

**Multi-VISN Collaborative Proposal**  
**Enhancing Veteran Care through Coordination & Home Telehealth**  
**Submitted by VISN 8 Community Care Coordination Service**

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## **Collaborative Care Coordination and Home Telehealth Proposal**

This proposal is a multi-VISN site collaborative project to support the continued development, deployment, and evaluation of the innovative Community Care Coordination Service Model (See attachments). This proposal will incorporate care management principles and the effective use of technology.

### **1. Definitions:**

- a. Care Coordination is a process that increases the likelihood that a patient will receive easily accessible, coordinated, continuous, high quality health care across the VHA continuum of care. Care Coordination uses evidence-based medicine and best practices, technology, health education materials, nursing and other clinical disciplines' expertise, to manage the health care process and limit inappropriate use of health care services.
- b. Telehealth technologies are tools that use basic or advanced telecommunications to exchange health information and provide health care services across geographic, time, and social/cultural borders. These technologies include but are not limited to home telehealth monitors with and without vital sign monitoring, disease management tools, and medication compliance devices.

2. **Background:** VHA has seen a tremendous growth pattern over the past 5 years. Patients enrolled in the system have doubled since 1995 reaching an all time high of 6 million veterans. This increased demand has created an access and patient satisfaction problem that has reached national attention. Demand and cost for clinical care is increasing as the veteran population ages due to the burden generated by chronic disease. A VERA funding lag and escalating costs are severely reducing dollars available for new patients.

New ways to better manage this growing population as well as ways to enhance workload efficiencies are needed while VHA's standard of high quality of care is maintained. In VISN 8, the Sunshine Network, a concept design group found that a small number of patients (<4%) defined as high-risk, high-use, and high-cost, were consuming over 40% of the network's resources. This presented a tremendous opportunity to look at "doing business differently." A new care model was developed to test care management principles, the role of the care coordinator, and effective use of technology.

Eight demonstration projects were rapidly implemented across the Sunshine Network and have become the foundation of the Community Care Coordination Service (CCCS). Technologies used include traditional telemonitors, videophones, in-home messaging/disease management tool, computers with Internet chat rooms, and photography. Technology is matched to the patient's needs and ability to handle. Care Coordinators utilize this technology to determine patients' clinical needs, health status, and educational requirements.

Early findings have shown that the technology in tandem with care coordination has positively impacted patients and the system. First year outcomes include greater than 90% patient satisfaction with technology and care coordination. Significant

improvements in five of eight domains as measured by the SF-36V for the chronic medical disease population and no perception of deterioration in the mental health population. Resource utilization shows 63% reduction in hospital admissions, 60% reduction in bed days of care (BDOC), 40% reduction in ER services, and 67% reduction in filled prescriptions. (See scorecard attachment) Clinical findings on two key 6-month measures: (1) HgbA1c values and (2) change in blood pressure show significant improvements in the chronic disease population.

The early results of the evaluation demonstrate high patient satisfaction, improved functional status, and resource utilization changes at volumes not previously achieved in Network or station programs. The development of the model, care coordinator role, and use of innovative home telehealth technology have been major factors in the success of the VISN 8 program. It is no wonder that this early success has become a template for other VISNs to help address the very common problems of access to care, service coordination, quality, and patient satisfaction. We believe that the improved clinical functions, supported by strong business tenets, make this model worth deploying.

This proposal supports collaborative approaches to managing high-risk veterans with home telehealth technologies by sharing the early successes with VISN 2 and VISN 20 who have also identified common problematic areas. It also supports the expansion of care management principles by integrating these principles, applied by the VISN 8 model, into existing structures such as HBPC, primary care clinics, specialty clinics, and hospital-based case management programs.

**3. Target Populations:** During the first two years of the VISN 8 pilot, populations such as the frail elderly with multiple chronic conditions and younger veterans with mental health problems were targeted. Many chronic conditions can be effectively managed utilizing the CCCS Model. Identifying similar populations among Networks that might benefit from the technology would be crucial to further deployment. The following target populations have been identified for implementation within the scope of this proposal:

**VISN 2** has identified two high-risk, high-use and high-cost populations: COPD and CHF. A particular emphasis will be on veterans with these diseases and a co-morbidity of dementia. This will allow VISN 2 to improve access to care for 550 veterans. Another target population is the veteran with dementia with a focus on improving support to their caregivers. Support for these caregivers may prevent or postpone early institutionalization for the dementia veteran. Total number of caregivers to be served is 100. VISN 2 will serve as a pilot site using the Health Buddy system for dementia veterans/caregivers. Their findings will be compared to the VISN 8 dementia pilot that is using a new phone assisted technology.

**VISN 8** has already identified and is care managing multiple populations who are high-cost, high-risk, and high-use such as CHF, COPD, HTN, CAD, Diabetes, PTSD, Schizophrenia, and Bi-polar. Veterans were targeted in the Network through either a primary care or mental health clinic. New populations to be added include acute onset CHF, low ADL's, Stroke, HBPC, Dementia patients and their caregivers,

Infectious diseases, chronic pain and anticoagulated veterans. Total number of new veterans to be served is 1250.

