

Technical Report: Evaluation of the Nursing Home
Value-Based Reimbursement System (VBR)
Report 2: Follow-Up to the 2019 Legislative Report

Prepared for
Minnesota Department of Human Services

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Introduction

In January 2019 our research team from the Purdue University and University of Minnesota prepared a report evaluating implementation of Minnesota's Value-Based Reimbursement system (VBR) for Medicaid reimbursement of nursing facilities. The Minnesota legislature enacted the VBR as part of major reforms to Medicaid nursing facility reimbursement in 2015. The system began affecting rates set on January 1, 2016. Given the magnitude of the changes, the legislature is requiring the DHS to submit a biennial report to the legislature addressing the impact of VBR beginning January 2019.

The January 2019 report addressed a series of questions about the effectiveness of VBR in meeting its objectives in the period 2016 - 2018. It also contained recommendations for re-design of the system to address observed weaknesses. The report described specific changes to the VBR rate setting method, as well as modeling the financial impact of these changes. Staff of the Minnesota Department of Human Services used the report and other information to develop a legislative proposal and budget for the 2019 Legislative Session. In the end, the Legislature declined to make changes to the VBR design.

The purpose of the current report is to take a broader view of the issues surrounding VBR than in the prior report. We lay out 14 essential features in the design of a successful nursing facility VBR system. We begin with a brief review of research literature on nursing facility reimbursement reform, focusing specifically on VBR and care quality. Next, we describe the Minnesota VBR system along with findings and recommendations from the January 2019 Evaluation Report. We then discuss Minnesota's VBR in light of the essential VBR design features. Finally, we make recommendations for further improvements in VBR.

Prior Research into Nursing Facility VBR

Achieving greater value from long-term care has become a mantra in the US and other countries. While regulatory approaches can aid in detecting and correcting care problems, they are viewed as insufficient to improve care quality. Over the last two decades, many state governments in the US have introduced market-based incentives that tie public (Medicaid) payment to the quality of nursing home care (Arling, Job, & Cooke, 2009; Briesacher, Field, Baril, & Gurwitz, 2009; Werner, Tamara Konetzka, & Liang, 2010). Nursing facilities delivering better care according to quality metrics, such as regulatory findings or clinical quality indicators, receive higher payment. Alternatively, facilities delivering poor quality care are penalized, which is the case in the new Federal Medicare Nursing Facility Value-Based Purchasing Program. Despite widespread adoption of value-based payment for nursing facilities, they have not been rigorously evaluated. The few studies that have been carried out, have provided little evidence of their effectiveness (Arling et al., 2009; Briesacher et al., 2009; Werner, Konetzka, & Polsky, 2013).

One reason offered for the limited success of value-based payment approaches relates to the resource constraints that nursing facilities face because of generally low public payments. Low resource facilities performing poorly may be further disadvantaged if their payment rates are reduced or if they fail to gain enough resources to invest in care quality. There is evidence that adding public financial resources to the nursing home sector could increase care quality, even in the absence of financial incentives. For example, studies in the US found that an increase in Medicaid payments was associated with an increase in clinical quality indicators (Grabowski & Angelelli, 2004; Grabowski, Angelelli, & Mor, 2004; Mor et al., 2011). However, no prior

research has examined the joint effect of introducing value-based payment along with a substantial increase in public payment for care.

Minnesota's VBR

The design of Minnesota's VBR was similar to systems in other states. In brief, the goals of VBR were to:

- Align Medicaid reimbursement rates more closely with the cost of caring for residents.
- Incentivize better care quality through the Medicaid rate setting process.
- Provide increased Medicaid reimbursement earmarked for direct care and care-related services.
- Improve efficiencies through other technical changes to Medicaid rate setting and payment.

Main features of the VBR system were the application of a quality incentive payment for care-related services and a fixed price for other operating expenses. Nursing facility services are bundled into a comprehensive package of room, board and nursing services. Payment for this package of services is a daily per diem rate. The daily per diem rate can be further broken down into rate components of a care-related payment rate, other operating payment rate, external fixed costs payment rate, and a property rate.

