WHITE PAPER #3: FRONTIER QUALITY MEASURES AND PAYMENT FOR PERFORMANCE

I. CURRENT LEGISLATION AND REGULATIONS

Our current health care system, as many participants have noted,[1] emphasizes health care rather than health and rewards quantity of care rather than quality of care. And if quality care means that less care is needed in the future—if admissions, readmissions, and emergency room visits are avoided—then the current system actually penalizes the provider because no payment is made for services not provided. A successful immunization campaign can be good medicine for the community but bad finances for the community hospitals.

In the Patient Protection and Affordable Care Act (ACA), Congress sought to re-engineer these incentives for payment, moving from a system based on volume to one based on value. In particular, better quality and reduced utilization are both seen as stemming from more coordinated care and are based on previous CMS initiatives such as Physician Quality Reporting System (PQRS) and the Value Based Purchasing (VBP) programs. "Today, we pay a lot of money for a system that rewards care delivered piece-by-piece, instead of in a seamless, coordinated manner," says Kathleen Sebelius, Secretary of Health and Human Services. "Some Americans get extraordinary care. But quality varies widely, and far too many of our health care dollars go to pay for unnecessary treatments and overhead costs."[2]

This vision is shared by the frontier hospitals that participated in developing the proposed new model of frontier health systems. In particular, these hospitals see the promise of accountable care organizations (ACOs). The general requirements to become an ACO raise at least two issues for rural communities, however. Most notably, each ACO must have at least

The Frontier Community Health Integration Demonstration is authorized under Section330A of the Public Health Service Act and is also guided by authorization of Section 123 of P.L. 110-275, the Medicare Improvements to Patients and Provider's Act of 2008 (MIPPA). The purpose of the Frontier Community Health Integration Demonstration is to develop and test new models for the delivery of health care services in frontier areas through improving access to, and better integration of, the delivery of health care to Medicare beneficiaries. The authorizing legislation defines a frontier Critical Access Hospital (CAH) as a CAH located in a county with a population of 6 people or fewer per square mile and a daily acute-care census of 5 patients or less. The legislation also identifies four "frontier-eligible" states: Alaska, Montana, North Dakota and Wyoming.

In response to the MIPPA legislation and subsequent funding by Congress, the Health Resources and Service Administration/Office of Rural Health Policy (HRSA/ORHP) awarded an 18-month cooperative agreement to the Montana Health Research and Education Foundation (MHREF) to inform the development of a new frontier health care service delivery model. Actual design and implementation of the demonstration are the responsibility of the Center for Medicare and Medicaid Services (CMS).

To better identify and communicate the challenges and solutions for health care delivery in frontier communities, a Framework Document and subsequent topical white papers are being developed by MHREF and shared with the CMS. This is White paper #3 in this series.

[1] H.V. Fineberg, "A Successful and Sustainable Health System—How To Get There from Here," *New England Journal of Medicine* 366:12(March 15, 2012), pp. 1020-1027.
[2] Centers for Medicare and Medicaid Services, "Sebelius Outlines How the Affordable Care Act Is Improving the Quality of Care," news release (Washington, DC: DHHS, December 7, 2010."

5,000 Medicare beneficiaries. Therefore, in many cases, in order to meet minimum beneficiary requirements, many rural providers wanting to participate in an ACO would need to do so as part of collaboration with other neighboring rural providers or with suburban and urban providers.

Substantial infrastructure is also envisioned, including separate incorporation of a stand-alone entity, compliance and reporting programs, extensive networks of health care providers, and estimated start-up costs of $29 million to $157 million per ACO.[3] In response to concerns that ACOs would be too big a bite for many providers, CMS made changes in the final rule that were intended to make ACOs feasible for rural health centers, federally qualified health centers, and providers in underserved areas.

II. EXPLANATION OF THE PROBLEM

For frontier CAHs, which are uniformly small and remote from population centers, the idea of an ACO is attractive but the mechanics are not. The nine Montana frontier hospitals that are used as examples in this paper serve fewer than 5,000 Medicare beneficiaries *in total*, never mind on a per-facility basis. With six of the nine hospitals having total revenue under $5 million a year, and eight of the nine losing money, they also have almost no capacity to undertake the front-end investments envisioned for ACOs.[4] These same challenges confront frontier hospitals in Alaska, North Dakota, and Wyoming. While the metrics of the current ACO model do not necessarily fit frontier CAHs, the concept of better managing care to improve outcomes and reduce expenditures could align with the FCHIP demonstration if properly structured from a reimbursement and volume standpoint.

