilled nursing facility), FY (fiscal year). Performance score is the higher of achievement or improvement. An achievement score of 0 means the SNF did not meet the threshold achievement set at the 25th percentile of performance. An improvement score of 0 means the SNF did not improve from the baseline period. Fiscal year 2019 was the first year the VBP program affected payments; fiscal year 2020 was the second year of the program; FY 2021 was the third year of the program. In FY 2020, the total percentage of SNFs is greater than 100 percent due to rounding. The analysis excludes SNFs with fewer than 25 stays a year (held harmless).

Source: MedPAC analysis of SNF VBP program data from CMS.

Across the three years of the program, between 49 percent and 62 percent of providers experienced relatively large reductions to their payments. Another 12 percent to 18 percent experienced relatively small reductions. Less than a quarter of providers (between 19 percent and 22 percent) had their payments increased as a result of the program, and payments remained about the same for a minority (between 6 percent and 12 percent) of SNFs.

Pathway to performance

According to the scoring methodology adopted for the program, providers earned achievement points by achieving at least a minimum threshold (the 25th percentile in the baseline period) or by improving compared with a baseline period, with the performance score reflecting the higher of the two scores. The maximum points awarded for achievement was higher than for improvement (100 points versus 90 points). In each year of the program, many more SNFs had their performance score based on achievement rather than on improvement (Table 4-3). Apart from the SNFs that were held harmless by the program in fiscal years 2020 and 2021 due to insufficient volume, a sizable share of SNFs (ranging from 21 percent in fiscal year 2019 to 39 percent in fiscal year 2020) earned no points—their readmission rates were below the threshold (so they earned no achievement points) and they did not improve from the baseline year (so they earned no improvement points).

Consistency in provider payment adjustments across years

There was broad consistency in whether a SNF received a reward or penalty across the three years of the program. Each year, about three-quarters of SNFs received a payment reduction, and almost half received a payment reduction every year. This consistency in part reflects the program’s design—40 percent of SNFs receive penalties each year—and the scoring approach. The large share of providers that were penalized in any given year is also a result of performance: Many providers did not improve (in fact, the average readmission rate increased over time) or did not achieve the minimum performance. About one-quarter of SNFs earned the largest reduction in each of the three years. In contrast, about 18 percent of SNFs received payment adjustments that steadily increased over the three years, indicating better relative performance over time. However, given the amount of “noise” in the measure, these results might not reflect improved performance.

Although the majority of providers were penalized each year, the size of the payment adjustments varied from year to year. Only one-quarter of SNFs had adjustments that were similar in size each year, and almost all of those experienced relatively large reductions. About 12 percent of SNFs had performances that were sufficiently variable that their payment adjustments swung between penalties and rewards. This inconsistency may reflect a

**TABLE
4-4**

SNF VBP program payment adjustments were inversely related to shares of fully dual-eligible beneficiaries

SNF share of fully dual-eligible beneficiaries by size of payment adjustment

Year	Relatively large reduction	Relatively small reduction	Essentially no change	Relatively small increase	Relatively large increase
FY 2019	46%	46%	45%	41%	33%
FY 2020	44	43	42	41	36
FY 2021	43	43	42	41	38

Note: SNF (skilled nursing facility), VBP (value-based purchasing), FY (fiscal year). The analysis excludes SNFs with fewer than 25 stays a year (held harmless). A “relatively large reduction” is defined as a reduction equal to or greater than 1.5 percent. A “relatively small reduction” is defined as a reduction between 0.5 percent and 1.49 percent. “Essentially no change” is defined as an adjustment between a 0.49 percent reduction and 0.49 percent increase. A “relatively small increase” is defined as an increase between 0.5 percent and 1.49 percent. A “relatively large increase” is defined as an increase equal to or greater than 1.5 percent. FY 2019 was the first year that the value-based purchasing program affected payments; FY 2020 was the second year of the program; FY 2021 was the third year of the program.

Source: MedPAC analysis of SNF VBP program data from CMS.

minimum count that is too low—it includes too much “noise” (instead of “signal”) to reliably gauge a provider’s performance.

Payment adjustments by provider characteristics

To assess whether certain facility characteristics are associated with VBP performance, we examined the relationship between payment adjustments and average risk score for the patients treated, a facility’s average share of fully dual-eligible beneficiaries treated, provider size (measured by total days), ownership, facility type, and location.

Facility’s average patient complexity Provider performance under the SNF VBP program was related to the comorbidities of the provider’s patient population. To measure patient complexity, we calculated the average risk score of the beneficiaries treated by each SNF, as measured by the hierarchical condition category score (where higher scores indicate more complexity). In the performance period that affected payments for fiscal year 2019, the average risk score for patients treated by providers with the largest reduction to payments was 10 percent higher than the average risk score for providers with the largest increases to payments. In the performance period that affected payments for fiscal year 2020, the average risk was 6 percent higher for SNFs with the largest reductions in payment; for fiscal year 2021 payments, it was 5 percent higher.

Average risk scores were inversely related to the size of the adjustment, with lower average risk scores for providers that experienced larger and positive payment adjustments and higher average risk scores for providers with larger and negative adjustments. Although this relationship could indicate less-than-perfect risk adjustment, the risk adjustment model is relatively complete (see the factors listed on p. 126) given the current state of administrative data. The relationship could also reflect differences in admitting practices across SNFs. However, one study of SNF readmission rates between 2009 and 2013 (before the VBP program) concluded that differences in rates were attributable to true differences, not selection (Rahman et al. 2016). That is, providers with higher risk scores had poorer performance.

Facility’s mix of patients at higher social risk To examine whether SNFs that treated higher shares of patients at social risk fared worse under the program, we examined the relationship between the share of a facility’s fully dual-eligible beneficiaries (as a proxy of income, a social risk factor) and the adjustments made to payments. We found that SNF VBP payment adjustments were negatively associated with a provider’s share of fully dual-eligible beneficiaries (Table 4-4). Providers with relatively large net increases to their payments (rewards) had a lower average share of fully dual-eligible beneficiaries compared with providers with relatively large net reductions (penalties). In fiscal year 2019, for providers with

**TABLE
4-5**

**SNF VBP program adjustments to payments in FY 2021
varied slightly for most provider groups**

Characteristic	Adjustment to payments					
	National share of all SNFs	Relatively large reduction	Relatively small reduction	Essentially no change	Relatively small increase	Relatively large increase
All	100%	56%	14%	9%	9%	13%
Free standing	97	56	14	9	9	13
Hospital based	3	48	14	9	8	21
Nonprofit	22	52	15	9	10	14
For profit	71	57	14	9	8	12
Government	7	55	14	9	9	13
Urban	76	57	13	8	8	13
Rural	24	52	16	9	10	12
Frontier	<1	42	11	24	7	16

Note: SNF (skilled nursing facility), VBP (value-based purchasing), FY (fiscal year). Table shows the share of SNFs that experienced changes in payments relative to no program within each provider group (by percentage in respective row). FY 2021 was the third year of the VBP program. The analysis excludes SNFs with less than 25 stays a year (held harmless). "Relatively large reduction" is defined as a reduction equal to or greater than 1.5 percent. A "relatively small reduction" is between 0.5 percent and 1.49 percent. "Essentially unchanged" is an adjustment between a 0.49 percent reduction and 0.49 percent increase. A "relatively small increase" is between 0.5 percent and 1.49 percent. A "relatively large increase" is equal to or greater than 1.5 percent. Totals may not sum to 100 due to rounding.

Source: MedPAC analysis of SNF VBP program data from CMS.

relatively large increases to their payments, 33 percent of their beneficiaries were fully dual-eligible compared with 46 percent of beneficiaries for providers with relatively large reductions to their payments. There were slightly smaller differences between the two groups in fiscal years 2020 and 2021.

Other researchers analyzing first-year results of the SNF VBP program found that SNFs serving vulnerable groups (defined by race/ethnicity categories and high or low Medicaid enrollment) were less represented among facilities in the top quintile of SNF VBP performance, compared with facilities overall (Hefele et al. 2019). Another study found that the probability of a SNF receiving a penalty was related to its location in a low-income ZIP code (Qi et al. 2020). These results lend support to payment adjustments that consider the social risk factors of a provider’s mix of patients. Otherwise, providers could have an incentive to avoid admitting beneficiaries with high social risk factors.

Provider size Payment adjustments were also related to the size of the provider. Providers that had relatively large increases in their payment adjustments in fiscal year 2021 had 16 percent more total days during the performance period than providers that had relatively large reductions in their payment adjustments (size differences were similar for adjustments to payments in fiscal years 2020 and 2019). Larger providers are more likely to have the resources to devote to care management strategies aimed at lowering readmissions because larger facilities on average have higher Medicare margins (Medicare Payment Advisory Commission 2021). They also may have admission strategies aimed at short-term rehabilitation patients who may be less likely be readmitted to a hospital.

Facility type, ownership, and location We report the results for adjustments to payments in fiscal year 2021, but the results were similar for adjustments in the other two years (Table 4-5). By facility type, a larger share of hospital-based SNFs (21 percent) received relatively large payment increases compared with the share of all SNFs (13 percent). On average, hospital-based SNFs have lower

readmission rates due to their higher staffing levels and physician presence as well as more timely lab results for patients. The differences by ownership were small except that, compared with all SNFs, nonprofit providers were less likely to receive large reductions to payments. There were not large differences in payment adjustments by location (urban versus rural), except for frontier providers, which were more likely to have received large payment increases and less likely to have received large payment reductions. And while certain provider characteristics were associated with reductions or increases, there was wide variation within each group. For example, although a disproportionate share of hospital-based providers received relatively large increases in payments, the majority had their payments lowered, just like other providers.

States varied considerably in their shares of SNFs whose payments increased and decreased under the program. Some states, such as Hawaii and Washington, had high shares of SNFs with good performance. Other states, such as Louisiana and Mississippi, had high shares of SNFs with poor performance.

To examine the relationship between the size of the incentive payments and various provider characteristics simultaneously, we conducted linear regression analysis that included the following predictors: the average risk score of the beneficiaries treated in the facility (a measure of patient complexity); case-mix-adjusted nurse staff hours per resident per day (registered nurses (RNs) and, in separate analyses, a sum of registered nurses, licensed practical nurses (LPNs), and aides); survey inspection score (separate analyses included and excluded the inspection scores); share of fully dual-eligible beneficiaries; total facility days; occupancy rates; location (rural or urban); facility type; ownership; and share of racial and ethnic minority beneficiaries. In some instances, these results differ from the descriptive statistics because, after controlling for various provider characteristics, some factors (such as ownership) were not statistically significant.

Of the relationships that were statistically significant, we found that incentive payments were inversely related to risk scores and shares of fully dual-eligible beneficiaries. That is, incentive payments declined as risk scores and shares of fully dual-eligible beneficiaries increased. The fact that payment adjustments are systemically connected to social risk supports accounting for the social risk factors of a provider's patient population. Because patients at higher social risk are also more likely to be

medically complex, accounting for social risk is likely to help counteract the disadvantages SNFs that treat medically complex patients may have in achieving good outcomes (even after adjusting measure results for clinical factors). We also found that incentive payments were higher for SNFs that were hospital-based, had higher occupancy rates, and were larger. The results were similar for the models that included only RN staffing and all nurse staffing (RN, LPN, and aides) and for models that excluded the survey inspection score. Across the three years, we did not find consistent relationships between payment adjustments and ownership, staffing, or location.

Our regression results are broadly consistent with two studies, even though their methods and the factors they considered differed. A study of year 1 results analyzed the odds of being penalized and found that SNFs with higher shares of frail patients (a measure of patient complexity), SNFs located in low-income ZIP codes (an indicator that their patients would tend to have high social risk factors), and SNFs with lower 5-star quality ratings were more likely to be penalized, while hospital-based providers were less likely to be penalized (Qi et al. 2020). Another study of the first two years of the program found that larger SNFs, SNFs in rural locations, and SNFs with higher RN staffing levels were more likely to receive rewards compared with other SNFs (Daras et al. 2021). This study did not examine whether performance was related to a SNF's share of patients at high social risk.

Our work and these two studies suggest that performance is related to patient complexity, social risk factors, provider size, and provider type. The findings for ownership, rural location, and total staffing levels were mixed and may reflect differences in the models (predicting a penalty or a reward compared with the size of a reward) and the factors included in them.

Shortcomings of the SNF VBP design

Our assessment of the SNF VBP program revealed several fundamental design flaws. First, performance is assessed using a single outcome measure, even though quality is multidimensional. Second, the minimum stay counts for a provider to be included in the program do not ensure that the measures are reliable for low-volume providers. Third, the performance scoring includes “cliffs”—that is, preset numeric thresholds—so that some providers may not be encouraged to improve. Fourth, the design does not consider the social risk factors of a SNF's patient population, which disadvantage some SNFs.