Under VBR, care-related costs such as nurse wages and supplies, activities and social services are reimbursed at actual cost subject to a quality-based limit. Other operating costs such as housekeeping, laundry and property insurance are reimbursed using a pricing model, meaning the rate for these costs will be the same for all NFs in the state. The external fixed rate component is also established based on actual costs but is not subject to a limit. The property rate is determined through a facility-specific formula.

Findings from the January 2019 Evaluation Report

The evaluation addressed a comprehensive set of questions.

- What were trends in nursing home utilization?
- How did VBR relate to trends in revenue and spending patterns?
- How did VBR relate to trends in nurse and other care-related staffing?
- How did VBR relate to trends in facility quality scores?
- Did revenue, spending, workforce effects, and care quality trends differ by nursing facility characteristics?

These were general findings from the evaluation.

Facility Characteristics

Several facility characteristics, such as ownership and urban-rural location, remained constant over the 5-year period of the evaluation. However, utilization indicators, such as resident case-mix, resident days and occupancy showed a steady decline. These trend lines did not change significantly between 2015 and 2016, suggesting that utilization declines were not the result of

changes in reimbursement approach. They likely reflect general industry trends of declining nursing home use.

Medicaid Revenue

The new reimbursement approach, implemented on January 1, 2016, was expected to increase Medicaid revenue substantially for facilities in 2016. Average Medicaid revenue per facility rose sharply between 2015 and 2016, with additional increases from 2016 to 2017. Facility mean Medicaid revenue PRD rose more sharply than annual Medicaid revenue, in part because increases in Medicaid reimbursement rates were offset by declines in Medicaid resident days each year. In general, revenue increases were significant for facilities of all ownership types, urban and rural location, and other subgroups.

Medicaid Costs

A major goal of VBR was to increase direct care spending. That goal was largely met. The vast majority of facilities reported substantial increases in PRD Medicaid costs between 2015 and 2016, with additional increases in 2017. There were similar increases in costs for direct care salaries and benefits. In general, cost increases were significant for facilities of all ownership types, urban and rural location, and other subgroups.

Hourly Salaries for Direct Care Staff

Trends in hourly salaries for nursing staff were consistent with trends in PRD direct care expenditures. Mean facility hourly salaries for nursing staff increased substantially from 2015 to 2016: 12.2% for Certified Nursing Assistants, 11.2% for LPNs, 9.1% for RNs, and 10.1% for Trained Medication Aides (TMAs).

Nursing Hours Per Resident Day

Nursing hours per resident day did not increase significantly after the introduction of VBR, either overall or for facility subgroups. Apparently, increased direct care expenditures were channeled primarily into direct care staff salaries and benefits and not into increased nursing hours per resident day.

Quality Scores

The average composite facility VBR quality score displayed an upward trend. However, VBR scores did not have an appreciable upswing from 2015 to 2016; the upward trend began in 2013 and continued over the 5-year period. The average VBR quality score remained flat or declined among for-profit facilities and facilities with low or declining occupancy rates. Among individual components of the VBR quality score, mean facility clinical quality indicator (QI) scores rose, while resident quality of life (QoL) scores declined. Drawing firm conclusions about trends in QoL scores is difficult because of changes in the QoL instrument between years.

Variation between Facilities in Revenue, Costs, and Quality

Underlying the averages reported in the tables and text is considerable variation between facilities in their revenue, costs, and quality scores. For example, although the vast majority of facilities experienced an increase in Medicaid PRD revenue and care-related costs between 2015 and 2016, the increase varied widely from just a few pennies to many dollars. In other cases, such as nursing hours PRD and quality score, about equal numbers of facilities saw increases and

decreases. Even after considering major subgroup differences in ownership, size, acuity, location, and occupancy rate, considerable variation remained in individual facility revenue, costs, and quality scores.

Conclusions and Recommendations from the January 2019 Evaluation Report

Medicaid Payment Rates and Costs

The VBR system appeared to achieve one of its main goals – increased reimbursement and resulting facility expenditures for direct care and other care-related services. Facility average expenditures for salaries and benefits of direct care staff, the largest care-related cost item, rose substantially after the introduction of VBR in 2016. The increases in Medicaid reimbursement rates and care-related costs continued between 2016 and 2017 but at a somewhat slower pace.