A central goal of the ACO model—and of current federal initiatives in general—is to improve quality of patient care, and to measure that improvement. These initiatives have also been developed with larger hospitals and larger populations in mind. The Office of Rural Health Policy, in developing the Medicare Beneficiary Quality Improvement Project (MBQIP), has worked to adapt these initiatives to critical access hospitals, which make up a quarter of the nation's hospitals. Frontier CAHs are the smallest and most remote CAHs, so quality measures used in the Frontier Community Health Integration Demonstration Program must fit their realities as well. For example, inpatients are often in swing beds, with lower acuity and longer lengths of stay than in more urban hospitals. Goals of preventing acute admissions and managing longer-term risks such as pressure ulcers are therefore more relevant than in larger hospitals. The range of emergencies that need to be managed is as wide as in more urban settings, however. The key differences are that serious emergencies (e.g., multi-system trauma, heart attacks, strokes) are infrequent and that definitive care is a long way away. Stabilization and transfer protocols therefore take on heightened importance. And frontier hospitals, of course, are small. The quality improvement coordinator inevitably plays many other roles. Expenses and time requirements that could be easily managed within a larger hospital can be problematic for frontier hospitals.

[3] Centers for Medicare and Medicaid Services, "Medicare Shared Savings Program Final Rule."
[4] E.S. Fisher, M.B. McClellan and D.G. Safran, "Building the Path to Accountable Care," *New England Journal of Medicine* 365:26 (Dec. 29, 2011), pp. 2445-2447.

III. POLICY OPTIONS

The Shared Savings Model

Perhaps surprisingly, America's CAHs are well-positioned to provide the coordinated, longitudinal, population-based care envisioned by the Affordable Care Act. The reason is that many gaps and overlaps in our system stem from fragmented, illness-oriented care delivered through the notorious silos of health care. In a remarkable example, one study found that direct communication between hospital physician and primary care physician occurred in just 3% of discharges. The high end of the range was still only 20%.[5] Moreover, the challenges of poor coordination appear to be getting worse.

Hospitals in frontier communities may not have high end imaging technology associated with larger, urban based hospitals, but they are well equipped to provide person-centered, preventive, integrated care. Frontier communities, where the caregivers typically know the patients, their families, their neighbors, and every other provider for miles around, are ideal places for these new models of care to succeed.

For coordinated care to work, however, the financial incentives have to work as well. Inclusion of a shared savings component in the Frontier Community Health Integration Demonstration Program has the potential to achieve four goals simultaneously: improve outcome and lessen expenditures for patients, save money for Medicare, bring new funding to frontier health systems, and serve as a model that the rest of the country can learn from.

The proposed Frontier Community Health System model includes a method of rewarding quality, cost-effective care that is highly consistent with the goals of the ACO model but simpler and more appropriate in a frontier setting than ACOs. Table 1 shows the key features of the proposed shared savings program for the proposed Frontier Health System model in comparison with the current CMS ACO model.

The proposed shared savings program comprises five elements and uses 2012 as the baseline year and 2013 as the demonstration year. We also use the Dahl Memorial Healthcare Association in Ekalaka, MT, and the other eight Montana hospitals involved in this report as examples. The same principles could apply to different time periods and to various frontier health systems in Alaska, Montana, North Dakota, or Wyoming. We also refer only to Medicare patients, but we recommend consideration of Medicaid patients as well.

- ***Definition of a patient panel.*** Using claims data, a Medicare beneficiary who lives in the frontier health system's service area (probably defined by zip code) and who receives two specified primary care services within a year would be defined as being on the patient panel.[6] Medicare beneficiaries would retain all the freedom they now have to seek care from whichever provider they choose. In contrast to managed care models, the role of the frontier health system therefore would be to *influence* rather than *control* the patient's use of services. The shift in emphasis creates many desirable incentives, including the need for the frontier health system to work collaboratively with its patients.

[5] Sunil Kripalani, Frank LeFevre, Christopher O. Phillips et al., "Deficits in Communication and Information Transfer Between Hospital-Based and Primary Care Physicians," *Journal of the American Medical Association* 297:8 (Feb. 28, 2007), pp. 831-841.

