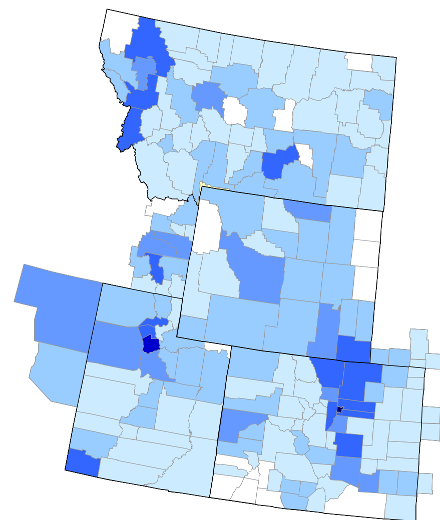
The large and varied geographic area, frequently harsh climate, and sparse population features of the Rocky Mountain region have presented unique challenges and opportunities for telehealth development in VISN 19. Given the frontier nature of a significant portion of the network, the use of telehealth technologies to enhance linkages between veteran and services and to improve access is considered a priority endeavor in the Rocky Mountain Network. Also, given the challenges of poor communications infrastructure in outlying areas, (most communities do not have ISDN or fiber optic capabilities), the very low numbers of clinical encounters (making it sometimes difficult to justify start-up and maintenance expenditures), the typical hurdles associated with trying to get providers and patients to accept new technologies and processes, the absence of workload coding and difficulties with reimbursement the development of telehealth has moved steadily forward.

Distribution of Unique Veterans (By County) Receiving Care Coordination Telehealth Services



0	=	15
1-9	=	87
10-49	=	57
50-99	=	16
100-399	=	17
400+	=	2

Even with these challenges, the process of developing telehealth initiatives has moved steadily forward in the Rocky Mountain Network and the development and use of telehealth programming for treatment and management of veteran patients is rapidly expanding across the Network. VISN 19 is a recognized national leader in this area.

Telehealth planning and development in VISN 19 is conducted under the supervision of the VISN 19 Telehealth Coordinator, who reports to the Network Director and the Care Coordination, Telehealth, and Telemedicine (CCTT) Council, which reports to the VISN 19 Health Systems Committee of the ELC. The VISN-19 CCTT Office exists to promote the development of effective telehealth applications within the Rocky Mountain Network by:

- Providing assistance to clinical, administrative and technical personnel with
  - planning and development of new applications,
  - development of effective evaluation methodologies,
  - facilitating communications,
- Providing education and training,
- Establishing standards for equipment and technologies,
- Coordinating the development of policies and procedures which ensure compliance with national VHA directives and accrediting entities,
- Coordinating with VISN-19 technical personnel to maximize use of existing infrastructure.

MISSION, VISION AND VALUES

The VISN 19 CCTT Office **mission** is:

- To facilitate improved access to care, continuity of care, quality of life and healthcare outcomes for veterans across the Rocky Mountain Network, through development and coordination of appropriate and functional telehealth programming.

Vision: Maximize access to quality healthcare delivery in the least restrictive environment.

Core Values:

- Patient Centric Programming
- Integrity
- Innovation
- Evidence-Based Practice
- Teamwork/Collaboration
- Flexibility/Sensibility

VISN 19 CCTT ORGANIZATION

Care Coordination and Telehealth is integrated into the administrative structure of VISN 19 as follows:

- Staffing:
  - VISN 19 Telehealth Coordinator – Jeff Lowe
    - CCTT Office Staff
      - Josie Mitchell, Program Support – CCHT (Cheyenne)
      - Kim Wilkins, Program Support – Telemental Health (Cheyenne)
      - Zandra Lopez, Program Support (Cheyenne)
    - Rocky Mountain Telehealth Training Center
      - Charlene Durham, Education Specialist (SLC)
      - Ron Schmidt, Training Specialist / Clinical Liaison, (Denver/Cheyenne)
      - Joan Hesley, Training Technician (SLC)
      - David Palazzolo, Visual Information Specialist (SLC)
    - VISN MH / American Indian Care Coordination
      - Currently recruiting RN to be located at Ft. Harrison, MT

- Council Oversight: Executive Leadership Committee / Health Systems Committee
  - Care Coordination, Telehealth Telemedicine (CCTT) Council
    - 436 Montana
      - Wiedeman, Sheri
    - 442 Cheyenne VAMC
      - Blaney, Susan
      - Schmidt, Ron
    - 554 ECHCS
      - Huckaby, Don
      - Mignoli, Jennifer
      - Nunn, Mar
      - Shore, Jay
      - Walker, Kathy
    - 575 Grand Junction VAMC
      - Molnar, Peggy
      - Rosendale, Doug
    - 660 Salt Lake City HCS
      - Dailey, Nancy
      - Glover, Don
      - Hill, Scott
    - 666 Sheridan VAMC
      - Ashear, Janet
      - Hess, Nancy
    - VISN 19
      - Casarez, Morris
      - Durham, Charlene
      - Lowe, Jeff (Chair)
      - Salas, Anthony
      - Anderson, Leigh