Nearly all facilities experienced an increase in Medicaid payment rates, and the vast majority increased their direct care expenditures. However, there was wide variation between facilities in the size of rate increases and care-related costs, some facilities having only small increases and others very large increases. Facility subgroups with the largest increases in payment rates and care-related costs were governmental and non-profit, hospital affiliated, located in the Twin Cities, larger, and with higher occupancy rates and resident acuity. These subgroups started out with higher rates and costs in 2013-2015 and, thus, were better able to take advantage of the VBR changes.

The design of the VBR system, with an increase in facility costs leading to an increase in Medicaid reimbursement rates in subsequent years, can have a circular effect. Increased rates contribute to rising costs, which in turn contribute to increases in future rates. This situation can have an inflationary effect if there are no controls on rate growth from year to year. In addition, facilities with more financial resources (e.g., Medicare or private pay revenue) economies of scale (e.g., larger size), increasing occupancy, and a history of higher reimbursement rates are in a better position to benefit from the circular relationship between costs and rates. They can make the investments in current costs that will lead to future rate increases.

Care Quality

An improvement in care quality, the second major goal of VBR, did not appear to be achieved. None of the VBR quality measures – VBR composite quality score, clinical quality indicator score, MDH inspection, or resident quality of life – rose significantly on average with the introduction of VBR in 2016. In addition, neither nursing hours nor staff retention rates rose on average with VBR. As with rates and costs, facilities varied widely in their quality scores. About half of facilities had small increases in scores between 2015 and 2016, and the other half had declines in scores.

The failure of care quality measures to improve significantly with VBR can be attributed to at least two factors. First, improving on care quality is arguably a more difficult and time-consuming process than changing expenditure patterns. The two year time period after VBR's introduction may not be sufficient to translate increased care resources into better care quality.

Second, and perhaps more importantly, the design of VBR does not offer a strong incentive for quality improvement. The VBR quality score threshold is intended to place a more stringent limit on Medicaid payment rates for low quality facilities than for high quality facilities. However, the threshold was set in such a way that all but a handful of facilities have been

affected. Moreover, with the current design, few facilities will be affected in the foreseeable future.

Recommendations

The report contained two general recommendations for changes in the VBR that could improve care quality and moderate Medicaid rate growth.

- Strengthen the financial incentive for facilities to provide better quality care. For example, changes could be made to VBR to reduce the level of the VBR quality score threshold and shift the slope of the line to place more stringent limits on the Medicaid rates paid to facilities providing poor quality of care, while retaining higher limits for rates paid to facilities providing better care.
- Moderate future Medicaid rate growth. For example, changes could be made to VBR to index the price for the other operating (not care-related) component of the Medicaid payment rate to the rate of general nursing home cost inflation, e.g., Skilled Nursing Facility Market Basket Index.

In addition, some findings from our evaluation could not be readily turned into recommendations because of their complexity. First, we need to gain a better understanding of why some facilities are more responsive than others to VBR. Is responsiveness, e.g., improved investments and better care quality, a matter of resources, organizational readiness, operating strategy, geographic location, or other factors? Knowing more about responsiveness can inform future VBR design changes to better reach policy goals.

Second, VBR is not occurring in isolation; its impact is influenced by other trends affecting the nursing home industry that have implications for a facility's ability or motivation to respond to VBR. For example, Medicare reimbursement will be undergoing a major revision that could affect operating strategies and resources. As another example, the use of nursing homes for long term supports and services has been declining for over a decade. This decline has resulted in reductions in nursing facility resident days and occupancy rates for both Medicaid and private pay residents.

Continuing the evaluation of VBR into future years will be an opportunity to gain a better understanding of the system and improve its design.

Essential Features of a VBR System with Recommendations for Minnesota

The January 2019 Evaluation Report focused mainly on the impact of the VBR on nursing facility utilization, expenditures, and quality. It dealt with design issues largely from the standpoint of VBR implementation. In the current report we take a broader view of Minnesota's VBR, making recommendations from a more perspective. We draw on an article, published in 2009, where we identified essential features for success of a nursing facility VBR system (Arling et al., 2009).