[6] The Medicare ACO list of evaluation and management codes—99201-99215, 99304-99350, G0402 and G0438—likely would be a reasonable list. Note that it does not include the emergency E&M codes 99281-99295 and 99291.

Table 1 Comparison Between Shared Savings Programs		
	Medicare Shared Savings Program	
	Accountable Care Organization (ACO) (Track One)	**Frontier Health System (FHS) (Proposed)**
Provider	Accountable care organization (newly incorporated entity)	Frontier health system (existing critical access hospital under new conditions of participation)
Initial time period	Three years; ACO can choose to withdraw	Three years; FHS can choose to withdraw
Beneficiary freedom of choice	Same as today	Same as today
Beneficiary panel size	Minimum 5,000	No minimum
Definition of beneficiary panel	Receipt of defined primary care services by primary care provider associated with ACO (or specialist if no primary care provider)	• Resident of service area (as recommended by frontier health system) and • Provision of at least two primary care services within year by FHS or associated provider
Prospective or retrospective identification of beneficiary panel	Retrospective for purposes of shared savings	Retrospective for purposes of shared savings
Data sharing	• CMS to provide monthly claim-based reports on utilization and • Beneficiary can opt out of data sharing.	• CMS to provide monthly claim-based reports on utilization and • Beneficiary can opt out of data sharing.
Calculation of spending benchmark	Actual spending, adjusted for eligibility category (note 2) and CMS-HCC adjustment for health status	Actual spending, adjusted for eligibility category (note 2) and CMS-HCC adjustment for health status
Financial incentive	Reduced spending, subject to performance on quality standards	Reduced spending, subject to performance on quality standards
Quality standards	33 measures in four domains as a "starting point"	Subset of ACO measures, depending on appropriateness for a frontier health system (see Box 2)
Upside risk	Once a 2% minimum saving threshold has been achieved, the ACO can share in up to 50% of savings (calculated from the first dollar)	Once a 1% minimum saving threshold has been achieved, the FHS can share in up to 80% of savings (calculated from the first dollar), these savings are generated by reducing expenditures for beneficiaries through coordination of care
Downside risk	None	None
Minimum savings rate	Depends on number of beneficiaries and confidence interval, 3.9% for ACOs with 5,000-5,999 beneficiaries	1%, even though random fluctuations may affect the achieved savings rate, the fixed threshold will give frontier health systems incentives to achieve savings
Interim payments	Available on request (subject to repayment)	Available on request (subject to repayment)
Timing and process for evaluating shared savings performance	Three-month claims run-out period	Three-month claims run-out period

Table 1 Comparison Between Shared Savings Programs		
	Medicare Shared Savings Program	
	Accountable Care Organization (ACO) (Track One)	**Frontier Health System (FHS) (Proposed)**
Beneficiary experience of care survey	To be funded by ACO	To be funded by demonstration project evaluator
Various compliance requirements (e.g., documentation of evidence-based processes, marketing, training, education, waste, fraud, etc.)	New requirements for ACOs	No new requirements over and above conditions of participation and other existing requirements
CMP, anti-kickback and physician self-referral laws	May be waived for ACOs	May be waived for frontier health systems
Notes 1) Beneficiary Medicare eligibility categories for purposes of calculating spending performance are ESRD, disabled, aged-in non-dual and aged-in dual.		

- ***Define performance measures***. The primary financial measure would be total Medicare spending per beneficiary. We also propose secondary measures where quality problems currently result in increased payment, that are amenable to quality improvement efforts, and that are transparent and clinically precise.[7] Our hypothesis, which would be evaluated by the independent research organization contracted by CMS for this demonstration, would be that savings would be most likely to stem from "potentially preventable events." These events include admissions, readmissions, and ER visits.

  As an example, Table 2 shows the well-known list of hospital admissions reasons that are sensitive to ambulatory care. For potentially preventable readmissions and ER visits, we would draw on similar experience at the national level, such as the Medicare methodology for measuring readmissions or separate initiatives under way in Florida, Maryland, New York, and Texas. We do not include Medicare's current list of hospital-acquired conditions because of extremely low prevalence in frontier health systems.[8]

Table 2 Examples of Potentially Preventable Hospital Admissions
• Uncontrolled diabetes without complications • Short-term diabetes complications • Long-term diabetes complications • Diabetes-related lower extremity amputations • Congestive heart failure • Hypertension • Angina without a procedure • Chronic obstructive pulmonary disease • Adult asthma • Bacterial pneumonia • Dehydration • Urinary tract infection • Perforated appendix
Source: D. T. Kruzikas, H. J. Jiang, D. Remus et al., "Preventable Hospitalizations: A Window Into Primary and Preventive Care," 2000, HCUP Fact Book No. 5 (Rockville, MD: AHRQ, 2004).

