I. Current Legislation and Regulations

In 2008, under Section 123 of P.L. 110-275, the Medicare Improvement for Patients and Provider’s Act (MIPPA), Congress authorized the Frontier Community Health Integration Demonstration. Key language in this authorization is the specific directive to test new models for the delivery of health care services in order to improve access to, and better integrate the delivery of, acute care, extended care, and other essential health care services in frontier communities (emphasis added). The ability of frontier Critical Access Hospitals (CAHs) to provide post-acute and a variety of extended care services in their communities is essential to effectively caring for Medicare beneficiaries, as well as controlling costs. Furthermore, effective coordination of care between all types of providers and necessary services relative to Medicare beneficiaries is crucial to improving health and lowering growth in health care expenditures. In fact, CMS has noted that “care coordination is a key element in the success of shared savings program,” acknowledging this linkage between coordination of care across all service levels and health care savings.1 This paper explores the complexities and some potential options for improving the ability of frontier CAHs to provide various, appropriate types of extended and transitional care for their residents and to improve the coordination of care among multiple providers.

Currently, rather than making decisions based on community need, frontier CAHs must often make decisions whether or not to provide a variety of necessary and essential health care services based on a determination of whether or not providing these services will put the facility – and thus the existence of a health care system in these frontier areas – at financial risk. These decisions have particularly been evident in the area of long term and post-acute care. Private nursing or extended care facilities are virtually non-existent in frontier communities and if community needs are to be met it is up to the frontier CAH to provide these services. For the Frontier CAHs that often combine the CAH payment methodology with Fee for Service (FFS) entities such as home health, hospice,

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and nursing home services, the current reimbursement model dilutes Medicare revenue. This occurs when costs are allocated from the cost-based reimbursed CAH to FFS reimbursed healthcare entities, thus reducing overall Medicare CAH revenue since more non-cost-based service units are included in the calculation, resulting in a smaller per-service payment rate. CAH administrators in Montana say that the FFS reimbursement in these payment sectors does not cover their actual costs and the frontier facilities do not have enough volume to make the service economically viable. Since Medicare is the only payer covering its costs, the nursing homes, home health, and other FFS entities end up struggling financially. Many low-volume frontier CAHs have not been able to absorb the financial risk of maintaining a separate nursing home for their residents while also maintaining emergency, acute, ambulatory and outpatient care. This results in frontier patients losing access to essential healthcare services.  

MHREF and the Montana CAHs eligible for this demonstration believe that CMS should recognize that an important component of healthcare service delivery and care coordination in frontier communities is extended and long-term care, since frontier communities have an increasing percentage of population over the age of 65 compared to urban cities. Medicare beneficiaries are often times discharged from tertiary hospitals home to frontier communities in a fragile health status. They are not vulnerable enough to require skilled nursing care but may also not be eligible for home health services or are in a community that lacks access to these services. These vulnerable Medicare beneficiaries are susceptible to readmissions and may end up in the Emergency Departments of the Frontier CAHs.

Under the model proposed by the eligible hospitals, the focus would be on this population of vulnerable beneficiaries who fall between the care gaps. The Montana F-CHIP facilities seek to use CAH swing beds to provide extended and post-acute care services to frontier Medicare beneficiaries. While swing beds may be an option for post-acute skilled care in some rural communities, they are more likely the only option for either skilled or nursing care in most frontier areas. However, since CAH regulations limit the number of acute and swing beds to 25, some frontier Medicare beneficiaries cannot access long-term or post-acute care in their local communities and must go elsewhere. This creates a significant gap not only in available health care services but in care coordination capacity in some frontier communities.