1. States should involve key stakeholders in VBR System design and implementation

Key stakeholders, for example, state policymakers, industry representatives, unions, consumers, and advocacy groups, should advise in the design and implementation of the VBR system. Stakeholders may value different dimensions of care quality, such as clinical outcomes versus quality of life. These dimensions need not be traded off against each other; a multidimensional measure of care quality is preferred to a single, narrow dimension. In

addition, decisions about the structure of financial incentives can become highly politicized. The VBR development process should strike a balance between diverse interests, with all stakeholders being able to voice opinions about design of the VBR system; yet, stakeholders must accept that not all interests can be fully satisfied. In the end, the interests of the public must be served.

This year much of the exchange of information with stakeholders occurred during the legislative session, which is a hectic period making it difficult to develop new proposals or carefully review them.

Recommendations:

- Continue to involve stakeholders in discussions about the design of the VBR.
- Present stakeholders with evaluation findings, modeling results, and “what if” analyses beginning well before the legislative session.
- Focus discussions on design features that will meet state policy goals and optimize VBR implementation and outcomes. Avoid introducing design components aimed at protecting narrow interests or particular facility types, unless special provisions for these interests are supported by strong economic evidence or policy goals.

2. Nursing home VBR should be part of a comprehensive approach to quality improvement

A VBR system is not the only or even best way of motivating nursing facilities to meet state policy goals. It should be part of an overall strategy of expanded consumer information and a stronger more consistent regulatory process. Nursing home performance measures that are conveyed through public report cards or facility reporting systems can influence consumer demand and encourage better performance by providers and serve as tools for quality improvement efforts. The VBR system should work in concert with the regulatory system. Nursing home inspection results in addition to punishing poor quality care should figure prominently as performance measures in the positive incentive structure of VBR. Finally, quality measurement, reporting, and financial incentives/disincentives in the state VBR system should be congruent with federal initiatives whenever feasible.

Minnesota has arguably the most comprehensive and highly integrated system for promoting nursing home quality of any state in the nation. These system components work well together. However, quality initiatives by CMS can cause confusion or add to provider work loads if they are incongruent with the Minnesota measures or payment strategies.

Recommendations:

- Harmonize Minnesota quality measures with the CMS measures where feasible and desirable.
- Determine how the new CMS system of penalties associated with high hospital readmissions and low community discharge rates, or other new CMS initiatives, can be coordinated with the Minnesota VBR system.

3. *Performance measures should be credible, have a solid research base, and address a broad range of quality domains.*

Performance measures should meet high technical standards for measurement and statistical validity. If possible, the VBR system should rely on established measures that have been used successfully in other settings. Risk adjustment may be necessary for some measures, such as clinical QIs, to make fair comparisons between providers taking care of different types of residents, for example, residents with more complex medical conditions, dementia, or behavioral problems. Similarly, the reporting of QMs should be based on sufficiently large sample sizes to yield reliable facility-level estimates. Estimation error can be a problem, for example, when response rates for resident or family satisfaction surveys are quite low or they vary widely across facilities, or when facility QIs are derived from small numbers of residents at risk for a care process or outcome. Finally, data collection procedures should guard against sampling or measurement bias. For example, participants in resident or family satisfaction surveys should be selected objectively, they should be surveyed by independent parties, and they should be assured of anonymity.

If providers are to improve their performance, they need to understand each measure, determine their position relative to state standards or performance of their peers, and be able to monitor their performance over time. Performance information should also be shared with consumers to inform their decision making.

The Minnesota Report Card measures, which serve as a basis for the VBR quality score, meet all of these criteria. The reporting of facility performance on each measure is well described and available to providers and the public. However, even with strong measures, the construction of the VBR quality score can greatly influence the way providers respond to VBR incentives. If providers are unable to “move the needle” for the composite VBR score, then they are likely to become disillusioned with the system. The current VBR composite score does not have a well-developed rationale for selection of measures, weight assigned to each, and the method for calculating the score. It is unclear if providers have a sufficient understanding of the score. Also, the score has so many components, for example multiple quality indicators (QIs), that providers may have difficulty finding a reasonable set of “levers” that can be used to improve their scores.

