Telecare4Colorado

Empowering Sustainable Integrated Care

A grant proposal made to The Colorado Health Foundation

Submitted by AspenPointe TeleCare

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Proposal Overview

Organization name

AspenPointe TeleCare

Proposal title

Telecare4Colorado

Proposal summary

This project creates a blueprint for implementing a self-sustaining program for integrated care throughout Colorado by introducing a telecare nurse as a member of the primary care provider team in both urban and rural areas. The project executes a pilot that measures the effect of this addition to the primary care team on health care integration, availability, quality, engagement, satisfaction, cost and outcomes.

The Colorado Health Foundation goals

Select which funding goal your proposal addresses—Healthy Living, Health Coverage and Health Care

Healthcare: All Coloradans receive quality, coordinated Health Care because those who do are healthier.

- Improve Health Care Delivery
- Accelerate the Adoption of Health Information Technology
- Build Health Care Professionals Workforce

The Colorado Health Foundation measurable results

Select which measurable result(s) your proposal targets

- Increase the number of underserved Coloradans who receive integrated care.
- Increase the number of health professionals who serve underserved Coloradans.
- Increase the number of patients who receive evidence-based care for chronic disease
- Increase the number of Coloradans educated on chronic disease management

Grant type

Select the type of support requested (project, general operating, capacity building or capital)

Project

Age-group(s) served:

Youth (18 – 20 yr), adults (21 – 54 yr), older adults (55+ yr)

Geographic area served

Select the counties served by your proposal

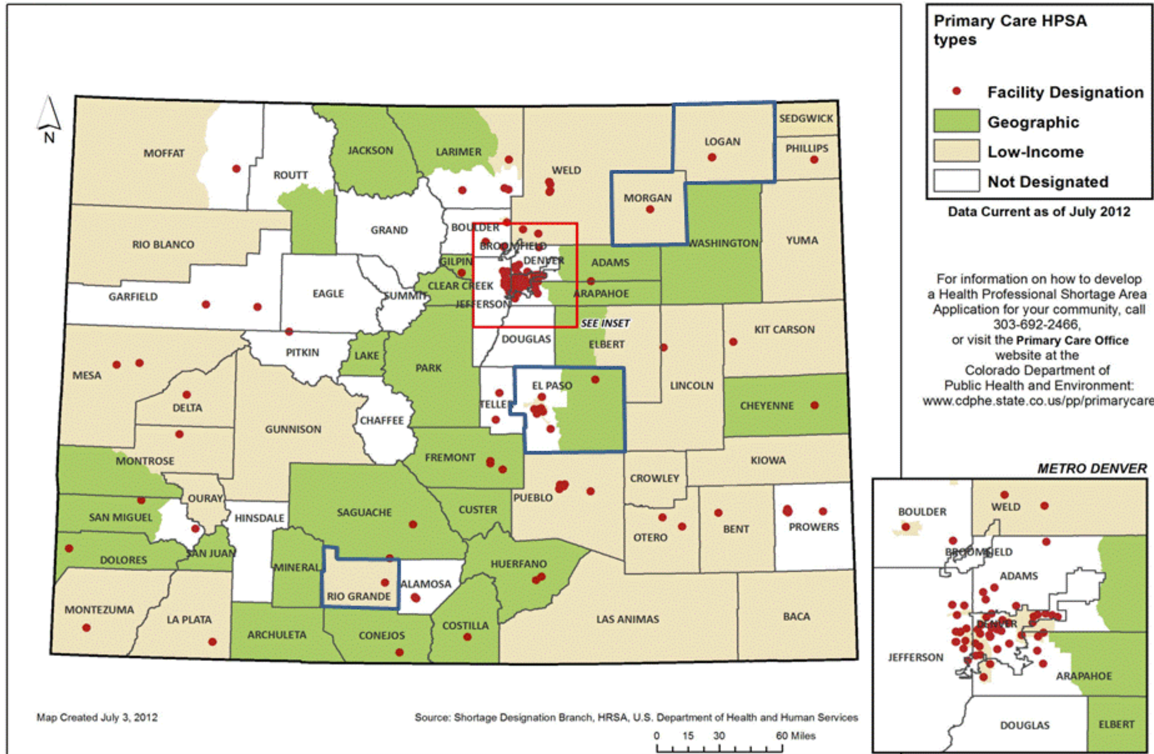
El Paso County
Rio Grande County
Morgan County
Logan County

Primary Care

Health Professional Shortage Areas (HPSAs)

Map Prepared By:

Colorado Department of Public Health and Environment GIS



Primary care shortages in rural Colorado. *The HPSA designation by the Health Resources and Services Agency of the U.S. Department of Health and Human Services indicates geographical regions that do not have enough health care providers according to national standards. More information is available on http://bhpr.hrsa.gov/shortage/index.html.* ***The proposed project focuses on piloting telecare services in the counties outlined with a thick line (El Paso, Rio Grande, Morgan and Logan).***

Total funding amount requested

Enter the total amount requested of The Colorado Health Foundation

$1.081M

Funding term

Enter the time period your grant will cover (in months)

24 months

Proposal Narrative

Proposed activities

Describe what you will do and how you will do it.

This project will demonstrate the effectiveness of delivering integrated health care, through telecare, on eight key elements identified in making Colorado the healthiest state in the nation:

- Care integration
- Provider network integration (coordination of care)
- Provider availability
- Patient and provider engagement
- Patient and provider satisfaction
- Health care affordability (individual and public funding)
- Health care quality
- Health care outcomes

Integration: Colorado requires better integrated health care, according to a March 2012 Colorado Health Foundation publication.[1] Research and practice show that integrated care, "model of health care delivery that engages individuals and their caregivers in the full range of physical, psychological, social, preventive and therapeutic factors necessary for a healthy life," improves patient health. Telecare4Colorado employs evidence-based care management practices that support patient self-management of chronic conditions. This includes discovering and reducing barriers to patient self-care, such as mental health or behavioral health issues and substance abuse. AspenPointe has been highly effective in improving self-care and health outcomes using this approach. We have found that engaging patients in their own health care reduces time and effort spent by providers in delivering high quality health care. The results are increased levels of patient satisfaction and improved health outcomes.

Provider Network Integration: The project also introduces new, research-substantiated interventions to facilitate communication between the telecare nurses and all of a patient's health care providers. Improvements introduced through this project are (1) adding low-cost video-conference capability between telecare nurse, the patient and the patient's primary care team in the primary care setting (2) enabling the telecare nurse to communicate directly with the rest of the primary care team about patients through the team's electronic medical record and (3) Increasing care coordination efforts between patient providers by using available, regulation-compliant health information exchange capabilities.

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[1] The Colorado Health Foundation (2012). The Colorado Blueprint for Promoting Integrated Care Sustainability. Report published May 2012. Retrieved from http://www.coloradohealth.org/studies.aspx on 01/04/2012.

Availability: An integrated care approach increases provider productivity and quality of care delivery, resulting in increased provider morale.[2] Improved provider morale, therefore, provides a key to improving quality health care availability. Since Colorado faces health care provider shortages, especially in rural and poor communities, improving quality health care availability is central to improving health for all Coloradans. People in poor and rural communities, facing severe health conditions, often put the most financial and resource stress on the state's health care system. The proposed evidence-based integrated care system, with proven methods for improving patient self-care, will allow for better resource allocation and overall better health outcomes for Coloradans..

Engagement and satisfaction: Provider and patient engagement and satisfaction with telecare is key to adoption and ultimate success.[3] Provider engagement and satisfaction result in lower turnover and higher quality and efficiency in care delivery. Patient engagement and satisfaction improves treatment adherence and health outcomes. These factors contribute heavily toward achieving the highest possible levels of productivity, efficiency and effectiveness in the health care delivery system.

Affordability: Since new payment reforms stress outcomes-based reimbursement, Telecare4Colorado also offers providers an affordable protocol for achieving these new reimbursement models. These reimbursement models, combined with the recommended benefit plan and policy recommendations provide the basis for financially self-sustaining telecare programs across Colorado.

Quality and outcomes: Over our seven-year history, AspenPointe TeleCare has shown that working closely with patients in motivating and guiding them to adhere to their evidence-based, prescribed treatments and health practices, substantial improvements in health outcomes are realized. . We measure and monitor these results to ensure continuous improvement for each patient. With the Telecare4Colorado we will illustrate the collective results of our telecare approach on a sample population, and demonstrate how to extend best telecare practice to other patient population communities.

Our proposed Telecare4Colorado project creates a blueprint and training programs for deploying this integrated care methodology across both rural and urban communities in Colorado, and shows how providers can readily adopt telecare to provide a sustainable mechanism for deriving health care advantages from payment reform. Additionally we will provide a recommended strategy for deploying sustainable telecare programs across Colorado.

The table and diagram below list the endeavors we will undertake during this project and illustrates a high level description of how the telecare process will work for this pilot. The

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[2] Hall, J. (05/01/2001). "A qualitative survey of staff responses to an integrated care pathway pilot study in a mental healthcare setting". NT research (1361-4096), 6 (3), p. 696.

[3] Michelle Glaser, Tom Winchell, Patty Plant, Wayne Wilbright, Michael Kaiser, Michael K. Butler, Matthew Goldshore, and Manya Magnus. Provider Satisfaction and Patient Outcomes Associated with a Statewide Prison Telemedicine Program in Louisiana Telemedicine and e-Health. May 2010, 16(4): 472-479. doi:10.1089/tmj.2009.0169.

process supports the current telecare protocol that AspenPointe TeleCare employs.

		Value / Goals						
What we plan to do	**Care integration**	**Provider Network Integration**	**Availability**	**Quality**	**Engagement**	**Satisfaction**	**Total cost of care**	**Outcomes**
AspenPointe TeleCare and UCCS educate project target provider and patient population on telecare and the pilot					√	√		
UCCS establishes a state-wide training program for telecare nurses and trains those nurses participating in the project			√	√	√	√		
Program manager implements video conferencing and screen sharing software to all of the participating provider teams and telecare nurses		√	√		√	√	√	
Program manager introduces the telecare nurse to the PCP teams assigned to them					√	√		
HealthTeamWorks works with provider to include telecare nurse into the provider and practice workflow		√		√	√	√	√	√
Each PCP introduces assigned telecare nurse to each participating patient					√	√		√
Telecare nurse coaches and educates patients to help them manage their own medical care and address behavioral, mental and substance abuse challenges	√		√	√	√	√	√	√
Telecare nurse shares patient information with PCP using the electronic medical record	√	√			√	√		√
Telecare nurse makes referrals for the patient using CORHIO's eReferral system	√	√	√				√	
Telecare nurse measures mental and behavioral health of patient on a regular basis				√		√		√
Health economist measures effect of telecare on provider team availability, motivation, productivity and total cost of care			√				√	
Project manager evaluates health care scorecard changes over time for each patient	√			√				√
Project manager surveys satisfaction of patients, providers and their staff					√	√		

What programs and services will you offer?

Telecare as a Solution

Telehealth, as defined by the American Telemedicine Association, is "the use of medical information exchanged from one site to another via electronic communications to improve patients' health status," including the use of non-clinical health information, such as medical claims. [i] Telecare refers to the telehealth practice of delivering care management using telephonic and/or other technology tools that allow remote communication between the care manager, the patient and the members of the patient's care team. Telecare has proven effective in improving outcomes for chronic disease.[4,5,6,7,8] Telecare nurses improve operational efficiency of the care team by empowering patients to better engage in the self-care prescribed by the primary care team, and by serving as a collector and coordinator of patient information for the primary care team. Though research shows that some healthcare professionals doubt the effectiveness of telecare, research also shows that telecare improves patient self-management over systems where care is only administered by in-patient visits.[9]

What is a "telecare nurse?"

Commonly providers and/or payers engage care managers to ensure that practices care for patients in a coordinated and effective manner. Good disease outcomes depend heavily on good self-management, and although attrition rates for self-management are often high they may be reduced by even minimal human contact.[10] Table 3 describes various types of care managers that can provide human contact and assist providers in managing care for their patient panels. The telecare nurse can provide all of these functions using the telephone and internet. The pilot project proposed focuses on the care management approach as delivered by telecare nurses. Other approaches may be added in future projects.

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[4] Meresman, J. F., E. M. Hunkeler, et al. (2003). "A case report: implementing a nurse telecare program for treating depression in primary care." The Psychiatric quarterly 74(1): 61-73.
[5] Baker, L. C., S. J. Johnson, et al. (2011). "Integrated Telehealth And Care Management Program For Medicare Beneficiaries With Chronic Disease Linked To Savings." Health Affairs 30(9): 1689-1697.
[6] Darkins, A., P. Ryan, et al. (2008). "Care Coordination/Home Telehealth: the systematic implementation of health informatics, home telehealth, and disease management to support the care of veteran patients with chronic conditions." Telemed J E Health 14(10): 1118-1126.
[7] "Telemedicine-Based Diabetes Management Program Focusing on Education and Eye Exams Improves Self-Management Capabilities and Outcomes For Low-Income Rural Patients," retrieved from http://www.innovations.ahrq.gov/content.aspx?id=1767 on November 26, 2012.
[8] May et al.(2011). *Integrating telecare for chronic disease management in the community: What needs to be done?,* **BMC Health Services Research**, 11:131, http://www.biomedcentral.com/1472-6963/11/131.
[9] Pols, J. *The heart of the matter. About good nursing and telecare.* **Health Care Anal.** 2010 Dec;18(4):374-88.
[10] Rosser, Benjamin A., et al, *Technology-Mediated Therapy for Chronic Pain Management: The Challenges of Adapting Behavior Change Interventions for Delivery with Pervasive Communication Technology*, **TELEMEDICINE and e-HEALTH**, April 2011, pp. 211-216.
Intervention dropout rates were 0–84%, with an average of 26% (SD 22) according to a meta-study published in 2009. Rosser, Benjamin A., et al (2009). *Technologically-assisted behaviour change: a systematic review of studies of novel technologies for the management of chronic illness*, Journal of Telemedicine and Telecare 2009; 15: 327–338

Approach	Description
Case Management	Aids hospital patients during in-patient stays and transitions; Aids patients of a medical practice to become engaged in a collaborative process designed to manage health conditions more effectively; often associated with medical home
Nurse Navigator	Aids patients with information on process and options, and an emphasis on shared decision-making (especially used in oncology)
Care Management	Aids patients of a medical practice to become engaged in a collaborative process designed to manage health conditions more effectively; often associated with medical home
Care Coordinator	Deliberately organizes patient care activities between two or more participants (including the patient) involved in a patient's care to facilitate the optimal delivery of health care services. (McDonald 2007)

Table 1. Common patient management approaches found in the literature.

