

FRAMEWORK FOR A NEW FRONTIER HEALTH SYSTEM MODEL

A Proposal To Establish A New “Frontier Health System”
Provider Type and Conditions of Participation

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Note to the Reader

Several terms are used in this framework document to describe an organization that provides health care services to patients in frontier communities.

- The term “frontier CAH” is used to describe the existing Critical Access Hospital health care service delivery and reimbursement model.
- The term “Frontier Health System” is used to describe a proposed new model of integrated health care service delivery and reimbursement. The model would integrate an existing frontier CAH and other essential services under a new provider type and reimbursement methodology.
- The term “Montana F-CHIP facilities/or facility” refers to the nine (or one of the nine) CAHs in Montana participating in the Frontier Community Health Integration Project (F-CHIP) under a cooperative agreement with HRSA/ORHP.

INTRODUCTION

Section 123 of the Medicare Improvements to Patients and Providers Act (MIPPA) authorized the Secretary of Health and Human Services to establish a demonstration project to develop and test new models for the delivery of health care services to Medicare beneficiaries in certain frontier counties. In accordance with MIPPA, the purpose of any new frontier health care service delivery model shall be to improve access and better integrate the delivery of frontier acute care, extended care and other essential health care services for beneficiaries.

The MIPPA legislation specified only “eligible entities” located in the four frontier states of Alaska, Montana, North Dakota and Wyoming could participate in the demonstration. “Eligible entity” requirements include:

- must be an existing Critical Access Hospital (CAH) located in one of the 4 frontier-eligible states;
- the CAH must be located in a county with a population of 6 or fewer people per square mile;
- the CAH must have an average acute-care census of 5 patients or less, and;
- the CAH must provide one of the following services:
 - ✓ home health
 - ✓ hospice
 - ✓ physician services

The four frontier states identified in the MIPPA legislation—Montana, North Dakota, Wyoming and Alaska — have 164 hospitals including 113 CAHs, only 71 of which meet the MIPPA frontier “eligible entity” criteria (Table 1)¹. Thus, only 71 very small, very low volume CAHs out of 1320 CAHs nationwide would meet MIPPA criteria to participate in a demonstration of the proposed Frontier Health System model.

	Montana	North Dakota	Wyoming	Alaska	Total (4 States)
All Hospitals	65	45	27	27	164
CAHs	48	36	16	13	113
Frontier-Eligible CAHs	35	19	10	7	71

In accordance with MIPPA, primary focus areas for the frontier demonstration shall be (1) to increase access to and improve adequacy of payments for health care services provided under the Medicare and Medicaid programs in frontier areas and (2) to evaluate regulatory challenges facing frontier providers and communities.

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

¹ Data from IMPAQ International, North Carolina Rural Health Research and Policy Analysis Center, MHREF and Montana, North Dakota, Wyoming and Alaska FLEX Directors

² *Ibid.*

assist in the development of a Frontier Community Health Integration Project (F-CHIP). The purpose of the F-CHIP project is to inform the development of a new frontier health care service delivery model. Actual design and implementation of the demonstration are the responsibility of CMS.

This framework document is intended to provide an overview of the challenges facing these frontier providers and communities, and to introduce a potential model for a new integrated “Frontier Health System” that would assist in the development of the demonstration and aim to achieve the goals in the authorizing legislation. A demonstration of this proposed Frontier Health System model would inform future policy while ensuring access to needed health care services in frontier communities. In addition to this framework document, which will provide a cursory look at the challenges and opportunities facing frontier communities, MHREF will deliver six white papers providing more in-depth analysis, information, and data regarding specific frontier health care service delivery issues. White paper topics include:

- White Paper #1: Referral and Admission/Readmission Patterns
- White Paper #2: Frontier Telehealth
- White Paper #3: Frontier Quality Measures and Pay For Performance
- White Paper #4: Frontier Long term Care Issues/Swing Bed Use
- White Paper #5: Frontier Cost Report Issues
- White Paper #6: Frontier Health Care Workforce

Section I of the framework document describes the overall vision for the demonstration as identified by the workgroup of nine F-CHIP facility CEOs and their consultants. This group of CEO’s, along with the Montana Office of Rural Health, are partners with MHREF in the HRSA/ORHP cooperative agreement.

I. VISION STATEMENT

*The overall vision of the Frontier Community Health Integration Project (F-CHIP) is to establish a new health care entity—a **Frontier Health System**—that aligns all frontier health care service delivery by means of a single set of frontier health care service delivery regulations and an integrated (not fragmented) payment and reimbursement system.*

*For the Medicare beneficiary, the new **Frontier Health System** would serve as a single point of contact and patient-centered medical home for the coordination and delivery of preventive and primary care, extended care (including Visiting Nurse Services (VNS) with therapies), long term care and specialty care. Beneficiaries would benefit from the new model through reduced unnecessary admissions and readmissions to inpatient, ER and long term care settings. Homebound frontier Medicare beneficiaries who are unable to travel to obtain medical service would receive access to expanded VNS home care, including monitoring and treatment of chronic conditions.*

*In essence, the local **Frontier Health System** would aggregate all health care service volume within its service area under one integrated organizational, regulatory and cost-based payment umbrella, spreading fixed cost and producing lower-cost care. In addition, budget-neutral, pay-for-quality incentives would be implemented by the local **Frontier Health System** to demonstrate high quality care provided to frontier patients at lower cost, with savings shared with the Medicare Program.*

*A new **Frontier Health System** provider type and Conditions of Participation (COP) would be created. Health care services aggregated into the new **Frontier Health System** include: hospital ER, inpatient and outpatient; ambulance; swing bed; and an expanded rural health clinic which includes a VNS component that may provide physical, occupational or speech therapy in the frontier patient's home as well as preventive and hospice services.*

*Each frontier-eligible state—Montana (MT), North Dakota (ND), Wyoming (WY) and Alaska (AK)—would propose forming one or more networks of up to 10 **Frontier Health Systems** to provide statewide care coordination for frontier patients, assistance in the implementation and measurement of Pay for Performance (P4P) incentives as well as distribution of shared savings from CMS to network members.*

II. RATIONALE FOR A NEW FRONTIER HEALTH SYSTEM MODEL

In 2011, most frontier Critical Access Hospitals (CAHs) are struggling to survive. Since the 1987 advent of Montana's Medical Assistance Facility (MAF) model, the forerunner to the national CAH model in 1998, CAHs in frontier areas have experienced a decreased capacity to provide primary health care services to their communities and patients. Some of the reasons are loss of population³ and workforce recruitment difficulties in frontier areas,⁴ lack of capital for

³ "...34 of the 56 counties [in Montana] have lost population [between 2000 and 2010]." p. 2, *Montana's Rural Health Plan, July 2011* (not available online), Department of Public Health and Human Services, Helena, Montana.

⁴ "In 2005 there were 55 primary care physicians per 100,000 persons in rural areas compared with 72 in urban areas. This decreases to 36 per 100,000 in isolated small rural areas. Rural areas rely on non-physician primary care providers (physician assistants and nurse practitioners)." Page 1, "The Crisis in Rural Primary Care," Mark P. Doescher MD MSPH; Susan M.

technology and facility replacement as well as regulatory barriers and complicated, fragmented reimbursement systems.

Today's frontier CAH has very few inpatient admissions and patient days.⁵ Only two of nine Montana F-CHIP facilities offer CT scans and only three of nine offer ultrasounds.⁶ At least three Montana F-CHIP facilities offer patients (including Medicare beneficiaries) only CLIA-waivered basic lab tests because of difficulty recruiting laboratory technologists and lack of cash flow to buy lab equipment.

In 1987, the MAF usually met the long-term care needs of people in its frontier community by operating a 40 to 49-bed co-located nursing home, often times at a loss to the CAH. After several years of operating losses in the \$200,000 to \$350,000 range, frontier CAHs have either had to shut its doors, with Medicare beneficiaries in a frontier community losing complete access to ER, inpatient, outpatient, clinic and nursing home health care services, or close the nursing home. When a co-located nursing home closes, CAHs have an option to choose to operate an expanded swing bed program with Medicaid continuing to pay for non-skilled swing bed patients and Medicare paying for skilled swing bed patients. The dual reasons CAHs close their nursing homes and switch to swing beds for services previously provided to Medicare and Medicaid beneficiaries in the nursing home is for community benefit (by maintaining access to services) and for financial survival.

Today, seven of the nine Montana F-CHIP facilities have closed their nursing homes and given up their nursing home licenses.⁷ Although one Montana F-CHIP facility realized \$623,000 in additional revenue⁸ by closing its nursing home and switching to a 25-bed CAH license, for the majority of CAHs, this is a budget neutral shift. Any CAH, including the 71 frontier CAHs in the four frontier-eligible states of Montana, Wyoming, North Dakota and Alaska, that is facing the prospect of closing its doors due to financial losses caused by operating a co-located nursing home, can utilize this option of closing its nursing home and increasing CAH capacity up to 25 beds thereby attempting to meet the acute and long-term care needs of patients within the 25-bed limit.