Finally, the design retains a portion of the incentive pool as savings, which may dampen SNFs' motivation to improve. Three of these design features (the single measure, the performance scoring, and the lack of an approach to account for social risk factors) do not meet the Commission's principles for quality measurement (Medicare Payment Advisory Commission 2018).

Performance is assessed with a single, flawed measure

The Commission supports quality payment programs that include a small set of measures that gauge clinical outcomes, patient experience, and value (Medicare Payment Advisory Commission 2018). While the recently enacted legislation authorizes the Secretary to expand the measure set by up to 10 measures, we encourage the agency to focus on a smaller set of domains to focus provider improvement activities. An expanded measure set would help overcome two potential problems with a single measure. First, a sole metric may encourage providers to disproportionately focus on that one dimension at the expense of other aspects of care (Eijkenaar et al. 2013, Konetzka et al. 2016). Second, a single measure is more likely to be statistically unreliable than a "composite" measure that gauges performance using multiple measures (Dimick et al. 2012, Krell et al. 2014, Scholle et al. 2008). Using multiple measures will strengthen the quality of the signal and reduces the noise of random variation, thereby improving reliability (Dimick et al. 2013).

The rate of hospital readmissions is a good measure of SNF quality. Hospital readmissions are disruptive to patients and caregivers and costly to the health care system. They also put patients at additional risk of hospital-acquired infections and complications. Readmissions are a major source of patient and family stress and can contribute substantially to loss of functional ability, particularly in older patients. Last, the measure captures many dimensions of clinical care. A provider with poor attention to medication management, fall prevention, infection control, skin integrity, and hydration would be expected to have high readmission rates.

However, the specification of the current measure has several flaws. First, the specification counts only readmissions that occur within 30 days of discharge from the hospital. By including only these readmissions, SNFs are not held accountable for their patients' readmissions that occur after this period, but patients can still be under their SNF's care (about one-third of SNF stays are longer

than 30 days). The definition could create incentives for SNFs to delay needed hospital care until after the 30th day to avoid including the readmission in its performance measure. The Commission supports a during-stay measure that holds a provider accountable for the entire SNF stay (Medicare Payment Advisory Commission 2015).

Second, the CMS hospitalization measure does not count SNF stays preceded by hospitalizations in inpatient rehabilitation facilities and long-term care hospitals, which account for about 6 percent of SNF admissions (Centers for Medicare & Medicaid Services 2016). A more complete measure of hospital events would also count observation stays because, from the beneficiary's perspective, observation stays may be indistinguishable from an inpatient admission.

Finally, for stays shorter than 30 days, the measure includes readmissions that occur while the beneficiary is in the SNF and those that occur after discharge, even though these measures point to very different problems. Readmissions that occur during the stay indicate shortcomings in the monitoring and detection of clinical conditions that, when left untreated, can worsen. Readmissions that occur after discharge from the SNF may reflect that the patient was not clinically ready to go to the next setting or home, or that the care coordination (including the education and training of beneficiaries and their caregivers) was inadequate, or some combination. The Commission supports a separate measure to gauge the safe transitions to the next setting for a set period of time.

Minimum count is too low to ensure reliable measures for low-volume providers

The minimum stay count CMS uses for the readmission measure may not be high enough to adequately distinguish performance across providers, especially small providers. In 2018, 10 percent of SNFs had 29 or fewer stays; one-quarter of SNFs had 55 or fewer stays. When measures are unreliable, the performance of one provider may appear to be different from another provider, when in fact the sampling error around the estimate is so large that their performances are not statistically different from each other. Especially when publicly reported and tied to payments, measures should accurately reflect performance, not random variation.

CMS based its minimum count (25 stays) on "the low end of 'moderate' agreement" between performance scores calculated for random split samples of SNF stays (the

correlation coefficient was 0.447) (Centers for Medicare & Medicaid Services 2018a, RTI International 2018). At this level of agreement, the two half-samples agreed less than half of the time. A commonly used standard of “good” reliability (0.7, where 70 percent of the variation is explained by differences in performance and 30 percent is attributed to random variation) was not reached until the minimum count was greater than 172 stays (RTI International 2018).

The Consolidated Appropriations Act, 2021, bars the Secretary from applying the SNF VBP program to facilities that do not meet the minimum case counts for each measure in the program. However, until CMS uses a higher reliability threshold, the minimum counts will continue to be too low to ensure reliable measure of low-volume providers.

One way to expand the number of SNFs meeting a more common reliability standard (0.7) would be to include multiple years in the performance period. More recent years could be weighted more heavily than earlier years. Or CMS could consider setting a minimum count below which multiple years of data would be pooled. However, using a mix of performance periods depending on a provider’s size may create potential inequities across providers.

Performance scoring does not encourage all providers to improve

The performance scoring awards points for the higher of improvement or achievement. As such, a provider could improve but still be assessed as having poor performance. As required by statute, payments are lowered for the bottom 40 percent performers, which prevents the worst performers from receiving higher payments under the VBP program. The Commission prefers a simpler scoring approach that awards points based only on achievement.

The performance scoring in the SNF VBP design includes two additional features that may undermine incentives for a provider to improve. First, the scoring includes thresholds that limit whether a SNF will earn a quality bonus: Providers in the bottom 25th percentile in achievement are awarded no points and SNFs in the bottom 40 percent of total points must have their payments lowered relative to what they would receive without the VBP program. Assuming that improvements require some investments (for example, in staffing, training, and other infrastructure), the worst performers may not have the resources to improve. Second, the

scoring does not differentiate among SNFs at the high end of the performance continuum, with achievement and improvement points “maxing out” at the benchmarks (the average of the top 10th percentile). This scoring may dampen the incentive for the top performers to continue to improve.

A study of the impact of thresholds used in three Medicaid nursing home pay-for-performance programs (Colorado, Georgia, and Oklahoma) offers mixed evidence to support these concerns (Werner et al. 2016). It found that nursing homes that were the furthest below the thresholds had the largest improvements in performance, while performance declined for homes that were the furthest above the thresholds. The authors suggested that the poorest performing homes may have implemented low-cost approaches to reduce their readmissions, shifted resources toward areas of performance that were targeted by the program, or changed the coding of data used to calculate the performance measures.

Design does not account for social risk factors

In quality payment programs, the Commission contends that Medicare should account, as necessary, for differences in providers’ populations, including social risk factors. There is growing recognition that social risk factors (such as income, education, race and ethnicity, employment, disability, community resources, and social support) play a major role in health. The effects of social risk factors on quality results persist after the clinical complexity of patients (e.g., age, sex, comorbidities) is taken into account. Providers serving a high proportion of beneficiaries with social risk factors tended to perform worse on quality measures in part due to unmeasured differences in the patient population and in part due to the provider’s poor performance (Assistant Secretary for Planning and Evaluation 2016). Specifically, in its report to the Congress on social risk factors and performance under Medicare’s VBP programs, the Assistant Secretary for Planning and Evaluation reported that patients receiving care at a SNF with a high proportion of dually eligible, low-income, Black, or Hispanic beneficiaries or beneficiaries with disabilities were associated with an increased likelihood of readmission. Differences in the use of high-quality providers among beneficiaries of differing socioeconomic status and race is fairly well established (Angelelli et al. 2006, Grabowski and Castle 2004, Konetzka et al. 2015, Mor et al. 2004, Sharma et al. 2020). Further, if quality improvement requires financial investments and these providers have

fewer resources, VBP program and public reporting could exacerbate existing disparities among providers (Konetzka et al. 2016).

The Commission has supported using peer groups to account for differences in the social risk of provider populations. Although social risk factors could be included in the risk-adjustment method, doing so would mask disparities in performance across providers. Instead, providers would be stratified by social risk factor (such as the share of low-income patients) and then compared with other providers in their peer group to calculate the incentive payments. A provider could compare its unmasked, actual performance (the rates would have been adjusted for differences in patient age, sex, and comorbidities) with providers with similar social risk factors and with national averages. Consumers and other stakeholders (such as entities participating in alternative payment models and Medicare Advantage plans) could compare performances in selecting a SNF or establishing networks of preferred providers.

Design retains a portion of the incentive pool as program savings

The SNF VBP program retains a portion (40 percent) of the amounts withheld from payments as Medicare savings. The Commission does not support using value-based incentive programs to achieve program savings. Rather, the programs should be implemented to be budget neutral and all withheld amounts should be paid out as incentive payments. If the Congress wishes to lower the level of payments to SNFs, it has other vehicles to achieve that purpose, such as the annual update.

Retaining a portion of the withhold as savings effectively lowers the pool of incentive dollars to distribute as incentive payments. The relatively small size of the incentive payments (2 percent), further shrunk by the retained savings, may not be sufficiently large to motivate providers to improve their performance. Policymakers could consider a larger withhold as a stronger motivator.

Design of a SNF value incentive program

Relying on the Commission’s principles for quality measurement and our previous work on redesigning Medicare quality incentive programs, we present a SNF VIP design that addresses the SNF VBP program flaws

(Table 4-6). We also describe illustrative modeling of the SNF VIP design.

The SNF VIP design has five elements. It:

- scores a small set of performance measures,
- incorporates strategies to ensure reliable measure results,
- establishes a system for distributing rewards with minimal cliff effects,
- accounts for differences in patients’ social risk factors using a peer-grouping mechanism, and
- distributes the entire provider-funded pool of dollars.

Score a small set of performance measures

Consistent with the Commission’s principles for quality measurement, Medicare quality programs should include a small set of population-based measures tied to outcomes, patient experience, and resource use. Where practical, the measures should align across all Medicare-accountable entities and providers. So that these measures are not unduly burdensome for providers and are less subject to recording inaccuracies, they should largely be calculated or administered by CMS, preferably based on already reported data, such as claims data. Providers could choose to use other granular process measures to manage their own quality improvement efforts, but those measures would not factor into Medicare payment.

To identify potential candidates for the SNF VIP, we reviewed the 11 measures included in Medicare’s SNF Quality Reporting Program (QRP) measure set that have gone through CMS’s measure development and testing process. Two measures (drug regimen review and functional assessment with development of a care plan) are process measures, which the Commission has not supported for use in quality incentive programs. Several measures—including change or attainment of mobility, skin integrity (pressure ulcers), and incidence of falls—are based on provider-reported patient assessment data that may not be accurate enough to include in payment incentive programs at this time. We avoided these measures in the illustrative SNF VIP modeling because the Commission found that the consistency of facilities’ recording of functional assessment information raised questions about using such information for quality reporting or payment. Research also suggests that nursing

**TABLE
4-6**

The proposed SNF VIP design addresses flaws in the current SNF VBP program

Flaw in the current SNF VBP program

Assesses performance using a single, flawed outcome measure: As required by statute, the SNF VBP program scores a single readmissions measure, even though quality is multidimensional.

Does not ensure reliable measure results for low-volume providers: The minimum stay count CMS uses for the readmission measure in the SNF VBP program is not sufficiently high to adequately differentiate performances across providers, especially for small providers.

Uses performance scoring that does not encourage all providers to improve: The SNF VBP performance scoring awards points for the higher of improvement or achievement. As required by statute, payments are lowered for providers in the bottom 40 percent of rankings, and rewards “top out” for the best performers.

Does not account for social risk factors: The SNF VBP design does not include an approach that considers the social risk factors of the beneficiaries treated by a SNF, which can disadvantage SNFs with high shares of patients at social risk.

Retains a portion of the incentive pool: As required by statute, the design retains a portion of the incentive pool (based on 2 percent withhold) as savings.

Proposed SNF VIP

Scores a small set of performance measures: The SNF VIP adjusts provider payments based on performance on a small set of measures tied to outcomes. The measure set should be revised as other measures (e.g., patient experience) become available.

Incorporates strategies to ensure reliable measure results: The SNF VIP uses a higher reliability standard for determining the minimum number of stays required for a SNF to be included in scoring. The SNF VIP could also use other techniques to include low-volume providers in the program, such as scoring multiple years of performance.

Establishes a system for distributing rewards with minimal cliff effects: The SNF VIP uses a simpler scoring approach that awards points for every performance achieved with minimal use of thresholds, or cliffs. The continuous performance scale results in every SNF having an incentive to improve.

Accounts for differences in patients’ social risk factors using a peer-grouping mechanism: The SNF VIP stratifies providers into peer groups based on the social risk factors of their patient population. Payment adjustments are based on performance relative to peers in the group.

