

Anticipating the Rural Impact of Medicare Value-Based Purchasing

*Prepared by the
RUPRI Health Panel*

Principal Authors

A. Clinton MacKinney, MD, MS

Keith J. Mueller, PhD

Nicholas P. Lillios, BA

Contributing Authors

Andrew F. Coburn, PhD

Jennifer P. Lundblad, PhD, MBA

Timothy D. McBride, PhD

Sidney D. Watson, JD

April 2012



RUPRI Rural Health Panel
214 Middlebush Hall
University of Missouri – Columbia
Columbia, MO 65211
(573) 882-0316 phone / (573) 884-5310 fax
www.rupri.org/ruralhealth / keith-mueller@uiowa.edu

This report was funded by the Federal Office of Rural Health Policy, Health Resources and Services Administration, US Department of Health and Human Services.

Table of Contents

Executive Summary	1
Overview	2
Pursuing the Triple Aim	2
Health Care Value	3
Value-Based Purchasing Design.....	3
Performance Measurement.....	4
Measurement Domains	4
Rural Impact	5
Modification of Existing Payment Systems.....	7
Prospective Payment System Hospitals	7
Critical Access Hospitals	9
Home Health Agencies.....	11
Skilled Nursing Facilities	12
Physician Office Practices.....	14
Conclusions	16

Executive Summary

Value-based purchasing (VBP) represents a collection of new Medicare payment programs designed to improve clinical quality and patient experience while reducing cost inflation. In this paper, we discuss several forces leading to the design and implementation of Medicare VBP programs and then describe programs for five provider types: prospective payment hospitals, critical access hospitals, skilled nursing facilities, home health agencies, and physician office practices. These VBP programs are in various stages of implementation, including statutory language only, demonstration projects, and staged program implementation. We also describe (if applicable) the legislative statute, regulations or demonstration project details, rural inclusion, and preliminary results of Medicare VBP programs.

Although VBP outcomes thus far are mixed, VBP provides incentives to improve clinical quality and patient experience while reducing cost inflation. The Centers for Medicare and Medicaid Services should actively include rural in new VBP program opportunities. Many rural providers are eager to demonstrate their performance on quality measures. While we encourage rural participation in VBP programs, we outline several questions and comments that rural providers and policy makers should consider prior to VBP program participation.

Our paper presents a general discussion and implications for rural providers, without detailed policy suggestions. Specific recommendations for the Secretary of Health and Human Services can be found in a White Paper published by the National Advisory Committee on Rural Health and Human Services.¹

We conclude that rural provider inability to take advantage of efficiencies of scale (volume) in a fee-for-service payment environment should not become a compounding disadvantage during VBP program participation. New VBP program designs should acknowledge the safety-net status of many rural providers and rural providers' fragile financial status exacerbated by a volume-dependent payment system. Risk-adjustment methodologies require special consideration since rural divergence from the mean dramatically increases the importance of special circumstances. In fact, special consideration of rural disparities may be appropriate due to historic and persistent rural health disparities and access challenges. Assuring high quality care across all providers should be a policy goal that recognizes the unique needs of rural people and places to access a health care system that is both high quality and cost efficient. Ideally, VBP programs should be aligned across health care provider types to ensure coordination of services and to avoid inappropriately moving resources from one provider to another. VBP performance measures must be pertinent to the services provided by rural providers. Finally, health services research should be engaged during VBP design development to ensure that program effectiveness evaluation accurately assesses new VBP health care payment policies.

Overview

In this paper, we describe several U.S. health care system forces that have led to new Medicare payment programs and demonstrations. Some new Medicare payment programs fundamentally change health care delivery and payment, such as the Medicare Shared Savings program, bundled payments, patient-centered medical homes, and episodes of care. However, the Centers for Medicare and Medicaid Services (CMS) has also implemented (or plans to implement) modifications of existing payment systems to introduce VBP. This paper will describe (if applicable) the legislative statute, regulations or demonstration project details, rural inclusion, and preliminary results of Medicare value-based purchasing (VBP) programs for (1) prospective payment system (PPS) hospitals, (2) critical access hospitals (CAHs), (3) home health agencies (HHAs), (4) skilled nursing facilities (SNFs), and (5) physician office practices. Table 2, located at the end of the paper, summarizes the VBP program descriptions and assessments. We also describe the impact these programs will likely have on rural providers, through exploration of the following questions.

- Might (comparatively) inadequately capitalized rural health providers be less successful in VBP programs?
- Might VBP disadvantage rural safety-net providers due to geographic isolation?
- Might VBP programs disadvantage independent rural providers compared to providers owned or managed by a large health care system?
- Do budget-neutral VBP programs discourage sharing best practices?
- If VBP programs do not specifically reward care coordination between potentially competing providers, might different VBP programs reinforce misaligned incentives?
- Might VBP result in a bimodal curve of high- and low-performing providers?
- Will risk-adjustment methodologies adequately adjust for rural illness, disability, and geographic isolation?
- Will sound statistical methodologies consider performance variation secondary to low volumes?

Pursuing the Triple Aim

CMS provides health coverage for 100 million Americans,² nearly one-third of all U.S. citizens. Thus, CMS' reach is vast and its policy impacts profound, including in rural America, where rural people are disproportionately elderly³ (thus utilizing Medicare coverage) and disproportionately poor⁴ (thus utilizing Medicaid services). But how does CMS plan to achieve the Institute of Medicine's six aims for health care system improvement (that health care be safe, effective, patient-centered, timely, efficient, and equitable)⁵ and the Institute for Healthcare Improvement's Triple Aim of better care, better health, and reduced costs through

improvement? The Patient Protection and Affordable Care Act (ACA) established the Center for Medicare and Medicaid Innovation that is now actively testing new health care delivery and financing models designed to achieve the Triple Aim. The ACA also modifies certain existing health care provider payment systems to accelerate shifting Medicare’s provider payment system from volume-based (paying for each individual service, or fee-for-service) toward value-based (in which services such as clinical quality, patient experience, and efficiency are rewarded).