CCTT CLINICAL APPLICATIONS

Care Coordination and telehealth activity is divided into two broad categories:

- Care Coordination General Telehealth (CCGT) which is defined as a clinical process, which employs the use of telehealth technologies to provide care and consultation between institutional, rather than home settings, such as clinics and hospitals, or hospitals and other hospitals (e.g. telemental health, telesurgery, telerehabilitation, etc) and
- Care Coordination Home Telehealth which is defined as a process whereby the ongoing condition of selected patients is assessed and monitored using home telehealth technologies in order to expiate the application of care intervention. Care coordination home telehealth uses nationally recognized best practice care algorithms to assure the delivery of appropriate, effective, and efficient clinical care to the patient.

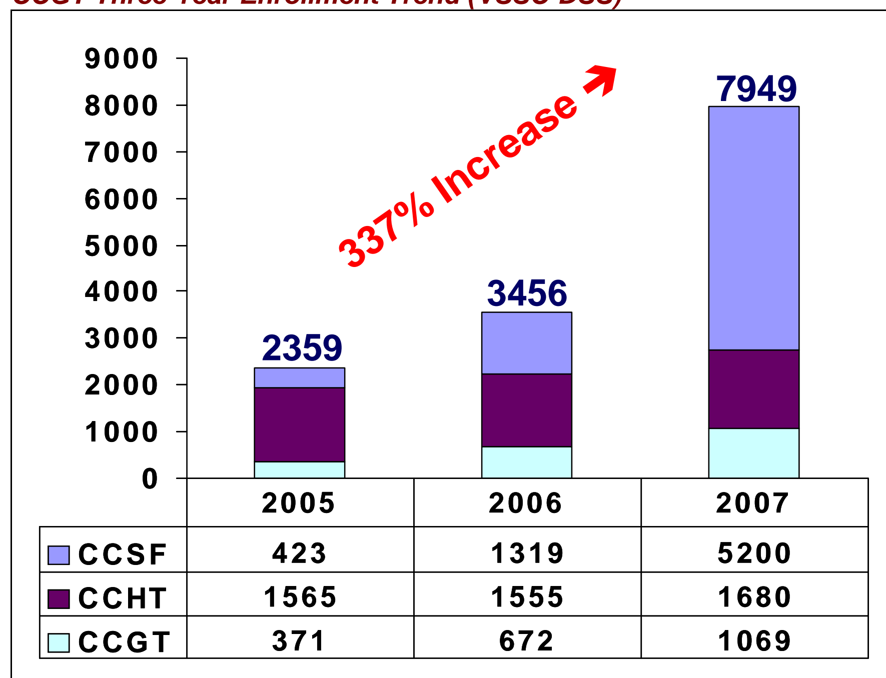
Within these aforementioned categories, two modalities of telehealth are employed:

- Store and Forward (asynchronous) Telehealth: A telehealth application in which a trained imager at a referring site takes digital images of the patient's skin conditions, downloads them through a computer into VistA Imaging, and submits them with additional patient information on a consult from the ordering provider. These are then interpreted by a consulting provider at a distant site in a timeframe that is understood by both parties. The consulting provider reviews the images and answers the consult, therefore alerting the referring provider of a diagnosis and recommendations via CPRS.
- Real-time (Synchronous) Telehealth: Allows the patient to be examined and interviewed at the local CBOC or medical center (originating site), via live interactive video images, by a consulting provider at a remote facility (distant site). Real-time telehealth provides an immediate evaluation of a patient's problem since the patient is able to talk to the consulting provider, who answers any questions and provides feedback and recommendations.

CCT Enrollment and Workload Trends

Activity and enrollment in CCT has significantly increased over the past three years in VISN 19, from approximately 2359 unique veterans served to more than 7849, through the end of the fiscal year. The teleretinal screening and telemental health programs account for the majority of this increase.

CCGT Three Year Enrollment Trend (VSSC-DSS)



	2005	2006	2007
CCSF	423	1319	5200
CCHT	1565	1555	1680
CCGT	371	672	1069

Care Coordination General Telehealth

To date VISN 19 currently has Care Coordination General Telehealth programs in:

- Telemental Health (Real-time);
- Teleophthalmology / Diabetic Retinal screening (Store-and Forward);
- American Indian Telehealth Outreach (Real-time and Store-and Forward);
- Primary Care Telehealth (Real-time);
- Telerehabilitation and wound care (Real-time and Store-and Forward);
- Telesurgery (Real-time);
- Teledermatology (Store-and Forward);
- Telenutrition / TeleMOVE (Real-time and Store-and Forward)

Following is a brief summary of CCGT assets and outcomes.