Adding a telecare nurse to the primary care team fortifies productive primary care team partnerships with patients, increasing the chances that patient behavior aligns with effective treatment. This alignment improves patient health outcomes, reduces health risks that could have been avoided, and prevents delivery of unneeded or redundant services. Adding a telecare nurse to a primary care team extends the capability of that team, enabling it to handle more patients; it essentially extends the availability of health care providers and does so affordably and with improved health outcomes and high patient engagement and satisfaction.

The following diagram outlines the activities planned in the telecare process we intend to pilot.

The Telecare Process

Activity	Details
Educate and recruit 20 providers: 10 from El Paso County 10 from the other three counties	Selection criteria: must be using an EMR and caring for at least 50 patients with chronic illness
Each provider to recruit 20 patients with chronic disease to the program, giving preference to the underserved population as defined by TCHF	Use CORHIO's eReferral program giving the provider the option of using AspenPointe TeleCare to manage the work of input and output as directed by the provider
In-clinic face-to-face or video introduction between the telecare nurse and the patient with participation by the provider	Uses VIA3 secure conferencing product (HIPAA-compliant for secure transmissions); process re-engineering w/HealthTeamWorks
Telecare protocol with patient begins. Patient can choose mode(s) of communication with telecare nurse.	Telecare nurse has an account on the EMR to keep up to date on their patients and to input information obtained on patient
Bi-monthly patient panel update by phone and/or video conference between provider and telecare nurse	These bi-monthly calls can be supplemented with ad hoc calls initiated by the provider to obtain information on patients
Communication between provider and telecare nurse regarding conclusion of treatment for a patient	Telecare nurse to follow up with patient at six months and one year after completion of the intervention

AspenPointe TeleCare: Delivering Improved Health Care Results

AspenPointe TeleCare has been delivering care management by telephone to adults (18 years old and older) with chronic conditions since 2005. They currently support adults who have any of the following conditions: depression, type II diabetes, asthma, heart disease, or chronic pain. Patient with co-occurring mental health diagnoses are also supported. They also offer recovery support services, telephonically, to those in recovery from substance abuse.

TeleCare provides individualized service, offered telephonically, to meet patient's needs. The support includes ongoing assessment for mental health and substance abuse issues. These and other barriers to self-care are addressed and referrals made to appropriate services. Members

can participate for up to 2 years, talking with the same care manager each time they have a care management encounter. Health care providers receive monthly patient progress updates for their patients that AspenPointe TeleCare serves and program outcome reporting occurs every six months. AspenPointe TeleCare nurses help to prepare patients for provider appointments, support patient treatment plans, supply providers with regular updates on patient progress. Key to supporting patients in the self-management of their conditions is providing patients with education on preventative measures, healthcare resources, when to call their provider and how to prepare for provider encounters.

AspenPointe TeleCare receives high satisfaction scores from their patients and shows significant improvement in patient self-care. One illustration appears in the graph below showing recent results for AspenPointe TeleCare diabetes patients. Similar illustrations are available for overall health, asthma and depression. Testimonies from patients show the high level of care and positive results as perceived by the patients:[11]

"She (Care Manager) was right there next to me, coaching me through everything and offering me encouragement."

"I learned that even if you are depressed or dealing with chronic illness, you can go on and lead a productive life. I miss talking to (my Care Manager), but am extremely grateful I no longer need her."

"I knew I needed to do something and now I've done something. The hardest part was getting started."

"I'm very impressed with the service I've received. I feel good when I talk to (my Care Manager). It's very beneficial to someone like me who slips off the track. (Care Manager) reinforces what I am supposed to be doing and gets me back on track - She is very supportive."

"I really like talking with you. Answering these questions helps me know what to do about my depression. You help me think through things."

"I had to call and let you know, I feel as though you have done so much for me, I truly believe that without your encouragement, knowledge, and belief in me I may not have been able to make it; and for that I will be forever grateful."

[11] Pictures shown are stock photos and are not of the people who made the comments. They are included for illustration only

"I think this is great. You've helped me to be able to talk with my doctor. My doctor treats me better since I've been working with you"

One client's nurse practitioner commented regarding the telecare service:
"This is such a wonderful program. We would not have known of any such problems if you would not have formed a contact with her (the client). I greatly appreciate this and thank you many times! I thank you for informing us of the complications with her ability to obtain her medications. This proves that we can provide a more holistic approach with our treatment. I will definitely encourage more referrals so patients do not fall through the cracks".

Improvements in Managing Type II Diabetes after 1 year involvement in program

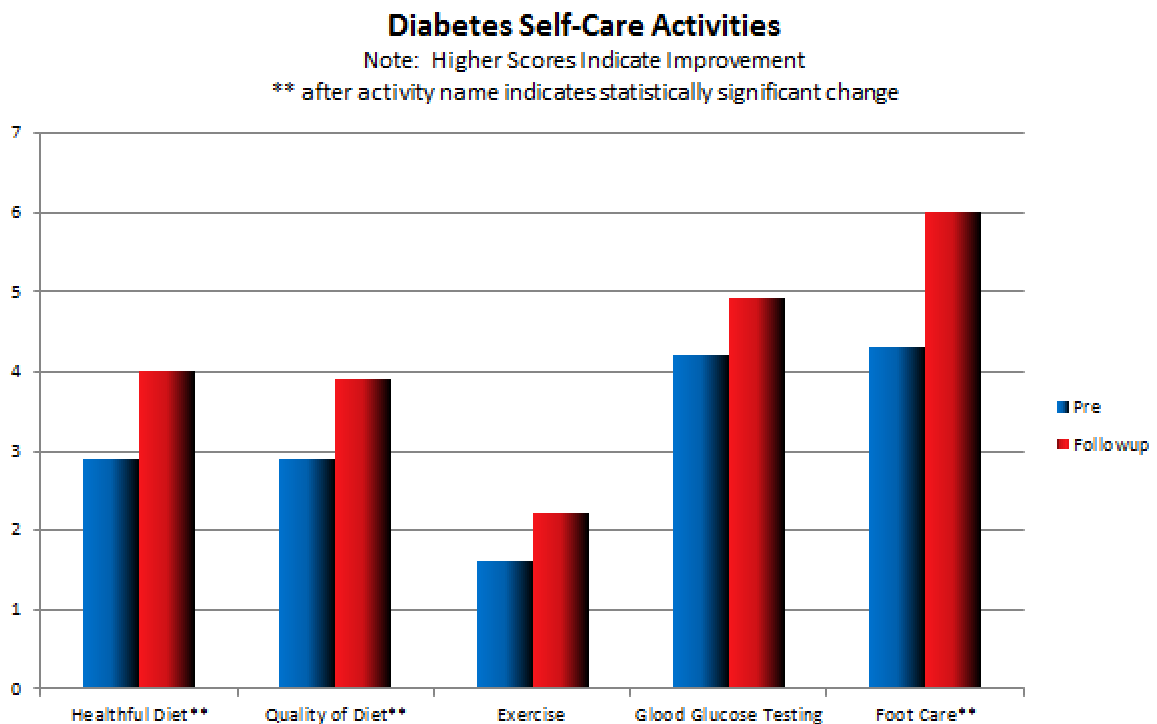
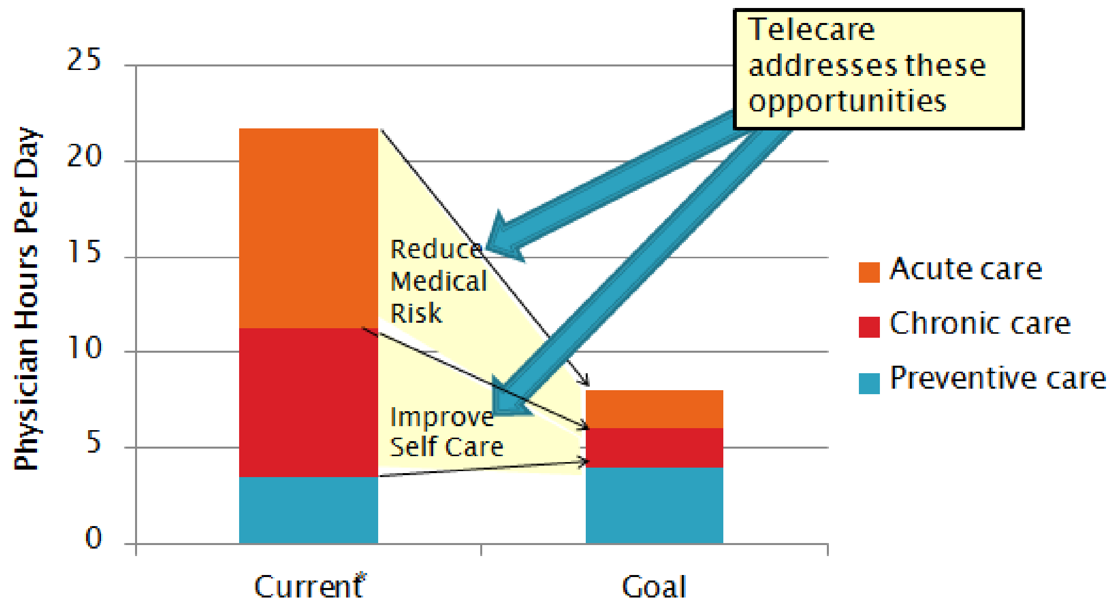


Figure 1. AspenPointe TeleCare improves patient self-management after 1 year of care, as shown by these data on 40 of their patients with Diabetes Type II.

Why don't providers deliver care management themselves?

Currently, due to revenue requirements and patient demand for care, provider practices require that each provider must see a large number of patients (usually 20-30) each day. The 10-15 minutes allotted to each patient leaves little room for care management activities. Caring for

people with chronic disease takes more time and effort than caring for other patients.[12] A 2009 study estimated that a family medicine physician with a typical patient panel size of 2500 people would need 21.7 hours a day to deliver evidence based care and currently devotes an estimated 38% of his/her time to care of people with chronic disease, 48% to people with acute conditions and only 13% to preventative care.[13] Even with new outcomes-based reimbursement models, providers are not compensated highly enough to enable physicians to spend more time with chronic disease patients.[14] Telecare improves patient understanding of and compliance with treatments, keeping patients healthier and efficiently relieving a significant portion of the time that primary care providers spend on acute and chronic care, and affording those providers more time for preventive care. The figure below illustrates this ideal goal for telecare.



As an example, under the CMS Coordinated Primary Care Initiative a provider can receive between $2 and $40 per qualified patient per month, totaling a maximum of $480 per patient per year. If a 15 minute visit typically costs $100[15], the $480 would cover less than five extra visits per year.

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[12] As evidence, "33% of Canadians with one or more of seven chronic conditions account for approximately 51% of family physician/general practitioner consultations, 55% of specialist consultations, 66% of nursing consultations and 72% of nights spent in a hospital," according to Broemeling, A., Diane E. Watson, Farrah Prebtani (2008). Population Patterns of Chronic Health Conditions, Co-morbidity and Healthcare Use in Canada: Implications for Policy and Practice. Healthcare Quarterly, 11(3) 2008: 70-76

[13] Yarnall KSH, Østbye T, Krause KM, Pollak KI, Gradison M, Michener JL. Family physicians as team leaders: "time" to share the care. Prev Chronic Dis 2009;6(2):A59. http://www.cdc.gov/pcd/issues/2009/apr/08_0023.htm. Accessed 1/5/13.

[14] Series of informal discussions and interviews with Colorado Springs Health Partners, PeakView, UC Denver Anschutz Dept. of Family Medicine and physicians from Denver Health during the summer and fall of 2012.

[15] Article in Fierce Health Care, "Study: Primary care costs, reimbursement low", April 25, 2007, http://www.fiercehealthcare.com/story/studyprimary-care-costs-reimbursement-low/2007-04-26#ixzz2C96ikaTq, accessed 11/13/12

Alternatively a half-time telecare nurse can manage a patient panel of about 100 people per year at an average cost of $35,000 per year,[16] or about $350 per patient per year. Contact frequency between the telecare nurse and the patient depends on patient needs, however, typically the telecare nurse will endeavor weekly calls with each patient, increasing the amount of care given to the patients as well as the odds that higher quality care management will be administered. Given that some portion of the people counted in the reimbursement will not require care management, the odds of achieving sustainability are high with the telecare nurse.

Ultimately the telecare nurse will increase provider availability to serve more people by reducing the adverse events that the provider must attend for their patients and by taking on tasks that don't require the medical skills of the provider. In addition to patient education of their chronic condition self-management requirements, telecare nurses prepare their patients for their doctor visits. This practice has been shown to increase the efficiency of provider visits. . Finally, by holistically managing information on each patient, telecare nurses can relieve the time the provider team wastes on locating specific information on a patient. Finally, by integrating the telecare patient information into the shared electronic health record, providers will save time trying to determine what care has been administered either through patient self care or by another provider. Though there may be significant provider cost to implement initial workflow changes that accommodate the telecare nurse, over time those costs will dissipate. At maturity, most likely within a year from initiation, costs per patient should decline below pre-program levels. Furthermore the ability to see more patients also increases the revenues for the participating providers.