Health Care Value

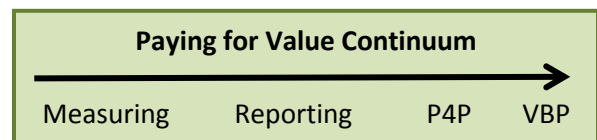
Robert Berenson commented, “U.S. health care quality is often mediocre, yet provided at an enormous cost. Mediocre quality suffers no sanctions...”⁶ In fact, mediocre quality is often rewarded with payment for additional volume as providers work to correct previous quality deficiencies. In a *New York Times* editorial, former Senator Bill Frist commented, “The most powerful way to reduce costs (and make room for expanded coverage) is to shift away from ‘volume-based’ reimbursement (the more you do, the more money you make) to ‘value-based’ reimbursement.”⁷ Understanding that “form follows finance,” the provider payment system must be engaged to encourage provider behaviors that achieve higher quality and better service delivered at lower cost. A new system is needed, a system that strives for health care *value*. Although the measurement of value is complex, health care value can nonetheless be described simply.

$$\text{Health Care Value} = \frac{\text{Quality} + \text{Service}}{\text{Cost}}$$

Health care value equals quality plus service, divided by cost. The parallel to the Triple Aim is obvious. Quality and service imply a focus on better patient care and better population health. Cost implies reducing the cost of care, or decreasing cost inflation (“bending the cost curve”). Taken as a whole, pursuing the Triple Aim concurrently pursues value. Thus, Medicare is using its expansive market power to no longer pay exclusively for individual services, but rather to buy health care value, a strategy called *value-based purchasing* (VBP).

Value-Based Purchasing Design

VBP can be considered as a series of sequential steps along a continuum, from performance measurement to VBP. With performance measurement, simply organizational attention to performance can result in improvement. Public performance reporting, which allows peer comparisons, encourages further improvement.



The next step in the continuum is pay-for-performance (P4P), which pays providers bonuses for improved performance or sustained high achievement on a particular measure(s), such as diabetic control or mammogram rates. P4P incents providers with either financial bonuses for improved performance (such as clinical quality or patient experience) or financial withholds with an

opportunity to “claw back” those withholds through improved performance. P4P does not engage the entire spectrum of performance. Important performance parameters may be neglected, or providers may concentrate excessively on the specific measure(s) used to adjust payment. Lastly, P4P offers no incentive to be efficient. In fact, a provider may be reluctant to invest in performance improvement infrastructure unless the anticipated return on the investment was favorable, thus potentially increasing the cost of care. The Triple Aim goal of better care, better health, *and* lower cost suggests that P4P bonuses for quality and patient experience are incomplete. To assess value, and then pay health care providers differentially on value-based performance, quality, service, and cost must be assessed simultaneously. Adding health care cost metrics to performance measurement rounds out the VBP design system. With VBP, Medicare purchases the desired outcomes of high clinical quality and patient safety, patient experience, and efficient use of taxpayer resources.

Albert Einstein famously said, “Everything that can be counted does not necessarily count; everything that counts cannot necessarily be counted.” Despite Einstein’s admonition, it has also been said, “You can’t manage what you can’t measure.” Thus, VBP system design will require “counting” or measurement. And measurement first requires objective definitions of both performance and value metrics.

Performance Measurement

Performance is relative—relative to an external benchmark or relative to prior performance. Payers may use either reference point, or both, to determine provider performance and hence reward. But achievement-based systems (achieving performance above an external benchmark) or improvement-based systems (improving beyond a past level of performance) present different challenges. Achievement-based performance measurement does not ensure the external benchmark’s validity or appropriateness. That type of measurement also does not consider factors beyond a provider’s control that might influence performance relative to the benchmark. On the other hand, improvement-based performance measurement does not ensure that all providers are incented to meet at least a minimum level of performance. Furthermore, the effort to achieve improvement is variable. For example, improving from poor performance to mediocre performance often requires fewer resources and less effort than improving from excellent performance to best-in-class performance. Thus, sophisticated VBP systems use both achievement-based and improvement-based measures to assess performance simultaneously.

Measurement Domains

Quality refers to measures of clinical quality and patient safety. Although ideally health care should improve citizen productivity, longevity, and quality of life, these are challenging (but not impossible) metrics to quantify. Thus, current quality metrics are generally more discrete and time-limited, such as vaccination rates or proper medication utilization. Quality measures may be either process measures, outcome measures, or a composite of the two. Process measures refer to a measure of clinical processes, such as how quickly a chest pain patient receives an electrocardiogram in the emergency room. Many of these measures reflect evidence-based medicine, yet do not necessarily reflect what is important to a patient. Furthermore, focus on process measures may divert attention from other equally important or more important quality

improvement efforts. To patients, outcome measures, such as whether the care they received truly prevented death, are more likely to be important. But to reach statistical significance, outcome measures often require large numbers and long periods of time. Thus a blend of both, acknowledging the risk that process measures may not measure what's most important and outcome measures may suffer from poor statistical reliability, is likely the best strategy to measure quality.

Service metrics assess patient experience, generally regardless of clinical quality, patient safety, or cost. Patient experience is most often measured by survey and may include metrics such as physician listening skills or patient willingness to recommend the provider. The Consumer Assessment of Healthcare Providers and Systems (CAHPS) surveys are frequently used to assess patient experience. Patient perceptions are necessarily subjective. Thus, interpretation of patient responses and organizational strategies for improvement can be challenging compared to clinical process or outcome measures.

Cost considerations suggest the desire for efficient resource utilization. Since the U.S. health care system is markedly expensive compared to other countries, most research suggests that efficiency requires reducing costs while improving desired outputs such as clinical quality and patient safety. Cost measures are complicated by the question, "Cost to whom?" Should cost calculations consider cost to the patient (out-of-pocket costs) or cost to an employer? In the case of Medicare, the value conversation generally considers cost to CMS programs, and thus cost to the taxpayer. The Medicare Shared Savings Program (Medicare's Accountable Care Organization program) is the most comprehensive example to date of VBP. CMS develops a composite performance (or total) score combining quality and patient-experience performance. Based on the level of performance achievement and/or improvement reflected by the composite performance score, providers then share any savings that CMS realized compared to projected CMS payments. Thus, in order to receive a bonus (or share in savings), the provider must improve quality and patient-experience performance *and* lower cost. If the provider fails to either acceptably improve performance or lower cost, there are no savings to share and no provider bonus. Furthermore, devoting resources to improvement processes that do not result in adequate performance improvement or cost savings will not result in a return on those investments.