However, even under this scenario, access to long-term care services may still be a challenge for some frontier Medicare and Medicaid beneficiaries because of the 25-bed limit. To address this problem and increase access to long-term care services for beneficiaries, the **Frontier Health System** model proposes to increase the CAH bed limit from 25 to 35 beds. This will be further discussed and explored in **Section VI, Budget Neutrality**, demonstrating the potential cost savings that could be realized if 10 additional patients above the 25-bed limit are allowed. It is further proposed that, in order to qualify for the Frontier Health System model, this increase in the number of beds would be restricted only to CAHs with an acute Average Daily Census of 5 or less located in MT, WY, ND or AK meeting the MIPPA eligibility requirements. This would restrict the 35-bed limit to a very small universe of only 71 frontier-eligible CAHs in the four states.

Skillman MS; Roger Rosenblatt MD MPH MFR; April 2009; University of Washington School of Medicine, Department of Family Medicine, Seattle, Washington. MHREF will produce White Paper #6, "Frontier Workforce" providing additional information and data on this topic.

⁵ The inpatient Average Daily Census for the nine Montana F-CHIP CAHs is 0.78. One Montana frontier-eligible CAH had only seven inpatient days in calendar year 2009 (Garfield County Health Center, Jordan, Montana). MHREF data.

⁶ MHREF data

⁷ *Ibid.*

⁸ *Ibid.*

Twenty years ago, MAFs often provided home health services. Over the past two decades, due to economic and workforce pressures, frontier CAHs have shut down home health services and most frontier populations have no access to this important health care service. None of the nine Montana F-CHIP facilities provides home health to Medicare beneficiaries and only 15 of 71 of the frontier-eligible CAHs in Montana, Wyoming, North Dakota and Alaska currently offer Home Health (see Table 2 below). Based on research from the Maine Rural Health Research Center there has been a nationwide decline from 2004 to 2008 for CAHs offering Home Health and nursing home services.⁹

Table 2. CAH Home Health Services in Montana, North Dakota, Wyoming and Alaska				
Montana	North Dakota	Wyoming	Alaska	Total (4 States)
7	2	3	3	15

In fiscal year 2010, eight of nine Montana F-CHIP facilities lost money with an average loss of \$175,000; net income on all patient services ranged from a positive \$63,000 to a loss of \$630,000.¹⁰ Average annual operating losses at Montana F-CHIP facilities are increasing; by contrast, the average loss was \$108,000 in fiscal year 2006.¹¹ Year-after-year annual losses averaging \$175,000 are unsustainable and may result in Montana frontier CAH closures. If frontier CAHs in WY, ND and AK are experiencing similar losses, some frontier CAHs may close, eliminating access to essential health care services for frontier populations.

Frontier CAHs have experienced a decreased capacity to provide some health care services, especially home health and long-term care, to frontier communities and patients. Because of lack of capacity caused by regulatory constraints, especially for swing bed residents and home health patients, as well as very low volume for inpatient services and operating losses at many frontier communities, Medicare beneficiaries are finding access to fewer health care services. To meet the health care needs of Medicare beneficiaries and other frontier residents, a new model is needed.

III. FRONTIER HEALTH CARE SERVICE DELIVERY CHALLENGES AND BARRIERS

Frontier communities are sparsely populated rural areas isolated from population centers and services, often with a population density of six or fewer people per square mile.¹² The four states with the largest percentage of population living in a frontier county with a population density of six or fewer people per square mile are Wyoming (74%), Montana (54%), Alaska (52%) and North Dakota (48%), the four states eligible to participate in the F-CHIP demonstration.¹³ Montana has a population density of only 6.8 people per square mile; the national average is 87.4.¹⁴ The nine Montana F-CHIP communities have an average population

⁹ “Provision of Long Term Care Services by Critical Access Hospitals: Are Things Changing?” Policy Brief #19, Maine Rural Health Research Center, March 2011

¹⁰ MHREF data from audited and unaudited F-CHIP CAH financial statements

¹¹ *Ibid.*

¹² Although many different definitions for Frontier exist, the definition used in this document and for the demonstration is based on MIPPA Statutory language which has also been frequently used by CMS (i.e. SSA Section 1886(d)(3)(E)(iii)(III).

¹³ “Table Four: States with more than 10% of their population in frontier, 2000 Update: Frontier Counties in the United States;” National Center for Frontier Communities, accessed September 15, 2011. http://www.frontierus.org/2000update.htm#_ftnref1

¹⁴ “Population Density By State,” 2010 U.S. Census, accessed September 15, 2011. <http://2010.census.gov/2010census/data/apportionment-dens-text.php>

of less than 1,000 (928)¹⁵, are located in counties with average population densities of 1.7 persons per square mile with three of the nine counties exhibiting population densities of less than one person per square mile.¹⁶

There are a number of health care service delivery challenges and barriers to providing care in frontier areas. Physical barriers including mountain ranges and large bodies of water often block access to health care services for frontier Medicare beneficiaries. Weather events such as snowstorms, whiteouts, fog, heavy rains or floods (with unpaved roads turning to mud) can block access. Travel distance is a significant barrier to health care. For example, travel distance from Montana’s nine F-CHIP Emergency Rooms (ERs) to a tertiary center with a Level II trauma center ranges from 75 to 308 miles with an average distance of 172 miles. See Table 3 below for travel distance from each F-CHIP facility to a tertiary center.

Table 3. One-Way Distance from the 9 Montana F-CHIP Communities to a Tertiary Center with a Level II Trauma Center and Specialty/Subspecialty Care

Distance in Road Miles ¹⁷	
Ekalaka to Billings	260 miles
Terry to Billings	184 miles
Circle to Billings	266 miles
Culbertson to Billings	308 miles
Forsyth to Billings	102 miles
Big Timber to Billings	83 miles
Chester to Great Falls	94 miles
Sheridan to Missoula	180 miles
Philipsburg to Missoula	75 miles
Average distance	<u>172 miles</u>

Fifty four percent of Montanans travel more than five miles for a visit to a medical provider (often a physician assistant or nurse practitioner); 13% travel more than 30 miles, and 7% more than 50 miles; and less than 1% of Montanans take public transportation to get to a medical provider appointment.¹⁸

Individuals residing in rural and frontier communities tend to be older, have lower incomes and are more likely to be uninsured than residents living in urban areas.¹⁹ Rural and frontier Americans are also more likely to experience chronic illnesses than urban and suburban individuals.²⁰ Nearly 50% of rural and frontier residents report living with at least one major

¹⁵ “Montana Population, Census 2010, Current Population by City/Town; Census 2010—Place Summary (City, Town, CDP);” Montana Census and Economic Information Center. Accessed September 15, 2011. <http://ceic.mt.gov/Census2010.asp>

¹⁶ “Table #2: Montana’s 56 Urban, Rural & Frontier Counties—With Population Density;” p.3, Montana’s State Rural Health Plan, July 2011; Montana Department of Public Health and Human Services. Not available online.

¹⁷ Distances calculated using MapQuest.com on August 18, 2011

¹⁸ Loren Schrag, Rick Yearry and Kip Smith webinar, *HIEX in Montana*, February 15, 2011 (original source, Montana BRFFS data)

¹⁹ U.S. Census Bureau, Current Population Survey, 2008 and 2010 Annual Social and Economic Supplements. <http://www.census.gov/hhes/www/hlthins/data/incpvhlth/2009/tab9.pdf>

²⁰ Gamm, L.D., et al. (2010). *Rural Healthy People 2010: A Companion Document to Healthy People 2010, Volume I*. College Station, TX: The Texas A&M University System Health Science Center, School of Rural Public Health, Southwest Rural Health Research Center.

chronic illness.²¹ Chronic diseases such as hypertension, cancer and chronic bronchitis are 1.2 to 1.4 times more prevalent in rural and frontier areas than urban cities.²²

Frontier communities are also experiencing an out-migration of younger Americans. Although the 2010 Census reports Montana's population increased 9.7% between 2000 and 2010, 34 of the 56 counties lost population.²³ The nine Montana F-CHIP counties all lost population from 2000 to 2010 and are projected to decrease in population from 2000 to 2030.²⁴ Also, all nine Montana F-CHIP counties are projected to have an increasing percentage of population over the age of 65 between 2000 and 2030.²⁵ At the same time, Montana's frontier health care work force is aging and nearer to retirement than the urban health care work force.²⁶ These declines in working age residents along with rising demand from aging baby boomers compound the considerable workforce shortages frontier hospitals face.²⁷ There are increasing health care workforce shortages across almost all disciplines and the shortages are adversely impacting health care delivery in frontier communities.²⁸ Medical staffs, including both physicians and non-physician practitioners (Physician Assistants and Nurse Practitioners) at the nine Montana F-CHIP facilities range from one to four full time providers. Two of the nine have Medical Staffs comprised of only one Physician Assistant and another has a Medical Staff of only two Physician Assistants.