Recommendations:

- The VBR composite quality score should have a strong theoretical or empirical foundation.
- There should be a clearly stated rationale for selection of measures, weighting, and calculation of the VBR quality score.
- The choice of a measure (e.g., quality of life, QI, or regulatory finding) should be guided by evidence that providers will be able to improve that measure, either through better organization of care or investments in care resources.
- The number or of components, particularly QIs, might be reduced so as to focus on dimensions of quality that are both highly valued and achievable.
- The weights assigned to measures should be based on their importance to consumers and other stakeholders and their potential for improvement.

4. The state should help equip providers with methods and tools to improve their performance

Simply offering a financial incentive for better performance will probably not be sufficient for many providers; they may have the will to perform better but not know the way. The efficacy of many long-term care interventions is well established. Yet, many of these interventions have not been widely adopted by nursing facilities. States can play an important role in fostering facility quality improvement.

The Minnesota's Performance-Based Incentive Payment Program (PIPP) and Quality Incentive Payment (QIP) system are excellent examples of proactive approaches to encourage the development of innovative care practices, which lead to measurable outcomes and can be diffused throughout the industry.

Recommendations:

- The VBR should be better aligned with the PIPP and QIP programs. Providers should be encouraged to participate in PIPP and QIP in order to bring about improvements in quality measures that will increase their composite VBR quality score.
- PIPP and QIP related technical assistance should be directed in particular to providers with low VBR quality scores.

5. Financial incentives should encourage providers to invest in better care

Many providers will want a solid business case—evidence that quality pays—before making the investment necessary to improve performance. The VBR system may have to counteract pressure from nursing home investors to maximize profits by cutting operating costs regardless of their consequences for care quality. Intangible benefits such as enhanced community reputation may not be sufficient to justify the expenditures or organizational changes that would be required to increase performance. Providers may require a positive return on investment over a relatively short (2–3 years) time horizon. The VBR system should contain financial incentives strong enough to motivate investment in care-related resources and to make organizational changes that will achieve higher quality. In addition, the system should be responsive to quality improvement. For example, an increase in a facility's VBR score should lead to increased payment rate over a reasonable time horizon, i.e., within a year. Conversely, a decline in quality should be met with a proportionate decrease in the payment rate.

As we found in our evaluation, the financial incentives in the current VBR system are very weak, only a handful of facilities are affected by the care-related cost limit. With little financial incentive to improve quality, it is no wonder VBR has had no detectable impact on care quality. Moreover, even with an efficiency incentive in other operating cost component, these costs have continued to rise at a potentially unsustainable rate along with care-related costs. Although the 2019 Legislature made no changes to the VBR design or budget, the system still faces issues of a weak quality incentive and potentially unsustainable cost growth.

Recommendations:

- Continue to track nursing facility utilization, expenditures, and care quality.

- Update projections for nursing facility utilization, cost growth, and quality over a 3 to 5 year time horizon.
- Develop and test alternative reimbursement approaches that could better incentivize improvements in care quality and reduce the rate of cost growth.

6. *A special VBR provision for categories of facilities should be based on a well-supported economic rationale or clearly stated and transparent policy goal.*

Any change in reimbursement will affect providers in different ways. For example, in a system designed to incentivize better quality, providers with better quality stand to gain financially while lower quality providers stand to lose. Also, as an indirect result of system change, providers in one geographical area may benefit more than in another area, one ownership type may benefit more than another, and so on. These situations lead to pressures being placed on policy maker to introduce special provisions to cushion the effects on providers that would be adversely affected. A common approach is to “hold harmless” providers that would experience a rate cut, paying the greater of their prior reimbursement rate or reimbursement rate under the new system. The rationale for old harmless policies is that providers should have an opportunity to use their resources to meet policy goals, i.e., improve their care quality, in the face of system change rather than being penalized. Another approach is to single out certain provider types for special treatment so that they are shielded from financial losses. One rationale for granting special treatment is that the provider type is particularly valuable in meeting policy goals, such as access to care for rural populations, minority groups, or individuals with special care needs. Another rationale is that certain providers are subject to economic pressures beyond their control, such as wage competition, that drive up their operating costs. Oftentimes, however, providers advocate for special provisions for purely political reasons without a compelling economic or policy rationale.