Improving the current model of telecare services

The Telecare4Colorado implements four improvements in AspenPointe Telecare's successful formula for delivering integrated care:

- Change health care workflows for the primary care team and telecare nurse to encourage more, richer interaction between primary care team and telecare nurse. The initial mechanisms for this interaction will be the addition of a secure video conferencing and screen sharing tool for regular and ad hoc communication between the team members with the telecare nurse. The addition of video conferencing for inter-team communication has proven effective in similar circumstances.[17]
- Align telecare protocols with current clinical workflows. Enhance PCP staff by using the telecare nurse to serve as a liaison between all of the providers caring for the patient. This new role for the telecare nurse will offer particular value for rural primary care teams who care for patients who receive care from larger hospitals outside the rural

[16] Interview with Robin Anderson of AspenPointe TeleCare on 10/10/12.

[17] Eric Pan, Caitlin Cusack, Julie Hook, Adam Vincent, David C. Kaelber, David W. Bates, and Blackford Middleton. Telemedicine and e-Health. June 2008, 14(5): 446-453. doi:10.1089/tmj.2008.0017. Provider-to-Provider Telehealth Technologies Could Save More than $4 Billion Annually: Study. *Hfm (Healthcare Financial Management)* [serial online]. December 2007;61(12):12. Available from: MasterFILE Premier, Ipswich, MA. Accessed January 21, 2013.

area (e.g. Colorado Springs, Pueblo and Denver)

- Collect metrics that will enable continuous improvement in care and outcomes. These metrics include patient and provider satisfaction and engagement with and adoption of telecare best practice and overall patient care.
- Create a business model for financial sustainability under new payment reform programs and policies by tracking operational and total costs and managing the telecare implementation to steward its finances within the budget allowed through normal reimbursements, added reimbursements for services delivered through telecare and supplemental payments awarded under new payment reform programs and pilots.

We will use the Normalization Process[18] developed and proven by a team lead by Carl May out of the United Kingdom to assure that the transitions to these new interventions in chronic care are implemented, embedded and integrated within the practices and communities involved in this pilot. This process uses qualitative approaches to ensure coherence, cognitive participation, collective action and reflexive monitoring for optimal adoption of telecare into the primary care provider workflow.

Education

To recruit participants in the Telecare4Colorado project and to provide a trained workforce for the expansion of telecare across Colorado, we will create an educational curriculum based on telecare and its implementation. Two types of training/education will be prepared: telecare participant education and telecare nurse training.

Telecare4Colorado will build two types of participant education on telecare and the pilot: one for patients and one for provider teams. This material will be created primarily for the pilot and can also be easily re-designed to be used by telecare service providers in expanding telecare across Colorado.

The UCCS Beth El School of Nursing, in partnership with AspenPointe TeleCare, will create a telecare nurse training program. A key goal of this effort is to be able to offer the program online to expand the reach of this educational offering.

Practice redesign to derive optimal value from telecare nurse addition to team

HealthTeamWorks will work with provider teams participating in the project to add telecare to their workflow. The generalized knowledge accumulated through these practice modification efforts will be offered as guidelines for future telecare adopters. A simplistic cartoon of how the practices may be transformed appears in the two diagrams below. In the first diagram (Post-encounter Patient Care, Current Process) follow up to a previous appointment occurs at the next appointment and requires time and effort from the primary care team. The second diagram illustrates how work might shift earlier in the cycle and be accomplished by the telecare nurse.

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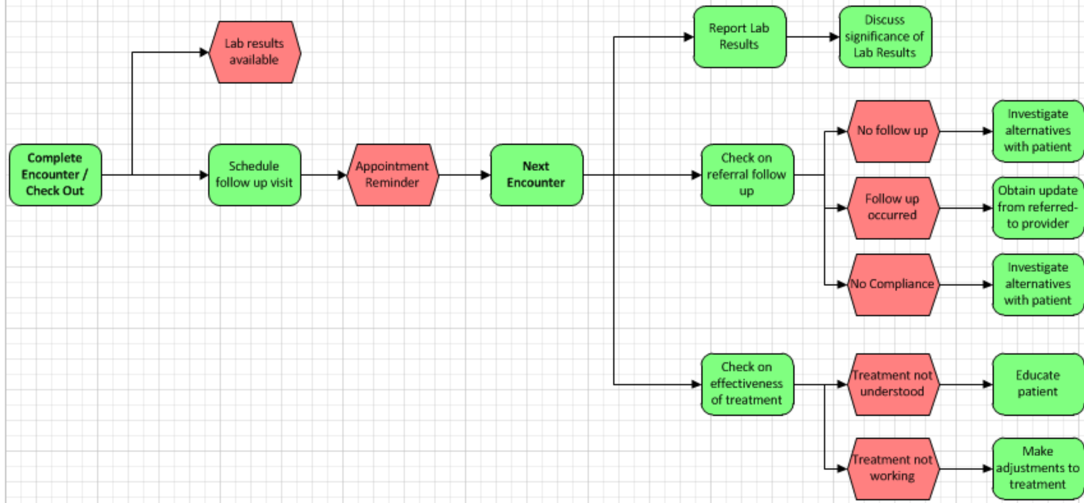
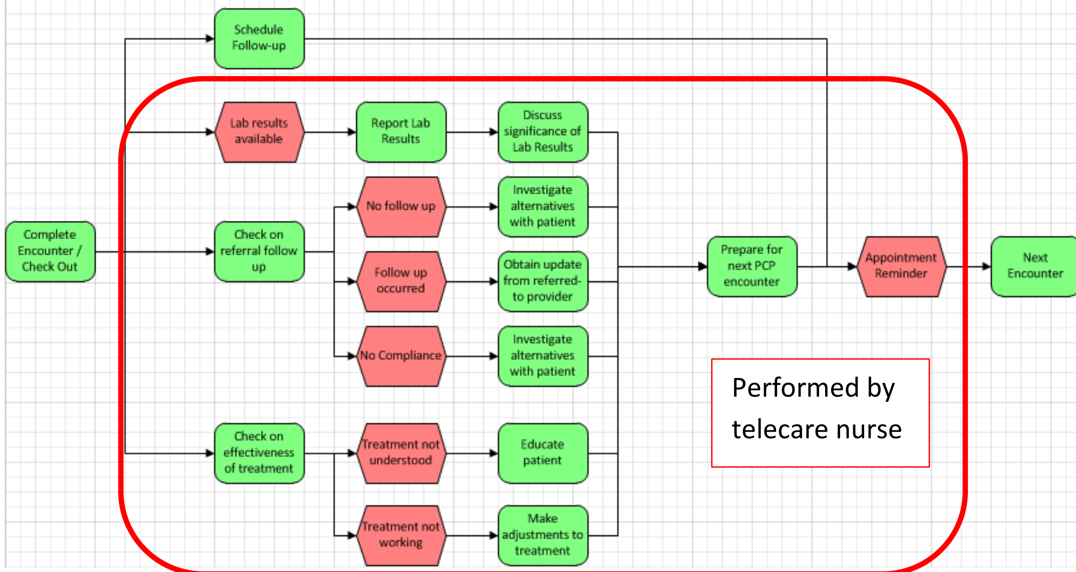
[18] May, Carl, et al. (2011). “Integrating telecare for crhonic disease management in the community: What needs to be done?” BMC Health Services Research, 11:131. Retrieved from http://www.biomecentral.com/1472-6963/11/131 on 2/8/2013.





Website / Virtual Center of Excellence for telecare

We will create a telecare website in the first quarter of project operation. The public side of the website is targeted for publication no later than the fall of 2013. A straw man version of the public site appears at www.telecare4colorado.org. A portal off of the website will be private, available to project stakeholders only. This private project website will be designed for operational support, transparent operations and project feedback/input. The website would be developed over time and include,

- annotated bibliography of references on telecare (public)
- a bi-weekly blog managed by the project managers (public)
- collaboration and communications tools for primary care provider teams (private)
- team, partners and key players contact information (private)
- project calendar and events information (public and private)
- project plans and artifacts (private)
- published project results and metrics (private initially, public as approved by team)
- vendor directory (public)
- related links (public)

Blueprint, and strategy recommendations for the State of Colorado

Interviews with key stakeholders will drive the design of project's telecare implementation blueprint. We will use the Service Experience Blueprint[19] methodology modified by the Functional Blueprint[20] methodology for the creation of the Colorado Telecare Blueprint. The Service Experience Blueprint Method involves three stages that are executed as an integral part of project implementation:

1. Assessment of the service experience for different service activities (gathered initially in the project initiation phase and updated with feedback as the project progresses)
2. Service design at the multi-interface level (completed toward the end of project initiation and updated according to lessons learned as the project progresses)
3. Service design at the concrete interface level (completed toward the end of project initiation and updated according to project priorities)

The Functional Blueprint adds a resilience component, taking into account the effect of stress on the various elements within the blueprint.

Based on project results and the blueprint deliverable, we will hold a strategic planning session with key stakeholders to generate a recommended 10-year strategic plan for telecare in Colorado. The strategic plan targets two audiences: TCHF and policy makers.

Practice Sustainability through Payment Reform

Telecare supports successful payment reform. The current health care system, largely based on fee-for-service reimbursement, strives to transition to new pay-for-performance reimbursement. Pay-for-performance reimbursement rewards providers for delivering evidence-based care and penalizes providers for instances of potentially avoidable complications, such as Emergency Department visits or hospital readmissions. Under pay-for-performance reimbursement models providers must deliver,

- **Integrated care** – providers must spend time coordinating with one another

[19] Patrício, L., et al (2008). "Designing Multi-interface Service Experiences," Journal of Service Research May 2008 vol. 10 no. 4 318-334.
[20] Beal, J. (2011). "Functional blueprints: an approach to modularity in grown systems," Swarm Intelligence 5:257–281.

- **Patient education** – providers are held responsible for teaching the patient about their disease/condition, parameters for decision-making and treatment regimen
- **Evidence-based care** – providers must spend time to know and deliver evidence-based care

However current fee-based models for care delivery do not reimburse for these elements of care.

For each of these new accountabilities providers or payers must engage additional resources. Payment reform programs (see the table below) based on cost savings from the improvement of care may not be able to cover the cost of delivering these elements of care. By introducing a low cost way of delivering these elements of care, telecare can enable payment reform rewards to not only pay for the additional services needed to earn them, but also leave some of the reward to reinvest in the provider's practice and the patient's community. Colorado Health Choices, a payer and partner in this project, will provide data and guidance to enable sustainable telecare program design. To support sustainability modeling, Colorado Health Choices will recruit providers and patients in Morgan and Rio Grande counties to the pilot and provide historical and current cost and claims data for those patients. Colorado Health Choices will also help us assess true cost and benefit of care considering all of the programs and parties that must be coordinated in our current health care payment reform environment.

Payment reform programs in Colorado.

PROMETHEUS	
This employer-lead payment reform that bases shared savings with providers on the reduction of potentially avoidable complications (PAC), which is a form of medical risk. The pilot of this reform is partially funded by funds from TCHF.	Additional information appears on www.hci3.org
Comprehensive Primary Care (CPC)	
This Medicare initiative provides per-patient funding to primary care providers so that they can improve care management of the portion of their patient panels that are covered over Medicare.	Additional information appears on http://www.innovations.cms.gov/initiatives/Comprehensive-Primary-Care-Initiative/index.html
Regional Coordinated Care Organization (RCCO)	
This Medicaid initiative provides funding and a framework for states to establish Accountable Care Organizations for patients covered by Medicaid. In Colorado we administer this program in seven separate regions called "RCCOs."	Additional information appears on http://www.colorado.gov/cs/Satellite/HCPF/HCPF/1251599759807
Emerging commercial insurer programs	
Programs from the major benefits companies provide shared savings to provider groups	

To meet these new reimbursement criteria, providers must manage the care of their patients in a more coordinated and effective manner than they had been under the traditional fee-for-service model. The telecare program can help providers meet the reimbursement criteria at a fraction of the reimbursed amount.

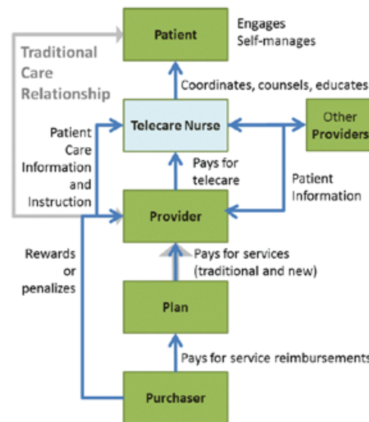


Illustration of how the sustainability model for telecare can work.

The illustration above shows how new payment reform models reward providers for practicing evidence-based medicine and achieving agreed-upon patient panel health outcomes. A portion of these rewards would be applied to engaging the telecare nurse in order to achieve the health outcomes required by the payment reform program.

Creating Support for Telecare Reimbursement Policies in Colorado

Effective care for patients with the highest cost care (e.g. chronic disease, transitional care) involves engaging patients and their caregivers in both behavioral/mental/substance abuse and physiological/medical care. TCHF has been working with legislators to pass laws that require reimbursement for integrated care services and published "The Colorado Blueprint for Promoting Integrated Care Sustainability" in May 2012 to lay the path for improved public policy in this area. With legislative support and ensuing commercial benefit plan changes, integrated care services delivered via telehealth technology, would be reimbursable.. The 2006 signing of Senate Bills 165 and 4 made telehealth services to the home reimbursable by Colorado Medicaid. Since then many benefit plans in Colorado have followed suit to reimburse for telehealth under special letter codes.

Most providers are unaware of the reimbursement opportunities. This telecare project and the associated promotional activities, will increase provider awareness of the telecare reimbursement opportunities and encourage their support for exploitation and expansion of those opportunities.

Closing the gap between rural and urban providers for patients needing advanced care

The value proposition of integrating telecare nurses to primary care teams has even greater advantages for rural health where the handoff between rural providers and urban specialists, hospitals and clinics is a big source of quality waste[21]. For instance, many folks in rural areas go to urban areas for care. According to Cindy Palmer, CEO of Colorado Choice Health Plans, as much as 50% of the health care dollars in the San Luis Valley go to providers in urban areas. A critical value proposition for introducing telecare nurses into rural areas, is to get information about the patient back to the local rural doctor. Telecare improves continuity of care by coordinating between all providers caring for a patient. This element of telecare services drives significant potential for health care cost savings and healthier populations.