As the numbers of 65-and-older Medicare beneficiaries increase in the Montana F-CHIP communities, most frontier CAHs will experience demand over and above the current CAH 25-bed limit for acute and swing bed – extended care – services. Some Montana F-CHIP facilities already experience demand exceeding the 25-bed limit and cannot provide swing bed services to Medicare beneficiaries. Frontier Medicare beneficiaries and families then must travel long distances away from their hometowns to receive essential health care services. The existing 25-bed CAH limit is a barrier.

Another major challenge for frontier communities is lack of capital for upgrading life-saving medical equipment, providing adequate and efficient facilities for health care service delivery and installing EHR systems to improve the quality of patient care and reduce the expense of duplicated diagnostic tests. As of 2004, nearly half of CAHs nationwide were operating in

²¹ *Ibid.*

²² *Ibid.*

²³ Montana Census and Economic Information Center, State Population Estimates, City/Town/Place Estimates, accessed September 7, 2011. <http://ceic.mt.gov/>

²⁴ U.S. Census Bureau, Table 1: Interim Projections: Ranking of Census 2000 and Projected 2030 State Population and Change: 2000 to 2030, www.census.gov/population/www/projections/files.xls

²⁵ *Ibid.*

²⁶ pp.11-14, *Montana's Rural Health Plan, July 2011* (not available online); Montana Department of Public Health and Human Services, Helena, MT. Also see, "The Aging of the Primary Care Physician Workforce: Are Rural Locations Vulnerable?" University of Washington School of Medicine, Department of Family Medicine. June 2009.

²⁷ pp.11-14, *Montana's State Rural Health Plan, July 2011* (not available online)

²⁸ Mary Wakefield, PhD et.al; "Policy Brief/North Dakota Health Care Work Force: Planning Together to Meet Future Health Care Needs;" January 2007; Center For Rural Health, University of North Dakota School of Medicine and Health Sciences; http://ruralhealth.und.edu/pdf/Workforce_Policy_Brief.pdf; accessed September 16, 2011. Also see pp.71-76; "Chapter 2: Workforce..., *Status and Future of Health Care Delivery in Rural Wyoming*;" Rural Policy Research Institute, Center for Rural Health Policy Analysis, University of Nebraska Medical Center; http://www.public-health.uiowa.edu/rupri/research/11-20-07WY%20Project%20Report%20071807_Final.pdf; accessed September 16, 2011. Also see pp.10-14; "Section II. Workforce, Workforce, Workforce, *Montana's Rural Health Plan, July 2011*(not available online); Montana Department of Public Health and Human Services, Helena, MT; Also see Michael J. O'Grady et. al. "Essential Research Issues in Rural Health: The State Rural Health Directors' Perspective;" Policy Analysis Brief, W Series, Vol. 15 No. 1, March 2002. Walsh Center For Rural Health Analysis, Bethesda, MD; <http://raconline.or/pdf/WseriesVol15No1.pdf>; accessed September 16, 2011.

buildings more than 40 years old.²⁹ Of the nine Montana F-CHIP facilities, seven were built in the 1940's and 1950's and are more than 50 years old.³⁰ Only two of Montana's F-CHIP facilities have a CT scan; only one offers outpatient surgery; only one provides hospice services.³¹ However, all nine Montana F-CHIP facilities have some interactive audio-video telehealth capability,³² which has great potential to improve health care service delivery coordination and expand access to specialty care for frontier Medicare beneficiaries.

IV. A NEW MODEL—FRONTIER HEALTH SYSTEM

The proposed new Frontier Health System will be a local, integrated health care organization located in very small, isolated frontier communities serving as a medical home for all patients in its service area, including Medicare and Medicaid beneficiaries.

The Frontier Health System model will play a key role ensuring access to basic emergency, hospital, primary care and long-term care services in isolated frontier areas³³. All 9 Montana F-CHIP facilities provide high-quality emergency care and are eligible for Level IV Trauma Receiving Facility designation. Similarly, all 9 Montana F-CHIP facilities participate in the Montana Healthcare Performance Improvement Network (PIN) and the PIN has demonstrated improvement in the treatment of ischemic and hemorrhagic stroke patients, the quality of ER transfers and the quality of trauma care in the ER.³⁴ ATLS-certified medical providers at the Montana F-CHIP facilities provide high-quality emergency care to 4,927 patients per year (an average of 1.5 patients per day) with very short wait times. A Frontier Health System will be the true safety net for frontier patients and Medicare beneficiaries. Without Frontier Health Systems, some frontier patients and Medicare beneficiaries will lose access to life-saving medical treatment for trauma or serious illness and will not have access to the next level of emergency care.

In the majority of frontier service areas, the frontier CAH is sole provider of all primary health care services. Unlike larger low-volume Critical Access Hospitals that focus primarily on acute and outpatient care, frontier CAHs currently provide a broad range of extremely-low-volume emergency, acute, outpatient, long term and extended care services to meet the needs of frontier patients. The 9 Montana F-CHIP facilities provide health care services to 19,139 individual patients.³⁵ Since there are 35 potential frontier CAHs that could become Frontier Health Systems in Montana, an estimated 74,410 individual patients would be served by the new Frontier Health System.³⁶ The average daily census for the 9 Montana F-CHIP facilities is 28 people: 0.78 acute patients and 27.22 swing bed patients.³⁷ The typical F-CHIP facility provides

²⁹ "FLEX Monitoring Team Briefing Paper No. 7: Financial Indicators for Critical Access Hospitals," May 2005, <http://www.flexmonitoringteam.org>

³⁰ MHREF data

³¹ MHREF data

³² *Ibid.* MHREF will produce White Paper #2, "Frontier Telehealth" providing additional information and data on this topic.

³³ MHREF will produce White Paper #3, "Frontier Long-Term Care Issues/Swing Bed Use" providing additional information and data on this topic.

³⁴ pp. 16-18, *Montana's Rural Health Plan July 2011* (not available online)

³⁵ From ACS (A Xerox Company) analysis of one year of Health-e-Web claims data for the nine Montana F-CHIP facilities. Health-e-Web is a company that provides HIPAA-compliant electronic billing services to hospitals and is utilized by all nine Montana F-CHIP facilities.

³⁶ 19,139 patients divided by 9 F-CHIP facilities = an average of 2,126 patients per F-CHIP facility. Since there are a total of 35 frontier-eligible CAHs in Montana, there are an estimated 74,410 individual patients served by the 35 frontier-eligible CAHs in Montana (2,126 times 35 = 74,410).

³⁷ This average includes acute, swing and nursing home beds.

15 frontier patient visits per day through its rural health clinic. In addition, an average of 168 outpatient contacts (diagnostic procedures and therapy visits) occur each day in a Montana F-CHIP facility.³⁸

Frontier CAHs partner with other health care providers within a regional system, transporting frontier patients, including Medicare beneficiaries, to specialized medical care and receiving patients back to their hometown communities. The role of the local Frontier Health System will be to integrate and coordinate health care as frontier patients and Medicare beneficiaries move through the primary and specialized segments of the medical system. Frontier Health Systems will provide a framework for coordinating the only health care services available locally in most frontier communities. In order to survive and to maintain access to important services for Medicare and Medicaid beneficiaries, Frontier Health Systems will need to aggregate and more efficiently manage the delivery of health care services to reduce unit cost and re-invest savings in care coordination as well as enhanced preventive and home-based care.

The current reimbursement model promotes silos of care, increases overall cost and promotes inefficiencies in care coordination. For health care service delivery success in the proposed new Frontier Health System, a reimbursement model that supports economies of scale and care coordination is essential. CMS is currently encouraging Accountable Care Organization models similar to the proposed Frontier Health System model with the premise that they improve care to Medicare beneficiaries and lower cost. The new Frontier Health System model will require an integrated, budget-neutral payment system that aligns reimbursement methodologies between all services.