Distributes the entire provider-funded pool of dollars: The SNF VIP distributes all withheld funds back to providers based on their performance. Though not explicitly designed to achieve program savings, improved provider performance (e.g., fewer readmissions) could lower program spending.

Note: SNF (skilled nursing facility), VIP (value incentive program), VBP (value-based purchasing).

homes underreport rates of pressure ulcers and falls (IntegraMed Analytics 2020, Sanghavi et al. 2020). Still, maintaining and improving these outcomes are critically important to patients, so it is desirable to improve the reporting of assessment data so that these outcomes can be adequately assessed.

In our June 2019 report to the Congress, we discussed strategies to improve the accuracy of the provider-reported assessments, including CMS monitoring of provider-reported function data to detect unusual patterns and the implementation of an audit program to follow up on aberrant results (Medicare Payment Advisory Commission 2019a). As a part of the monitoring, CMS could assess improvement in function across providers (i.e., compare

discharge assessment results from one PAC provider with results from a subsequent admission to another PAC provider). As an alternative to SNF-reported assessments, Medicare could require hospital discharge planners to conduct assessments of a patient’s function at discharge. These assessments would be divorced from any payment incentives that could lead SNFs to record functional status in ways that boost payments, and the assessments would generally provide an independent point of comparison.⁴ Although all SNF patients have a prior hospital stay, this is less true for patients admitted to other PAC settings. Therefore, this option would be less effective for ensuring the accuracy of assessments for a PAC value incentive program.

Another strategy would be to gather patient-reported function data. Currently there are no patient-reported outcomes collected in PAC settings or included in the QRP. Given the high level of comorbidities and cognitive impairments among PAC patients, developing patient-reported information would require the use of proxies. In any case, it would take substantial investments in time and effort before such data could be used reliably in the SNF VIP. The Congress has recently required and provided funding to CMS to implement a validation of quality data used in the expanded SNF VBP program that may be similar to the validation of inpatient quality data (i.e., chart review of some measure results for a sample of hospitals).

Three QRP measures are claims based (and risk adjusted): potentially preventable readmissions, Medicare spending per beneficiary, and discharge to the community. However, the measures CMS developed are not uniform across PAC settings. Given the Commission's goal of eventually being able to compare outcomes across settings, we developed measure specifications that, while based on the CMS measures, are uniformly defined and risk adjusted across PAC settings. These measures serve as prototypes of those Medicare could use in the SNF VIP.

We also reviewed SNF measures that are publicly reported on the Care Compare (formerly Nursing Home Compare) website for potential inclusion in our SNF VIP model's measure set. CMS calculates and reports the share of beneficiaries who had an outpatient emergency department visit during their stay, a claims-based measure. This is a promising measure because emergency department visits can be disruptive for patients, and many of these visits are preventable with appropriate care during the SNF stay. However, the measure is not yet developed for use across the four PAC settings. Care Compare also reports process measures, facility capacity statistics, staffing measures, and regulatory inspection results. While many of these measures are important for public reporting, they are not outcomes measures that the Commission asserts should be tied to payment. Medicare should continue to use other quality measures and compliance standards to monitor SNF performance and publicly report this information. Public reporting of provider and national performances should encourage providers to improve (see text box on public reporting of quality results).

In its discussion of an expanded measure set, the Consolidated Appropriations Act, 2021, listed examples of the domains that might be added, including functional status, patient safety, care coordination, and patient

experience. However, until assessment information reported by providers is validated, the Commission does not support using this information to tie payments to reported performance. Two of the measures included in the proposed VIP design (successful discharge to community and Medicare spending per beneficiary) capture care coordination. In addition, the Commission urges CMS to finalize measures of patient experience that could be incorporated into a future VIP.

Our illustrative SNF VIP modeling includes two outcome measures and a measure of resource use: all-condition hospitalizations within stay, successful discharge to the community, and Medicare spending per beneficiary (MSPB). These measures are important to beneficiaries, the Medicare program, and entities such as accountable care organizations (ACOs) and health systems interested in setting up networks of high-performing providers. Anticipating a value incentive program for all PAC providers, we developed measures that use uniform definitions and risk adjustment across the PAC settings. All three measures have considerable variation in performance across SNFs, signifying opportunities for providers to improve the care they provide and the ability to differentiate performance among providers. The measures can also help CMS identify poor performers that need additional technical assistance.

We realize that the three measures in our illustrative model are related and represent a narrow view of quality; for example, they all, in some way, capture hospitalizations. These measures are not intended to be a definitive list of the measures to use in the SNF VIP; instead, CMS should develop the measure set through a public review and input process. The SNF VIP measure set should evolve as the accuracy of patient assessment data improves and other data (such as clinical data from electronic health records, infection rates, and patient experience survey results) become available.⁵ As quality measures improve, the measure set should continue to include only a small set of measures that are not burdensome for providers to collect.

All-condition hospitalizations within stay

Hospitalizations (admissions and readmissions) are outcomes that are disruptive to patients and caregivers, are costly to the health care system, and put patients at additional risk of hospital-acquired infections and complications. Hospitalizations are also a major source of patient and family stress and may contribute substantially to the loss of function, particularly in older patients. CMS has developed uniform post-stay readmission measures

Public reporting of quality information should complement the skilled nursing facility value incentive program

CMS regularly calculates nursing home star ratings to represent the quality of services provided by nursing homes. On the Care Compare website (formerly Nursing Home Compare), CMS posts an overall rating for each nursing home consisting of 1 to 5 stars (5 is the highest rating), as well as individual star ratings for the domains of quality of resident care, staffing, and health inspections. Consumers (i.e., beneficiaries, family members, other providers) have the option to view more information about a nursing home's quality of resident care, including 33 quality measure results, such as outcome measures (e.g., risk-adjusted hospitalization rates); process measures (e.g., flu vaccination rate); and functional status measures (e.g., change in residents' mobility). Consumers can also view facility capacity statistics (e.g., the average number of residents per day and staffing hours per resident day) and regulatory inspection results (e.g., health and fire safety code violations and patient complaints).

There are three main objectives for public reporting of Medicare quality information. First, public reporting can increase the accountability of health care organizations and providers by offering more information to patients and payers, which can help them make more informed purchasing and treatment decisions. Second, public reporting can stimulate improvements in quality of care through economic competition (reputation and increased market share).

Third, public reporting establishes standards so that apples-to-apples comparisons can be made (Marshall et al. 2003). Researchers have identified and tested best practices for displaying comparative information to best meet the objectives of public reporting. Many such practices are incorporated in the nursing home star ratings. The ratings report a small number of measures that are integrated into an overall star rating. More detailed information is readily accessible (Agency for Healthcare Quality and Research 2020b, Aligning Forces for Quality 2009).

Concurrent with the direct financial incentives of the skilled nursing facility (SNF) value incentive program (VIP), CMS should continue to provide a vehicle for publicly reporting quality information. While Medicare should tie performance-based payment to a small set of measures, public reporting should include additional measures that inform consumer decision-making and hold SNFs accountable for the care they provide. The Commission maintains that the SNF VIP measure results should be publicly reported on Care Compare. As in the current Care Compare, consumers should continue to be able to see each SNF's measure results and, for context, how those results compare with the national average or state average. CMS could also add the average performance of each SNF's peer group (SNFs treating patients with similar social risk) to Care Compare. ■

for PAC providers, but the so-called uniform during-stay measures vary across settings.⁶ The during-stay SNF measure counts readmissions during the first 30 days after discharge from the hospital. Because some SNF stays do not last 30 days while other stays are longer, this measure does not hold SNFs accountable for all of the hospitalizations that occur during the SNF stay and, for short SNF stays, can include readmissions that did not occur during the stay but rather after the patient was discharged. Additionally, none of the setting-specific hospitalization measures consider returning to the hospital

for an observation stay, which from the beneficiary's perspective can appear to be an admission.

For our illustrative SNF VIP modeling, we calculated risk-adjusted hospitalization within-stay rates for SNF providers, using three years of claims data (2015 to 2017). This outcome measure holds SNFs accountable for their patient outcomes and care they provide "within their walls." In addition to counting readmissions, the measure includes returns to the hospital for outpatient

observation stays. The risk adjustment model includes the following information: the beneficiary's primary reason for treatment, severity of illness, comorbidities, age, sex, and original reason for Medicare entitlement; whether the beneficiary received dialysis in the preceding hospital stay or during the SNF stay; whether the beneficiary received ventilator care, or had severe wounds, bowel incontinence, or dysphasia during the SNF stay; and the length of the preceding hospital stay, the number of intensive care unit days in the most recent hospitalization, and the number of hospitalizations during the past year.

We found that the three-year median rate for risk-adjusted within-stay hospitalizations was 14 percent (lower is better). There was considerable variation in the measure across SNFs, with rates varying more than twofold. Variation in performance is an important feature of a measure. If variation across providers is limited, providers' performances cannot be differentiated. Furthermore, the variation suggests opportunities for providers to improve the quality of care they provide to patients.

Successful discharge to the community

Discharge to a community setting is an important health care outcome for many patients for whom the overall goals of post-acute care include optimizing functional status and returning home. However, SNFs should not discharge patients who are not medically ready to return to the community because doing so may result in hospital events. Unlike the hospitalizations-within-stay measure, successful discharge to community captures a patient's outcome after discharge from the SNF.

As a part of the Improving Medicare Post-Acute Care Transformation Act of 2014, CMS recently developed a risk-adjusted, claims-based successful discharge to community quality measure for each PAC setting.⁷ The measure defines successful discharge to the community from a PAC setting as having been discharged to the community and having no unplanned hospitalizations or mortality in the next 30 days.⁸ For this measure, *community* is defined as home/self-care, with or without home health services, and includes nursing home residents who return to the same facility. Discharges to hospice or resident stays with a hospice benefit in the 31-day postdischarge window are excluded from the calculation. The CMS measure excludes nursing home residents who return to the same facility.

For our illustrative modeling, we calculated risk-adjusted successful discharge to community measure results for

all SNFs using three years of claims data (2015 to 2017). The risk adjustment model included the following factors: the beneficiary's primary diagnosis and comorbidities, age, sex, and original reason for entitlement; whether the beneficiary was on a ventilator or received dialysis in the preceding hospital stay where end-stage renal disease (ESRD) was not indicated; and the length of the preceding hospital stay and the number of hospital stays during the past year. Like the hospitalizations-within-stay measure, there is considerable variation across SNF providers (rates varied more than twofold). The three-year median rate was 43 percent for SNFs (higher is better).

Medicare spending per beneficiary

The MSPB-PAC is a provider-level measure of resource use that captures Part A and Part B Medicare spending during the PAC stay and the following 30 days for the patients they treat. Low MSPB-PAC is considered desirable. To keep its MSPB-PAC low, a provider has an incentive to furnish high-quality care (avoiding hospitalizations), make referrals for the necessary level and amount of subsequent care, ensure safe transitions, and discharge beneficiaries to high-quality PAC providers (e.g., home health agencies) with low hospitalization rates. The measure helps create incentives for providers not participating in broad delivery reforms (such as ACOs and bundled payments) to focus on an episode of care that begins with admission and extends for a period after discharge. For beneficiaries who are hospitalized and then use SNF services, the measure overlaps with the MSPB measure for hospitals (which holds hospitals accountable for spending during the hospital stay and 30 days after discharge). By having overlapping measures, SNFs and hospitals have the same incentive to keep resource use low. Paired with outcome measures, the MSPB-PAC measure could also detect stinting on care by identifying providers with consistently low spending per beneficiary and low quality.

Building on CMS's specification for all PAC providers, we developed a risk-adjusted measure of spending that is adjusted for differences in the mix of patients treated by a provider. Using three years of claims data (2015 to 2017), we calculated the risk-adjusted MSPB for each SNF relative to the setting average. Measures were risk adjusted using the following patient and episode characteristics: the beneficiary's broad clinical condition (such as orthopedic surgery or a medical condition) and comorbidities, age, and original disability status; whether the beneficiary had

ESRD, was in a long-term care institution, or was enrolled in hospice; the timing of the SNF stay (e.g., whether it immediately followed a prior hospital stay or followed a prior PAC stay), and the length of stay in an intensive care or coronary care unit during a prior hospital stay.

Of the total episode spending, 56 percent was for the initial SNF stay, another 21 percent was for other post-acute care (such as home health care), 13 percent was for hospital readmissions, 4 percent was for physician and other fee schedule services, and the remainder was for ancillary and other services (such as durable medical equipment and hospice). As with the other two measures, we found almost twofold variation in performance across SNFs.