Telemental Health

The dispersed nature of the VISN 19 veteran population presents challenges in providing access to quality mental health care. Two significant challenges facing mental health planners in VISN 19 are:

- Recruitment and retention of qualified mental health providers--This has led to long-term contracting of VA services with private providers, a struggle to maintain mental health services for existing VA patients, and made it difficult at times to enroll additional patients into these services, and
- Ensuring access to mental health services to veterans in remote areas of the network.

Historically, the first clinical uses of telehealth in Network 19 occurred in Cheyenne, in 1997 with the establishment of telepsychiatry link between the Cheyenne, Wyoming VAMC and Vet Centers in Ft. Collins, Colorado and Scottsbluff, Nebraska. The project was the first joint VA/Vet Center telehealth application in the nation. Since that time the use of telehealth technologies for the provision of mental health services has spread to most of the facilities in the VISN. In 2000, the Cheyenne program expanded to include service delivery to veterans in Greeley, Colorado and Rawlins, Wyoming. The Sheridan Wyoming VAMC has been providing telepsychiatry services to veterans at all four its CBOC's in Casper, Riverton, Powell and Gillette, Wyoming. They are also working in cooperation with the Wyoming Department of Health to provide telemental health services to veterans residing in the Wyoming Veterans Home, in Buffalo, WY, a state run assisted living facility. The Salt Lake Healthcare System has telemental health links between the Salt Lake facility, the Pocatello, Idaho CBOC and the St. George Utah CBOC and is providing services on a regular basis. ECHCS is currently providing telemental health videoconferencing to CBOC's in Southern Colorado.

Telemental health is primarily a real-time application, using videoconferencing technologies to connect providers and patients. There is, however significant cross-over with the CCHT and American Indian Telehealth Outreach programs and using store-and-forward technologies. Typical services provided include: psychiatry, medication management, and supportive psychotherapy. Other uses have included group therapy, individual psychotherapy, supervision and case consultations between clinicians, and staff meetings.

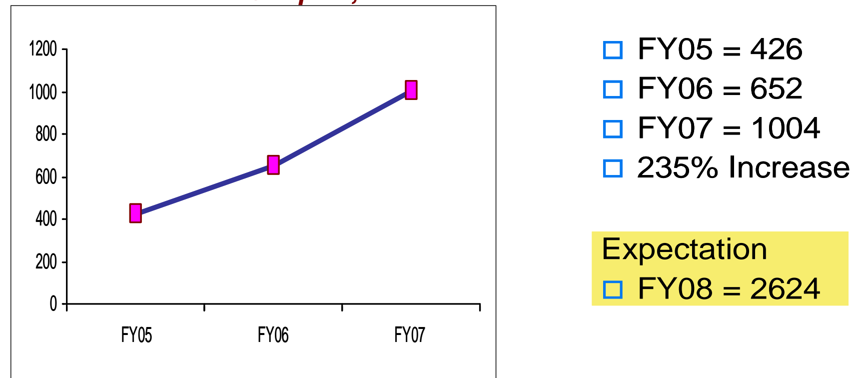
Active Programs, Locations and Enrollment

Program / Provider Location	Patient Location(s)	Total Unique Veterans		
		FY05	FY06	FY07
436 Montana HCS	Ft. Harrison, Great Falls, Missoula, Kalispell	23	2	270
442 Cheyenne VAMC	Cheyenne, Fort Collins, Laramie, Torrington, Rawlins	101	124	78
554 ECHCS	Denver, Alamosa, LaJunta	7	237	270
575 Grand Junction VAMC	Grand Junction, Montrose	4	28	29
660 SLCHCS	Salt Lake, Pocatello, Roosevelt, Orem, St. George	191	111	230
666 Sheridan VAMC	Sheridan, Riverton, Powell, Gillette, Rock Springs	100	150	127
	Total Telemental Health Uniques	**426**	**652**	**1004**

Two exciting developments in telemental health include the development of a geropsychiatry consultation program, originating from the Denver VAMC and providing services to Southern Colorado CBOCs, Sheridan, and Cheyenne and development of new home telehealth, mental health disease management protocols for American

Indian veterans in cooperation with the University of Colorado.