Reimbursing CAH inpatient and outpatient services, swing bed services, rural health clinic services, ambulance services and expanded Visiting Nurse Services (as part of a Rural Health Clinic) using similar methodologies and providing meaningful incentives for integrating frontier health care services is needed. For the most part, these services are already reimbursed at cost to frontier CAHs and RHCs and are, therefore, budget neutral. The cost savings generated through improved care coordination through the proposed Pay for Performance (P4P), Shared Savings model, which is a fundamental component of the proposed Frontier Health System model, should pay for the relatively small additional cost for care coordination activities and expanded VNS services. Also, an integrated payment system (not an all-inclusive payment rate) for Frontier Health Systems would reduce unit cost by diluting overhead expense over an expanded number of units of service, improve care and increase patient quality.

The new Frontier Health System model builds on the current fragmented frontier health care service delivery system, creating a new, high-quality, integrated and coordinated “patient-safety-first” local frontier health care service delivery model by making several essential regulatory and payment system changes. The regulatory and payment-system changes that are proposed in this document would only apply to a maximum of 71 potential Frontier Health Systems in the four frontier-eligible states of Montana, North Dakota, Wyoming and Alaska.

In short, the proposed new Frontier Health System would reinvent itself as a local, frontier health care service delivery system providing a broad range of high-quality health care services designed to meet the individual needs of each individual frontier community with care-coordination and measurement of pay-for-quality incentives provided through a centralized geographic network funded by a shared savings program with CMS.

³⁸ MHREF data

V. GOALS

The following are desired goals for the new Frontier Health System model:

- Local Frontier Health Systems continually focus on patient safety and provide high-quality patient care for the specific frontier health care services they offer.³⁹
- Networks of 10 or fewer local Frontier Health Systems form in each frontier-eligible state (MT, ND, WY and AK) to share centralized care coordinators and technical assistance staff to implement frontier P4P measures and monitoring. Shared savings with CMS is generated, more than covering the added cost of care coordination and P4P technical assistance.⁴⁰
- Frontier patients, including Medicare and Medicaid beneficiaries, will receive high-quality emergency care in their own community.
- Frontier patients, including Medicare and Medicaid beneficiaries, will receive comprehensive, high-quality, primary health care services. Frontier Health Systems will serve as medical homes for frontier patients and coordinate care across all health care settings, including specialized care.
- No gaps exist for providing comprehensive health care services such as home care, preventive care and care coordination to frontier patients, including beneficiaries. The option of providing home care services (including physical, occupational and speech therapy through a Rural Health Clinic VNS program) will be available through the local Frontier Health System. Homebound frontier patients, including beneficiaries, will have access to remote telehealth monitoring and diagnostic technology, helping medical providers improve health care service delivery to patients, especially those with multiple chronic conditions.⁴¹
- Adequate availability of long term care swing bed services for frontier patients and families exists. Depending on the long term care needs of each frontier community, up to 35 swing beds may be available to meet the long term care needs of frontier patients.⁴²
- Reduced unnecessary acute care admissions/readmissions and avoidable transfers for frontier patients and Medicare beneficiaries will result.⁴³ Reduced unnecessary ER visits, clinic visits and long term care admissions by frontier chronic disease patients result in shared savings with CMS. Preventive health care and chronic disease management by networks of Frontier Health Systems improves the health of frontier patients and beneficiaries and reduces the higher cost of care outside frontier communities.
- A new Frontier Health System provider type and frontier-specific “Conditions of Participation” (COP) will be established, reducing regulatory burdens.

³⁹ MHREF will produce White Paper #3, “Frontier Quality and Payment for Performance” providing additional information and data on this topic.

⁴⁰ MHREF will produce White Paper # 1, “Referral and Admission/Readmission Patterns” and White Paper #3, “Frontier Quality and Payment for Performance” providing additional information and data on the topics of frontier care coordination, avoidable transfers and reducing admissions/readmissions.

⁴¹ MHREF will produce White Paper #2, “Frontier Telehealth” providing additional information and data on this topic.

⁴² MHREF will produce White Paper #3, “Frontier Long-Term Care Issues/Swing Bed Use” providing additional information and data on this topic.

⁴³ *Ibid.*

VI. CREATING AND REWARDING IMPROVED OUTCOMES

The push to improve outcomes ranks among the most promising developments in American health care today. As numerous analysts have noted, our health care system is built to reward activity, not accomplishment. Hospitals and other providers that keep patients healthy are penalized with lower payments. In Philipsburg, MT, the Granite County Medical Center had such a successful immunization campaign last winter that it did not have a single inpatient admission for flu. It was good medicine for the community, but bad finances for the frontier CAH. Indeed, if uncoordinated care, lack of timely follow-up or acquisition of a health care acquired infection result in the patient needing additional care, then providers are usually paid *more*. What's needed, as CMS administrator Donald Berwick has said, is to transform health care delivery to reduce cost while at the same time improving quality.⁴⁴

Perhaps surprisingly, America's frontier communities are well-positioned to demonstrate this transformation. 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 one example, one study found that direct communication between hospital physician and primary care physicians occurred in just 3% of discharges. The high end of the range was still only 20%.⁴⁵ Moreover, the challenges of poor coordination appear to be getting worse.

Hospitals in frontier communities may not have MRI machines, but they can provide person-centered, preventive, integrated care. Indeed, if new models of care delivery can succeed anywhere, those locations include frontier communities where caregivers typically know the patients, their families, their neighbors and every other medical provider for miles around.

For integrated care to work, however, the financial incentives have to work as well. Inclusion of a pay-for-performance (P4P) component in the demonstration has the potential to achieve four goals simultaneously: improve outcomes for patients, save money for CMS, bring new funding to local Frontier Health Systems and serve as a model that the rest of the country can learn from.

The proposed P4P model comprises five elements. We use 2012 as the baseline year and 2013 as the demonstration year. We also use Dahl Memorial Healthcare Association in Ekalaka, MT, and the other eight Montana F-CHIP facilities involved in this report as examples. The same principles could apply to different time periods and to various networks of proposed Frontier Health Systems in AK, MT, ND or WY.

- ***Definition of a patient panel.*** Using claims data, a Medicare beneficiary who lives in the local Frontier Health System's service area (probably defined by zip code) and who receives at least one service from the local Frontier Health System would be defined as being the panel. Defined services would include hospital inpatient, hospital outpatient, rural health clinic and long term care. Medicare beneficiaries would retain all freedom they now have to seek care from any medical provider they choose.

⁴⁴ Donald Berwick, "The Right Way to Reform Medicare," *The Wall Street Journal*, April 29, 2011, p. A13.

⁴⁵ Sunil Kripalani, Frank LeFevre, Christopher O. Phillips et. al., "Deficits in Communication and Information Transfer Between Hospital-Based and Primary Care Physicians," *Joint Commission Journal on Quality and Patient Safety* 37:4 (April 2011).

- **Define outcome measures.** The primary measure is total Medicare spending per beneficiary.⁴⁶ We also propose secondary outcome measures where quality problems currently result in increased payment that are amenable to quality improvement efforts and are transparent and clinically precise.⁴⁷ Our hypothesis, which would be evaluated by the independent research organization hired by CMS under this demonstration, would be that savings would be most likely to stem from “potentially preventable events.” These events include unnecessary admissions and readmissions to inpatient and long term care as well as ER visits.

As an example, Table 4 below shows the well-known list of reasons for hospital admissions that are sensitive to ambulatory care. For potentially preventable readmissions and ER visits, the model would draw on similar experience at the national level, such as Maryland and New York. Medicare’s current list of hospital-acquired conditions is not included because of extremely low prevalence in frontier CAHs. Nationwide, fewer than 1% of Medicare inpatient stays have a hospital-acquired condition using the current list as defined by Medicare. Frontier CAHs also have low numbers of acute inpatient stays in terms of absolute numbers.⁴⁸

Table 4. 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).

A related hypothesis is that more integrated management of the most expensive patients, including dual-eligible Medicare and Medicaid patients, will yield savings. Ten percent of Medicare beneficiaries account for two-thirds of Medicare spending.⁴⁹ In frontier communities,

⁴⁶ Additional patient outcome data, other than Medicare spending per beneficiary, will be identified in White Paper #3: Frontier Quality and Payment for Performance.

⁴⁷ Richard F. Averill, Norbert I. Goldfield, and John S. Hughes, “Paying for Outcomes, Not Performance: Lessons from the Medicare Inpatient Prospective Payment System,” *Journal of the American Medical Association* 297:8 (Feb. 28, 2007), pp. 831-841.

⁴⁸ Although the Montana Department of Public Health and Human Services does not require the reporting of hospital acquired conditions, the Montana Rural Healthcare Performance Improvement Network (PIN) does track reported HACS for frontier CAHs. Recognizing that HACS are under-reported and present an opportunity for patient care improvement and potential cost savings to Medicare beneficiaries, MHREF will provide additional information and data on frontier HACs in White Paper #3: Frontier Quality and Payment for Performance.