Finalize measures of patient experience

According to the Commission's principles for quality measurement, Medicare's quality payment programs should include measures of patient experience. Across the health care system, research finds that improving patient experience translates to better health. Patients who feel heard and have positive care experiences report better health outcomes and are more likely to adhere to treatment plans (Agency for Healthcare Quality and Research 2020a).

The Agency for Healthcare Research and Quality (AHRQ) and CMS have developed Consumer Assessment of Healthcare Providers and Systems[®] (CAHPS[®]) surveys to capture patient experience with health care services at multiple levels of the delivery system, including hospitals, clinicians, and health plans.⁹ CAHPS surveys cover topics that are important to patients and focus on aspects of quality that patients are best qualified to assess, such as the communication skills of providers and ease of access to health care services. Systematic use of the CAHPS surveys, including administration and analysis of results, allows for apples-to-apples comparisons across providers.

AHRQ has developed three nursing home CAHPS survey instruments for long-stay residents, short-stay patients who are discharged, and family members. These surveys include roughly 50 questions about various aspects of care and experience during a stay, including safety, cleanliness, timeliness of nursing staff, and overall rating of the facility. CMS has not implemented any of the surveys in the skilled nursing facility QRP. Agency officials told us that provider burden, difficulty collecting reliable results from more complex PAC patients (requiring the use of patient proxies to gather the information), and internal

resource constraints have stalled the adoption of CAHPS requirements across SNFs.

The American Health Care Association, an association of long-term care and post-acute care providers, has developed a core set of customer satisfaction questions called the CoreQ, which has been independently tested as a valid and reliable measure of customer satisfaction. The survey for short-stay residents includes four items, all based on a five-point scale overall (Poor, Average, Good, Very Good, or Excellent): (1) If recommending this facility to your friends and family, how would you rate it?; (2) Overall, how would you rate the staff?; (3) How would you rate the care you received?; and (4) How would you rate how well your discharge needs were met? (CoreQ 2019). The survey results are used to calculate a short-stay discharge measure as the share of individuals discharged in a six-month time period from a SNF within 100 days of admission who were satisfied with their care. CMS has previously considered incorporating the measure into the SNF Quality Reporting Program (Centers for Medicare & Medicaid Services 2020a).

To better measure and improve patient-centered care, CMS should finalize measures of patient experience, using either the CAHPS or CoreQ surveys, and require SNFs to collect this information from beneficiaries or their proxies. Measures of SNF patient experience could eventually be used in a SNF VIP. To incorporate such measures, CMS would need to finalize a survey and develop patient experience measures based on survey responses, adjusted for respondent characteristics (e.g., sex, age, education, whether a proxy completed the survey). CMS would also need to implement a process for third-party survey vendors to collect survey results from patients (or their proxies). Collecting patient experience information would add burden to both SNFs and CMS, but the Commission contends that these are valuable measures to assess a SNF's quality of care.

Incorporate strategies to ensure reliable measure results

For many small SNFs with low patient volume, establishing reliable measure results is problematic.¹⁰ Low-volume providers likely do not have enough observations to ensure that the measure detects signal (performance) rather than noise (random variation). Unreliable measure results can lead to drawing the wrong conclusions about a provider's performance; a low-volume provider can appear to have unusually good or

poor performance, when in fact its performance is not statistically significantly different from the average. Low-volume providers are also more likely to have performance that varies from year to year, which could result in a provider incurring penalties one year and receiving a reward the next. Policymakers must consider the tradeoff between achieving reliable results and driving quality improvement in as many providers as possible.

In our illustrative modeling of the SNF VIP, we used a minimum case count that resulted in an acceptable reliability for each measure (i.e., 0.7, where 70 percent of the variance in a measure's results was attributable to actual performance differences and providers can be differentiated).¹¹ This level of reliability required a minimum of 60 stays (for each measure).

Setting a minimum case count to ensure reliability inevitably means excluding some providers from the quality measurement program. One way to include as many providers as possible is to pool data across years, allowing a performance measure to be calculated for many small providers that would otherwise be excluded.¹² Such pooling is consistent with other VBP designs and measures. For example, the Hospital Readmissions Reduction Program uses three years of performance data to calculate readmission results. In our illustrative SNF VIP modeling, we chose to pool three years of claims data to increase the number of observations for each provider. Blending performance across years also encourages sustained improvements; providers that maintain better performance will have years of good performance and comprise a larger share of the performance period that is being assessed. However, pooling data across years could dampen a provider's drive to continually improve results because recent results are blended with older results and therefore take longer to be fully recognized in the provider's payments. To counter this disincentive, policymakers could weight the years differently, giving more emphasis to the more recent years. Policymakers could also opt to pool data across years only for low-volume providers, while scoring just the most recent year's performance for providers that meet a minimum count in a single year.

Establish a system for distributing rewards with minimal cliff effects

Consistent with the Commission's principles, the SNF VIP is designed to reward or penalize a provider using a continuous, prospectively set scale for each measure. The performance scale for each measure is set nationally because Medicare is a national program, so the same

performance scale should be applied to all SNFs. The performance-to-points scale for each measure is set based on the continuous distributions of all SNF scores. Unlike the current program that awards points for the higher of improvement or achievement scores, the SNF VIP scores only achievement. By recognizing every level of performance, providers are always better off improving quality to achieve a higher level of quality than not—thus negating the need to separately score improvement. As performance improves, the SNF VIP performance scale should be revised. The scale will be prospectively set so providers know how their performance on a measure translates to points before the payment year, which allows them to set their improvement goals and activities.

In establishing a system to distribute rewards, policymakers will need to consider whether a provider should meet some minimum performance standard before it earns performance points that could translate into a reward. One way to avoid potentially rewarding poor performance is to set the performance-to-points scale so that no points are assigned below a minimum threshold. Different input could go into determining the appropriate minimum threshold. A minimum threshold could be set based on clinical judgment where there is an applicable clinical standard. For example, there are clinical definitions of "controlled diabetes" that could be used to set a threshold for a measure gauging a provider's success at managing diabetes. However, for some outcome measures, there may be no clinical standards. For example, even with a goal to keep SNF patients out of the hospital, some SNF patients will need to be rehospitalized to receive appropriate care. For such measures, policymakers could use a relative minimum threshold; for example, the worst quartile of performers would not receive points.

Setting a minimum performance threshold would help meet beneficiaries' and the program's reasonable expectations that providers furnish some minimum level of quality. It would also prevent the worst-performing SNFs from earning performance points that could translate into a reward (or, more likely, a smaller penalty).

Although a minimum threshold would avoid potentially rewarding the poorest performers, there are several reasons not to include one in a scoring design. First, it would create a cliff, or numeric threshold, between providers whose performance falls just below and those just above the threshold. It may also dampen the incentive for some poor-performing SNFs to improve if the threshold performance seems unattainable. In addition, a minimum

**TABLE
4-7****Better performance on quality measures earns more points under illustrative SNF VIP model****Performance on measures**

Points	All-condition hospitalization rate (lower is better)	Medicare spending per beneficiary ratio (lower is better)	Successful discharge to the community rate (higher is better)
0	23%	1.4	23%
2	19	1.2	31
4	16	1.1	38
6	13	1.0	44
8	11	0.8	52
10	8	0.7	62

Note: SNF (skilled nursing facility), VIP (value incentive program). Each of the three measures in the SNF VIP modeling is continuously scored from 0 to 10 points; only a subset of points is displayed here. The performance-to-points scale is set using a range of all SNF's performance. To avoid showing outliers, the table displays the performance associated with 0 and 10 points after rounding the points to the tenths' place. The Medicare spending per beneficiary ratio compares a SNF's spending with the national mean (1.0).

Source: MedPAC analysis of claims data, 2015–2017.

threshold would disproportionately penalize SNFs who treat a high share of patients at high social risk because they are more likely to have lower performance on quality measures. Under the VIP, the lowest performing SNFs would always be penalized, regardless of their share of beneficiaries at high social risk, because the design establishes “winners” and “losers” within each peer group. Finally, a threshold would undercut the purpose of a peer-group strategy that is designed to counter the disadvantages these SNFs face in achieving good performance. Removing the lowest performing providers from earning any points would create even larger disparities between the lowest performing and other SNFs. The disparity would result from the dollars withheld from the lowest performing SNFs being redistributed to the other SNFs, increasing these other SNFs’ incentive payments (or reducing their penalties).

In designing a VIP, the Commission aims to increase the equity across SNFs when tying performance to value incentive payments. Therefore, despite the merits of including a minimum performance threshold, the Commission comes to a different conclusion and supports an approach that counters the challenges that providers treating high shares of patients at high risk have in achieving good performance.

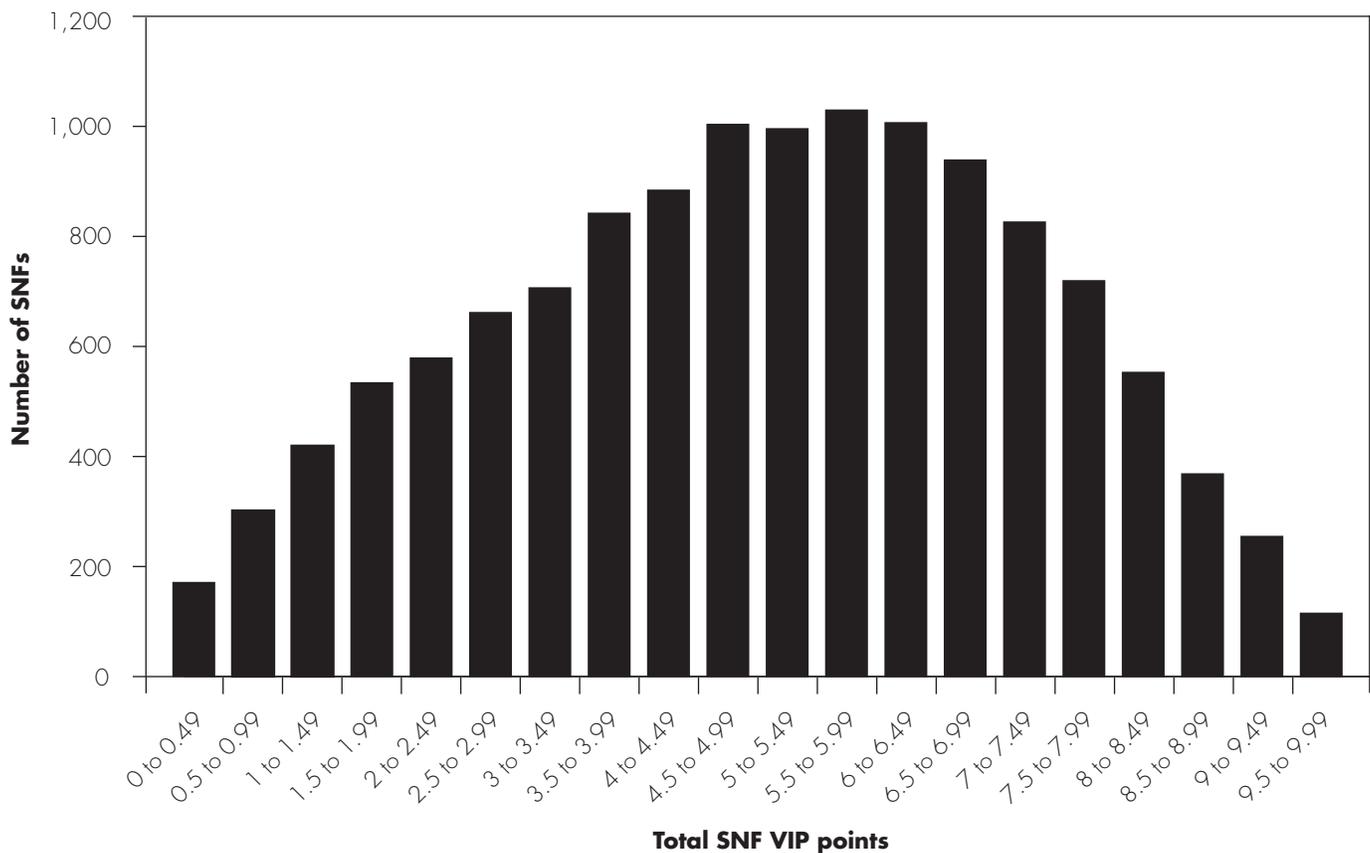
To meet beneficiaries’ and program expectations that providers furnish some minimum level of quality, CMS could more aggressively use two tools it has to encourage improvement. First, it could incorporate performance standards tied to the SNF VIP into Medicare’s Requirements of Participation. Providers that repeatedly deliver the poorest quality of care could be removed from the program. Second, it could expand its Special Focus Facilities (SFF) program to include providers with repeatedly poor performance on the VIP’s quality measures. The SFF program currently identifies providers that have a history of more numerous and more serious deficiencies cited during the facility inspection survey. In addition to being subject to increased frequency of inspections (as is currently done), SFFs could be targeted to receive technical assistance resources.