Telemental Health Uniques, Three Year Trend



VACO workload expectations for FY08 will be determined by the VISN 19 / OCC Memorandum of Understanding signed in 2006 as a condition of funding received for staffing and technology. Based on the MOU the following is the estimated number of uniques expected for the coming year:

Telemental Health VACO Expectation for Uniques

Station	FY07	Increase	FY08 (Est).
436	270	423	693
442	78	185	263
554	270	153	423
575	29	56	85
660	230	553	783
666	127	250	377
	1004	**1620**	**2624**

Current Performance Monitors/Measures

None-New performance measure is expected for FY08

Teleophthalmology / Teleretinal Imaging

In 2006 VISN 19 received VACO grant funding to significantly expand its teleretinal screening program. This expansion:

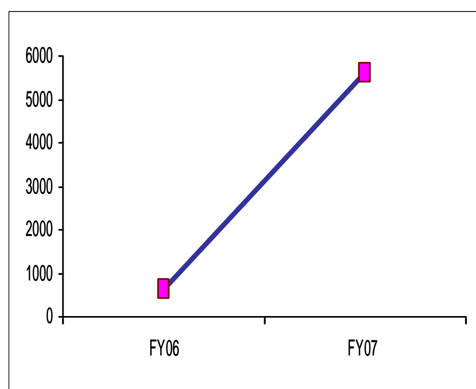
- established six additional image acquisition/screening sites, all of them with capability for mobility;
- created six new, full-time teleretinal screening positions, which have responsibility for the acquisition of retinal images, appointment monitoring and scheduling, monitoring of relevant clinical reminders, diabetes informational activities, and coordination with the healthcare team. The retinal screening care coordinators use a proactive system, employing system redesign principals to identify and manage a panel of diabetic patients, ensuring that adequate primary care activities are delivered comprehensively to VISN 19 diabetes patients;
- established teleretinal reading centers, in Salt Lake City, Ft. Harrison, Montana and Cheyenne, Wyoming; and
- established clinical, business and technical protocols to facilitate an effective, VISN-wide teleretinal screening program.

The VISN 19 teleretinal screening program features strong partnerships between ophthalmology and optometry services, primary care, endocrinology, diabetes education services, and care coordination home telehealth (CCHT). Through fiscal period ten, this program is exceeding expectations to enroll and serve 5000 veterans in its first full year of operation.

Additionally, five additional cameras have been added in Montana, Cheyenne, Denver, Grand Junction and Sheridan. With these additional cameras it is expected to see more growth in the program in the coming year.

Active Programs, Locations and Enrollment

Program / Provider Location	Patient Location(s)	Total Unique Veterans
436 Montana HCS	Billings, Ft. Harrison, Missoula, Miles City	905
442 Cheyenne VAMC	Cheyenne, Fort Collins, Greeley	909
554 ECHCS	Denver	614
660 SLCHCS	Salt Lake, Pocatello	2658
666 Sheridan VAMC	Sheridan, Riverton, Powell, Gillette, Rock Springs	0
	Total Teleretinal Screening Uniques	**5086**



- FY06 = 633
- FY07 = 5621
- 888% Increase

Expectation
- FY08 = 10,000

Current Performance Monitors/Measures

Through funding from VA Central Office in FY06, a national Care Coordination Teleretinal Imaging (TRI) program was implemented in all 21 VISNs to improve patient access and compliance with recommended screening for diabetic retinopathy. Memorandums of Understanding (MOUs) between the Office of Care Coordination (OCC) and each VISN were established which set agreed upon targets for the number of screenings to be performed within the first year of operation and each subsequent year. This monitor will ensure that the agreed TRI targets are met by each VISN.

Targets: All VISNs to meet agreed first year activity targets for Teleretinal Imaging (as per MOU with Office of Care Coordination). **(End of FY07)**

Data Source:
Teleretinal Imaging: DSS Telehealth Data Reports.

Target: 5000 unique Veterans enrolled
Outcome: Current enrollment = 5521

As with telemental health, the enrollment expectation for teleretinal imaging is governed by the MOU signed between VISN 19 and VACO in 2006. Based on that agreement the Network will be expected to provide services to 10,000 unique veterans in FY08.

Teledermatology

The VISN 19 Teledermatology program is headed by Eastern Colorado Healthcare System. Dermatology consultations are provided by Denver VAMC dermatology service using a system of store and forward imaging, facility and interfacility consults. At each of the patient site locations trained imagers (typically nursing staff) employ Cannon digital cameras to acquire images, following patient referral by primary care providers. Images are uploaded to Vista Imaging and the Vista consult system is used to request dermatology consultation and

facilitate the feedback loop from consultant to referring healthcare team. This a new program, commencing services in the fourth quarter of FY07