⁴⁹ Kaiser Family Foundation

these patients are well-known to local medical providers and staff. Enabling more coordinated, more appropriate care would be better for patients and save money.

Measuring Medicare spending per beneficiary would be consistent with the Medicare Hospital Based Value Purchasing Program (HVBP) that applies to PPS hospitals. Although CAHs are excluded from the HVBP program, this demonstration will provide insight into whether and how spending can be appropriately reduced within smaller settings.

- ***Measure outcomes.*** Importantly, outcomes would be measured for the patient panel regardless of where patients seek care. In Carter County, patients may receive inpatient care locally in Ekalaka (population 332), in Baker (population 1,741, 36 miles away), in Miles City (population 8,410, 115 miles away) or in Billings (population 104,170, 260 miles away). As a small facility in a frontier community, the Ekalaka CAH 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.*** The recommendation of an appropriate benchmark will involve weighing several considerations, as summarized in Table 5. At this time, the proposal is inclined toward the idea that Frontier Health Systems within a state would collaborate within one or more networks and share incentive payments among them. The alternative approach—where each Frontier Health System is measured on its own—has the disadvantage of small numbers, raising small-sample issues of statistical inference. Combining 9 panels of the Montana F-CHIP demonstration facilities into a single statewide panel evens out random variation in the measures. It is also anticipated that networks of Frontier Health Systems within each state will collaborate to improve their outcomes. Montana, for example, already has a Performance Improvement Network (PIN) through which CAHs share methods for improvement. Table 6 below shows a preliminary list of possible steps that a network of Frontier Health Systems could take to reduce potentially preventable admissions.

Table 5. Options for Choice of Benchmark Population

No.	Option	Example	Sample Size	Case mix Adjustment	Incentive
1	Pre/post — hospital	Hospital panel compared to panel at same hospital the year previous	May be too small both pre and post	Not needed	<ul style="list-style-type: none"> • Specific to hospital • Incentive hits ceiling in out years
2	Pre/post — network	Montana network panel compared to Montana network panel the year previous	Probably sufficient	Not needed	<ul style="list-style-type: none"> • Spread across hospitals within network • Incentive hits ceiling in out years
3	Demo vs control— hospital	Hospital panel compared to panel from comparable hospital(s) outside demo	May be too small for demo hospital.	Need depends on how control group is defined	<ul style="list-style-type: none"> • Specific to hospital • Also depends on changes in performance by control hospitals
4	Demo vs control— network	Montana network panel compared to panel from comparable network outside demo	Probably sufficient	Need depends on how control group is defined	<ul style="list-style-type: none"> • Spread across hospitals within network • Also depends on changes in performance by control hospitals
5	Demo vs state or national benchmark— hospital	Hospital panel compared to statewide or national average	May be too small for demo hospital	Needed—can be problematic	<ul style="list-style-type: none"> • Specific to hospital • Also depends on changes in performance by control hospitals
6	Demo vs state or national benchmark— hospital	Network panel compared to statewide or national average	Probably sufficient	Needed—can be problematic	<ul style="list-style-type: none"> • Spread across hospitals within network Specific to hospital • Also depends on changes in performance by control hospitals

Table 6. Steps Toward Improving Outcomes

How might networks of Frontier Health Systems go about reducing the number of potentially preventable acute and long term care admissions, readmissions and ER visits? The following list is only a short list of some steps that could be taken:

- Improved coordination with referral hospitals. **For example, patients from several Frontier CAHs in Montana are hospitalized at two tertiary hospitals in Billings**
- Preventive care, such as immunizations
- Home visits (especially if Frontier Health Systems could use rural health clinic VNS to deliver physical, occupational and speech therapy to patients in frontier communities) could prevent unnecessary ER visits as well as inpatient and long term care admissions or readmissions.
- Ongoing identification, monitoring and treatment of patients with chronic conditions (diabetes, CHF, COPD)

- *Set payment incentives.* It is recommended that savings be split 50/50 between the participating CAHs and CMS once the cost of the Frontier Health System model has been reimbursed out of the savings pool. This will ensure both savings to CMS and new funding to the new local Frontier Health System. This split is similar to shared savings in the Level I Accountable Care Organization model proposed by CMS. The only difference, and it is an important one, is that Frontier Health Systems are so small that they could only bear upside risk, not downside risk. If, as we expect, the demonstration results in savings, then Medicare would retain 50% of the savings. If, on the other hand, the demonstration does not result in savings, then Medicare would pay no more than it would have anyway. As noted in **Section III, Rationale For A New Frontier Health System Model** (see Footnote 11), each of the 9 Montana F-CHIP facilities lost an average \$175,000 on operations while providing health care services to Medicare and other beneficiaries during their most recent fiscal year. Frontier CAHs are financially fragile and cannot absorb any additional loss of revenue or operating net income. For this reason, including any downside risk in the shared savings formula with CMS is not recommended. Downside risk could reduce or eliminate access to essential health care services for Medicare beneficiaries at financially stressed Frontier Health Systems⁵⁰. We also note that the illustrative payment to Frontier Health Systems in Table 7, \$824,000, represents a tiny fraction of nationwide Medicare spending.

⁵⁰ Additional information and data regarding proposed CMS shared savings for the proposed Frontier Health System model will be included in White Paper #5, "Frontier Reimbursement Issues."

Table 7. Illustration of Pay-for-Outcome Incentive*

2012 number of beneficiaries served by MT frontier health systems	5,000
2012 average Medicare spending per beneficiary (all providers)	\$10,000
Trend inflation in spending per beneficiary--2012 to 2013	3%
Expected total Medicare spending 2013	\$51,500,000
Assumed saving through more integrated care	2%
Actual total Medicare spending 2013	\$50,470,000
Savings	\$1,030,000
<i>Share of savings retained by Medicare</i>	<i>\$206,000</i>
<i>Share of savings paid to frontier health systems</i>	<i>\$824,000</i>

*Numbers are for purposes of example only.

VII. RECOMMENDATIONS

Over the past nine months, the following recommendations were developed after discussion with and input from CEOs of the 9 Montana F-CHIP facilities, project consultants, MHA/MHREF staff and frontier CAH representatives from the other three frontier-eligible states.. Subject matter experts in health care survey and certification, licensure and Medicaid payment from Montana’s Department of Public Health and Human Services (DPHHS) provided input and technical assistance in crafting these recommendations.

1. Provide cost-based reimbursement of care coordinator expenses for Medicare and Medicaid beneficiaries for Frontier Health Systems only. This expense would be paid for with Frontier Health System Pay-For-Performance shared savings.
2. Create a new Frontier Health System provider type with a new COP. The COP would be the same as the CAH COP, with some modifications or “waivers” to existing regulations as outlined below.
 - a) Change the CAH 25-bed limit to 35 beds for Frontier Health Systems only. Specifically, modify C-351 of the CAH COP to: “The FHS organization must be certified as a Frontier Health System and may have no more than 35 beds, with 25 beds used for acute and swing bed patients and the incremental 10 beds limited to nursing facility level services” To qualify for Frontier Health System provider status, the facility’s annual acute average daily census **cannot** exceed 5, and the facility must meet MIPPA criteria for the F-CHIP demonstration, which limits application of the 35-bed limit to only 71 CAHs in AK, MT, WY and ND. Increasing the CAH bed limit to 35 is not only budget neutral but also provides cost savings to CMS. Please see the 35-bed budget neutrality/cost savings explanation in **Section VIII, Budget Neutrality** below.
 - b) Allow the delivery of, and cost-based reimbursement of, physical, occupational and speech therapy services as well as services delivered by a home health aide in the frontier home setting through the Rural Health Clinic VNS home care

program for Frontier Health Systems only. Specifically, change the Conditions for Coverage for Visiting Nurse Services in the Medicare Benefit Manual, Regulation 90.5, RHC 412.5 “Services furnished by a licensed nurse” (Rev. 1, 10-1-03) to: “Services furnished by a licensed nurse, *therapist or home health aide*—The services must be furnished by a registered nurse, a licensed practical nurse, a licensed vocational nurse, a home health aide or a licensed physical therapist, licensed occupational therapist or licensed speech therapist as allowed under current State scope of practice..”

Expansion of VNS home services for frontier patients will prevent costly unnecessary ER visits as well as acute care and long term care admissions and readmissions, increase access to home health services for frontier Medicare beneficiaries, and will alleviate workforce shortages. Please see the budget neutrality explanation for expanded VNS services in **Section VIII, Budget Neutrality** below.

- c) Allow a waiver **for Frontier Health Systems only** permitting Frontier Health System-owned ambulance services to operate in their rational service areas, which often encompass hundreds or even thousands of square miles, even if another ambulance service (even if owned by a CAH or another Frontier Health System) is located within 35-miles.