[7] Richard F. Averill, Norbert I. Goldfield, and John S. Hughes, "Paying for Outcomes, Not Performance: Lessons from the Medicare Inpatient Prospective Payment System," *Joint Commission Journal on Quality and Patient Safety* 37:4 (April 2011).
[8] Nationwide, fewer than 1% of Medicare inpatient stays have a hospital-acquired condition using the current list as defined by Medicare. Frontier hospitals also have low numbers of acute inpatient stays in terms of absolute numbers.

A related hypothesis is that more integrated management of the most expensive patients will yield savings. In the Montana frontier facilities, 10% of the patients account for 70% of total charges.[9] In frontier communities, these patients are well-known to hospital staff. Enabling more coordinated, more appropriate care would be better for the patients and save both them and Medicare money.[10]

We note that measuring Medicare spending per beneficiary would also be consistent with the Medicare Hospital Based Value Purchasing (VPB) Program that applies to prospective payment hospitals.[11] Although frontier hospital systems and other critical access hospitals are excluded from the Hospital VBP program, this demonstration will provide insight into whether and how spending can be appropriately reduced within these smaller settings. To date, CMS has not initiated the ACA authorized VBP demonstration for critical access hospitals and low volume hospitals. However, this proposed frontier model is consistent with findings from the National Advisory Committee on Rural Health and Human Services' whitepaper and chapter on these subjects.[12,13]

- ***Measure performance.*** Importantly, performance would be measured for the patient panel regardless of where patients seek care. In Carter County, patients may receive inpatient care in Ekalaka (population 410), in Baker (population 1,740, 35 miles away), in Miles City (population 8,500, 115 miles away), or in Billings (population 105,000, 260 miles away). As a small facility in a frontier community, the Ekalaka hospital itself has few acute inpatient stays. The patients in its panel, however, can be expected to receive about as much hospital care as any Medicare beneficiary.
- ***Compare against benchmark.*** In keeping with the ACO final rule, our proposed benchmark would be historic spending by beneficiaries in the same area, with risk adjustment by Medicare eligibility category and using the CMS-HCC risk adjustment algorithm.[14] Each frontier hospital system would be independently measured and incentivized. In practice, we expect the frontier hospitals to voluntarily share ideas and coordinate efforts to improve care. Montana, for example, already has a performance improvement network through which small hospitals share methods for improvement. See Box 1.

[9] Xerox Government Healthcare Solutions analysis of submitted all-payer claims data for the nine Montana frontier hospitals.
[10] The Montana Health Research and Education Foundation is pilot testing a 3-year Care Coordination Network project in the original Frontier Workgroup communities, utilizing local Community Health Workers and a centralized, clinically trained Care Transitions Coordinator to build a system of consistent care and interventions for Medicare beneficiaries with multiple chronic conditions. The goal of the project is to improve transitions of care for frontier residents and management of chronic health conditions that often lead to avoidable hospitalizations and preventable readmissions. Outcomes will be tracked and evaluated in order to assess potential cost savings through reducing unnecessary hospitalizations, lowering readmission rates, and improving overall health status. HRSA H2GRH23239 (2011-2014).
[11] Centers for Medicare and Medicaid Services, "Medicare Program: Hospital Inpatient Value-Based Purchasing Program," *Federal Register* 76:88 (May 6, 2011), pp. 26490-26547.
[12] "Value-Based Purchasing Demonstrations for Critical Access and Small PPS Hospitals," September 2011. National Advisory Committee on Rural Health and Human Services.
www.hrsa.gov/advisorycommittees/rural/publications/wpvaluebasedpurchasing092011.pdf.
[13] "2011 Report to the Secretary: Rural Health and Human Services Issue," March 2011. National Advisory Committee on Rural Health and Human Services. www.hrsa.gov/advisorycommittees/rural/2011nacsecreport.pdf
[14] Pope, G, et.al, "Evaluation of the CMS-HCC Risk Adjustment Model." The Centers for Medicare and Medicaid Services Office of Research, Development and Information. (2011). Web Mar.2011.
www.cms.gov/Medicare/HealthPlans/MedicareAdvtgSpecRateStats/downloads//Evaluation_Risk_Adj_Model_2011.pdf.