**VISN 20** has identified multiple populations that have been high-risk, high-use and high-cost for the Network. Diagnoses include CHF, COPD, HTN, CAD, Diabetes, Parkinson's, PTSD and chronic mental illnesses, SCI, Hepatitis C, Wound care, Multiple Sclerosis (MS), and congregate settings such as State Veterans Homes. These individuals are being managed in multiple programs such as HBPC, SCI, Cardiology, Dermatology, Mental Health, and long-term care. The total number of veterans to be served is 1415.

**4. Care Coordination:** Care Coordination is performed by a licensed professional who coordinates care for a panel of patients- throughout the continuum of care to assure that care is timely, appropriate, of high quality and cost effective. These professionals work closely with the primary care provider (or providers) and other healthcare professionals and team members, other clinics, internal or external services and community agencies. They provide professional assessment, coordination and planning of multiple health care services; act on behalf of the veteran to assure that necessary clinical services are received and that progress is being made. In addition they provide ongoing evaluation of care management services.

Public law 106-117 mandates the provision of non-institutional extended care services and case management. The current system deploys case/ care managers in multiple ways but the role is usually geared towards episodic and service specific care. Veterans with multiple complex health problems who are seen by primary and multiple specialty providers are often assigned to several case/care managers. The communication may exist across services but becomes fragmented as levels of care multiply or when integration between services is necessary. By transitioning a current role such as case manager or HBPC provider into care coordination, this fragmentation in communication is avoided. (See attached Care Coordination Process Flow Guideline.)

***Activities of a Care Coordination System:***

- a. Professional assessment to an adult population of predominantly male patients.
- b. Focus on the patient in the context of family, home and community by integrating an assessment of living conditions, individual, family dynamics, and cultural background into the patient's plan of care.
- c. Coordinating the appropriate intensity of care management for patients.
- d. Care Coordination is carried out in full accordance with the program goals of the VHA health care system and the VHA Remote Monitoring Directive.
- e. Appropriate documentation of each patient's care and progress is maintained.

## 5. Technology

a. This proposal incorporates use of home telehealth technology to facilitate the place of residence as the primary point of care. The following technologies will be used for this collaborative project:

### **VISN 2:**

Health Hero Network's Health Buddy with disease dialogues for CHF, COPD. Health Hero dialogue development for dementia/caregiver support. American Telecare's (ATI) audio-video units with vital sign monitoring peripherals to build on existing ATI equipment already in use in the Network.

### **VISN 8:**

ATI audio-video units with vital sign monitoring and additional peripherals such as glucometers, weight scales, and pulse oximeters. ATI's new monitoring system AvivaLink non-video unit. Health Hero's Health Buddy for CHF/COPD dialogues. TelevYou videophones. LifeLink home monitoring devices, non-video units. Telephone assisted technology for dementia education and caregiver support. Smart phone technology. Home safety monitoring devices.

### **VISN 20:**

Health Hero Network's Health Buddy with disease dialogues for CHF, COPD, HTN, CAD, Diabetes, Parkinson's, SCI, PTSD, and MS; and peripheral vital sign monitoring for B/P and weight. American Telecare's (ATI) audio-video units with vital sign monitoring peripherals, TeleVyou videophones, and Sony digital cameras for wound care. Additional Central Station units that link up to ATI patient units will be purchased so providers at multiple outpatient clinic sites can also take part in the management of these populations.

## 6. Outcome Measures:

Outcome measures will be collected as outlined in the attached scorecard. Potential measurement instruments include patient satisfaction surveys, quality of life and functional status survey using the SF-36V instrument, and risk for nursing home placement using the VA Choice Telephone Screen. Application for grant funding will be made to conduct more rigorous analyses of the outcome data.

It is expected that there will be increased access to care, improved resource utilization and more frequent use of the home as an alternative care site. It can also be anticipated that staff time will be more effectively and efficiently used through ever-expanding technology capabilities.

### ***Long-range goals include:***

- ❑ Expanding the use of patient's residence as alternate clinic sites through the use of technology, this will allow full development of the primary care concept with the team involved in all facets of patients' care outside an inpatient stay.
- ❑ Exploring and developing new resources to enable patients to remain in their homes.

- Exploring and developing care coordination to impact on high risk, high cost patients' care through the continuum.
- Demonstrate importance of workload capture of care-coordinated home telehealth as a viable and efficacious intervention.

## **BUDGET FOR HOME TELEHEALTH MULTI-VISN PROPOSAL**

	Equipment	All Other	Total per VISN
<b>VISN 2</b>	<b>\$ 328,869</b>	<b>\$ 454,290</b>	<b>\$ 783,159</b>
<b>VISN 8</b>	<b>\$ 732,396</b>	<b>\$ 319,172</b>	<b>\$ 1,051,568</b>
<b>VISN 20</b>	<b>\$ 1,401,269</b>	<b>\$ 922,500</b>	<b>\$ 2,323,769</b>
<b><u>TOTALS</u></b>	<b><u>\$ 2,462,534</u></b>	<b><u>\$ 1,695,962</u></b>	<b><u>\$ 4,158,496</u></b>

Note: The Revised/Issued RFP excludes VISN 20 and Includes VISN 1, VISN 11 and VISN 17.