Award points based on performance

Under a SNF VIP, providers earn more points for better performance on quality metrics. In our illustrative SNF VIP modeling, points are assigned on a performance-to-points scale from 0 to 10 for each quality metric. The scale is set based on continuous distributions of all SNF scores (Table 4-7).¹³ Providers earn more points for lower hospitalization rates, lower Medicare spending per beneficiary, and higher rates of successful discharge to

**FIGURE
4-2**

Distribution of total SNF VIP performance points is statistically normal in illustrative modeling



Note: SNF (skilled nursing facility), VIP (value incentive program). The total SNF VIP points is the average of each SNFs points earned for each of the three measures using a continuous performance-to-points scale.

Source: MedPAC analysis of claims data, 2015–2017.

the community. For example, the best performing SNFs with a hospitalization rate of about 8 percent would earn 10 points for that measure. The worst performing SNFs with a hospitalization rate of about 23 percent would not earn points for that measure. For each provider, after the points for each quality measure are determined, the total SNF VIP points are calculated by averaging the points for each measure. This calculation effectively weights each measure equally.¹⁴

The distribution of the total SNF VIP points in our illustrative model is statistically normal (Figure 4-2). Most providers' total points fall in the middle of the distribution, while only a few providers score very poorly or very well.

Account for differences in patients' social risk factors using a peer-grouping mechanism

In quality payment programs, the Commission contends that Medicare should, as necessary, take into account differences in providers' populations, including social risk factors. Research shows that SNF patient populations with a substantial level of social risk factors are more difficult to treat. However, CMS should not adjust measure *results* for social risk factors because doing so can mask disparities in performance. Instead, Medicare should adjust performance *payments* through peer grouping so that, for purposes of rewards or penalties, each provider's

performance is compared with providers with a similar mix of patients at social risk—that is, its “peers.” A provider would earn points based on its performance relative to national performance scales, but how those points are converted to incentive payments would vary by peer group, with larger multipliers (i.e., the payment adjustment per point) for peer groups with higher shares of beneficiaries at high social risk. Providers would know the performance scales, their peer group assignment, and peer group multipliers before the payment year so that they have time to set their improvement goals and activities.

There is an inherent tradeoff between treating providers uniformly and factoring into the payment adjustment the fact that it is harder for providers treating high shares of patients at high social risk to achieve good performance. Under a peer-grouping approach, the same performance would earn different payment adjustments depending on the peer group to which the provider was assigned. A good performance by a SNF in a peer group with high shares of beneficiaries at high social risk would earn a larger reward because it would be more difficult for the provider to achieve this result compared with the same performance by a SNF treating few beneficiaries at high social risk. By calculating the payment adjustment by peer group, SNFs within each group compete to earn payment adjustments on a more level playing field.

A minimum performance standard is likely to disproportionately affect SNFs treating high shares of patients at high social risk because they are more likely to have lower performance on quality measures. Minimum performance standards thus undercut the purpose of peer grouping—to counter the disadvantages these SNFs face in achieving good performance. It is not possible to treat SNFs uniformly yet have a design that counters the disadvantages some SNFs face in achieving good performance. To this end, the Commission has developed a solution that improves equity across SNFs in earning rewards under a VIP. Also, to ensure transparency regarding quality of care, peer grouping would be paired with public reporting of SNF VIP measure results so that consumers (beneficiaries, health systems, and payers) can see which SNFs are high performing or low performing compared with national, state, and peer group averages.

Define the peer groups

To define peer groups in our illustrative SNF VIP modeling, we used the share of fully dual-eligible beneficiaries because it is a proxy for income, which is a social risk factor. Fully dual-eligible beneficiaries have

low income and are much more likely than other Medicare beneficiaries to have a disability, multiple chronic conditions, and functional impairments. They are also more likely to have other social risks (e.g., living alone). One downside to using fully dual-eligible status to set the peer groups is that Medicaid eligibility requirements and benefits vary across states.¹⁵ That said, in its work on social risk factors and Medicare value-based payment programs, the Department of Health and Human Services Assistant Secretary for Planning and Evaluation concluded that dual eligibility for Medicare and Medicaid remains a powerful predictor of poor outcomes in Medicare’s VBP programs (Assistant Secretary for Planning and Evaluation 2020). Its conclusion was based on an evaluation of available measures that could be used to account for differences between beneficiaries that can affect health outcomes—including education, living alone, and an area-level social deprivation index. Policymakers could consider using other social risk factors to define peer groups and could refine the definitions if more accurate, readily available proxies become available.

Our SNF VIP model uses 20 equal-sized peer groups to assign the 12,937 SNFs that met the data requirements (about 650 SNFs in each group). We settled on 20 groups according to the distributions of the performance points and shares of fully dual-eligible beneficiaries within each peer group. Twenty groups resulted in peer groups, each of which included providers with similar shares of fully dual-eligible beneficiaries. There were large differences in the average share of fully dual-eligible beneficiaries across the 20 SNF peer groups, with shares ranging from 3 percent for Peer Group 1 to 91 percent for Peer Group 20 (Table 4-8, p. 146).

In specifying the peer-group methodology, CMS should test the appropriate number and definition of groups to best group providers with similar shares of patients with social risk. One approach is to group providers using natural breaks in the distribution of the shares of fully dual-eligible beneficiaries instead of creating groups with equal number of providers. This approach may result in an unequal number of providers in each peer group, but it would more accurately reflect “like” providers. We did not find any natural breaks in the distribution that suggested alternative peer-group definitions.

Translate performance points into payment adjustments using peer groups

The SNF VIP is designed to distribute the incentive pool of dollars to each peer group’s providers based on

**TABLE
4-8****Under a SNF VIP, using peer groups would result in larger payment adjustments per performance point for SNFs with high shares of fully dual-eligible beneficiaries**

Peer group (based on share of fully dual-eligible beneficiaries)	Average share of fully dual-eligible beneficiaries	Average points	Range of performance points (25th to 75th percentiles)	Pool of dollars (in millions)	Multiplier (converts points to payment)
1 (lowest share)	3%	7.1	6.2 to 8.2	\$68.6	0.70%
2	10	7.1	6.1 to 8.2	87.2	0.71
3	15	6.8	5.8 to 8.2	86.1	0.74
4	19	6.6	5.5 to 7.8	84.7	0.78
5	23	6.3	5.1 to 7.6	77.9	0.82
6	27	6.1	5.0 to 7.3	70.6	0.85
7	30	5.9	4.7 to 7.1	69.1	0.86
8	34	5.7	4.5 to 7.1	68.2	0.89
9	37	5.5	4.2 to 6.9	62.2	0.90
10	40	5.2	3.9 to 6.5	58.2	0.98
11	44	5.1	3.8 to 6.4	56.4	1.00
12	47	4.9	3.6 to 6.1	53.2	1.06
13	51	4.5	3.1 to 5.9	52.5	1.13
14	54	4.3	2.9 to 5.7	49.5	1.21
15	58	4.0	2.4 to 5.4	48.3	1.28
16	62	3.9	2.6 to 5.2	45.1	1.33
17	67	3.7	2.1 to 5.1	45.6	1.42
18	73	3.3	1.7 to 4.7	44.0	1.61
19	80	2.9	1.4 to 4.1	51.5	1.81
20 (highest share)	91	2.6	1.3 to 3.7	56.8	2.12

Note: SNF (skilled nursing facility), VIP (value incentive program). There are about 650 SNFs in each of the 20 peer groups. Peer groups are assigned based on the share of the SNF's Medicare patients who were fully eligible for Medicare and Medicaid benefits for at least one month of the year. The incentive pool of dollars for each peer group includes 5 percent of Medicare payments for each SNF in the peer group. The multiplier is the percentage adjustment to payments per performance point.

Source: MedPAC analysis of claims data, 2015–2017.

their average performance on the three measures. The total incentive pool of dollars is divided into peer-group specific pools, with each peer group's pool based on a share of payments withheld from all providers in that peer group. In our illustrative modeling, we used a pool of dollars based on 5 percent of SNF FFS payments to create stronger incentives for providers than the current SNF VBP, which uses 2 percent of SNF payments. Our illustrative SNF VIP model includes seven steps to convert performance points to payment adjustments (see text box describing the process to convert points to a payment adjustment, pp. 148–149).

Under our model, the points that SNFs received decreased across the peer groups: The SNFs in Peer Group 1

received an average of 7.1 points, while the SNFs in Peer Group 20 received an average of 2.6 points (Table 4-8). Compared with SNFs in Peer Group 1, the SNFs in Peer Group 20 had fewer average total points because they performed worse on all three measures. The performance for the top quartile for Peer Group 20 was far below that of the bottom quartile for Peer Group 1. These results are consistent with other research that found that beneficiaries with social risk factors have worse outcomes (and that was true across health care settings) and underscores the importance of considering social risk factors when tying payments to performance. Also, the ranges in performance points (comparing the 25th and 75th percentiles) were wider for the “higher” peer groups (those with more fully

dual-eligible beneficiaries). For example, the range of performance points at the 25th and 75th percentile for Peer Group 1 was 2.0 points (6.2 points to 8.2 points), while the range for Peer Group 20 was 2.4 points (1.3 points to 3.7 points). This larger variation in performance points will translate to more variation in the range of payment adjustments.

Peer groups with providers that treat larger Medicare beneficiary populations have larger pools of dollars to distribute since the pool of dollars is based on 5 percent of Medicare payment (e.g., amount paid for each claim that year) for the providers in that peer group. Under our model, the incentive pools of dollars for each peer group ranged from \$44.0 million (Peer Group 18) to \$87.2 million (Peer Group 2).

For each peer group, we calculated a percentage adjustment to payment per SNF VIP point (referred to as the “multiplier,” defined in the text box on converting points to penalties and rewards, pp. 148–149). The multiplier converts a SNF’s total VIP points to dollars and results in the distribution of the total amount of dollars withheld for the peer group. The multiplier for each peer group is based on the total points earned by the peer group’s SNFs and the size of the incentive pool (the total dollars withheld). Because SNFs with higher shares of fully dual-eligible beneficiaries earn fewer SNF VIP points (i.e., have worse outcomes), for any given incentive pool, the SNF VIP multiplier generally increases as the share of fully dual-eligible beneficiaries increases. Because the multiplier in Peer Group 20 is the highest, SNFs in this group (with the largest share of fully dual-eligible beneficiaries) earn a higher payment adjustment per performance point compared with SNFs in other peer groups. The multipliers for SNFs in Peer Group 1 and those in Peer Group 20 ranged from 0.7 to 2.1, respectively. In this way, the SNF VIP model accounts for differences in social risk factors of SNFs’ respective beneficiary populations.

Distribute the entire provider-funded pool of dollars

The SNF VIP fully distributes provider-financed rewards and penalties within each peer group and does not attempt to achieve Medicare savings as part of the quality payment program.¹⁶ Throughout our discussion of the SNF VIP model, we refer to a “pool of dollars” through which rewards would be fully redistributed to the providers in each peer group based on their quality performance during the performance period.¹⁷

The SNF VIP rewards and penalties need to be sufficiently large to motivate providers to improve performance and avoid poor performance. Policymakers could consider a program that begins with the current SNF VBP withhold (2 percent) and scale up to a larger withhold amount (e.g., 5 percent) over two or three years. A graduated approach is used in Medicare’s home health VBP demonstration (run by the Center for Medicare & Medicaid Innovation), which started with a 3 percent withhold but increases to 8 percent by 2022. Alternatively, the SNF VIP could immediately begin with a higher withhold amount (e.g., 5 percent). Our SNF VIP model uses 5 percent of provider payments to fund the pool of dollars; provider gains or losses could be larger than their withhold, depending on how their performance compared with other providers. Within each peer group, the pool of dollars would be entirely redistributed as rewards.

Even without required program savings, the SNF VIP could lower Medicare spending because providers will have an incentive to improve on the performance measures. All three measures in the illustrative design encourage providers to avoid costly hospitalizations and unnecessary services for beneficiaries. For example, if providers reduce avoidable hospitalizations during or within 30 days after a SNF stay, program spending will decrease as a byproduct of improved quality of care for the beneficiaries they serve.