Active Programs, Locations and Enrollment

Program / Provider Location	Patient Location(s)	Total Unique Veterans
442 Cheyenne VAMC	Cheyenne	10
554 ECHCS	Denver, Colorado Springs, Pueblo	106
666 Sheridan VAMC	Sheridan, Riverton, Powell, Gillette, Rock Springs	0
	Total Teledermatology Uniques	**116**

Current Performance Monitors/Measures

None

American Indian Telehealth Outreach

Telehealth services provided to Native American veterans at, or near, their tribal environment has significantly improved quality of care. The initial thrust of this outreach has featured telemental health as well as Care Coordination-Home Telehealth initiatives. Eventually, as appropriate, other telehealth activities will be pursued. Telemental health services, including intake and assessment, medication management, individual psychotherapy, and group psychotherapy are provided on an inpatient and outpatient basis to each of the current tribes being served, with the goal of serving all 21 tribes within the VISN 19 catchment. Outpatient telemental health services originate from the University of Colorado Health Sciences Center (UCHSC), American Indian and Alaska Native Program, (AINAP) and the VA Salt Lake City Health Care System. Inpatient mental health services are provided at the VA Salt Lake City Health Care System and the Sheridan VAMC. Care coordination services, focusing on management of chronic diseases, including diabetes, CHF, COPD, PTSD, and substance abuse, are initiated, based on availability of communications infrastructure, either through home connections or through devices located in public areas, shared by multiple Native American Veterans.

Active Programs, Locations and Enrollment

TRIBE	Telehealth Application(s)	SERVICE LOCATION	Provider Location	Status
Northern Arapaho Eastern Shoshone	• CCGT Telemental Health • CCHT	Riverton CBOC (CCGT) Ft. Washakie clinic (CCHT)	AIANP-CCGT Sheridan-CCHT	Operational
Northern Cheyenne	• CCGT Telemental Health • CCHT (Kiosk)	Lame Deer Clinic	AIANP-CCGT Miles City-CCHT	Operational
Crow	• CCGT Telemental Health	Crow IHS Clinic	AIANP	Operational
Chippewa Cree	• CCGT Telemental Health	Rocky Boy Tribal Health	AIANP	In deployment
Gros Ventres / Assiniboines	• CCGT Telemental Health	Fort Belknap Service Unit	AIANP	In deployment
Sioux / Assiniboine	• CCGT Telemental Health	Fort Peck Service Unit	AIANP	In deployment
Shoshone Bannock	• CCGT Telemental Health	Ft Hall Service Unit	SLCHCS	In deployment
Confederated Saleesh (Flathead)	• CCGT Telemental Health	IHS Clinic	AIANP	Awaiting connectivity
Black feet	• CCGT Telemental Health	Blackfeet IHS hospital	AIANP	Awaiting connectivity
Ute	• CCGT Telemental Health	Uinta & Ouray Indian Health Center	SLCHCS	Awaiting connectivity
Navajo	• CCGT Telemental	Montezuma Creek	SLCHCS	Awaiting

	Health	Clinic		connectivity

Primary Care Telehealth

In FY2004 Cheyenne VAMC initiated a first of its kind pilot in the VHA, to improve the provision of primary care services to veterans in Albany County, Wyoming. The Albany County Primary Care Telehealth Program was joint venture between the Cheyenne VAMC and the Wyoming Department of Health, and Albany County Public Health Clinic and lasted for approximately two years. The program proved to be effective and was well received by the veterans served.

This was followed by a program initiated by the Salt Lake City HCS, which is currently in operation and provides primary care follow-up services to veterans located in Elko Nevada. Initially, the SLC/Elko program utilized POTS based technologies but is in the process of converting to broadband technologies which will significantly improve the capabilities of the system.

Some primary benefits of the teleprimary care program include:

- Addressing continuity of care issues for veterans in rural communities
- Decrease hospitalization, emergency room and pharmacy costs through improved access to primary care
- Explore the effectiveness of telehealth programming in the delivery of routine primary care follow-up services
- Provision of mental health services as needed

Based on these successes, it is expected that teleprimary care will experience continued growth in the Network over the next year which will include locations in Craig Colorado, (services provided by Grand Junction VAMC, and Burlington, Colorado, with services provided from Denver VAMC.