Rural Impact

The cost reduction success of Medicare P4P and VBP programs is mixed at best; most programs have not thus far significantly reduced Medicare spending, yet many are still in their infancy.⁸ From a rural perspective, the impacts are even less clear. A literature review found minimal rural-specific analysis of VBP programs. Nonetheless, the RUPRI Health Panel believes VBP programs have the potential to improve clinical quality and patient experience while reducing cost inflation. Despite small volumes, geographic isolation, or cost-based reimbursement, rural providers should not be excluded from VBP opportunities. Yet, rural Medicare VBP implementation nonetheless suggests unanswered questions.

- ***Might (comparatively) inadequately capitalized rural health providers be less successful in VBP programs?*** VBP success depends on a provider's ability to participate. Performance improvement requires sophisticated, and expensive, health information technologies, human resources, and leadership capital. Despite serving as critical access points in the rural health care system, resource-poor rural providers may not be competitive. Furthermore, higher performing rural providers may be challenged by the resources and effort required for marginal improvement.
- ***Might VBP disadvantage rural safety-net providers due to their geographic isolation?*** Rural providers often serve as safety-net providers. Thus rural populations have fewer proximate health care options. Rural people are more ill,^{9,10} more disabled,¹¹ and less insured.¹² Research on the impact of VBP disparities is unclear. One study found no evidence to suggest that financial incentives widened the gap in performance between hospitals that serve poor patients and other hospitals.¹³ On the other hand, a qualitative analysis of hospital CEO responses suggest that "executives have significant concerns regarding funding mechanisms and implementation costs, financial risks for safety-net hospitals, and resource constraints, as well as how such programs can be used to create incentives to care for minority patients."¹⁴
- ***Might VBP programs disadvantage independent rural providers compared to providers owned or managed by a large health care system?*** The human and technological resources to deliver value-based care effectively are not inconsequential. For example, CMS estimated that it required a \$1.7 million investment for health systems to participate in the Physician Group Practice demonstration, a precursor to the Medicare Shared Savings Program.¹⁵ When discussing the difference between health systems that own components and those with virtual affiliations, Moscovice noted, "It's more complicated, time consuming, duplicative, and more expensive to manage and implement multiple contractual relationships with independent providers than to reorganize internally."¹⁶ In addition, as health systems incorporate small volume rural providers, might providers on the periphery of the system become the lowest priority for resource investment? Thus, might market driven affiliation imperatives and a rural provider relationship with a system determine VBP success, not just value performance? Furthermore, might VBP discourage investment in low-performing areas?
- ***Do budget-neutral VBP programs discourage sharing best practices?*** Rural providers are often independent and geographically dispersed. Shared learning is a key improvement strategy in which rural providers may already be disadvantaged by geographic isolation. Since budget neutrality compels financial winners and losers, VBP could exacerbate a rural disadvantage.
- ***If VBP programs do not specifically reward care coordination between potentially competing providers, might different VBP programs reinforce misaligned incentives?*** Rural providers manage multiple relationships that might be impacted by differing VBP programs. For example, performance metrics or incentives for hospital and skilled nursing facility (SNF) VBP programs may not align, resulting in unintended cost-shifting or inter-provider

antagonism. This situation can at best make VBP programs less effective, and at worst increase cost and decrease care coordination.

- ***Might VBP result in a bimodal curve of high- and low-performing providers?*** In a budget-neutral VBP program, low-performing providers might invest resources in improvement and still not achieve a performance threshold necessary for a bonus that recoups investments. Thus, if a provider's current performance gap is wide, or the performance improvement investment exorbitant, a provider may decide not to participate in VBP at all.
- ***Will risk-adjustment methodologies adequately adjust for rural illness, disability, and geographic isolation?*** Risk-adjustment methodologies can incompletely consider all factors that determine likelihood of quality improvement and cost control. Rural divergence from the mean increases the likelihood that risk adjustment will adequately consider differences. Furthermore, many factors, such as geographic isolation making access to preventive health measures difficult, are outside of provider influence.
- ***Will sound statistical methodologies consider performance variation secondary to low volumes?*** Rural providers often operate in low patient volume situations. Chance will impact performance more so in low volume situations than in high volume situations. Statistical techniques such as rolling averages, minimum volume thresholds, and/or aggregate analysis may be necessary to reduce random error due to low patient or encounter volumes.

Modification of Existing Payment Systems

A variety of new payment policies are being tested in private and public programs. The Medicare Shared Savings Program (Accountable Care Organizations), for example, introduces a new health care purchasing system that fundamentally changes health care delivery and payment. Other new Medicare payment strategies being tested through demonstration programs include bundled payments, patient-centered medical homes, and episodes of care.

However, pursuant to law, VBP is being implemented (with the exception of CAHs and some low volume rural PPS hospitals first coming under a demonstration program, but with implementation to follow, per the requirement in the ACA) as *modifications* of existing payment systems. In the remainder of this paper, we will describe (if applicable) the legislative statute, regulations or demonstration project details, and preliminary results of Medicare VBP programs for (1) prospective payment system (PPS) hospitals, (2) critical access hospitals (CAHs), (3) home health agencies (HHAs), (4) SNFs, and (5) physician office practices. We will then describe the impact these programs will likely have on rural providers. Table 2, located at the end of the paper, summarizes the VBP program descriptions and assessments.

Prospective Payment System Hospitals

Statute Summary: The Health and Human Services (HHS) Secretary is directed to establish a hospital VBP program, to begin on October 1, 2012, under which value-based incentive

payments are made to hospitals that meet the performance standards during the specified performance period. Certain hospitals are exempt, including psychiatric, rehabilitation, children's, and long-term care hospitals, and hospitals with insufficient cases for the measures used in a performance period. CAHs are not eligible to participate in the program.