The Minnesota VBR has a hold harmless provision shielding facilities from rate cuts. This provision has been rarely used because so few facilities have experienced a reduction in rates. One proposal for system re-design was to adjust operating costs by the Medicare wage index, under the assumption that urban facilities face higher labor costs than rural facilities. The nursing home industry and unions exerted pushback against the wage adjustment, apparently because it would favor urban over rural facilities.

Recommendations:

- Carefully examine the empirical evidence regarding labor market or other economic conditions that could influence provider costs or care delivery.
- Determine how the current VBR system or proposed changes could affect access to care for rural populations, racial or ethnic minorities, or individuals with special needs.
- Avoid special provisions for categories of facilities unless they are based on substantiated economic arguments and compelling policy goals.

7. *The VBR system should motivate providers at all levels of care quality to improve their performance*

Facilities starting out as the best performers will be highly motivated to participate in VBR. Low

performers have the most room to improve; yet, they may stand on the sidelines lacking the expertise to improve their performance or feeling that too much effort would be required. A VBR system that reduced rates for poor performers might deny needed resources and fuel a sense of futility leading to even worse quality care. The VBR system should recognize performance improvement by increasing payment rates in line with improved quality. Because poor quality tends to persist over time in some facilities, the VBR incentive structure may have to be supplemented by consultation and technical assistance, regulatory action, or ownership change to move these facilities in the direction of better care. In addition, the rate setting approach could include a floor that guaranteed a minimum rate for poor performing facilities. The floor would avoid “draconian” rate cuts for poor performers. Conversely, a rate ceiling could mitigate against excessively high rates for the best performing facilities.

Under the current VBR system, an improvement in quality score will lead to an increase in payment rate. Thus, providers with low quality can receive a return on their investment if they improve their care quality. The problem comes in situations where the provider has very few resources to work with, a very low payment rate, or lacks the organizational capacity to improve quality. Neither of these problems is easy to resolve without making special provisions for low quality facilities. Any changes in the VBR system design or special provisions for low quality / low resource facilities should be informed by better information about the root causes of the quality problems.

Recommendations:

- Determine facilitators of good quality among the best performers.
- Examine factors associated with poor quality, such as low staffing, ownership changes, profit taking or expenditure reductions.
- Develop alternative approaches to VBR system design that would address poor performance and enhance good performance.

8. Potential negative or unintended consequences of VBR should be minimized

The delivery of long-term care is complex; a major change in the system such as VBR is likely to have unintended and perhaps negative consequences. For example, providers could concentrate on areas of care that are part of the VBR system while neglecting other care areas. On the positive side, performance incentives may have a ripple effect with increased attention and commitment to areas such as resident-centered care leading to improved quality across the board. The state should monitor quality in areas of care not directly associated with VBR. QIs from the MDS data system, for example, could be used to track care processes and outcomes over time. Another unintended consequence of VBR system may be facility gaming of MDS assessments, satisfaction surveys, cost reports, or other administrative reports. States may have to strengthen auditing procedures to ensure data accuracy and minimize gaming.

The current VBR system encourages a ripple effect from quality improvement because of its comprehensive set of quality components that touch many areas of care. On the other hand, dimensions of the VBR quality score receiving the greatest rate may receive undue attention to the detriment of dimensions with less weight. The potential for gaming the system through cost reporting or recording of quality-related data is always present, particularly when payment rates are at stake. The risk of gaming of cost report data is likely highest for

pass-through areas, such as health insurance or other benefits under the current VBR system, or the shifting of costs from the Other Operating component to the Care Related component of the rate calculations.

Recommendations:

- Develop a monitoring system to track changes in care quality change over time, to see if there is a shift of emphasis to dimensions of quality receiving the greatest attention in the VBR score.
- Focus financial auditing on areas of cost reporting that have the greatest risk of gaming.

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