- ***Set payment incentives.*** We recommend that savings be split 80/20 between the participating frontier health systems and Medicare, thereby ensuring both savings to the federal government and new funding to the frontier health systems.

Promoting and Measuring Quality in Frontier Health Systems

The ACO quality measures were defined for use within ACOs that are expected to be stand-alone organizations with multi-million dollar budgets that serve at least 5,000 Medicare beneficiaries. This level of quality performance reporting envisioned in the ACO regulations is not feasible for frontier health systems. We have therefore recommended an approach to quality performance measurement that is consistent with the ACO approach but adapted to frontier health systems. In particular, we recommend that each FHS select the 10 GPRO measures that are most applicable and feasible for its population.

The Flex Medicare Beneficiary Quality Improvement Project (MBQIP) is an initiative to improve access that rural beneficiaries have to quality care. This set of quality measures are intended to be appropriate for critical access hospitals, the very smallest and most remote of which may become frontier health systems. While the ACO measures are more population-based, the MBQIP measures are more hospital-based.

In Table 3 we list the ACO measures with comments on similarities to the MBQIP measures and the potential applicability to frontier health systems. Please note that the focus in this list is on the proposed Frontier Health System Medicare Shared Savings Program; other quality improvement efforts, including the MBQIP initiative, could proceed in parallel with the shared savings program at the hospital level.

To enable quality improvement, we expect—but would not require—that the health systems would collaborate in regional performance improvement networks that would focus on the particular needs of small, remote communities. In Montana, for example, an existing performance improvement network has developed best practices, collected data and shared results on reducing harm from high-alert medications,

Box 1
How Frontier Health Systems Can Improve Performance

To improve performance—to generate more health for the health care dollar—frontier health systems have various tools open to them. Depending on what is most appropriate in local circumstances, we expect frontier health systems to make use of tools such as:

- Performance improvement networks, probably but not necessarily organized by state
- Community health workers under the Care Coordination Network Grant, these workers, who do not necessarily need clinical training, will help link people with chronic medical conditions to services in their community
- Sharing of information with frontier health systems in other states
- Improved discharge coordination when frontier health system patients are discharged from referral hospitals
- Improved telemedicine capabilities and practices; see separate white paper
- Electronic health records
- Efforts to align reimbursement incentives across providers

Although some improvements can be made at low cost (for example, improved discharge coordination with referral hospitals), other steps will require new funding, most likely through grant sources.

improving initial treatment of trauma patients, and facilitating transfers to larger hospitals.[15] See Box 1 for additional tools and approaches toward improving quality.

Table 3
Appropriate Quality Performance Measures in a Frontier Context

ACO Quality Performance Measure	Source	MB QIP	Suitable for Frontier Health System	Comment
Getting timely care, appointments and information	HCAPS	Yes	Yes	To be performed by demonstration evaluator
How well your doctors communicate	HCAPS	Yes	Yes	To be performed by demonstration evaluator
Access to specialists	HCAPS	Yes	Yes	To be performed by demonstration evaluator
Patients' rating of doctor	HCAPS	Yes	Yes	To be performed by demonstration evaluator
Health promotion and education	HCAPS	Yes	Yes	To be performed by demonstration evaluator
Shared decision-making	HCAPS	Yes	Yes	To be performed by demonstration evaluator
Health status/functional status	HCAPS	Yes	Yes	To be performed by demonstration evaluator
Risk-standardized all-condition readmission	Claims	Yes	Yes	
Ambulatory sensitive condition admission: COPD	Claims	No	Yes	Other ACS conditions may also be appropriate to include, e.g., pneumonia, diabetes
Ambulatory sensitive condition admission: CHF	Claims	No	Yes	
Percent of all primary care providers who qualify for electronic health record incentive program payment	Incentive plan reporting	No	Yes	Measurement to be coordinated with electronic health record standards already applicable for CAHs
Medication reconciliation	GPRO	No	FHS to select 10 of 17 GPRO measures to report	
Screening for fall risk	GPRO	No	FHS to select 10 of 17 GPRO measures to report	
Influenza immunization	GPRO	No	FHS to select 10 of 17 GPRO measures to report	
Adult weight screening and follow-up	GPRO	No	FHS to select 10 of 17 GPRO measures to report	
Depression screening	GPRO	No	FHS to select 10 of 17 GPRO measures to report	
Colorectal screening	GPRO	No	FHS to select 10 of 17 GPRO measures to report	

[15] See the website of the Montana Rural Healthcare Performance Network at www.mtpin.org.