The performance standards must include levels for achievement and improvement, and should be developed in consideration of, among other factors, practical experience with the measures, historical performance standards, improvement rates, and opportunity for continued improvement. Using these performance standards, the Secretary is directed to articulate a methodology for assessing performance, to be embodied in a "hospital performance score." For hospitals that meet (or exceed) the performance standards, the Secretary will increase the base operating Diagnosis Related Group (DRG) payment amount for that hospital for each discharge by the value-based incentive payment amount, which is a product of the base operating DRG payment amount for the discharge for the hospital, and the value-based incentive payment percentage. The payment percentage for each hospital in a fiscal year is based on each hospital's performance score. Importantly, the total amount available for value-based incentive payments for all hospitals for a fiscal year must be equal to the total amount of reduced payments for all hospitals for such fiscal year. Thus, the program is to be budget neutral.¹⁷

Regulations: The Secretary of HHS has issued final regulations implementing VBP in PPS hospitals. The regulations authorize VBP performance measures for five "process-of-care" conditions: acute myocardial infarction, heart failure, pneumonia, surgeries, and health care associated infections. In addition, a "patient experience of care" score is assessed using HCAHPS. CMS will then calculate an overall VBP score for each hospital to determine its payment from the VBP incentive pool. CMS will apply a weight of 70% to the clinical process-of-care domain and a weight of 30% to the patient experience-of-care domain when calculating the overall VBP score.¹⁸ This process will result in a method to distribute value-based incentives appropriately among hospitals receiving varying total performance scores. Beginning in fiscal year 2014, VBP measures must also include measures of efficiency, adjusted for various demographic and health factors.

Value-based payments will be determined with the base operating DRG payment amount for each discharge reduced by any extras such as outlier payments or medical education. This value is then multiplied by the value-based incentive payment percentage for the hospital for the fiscal year. The value-based incentive payments will be funded with a 1.0% reduction in fiscal year 2013 that progressively increases to 2.0% in 2017 and in subsequent years.¹⁹

Rural Impact: In 2011, Pink and colleagues showed that among rural hospitals, profitability is correlated with size as measured by total margin.²⁰ The relative impact of VBP withholds on a particular hospital's financial status will depend on current profit margin, the percent of revenue attributable to Medicare, and the capacity for the hospital to earn back the withhold. Yet, VBP that withholds revenue will in general increase financial risk for small rural hospitals with low profit margins. Due to low patient volumes and absent cost-based reimbursement, rural PPS hospitals with low profit margins (especially rural PPS hospitals with fewer than 50

beds) will be disadvantaged by VBP withholds and underdeveloped infrastructure to measure, report, and improve performance (Table 1).

Table 1. 2009 Total Margin by Medicare Payment Classification

Hospital Type	2009 Profit Margin
Critical Access Hospitals	1.8%
Medicare Dependent Hospitals	0.3%
Rural PPS Hospitals 26-50 beds	0.1%
Rural PPS hospitals > 50 beds	1.2%
Rural Referral Centers	2.9%
Urban PPS Hospitals	1.7%

Source: Holmes, Mark G., George H. Pink, and Hilda A. Howard. "Profitability of Rural Hospitals Paid Under Prospective Payment Compared to Rural Hospitals with Special Medicare Payment Provisions." North Carolina Rural Health Research and Policy Center, Findings Brief (revised). September 2010.

Critical Access Hospitals

Statute Summary: Not later than two years from the date of enactment of the ACA, the HHS Secretary is directed to establish a three-year VBP demonstration program for CAHs, and hospitals with insufficient numbers of cases for the measures used, with respect to inpatient services in order to test innovative methods of measuring and rewarding quality and efficient health care furnished by such hospitals. In conducting the demonstration program under this section, the Secretary will ensure that the aggregate payments made by the Secretary do not exceed the amount that the Secretary would have paid if the demonstration program under this section was not implemented, thus maintaining budget neutrality. Within 18 months of the completion of the demonstration program, the Secretary will submit to Congress a report on the demonstration program together with recommendations on the establishment of a permanent VBP program under the Medicare program for CAHs with respect to inpatient CAH services, and recommendations for such other legislation and administrative action as the Secretary determines appropriate.²¹

Demonstration: Currently, there are no final regulations implementing the CAH VBP demonstration project described above and HHS has not yet issued proposed regulations. Evidently there are ongoing discussions within HHS about funding availability for a variety of ACA provisions, likely including the CAH/small hospital VBP demonstration.

In 2009, in response to PPS VBP proposed rules, the RUPRI Health Panel commented about VBP in CAHs. The Panel strongly recommended that CMS include CAHs in VBP, quality improvement technical assistance, and other quality improvement initiatives. While cost-based reimbursement and low volumes make CAH inclusion in VBP challenging, the challenges should not dissuade policy makers from endorsing and supporting a path to CAH inclusion in VBP.

Demonstration projects are an appropriate entry strategy and should be implemented as quickly as possible. Doing so avoids introducing CAHs into a program with pre-established parameters that may not be sensitive to CAH characteristics. Support for quality improvement capacity building should begin now in preparation for a VBP program that incentivizes and recognizes the value and quality CAHs bring to rural Medicare beneficiaries.²²

Rural Impact: Since CAHs are almost exclusively rural in location, any change to CAH financing can potentially have a profound impact on rural people and places. Although the RUPRI Health Panel encouraged CAH participation in VBP programs, it also cautioned that measures should be pertinent to CAH services and that demonstration projects should precede actual program implementation to avoid policies that inappropriately jeopardize rural access to health care services.