A SNF value incentive program would create strong incentives to improve performance and make payments more equitable

Our illustrative model found that a SNF VIP design is feasible and would represent an improvement over the current VBP program. Roughly equal proportions of SNFs would be rewarded and penalized, but the maximum incentive payments would be larger and create stronger incentives to improve. By using peer groups, payments under the SNF VIP would be more equitable across SNFs with different mixes of patients at high social risk. As a SNF’s share of fully dual-eligible beneficiaries increased, the SNF VIP would increase the incentive payments for those providers with better performance. In addition, compared with the current program, the SNF VIP would reduce incentives to avoid admitting clinically complex beneficiaries, particularly vulnerable patients at high social risk.

Using peer groups to convert skilled nursing facility value incentive program points to rewards and penalties

The Commission's illustrative model of the skilled nursing facility (SNF) value incentive program (VIP) distributes quality-based payments to SNFs classified in 20 peer groups. SNFs are assigned to peer groups based on their share of fully dual-eligible beneficiaries—those who qualify for both Medicare and full Medicaid benefits (full Medicaid eligibility being used as a proxy for low income). Each peer group has about the same number of SNFs and a pool of dollars based on a 5 percent payment withheld from each of the respective group's SNFs.

We follow seven steps to convert each SNF's quality measure performance to a payment adjustment for calculating rewards and penalties (see Table 4-9 for an example of how two SNFs would fare under the illustrative design).

Step 1: Calculate each SNF's performance on each of the three risk-adjusted quality measures using beneficiary-level administrative data.

Step 2: Convert each SNF's performance on each of the three quality measures to points based on a continuous performance-to-points scale (nationally determined). With a continuous scale, any difference in performance is translated to a difference in payment.

Step 3: Average each provider's points on the three measures to determine the provider's SNF VIP total points.

Step 4: For each SNF, calculate the share of Medicare admissions that are fully eligible for Medicaid. Assign SNFs into equal-sized peer groups based on the provider's share of fully dual-eligible patients.

Step 5: For each peer group, create a pool of dollars of expected SNF VIP payments based on a specified percentage of payment from each of the group's providers (we used 5 percent of each facility's total Medicare payments).

Step 6: For each peer group, calculate the multiplier (the percentage adjustment to payment per SNF VIP

point) that converts SNF VIP total points to dollars and results in spending the group's pool of dollars defined in Step 5.

$$\text{Multiplier} = \text{SNF VIP pool for peer group} / (\text{sum of each facility's total Medicare payments} \times \text{its total SNF VIP points})$$

Step 7: Compute each SNF's adjustment for the coming year based on past performance and its peer group's multiplier.

$$\text{Provider's SNF VIP-based adjustment} = \text{multiplier} \times \text{provider's SNF VIP total points}$$

These steps illustrate the conversion of SNF VIP points to payment adjustments using peer grouping. Table 4-9 considers the example of two SNFs, SNF A and SNF B. For each of the SNFs, we calculate performance results based on administrative data for each of the three quality measures (Step 1). Using the continuous performance-to-points scales, we convert quality performance to points (Step 2). We average each provider's performance on the three measures to determine SNF VIP total points (Step 3). SNF A has higher total VIP performance (10.0) than SNF B (7.5).

Though SNF A is smaller than SNF B, with 2,400 Medicare days per year compared with 4,400 for SNF B, they have similar shares of admissions who are fully dual-eligible for Medicare and Medicaid, which places them in the same peer group (Step 4). We next determine 5 percent of each of the facility's total Medicare payments (Step 5). Since SNF A has fewer Medicare days, its contribution to the pool of dollars is less (\$50,000) than SNF B's contribution (\$100,000). The total SNF VIP pool of dollars to be redistributed for this peer group is equivalent to 5 percent of combined payments to the two SNFs (\$150,000). The multiplier for the peer group is then calculated (Step 6), which sets the payment adjustment per point for the peer group. For Peer Group 1, the multiplier is 0.6 percent; thus, each SNF VIP point earned results in a payment adjustment of 0.6 percent. The peer group multiplier is then applied to each SNF's VIP point total

(continued next page)

Using peer groups to convert skilled nursing facility value incentive program points to rewards and penalties (cont.)

(Step 7). SNF A earns a payment adjustment of 6.0 percent, which is equal to \$60,000 (or a net reward of \$10,000 more than its contribution to the pool). SNF B earns a payment adjustment of 4.5 percent, which

is equal to \$90,000 (or a net penalty of \$10,000 less than its contribution to the pool). The entire pool of \$150,000 is distributed among the providers in the peer group. ■

**TABLE
4-9**

Converting points to payment adjustments for two illustrative SNFs in the same peer group

Step	Peer Group 1 (Step 4)	
	SNF A	SNF B
Medicare days [facility beds x 365 days x occupancy rate x Medicare share of days]	2,400	4,400
SNF VIP total points (Steps 1-3)	10.0	7.5
Total base facility Medicare payments	\$1,000,000	\$2,000,000
5 percent of facility Medicare payments (withhold)	\$50,000	\$100,000
Pool of dollars for peer group (Step 5)	\$150,000	
Percentage adjustment to payment per SNF VIP point (the multiplier) for peer group (Step 6) [Group's pool / sum of (provider's payments x points)]	0.60 percent adjustment per point	
SNF VIP payment adjustments (Step 7) [Points x multiplier]	6.00%	4.50%
SNF VIP payments [SNF VIP payment adjustment x total payments]	\$60,000	\$90,000
Net payments after 5 percent provider contribution to the pool	+ \$10,000	- \$10,000

Note: SNF (skilled nursing facility), VIP (value incentive program). This example assumes a peer group of two SNFs with a similar share of fully dual-eligible beneficiaries (Step 4).

Under our illustrative value incentive program model, reward and penalty amounts vary widely

Our illustrative SNF VIP model scored each SNF on a small set of measures against a national performance-to-points scale with no cliffs (i.e., preset numeric thresholds), used peer groups (based on shares of fully dual-eligible beneficiaries) to translate performance into payment adjustments, and spent the entire incentive pool of dollars

made up of a 5 percent withhold as rewards. Because the entire pool of dollars is spent, incentives were almost evenly split between SNFs that earned rewards and SNFs that incurred penalties. Payments would increase for 52 percent of SNFs and decrease for 48 percent (Table 4-10, p. 150).

As expected, the median percent change in payments was almost zero (0.1 percent). However, behind this median

**TABLE
4-10****Summary of effects of an illustrative SNF VIP**

Program feature	Percent change
Share of SNFs whose payments would increase	52%
Share of SNFs whose payments would decrease	48
Median net change in payments	0.1
Largest reward (net increase in payment)	15
Largest penalty (net decrease in payment)	-5

Note: SNF (skilled nursing facility), VIP (value incentive program). The illustrative SNF VIP used a 5 percent withhold and fully distributed the incentive pool as incentive payments. A SNF's performance was gauged with three outcome measures: hospitalizations within the stay, successful discharge to the community, and Medicare spending per beneficiary. Peer groups based on share of fully dual-eligible beneficiaries treated were used to tie performance to incentive payments.

Source: MedPAC analysis of claims data, 2015–2017.

are large differences in payment adjustments based on the range in SNFs' performance (Figure 4-3). The largest reward was 15 percent and the largest penalty was 5 percent (the amount of the withhold).

Average net payment adjustments slightly varied by provider characteristic (Table 4-11, p. 152). Although rewards were financed entirely by the pool of withheld payments, the average net payment adjustments did not necessarily average to 0 percent because we present the unweighted averages (each facility "counts" equally). Although larger providers contribute more dollars to the pool, for reporting the average net adjustment, we weighted their net payment adjustments the same as the adjustments made for small providers.

Compared with for-profit providers, average net payments to nonprofit SNFs were slightly higher. Average net payment adjustments were slightly higher for SNFs in urban areas compared with those in rural areas. The differences in the average net payment adjustments across the groups were small and indicate that there are not large systematic differences in the adjustments. Within each category, some providers fared better, and some fared worse.

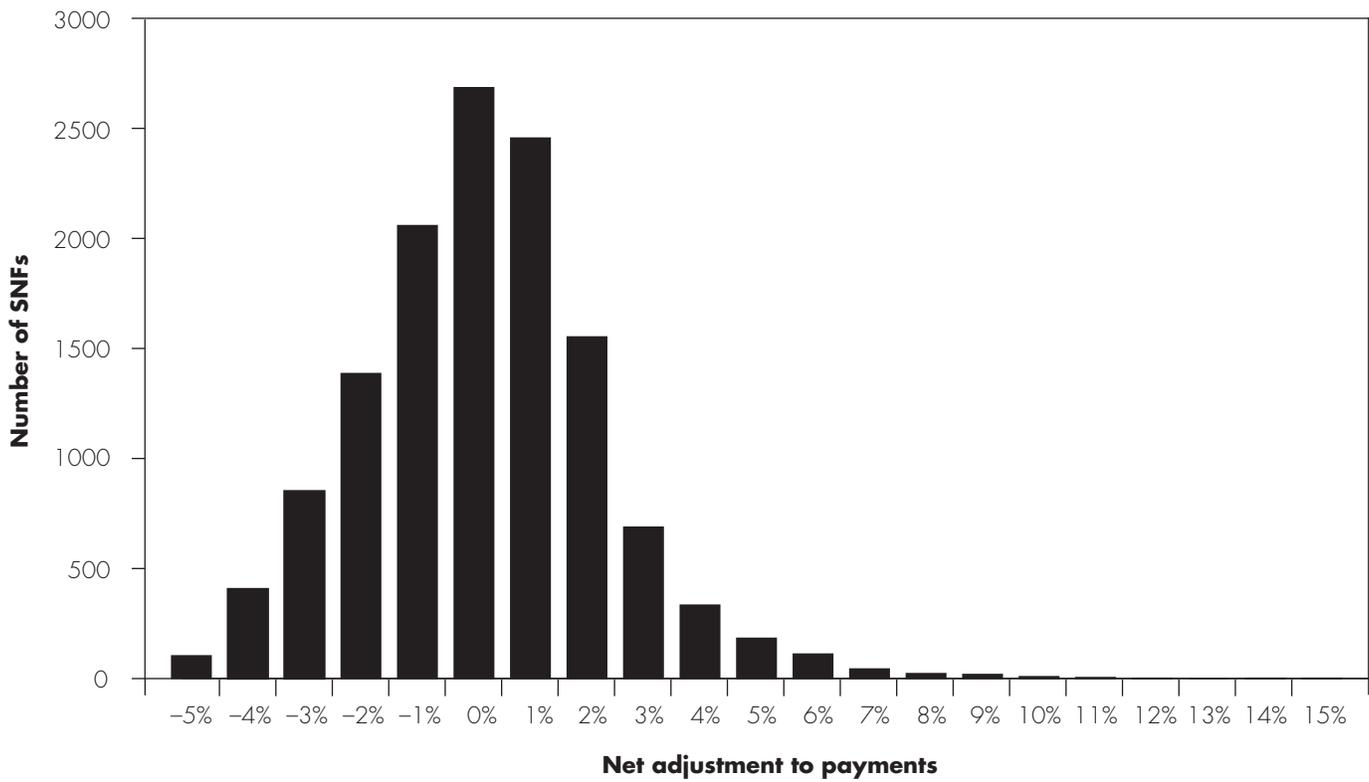
Hospital-based SNFs had notably higher average payment adjustments than freestanding SNFs. This result reflects better performance on all three measures. Compared with freestanding facilities, hospital-based providers on

average had hospitalization rates during the stay that were 45 percent lower, MSPB that was 42 percent lower, and successful discharge to community rates that were 27 percent higher. Hospital-based SNFs typically have lower readmission rates (which affects the results for the measure of hospitalization during the stay and MSPB) due to their higher staffing levels and physician presence as well as more timely lab results for patients.

To validate our results, we correlated total SNF VIP points with a measure of total nurse staffing (total nurse hours per resident per day). We would expect that facilities with higher nurse staffing levels would earn more points under the SNF VIP scoring. We found a weak but statistically significant positive relationship between the two (correlation coefficient = 0.125). This result is consistent with a study of nursing home quality measures that found that better performance was associated with higher staffing levels and lower shares of Medicaid patients (Saliba et al. 2018). We also looked at the correlation between nurse staffing levels and the two quality measures (hospitalization rates and rates of successful discharge home). We found that facilities with higher staffing had lower hospitalization rates and higher rates of successful discharge home. These results are also consistent with the study conducted by Saliba and colleagues. That study also found that hospital-based providers had lower readmission rates and higher rates of discharge to community, and that higher Medicaid shares worsened performance on both measures.