The specific recommendation is to change the ambulance fee schedule guidance (Rev. 103; Issued 02-20-09; Effective Date: 02-05-09; Implementation Date: 03-20-09) to: “Payment for ambulance items and services furnished by a CAH, or by an entity that is owned and operated by a CAH, is based on reasonable cost if the CAH or entity is the only provider or supplier of ambulance services that is located within a 35-mile drive of such CAH. CMS may waive the 35-mile driving distance separation requirement for ambulance items and services furnished by a Frontier Health System.”

This is an access issue for patients, including Medicare beneficiaries, requiring pre-hospital trauma care and transport. Because of EMT shortages in frontier communities, ambulance services (even if located less than 35 miles from another ambulance service) cannot respond to calls outside their rational service areas. For example, the frontier ambulance service owned by Pioneer Medical Center in Big Timber, Montana, one of the nine F-CHIP facilities, is less than 35 miles from the nearest ambulance service in Livingston, Montana. The Pioneer Medical Center and Livingston ambulance services cover 1,855 square miles and 2,814 square miles, respectively.⁵¹ Access to remote locations within each of these service areas is further complicated by mountain and river geographic access barriers. Each ambulance service can only provide services to patients within its historical and rational service area. To preserve pre-hospital trauma care and transport for frontier Medicare beneficiaries, we are proposing a 35-mile waiver be allowed for any Frontier Health System if the ambulance service is serving patients in its “rational service area.”

⁵¹ National Association of Counties website, “Find A County,” www.naco.org/Counties/Pages/FindACounty.aspx [search “Sweet Grass County, Montana” and “Park County, Montana”]. Accessed September 7, 2011.

If the Frontier Health System were converting a PPS ambulance service to a cost-based reimbursed Frontier Health System ambulance service, it would not be budget neutral. However, overall budget neutrality for the Frontier Health System model would be achieved through cost savings generated by improving care coordination and preventing unnecessary admission/readmission of Medicare beneficiaries.

- d) Modify the productivity screens for Rural Health Clinic medical providers practicing in Frontier Health Systems. The volume of RHC visits to clinics owned and operated by Frontier Health Systems is too small to meet the productivity screens. The productivity screens were designed for low volume Rural Health Clinics, not very-low-volume **frontier** Rural Health Clinics. Not meeting the productivity screens could jeopardize Rural Health Clinic status and loss of access to a medical provider by frontier beneficiaries.

Specifically, change RHC-503, 40.3 – Screening Guidelines for RHC/FQHC Health Care Staff Productivity (Rev. 1, 10-01-03). This regulation requires “at least 4,200 visits per year per full time equivalent physician” and “at least 2,100 visits per year per full time equivalent physician assistant or nurse practitioner” for every physician, physician assistant or nurse practitioner employed by the clinic. The COP would be modified by reducing the number of visits required by each full time equivalent provider to 2,100 for physicians and 1,050 for mid-level providers, respectively. In turn, Frontier beneficiaries would be guaranteed access to a medical provider, thus leading to preventive care, better care, and better outcomes.

- e) Increase the 10-bed limit to 25 beds for frontier CAHs to qualify for the alternative care coverage waiver for ER staffing. The 10-bed limit currently prevents very small “one medical provider” frontier CAHs from providing swing bed services to Medicare beneficiaries up to 25 beds, which is currently allowed for all other CAHs. This requirement limits access to swing bed services for Medicare beneficiaries in those few frontier CAHs using the alternative coverage waiver. Increasing to 25 beds is budget neutral because CAHs can already provide acute and swing bed services to patients, including Medicare beneficiaries, and receive cost based reimbursement. NOTE: A facility choosing to utilize this waiver, however, would *not* be eligible to increase overall beds to 35 under the Frontier Health System model. It would be restricted to 25 beds total.

When the alternative coverage waiver is in effect at a Critical Access Hospital, quality is not compromised. A “properly trained RN,”⁵² practicing within his/her scope of practice, triages patients presenting in the CAH’s emergency room and refers to other hospitals for emergency treatment. This RN must have immediate medical provider backup and constant contact (via phone or telemedicine) with a physician or non-physician medical provider covering an ER. The CAH cannot

⁵² A “properly trained RN” is defined as an RN with additional Advanced Cardiac Life Support (ACLS), Advanced Trauma Life Support (ATLS) or Trauma Nurse Core (TNC) training.

provide care to acute patients when the alternative coverage waiver is in effect.⁵³ The reason for requesting an increase in the number of alternative coverage waiver beds from 10 to 25 is not to care for more acute care patients but to increase the capacity to care for additional skilled and intermediate swing bed patients.

Specifically, increase the 10-bed limit to a 25-bed limit in CAH COP C-0207 as follows:

C-0207 (2) A registered nurse satisfies the personnel requirement specified in paragraph (d)(1) of this section for a temporary period if--

(i) The CAH has no greater than 25 beds;

f) Allow flexibility in the cost report to provide integrated, coordinated health care for patients residing in frontier communities.⁵⁴

Specifically:

- Allow the expense of patient care coordination as an allowable expense on the cost report.
- Allow all expenses for preventive care such as annual physicals, patient education and teaching and monitoring of chronic conditions as allowable expenses on the cost report.
- Allow the square footage and administrative support (including billing services) provided to public health and non-owned ambulance services as allowable expenses on the cost report.
- Allow nursing and medical staff expenses to train frontier community ambulance service EMTs or paramedics.

g) Allow the use of interactive audio-video communication systems for Frontier Health Systems to replace the face-to-face visit required every two weeks to provide medical direction and supervision to Physician Assistant and Nurse Practitioner mid-level providers. Instead of traveling to CAHs/Frontier Health Systems every two weeks, physicians (MDs and DOs) could use interactive audio-video telehealth communication systems to provide medical direction to mid-level providers, eliminating the cost-reimbursed travel expense. This is a cost-saver for CMS.⁵⁵

Specifically change CAH COP C-0261 as follows, “A doctor of medicine or osteopathy is present for sufficient periods of time, at least once every 2 week period...to provide medical direction...” by adding “*If a doctor of medicine or osteopathy is present every 2 weeks or available via interactive audio video telehealth communication, this COP requirement is met.*”

⁵³ At one Montana F-CHIP facility that actively uses the alternative coverage waiver, the acute average census last fiscal year was 0.22. Last year, only three patients at this frontier CAH presented to the ER during a time when the alternative coverage waiver was in effect.

⁵⁴ Additional information and data regarding the recommendations will be included in White Paper #5: Frontier Quality and Payment for Performance.

⁵⁵ Additional information and data regarding use of interactive audio-video telehealth communications to meet this COP requirement as well as the cost savings to CMS will be included in White Paper #2: Frontier Telehealth.

VIII. BUDGET NEUTRALITY

The MIPPA authorizing legislation for the F-CHIP demonstration defines budget neutrality as a determination by the Secretary of HHS that aggregate payments to facilities participating in the demonstration will not exceed payments that would have been made if the demonstration was not implemented.

Without implementation of the proposed Frontier Health System model, frontier CAH “eligible entities” would continue to receive payments at 101% of cost for the following health care services delivered to Medicare beneficiaries: CAH inpatient, outpatient and swing bed services as well as RHC clinic visits and RHC VNS nursing visits to homebound patients. All of these services fall under the “budget neutrality” requirements of the MIPPA authorizing legislation.

However, there are three reimbursement proposals for Medicare beneficiaries in the new Frontier Health System model that require additional funding from CMS:

- Care Coordinator and Pay For Performance technical assistance expense for the frontier care coordination network, and;
- Expansion of RHC VNS services to allow reimbursement of visits to homebound Medicare beneficiaries for PT, OT and speech therapy services, and;
- Permitting a 35-mile waiver for frontier ambulance services in a few frontier communities to preserve access to pre-hospital emergency medical services for beneficiaries.

Budget neutrality is achieved regarding these three expenses in the new model through cost savings generated by improving care coordination and preventing the unnecessary admission/readmission of Medicare beneficiaries to more-expensive emergency, acute and long-term care settings.

Budget neutrality or cost saving definitions for increasing the alternative coverage waiver bed limit from 10 beds to 25 beds and allowing audio-visual telehealth communication for bi-weekly CAH physician/mid-level supervision visits are included in **Section VII-Recommendations** above.