Moscovice and Town examined 2004-2007 Hospital Compare data and 2005-2006 Medicare cost report data to compare the financial status of CAHs with better quality results and those with poorer quality results. This analysis and its financial simulations showed that CAHs with poorer financial status were more likely to have poorer quality results and incur additional financial loss from a VBP program.²³ Despite these results, many CAHs are engaging in quality improvement initiatives. In 2008, the Flex Monitoring Team (a consortium of rural health research centers²⁴) surveyed 450 CAHs, and of the 85% responding, nearly all were participating in some type of quality improvement initiative. Eighty-four percent were collecting data on all three core measures at the time (heart failure, pneumonia, and myocardial infarction).²⁵ More recently, the Flex Medicare Beneficiary Quality Improvement Project (MBQIP, a program established by the Office of Rural Health Policy to improve rural quality care access for Medicare beneficiaries served by critical access hospitals (CAHs)) is identifying areas where CAHs can improve quality performance and focus QI activities on those areas.²⁶

Due to small size and limited resources, CAHs may have less capacity to demonstrate improvement in the quality metrics used in hospital value-based incentive payments. Additionally, some hospitals may believe the investment required for quality improvement will be significant enough that the financially favorable option is to simply budget for less revenue (the VBP withhold) and not divert significant resources to performance improvement. The risk is a downward spiral of flat or decreasing quality exacerbated by fewer resources to improve. The nation's hospitals could become a bimodal curve of efficient, high-quality organizations and inefficient, (due to insufficient volumes) lower-quality organizations. In a competitive market place, the latter hospitals would have a finite existence, either closing or becoming subsumed in larger organizations. In either situation, rural access to health care services is potentially at risk.

Despite these risks, many rural hospitals are eager to demonstrate quality and patient experience accomplishments and should be rewarded for efforts to achieve national performance benchmarks and to continuously improve. As the demonstration program evolves, CMS and others should consider the recommendations of the National Advisory Committee on Rural Health Human Services:

- Group CAHs with low volume hospitals in the same demonstration program (per Section 3001 of the ACA)
- Use measures for services provided in low volume rural hospitals, including heart failure and pneumonia; and compare results among peer hospitals
- Use financial efficiency measures such that total value is assessed
- Make technical assistance available
- Provide strong incentives to participate, thus assuring hospital participation across a range of current performance measures
- Fund the incentives from actuarially projects savings, preserving current cost-based payment.²⁷

Home Health Agencies

Statute Summary: The HHS Secretary is directed to develop a plan to implement a VBP program for Medicare payments to HHAs and SNFs. In developing the plan, the Secretary is to consider the following issues: the ongoing development, selection, and modification process for measures to the extent feasible and practicable, of all dimensions of quality and efficiency in HHAs and SNFs; the reporting, collection, and validation of quality data; the structure of value-based payment adjustments, including the determination of thresholds or improvements in quality that would substantiate a payment adjustment, the size of such payments, and the sources of funding for the value-based bonus payments; methods for the public disclosure of information on the performance of HHAs and SNFs; and any other issues determined appropriate by the Secretary. Although the statute does not specifically authorize a demonstration, the Secretary is directed to “consider experience with such demonstrations that the Secretary determines are relevant to the value-based purchasing program described in paragraph (1).”²⁸

Demonstration: CMS, with the assistance of Abt Associates, designed a home health P4P demonstration to determine the impact of incentive payments to HHAs for improving the quality of care of Medicare beneficiaries who receive home health services. For purposes of this demonstration, P4P can be defined as any purchasing effort aimed at improving health care quality, outcomes, or safety by rewarding improvements based on measurements of quality, efficiency, and outcomes. Reductions in the need for additional, more costly care should result in overall cost savings to Medicare.

Beginning in 2008, HHAs participating in the demonstration represented more than 30% of all Medicare certified HHAs and over 55% of Medicare home health episodes in seven selected states. Participating HHAs represented diverse HHA characteristics, including urban and rural locations; small, medium, and large agencies; nonprofit, government, and proprietary organizations; and freestanding versus hospital-based facilities. This demonstration will determine the impact of offering incentive payments to HHAs for improving the quality of care rendered to Medicare beneficiaries when such quality of care reduces the need for additional services and reduces cost. Incentive funds will be generated from within current spending

levels. An incentive pool will be generated from savings accrued by reducing the use of more costly Medicare services. The pool will be shared with HHAs that produced the highest level of patient care or produced the greatest improvement in patient care as measured by seven Outcome and Assessment Information Set (OASIS) measures: incidence of acute care hospitalization, incidence of any emergent care, improvement in bathing, improvement in ambulation and locomotion, improvement in transferring, improvement in management of oral medications, and improvement in status of surgical wounds. Seventy-five percent of the incentive pool will be shared with those agencies in the top 20% of the highest level of patient care. Twenty-five percent of the incentive pool will be shared with the top 20% of those making the biggest improvements in patient care. If there are no savings, there will be no incentive payments.²⁹

In its first year, the demonstration produced an aggregate Medicare savings of \$15.4 million for three of the four regions; the Midwest region did not achieve any savings. Year 1 incentive payments were made to 59% of the HHAs in the intervention group based on their performance and improvement on the seven quality measures. In addition to the number of quality measures for which they qualify for an incentive payment, the amount of the incentive paid to an individual HHA is also based on the total number of Medicare patient days associated with that HHA.³⁰ Results for succeeding years of the demonstration are not yet available.

Rural Impact: Rural HHAs are challenged by distance and drive times between clients. Rural home health nurses, aides, and other staff cannot care for widely dispersed clients as efficiently as urban home health workers traveling within a neighborhood, or even a building. Larger HHAs will be able to offer a variety of services and professionals, potentially improving chances for quality outcomes. Although necessary, rural HHAs may not be able to provide care as efficiently or as comprehensively as their urban counterparts.

Skilled Nursing Facilities

Statute Summary: Please see the preceding Statute Summary section under Home Health Agencies. Section 3006 of the ACA considers both HHAs and SNFs similarly.

Demonstration: Under the Nursing Home Value-Based Purchasing (NHVBP) demonstration and beginning mid-year 2009, CMS will assess the performance of nursing homes based on selected quality measures and make additional payments to those nursing homes that achieve a higher performance or improvement over time based on those measures. NHVBP offers the opportunity to test whether a performance-based reimbursement system can improve the quality of nursing home care while reducing overall Medicare expenditures.

In the first year of the demonstration, quality will be assessed based on the following four domains: staffing, appropriate hospitalizations, outcome measures from the minimum data set (MDS), and survey deficiencies. Additional quality measures may be added in the second and third years of the demonstration as deemed appropriate. Performance payments will be determined based on overall performance across all the measures rather than the performance

on individual measures. Overall performance will be measured using a set of scoring rules in which the staffing and potentially avoidable hospitalization domains will each count for 30 points (out of 100 total points), and the MDS quality measure and survey domains each count for 20 points. For each performance measure, a continuous scoring system that awards points over a large range of values will be used.