The Future of Telecare4Colorado

The evolution of telecare over the next five to ten years is headed toward encompassing more telehealth capability to remote patients. Through telecare, nurses engage as part of the primary care team, supporting patients and their providers, no matter where they are located.

Telehealth has revolutionized health care by expanding access to care, providing more communication between patients and providers, and increasing collaboration between health care providers. It already plays a large role in our medical system, and will continue to expand as a tool to improve our health care system. Our current generation is faced with the ever-increasing challenge of conserving resources, creating a sustainable health care model, and providing cost effective care, and telehealth is a viable option to help overcome this challenge. [ii]

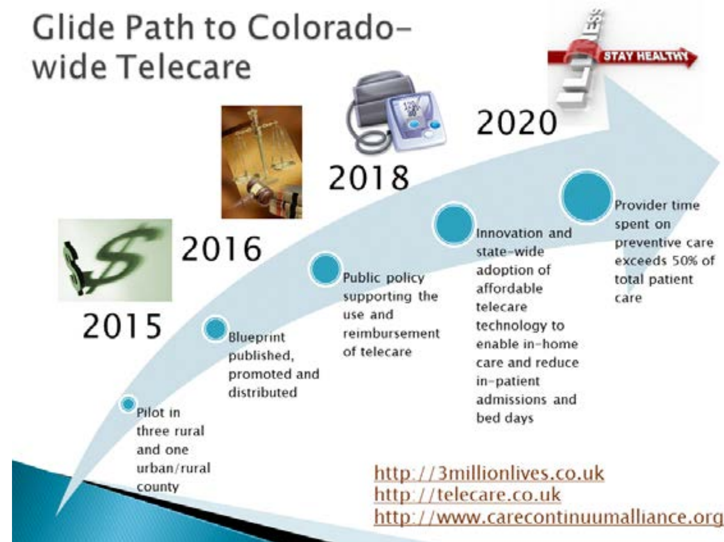
In some fields, such as teleradiology, the adoption of telehealth has become almost universal. Teleradiology has been demonstrated to be acceptable in diagnostic accuracy, cost effective, advantageous for patients in terms of time, reimbursable, and easily merged to allow shared data workflow. [iii] For emergency management of acute ischemic stroke, the implementation of telestroke care has allowed rural residents significantly earlier access stroke experts.[iv] Behavioral health diagnoses and interventions in pediatric psychiatry have been demonstrated telecommunication offers several advantages over face-to-face communication. [v] Many other programs in teledermatology, home telehealth and remote monitoring of diabetes, medical consultation, pulmonary and cardiac disease have been successful, but their adoption is generally limited beyond the research trials. [vi]Coordination of these types of remote care services for the primary care team is a potential future role for the telecare nurse.

Reviews of the progress in the field show the need for telehealth implementations to demonstrate clinical improvement and cost-effectiveness shown through research. These demonstrations would include larger telehealth implementations, with an increasing focus on patient perspectives, collaboration, and economic analysis. [vii]

Our long term vision, beyond the pilot, appears in the diagram below. We hope to sustainably

[21] Quality waste is a term used in Six Sigma Lean methods. It indicates the waste caused in the system by lack of quality in processes and outcomes.

grow the telecare program through a center of excellence that we would establish both online and as a non-profit entity. The three web sites in the diagram below represent links to information on organizations that support the glide path. The 3 million lives, Care Continuum Alliance and telecare.uk.co web sites contain supporting evidence for the effectiveness of telecare. The glide path envisioned builds on the results of the pilot to realize the goal of shifting primary care provider time from acute and chronic restorative care to preventative care, especially for currently underserved populations.



Are you using a strategy that has been proven effective by research?

Care management offers a proven approach for managing disease. The Continuity of Care Association (CCA) has established best practice based on seminal work started in the late 1900's by Wagner. CCA also offers certification for evidence-based care management, the CCP. All of our telecare nurses will be CCA certified.

As explained in the narrative, telecare delivery of care management, including the addition of video conferencing and sharing information through the electronic medical record and health information exchange, has been proven by the Veteran's Administration hospital, and a number of research studies.

Describe the populations served by the proposed work. How many people are expected to benefit from the activities?

To be able to illustrate a sustainable program that will achieve our targeted TCHF goals, the Telecare4Colorado pilot will be implemented in Colorado communities with

- Provider shortages, especially for Medicare, Medicaid and uninsured or underinsured people
- Large amounts or large impact of transitions of care
- Payment reform programs being implemented or piloted

The Telecare4Colorado pilot itself will benefit twenty physicians and at least 200 patients spread across four counties in Colorado.

- 10 provider teams, at least 100 patients in El Paso County (urban/rural)
- 4 provider teams, at least 40 patients in Rio Grande County (rural)
- 3 provider teams, at least 30 patients in Morgan County (rural)
- 3 provider teams, at least 30 patients in Logan County (rural)

Those providers' communities will benefit from the additional capacity the providers will gain to provide evidence-based care to the community. Ultimately the entire state of Colorado will benefit from the telecare virtual center of excellence website, the blueprint for telecare and the recommended telecare strategy delivered by this project.

Initial selection criteria for providers and patients are listed below. In the initial stages of the pilot, we will work with each of our four communities to identify additional selection criteria that would help drive more meaningful results from the pilot.

Telecare4Colorado Participant Selection Criteria

Inclusion criteria for providers are:

- Primary care provider for adults
- Operates an EMR and is willing to share patient information with the telecare nurse and with other providers caring for each patient in the project

Inclusion criteria for patients are:

- Diagnosed with one or more of the following chronic conditions (currently the diseases that AspenPointe TeleCare addresses)
  - Chronic pain
  - Depression
  - Type II Diabetes
  - Asthma
  - Heart disease
- At least 25% of the patients in the pilot must be either eligible for supplementary payment on the State Health Insurance Exchange under the Affordable Care Act, or on Medicaid

Generalizing results to cover the entirety of the State's adult population

Addressing chronic disease, in the pilot project areas listed above, offers to target an expensive area within Colorado's health care system. Chronic disease management is more challenging than acute or terminal disease since it involves making long-term behavioral changes. However, the telecare protocols for chronic, acute and terminal disease rely on the same principles of behavior change, which are accommodating individual preferences and constraints. Similarly, the chronic care telecare protocol could easily extend to preventive care, since preventive care

largely involves people with fewer challenges making long term behavior changes. The healthcare industry has little published information on the expected outcomes of telecare interventions for children (under 18 years of age). Implementing telecare for children could be a follow-on project after more is known about these types of interventions for children.

What are the risks of the proposed work?

Risk Description	Probability	Impact	Management Approach
Providers don't take the time and effort to fully participate	Medium	High	--Engage providers to drive program/process design. Encourage competition between providers --Regular communication with providers and patients
Not enough patients fully engage	Medium	High	--Telecare nurses will closely monitor patient engagement and work with patients to keep them engaged. --There are enough patients with the target conditions in each practice to allow for recruitment of replacement subjects, if necessary.
Security risk of sharing the EMR with telecare nurses	Low	High	--Maintain and monitor audit trails Require telecare nurses to sign employee security agreement --Create and maintain a written set of security policies and procedures; require nurses to know that set of policies and procedures
Expenses underestimated (especially health information IT expenses)	Medium	Medium	We will use freeware wherever possible and look for partners to provide any software capabilities beyond that for which we have already budgeted.
Data governance (esp. with respect to obtaining data for Medicaid patients)	High	High	--Work closely with CIVHC, the RCCOs, Medicaid and Colorado Health Care Policy and Financing to obtain required data
Data security	Low	High	--Ensure robust data policies, procedures and infrastructure --Conduct an annual data security audit in the January timeframe
Generalizability of results	Low	Medium	--Quarterly review and innovation sessions to continuously work on generalizability throughout the project
Payment reform unable to provide sustainability	Low	Medium	--Create additional options for covering costs long-term

Risk Description	Probability	Impact	Management Approach
Engaging a full cross-section of patient types to represent total community population of people with chronic disease	Medium	Medium	--Work with providers to engage a larger number of people than needed to increase the chances that the pilot will include a representative sample
Participant drop out due to uncontrollable circumstances (death, relocation, etc.)	High	Low	Recruit at least 250 people to the project initially
Ability to create a useful and adopted blueprint	Low	High	Formulate and review with state-wide stakeholders on at least a quarterly basis

Intermediate milestones:

What are the major milestones that you plan to reach throughout the course of your grant? *Milestones might include "products" or "deliverables" that will help you achieve your final result*s.

- Project kickoff in June 2013

Major Milestone: initial project plan presented to TCHF in June 2013

- Educate potential participants about telecare and the project (June-August 2013
- Gather requirements for telecare implementation from potential participants (June-September 2013)
- Initial telecare nurse training ready to deliver in August 2013
- Information infrastructure and processes, including workflow tools, EMR and eReferral system use, initially established in August 2013

Major Milestone: Finalize informed consent and participant agreements with 20 providers and 10-15 patients from each of their practices (Complete in September 2013)

- Baseline data on patients and practices collected in Q4 CY 2013
- Collaborative initial design on practice workflow realignment September-October 2013
- Initial practice workflow realignment design complete in October 2013

Major Milestone: Telecare protocols begin with participating patients in October 2013

- Coherence with each individual participant (make sure it makes sense to each participant), making any needed adjustments to initial design in November 2013

Major Milestone: Year-end report on project initiation stage to TCHF in December 2013

- Begin promoting and informing the rest of Colorado on the project through the publication of Telecare4Colorado.org public site, no later than Jan 1, 2014
- Cognitive participation within each practice (engage each participating practice to fully integrate and commit to alignment changes in their workflow) in the second half of 2014

Major Milestone: Mid-year report to TCHF on first six months of telecare implementation in June 2014

- Collective action to operationalize workflow alignment changes completed for all participating practices in Q3 2014
- Initial outcomes metrics report in December 2014

Major milestone: Year-end report to TCHF in December 2014, including initial outcomes metrics report review and project completion plan review

- Blueprint draft formal review begins – March 2015
- Strategic planning session – April 2015
- Blueprint and strategic plan completion – June 2015

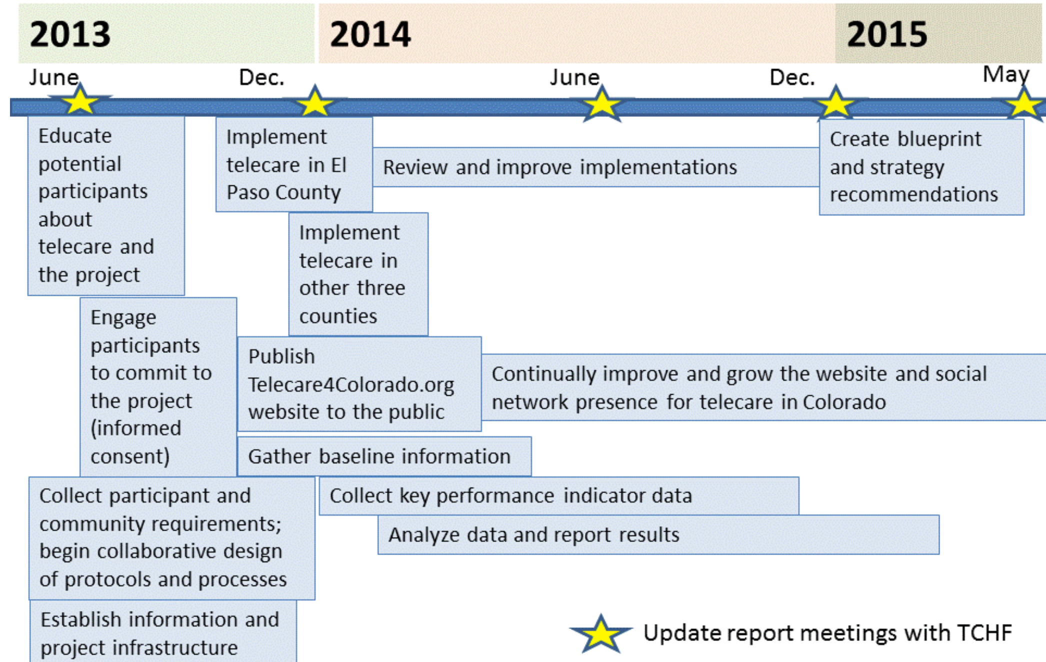
Major milestone: Project final report, Telecare4Colorado Blueprint delivery and recommended strategy review in June 2015

What evidence will you have to show that the activities took place as described and that the milestones were reached?

As listed above, TCHF will receive a project report at project kickoff and thereafter every six months of the project.

Project progress information, interim deliverables and an events calendar containing milestones, reports and meetings will be posted regularly (and when possible in real time) to a "participants only" portion of Telecare4Colorado.org.

What is the timeline for the work and what are the expected milestones that will ultimately lead to your desired results?



Verbal and written reports on progress and results will be provided every 6 months.

Project progress information and an events calendar for milestones, reports and meetings will be posted regularly to a "participants only" portion of Telecare4Colorado.org.

Method for tracking and calculating your measurable result(s)

What do you expect to be the ultimate result(s) of your grant activities

State in terms of a numerical increase in Coloradans receiving Health Coverage or Health Care, or practicing Healthy Living. Note: the results might not be fully realized until after the duration of your grant, but please give your best estimate of the potential impact.

Ultimately the project should motivate at least 50% of Colorado's 4400 primary health care providers to use telecare nurses as a part of their care delivery team. If each of these providers cares for a conservative average size patient panel of 1000 people, roughly 2M people would benefit. This health care practice intervention serves the needs of health care reform in Colorado while improving health care outcomes at an affordable cost.

To further illustrate the value we intend Telecare4Colorado to ultimately deliver, if 50% of the physicians in Colorado adopt telecare, there would be a savings of about 200 hours per year (10% of a patient panel of 2000 people seeing the provider for one 15-minute appointment per

quarter) at a conservative average cost of $100/hour, the total cost for those 6500 physicians would be $130M. With the telecare nurse managing these patients, there could be a net cost savings of $129M. (The cost of telecare is estimated as follows: [200 patients / (100 patients per telecare nurse)] *$35,000 telecare nurse cost/year.)