FIGURE 4-3

Under the illustrative SNF VIP, penalty and reward amounts vary widely



Note: SNF (skilled nursing facility), VIP (value incentive program). The illustrative SNF VIP used a 5 percent withhold and fully redistributed that incentive pool as incentive payments. A SNF’s performance was gauged with three outcome measures: hospitalizations within stay, successful discharge to the community, and Medicare spending per beneficiary.

Source: MedPAC analysis of 2015–2017 claims.

Compared with the SNF VBP program, the illustrative SNF VIP model resulted in more equitable payments across SNFs with higher shares of low-income patients

The Commission supports quality payment programs that account for differences in the social risk factors (e.g., income) of providers’ patient populations. However, the current SNF VBP program does not account for differences in the social risk of providers’ patient populations through peer grouping or any other mechanism.

Under the VIP model, rewards to the best-performing SNFs almost uniformly increased as the share of fully dual-eligible beneficiaries increased, thus rewarding

their good performance despite their challenging mix of beneficiaries at high social risk (Table 4-12, p. 153). The payments would increase up to 15 percent for the best-performing SNFs in Peer Group 20 (highest share of fully dual-eligible beneficiaries) compared with a net 2 percent increase for the best performers in Peer Group 1 (lowest share of fully dual-eligible beneficiaries). Within each peer group, there was a wide range in performances that resulted in both penalties (a net negative adjustment) and rewards (a net positive adjustment). Under this design, there would be little incentive to avoid admitting beneficiaries at high social risk.

In the peer groups with the highest shares of fully dual-eligible beneficiaries, the highest performing SNFs earn

**TABLE
4-11**

Illustrative SNF VIP payment adjustments varied by provider characteristics

SNF characteristics	Number of providers	Average net payment adjustment (after 5% withhold)
All providers	12,922	0.14%
Ownership		
Nonprofit	2,739	0.37
For profit	9,355	0.07
Government	828	0.12
Location		
Urban	9,709	0.18
Rural	3,213	0.01
Facility type		
Hospital based	501	1.92
Freestanding	12,421	0.07

Note: SNF (skilled nursing facility), VIP (value incentive program). The table shows unweighted average net payment adjustments. SNFs with missing data for any characteristic were excluded from the table. Although rewards were financed entirely by the pool of withheld payments, average net payment adjustments do not necessarily average to 0 percent because larger providers, which contributed more dollars to the pool, have their net payment adjustments weighted the same as smaller providers, which contributed fewer dollars to the pool on average.

Source: MedPAC analysis of claims data, 2015–2017.

large rewards because they earned the most points and the multipliers for the peer groups are large. For example, a SNF in Peer Group 1 that earned 10 points would have performed about 3 points better than the average for the peer group (7.1 points), so it receives a reward of about a 2 percent net payment adjustment. On the other hand, a SNF in Peer Group 20 that received close to 10 points performed about 7 points better than the average for the peer group (2.6 points). Although both SNFs had exceptional quality scores, compared with the SNF in Peer Group 1, the SNF in Group 20 had achieved this level of performance despite having a patient population with high levels of social risk. With a large peer group multiplier, the SNF VIP formula rewards that success with a 15 percent net payment adjustment. Both SNFs had excellent performance, but one did so under relatively more difficult circumstances.

As previously noted, one inherent feature of the peer-grouping mechanism is that the same total number of points could translate to a penalty in one peer group and a reward in another. For example, a SNF in Peer Group 1 that earns 2.5 points would receive about a 3 percent

penalty, whereas a SNF in Peer Group 20 (earning the same number of points) would receive a 0.3 percent reward. Although there are differences across the peer groups in how many points translate into a reward, the SNF VIP does not result in rewards for the poorest performing SNFs. In our illustrative model, all SNFs in the bottom 14th percentile of performance (those with the lowest total points) received a penalty (lost some or all of the withhold), regardless of their peer group.

Compared with the current VBP program, the illustrative VIP would make payment adjustments more equitable for SNFs with high shares of fully dual-eligible patients. The current program steadily lowers payments as the share of fully dual-eligible beneficiaries treated increases, disadvantaging providers treating these patients (Figure 4-4, p. 154). In contrast, under the SNF VIP, there were only small differences in the average percent payment adjustments across the peer groups, and, on average, SNFs in the peer group with the highest share of fully dual-eligible beneficiaries were more likely to be rewarded in the SNF VIP than those same SNFs in the VBP program.

**TABLE
4-12**

In the illustrative SNF VIP, rewards to the best-performing SNFs almost uniformly increased as the share of fully dual-eligible beneficiaries increased

Peer group (based on share of fully dual-eligible beneficiaries)	Average performance points	Multiplier	Net payment adjustment (after 5% withhold)
1 (lowest share)	7.1	0.70%	-4.9% to 2.0%
2	7.1	0.71	-3.3 to 2.1
3	6.8	0.74	-4.5 to 2.3
4	6.6	0.78	-3.9 to 2.7
5	6.3	0.82	-4.3 to 3.0
6	6.1	0.85	-4.3 to 3.4
7	5.9	0.86	-4.4 to 3.3
8	5.7	0.89	-4.9 to 3.7
9	5.5	0.90	-4.8 to 4.0
10	5.2	0.98	-4.7 to 4.5
11	5.1	1.00	-4.9 to 4.9
12	4.9	1.06	-4.5 to 5.6
13	4.5	1.13	-5.0 to 5.5
14	4.3	1.21	-4.7 to 6.3
15	4.0	1.28	-5.0 to 7.4
16	3.9	1.33	-4.9 to 8.0
17	3.7	1.42	-4.9 to 7.5
18	3.3	1.61	-4.9 to 10.2
19	2.9	1.81	-4.9 to 12.0
20 (highest share)	2.6	2.12	-5.0 to 15.0

Note: SNF (skilled nursing facility, VIP (value incentive program). There are about 650 SNFs in each of the 20 peer groups. SNFs are assigned to peer groups based on the share of a SNF's Medicare patients who were fully eligible for Medicare and Medicaid benefits for at least one month of the year. The table shows the average performance points for the peer group; ranges (the 25th and 75th percentiles) are found in Table 4-8 (p. 146). The multiplier is the percentage adjustment to payments per point. Negative payment adjustments are penalties; positive adjustments are rewards.

Source: MedPAC analysis of claims data, 2015–2017.

A more equitable distribution of rewards and penalties should reduce incentives to select patients with fewer social risk factors.

Compared with the SNF VBP program, the illustrative SNF VIP model would reduce the incentive to avoid admitting clinically complex beneficiaries

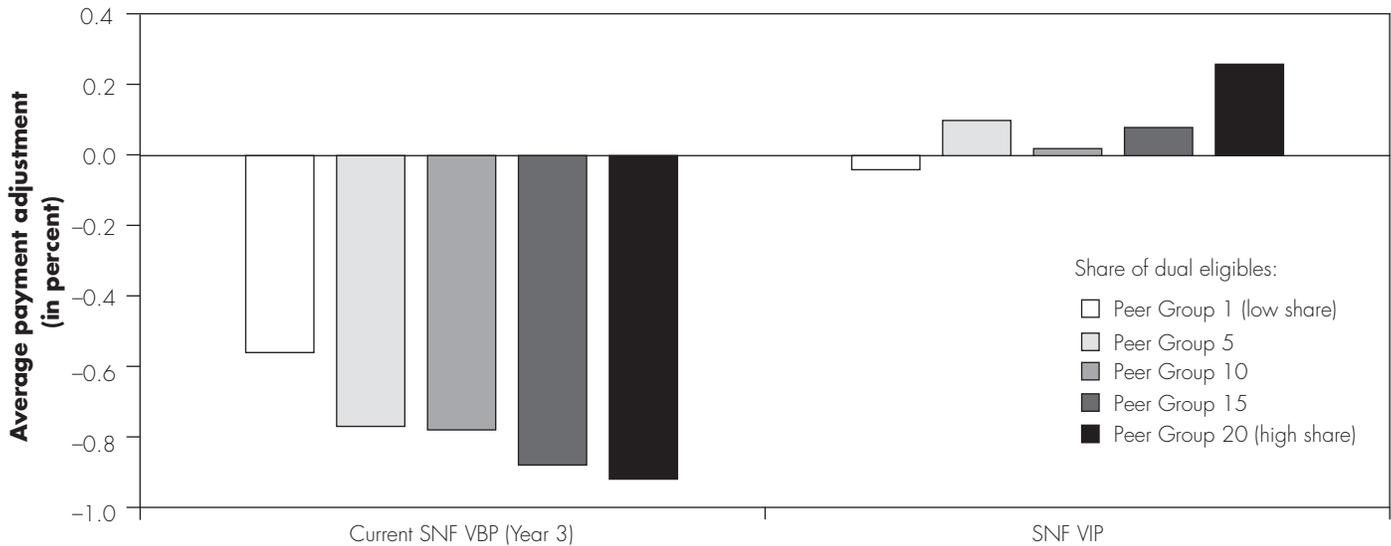
A quality payment program should not create incentives for providers to avoid admitting clinically complex patients to perform better in the program. Our analysis of the SNF VBP program found that the average clinical risk scores (measured by the average hierarchical condition category, or HCC, where higher scores indicate more comorbidities) were inversely related to the size of the

payment adjustment (Figure 4-5, p. 155). SNFs with low risk scores (the bottom quintile of risk scores) received a reward (on average a net 0.24 percent adjustment), whereas SNFs with high average risk scores (the top quintile of risk scores) were penalized (an average negative payment adjustment of -0.18 percent).

In contrast, under the SNF VIP, there was no notable difference in average percent payment adjustments across categories of risk scores. SNFs with low risk scores received a small reward (on average a net 0.07 percent adjustment). Similarly, SNFs with high average risk scores also received a small reward (an average payment adjustment of 0.06 percent). Thus, compared with the SNF VBP program, our SNF VIP model would make payment

**FIGURE
4-4**

Compared with SNF VBP program, the illustrative SNF VIP makes payment adjustments more equitable for SNFs with higher shares of fully dual-eligible beneficiaries



Note: SNF (skilled nursing facility), VBP (value-based purchasing), VIP (value incentive program). The results of the SNF VBP program in year 1 and year 2 (not shown) had the same effects as year 3. Peer group is based on the share of fully dual-eligible beneficiaries. Peer Group 1 has an average 3 percent share of fully dual-eligible beneficiaries. Peer Group 20 has an average 91 percent share of fully dual-eligible beneficiaries. In accordance with statute requirements, the SNF VBP program has required penalties because SNFs in the bottom 40 percent of rankings have payments reduced.

Source: MedPAC analysis of claims data, 2015–2017, and SNF VBP program data from CMS.

adjustments more equitable for SNFs grouped by clinical risk scores. As a result, SNFs would have less incentive to select healthier patients to improve performance, likely due to the use of peer grouping to account for differences in patient populations (clinical risk is tied to social risk) and the use of more reliable measure results.

Recommendations

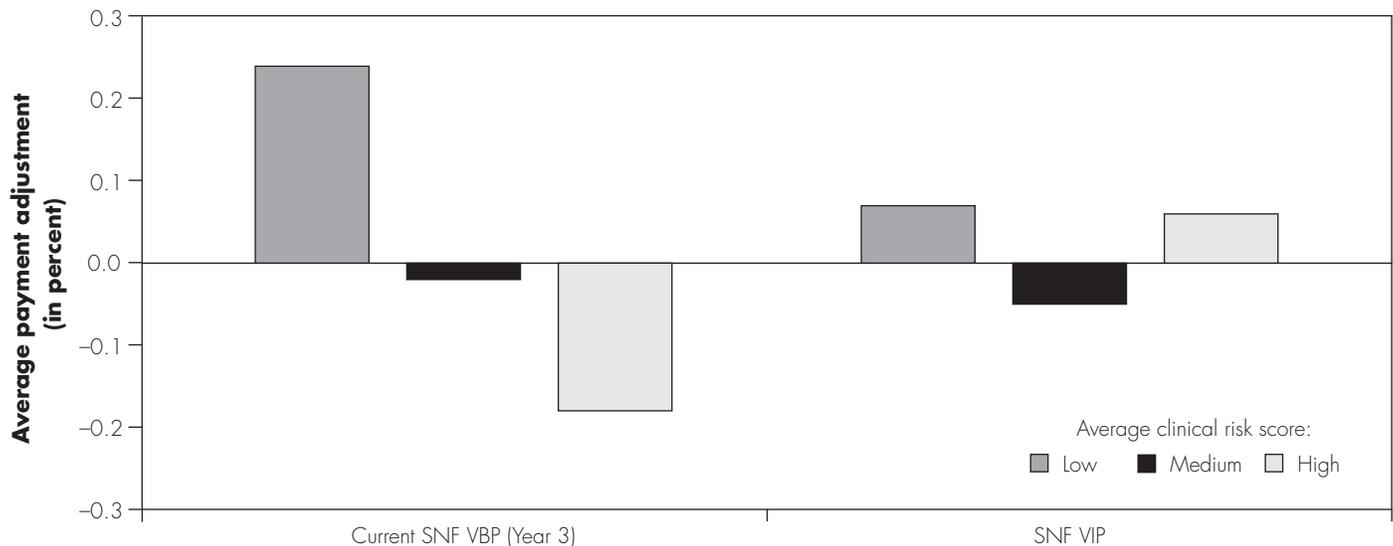
The current design of the SNF VBP program has serious shortcomings that undermine its ability to accurately evaluate quality performance and motivate providers to improve. The recently legislated changes to the SNF VBP program may improve some aspects, depending on how they are implemented. An expanded measure set will gauge additional dimensions of performance, but CMS will need to adopt a robust validation of provider-reported measures (such as improvements in functional status)

before they are used to measure quality or to reward or penalize providers. To make the measure results more reliable, CMS needs to use a higher threshold for setting minimum counts. Otherwise, the program could continue to reward and penalize providers based on statistical noise rather than signal performance. And, even if the measure set is expanded and the measure results are more reliable, other fundamental flaws—the scoring, the lack of consideration of social risk factors, and the incentive pool payouts—remain and require correction.