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2 See the Frontier Reimbursement Issues white paper for further discussion.
5 Six of the eight Montana F-CHIP CAHs provide acute and long-term care services (as part of the CAH swing bed program) to Medicare beneficiaries and are limited to 25 beds. Three of the six cannot provide CAH swing bed services to frontier long-
Another example of the challenges driving frontier healthcare service delivery rather than community need is the lack of essential preventive care partnerships between frontier CAHs and local public health organizations. In several Montana frontier communities essential preventive services are no longer provided to patients in their communities because those services, including office space and administrative support expense, are carved out of the cost report and are not cost-based reimbursed. This has made it financially difficult for the CAH to maintain and coordinate these services under one roof. Although these services have not traditionally been allowable costs under the Medicare program, these would benefit Medicare beneficiaries directly by allowing the CAHs to better coordinate patient care and providing access to needed preventative and public health services. This would also indirectly benefit the Medicare program by lowering readmissions and admissions rates and thus lowering costs to Medicare. Allowing these non-reimbursable services would ensure that CAHs are not being negatively impacted by continuing to provide needed preventative and public health services.

Effective care coordination for Medicare patients in frontier communities needs to include the coordination of all services required by a patient across the full continuum of care—emergency, primary (including preventive), acute, specialized, and long-term care (including assisted living) as well as home health (or Visiting Nurse Services) and hospice services—no matter where the frontier patient receives services.

II. EXPLANATION OF THE PROBLEM

While most health care research supports the need for care coordination efforts to achieve better care and lower cost for Medicare beneficiaries, a recent Congressional Budget Office (CBO) report questions the premise that care coordination and value-based payment systems would actually reduce Medicare spending. That same report does, however, identify factors similar to those envisioned in the Frontier Health System model that helped other care coordination and value-based purchasing models meet goals of achieving better quality of care and reducing Medicare expenditures, such as:

“Fragmentation in the health care delivery system often leads to failures in care transitions and care coordination, putting patients at risk for adverse outcomes that can lead to costly hospital readmissions.”

“Many patients …suffer from a lack of oversight and continuity in their care, particularly from one provider to another or from hospitals to rehabilitation centers, nursing facilities or home.”

“Care coordination is needed. Medicare beneficiaries see, on average, five physicians a year; those with chronic heart failure, coronary artery disease and diabetes see an average of 13.”


term care patients because of the CAH 25-bed limit. The Secretary of HHS has the authority to waive the 25-bed statutory limit for Medicare demonstration projects.

Most recently, the F-CHIP community of Philipsburg had to move the public health office out of its facility, resulting in very limited public health services now available in the community.

For the 3,902 Montana F-CHIP Medicare beneficiaries, access to specialized diagnostic and acute healthcare requires a 150-mile to 616-mile round trip (see p. 8, Framework document.) Distances for frontier patients to access specialty care in the frontier-eligible state of Alaska are even greater.

“Lessons from Medicare’s Demonstration Projects on Disease Management, Care Coordination, and Value-Based Payment,” Congressional Budget Office, January 2012.
• Using team-based care including a care manager (could be a community health worker in the frontier setting) with close collaboration between medical providers (could be physicians, physician assistants or nurse practitioners in the frontier setting) and patients reduced hospital admissions.
• Care coordination programs that targeted interventions toward high-risk Medicare beneficiaries reduced hospital admissions.
• Care coordination programs that focused on transitions from a primary care provider to a specialist as well as hospitals to nursing homes (post-acute rehabilitation or long-term care services) had fewer hospital admissions.
• To achieve federal budgetary savings, the cost of care coordination programs must be smaller than the reductions achieved in Medicare expenditures.9

As previously stated, Medicaid beneficiaries are often times discharged home to frontier communities in a fragile health status and although the issue of caring for discharged Medicare beneficiaries who are at risk of readmission is not unique to frontier communities, the range of solutions that are often available in urban areas are most likely limited or absent in frontier areas. For example, while the trend is to serve more Medicaid beneficiaries through home and community based waivers, the lack of workforce and infrastructure in frontier areas severely limits availability of these programs. The range of post-acute and extended care services that are necessary for persons discharged from a larger facility such as physical or occupational therapy, strengthening following a hospital stay, and treatment such as wound care or intravenous antibiotics must be provided in frontier areas through inpatient swing beds. While the use of swing beds for these types of extended care services is consistent with swing bed usage in many rural areas,10 in frontier areas they are the only option available locally when skilled nursing and home health services are not available. This proposed FHS model would allow CAHs to care for those Medicare beneficiaries that are not unstable enough for skilled nursing services, but are still vulnerable for readmissions and without some sort of post discharge care (either in the form of nursing care or home health). Without access to a sufficient number of swing beds to meet community needs, Medicare beneficiaries and others face two choices: return home, risking poor health outcomes and high readmissions due to lack of post-acute care, or seek extended care services in areas far from their families and communities, often in higher cost urban areas.