The demonstration is intended both to reward high performing homes and to encourage improvement for homes that may not have good quality initially. As a result, qualification for an award will be determined based on the level of performance or improvement in performance over time. Nursing homes in the 80th percentile or above in terms of overall performance will qualify for a performance payment. Nursing homes in the top 20% in terms of improvement will qualify for a performance payment in recognition of their improved performance, as long as their performance level was at least as high as the 40th percentile among all nursing homes in the state in the demonstration year. Nursing homes in the top 10% in either performance level or improvement will receive a larger performance payment that is 20% higher (adjusted for differences in resident days) than nursing homes in the next 10%. Nursing homes that qualify for a performance payment based on both performance level and improvement will receive payment for either performance or improvement but not both and will receive the higher of the two performance payments for which they qualified.

The demonstration is designed to ensure budget neutrality, using an approach similar to the CMS Physician Group Practice and Home Health Pay-for-Performance demonstrations. CMS anticipates that avoidable hospitalizations may be reduced because of improvements in quality of care, potentially generating savings to the Medicare program that can be used to fund performance payments. A performance payment pool will be estimated each year for each state in the demonstration. If the payment pool is zero, then no performance payments will be made to any nursing home, regardless of the nursing home's performance.³¹

Findings from a study of Year 1 of the NHVBP demonstration showed slight improvement for most MDS measures compared to the baseline, although the changes were not generally statistically significant (exceptions were activities of daily living decline and failure to improve bladder incontinence). The study's authors note that the improvements may be due to NHVBP or other factors.³² Cost savings have not yet been reported and findings from Year 2 are soon to be released.

Additional information about SNF P4P is instructive. In a study of Medicaid P4P programs in 13 states, Briesacher et al. found "little empirical evidence that pay-for-performance programs increase the quality of care of residents or the efficiency of that care in nursing homes. However, the program set in San Diego did find benefits, and it used the strongest of all evaluation designs, a randomized control design."^{29, p.10} The study's authors found that costs increased in most of the demonstrations. The main factor driving cost increases was bonus payments. The secondary factor increasing costs was additional provider administrative burden to document and report required quality measures.³³

Rural Impact: Rural SNFs that are part of an integrated or aligned local health system may be well positioned to be successful in VBP that rewards effective care coordination and transitions. However, SNFs in general, including rural SNFs, have far less infrastructure and skills in quality/systems/process improvement than their hospital counterparts (including CAHs). The nursing home Quality Assurance Performance Improvement mandate of the ACA, due for a proposed rule by the end of 2012 and a final rule in 2013, will hopefully strengthen nursing home quality improvement skills and infrastructure, including the ability to use data for decision-making and VBP.

Although Medicaid is a much larger component of the payment mix for most nursing homes than is Medicare, Medicare nonetheless often drives decisions and policies. If the Medicare VBP environment isn't closely aligned with state Medicaid reform, rural SNFs may be disadvantaged as they attempt to control costs in an environment of misaligned and potentially competing payment programs.

If urban health systems include urban SNFs, VBP may discourage patient discharge from urban hospitals to rural SNFs, increasing care fragmentation. Preferential use of urban SNFs for rural patients will reduce rural SNF utilization and viability. And importantly, rehabilitation and recuperation distant from home burdens both patients and families.

Physician Office Practices

Statute Summary: The HHS Secretary is directed to establish a payment modifier, or *value-based modifier* (VBM), that provides for differential payment to a physician or a group of physicians under the currently implemented physician fee schedule, to be based upon the quality of care furnished by the physician or group of physicians compared to the cost required to furnish the care. The differential payment under the physician fee schedule must reflect budget-neutral "value." The quality-of-care component will be evaluated using a composite of measures that account for the health outcomes of the individuals furnished care by the physician or group of physicians. Importantly, the quality-of-care measures will be risk-adjusted to account for diverse patient populations that exhibit different demographic characteristics, including those characteristics related to socioeconomic status, ethnicity, and previous health status, among others. The cost component will be evaluated using a composite of cost measures that eliminate the effect of geographic adjustments in payment rates, and like the quality-of-care measures, take into account risk factors, such as those described above (socioeconomic status, ethnicity, health status), of the patient population treated by the physician or group of physicians. Costs, as defined in the section, constitute expenditures per individual, and the Secretary may take into account growth in expenditures per individual physician compared to such growth for other physicians. Notably, when evaluating quality of care and subsequent cost of care to determine the payment modifier, the Secretary is granted the authority to consider the special circumstances of a physician or group of physicians in rural areas and other underserved communities.³⁴

Regulations: In July 2011, CMS released proposed rules establishing details for the VBM program. Patient attribution to a particular medical professional is important for cost and quality performance determination. For determining cost performance, a beneficiary is attributed to a single medical professional if he/she billed for the greatest number of office, emergency, inpatient, or consult evaluation and management (E&M) visits, as long as the professional billed for at least 20% of the beneficiary's E&M costs (30% for group practice). For determining quality performance, a beneficiary is attributed to a single medical professional with the greatest number of E&M visits (as in cost), as long as the medical professional billed at least two eligible E&M visits. Quality metrics are attributable only to primary care and certain medical specialists associated with a particular metric. Cost measures are a total of Part A and Part B costs, including Medicare payment, co-pays and deductibles, and third-party payments. Costs are risk-adjusted for age, sex, co-morbidities, end-stage renal disease, Medicaid, and percent of year in the Medicare program. The program also compares hospital and emergency department (ED) admissions rates between medical professionals. Quality measures include 12 claims-based measures (a subset of HEDIS), but not necessarily the same as those used in the Physician Quality Reporting System. Twenty-eight measures are proposed for 2011. A physician's quality performance will be compared to his or her peers within a metropolitan region and across all areas. At least 11 cases are needed to determine quality performance. Patients will be risk-adjusted using the CMS Hierarchical Condition Category. That is, the cost for riskier patients is adjusted down and cost for healthier patients is adjusted up. Costs are standardized for geography. Per capita costs are determined by type of service (e.g., inpatient and outpatient/emergency) and for five chronic conditions. At least 30 cases are needed for per capita cost determination. Details of the VBM and how it will be implemented are yet to be determined. But as noted above, application of the VBM is to be budget neutral.³⁵

In 2012, CMS will publish the final value modifier for quality and cost measures. In 2013, CMS will develop a system to convert these measures to a VBM and then complete the value modifier through rule-making in 2014. In 2015, CMS will apply the value modifier to fee schedules for specific physicians and medical groups and eventually apply the value modifier to fee schedules for all applicable physicians a year later.