Active Programs, Locations and Enrollment

Program / Provider Location	Patient Location(s)	Total Unique Veterans
442 Cheyenne VAMC	Laramie, Wyoming (terminated)	8
660 SLCHS	Elko, Nevada	71
575 Grand Junction	Craig, Colorado (In Development)	0
554 ECHCS	Burlington, Colorado (In Development)	0
	Total Teleprimary Care Uniques	**79**

Current Performance Monitors/Measures

None

Telerehabilitation and Wound Care

Telerehabilitation services provided to veterans at their local VAMC or CBOC significantly improves access to care, continuum of care, timeliness in providing care and cost/return benefit to the VISN 19 system. Currently, telerehabilitation services in VISN 19 center primarily around ECHCS and the Denver VAMC. Services entail identification of veterans who may benefit from some intervention or treatment by rehabilitation but who are unable to travel the long distances required for this care. This has been particularly consistent with ongoing speech treatment where the patient can receive services via videoconference technology instead of using Fee Based referrals. In addition, rehab has used videoconferencing to screen candidates for coverage by the TBI team. Additionally, wheelchair evaluations and amputee follow-up have been applied to this system. The potential for expanded care is both obvious and desirable for patients who must travel long distances to receive care. Growth of the program has been limited by equipment, space, and staff availability but with a funding infusion by VISN 19 to purchase additional technology in FY07, the program is expanding. New patient locations are now operational at the Miles City and Pueblo Nursing Homes and the Cheyenne VAMC. Additional opportunities for expansion exist at the Elko, Nevada telehealth clinic and the Sheridan VAMC. Following full implementation of this program the following services will be available to veterans in VISN 19 via telerehabilitation: screening, assessment, treatment, and follow-up to patients whose disabilities include Traumatic Brain Injury, Speech, Language, Voice, Swallowing, Spinal Cord Injury/Disorder, Amputee, Wound/Skin Care, and Wheelchair patients. Patients in most of these categories typically capture high VERA

dollars and require long-term follow-up and management making them particularly good candidates for remote care.

Additionally, Denver VAMC is designated as a Level II polytrauma site and has been equipped to participate in the national Polytrauma Telehealth Network, the first VHA national telehealth network. It is envisioned that this system will eventually reach to tertiary centers and even home settings. The primary benefits of this system are continuity of and access to quality rehab care.

Sheridan VAMC personnel have spearheaded efforts to use digital imaging to enhance the treatment of wounds. Utilizing digital cameras, clinical staff located at Sheridan's CBOC's capture JPEG format wound images, which are transferred to the Sheridan VAMC as email attachments or attached to the medical record in CPRS. This store-and-forward methodology allows clinicians at Sheridan to follow the course of the patient's medical treatment more closely while sparing the patient the need to travel long distances. This application has also been used to enhance the consultation process for wound care between clinicians inside and outside of the VA.

Active Programs, Locations and Enrollment

Program / Provider Location	Patient Location(s)	Total Unique Veterans
436 Montana HCS	Miles City Nursing Home	No Stats
442 Cheyenne VAMC	Cheyenne	
554 ECHCS	Pueblo Nursing Home	
660 Sheridan VAMC	Sheridan	
	Total Telerehabilitation Uniques	

Current Performance Monitors/Measures

None

Telesurgery

Active Programs, Locations and Enrollment

Telesurgery is a new program in VISN 19, with the Grand Junction pilot program being launched in the fourth quarter of FY07. This program is being developed in two phases. The first is a telesurgery program which facilitates pre surgical evaluations and post surgical follow-ups to veterans located at the Montrose, CO CBOC from consultants and providers located at the Grand Junction VAMC. This is a real-time application employing videoconferencing technologies and digital exam camera.

The second phase of the program will use telehealth programming to enhance access to and continuity of care to veterans being served by the bariatric surgery program at Grand Junction VAMC, which will be the VISN bariatric surgery center.

Active Programs, Locations and Enrollment

Program / Provider Location	Patient Location(s)	Total Unique Veterans
575 Grand Junction VAMC	Montrose CBOC	No Stats
	Total Telesurgery Uniques	

Current Performance Monitors/Measures

None

Telenutrition / TeleMOVE

Nutrition and the MOVE program are excellent clinical programs for telehealth modalities. Services primarily involve patient counseling and education and videoconferencing frequently works well to facilitate these processes. Currently two pilot initiatives are in place in SLC, (nutrition counseling) and Cheyenne, (MOVE follow-up and group activities.) The Cheyenne MOVE program uses, in addition to videoconferencing technologies, home telehealth technologies to capture and trend veteran weigh-ins.

Active Programs, Locations and Enrollment

Program / Provider Location	**Patient Location(s)**	**Total Unique Veterans**
442 Cheyenne VAMC	Rawlins, Torrington	2
660 SLCHCS	St. George Utah	5
	Total Telerehabilitation Uniques	**7**

Current Performance Monitors/Measures

None

Care Coordination Home Telehealth (CCHT)

VISN 19 CCHT Program

CCHT is one of the earliest successes of VISN 19 and the Network continues to be a national leader in the area of CCHT for mental health populations. Although enrollment has been mostly flat for the past two years, within the last two months significant staffing capacity was added in Denver and Sheridan which will allow for increased growth in FY07.