The problem, in part is the lack of access for Medicare beneficiaries to these services as part of the CAH swing bed program in some frontier communities caused by the 25-bed CAH limit. Additionally, while there are many efforts underway to improve care coordination among providers, the services and infrastructure to effectively do this are not reimbursed in frontier CAHs at this time. An alternative reimbursement system encouraging appropriate care transitions and care coordination, particularly in frontier areas, is needed to improve outcomes and realize savings in our health care system.

III. Policy Options

The proposed Frontier Health System (FHS) model is a modified Accountable Care Organization (ACO) model with some of the characteristics of the emerging ACO model to accommodate very low healthcare service delivery

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9 p. 7-8, Ibid.
volumes experienced in frontier communities and the inability of frontier CAHs to handle downside risk in any shared savings payment arrangement with CMS.\textsuperscript{11}

However, the proposed FHS model recognizes that the engine that will drive the triple aim of better care, better health and produce lower growth in health care expenditures for frontier Medicare beneficiaries must be improved care coordination. CMS states “we agree that ACOs should coordinate care between all types of providers and across all services” and that care coordination is a key element in the success of a shared savings program.\textsuperscript{12}

In late September 2011, the eight Montana F-CHIP facilities working together as the Montana Frontier Community Health Care Coordination Network received a three-year pilot grant from HRSA/ORHP to demonstrate a frontier care coordination model with the goal of reducing unnecessary admission and readmission of frontier Medicare beneficiaries with multiple chronic conditions to the ER, acute and long-term care in local, frontier settings as well as distant secondary and tertiary settings. A statewide RN care transitions coordinator for the network was hired and eight Community Health Workers (CHWs) are in the process of being hired and trained as local care coordinators.\textsuperscript{13}

The paraprofessional CHWs will be embedded as key members of the care coordination team in the eight networked frontier communities across Montana. For example, the CHW at Dahl Memorial Healthcare in Ekalaka, Montana, will work as a key part of the care coordination team with a patient with multiple chronic conditions, his or her family, and the sole Physician Assistant at the Rural Health Clinic in Ekalaka as well as other local healthcare providers such as the patient’s pharmacist or case managers and specialists in Miles City or Billings. Dahl Memorial Healthcare has recently installed an electronic health record system and the CHW can identify and monitor a panel of frontier patients with multiple chronic conditions with the goal of reducing unnecessary admissions and readmissions to the local ER, acute, swing bed and nursing home care settings – ultimately improving health outcomes and lowering Medicare expenditures.

The care coordination model proposed in the Montana Frontier Community Health Care Coordination Network grant meets nearly all of the “lessons learned” requirements for a successful care coordination and value-based demonstration project outlined in the CBO report referenced earlier.\textsuperscript{14} If the care coordination system as described in the Montana care coordination grant and delivered by Community Health Workers in conjunction with a centralized Care Transitions Manager is implemented in Montana and expanded to the other three frontier-eligible states, frontier Medicare expenditures will decrease or, at least the growth rate of frontier Medicare expenditures will be limited. Implementation of one or more frontier care coordination networks of 10 or fewer integrated FHS organizations driven by trained, cost-effective paraprofessional CHWs in each of the four frontier-eligible states as

\textsuperscript{11} Patients residing in the eight Montana F-CHIP facility service areas include only 3,902 Medicare beneficiaries (See p. 1, “Frontier Referral and Admission/Readmission Patterns” white paper), not enough to meet the ACO minimum rule of 5,000 beneficiaries. In fiscal year 2010, the average annual operating loss for Montana’s F-CHIP facilities was $175,000 (see p. 7, “Framework For A New Frontier Health System Model,” Montana Health Research and Education Foundation for HRSA/ORHP; October, 2011—referred to as “Framework document”). This fact makes it difficult, if not impossible, for frontier CAHs to accept downside risk in any proposed ACO shared savings rule.