The time and dollars that the provider would save could be redeployed to preventive care or passed on as a cost reduction to the health care purchasers.

Another illustration: An estimated 6% of the people in the state of Colorado have diabetes (about 300,000 people). If, on average, telecare could reduce Emergency Department (ED) visits for 20% of those people by one visit per year, and an average ED visit costs $1300, the potential cost savings would be $78M.

How will you know that your work is successful?
(measures that will indicate that your intended results were achieved.)

See table in next section.

What is the link between the grant activities and the Foundation's measurable result(s) listed above?

(Note in the table below that "healthcare scorecard" is an abbreviation for the combination of health and health care delivery summaries that providers currently assemble for reimbursement programs and other purposes, combined with disease specific outcomes assessment performed as a part of normal AspenPointe TeleCare protocols.)

Outcome 1: Increase the number of underserved Coloradans who receive integrated care

The pilot will serve 200-300 patients and at least 20% will be underserved Coloradans. Expansion of telecare across Colorado targets at least 50% of Colorado underserved with chronic disease in 5 years following the completion of the pilot.

Activities	Responsible Person(s) or Position(s)	Outcomes	Examples of Data for Evaluation
Deliver telecare to the patients participating in the El Paso County portion of the pilot	Robin Anderson Lynne VanArsdale Dr. Dennis Schneider	Pilot treats at least 20 underserved patients, demonstrating advantages of telecare	Participant satisfaction; cost of care; healthcare scorecards; workflow metrics
Deliver telecare to the patients participating in the San Luis Valley portion of the pilot	Robin Anderson Lynne VanArsdale Taisa Priester Arlene Harms	Pilot treats at least 10 underserved patients, demonstrating advantages of telecare	Participant satisfaction; cost of care; healthcare scorecards; workflow metrics
Deliver telecare to the patients participating in the High Plains Research network	Robin Anderson Lynne VanArsdale Dr. Jack Westfall Dr. Marc Ringel Linda Zittleman	Pilot treats at least 20 underserved patients, demonstrating advantages of telecare	Participant satisfaction; cost of care; healthcare scorecards; workflow metrics
Create the blueprint and recommended strategy that will support expansion of telecare across Colorado	Robin Anderson Lynne VanArsdale Jillian Abramson	Pre-release distribution of the blueprint is reviewed by the local medical societies in Colorado and at least 100 providers and receives positive feedback from them	Pre-release reviews

Outcome 2: Increase the number of health professionals who serve underserved Coloradans

Create a certificate-level training program that will keep mature nurses in the workforce longer.

Activities	Responsible Person(s) or Position(s)	Outcomes	Examples of Data for Evaluation
Hire three telecare nurses specifically for this project	Robin Anderson Brandi Haws	Three people hired and onboarded	Hiring updates posted on Telecare4Colorado website
Create and deliver certification program for telecare nurses	Dr. Nancy Smith Robin Anderson Brandi Haws	Curriculum and materials for the class (preferred online) At least three people successfully complete the class, with at least one knowledgeable, in-depth, of the cultures in each of the target communities.	Enrollment reports Training progress reports

Outcome 3: Increase the number of patients who receive evidence-based care for chronic disease The pilot will serve at least 200 Coloradans, laying the groundwork for expansion to target adoption by at least half of the practices in Colorado.			
Activities	**Responsible Person(s) or Position(s)**	**Outcomes**	**Examples of Data for Evaluation**
Deliver telecare to the patients participating in the El Paso County portion of the pilot	Robin Anderson Lynne VanArsdale Dr. Dennis Schneider	At least 100 patients treated	Number of enrollees and participants
Deliver telecare to the patients participating in the San Luis Valley portion of the pilot	Robin Anderson Lynne VanArsdale Taisa Priester Arlene Harms	At least 40 patients treated	Number of enrollees and participants
Deliver telecare to the patients participating in the High Plains Research network	Robin Anderson Lynne VanArsdale Dr. Jack Westfall Dr. Marc Ringel Linda Zittleman	At least 60 patients treated	Number of enrollees and participants
Surveys on Telecare4Colorado website, Facebook and LinkedIn investigating number of practices intending to implement telecare	Lynne VanArsdale	Colorado Medical Society promotes surveys; at least 300 participants and half intending to implement	Results of surveys

Outcome 4: Increase the number of Coloradans educated on chronic disease management			
Activities	**Responsible Person(s) or Position(s)**	**Outcomes**	**Examples of Data for Evaluation**
Maintain compelling material on the Telecare4Colorado website. Promote that material to Coloradans	Lynne VanArsdale Taisa Priester Robin Anderson	100,000/yr. unique visitors to the Telecare4Colorado website; 100,000 Facebook likes	Web analytics
Educate potential project participants about telecare best practice to support self management of chronic disease	Robin Anderson Brandi Haws Nancy Smith	At least 20 provider teams and 300 patients educated	Number of people participating in the telecare recruiting sessions
Publish and promote the Telecare4Colorado blueprint	Lynne VanArsdale Nancy Smith	TCHF publishes blueprint report. Telecare4Colorado promotes that report. At least 1000 downloads	Web analytics on downloads, facebook likes and tweets

Data Managers: Robin Anderson (AspenPointe Telecare) and Lynne VanArsdale (UC Denver, CBGH) will be jointly responsible for managing the data for this project.

Storage and tracking of program data: We will create a HIPAA-compliant repository for our program data within the AspenPointe TeleCare information infrastructure. We will organize and track content in and out of the repository using content management and database systems already in place at AspenPointe. We will leverage business continuity capabilities of AspenPointe TeleCare to minimize risk of data security breach, loss, lack of access or corruption.

Collecting program data: We will work with our provider team liaisons and our telecare nurses to collect demographic data as well as the clinical data needed to show the impact of telehealth on quality of care, outcomes results and population health effects. AspenPointe TeleCare nurses

collect most of the data required for this program as a part of our longstanding standard protocol. HealthTeamWorks, Lynne VanArsdale, and Adam Atherly (UC Denver School of Public Health) will collect financial, stakeholder satisfaction and workflow data needed to characterize the effect of telecare on provider team efficiency. Nancy Smith (UCCS Beth El School of Nursing) will collect data on interest in, satisfaction with and enrollment/completion of the telecare nurse education programs.

Reporting the data:

AspenPointe TeleCare will provide privacy-sensitive project data to TCHF in encrypted files. Those files will be transferred to TCHF by a secure data transfer process according to TCHF requirements and preferences. As approved by TCHF, aggregated results and reports/data that are not privacy restricted will be made available on the Telecare4Colorado web site.

How will you use the information to improve or refine your organization, program or strategies?

Protocols and relationships developed through this pilot will enable AspenPointe TeleCare to expand its outreach as a non-profit to more of Colorado. Specific new interventions made available to AspenPointe TeleCare through this pilot include the use of video and screen sharing, the use of eReferral to execute and track referrals, and the use of the EMR to integrate effectively with the primary care team. This pilot will enable better protocols for integration between telecare nurses and the primary care team, which will be adapted to become standard practice for AspenPointe TeleCare.

How will you let others know about the results and what you've learned?

Telecare4Colorado.org will serve as a virtual center of excellence for telecare in Colorado, publishing the non-private data, analysis and deliverables resulting from this project, as well as other telecare resources. The project manager will promote the telecare center of excellence, such as by engaging free advertising on related web properties and establishing a presence within key social networking circles such as LinkedIn, Facebook and Twitter.

The Telecare Education Program that this project will initiate at UCCS will be promoted to current and prospective nursing students, as well as the nursing community in general. UCCS will work with other local community colleges and universities to offer the class online.

We will provide reports on the project to TCHF. That material would be written in a way that TCHF could republish the results.

Our partner organizations will provide outreach to their peers and communities to speak at local gatherings and events on the results of the project.

We will work with Colorado medical societies (state and local) to promote telecare and to obtain feedback and suggestions on the Telecare4Colorado program.

HealthTeamWorks will educate their clients on telecare best practice, as it is relevant to the

value they provide in their engagements.

Telecare4Colorado will establish a presence in the South Denver Tech Center Innovation Pavilion to encourage collaboration with inventors, innovators and entrepreneurs and associated organizations.

Lynne VanArsdale will publish her thesis and scholarly papers on results of the Telecare4Colorado program. Her dissertation committee will also be involved in the project in an advisory role. Lynne will present innovative and significant results of the project at professional and academic organization meetings, as well as a guest lecturer for relevant academic classes and seminars. We will seek out opportunities to recruit additional students to work on Telecare4Colorado projects and tasks.

Organization information

Your organization's mission statement and a brief history.

AspenPointe traces its roots to 1875. It evolved from two primary organizations-- Family Counseling Center of Colorado Springs and Pikes Peak Mental Health Clinic--which merged in 1970. Today, AspenPointe is made up of 12 organizations serving more than 30,000 individuals and families each year through services in mental health, substance abuse, employment and career development, education, housing, jail diversion, telephonic disease management, and provider network service. AspenPointe Health Network, the grant applicant, was established as part of this group and began offering provider network services in 1997, and telephonic disease management services were added through TeleCare, a subsidiary of Health Network, in 2005.

Vision Statement

A community that embraces everyone's sense of purpose by eliminating barriers and promoting a culture of well-being.

Mission Statement

Empowering clients. Enriching lives. Embracing purpose.

Organizational Value Statements

Service

Strive to exceed the expectations of our clients, customers, stakeholders and each other through upholding our standards of customer service.

Integrity

Demonstrate honesty, trust, respect and ethical behavior at all times.

Excellence

Strive for excellence in all that we do.

Fiscal Stewardship

Act at all times with a high sense of financial responsibility and commitment to developing funding sources to drive the mission.

Collaboration

Drive collaboration that is in the best interests of the organization and individuals we serve.

Wellness

Encourage behaviors that promote a healthy lifestyle.

Brief overview of your organization's current programs and activities

AspenPointe Health Network manages public funds that allow individuals in need to receive mental health and substance abuse services from appropriate service providers. Health Network oversees grants and contracts for behavioral healthcare from city, county, state, and federal agencies. The organization works with a large number of service providers in Colorado, particularly in the Pikes Peak region. It currently manages contracts for public human service agencies. In addition, the organization has been the recipient of and coordinated several federal grants benefiting youth and families in the Pikes Peak region.

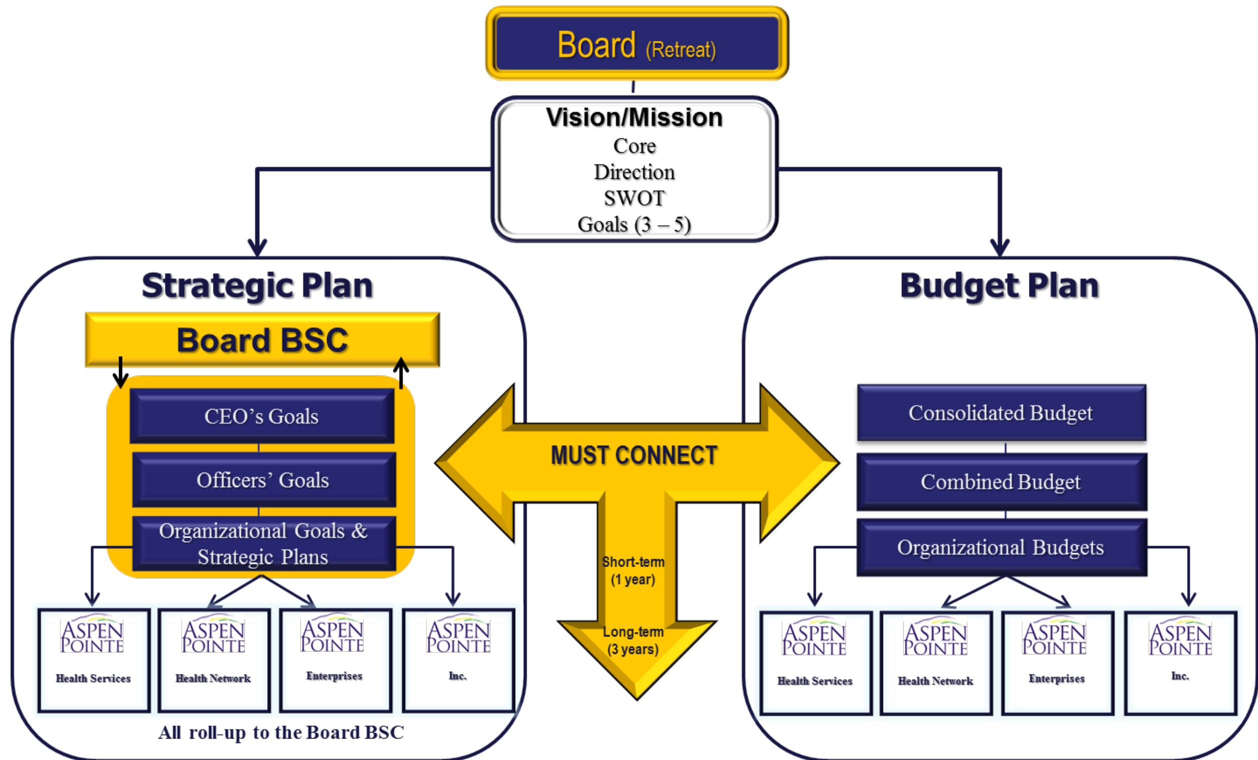
AspenPointe TeleCare, introduced in 2005, is a non-profit subsidiary of AspenPointe Health Network. TeleCare provides research-based telephonic disease management services. These services help adults with chronic disease better manage their health conditions, with the goal of improving health while concurrently reducing healthcare costs and time away from work, family, and community participation. As of December 7, 2012, AspenPointe TeleCare has provided disease management services for approximately 1000 covered lives.