The existing focus of CCHT in VISN 19 has been:

- Patients with chronic disease
- Making home the preferred place of care for veterans, when appropriate
- The two percent of patients whose treatment incurs 20-30% of health care costs
- Providing non-institutional care support for veteran patients
- Assisting veteran patients to self-manage their disease, when this is possible

Each of the stations in VISN 19 have identified areas for improvement in clinical care and coordination of care and developed new and innovative delivery systems to help meet the needs of unique veteran populations. Continuity of care issues were present at many stations and it was hypothesized that CCHT programs might assist in not only providing that care to vets who reside locally, but those who reside in remote areas for whom services are limited or not available. Reinforcement of education to veterans through their healthcare team members is an integral part of care coordination programs implemented. The availability of dedicated care coordinators provides improved communication and results in improved compliance with treatment regimens and follow-up.

CCHT programs are in place in all six of the VISN 19 medical centers. Populations served with CCHT programs include those with:

- PSTD,
- Mood Disorders,
- Bipolar Disorder,
- Substance Abuse,
- Diabetes,
- Congestive Heart Failure,
- Chronic Obstructive Pulmonary Disease,
- Hypertension,
- Anticoagulant Therapy, and
- Polypharmacy

All of these are chronic conditions in which not only high costs, but high utilization occur. Patients are identified through a variety of sources including: DSS utilization and encounter queries, staff referrals, and discharge planning. Once the patient is determined to meet enrollment criteria for the specific program for which they have been referred, and the patient is willing to participate, informed consent is obtained. Education about the program objectives, communication guidelines and roles/responsibilities of each member of the team (which includes the vet, their provider(s) and Care Coordinator) is provided on a one to one basis or in a group format.

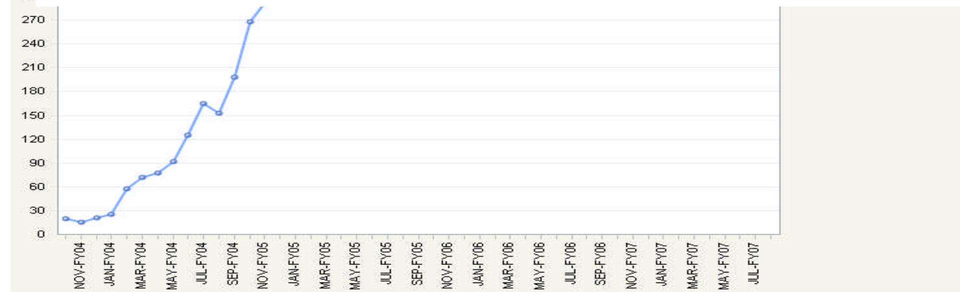
Expertise in the development of new programs has been developed at the Salt Lake and Sheridan stations, with the collaborative working relationships between key vendors providing the technical expertise and VISN 19

staffers providing the clinical expertise. The PSTD, substance abuse and polypharmacy programs are new tools that will be able to meet the needs of many of our veteran populations. Beta testing and development of job aids for implementation provided the opportunity to see positive outcomes, which support the overall goals of the VISN CCHT efforts.

The primary technologies currently in use in VISN 19 include the Health Buddy Network, Viterion, VitelNet and Video Phones.

Fiscal year 2007 Final CCHT Enrolment Statistics

	Current Staffing			Current Enrollment			
Station	**Admin / Support?**	**CCHT clinical FTEE**	**CCHT Admin/ Support FTEE**	**Total FTEE**	**CCHT Target Panel**	**CCHT Actual Panel**	**%**
436	No	1.0	0.0	1.0	312	90	29%
442	No	2.0	0.0	2.0	112	93	83%
554	Yes	4.0	1.0	5.0	557	148	27%
575	No	1.0	0.0	1.0	110	111	101%
660	Yes	4.5	2.0	6.5	406	473	117%
666	No	3.0	0.0	3.0	153	155	101%
		15.5	**3.0**	**18.5**	**1650**	**1070**	65%



The following table shows summary CCHT cost avoidance data for 1212 veterans. The study compared total cost of care one year prior to enrollment in CCHT program with total cost of care during first year of program enrollment.