Rural Impact: The VBM program will be based on Medicare claims data and is being promoted as requiring no additional medical professional effort. However, proper documentation and coding of quality improvement measures may not be well developed in small rural practices. Rural medical professionals, especially those in solo or small group practices, will have fewer resources to invest in quality improvement, and thus less capacity to improve quality. Rural providers may have less information about hospital and specialty care costs, making referral to high-quality and low-cost providers less informed. Even if quality and cost data were well known, especially isolated rural medical professionals will have fewer high-quality and low-cost referral options. If a beneficiary sees an individual medical professional for only 20% of his/her encounters, then that patient is attributed to that professional. But the threshold is higher (30%) for group practices, meaning that a cohesive group practice may have 50% more opportunity for quality improvement than a solo practitioner, potentially disadvantaging rural providers. Since the VBM system compares medical professionals, the comparison group is

important. Currently, performance is compared within two groups: same metropolitan area and same specialty statewide. Yet there is great variation across a state in a medical professional's capacity to improve quality and control costs, even within the same specialty.

Conclusions

Although VBP program outcomes thus far are mixed, VBP provides incentives to improve clinical quality and patient experience while reducing cost inflation. CMS should actively include rural in new VBP program opportunities. Many rural providers are eager to demonstrate their high quality performance. Yet realities of rural providers' inability to take advantage of efficiencies of scale (volume) in a fee-for-service payment environment should not become a compounding disadvantage during VBP program participation. New VBP program designs should acknowledge the safety-net status of many rural providers and rural providers' fragile financial status exacerbated by a volume-dependent payment system. Risk-adjustment methodologies require special consideration since rural divergence from the mean dramatically increases the importance of special circumstances. In fact, consideration of rural disparities may be appropriate due to historic and persistent rural health disparities and access challenges. Assuring high quality care across all providers should be a policy goal that recognizes the unique needs of rural people and places to access a health care system that is both high quality and cost efficient. Ideally, VBP programs should be aligned *across* health care provider types to ensure coordination of services and to avoid "robbing" one provider to "pay" another. VBP performance measures must be pertinent to the services provided by rural providers. Finally, health services research should be engaged during VBP design *development* to ensure that program effectiveness evaluation accurately assesses new VBP health care payment policies.

Table 2: Medicare Value-Based Purchasing Modifications to Existing Payment Systems

Provider	Current Payment System	VBP Program Status	Key Dates	Eventual New Payment	Performance Measures	Rural Impact
Prospective Payment System Hospital	Prospective payment for an entire hospitalization based on DRGs adjusted by a wage index and cost of living factor	Final Rule published August 18, 2011	2013 – program start 2017 – full implementation	Withholds (1% increasing to 2%) to fund performance bonuses	Five process of care measures Patient experience Efficiency score – to be determined	Withholds are a significant risk to rural PPS hospitals due to comparatively and historically low profit margins and fewer resources to improve performance.
Critical Access Hospital	Cost-based reimbursement for all hospital services at 101% of cost	Legislation to establish a demonstration VBP program for CAHs in 2013 – no proposed regulations yet	2012 – demonstration, but no planning activity to date	Unknown	Unknown	The challenge of cost-based reimbursement has delayed CAH VBP initiatives. Thus, CAH quality risks “falling behind.” Depending on financial risk/reward ratios, low profit margins and underdeveloped improvement processes risk CAH viability.
Home Health Agency	Prospective payment based on a 60-day episode, case mix, outliers, and budget neutrality factors	Demonstration in seven states; complete, but preliminary results only	2008-2010 – demonstration	Shared savings	Seven OASIS measures	Distance and drive times between home health clients challenge efficiency. Smaller rural HHAs may be less able than large HHAs to offer the scope of services to improve quality outcomes.
Skilled Nursing Facility	Per diem rate based on historic costs adjusted for case mix, geography, and market basket index	Demonstration in three states; preliminary results only	2009-2011 – demonstration	Shared savings	Appropriate hospitalizations MDS measures Survey deficiencies	Rural SNFs in organizational or operational alignment with hospitals will be better positioned to improve value. However, Medicaid and Medicare payment systems that are not aligned will challenge rural SNFs with less quality improvement infrastructure.
Physician Value-Based Modifier	Payment for unique and individual professional services identified by CPT code and adjusted for geography	Proposed Rule published July 19, 2011 – final rule not yet issued	2013 – data collection 2014 – VBM development 2015 – applies to limited number of physicians 2017 – applies to all physicians	VBM to be budget neutral, but details to be determined	Quality (12 measures increasing to 28) Admissions and ED visits Per capita costs	Rural physicians will require detailed quality and cost data to determine best-value specialists and hospitals. Rural physicians will also require a professional comparison group that accurately reflects their practice. Current statewide comparisons lack precision and reliability.