Table 3 Appropriate Quality Performance Measures in a Frontier Context				
Mammography screening	GPRO	No	FHS to select 10 of 17 GPRO measures to report	
Blood pressure measurement	GPRO	No	FHS to select 10 of 17 GPRO measures to report	
Diabetes composite	GPRO	No	FHS to select 10 of 17 GPRO measures to report	
Diabetes A1c	GPRO	No	FHS to select 10 of 17 GPRO measures to report	
Hypertension control	GPRO	No	FHS to select 10 of 17 GPRO measures to report	
Complete lipid profile and LDL control	GPRO	No	FHS to select 10 of 17 GPRO measures to report	
Use of aspirin or antibiotic	GPRO	No	FHS to select 10 of 17 GPRO measures to report	
Heart failure: beta blocker therapy	GPRO	Yes	FHS to select 10 of 17 GPRO measures to report	
Coronary artery disease composite	GPRO	No	FHS to select 10 of 17 GPRO measures to report	
Notes: GPRO=group practice reporting option; COPD=chronic obstructive pulmonary disease; CHF=congestive heart failure				

IV. DISCUSSION

Budget Neutrality

Under the terms of the enabling legislation,[16] the Frontier Community Health Integration Demonstration Program must be budget-neutral. The demonstration would meet this requirement by reducing potentially preventable events in the population served by frontier health systems. We do not propose to reduce existing funding for frontier hospitals themselves. Providing health care in frontier communities is already of marginal financial feasibility, owing to large distances, difficulty in attracting staff and inability to spread overhead costs over a large volume of services.

Our proposed path to budget neutrality—which is very much in keeping with the goals of the Affordable Care Act—stems from the data shown in Table 4. Although *providers* in frontier areas emphasize primary care rather than hospitalization and specialist care, *beneficiaries* in frontier areas receive approximately as much secondary and tertiary care as Medicare beneficiaries elsewhere. The difference is that they travel to do so. Again using Montana as an example, patients of the six frontier hospitals in eastern Montana may travel up to 260 miles to Billings to see specialists and receive inpatient care. In Table 4, only 16% of the inpatient stays, 11% of the inpatient days, and 4% of the inpatient charges for beneficiaries in frontier areas were at the local hospital. Patterns of specialty physician care—cardiology, gastroenterology, orthopedics, etc.—are presumably similar.

[16] Medicare Improvements for Patients and Providers Act of 2008, §123(g)(1)B)

Table 4 Location of Medicare Inpatient Care, MT FCHIP Facilities, CY 2010	Stays		Days		Charges	
	Total	Percent	Total	Percent	Total	Percent
Inside service area	468	16%	1,474	11%	$2,742,945	4%
Outside service area, in state	2,017	68%	9,578	70%	$47,222,081	69%
Out of state	485	16%	2,723	20%	$18,706,636	27%
Total	**2,970**	**100%**	**13,775**	**100%**	**$68,671,662**	**100%**

Notes
1) Source is Xerox Government Healthcare Solutions analysis of CMS Hospital Service Area File, CY 2010.
2) Service areas were defined at the county level by the individual Montana FCHIP facilities.
3) The CMS Hospital Service Area File does not include Medicare payment data.

If frontier health systems can improve primary care and enable more coordinated care, the results should include reductions in avoidable hospitalizations, readmissions, and emergency room visits. These reductions will create savings for the Medicare program. Our proposed shared savings program would therefore be budget-neutral for Medicare (indeed, it would save Medicare money) while bringing new funding into America's frontier areas. The savings would come chiefly from reduced expenditures at referral hospitals and physician specialists. The dollar reductions would be sufficiently small and diffuse enough that these payment reductions would be unlikely to have a noticeable impact on those providers. In any case, the goal of Medicare payment is to enable health for beneficiaries. If more coordinated care means that the complications of heart failure, pneumonia and other conditions are avoided, then that is the best outcome of all.