A description of your Board's role in fundraising, governance and strategic planning.

The AspenPointe Board of Directors, made up of community leaders with diverse skills and backgrounds, has nine regularly scheduled meetings annually. The responsibilities of the Board include establishing policy, hiring and oversight of the President/CEO, financial monitoring, and developing and overseeing strategic plans and programs. A subcommittee of the Board provides leadership for and monitors organizational fundraising

ASPEN POINTE

Strategic Planning & Budgeting Process



Staff operationalizes & coordinates all plans

AspenPointe, Inc. engages in annual strategic planning led by the Board and organizational leaders, with valued contributions by staff members and clients. This multi-month, structured process includes review and, if needed, update of mission, vision, and goals; a SWOT analysis; and many layers of analysis, discussion, and plan development. A balanced scorecard is used to monitor achievement of annual strategic plan objectives.

A description of your key partners.

Key contracts for TeleCare Disease Management have included the City of Colorado Springs, CO; El Paso County, CO, Managed Service Organization (MSO), Access to Recovery (ATR), Colorado Health Partnerships/Colorado Medicaid Contract; Mountain View Medical Group, CO; PacificSource Health Plans, OR; AspenPointe Health Services, CO., Caring for Colorado Foundation, SAMHSA Integrated Care Program Grant.

The following letters of support for this project come from our prospective project partners.

University of Colorado Denver
Dept. of Family Medicine
Mail Stop F496
Academic Office 1
12631 E 17th Avenue
Aurora, CO 80045

Feb 5, 2012

Dear Ms. VanArsdale:

The High Plains Research Network (HPRN) is pleased to support the application *Telecare4Colorado* to The Colorado Health Foundation.

HPRN is a practice-based research network developed to include the rural experience in primary care research conducted in Colorado and beyond. HPRN aims to translate the best scientific evidence into every day practice in rural and frontier communities and health facilities in eastern Colorado. Founded in 1997, HPRN covers the 16 counties of eastern rural and frontier Colorado and consists of 55 primary care offices and 16 hospitals throughout the region. The medical community of the HPRN includes approximately 150 practitioners, most of whom are family physicians. HPRN has an extensive research portfolio covering a wide range of topics, including patient safety, heart attack triage and transport, hypertension management, underinsurance of patients, diabetes, colon cancer prevention, asthma, and health choices in children. We use a variety of research methods to collect qualitative and quantitative data.

HPRN understands the challenges facing health care in rural communities and strongly supports working with practices to implement innovative and evidence-based methods that help providers improve patient care and reduce costs. Based on our relationships with providers and practice staff and experience as a practicing physician in the region, we believe *Telecare4Colorado* offers an incredibly valuable opportunity to address and improve population health, patient satisfaction, and cost reduction.

As part of the proposed team, HPRN will help identify participating providers for this project, in concert with the Patient-Centered Medical Home program currently in progress in the northeast High Plains and support program implementation and evaluation.

We look forward to working on this relevant project.

Sincerely,

John M. Westfall, MD, MPH
Associate Dean for Rural Health
Professor
High Plains Research Network Director
University of Colorado School of Medicine
Department of Family Medicine
jack.westfall@ucdenver.edu

0310 County Rd. 14
Del Norte, Co. 81132
719-657-2510

February 12, 2013

Dear Ms. Williamson:

The Rio Grande Hospital and Clinics supports the Telecare4Colorado initiative. We believe that telecare has the potential to address challenges and opportunities we face in Colorado with respect to integrated care delivery, coordination of care, provider availability, patient and provider engagement, patient and provider satisfaction, health care affordability (individual and public funding), and improving health care quality and outcomes. The Telecare4Colorado project offers knowledge, information and support for Colorado to take best advantage of the benefits of telecare. We intend to support the Telecare4Colorado pilot as primary care team participants in the pilot. Four of our primary care teams plan to participate by integrating telecare nurses into our primary care practices, measure results and assist in providing content for the reports, blueprint and strategy recommendations. Our hope is to continue to work on this pilot project in collaboration with The Colorado Health Foundation mission to make Colorado the healthiest state in the nation.

Thank you for your consideration,

Arlene Harms
Chief Executive Office
Rio Grande Hospital and Clinics

February 2013

To the Colorado Health Foundation:

Colorado Springs Health Partners, PC supports the Telecare4Colorado initiative. We believe that telecare has the potential to address challenges and opportunities we face in Colorado with respect to integrated care delivery, coordination of care, provider availability, patient and provider engagement, patient and provider satisfaction, health care affordability (individual and public funding), and improving health care quality and outcomes. The Telecare4Colorado project offers knowledge, information and support for Colorado to take best advantage of the benefits of telecare. As a multi-specialty medical practice, we intend to support the Telecare4Colorado pilot in the role of medical provider, chronic care management best practice and assistance with analysis of the data provided by the project. Our hope is to continue to work on this pilot project in collaboration with The Colorado Health Foundation mission to make Colorado the healthiest state in the nation.

Thank you for your consideration,

Dennis Schneider, MD
Chief Medical Officer
Colorado Springs Health Partners, PC
2 South Cascade Avenue, Suite 140
Colorado Springs, CO 80903
719-538-2900

12640 West Cedar Drive, Suite A
Lakewood, CO 80228
phone 303-922-0939
fax 303-922-0938
e-mail info@cbghealth.org
http://www.coloradoHEALTHonline.org

Members:
Boards of Education Self-funded Trust
Boulder Valley School District
City of Colorado Springs
Colorado College
Colorado Public Employees' Retirement Association
Colorado Springs School District 11
Colorado Springs Utilities
Poudre School District
St. Vrain Valley School District
TIAA-CREF
University of Colorado

Affiliates:
AspenPointe
AstraZeneca
Boehringer Ingelheim
Centura Health
Colorado Foundation for Medical Care
Colorado Permanente Medical Group
Colorado Springs Health Partners, PC
Craig Hospital
Ethicon Endo-Surgery (part of Johnson & Johnson)
GlaxoSmithKline
integrated Physician Network (iPN)
Jefferson Center for Mental Health
Memorial Health System
Merck & Co., Inc.
New West Physicians, P.C.
Penrose-St. Francis Health Services
Pfizer, Inc.
Physician Health Partners
Rocky Mountain Cancer Centers
Sanofi US
The Denver Hospice

Associations:
Denver Metro Chamber of Commerce
Mountain States Employers Council
Rocky Mountain Healthcare Coalition
South Metro Denver Chamber of Commerce

February 8, 2013

Sue Williamson
The Colorado Health Foundation
One Cherry Center,
501 S. Cherry Street, Suite 1100
Denver, CO 802465

Dear Ms. Williamson:

I am pleased to submit this letter of support from the Colorado Business Group on Health to The Colorado Health Foundation for the submission of the Telehealth4Colorado proposal.

The Colorado Business Group on Health supports improvement of the care delivery systems, in general, and of this proposal specifically. Accelerating the pace of adoption of tools, new workflow opportunities, expansion and enhancement of team based care could really serve to improve the health of our communities. This proposal brings an opportunity to support known opportunities and innovations in primary care into the care delivery model. The project is exceptionally well thought through. I have direct experience in working with both Lynne VanArsdale and the team from AspenPointe and I know that they will approach this project with diligence and passion.

Formed in 1996, the non-profit Colorado Business Group on Health is an employer/purchaser lead coalition with the mission to advance the purchaser role in accelerating cost effective, high quality health care. We serve our members and the community by implementing employer sponsored initiatives within employer sites (such as wellness, and value based benefit design) and within the market (such as Health Matters Quality Reports, Bridges to Excellence, eValue8, and the Prometheus Bundled Payment Project).

Thank you for your consideration.

Sincerely,

Donna Marshall, MBA
Executive Director

Colorado Choice Health Plans
d/b/a San Luis Valley HMO

700 Main Street, Suite 100
Alamosa, CO 81101
719-589-3696
Fax: 719-589-4901
www.coloradochoicehp.com

Sue Williamson

The Colorado Health Foundation
501 S. Cherry St., Suite 1100
Denver, CO 80246-1325

February 11, 2013

Dear Ms. Williamson:

Colorado Choice Health Plans strongly supports the Telecare4Colorado initiative. We believe that telecare has the potential to address unique challenges around the delivery of integrated care in rural Colorado. This project offers opportunities to create an integrated care delivery model that should improve coordination of care, provider availability, patient and provider engagement, patient and provider satisfaction and health care affordability (individual and public funding) resulting in improvement in health care quality and outcomes.

The Telecare4Colorado project will bring a strong base of knowledge while supplying needed information and support for Colorado providers and communities in finding the best methods of utilizing the benefits of telecare. We intend to support the Telecare4Colorado project and participate by supplying data, as appropriate, for the population being served by the project. We will also offer guidance and feedback on how the Blue Print might be laid out from a health plan perspective. Our hope is to continue to work on this pilot project in collaboration with The Colorado Health Foundation mission to make Colorado the healthiest state in the nation.

Thank you for your consideration.

Cynthia Palmer

Cynthia Palmer
CEO

HealthTeamWorks
Building Systems. Empowering Excellence.

American Cancer Society
American College of Physicians
American Diabetes Association
American Heart Association/American Stroke Association
American Institute of Healthcare
American Lung Association of Colorado
Anthem Blue Cross and Blue Shield
Area Health Education Centers
Boulder Valley IPA
Care Solutions, Inc.
Center for Medicare and Medicaid Services
Centura
CIGNA
Coalition of the Medically Underserved
Colorado Academy of Family Physicians
Colorado Access
Colorado Association of Health Plans
Colorado Asthma Coalition
Colorado Business Group on Health
Colorado Chapter of the American Academy of Pediatrics
Colorado Chapter of the American College of Physicians
Colorado Children's Immunization Coalition
Colorado Choice Health Plans
Colorado Community Health Network
Colorado Community Managed Care Network
Colorado Department of Public Health and Environment
Colorado Association of Family Medicine Residencies
Colorado Foundation for Medical Care
Colorado Immunization Information System
Colorado Medical Society
Colorado Prevention Center
Colorado Rural Health Center
Colorado Society of Osteopathic Medicine
Colorado Section of the ACOG
Community Health Association of Mountain/Plains States
COPIC Insurance Company
Denver Health and Hospital Authority Managed Care
Department of Healthcare Policy and Finance
E. Colorado Health Care System (Denver VA Medical Center)
Enigami Systems, Inc.
Exempla Healthcare and Exempla Physicians
Goddard Associates
Great-West Healthcare
Haxtun Hospital District
HealthONE, LLC
HMS Colorado, Inc.
(Sloans Lake Preferred Health Networks & MMA)
Kaiser Permanente
Med South, IPA
Medical Group Management Association
Medica Leader
Memorial Hospital of Colorado Springs
New West Physicians
Physicians Health Partners
Red Rocks Community College – PA Program
Rocky Mountain Health Plans
South Denver Gastroenterology, P.C.
The Children's Hospital
United Healthcare of Colorado
University Physicians, Inc
University of Colorado Health Sciences Center

The Colorado Health Foundation
501 South Cherry Street, Suite 1100
Denver, CO 80246-1325

Dear Colorado Health Foundation:

HealthTeamWorks supports the Telecare4Colorado initiative. We believe that Telecare has the potential to address challenges and opportunities we face in Colorado with respect to integrated care delivery, coordination of care, provider availability, patient and provider engagement, patient and provider satisfaction, health care affordability (individual and public funding), and improving health care quality and outcomes.

The Telecare4Colorado project offers knowledge, information and support for Colorado to take best advantage of the benefits of Telecare. We intend to support the Telecare4Colorado pilot in the role of working with provider teams participating in the project to add Telecare to their workflow. Our hope is to continue to work on this pilot project in collaboration with The Colorado Health Foundation mission to make Colorado the healthiest state in the nation.

Thank you for your consideration,

Jillian Abramson, MBA
Account Manager
HealthTeamWorks

274 Union Blvd, Suite 310 | Lakewood, CO 80228 | w 303.446.7200 | f 303.934.6200 | HealthTeamWorks.org

A description of the qualifications and track record of the individuals who will be managing and performing the activities proposed.

Name	Organization	Expertise	Role
Robin Anderson, LPC, CCP	AspenPointe	Remote telecare Management	Disease Management Organization and Operations
Adam Atherly, PhD	UC Denver	Health Care Economics	Cost efficiency analysis and evaluation of participant economic motivations
Brandi Haws, LPC, CCP	AspenPointe	Remote telecare Management	Disease Management Organization and Operations
Cindy Palmer	Colorado Health Choices	Benefits and payment	Sustainability and involvement of TPAs and payers
Marc Ringel, MD	UC Denver	Telehealth, clinical operations, rural health, family medicine	Clinical practice; Telehealth and rural planning and operations
Lisa Schilling, MD, MSPH	UC Denver	Health IT and data	Clinical practice; data infrastructure for operations, monitoring and outcomes analysis
Taisa Priester	UC Denver SOM	Rural health	Data collection; strategic implementation; monitoring and outcomes analysis
Nancy Smith, PhD, APN-BC, FAANP	UC Colorado Springs	Nursing education	Telecare Co-op nurse and patient training/education
Lynne VanArsdale, MS, MBA, PMP, NPDP	Colorado Business Group on Health and UC Denver	Health IT, program/project management	Program manager; data collection and analysis (portions of this project will be Ms. VanArsdale's PhD dissertation project)
Jack Westfall, MD	UC Denver	Family and Rural Medicine, community engagement	Clinical practice; Community-based Participatory Research; Direct work with the High Plains Research Network
Linda Zittleman, MSPH	UC Denver	Family and Rural Medicine, community engagement	Community-based Participatory Research; Coordinate work with the High Plains Research Network

Robin Anderson, LPC, CCP

Ms. Anderson received a B.A. in Environmental Studies in 1995 and an M.A. in Counseling and Human Services in 1998 from the University of Colorado, Colorado Springs. She is a Licensed Professional Counselor and holds a certification as a Chronic Care Professional**.** She currently serves as a Program Manager with AspenPointe TeleCare where she manages telephonic Depression Care Management, Chronic Disease Management and Recovery Care Management programs.