Please see **Appendix A below** for a *pro forma* cost analysis for Liberty Medical Center, Chester, Montana, one of the nine Montana F-CHIP facilities, showing a cost saving to CMS of \$169,706 per year if 10 additional Medicare swing bed patients were allowed in the new Frontier Health System model in addition to the 25 beds (acute and swing) currently allowed for a CAH. Nearly all costs for additional swing bed patients over and above the 25-bed limit are fixed costs. Please note the total cost (including mostly fixed cost) of providing care for the additional 10 swing bed patients plus the original 25 patients is spread over an increased number of patients (35), thus lowering the cost of care per patient and providing savings to the Medicare program and CMS. In the Appendix A cost analysis, Liberty Medical Center would need to add an estimated \$346,753 in annual variable cost for additional Certified Nursing Assistant (CNA) staffing, food and supply costs and overhead to provide care to the additional 10 swing bed patients. Increasing the bed limit for the new Frontier Health System model up to 35 beds should provide additional cost savings. At least 3 of the 9 Montana F-CHIP facilities would potentially generate an estimated \$169,706 in annual cost savings to CMS if the bed limit were increased to 35 beds, a total of about \$509,118 in annual savings to CMS.

**APPENDIX A. Medicare Cost Savings Pro Forma; Adding 10 Beds (25 to 35) to Liberty
Medical Center, Chester, MT**

Prepared by Ron Gleason, CPA/CEO, Liberty Medical Center and Reviewed by Eric Shell,
CPA/Principal, Stroudwater Associates

Liberty Medical Center--Comparison of Medicare
Cost for Liberty Medical Center if 10 more swing
bed patients per day were allowed

	<u>Actual 2010 Costs and Actual 2011 Patient Days</u>	<u>Assumes Additional Days Are All Non-Medicare</u>	<u>Assumes Medicare Days Are Proportional to 2011 Actual</u>
Total General Inpatient Routine Service Costs per June 30, 2010, Cost Report	2,230,847	2,230,847	2,230,847
Additional Staffing Costs for Additional Swing Bed Patients		186,810	186,810
Additional Food Costs for Additional Swing Bed Patients		27,061	27,061
Additional Supply Costs for Additional Swing Bed Patients		30,382	30,382
Additional Overhead Allocation - Administration		80,000	80,000
Additional Overhead Allocation - Laundry		10,000	10,000
Additional Overhead Allocation - Cafeteria		5,000	5,000
Additional Overhead Allocation - Medical Records		7,500	7,500
		<u>2,577,600</u>	<u>2,577,600</u>
Actual 2011 Swing Bed Patient Days	7,830	7,830	7,830
Additional Days if Ten Additional Beds were Allowed to be Used for Swing Bed (10 X 365)		<u>3,650</u>	<u>3,650</u>
		11,480	11,480
Medicare Swing Bed Days	<u>242</u>	<u>242</u>	<u>355</u>
Total Non-Medicare Swing Bed Days	7,588	11,238	11,125
Average Medicaid Statewide Payment Rate	<u>159.50</u>	<u>159.50</u>	<u>159.50</u>
Cost Reduction Related to Non-Medicare Days	1,210,286	1,792,461	1,774,438
Medicare Reimbursable Costs	1,020,561	785,139	803,163
Total Acute Care Days plus Medicare Swing Bed Days	<u>434</u>	<u>434</u>	<u>547</u>
Medicare Cost Per Patient Day	2,351.52	1,809.08	1,468.30
Medicare Acute Care days plus Medicare Swing Bed Days	<u>380</u>	<u>380</u>	<u>493</u>
Medicare Share of Reimbursable Costs	893,578	687,450	723,872
Savings to the Medicare Program		<u>206,127</u>	<u>169,706</u>

Detail for Additional Staffing Costs--Adding 10 Beds (25 to 35)

Hourly rate for Step 10 CNA at LMC	10.59
FTE Hours	2,080.00
Additional CNAs Required per Day Shift	2.00
Additional CNAs Required per Evening Shift	2.00
Additional CNAs Required per Night Shift	1.00
Salary Cost for additional CNAs	110,136.00
Hourly rate for Step 10 Dietary Aide at LMC	9.45
FTE Hours	2,080.00
Additional Dietary Aids Required per Day Shift	1.00
Additional Dietary Aids Required per Evening Shift	1.00
Salary Cost for additional Dietary Aides	39,312.00
Total Additional Salary Costs	149,448.00
Benefits at 25%	37,362.00
Total Staffing Increases for 10 Additional Patients	186,810.00

**Issues to Consider When Reviewing Appendix A—
Adding 10 Beds (25 to 35) to Liberty Medical Center, Chester, MT**

1. Liberty Medical Center has not diverted an acute care patient for services to another facility since transitioning to a 25 bed Critical Access Hospital on July 1, 2007.
2. Ten additional full year patients have been used in this example to demonstrate the impact of added beds available at Liberty medical Center, a 25 bed Critical Access Hospital.
3. Nearly all costs of the facility for additional swing bed patients are fixed costs. I have added 5 shifts of CNA time and cost to the calculation to accommodate the 10 additional residents in the facility.
4. Food and supply costs have been increased for the 10 additional swing bed patients that are included in this pro-forma calculation.
5. Based on the as filed June 30, 2010 Medicare Cost Report, I have estimated the cost of additional overhead allocation to the Adults and Pediatrics department of the Hospital. This includes increases in allocation from Administrative and General, Laundry, Cafeteria, and Medical Records departments. This estimate is very conservative. As cost allocations increase to this department, the estimated cost savings to Medicare for this department are reduced. However, there would be additional cost savings to the Medicare program in other departments that are not considered in this calculation.
6. Since the June 30, 2011, Medicare Cost Report is not completed and filed with Medicare (due date November 30, 2011), the calculation uses June 30, 2010, cost data and is updated with 2011 patient volumes.
7. Seven of the nine frontier workgroup facilities have converted their hospital/nursing home facilities to a single licensed critical access hospital. There is no longer a nursing home in the community.
8. Prior to this conversion, nursing home facility payments from Medicare for Medicare patients were made on a RUGS payment system (flat rate per patient diagnosis) similar to the DRG system through which non-CAH hospitals are paid for acute care services. Prior to conversion, large amounts of overhead costs were allocated to the nursing home facility. These costs were not paid by the Medicare program or the Medicaid program. This is how the cost report form works for Hospital/Nursing Home combination facilities.
9. CAH Hospitals are paid for Medicare services based on the cost of such services. After conversion to a single license CAH from a separately licensed CAH and Nursing Home, the cost report for the single license CAH no longer allocates cost between the Hospital and Nursing Home. Instead, the cost report removes from Medicare reimbursable cost the average daily statewide Medicaid payment rate for the state in which the CAH is located. This was the big change from the separately licensed facility. Instead of allocating cost to the Nursing Home, cost is backed out of Medicare reimbursable cost based on the average statewide payment rate. Again, this is how the Medicare cost report requires this calculation to be made. All combination Hospital/Nursing Home facilities currently have the option of making this conversion to a single license CAH.
10. In the cost report, the total number of Medicaid and private pay swing bed days is multiplied by the average statewide payment rate to arrive at the amount that will be removed from Medicare reimbursable cost
11. As non-Medicare swing bed days increase, the amount of cost removed from reimbursable cost increases and the remaining cost that Medicare participates in decreases.
12. The remaining cost is divided by the total of all acute care patient days and Medicare swing bed days. This daily rate is then multiplied by the total of Medicare acute care days and Medicare swing bed days to arrive at Medicare's share of cost.

APPENDIX B. Profiles for the 9 Montana Frontier Health Integration Project (F-CHIP) Demonstration CAHs and Communities

1. Dahl Memorial Health care Association: Ekalaka, MT—Carter County

Dahl Memorial Health care Association (DMHA) is a frontier CAH licensed as an 8-bed Critical Access Hospital. DMHA also owns and operates a 23-bed nursing home and rural health clinic. One or two beds are utilized for acute patients with an average nursing home census of 15. The average daily acute census is .22.

DMHA serves the community of Ekalaka with a population of approximately 360 people, has a county population of about 1,200 people with the county containing 3,348 square miles, resulting in a population density of .36 people per square mile.

Distance to the next closest hospital is 36 miles away (Baker). During poor weather, highway conditions deteriorate quickly and roads often close. Travel time to the nearest tertiary hospital with a Level II trauma center and specialty physicians is 260 miles (Billings). Critical patients may require air ambulance transport.

The only medical provider in the community, a Physician Assistant has served the community for 10 years. He provides all medical provider services, seeing over 1,100 patients per year in the clinic, 125 ER patients per year and visits to nursing home residents and CAH inpatients. He also provides medical direction for the local volunteer ambulance service and acts as the Carter County Public Health Officer and Deputy Coroner. Two or three times per year, he receives *locums* relief from a physician assistant who travels 500 miles one-way from Helena.

DMHA has an alternative emergency care coverage waiver for the ER allowing a registered nurse to staff the ER and take call for up to 72 hours. Nurses receive considerable training such as ACLS, PALS and TNCC to ensure they are prepared to staff the ER. This waiver has been a key factor in retaining the current PA-C.