Financial Implications for Providers and CMS

Table 5 provides an analysis of potential savings under a shared-savings model that takes into account the unique volume and care patterns of frontier health care delivery. The spending data are from the ACO benchmark file prepared by CMS and from estimates of Part D spending that we made. We extracted data for the service areas of the nine Montana frontier hospitals. The extent of savings possible from coordinated care is, of course, one of the major questions facing ACOs and other efforts to reward coordinated care. For illustrative purposes, we used figures of 2%, 5%, and 10% (where 2% is the minimum savings figure contemplated for ACOs).

Under any scenario, the numbers are small but that is to be expected given the frontier nature of the participants and the low patient volumes. The important point is that this model can work actuarially and using the FCHIP demonstration authority to examine may be CMS' best opportunity for testing out these concepts in a frontier environment. Although the proposed 80/20 savings split is more balanced toward the providers than the 50/50 maximum split under ACOs (Track One), Table 4 shows that such a split is necessary for the shared services program to generate minimally meaningful revenue to be re-invested in care coordination.[17] If we assume that 5% savings can be achieved by a network of nine frontier health

[17] Please note that the original framework document recommended a 50/50 split, after further analysis an 80/20 split is considered necessary.

systems (as used in this example), then the average new revenue per frontier health system is just $138,118.

The essential problem—as is true in general with the economics of providing health care on the frontier—is that the patient population is too sparse to support a facility of efficient size. (We know this because 75% of hospitals under 25 beds are in rural areas.[18] Given the opportunity to grow in larger markets, hospitals are much more likely to end up at closer to or more than 100 beds.) Even though the scale is small in frontier health systems and wages tend to be lower than in urban areas, improving care coordination will nevertheless require new funding. Given the relatively small numbers of services received by residents in frontier areas, the 80/20 split is needed to provide such funding.

For the Medicare program, the net result is still a saving. As a percentage, the saving may be less than in the ACO model, but it remains a saving nevertheless.

V. CONCLUSION

Coincidental timing of this demonstration project and the implementation of ACOs is very fortunate. For CMS, an opportunity has been created to extend the goals of the Affordable Care Act to beneficiaries in frontier areas and to assess how to adapt key shared savings concepts to a frontier setting. Although the savings in this model will be smaller than those attained in other, larger shared savings demonstrations, for providers who serve these beneficiaries, a shared savings program could bring in new funding while improving the health of beneficiaries in America's most remote areas.

[18] American Hospital Association, "Hospital Statistics" 2012 edition.

Table 5 Illustration of Proposed Medicare Shared Savings Program			
	Assumes 2% Saving	**Assumes 5% Saving**	**Assumes 10% Saving**
2010 number of beneficiaries served by MT frontier health systems	3,902	3,902	3,902
2010 total estimated Medicare spending	$28,774,592	$28,774,592	$28,774,592
2010 Medicare spending (from ACO file)	*$22,657,159*	*$22,657,159*	*$22,657,159*
2010 estimated Medicare Part D spending on drugs	*$6,117,433*	*$6,117,433*	*$6,117,433*
Estimated 2013 baseline Medicare spending	$31,076,559	$31,076,559	$31,076,559
Estimated 2013 baseline Medicare spending per beneficiary	$7,964	$7,964	$7,964
Assumed saving through more integrated care	2%	5%	10%
Projected 2013 Medicare spending	$30,455,028	$29,522,731	$27,968,903
Saving	$621,531	$1,553,828	$3,107,656
Share of savings retained by Medicare	*$124,306*	*$310,766*	*$621,531*
Share of savings paid to frontier hospital systems	*$497,225*	*$1,243,062*	*$2,486,125*

Notes

1) 2010 beneficiary count and spending data from Xerox Government Healthcare Solutions analysis of CMS ACO file for the nine Montana FCHIP facilities. The Medicare data refer to the zip code of the Medicare beneficiary; not all individuals would be included within the frontier health system panel. ACO spending data include hospital inpatient, hospital outpatient, and physician services. We estimated the 2010 Part D drug spending using proportions from Medicare Payment Advisory Commission, "A Data Book: Health Care Spending and the Medicare Program" (Washington, DC: MedPAC, 2011), p. 11.

2) Spending data include all patients. Under the proposed shared savings program, the most expensive 1% of patients would be excluded from the calculation.