\textsuperscript{13} For a detailed description of the Frontier Community Care Coordination model, see HRSA/ORHP Funding Opportunity Announcement Number HRSA-11-02, dated July 28, 2011, and the subsequent grant application submitted by the Montana Health Research and Education Foundation (MHREF) on August 29, 2011.

\textsuperscript{14} “Lessons from Medicare’s Demonstration Projects...,” January 2012, op. cit. Hereafter referred to as “The CBO report...”
well as providing the flexibility to increase the CAH 25-bed limit to 35 beds in order to provide access to long-term and post-acute care for frontier Medicare beneficiaries is proposed.

**Montana Frontier Community Health Care Coordination Network and CBO Report:**

- The CBO report says the cost of care coordination must be smaller than the Medicare expense reductions achieved in order to reduce overall Medicare expense. Utilization of trained, paraprofessional CHW care coordinators, compared to hiring RN or LPN case managers or care coordinators in each frontier community, for the Montana care coordination network grant is the lowest-cost method of providing care coordination for frontier Medicare beneficiaries.

- The CBO report says successful care coordination programs target high-risk enrollees. The Montana Frontier Community Health Care Coordination Network is limited only to frontier Medicare beneficiaries with multiple chronic conditions.

- The CBO report says timely data is needed on patient’s health problems and hospital admissions for successful care coordination. Three of the eight Montana Frontier care coordination network CAHs have installed EHR systems and the other five will install EHRs within six months with the capability of identifying frontier patient health problems and hospital admissions.

- The CBO report says successful care coordination programs provide close collaboration between care coordinators and medical providers. The Montana frontier care coordination grant will embed trained CHW paraprofessional care coordinators in clinics (including Rural Health Clinics) within the Frontier Health System (FHS) organizations to work closely with local as well as distant specialized medical care providers.

- The CBO report says successful care coordination programs smoothed transitions between primary care providers and between hospitals and nursing homes. Working with the centralized Care Transitions Manager, the Montana frontier care coordination network CHWs will serve as patient advocates and coordinators for frontier patients with their primary care provider, often a physician assistant or nurse practitioner, secondary and tertiary specialists or long-term care service providers.

**IV. DISCUSSION**

The proposed FHS model would aggregate all health care service volume within its service area under one integrated, organizational, regulatory and cost-based payment umbrella, spreading fixed cost across FHS organizations and producing lower-cost care per unit. In addition, a pay for outcomes shared savings arrangement between networked FHS organizations and CMS is proposed with no downside risk to the FHS organization.

As detailed in the framework document, CMS would realize estimated annual cost savings of $509,118 at just three of the Montana F-Chip facilities if the 25-bed limit for CAHs was increased to 35 beds to accommodate the needs of frontier patients. This is a budget-neutral cost saver for CMS. It’s important to note that if the Secretary

15 See Vision Statement on p. 5 of the Framework document and the Frontier Health System Reimbursement white paper.
16 See the Frontier Quality Measures and Pay For Outcomes white paper.
allowed a waiver to the Frontier Community Health Integration Demonstration Project increasing the frontier bed limit from 25 to 35 this action would only apply to 71 CAHs in the four frontier-eligible states of Wyoming, North Dakota, Alaska and Montana.

The additional care coordination expense for a Frontier Care Coordination network of Community Health Workers and an RN Care Transitions Manager serving a network of ten or fewer FHS organizations is an estimated $162,000 to $231,000 per year.\(^{18}\) Much like CMS’s Advance Payment Accountable Care Organization model, care coordination expense for the proposed FHS model would be paid up front, in advance. However, CMS would not have to make an actual advance care coordination payment to the FHS organization but would only need to allow reimbursement of frontier care coordination expense through the existing CAH cost-based reimbursement process.