DMHA contracts with a pharmacy consultant from Baker (36 miles), a dietitian consultant from Miles City (117 miles), an occupational therapist from Miles City, a physical therapist from Baker and a radiologist from Miles City.

2. Prairie Community Hospital: Terry, Montana—Prairie County

Prairie Community Hospital (PCH) is a frontier CAH licensed for 21 beds. Two beds are used for acute patients with 19 beds used for long term care swing bed patients. The average daily acute census is .20 with an average daily long term care swing bed census of 19.

PCH is county-owned, serving a county population of 1,179 residents. Prairie County contains 1,737 square miles with a population density of .67 persons per square mile.

Glendive Medical Center is the next closest hospital located in Glendive, 40 miles away. Distance to the nearest tertiary hospital with a Level II trauma center and specialty physicians is 180 miles (Billings).

There are two Physician Assistant medical providers in the community. They provide all medical provider services including 24-hour emergency services, rural health clinic visits as well

as acute, skilled and long term care. One PA-C is the Medical Director for the local volunteer ambulance service.

A pharmacist consultant from Glasgow (142 miles) and a physical therapist from Glendive (40 Miles) provide contracted services to the CAH.

3. *McCone County Health Center: Circle, Montana—McCone County*

McCone County Health Center (MCHC) is a frontier CAH licensed as a 25-bed Critical Access Hospital. Between 2 and 4 CAH beds are utilized for acute patients with between 21 and 23 beds used for long term care residents for the facility's swing bed program. The average acute daily census is .80.

MCHC is county-owned, serves the Circle community of 644 residents, has a county population of 1,977. The county contains 2,643 square miles, resulting in a population density of .75 persons per square mile.

Distance to the next closest hospital is 50 miles away (Glendive), but distance to the nearest tertiary hospital with a Level II trauma center and specialty physicians is 250 miles (Billings).

The only medical provider in the community, a Physician Assistant, has served the community 21 years. She provides all medical provider services, which includes seeing approximately 20 patients per day in the clinic and some visits to homebound patients. During and after hours, she provides lab services as well as medical care to ER, acute and long term care patients. She is also the Medical Director for the local volunteer ambulance service and the McCone County Public Health Officer. She receives *locums* relief approximately once a month from a physician assistant who travels 385 miles one-way from Helena.

Contracted services are provided by a pharmacist consultant from Glasgow (100 miles), a dietitian consultant from Glendive (50 miles) and a physical therapist from Lindsay (25 miles).

4. *Roosevelt Medical Center: Culbertson, Montana—Eastern Roosevelt County*

Roosevelt Medical Center (RMC) is a frontier CAH licensed as a 25-bed Critical Access Hospital. Between 2 and 4 CAH beds are utilized for acute patients with between 21 and 23 beds used for long term care residents for the facility's swing bed program. The average acute daily census is .28. RMC is designated as a level IV trauma receiving facility.

RMC is a private, non-profit corporation serving the communities of Culbertson, Bainville and Froid and the eastern half of Roosevelt County. RMC's 900-mile service area population contains approximately 1,500 people resulting in a population density of 1.7 persons per square mile, considerably less than the Roosevelt County population density of 4.4 persons per square mile.

Distance to the nearest hospitals are 37 miles (Sidney), 45 miles (Williston, ND) and 90 miles (Glendive), but distance to the nearest tertiary hospital with a Level II trauma center and specialty physicians is 300 miles (Billings).

The facility employs a full-time and a part-time physician assistant and is awaiting the arrival of their third physician in 4 years (the previous 2 physicians stayed no longer than a year). The

facility is currently using expensive *locums* medical provider coverage until the new physician arrives. Medical providers see 18-30 patients per day in the rural health clinic as well as cover ER, inpatient and long term care swing bed patients.

A physical therapist from Glendive (90 miles), a dietitian from Williston, ND (45 miles) and a speech therapist from Ray, ND (80 miles) provide contracted services to the CAH. Also, an audiologist and OB/GYN physician utilize the CAH to provide visiting specialist services once a month.

5. *Rosebud Health Care Center: Forsyth, MT—Rosebud County*

Rosebud Health Care Center (RHCC) is a 24-bed frontier CAH with an average daily acute census of 2.17. 3-4 CAH beds are used for acute patients with the remaining 20-21 beds used for long term care swing bed patients. RHCC also owns and operates a 31-bed nursing home and a Rural Health Clinic, located in buildings separated from the CAH. The nursing home was built in the 1950s and the Rural Health Clinic structure was built in the 1920s. The average daily long term care census (both long term care swing bed patients and nursing home residents) is about 35.

RHCC provides health care services to residents of both Rosebud and Treasure counties; Treasure County does not have a hospital. Both counties have a population of approximately 9,833 but have small population densities.

Distance to the nearest hospital is 45 miles (Miles City). Travel distance to the nearest tertiary hospital with a Level II trauma center and specialty physicians is 100 miles (Billings).

There are three medical providers in Forsyth: a physician who has practiced in the community for 29 years, one nurse practitioner and a Physician Assistant. RHCC is one of two (out of 9) F-CHIP facilities with CT diagnostic capability.

6. *Pioneer Medical Center: Big Timber, MT—Sweet Grass County*

Pioneer Medical Center (PMC) is a 25-bed frontier CAH and 35-bed nursing home (co-located in the same building as the CAH). 8 CAH beds are used for acute patients with 17 utilized for long term care swing bed patients. The average daily acute census is .52. In addition, the organization owns and operates a Rural Health Clinic, the local ambulance service and a 16-unit assisted living facility. It is the only F-CHIP facility that provides hospice services.

PMC is county-owned and its service area includes Sweet Grass County, with a county population of 3,790 residents covering 1,855 square miles, resulting in a population density of 2.0 persons per square mile.

Distance to the next closest hospital is 36 miles (Livingston) with the nearest tertiary hospital 80 miles away (Billings).

Medical staff is comprised of 2 full-time nurse practitioners and 2 part-time physicians. The Medical staff provides care for all outpatient, inpatient, long term care and ER patients seeking care at the facility.

PMC has a management and affiliation agreement with the Billings Clinic. The Billings Clinic supports PMC through financial services, IT systems and support, clinical case management, telemedicine and staff education.

7. *Liberty Medical Center: Chester, MT—Liberty County*

Liberty Medical Center (LMC) is a 25-bed frontier CAH. 21 to 23 CAH beds are used for long term care swing bed patients with 2-4 beds for acute care patients. The average daily acute census is .52 patients per day with 21 long term care swing bed patients per day. The organization operates a Rural Health Clinic (about 31 patient visits per day) and a detached 18-bed assisted living facility. The ER (45 visits per month) is certified as a Level IV trauma receiving facility. LMC provides CT scans, one of the two out of 9 F-CHIP facilities providing this diagnostic service to patients.

LMC is the only provider of physician, hospital and long term care services in Liberty County, an area of 1,429 square miles with a population of 2,339, resulting in a population density of 1.64 persons per square mile.

The next closest hospital is 45 miles away (Shelby) with other nearby hospitals 67 miles (Conrad), 62 miles (Havre), and 53 miles (Fort Benton) away. The nearest tertiary hospital with a Level II trauma center and specialty/subspecialty physicians is located in Great Falls, 95 miles away.

The Medical Staff is comprised of 2 physicians, a nurse practitioner and a Physician Assistant. One of the physicians also serves as the Liberty County Public Health Officer. The Liberty County Public Health Nurse is also employed by LMC. The Medical Staff provides care for all outpatient, inpatient, long term care and ER patients seeking care at LMC.

8. *Ruby Valley Hospital & Tobacco Root Mountains Care Center: Sheridan, MT—Madison County*

Ruby Valley Hospital (RVH) is a 10-bed frontier CAH with a Level IV trauma receiving facility designation. The acute care average daily census is 1.53 with an average daily long term care swing bed census of .82. The organization operates two Rural Health Clinics, which are located in Sheridan and Twin Bridges. The two clinics have an average daily patient volume of 18. The Tobacco Root Mountains Care Center is a separate 39-bed nursing home located near the CAH with an average daily census of about 35 residents. There is a CHC/FQHC in the Sheridan that operates a pharmacy.

Ruby Valley Hospital and Tobacco Root Mountains Care Center provide health care services in western Madison County, which covers about 2,000 square miles and serves a population of about 1,700 people, resulting in a population density of .85 persons per square mile. The next closest hospital is a Level III trauma center located 70 miles away in Butte. The nearest tertiary hospital with a Level II trauma center and specialty/subspecialty physicians is located in Missoula, 185 miles away.

The Medical Staff is comprised of one physician and three Physician Assistants.

9. *A profile is not available for Granite County Medical Center: Philipsburg, MT—Granite County*