The SNF VIP design elements would correct the flaws of the current SNF VBP program. Roughly equal proportions of SNFs would be rewarded and penalized, but the maximum incentive payments would be larger and create stronger incentives to improve. By using peer groups, payments under the SNF VIP would be more equitable across SNFs with different mixes of patients at high social risk. As a SNF’s share of fully dual-eligible beneficiaries increased, the SNF VIP would increase the incentive

**FIGURE
4-5**

Compared with SNF VBP program, the illustrative SNF VIP model makes payment adjustments more equitable across SNFs with different average clinical risk scores



Note: SNF (skilled nursing facility), VBP (value-based purchasing), VIP (value incentive program). The SNF VBP program year 1 and year 2 results (not shown) had the same effects as year 3. The low-risk category includes about 2,200 (bottom 20 percent) SNFs with average risk scores less than 3.47. The high-risk category includes about 2,200 (top 20 percent) SNFs with average risk scores greater than 4.70. All other SNFs were grouped in the medium risk score category.

Source: MedPAC analysis of claims data, 2015–2017, and SNF VBP program data from CMS.

payments for those providers with better performance. In addition, compared with the current program, the SNF VIP would reduce incentives to avoid admitting medically complex beneficiaries.

Patient experience is an important component of quality measurement. Steps should be taken to develop measures that capture the beneficiary experience during SNF stays. Such measures should become part of the measure set for the SNF VIP and should be publicly reported.

RECOMMENDATION 4-1

The Congress should eliminate Medicare’s current skilled nursing facility (SNF) value-based purchasing program and establish a new SNF value incentive program (VIP) that:

- **scores a small set of performance measures;**
- **incorporates strategies to ensure reliable measure results;**

- **establishes a system for distributing rewards that minimizes cliff effects;**
- **accounts for differences in patient social risk factors using a peer-grouping mechanism; and**
- **completely distributes a provider-funded pool of dollars.**

SNFs would be scored on their performance on quality outcome and resource use measures, such as hospitalizations within the SNF stay, successful discharge to the community, and Medicare spending per beneficiary. The measure set should be revised as other measures, such as patient experience, become available. Measures that rely on provider-reported patient assessment information (such as functional status) should not be included until CMS has a process in place to regularly validate these data. The SNF VIP would incorporate strategies to ensure reliable measure results, such as using multiple years of data to calculate results.

The SNF VIP would award points based on achievement relative to a national performance scale, with minimal cliffs, or thresholds, that restrict the awarding of performance points. To account for differences in the social risk factors of SNF patient populations, the SNF VIP would stratify providers into defined peer groups, such as peer groups based on the share of Medicaid-eligible beneficiaries treated. Researchers have found dual eligibility for Medicare and Medicaid to be the most powerful proxy for social risk in currently available data. A provider's incentive payment adjustment would be based on its performance relative to a national comparison and the providers in its peer group. Within each peer group, performance points would be converted to a payment adjustment based on each SNF's performance relative to its peers. We expect that as more data and research about the effects of patient-level social risk factors on quality performance become available, the approaches to assigning beneficiaries to a peer group would evolve.

The SNF VIP would distribute rewards using the entire provider-funded pool of dollars within each peer group. Policymakers should determine the withheld amount needed to fund a pool of dollars that motivates quality improvement. The amount could start as a small withhold and increase its size over time.

An improved SNF quality payment program with stronger incentives is not the only tool Medicare has to improve provider performance. The SNF VIP will be coupled with public reporting of provider performance on the measures that hold SNFs accountable to consumers and encourage improvement. Public reporting of provider performance should include comparisons to national, state, and peer group performance. Also, Medicare should target technical assistance resources to low-performing providers so they develop the skills and infrastructure needed for successful quality improvement. CMS could also expand its Requirements of Participation and the Special Focus Facility Program to more aggressively encourage providers to improve the quality of care they furnish. Providers with persistently poor performance could be disenrolled from the Medicare program.

RATIONALE 4-1

The current SNF VBP program has many flaws. Recent congressional action corrects some flaws, but other shortcomings remain and need to be addressed. The SNF VBP performance scoring includes cliffs that may not provide enough encouragement for improvement. The

design does not address variation in the social risk factors of the patients treated by SNFs, which disadvantages some SNFs. The SNF VBP program does not distribute the entire pool of incentive payments but instead retains a portion of the incentive pool as program savings. The Commission concluded, based on its analysis, that the current SNF VBP program is worse than having no program and should be immediately eliminated until a replacement SNF VIP that corrects these flaws can be established. A SNF VIP will create strong incentives to improve performance and make payments more equitable.

IMPLICATIONS 4-1

Spending

- The SNF VIP should be budget neutral and not used to directly achieve program savings.
- Currently, the VBP program results in savings because it retains 40 percent of the 2 percent withheld as savings. To ensure that the recommendation does not increase program spending relative to current law, the Congress could reduce a future update by the amount required to recover the program savings currently realized by the SNF VBP program (estimated to be \$244 million).
- Although budget neutral, providers may improve their outcomes (such as by reducing hospital and other service use) that would lower program spending.

Beneficiary and provider

- Access may improve for beneficiaries at high social risk or who are medically complex because the SNF VIP more equitably rewards providers with different mixes of patients.
- Beneficiaries may experience an increase in the quality of care they receive from SNFs because SNFs have stronger incentives to improve.
- By not disadvantaging SNFs that treat medically complex patients or patients at high social risk, the SNF VIP will improve equity across SNFs and devote more resources to SNFs treating high-need populations.
- We do not expect this recommendation to have adverse effects on SNF participation in Medicare.

RECOMMENDATION 4-2

The Secretary should finalize development of and begin to report patient experience measures for skilled nursing facilities.

RATIONALE 4-2

Patient experience is a key measure of a provider's quality. Patient experience surveys can capture aspects of care during a SNF stay, including safety, cleanliness, timeliness of nursing staff, and overall rating of the facility. Across the health care system, research finds that improving patient experience translates to better health. Patients who feel heard and have positive care experiences have better health outcomes and are more likely to adhere to treatment plans. Although the Department of Health and Human Services and industry organizations have developed initial surveys to capture the beneficiary experience during SNF stays, the Secretary has not taken the next steps to finalize a SNF patient experience survey and data collection process. The Secretary should devote resources to finalize survey tools and require SNFs to collect and report the information so that patient experience measures can be calculated. Eventually, patient experience should become part of public reporting and the measure set for the SNF VIP. Collecting patient experience information will add administrative costs to both SNFs and the Department, but the Commission contends that these are valuable measures to assess a SNF's quality of care.

IMPLICATIONS 4-2

Spending

- This recommendation would have no effect on Medicare spending. CMS may incur additional administrative costs.

Beneficiaries and providers

- We do not expect this recommendation to have adverse effects on beneficiaries' access to SNFs or on SNF participation in Medicare.
- Beneficiaries may experience an improvement in the quality of care they receive from providers because SNFs will have an incentive to improve patient experience when these measures are publicly reported and scored in the SNF VIP. Beneficiaries can use this information to select a provider. Providers can use the information about patient experience to improve the care they furnish.
- SNFs will have higher administrative costs when the Secretary requires providers to collect and report patient experience surveys. ■

Endnotes

- 1 The program affects payments to all SNFs under the prospective payment system, including hospital-based and freestanding facilities and nonrural critical access hospital (CAH) swing beds. Rural CAH swing beds are excluded from the program.
- 2 Reliability is the ratio of variation in the measure across providers (the “signal”) to the total variation (the across-provider variation plus the within-provider, or “noise,” variation). Reliability increases with sample size.
- 3 The short-stay quality measures included the share of residents who report moderate to severe pain, the share of residents with pressure ulcers that were new or worsened, the share of residents who were assessed and appropriately given the influenza vaccine, and the share of residents who were assessed and appropriately given the pneumonia vaccine. The four Nursing Home Compare ratings were overall quality, health inspection, total staffing, and registered nurse staffing. The correlation between readmissions and pressure ulcers was not statistically significant.
- 4 The assessments for patients treated in hospital-based SNFs (4 percent of stays) would not be entirely independent and could be influenced by financial incentives.
- 5 CMS recently released for public comment a draft specification for a claims-based measure of SNF health care–associated infections (HAIs) that aims to estimate the risk-standardized rate of HAIs that are acquired during a SNF stay and result in hospitalization.
- 6 The measure for inpatient rehabilitation facilities counts readmissions during the stay, while the home health measure counts readmissions during the first 30 days of a home health episode.
- 7 CMS named this measure “discharge to the community,” but we refer to it as “successful discharge to the community” to differentiate it from other measures used by the Commission to track the share of beneficiaries discharged to the community following SNF and inpatient rehabilitation facility stays.
- 8 Medicare Advantage plans are required to report results of the National Committee for Quality Assurance’s Healthcare Effectiveness Data Information Set. The *Hospitalization Following Discharge from a Skilled Nursing Facility* measure captures the share of SNF discharges to the community that were followed by an unplanned acute hospitalization for any diagnosis within 30 and 60 days. It is conceptually the same as the hospitalization portion of the successful discharge to community measure, but there are differences in how the measures are calculated; for example, the risk adjustment models are different. CMS should consider aligning measure specifications across settings.
- 9 CAHPS is a registered trademark of AHRQ, a U.S. government agency.
- 10 *Reliability* refers to whether the measure can distinguish among providers’ performance.
- 11 Literature suggests 0.7 is an acceptable standard for reliability (Adams et al. 2010, Kao et al. 2011, Krell et al. 2014, Mehrotra et al. 2010, Scholle et al. 2008). Reliability values range from 0 to 1.0, where 0 indicates the measure captures no real differences in performance (it captures only noise, or the random variation unrelated to performance) and 1.0 indicates the measure captures all differences in real performance (all signal).
- 12 Assuming the SNF VIP requirement that a SNF must have at least 60 discharges (reliability of 0.70) to calculate reliable measure results, about 40 percent of SNFs would be held harmless (not participate in the program) if using one year of data to calculate results. If that requirement is applied using three years of data, then about 10 percent of SNFs would be held harmless. The current SNF VBP design holds harmless 16 percent of providers because they do not meet the CMS minimum stay count of 25 (reliability of 0.40) within the performance year.
- 13 In our VIP model, we set each measure’s continuous performance-to-points scale using a beta distribution, which helps to smooth the extremes of a distribution by providing estimates of a true percentile independent of associated issues such as ceiling effects.
- 14 Our modeling excluded 23 percent of SNFs because they either did not have 60 discharges or they were missing data for at least one measure. CMS would need to decide whether and how to reweight measure scoring for providers with missing measure results.
- 15 About half of fully dual-eligible beneficiaries qualify for Medicaid because they receive Supplemental Security Income (SSI), a federal program with uniform benefits. However, there is variation across states in Medicaid eligibility criteria for people who are aged or disabled but not poor enough to qualify for SSI.

16 The SNF VIP should be designed to be budget neutral and not be used to achieve program savings. To ensure that program spending does not increase relative to current law, the Congress would reduce a future update by the amount required to recover the program savings currently realized by the SNF VBP (estimated to be \$244 million).

17 As with the SNF VBP program, we envision a mechanism that would distribute the rewards through a prospectively set payment adjustment. Each year, all payments to a provider would increase or decrease by a certain percentage based on their performance relative to the SNFs in their peer group.

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