Ms. Anderson formerly served as Expressive Arts Counselor for AspenPointe. She also served AspenPointe Health Network as a program manager and as the Medicaid Liaison.

Ms. Anderson's volunteer work includes serving as a Workshop Artist at Penrose Cancer Center, as a Council Member for Memorial Hospital Arts Advisory Council, President and board member for Manitou Springs Arts Council and Assistant to Curator at the Business of Art Center in Manitou Springs. Prior to AspenPointe, Ms. Anderson served management and counselor roles at Maple Star Colorado, with Karen Underwood , PhD and Associates, Catholic Charities in Madison, WI., and Adoption and Family Consultants in Colorado Springs. Ms. Anderson also served as an Intern in Counseling at Pikes Peak Hospice. In October 1995 Ms. Anderson received the Lifetime Member Award, Psi Chi National Honor Society for Psychology.

Dr. Adam Atherly, PhD

Dr. Atherly's research targets health economics, with an emphasis on the economics of aging and consumer decisions regarding health plan choice. Much of his research focuses on the Medicare program, including studies on the design of the new Medicare "Part D" program, choice of secondary insurance, and the Medicare Advantage managed care system. Dr. Atherly also recently completed an evaluation of the Medicare "Health Insurance Flexibility and Accountability Act "HIFA" expansion funded by the Centers for Medicare and Medicaid Services.

Dr. Atherly is also a visiting associate professor in the College of Health Sciences at American University of Armenia and was previously an Assistant Professor in the Department of Health Systems Management at the Tulane University School of Public Health and Tropical Medicine. Dr. Atherly received his PhD in Health Services Research, Policy and Administration from the University of Minnesota and a MA in economics from the University of Washington.

Deborah Chandler

Debbie joined Colorado Springs Health Partners, the largest multi-specialty, physician-owned practice in Colorado, in June 2008. She spent the previous 10½ years as the CEO for Anchor Health Centers, another multi-specialty physician practice in southwest Florida for which she added specialty physicians, a host of ancillary services, and 18 physician offices. Prior to joining Anchor, Debbie spent five years in Orlando as Chief Executive Officer of the Orlando Heart Center. She was responsible for the overall operation and strategic direction of this single specialty group practice. Debbie is a certified medical practice executive with the Medical Group Management Association, earned her BS from the University of South Florida and her MBA from Rollins' Crummer Graduate

School of Business. She is also a certified nuclear medicine technologist. Ms. Chandler stays active in her new community of Colorado Springs through volunteer work with Junior Achievement and on the American Heart Association Board for which she was also very active in Florida. She was recently elected to serve on the Colorado Springs Regional Economic Development Board, the Greater Colorado Springs Chamber of Commerce Board, and the Pikes Peak Workforce Investment Board.

Brandi Haws, LPC, CCP

Ms. Haws achieved a Bachelor of Arts in Psychology in 1993 and a Master of Human Relations Degree in December 1995 from University of Oklahoma, Norman, Oklahoma . She has worked for AspenPointe since November 2007, and currently serves that organization as the Clinical Director, Health Network/TeleCare. Her duties include monitoring and direct day-to-day operations of several county managed care systems within the Department of Human Services. She oversees quality management for all lines of business, evaluates and addresses clinical services, provides direct oversight and supervision to clinical staff in managed care and disease management programs and implements programmatic and administrative policies and procedures to attain program and contract goals. She also served AspenPointe as the Program Manager/Care Manager for the ProCare Depression Care Management program, and the Program Manager, Pikes Peak Mental Health Community and Home Based Programs for the Child and Family Network, and the Lead Clinician for Community Projects, Pikes Peak Mental Health. Prior to work with AspenPointe, Ms. Haws served as a therapist for the foster care program at Kids Hope United in Joliet, Illinois. She also served as an adolescent therapist at Norman Regional Hospital in Oklahoma and in various therapist roles at Integris Health in Spencer, Oklahoma and the Hillcrest Center in Oklahoma. Ms. Haws holds the following professional licensures and certifications:

- Licensed Professional Counselor, State of Colorado (LPC)
- Certified Chronic Care Professional
- Infant Massage Instructor Certification
- Parent Child Interaction Therapy Certification

Taisa Priester, BA

Ms. Priester received her B.A. in Biology at Cornell University in 2009. She is currently 3rd year medical student at the University of Colorado School of Medicine. A member of the Rural Track, she has dedicated her studies and research to underserved populations in Colorado. She was awarded the Presidential Medical Scholarship for her commitment to serving rural Colorado. Ms. Priester is interested in pursuing a career in Family Medicine, and has a passion for community-based research and the implementation of evidence-based programs in rural settings for the advancement of health.

Dr. Marc Ringel, MD

Marc Ringel, MD is a family doctor who has devoted his 37-year career to rural family medicine, as a practicing physician, a teacher, writer, speaker and consultant. Eighteen of those years were spent practicing in towns of 6000 or less in northeast Colorado. While in practice he hosted numerous

medical, nurse practitioner and physician students, as well as participating in a number of primary care research projects. In Brush, Colorado he initiated telemedicine clinics in psychiatry, wound care, and anticoagulant management.

For nine years Dr. Ringel served on the faculty of North Colorado Family Medicine Residency Training Program, whose mission is to prepare family doctors for rural practice. He developed the residency's Rural Training Track Program in Wray, Colorado, still the smallest town in the United States with a fulltime graduate medical training program. Dr. Ringel has also worked extensively in continuing medical education, including currently as a consultant to several CME enterprises.

Due to his longstanding interest, as a practitioner and as a teacher, in finding ways to support rural clinical practice, Dr. Ringel has studied, written and spoken extensively about using information technology to enhance and deliver medical services in rural areas. He is co-author with Jeffrey Bauer of Telemedicine and the Reinvention of Healthcare, published by McGraw-Hill.

Currently Dr. Ringel is an employee of the University of Colorado School of Medicine where he is a senior instructor. He serves as associate director of the Rural Track Program and as medical director of the High Plains Research Network, which is at this time doing a study of the patient centered medical home in a rural context. He sits on the governing council of the Colorado Clinical and Translational Sciences Institute and on the governing board of Centennial Area Health Education Center. His clinical practice is with Hospice and Palliative Care of Northern Colorado.

Dr. Lisa Schilling, MD, MSPH

Dr. Schilling currently serves as Healthcare Information Technology (HIT) Core Lead for the UC Anschutz Campus School of Medicine. She is an Associate Professor within the Division of Internal Medicine. She also serves as, Co-Medical Director of the Colorado Associated Health Information Exchange (CACHIE), Director of the Clinical Informatics Core for the Colorado Health Outcomes Program (COHO) and the Director of Scalable Architecture for Federated Therapeutic Inquiries Network (SAFTINet). Her research interests include translational informatics, comparative effectiveness research, HIT evaluation, implementation of electronic health records, and research and data networks

Dr. Dennis Schneider

Dr. Schneider is a physician certified by the American Board of Internal Medicine. His specialty is internal medicine. He obtained his B.S. degree from Texas A&M University, his M.D. from the University of Texas Medical Branch at Galveston, and both internship and residency from Scott and White Memorial Hosptital.

Dr. Schneider currently serves as Chief Medical Officer for Colorado Springs Health Partners. He has served this organization since 1981 in the roles of physician, director on the Board, Hospitalist Director, Adult Primary Care Associate Medical Director and member of the Medical Management Committee. He holds memberships in the Colorado Medical Society, El Paso County Medical Society and the American Medical Association.

Dr. Schneider is interested in preventive medicine and cardiology. Dr. Schneider performs routine office procedures, treadmill tests, and flexible sigmoidoscopy on site. Dr. Schneider has served as the Medical Supervisor for the YMCA Cardiac Rehabilitation Program since 1981.

Dr. Nancy Smith, PhD, APN-BC, FAANP

Dr. Smith serves as Dean of the Beth-El School of Nursing at the University of Colorado in Colorado Springs. Prior to being named dean, Smith served as associate dean and was responsible for bachelor's, master's and doctoral nursing programs and for managing the college's general operations since August 2007. In a career spanning almost four decades, she has served as chief academic officer for the Denver School of Nursing, program director for the Colorado Board of Nursing, an associate professor at the University of Hawai'i at Manoa, and as an assistant professor at the University of Colorado Denver and California State University, Long Beach. She also spent 12 years as a nurse practitioner and the adult program supervisor for the People's Clinic, a Boulder-based facility for medically indigent people.

She has published work on a variety of topics including nursing education, stress management, geriatric nursing and spouse abuse. Smith served on Gov. Bill Ritter's Task Force on Nurse Workforce and Patient Care in 2007. Among her honors are nomination for the Nightingale Award for Excellence in Professional Nursing Practice in 2006, the Graduate Nurse Educator Award from the University of Hawai'i at Manoa in 2001, the national nurse practitioner education of the year award presented by the National Organization of Nurse Practitioner Faculty, and Hawaii Lt. Gov. Mazie Hirono's award for "outstanding contributions to students and to the health of the people of Hawaii" in 2001.

Smith earned her bachelor's and master's degrees in nursing from California State University, Long Beach. She earned a master's degree in health care administration and a doctoral degree in public administration from UC Denver.

Lynne VanArsdale, MS, MBA, PMP, NPDP

Lynne VanArsdale works for the Colorado Business Group on Health as the Director of Health IT, implementing a payment reform pilot in two Colorado counties. She is also a PhD student at the University of Colorado, Anschutz campus. Her area of study is health information technology within the Clinical Sciences department and the Colorado Clinical and Translational Sciences Institute. Her current research focuses on technology-supported systems that drive health improvements for communities.

Lynne’s experience ranges from systems engineering, to software engineering to product marketing and management. She served as Product Director for Payer Products within Ingenix’s Claims Integrity and Connectivity group. Prior to Ingenix, she was Director Product Management for Rolta TUSC Software Center of Excellence where she led a program to create a service oriented technology platform. Before joining Rolta TUSC, she held senior director and manager positions with data storage and software technology companies.

Lynne holds Project Management Professional Certification from the Project Management Institute (www.pmi.org). She completed black belt training in transactional six sigma methodology, which she applies to innovation and new product development processes. She has achieved New Product Development Professional certification from the Product Development and Management Association (www.pdma.org), as well as Pragmatic Marketing certification (www.pragmaticmarketing.com). VanArsdale is currently the VP of Programs for the Pikes Peak Region Chapter of the Project Management Institute and has served as the VP of Special Programs for that organization. She served two terms as a member of the international Storage Networking Industry Association (SNIA) Board of Directors and two years as a member of the Rocky Mountain PDMA Board of Directors.

Lynne holds an MBA from the University of Houston, a Master of Science in Agricultural Engineering from North Carolina State University and a Bachelor of Science in Engineering from Cornell University. As a result of her M.S. work, Lynne published two refereed research papers and contributed the upward flux portion of DRAINMOD, the international leading computer model for drainage and irrigation. See http://lynnevanarsdale.com or http://www.linkedIn.com/in/lynnealexandervanarsdale for more detail

Dr. Jack Westfall, MD

Jack was born and raised in rural eastern Colorado. A graduate of Yuma High School, he currently practices family medicine part-time at the Yuma Clinic. As the Associate Dean of Rural Health for the University of Colorado Denver School of Medicine, Jack works to build bridges between rural communities around Colorado and the University of Colorado Denver. He started and directs the High Plains Research Network (HPRN) in 1997, an integrated practice-based research network of rural and frontier hospitals, ambulatory clinics, and clinicians dedicated to improving medical care in rural Colorado. The HPRN has conducted research on a host of topics including cardiac care, palliative care, medical mistakes, colon cancer prevention, asthma, and the impact of underinsurance on access to care. The HPRN is guided by a community advisory council (C.A.C.) of farmers, ranchers, school teachers, and others. Three years ago Jack was named the Director for the Colorado Area Health Education Center, which focuses on increasing the pipeline of young people from rural Colorado interested in health careers.

Linda Zittelman, MSPH

Linda is the Associate Director for the High Plains Research Network (HPRN). She moved to Colorado in 1995 after graduating from the University of Wisconsin-Madison with a degree in psychology and criminal justice. Linda received her Master of Science in Public Health from the University of Colorado Health Sciences Center. Linda joined the Department of Family Medicine at the University of Colorado in 2005. With HPRN, she oversees all aspects of research and program activities and fosters and coordinates the HPRN Community Advisory Council, a group of local residents from eastern Colorado that helps guide the work of HPRN in all phases of the research process. Linda's research career has addressed a wide range of health issues, such as youth delinquency, youth anti-tobacco messaging, community-based colon cancer prevention and screening, home blood pressure monitoring, asthma diagnosis and treatment, underinsurance, child

obesity prevention, and the patient centered medical home. She is experienced in community-based participatory research and practice-based research. Linda greatly enjoys working with people on the eastern plains and informing urban folks of the knowledge gained and new ideas from rural settings.

Financial Information

What are the major funding sources for your organization?

AspenPointe Telecare receives a combination of for-service payment by contract and grants/gifts for projects and programs. Recently our organization was awarded the care management portion of a grant from the Substance Abuse and Mental Health Services Administration (SAMHSA) to the state of Colorado. We are also seeking supplementary grants from the National Business Coalition on Health (to improve the community outreach that would serve this project) and from AHRQ (to improve and expand the training program that would serve this project).

What are the major funding sources for the work you are proposing?

Combination of in-kind support from the participants, resources from the payment reform programs and TCHF

What is the long-term funding strategy for your work?

Use of the created blueprint to establish self-sustaining programs (contract work by telecare organizations for provider organizations) sponsored by stakeholders in each community of implementation

What percentage of your Board of Directors contributes financially to the organization?

100%

If this is a collaborative effort or partnership, who are the partners contributing to the project?