Notes

- ¹ National Advisory Committee on Rural Health and Human Services (NACRHHS).” Value-Based Purchasing Demonstrations.” *White Paper* September, 2011.
<http://www.hrsa.gov/advisorycommittees/rural/publications/wpvaluebasedpurchasing092011.pdf> Accessed June 2, 2012
- for Critical Access and Small PPS Hospitals
- ² Centers for Medicare & Medicaid Services website. <http://www.cms.gov/default.asp>.
- ³ American Community Survey 2010 Estimates
- ⁴ American Community Survey 2006-2010 Estimates
- ⁵ Committee on the Quality of Health Care in America, Institute of Medicine. *Crossing the Quality Chasm: A New Health System for the 21st Century*. Washington, DC: National Academy Press; 2001.
http://www.nap.edu/openbook.php?record_id=10027&page=R1.
- ⁶ Berenson RA. *Moving Payment from Volume to Value: What Role for Performance Measurement?* Robert Wood Johnson Foundation and Urban Institute; December 2010. <http://www.rwjf.org/files/research/71568full.pdf>.
- ⁷ Frist B, McClellan M, Pinkerton JP, Kolb C, Gingrich N. How the G.O.P. can fix health care. *New York Times*. February 21, 2010. <http://www.nytimes.com/2010/02/22/opinion/22healthintro.html?pagewanted=all>
- ⁸ Congressional Budget Office. *Lessons from Medicare’s Demonstration Projects on Disease Management, Care Coordination, and Value-Based Payment*; January 2012.
<http://www.cbo.gov/sites/default/files/cbofiles/attachments/01-18-12-MedicareDemoBrief.pdf>.
- ⁹ Bennett KJ, Olatosi B, Probst JC. *Health Disparities: A Rural – Urban Chartbook*. Columbus, SC: South Carolina Rural Health Research Center; 2008.
- ¹⁰ National Center for Health Statistics. *Health, United States, 2010*. Table 56 (page 1 of 2). Respondent-assessed health status, by selected characteristics: United States, selected years 1991–2009. Hyattsville, MD; 2011.
- ¹¹ National Center for Health Statistics. *Health, United States, 2010*. Table 54. Basic actions difficulty and complex activity limitation among adults 18 years of age and over, by selected characteristics: United States, selected years 1997–2009. Hyattsville, MD; 2011.
- ¹² National Center for Health Statistics. *Health, United States, 2010*. Table 138 (page 2 of 3). No health insurance coverage among persons under 65 years of age, by selected characteristics: United States, selected years 1984–2009. Hyattsville, MD; 2011.
- ¹³ Jha AK, Orav EJ, Epstein AM. The effect of financial incentives on hospitals that serve poor patients. *Ann Intern Med*. 2010;153:299-306. <http://www.annals.org/content/153/5/299.full.pdf+html>.
- ¹⁴ Weinick, RM *et al*. Hospital executives’ perspectives on pay-for-performance and racial/ethnic disparities in care. *Med Care Res Rev*. 2010;67(5):574-589.
<http://mcr.sagepub.com/content/early/2010/01/06/1077558709354522.abstract>.
- ¹⁵ Haywood TT, Kosel KC. The ACO model — a three-year financial loss? *N Engl J Med*. 2011;364:e27
<http://www.nejm.org/doi/pdf/10.1056/NEJMp1100950>.
- ¹⁶ Moscovice, I. Can bundling and accountable care organizations work in rural America? Rural Health Care Leadership Conference; February 8, 2012; Phoenix, AZ.
- ¹⁷ Patient Protection and Affordable Care Act. Pub L no. 111-148. Section 3001.
- ¹⁸ Centers for Medicare & Medicaid Services. Summary of Hospital Inpatient VBP Program. CMS-3239-F.
- ¹⁹ Bricker and Eckler. Summary of Hospital Inpatient VBP Program. CMS-3239-F.
<http://www.bricker.com/services/resource-details.aspx?resourceid=488>.
- ²⁰ Pink, G. Rural hospital profitability, data trends. *Healthcare Financial Management*. April 2011;65(4).
- ²¹ Patient Protection and Affordable Care Act. Pub L no. 111-148. Section 3001. June 9, 2010.
- ²² RUPRI Health Panel. *CMS Value-Based Purchasing Program and Critical Access Hospitals*. Columbia, MO: Rural Policy Research Institute; January 2009. http://www.rupri.org/Forms/CAH_VBP_Final.pdf.
- ²³ Moscovice I, Town R. Critical access hospital quality and financial performance in a value-based purchasing program. Presented at Harmonizing Health and Economics Conference; July 2009; Beijing, China.
<http://ihe2009.abstractbook.org/presentation/977/>.
- ²⁴ <http://www.flexmonitoring.org/>

- ²⁵ Flex Monitoring Team. *Critical Access Hospital Quality Improvement Activities and Reporting on Quality Measures: Results of the 2007 National CAH Survey*; March 2008.
- ²⁶ Medicare Beneficiary Quality Improvement Project. <http://www.ruralcenter.org/tasc/resources/medicare-beneficiary-quality-improvement-project-mbqip>.
- ²⁷ Op cit. NACRHHS
- ²⁸ Patient Protection and Affordable Care Act. Pub L no. 111-148. Section 3006.
- ²⁹ Centers for Medicare & Medicaid Services and Abt Associates Inc. Home health pay-for-performance demonstration: demonstration overview and terms and conditions of participation. October 2007. https://www.cms.gov/DemoProjectsEvalRpts/downloads/HHPP_General_Info.pdf
- ³⁰ Medicare's home health pay-for-performance demonstration. Year 1 payment incentives issued [press release]. Washington, DC: CMS Office of Public Affairs; May 6, 2010. <http://www.cms.gov/apps/media/press/release.asp?Counter=3737&intNumPerPage=10&checkDate=&checkKey=&srchType=1&numDays=3500&srchOpt=0&srchData=&keywordType=All&chkNewsType=1%2C+2%2C+3%2C+4%2C+5&intPage=&showAll=&pYear=&year=&desc=false&cboOrder=date>.
- ³¹ Abt Associates Inc. *Nursing Home Value-Based Purchasing Demonstration*. Cambridge, MA: Abt Associates Inc.; March 2009. http://www.cms.gov/DemoProjectsEvalRpts/downloads/NHP4P_Refinements_Report.pdf
- ³² Abt Associates Inc. Nursing home value-based purchasing demonstration: informational conference call. April 26, 2011. <http://www.wahsa.org/nhvbp.pdf>.
- ³³ Briesacher BA, Field TS, Baril J, Gurwitz JH. Pay-for-performance in nursing homes. *Health Care Financing Review*. 2009;30:1-13. <https://www.cms.gov/HealthCareFinancingReview/downloads/09Springpg1.pdf>.
- ³⁴ Patient Protection and Affordable Care Act. Pub L no. 111-148. Section 3007.
- ³⁵ The value-based payment modifier: section 3007 of the Affordable Care Act. *Fed Regist*. 2011;76(138):42908-42914.