Although the CBO report, Lessons from Medicare’s Demonstration Projects on Disease Management, Care Coordination, and Value-Based Payment, concludes that most care coordination efforts do not save Medicare money, other researchers conclude that carefully constructed and well-managed care coordination programs could improve quality and reduce healthcare spending by 6% to 9% and, in one case, by 23%.\(^{19}\) Also, another researcher reported a Return-On-Investment (ROI) of 4:1 for the expense of a care coordination program driven by Community Health Workers.\(^{20}\) In other words, for every dollar invested in a CHW-driven care coordination program, nearly four dollars of savings were generated. Total projected care coordination network savings for the eight F-CHIP CAHs participating in the Montana Frontier Care Coordination Network ranges from $621,531 to $3,107,656 using conservative 2%, 5% and 10% savings assumptions.\(^{21}\) The projected savings are more than adequate to provide budget neutrality for the care coordination investment needed for this 8-CAH frontier care coordination network plus provide shared savings opportunities between the network and CMS, which would lower Medicare expense.

V. CONCLUSION

An important component of the frontier healthcare service delivery system is access to and efficiently-delivered care coordination. Fragmentation in the delivery of healthcare services to frontier patients often leads to unnecessary and expensive admissions and readmissions to ER, inpatient, specialized and long-term care settings. This problem is difficult, but not impossible to overcome when frontier primary care towns and cities with specialized secondary and tertiary healthcare services are separated by hundreds of miles. Crucial to the effort of providing effective care coordination and appropriate care transitions is the ability to transfer hospitalized patients from higher cost urban centers to their home communities.

\(^{18}\) Annual expense for a frontier care coordination network will depend on the number of FHS organizations participating. The recently-established Montana Frontier Care Coordination Network has a 3-year budget of $550,000 to support eight CAHs and frontier communities with eight Community Health Worker care coordinators and an RN Care Transitions Coordinator. This results in an estimated annual care coordination expense to support eight frontier CAHs and communities of about $185,000. Assuming seven to ten CAHs and communities in a frontier care coordination network, annual care coordination expense for a network of seven to ten FHS organizations would range from $162,000 to $231,000 (no adjustment for higher expense in Alaska).

\(^{19}\) p. 2, Kenneth E. Thorpe, PhD; Making Health Care More Affordable: Estimated Savings from Care Coordination, Lifestyle Change and System Redesign...;” July 21, 2008; Emory University and p. 9, Kenneth E. Thorpe, PhD; Estimated Federal Savings Associated with Care Coordination Models...;” September 2011; Emory University.

\(^{20}\) p. 10, Diane Johnson et. al.; “Community Health Workers and Medicaid Managed Care in New Mexico;” undated; University of New Mexico; funded by the HRSA Community Access Program and the W.K. Kellogg Foundation.

\(^{21}\) See Table 4, “Illustration of Proposed Medicare Shared Savings Program,” Frontier Quality Measures and Pay for Performance white paper, February 2012, prepared by ACS, A Xerox Company, for MHREF and the F-CHIP project.
The emerging frontier care coordination network in Montana meets most of the characteristics identified in the recent CBO report for a successful care coordination program. A trained, cost-effective Community Health Worker performing care coordination duties, collaborating with a local frontier medical provider and concentrating on beneficiaries with multiple chronic conditions to reduce unnecessary admissions and readmissions matches up well with the characteristics identified by CBO for a successful, money-saving care coordination program. Also, several researchers have concluded, contrary to the CBO report, that carefully constructed and well managed care coordination programs can save Medicare money. The flexibility to increase the bed limit to 35 to allow additional swing beds for these sole community providers will enhance their ability to provide the range of necessary post-acute and extended care services prerequisite to successfully returning patients to their homes.

The cost of frontier care coordination networks is an added expense to CMS and the Medicare program. However, by allowing care coordination expense to be included in cost-based reimbursement, this up-front investment expense in care coordination can be financed, similar to making an up-front payment to an Advance Payment ACO, ultimately allowing these frontier communities to take care of their often times most vulnerable members. The uniqueness of this proposed FHS model is that it will also provide a shared savings demonstration that is explicitly focused on frontier communities, something that has been lacking in the demonstrations released to date by CMS and the Center for Medicare and Medicaid Innovations.