Key partners in this project include:

Name	Website	Role in Project	Representative
Colorado Springs Health Partners	http://www.cshp.net	Provider teams to participate in the project	Dr. Dennis Schneider, Deborah Chandler
Colorado Business Group on Health	http://www.cbghealth.org	Project management , data storage and analysis, and	Lynne VanArsdale

		providing the project web support	
Health TeamWorks	http://www.healthteamworks.org	Workflow design, medical record data summaries	Jillian Abramson
University of Colorado, Colorado Springs – Bethel Nursing School	http://www.uccs.edu/~bethel/	Provides training for the telecare nurses	Dr. Nancy Smith
University of Colorado, Anschutz Medical Campus	http://www.ucdenver.edu/about/denver/Pages/AnschutzMedicalCampus.aspx	Expertise in Health IT, clinical workflow and informatics	Dr. Lisa Schilling
Colorado Health Choices	http://www.coloradochoicehp.com	Non-profit payer in TPA focusing on rural benefits plans	Cindy Palmer
CORHIO	http://www.corhio.org	State health information exchange; providing eReferral and other support	Mark Carlson
Colorado Clinical and Translational Sciences Institute (CCTSI)	http://cctsi.ucdenver.edu	Work with Rio Grande Hospital and the High Plains Research Network to participate in this pilot project	Dr. Jack Westfall, Dr. Marc Ringel, Taisa Priester, Linda Zittleman
Department of Family Medicine	http://www.ucdenver.edu/academics/colleges/medicalschool/departments/familymed		
School of Public Health, Health Systems, Management and Policy Department	http://www.ucdenver.edu/academics/colleges/PublicHealth/departments/HealthSystems	Sustainability plan	Dr. Adam Atherly

Budget

Organization Name:	AspenPointe TeleCare			
Proposal Title:	Telecare4Colorado: Integrated Healthcare to Improve Health Outcomes and Care Availability			
	Please fill in amounts only for year(s) for which you are requesting funding.			

Proposal Revenue	Total Project Budget			
	Year 1	Year 2	Year 3	Total
The Colorado Health Fdn Request	$ 543,109.58	$ 538,703.22		$ 1,081,812.79
Government Grants				$ -
Foundation Grants				$ -
Individual Support				$ -
Corporate Support				$ -
Special Events				$ -
Earned Revenue				$ -
Contract Revenue				$ -
In-kind	$ 45,043.05	$ 45,718.70		$ 90,761.75
Total Revenue	$ 588,152.63	$ 584,421.91	$ -	$ 1,172,574.54

Proposal Expenses	Total Project Budget				Request to The Colorado Health Foundation			
	Year 1	Year 2	Year 3	Total	Year 1	Year 2	Year 3	Total
Direct Costs (each item to be detailed in budget narrative)								
General Operating				$ -				$ -
Program/Project				$ -				$ -
Personnel	$ 208,616.10	$ 211,745.34		$ 420,361.44	$ 193,834.58	$ 196,742.09		$ 390,576.67
Programming/Project Costs				$ -				$ -
Administrative costs related to program	$ 41,536.53	$ 42,006.57		$ 83,543.10	$ 41,275.00	$ 41,741.13		$ 83,016.13
Capital				$ -				$ -
Total Direct Costs	$ 250,152.63	$ 253,751.91	$ -	$ 503,904.54	$ 235,109.58	$ 238,483.22	$ -	$ 473,592.79
Other Costs (each item to be detailed in budget narrative)								
Consultants	$ 338,000.00	$ 330,670.00		$ 668,670.00	$ 308,000.00	$ 300,220.00		$ 608,220.00
Fiscal Sponsor's Fee (if applicable)				$ -				$ -
Indirect Costs (reserved for universities) - max 10% (if applicable)				$ -				$ -
Total Other Costs	$ 338,000.00	$ 330,670.00	$ -	$ 668,670.00	$ 308,000.00	$ 300,220.00	$ -	$ 608,220.00
GRAND TOTAL COSTS	$ 588,152.63	$ 584,421.91	$ -	$ 1,172,574.54	$ 543,109.58	$ 538,703.22	$ -	$ 1,081,812.79

Budget narrative and detail

This pilot requires expertise in the following areas:

- Telecare nursing
  - We will engage three half-time telecare nurses to supply the integrated care (apx. $36K/year per nurse for a total of about $110K/year)
  - Administrative and supervisory staff must also be allocated (apx $27K/yr
- Clinical practice and workflows
  - We will engage HealthTeamwords to align the telecare implementation with current clinical practice (apx. $40K/year
  - We will also receive guidance from experts at UC Denver at no charge to the project through Lynne VanArsdale's dissertation work
- Program and project management
  - One quarter-time project manager from AspenPointe Telecare at apx. $27K/year
  - One quarter-time program manager consultant with advanced program management skills (Agile, PMI and Six sigma certified) (apx. $35K/year)
- Data collection and analysis
  - One quarter-time analyst from AspenPointe Telecare at apx. $27K/year
  - One quarter-time analysis consultant with advanced analysis skills (advanced statistics and software, metrics design and collection) (apx. $35K/year)
- Financial sustainability and incentives for participation in telecare
  - Healthcare economics expert consultant ($50K / year)

- Clinical workflow
    - We will engage a member of the clinical staff from each provider team in the project. That person will advise on workflow from the practice's point of view and serve as a liaison between the PCP team and the project team (apx. $60K/year)
- Health information exchange
    - Health information exchange IT infrastructure expert, quarter-time, to assure that the mechanisms for nurse-PCP communication are in place, secure and managed ($25K/year)
- Telecare training and education
    - Training on telecare must be developed and delivered to telecare nurses, as well as education on telecare for patients and providers (Apx. $60K/year)

Additionally the project requires travel by the telecare nurses (apx. $18K/year). This travel enables the telecare nurse to meet in person with the rural provider teams and patients in order to understand the local health care practice well and to develop a mutual trust relationship. We also require videoconferencing software and services to enable the telecare nurse to engage with patients and providers in the clinical setting (apx. $5K/year). Lastly we require office supplies (apx $4K/year), IRB fees for the High Plains Research Network engagement and other affiliation fees (apx. $10K/year) and employee training on the electronic medical record system (apx. $4K/year)

PROGRAM BUDGET*	YEAR 1	YEAR 2	2-YR TOTAL
	TOTAL	TOTAL	
PERSONNEL	$ 193,835	$ 196,742	
EMPLOYEE EXPS/SUPPLIES/OCCUPANCY/COMMUNICATION	$ 23,675	$ 23,877	
TRAVEL	$ 17,600	$ 17,864	
CONTRACTUAL	$ 308,000	$ 300,220	
TOTAL BUDGETED EXPENSE	$ 543,110	$ 538,703	$ 1,081,813

PERSONNEL (AspenPointe)	FTE	SAL	BENEFITS	TOTAL	SAL	BENEFITS	TOTAL
Clinical Director	15%	$ 13,200	$ 3,036	$ 16,236	$ 13,398	$ 3,082	$ 16,480
Nurse Supervisor	15%	$ 9,075	$ 2,087	$ 11,162	$ 9,211	$ 2,119	$ 11,330
Project (Program) Manager	25%	$ 22,000	$ 5,060	$ 27,060	$ 22,330	$ 5,136	$ 27,466
Analyst	25%	$ 11,000	$ 2,530	$ 13,530	$ 11,165	$ 2,568	$ 13,733
Financial & Administrative Support	15%	$ 13,778	$ 3,169	$ 16,946	$ 13,984	$ 3,216	$ 17,201
NURSE*	50%	$ 33,000	$ 3,300	$ 36,300	$ 33,495	$ 3,350	$ 36,845
NURSE*	50%	$ 33,000	$ 3,300	$ 36,300	$ 33,495	$ 3,350	$ 36,845
NURSE*	50%	$ 33,000	$ 3,300	$ 36,300	$ 33,495	$ 3,350	$ 36,845
TOTAL PERSONNEL	245%	$ 168,053	$ 25,782	$ 193,835	$ 170,573	$ 26,169	$ 196,742
Budgeted Benefit Rate - Full time FTE's	*23.0%*						
**1/2 Position - estimated benefit rate*	*10.0%*						

CONTRACTUAL	YEAR 1	YEAR 2
Project Manager/Six Sigma/Analyst Exper	$ 67,500	$ 68,513
Health Economics, health info / workflow	$ 50,000	$ 50,000
Practice transformation / Med Record Da	$ 40,500	$ 41,108
Trainer	$ 65,000	$ 55,000
Liaison (PCP)	$ 60,000	$ 60,600
Health Information Exchange - IT Develop	$ 25,000	$ 25,000
TOTAL CONTRACTUAL	$ 308,000	$ 300,220

OTHER OPERATING EXPENSES	YEAR 1	YEAR 2
Employee Exps - Training/Education	$ 4,043	$ 4,103
Office, Technical & Copy Supplies	$ 4,043	$ 4,103
IRB and Affiliations Fees	$ 10,200	$ 10,200
Communications	$ 5,390	$ 5,471
TOTAL OTHER OPERATING EXPENSES	$ 23,675	$ 23,877

TOTAL TRAVEL	YEAR 1	YEAR 2
Travlers/Trips	$ 17,600	$ 17,864

In-kind contributions detail:

PROGRAM BUDGET*	YEAR 1	YEAR 2	2-YR TOTAL
	TOTAL	TOTAL	
PERSONNEL	$ 14,782	$ 15,003	
EMPLOYEE EXPS/SUPPLIES/OCCUPANCY/COMMUNICATION	$ 262	$ 265	
TRAVEL	$ -	$ -	
CONTRACTUAL	$ 30,000	$ 30,450	
TOTAL BUDGETED EXPENSE	**$45,043**	**$45,719**	**$ 90,762**
**All cost include a combined overhead and margin rate of*	*10.0%*		

PERSONNEL (AspenPointe)	FTE	RATE	SAL	BENEFITS	TOTAL	SAL	BEN (23%)*	TOTAL
Clinical Director	5%		$ 4,400	$ 1,012	$ 5,412	$ 4,466	$ 1,027	$ 5,493
Nurse Supervisor	5%		$ 3,025	$ 696	$ 3,721	$ 3,070	$ 706	$ 3,777
Project Manager/Analyst	0%		$ -	$ -	$ -	$ -	$ -	$ -
Financial & Administrative Support	5%		$ 4,593	$ 1,056	$ 5,649	$ 4,661	$ 1,072	$ 5,734
NURSE*	0%		$ -	$ -	$ -	$ -	$ -	$ -
NURSE*	0%		$ -	$ -	$ -	$ -	$ -	$ -
NURSE*	0%		$ -	$ -	$ -	$ -	$ -	$ -
	15%		$ 12,018	$ 2,764	$ 14,782	$12,198	$ 2,805	$ 15,003
TOTAL PERSONNEL								
Budgeted Benefit Rate - Full time FTE's	*23.0%*							
**1/2 Position - estimate benefit rate of*	*10.0%*							

OTHER OPERATING EXPENSES	ASPENPOINTE FTE's	RATE P/FTE	YEAR 1	YEAR 2
Employee Exps - Training/Travel/Education	15%	$ 500	$ 83	$ 84
Office, Technical & Copy Supplies	15%	$ 500	$ 83	$ 84
Occupancy (Inc Utilities & Custodial)	15.0%	$ 585	$ 97	$ 98
Communications	15%	$ 500	$ 83	$ 84
TOTAL OTHER OPERATING EXPENSES			$ 262	$ 265

TOTAL TRAVEL	TRIPS	RATE P/FTE	YEAR 1	YEAR 2
Travlers/Trips	8/4	$ 500	$ -	$ -

CONTRACTUAL	YEAR 1	YEAR 2
Project Manager/Analyst (.50)	$ 30,000	$ 30,450
Subject Matter Experts	$ -	$ -
Health Teamworks (Year 1 @ 80%)	$ -	$ -
Trainer	$ -	$ -
Liaison (PCP)	$ -	$ -
TOTAL CONTRACTUAL	$ 30,000	$ 30,450

[i] http://www.americantelemed.org
[ii] Charles R. Doarn and Ronald C. Merrell. Telemedicine and e-Health. November 2008, 14(9): 861-862. doi:10.1089/tmj.2008.8479.

[iii] **Bradley WG Jr. Teleradiology. Neuroimaging Clin N Am. 2012 Aug;22(3):511-7.**
[iv] Kazley AS, Wilkerson RC, Jauch E, Adams RJ. Access to Expert Stroke Care with Telemedicine: REACH MUSC. *Front Neurol.* 2012;3:44.

[v] Murat Pakyurek, Peter Yellowlees, and Donald Hilty. Telemedicine and e-Health. April 2010, 16(3): 289-292.
[vi] Hailey D, Roine R, Ohinmaa A. Systematic review of evidence for the benefits of telemedicine.

J Telemed Telecare. 2002;8 Suppl 1:1-30.

[vii] Ekeland AG, Bowes A, Flottorp S. Effectiveness of telemedicine: a systematic review of reviews. *Int J Med Inform.* 2010 Nov;79(11):736-71.

References:

http://www.americantelemed.org

Bradley WG Jr. Teleradiology.*Neuroimaging Clin N Am.* 2012 Aug;22(3):511-7. Epub 2012 Jun 24.

Charles R. Doarn and Ronald C. Merrell. Telemedicine and e-Health. November 2008, 14(9): 861-862. doi:10.1089/tmj.2008.8479.

Ekeland AG, Bowes A, Flottorp S. Effectiveness of telemedicine: a systematic review of reviews. *Int J Med Inform.* 2010 Nov;79(11):736-71.

Hailey D, Roine R, Ohinmaa A. Systematic review of evidence for the benefits of telemedicine.

J Telemed Telecare. 2002;8 Suppl 1:1-30.

Kazley AS, Wilkerson RC, Jauch E, Adams RJ. Access to Expert Stroke Care with Telemedicine: REACH MUSC. *Front Neurol*. 2012;3:44.

Ringel, M. and Bauer, J. Telemedicine and the Reinvention of Healthcare. (McGraw-Hill, 1999)

Zanaboni, P and Wootton R. Adoption of Telemedicine: from pilot stage to routing delivery. BMC Med Inform Decis Mak. 2012; 12: 1.