Cost Avoidance through 2nd Quarter, FY2007

Station	N	Inpatient	Outpatient	Total
436	102	$268,610	$294,631	$563,241
442	125	$1,549,472	-$875	$1,549,472
554	177	$1,631,981	$234,728	$1,866,709
575	147	$638,267	$138,005	$776,272
660	469	$1,496,846	$1,336,639	$2,833,485
666	192	$896,862	-$105,590	$791,272
Totals:	**1212**	**$6,482,038**	**$1,897,538**	**$8,380,451**

CCHT Patient Satisfaction (Data Source: OCC/VSSC)

Survey Item	National	VISN 19
1) The staff is helpful.	92%	92%
2) Information given to me about my health is clear and adequate.	90%	90%
3) Your Care Coordinator has a thorough understanding of the things that are wrong with you.	87%	87%
4) Advice the Care Coordinator gives you about ways to avoid illness and stay healthy.	88%	88%
5) I would recommend this type of care to my family or friends who have chronic diseases.	91%	92%
6) It is easy to understand what the Care Coordinator is talking about.	88%	89%
7) The information given by the Care Coordinator about my medical problems helps me to adjust to my condition.	89%	89%
Patient Satisfaction Index	89%	89%

CCHT VR12 Assessment of Functioning

		Physical Component Score (PCS)	Mental Component Score (MCS)
National	Based on 46564 surveys received that were completed from 10/02/2005 through 09/10/2007	38.671	35.243
VISN 19	Based on 2557 surveys received that were completed from 10/02/2005 through 09/10/2007	39.913	34.409

Current Performance Monitors/Measures

Rationale: a national care coordination home telehealth (CCHT) program was implemented across VHA in fy04 and fy05. CCHT uses health informatics, home telehealth and disease management technologies to enhance and extend care and case management. It is specifically targeted at supporting elderly veterans and those with chronic care need to help them remain living independently.

From FY07, patients enrolled in CCHT are to be categorized as non-institutionalized care (NIC), chronic care management, acute care management or health promotion/disease prevention. This monitor will ensure that all patients designated as NIC have been appropriately categorized. It will further identify the proportion of the CCHT patient population that is receiving non-institutionalized care in CCHT programs nationally.

The goals of CCHT programs are to increase access to care, improve outcomes and decrease utilization for enrolled patients. Specific DSS codes have been developed that provide the ability to extract data on utilization and clinical parameters. These data provide input into a data cube constructed by VSSC that will provide utilization data for CCHT in FY07 in support of this monitor.

Actions required: prior to categorizing a patient as non-institutionalized care (NIC), care coordinators are required to assess patients' functional status to determine if they meet NIC criteria. This assessment is done via the continuum of care form (CCF) and documented in the electronic medical record. Only patients meeting the criteria set forth in the CCF can be categorized as NIC.

MEASURE TARGET(S)

5b: VISN will achieve a CC/HT Program enrollment of at least 1000 to be fully successful and 1500 to be exceptional.

Outcome: VISN 19 achieved fully successful level with enrollment of 1070 veterans.

MONITOR Targets:

Each VISN will demonstrate a 20% reduction in utilization for all patients enrolled in CCHT programs. (2nd and 4th Quarters)

Outcome: The OCC/VSSC official report of data indicates VISN 19 has exceeded this measure and is actually rated #1 nationally, (See left).

a. Ensure all CCHT patients categorized as Non-institutional Care (NIC) have the CCHT Continuum of Care Form documented in CPRS upon enrollment confirming that NIC criteria has been met and then repeated every six months thereafter. (March and Sept**ember)**

Outcome: Fully successful-all veterans have been assessed using the CoC form.

	BDOC % Change	Admission % Change
V01	-19%	-11%
V02	-51%	-42%
V03	-31%	-16%
V04	-40%	-34%
V05	-33%	-11%
V06	-55%	-40%
V07	0%	3%
V08	-43%	-30%
V09	-34%	-33%
V10	-19%	-26%
V11	28%	-19%
V12	-32%	-39%
V15	25%	-18%
V16	-39%	-24%
V17	-12%	-45%
V18	-34%	-26%
V19	-69%	-50%
V20	-48%	-28%
V21	-45%	-38%
V22	-53%	-47%
V23	38%	-18%

CONCLUSION

Fiscal year 2007 was generally very successful for CCT in VISN 19. Accomplishments include:

- New programs in teledermatology, telesurgery, telerehab, and telenutrition, and telemental health;
- Significant expansion in telemental health and teleretinal imaging programs;
- New VISN level Care Coordination Telehealth Telemedicine directive
  - Standardizes terminology
  - Establishes oversight committees at each facility
  - Requires telehealth coordinators at either the program or facility level
  - Requires use of service agreements for programs;
- New CCHT staffing resources added in Denver, Salt Lake, and Sheridan;
- VISN 19 Met or exceeded all national performance measures/monitors for telehealth;
- Approximately 330% increase in unique veterans served via general telehealth programs in comparison to the previous two years;
- Rocky Mountain Telehealth Training Center
  - fully staffed
  - posted national CCGT web based telehealth core curriculum on EES
  - planned and executed the national CCGT Leadership Forum in D.C.;

In Fiscal Year 2008 the following will be the primary influences on CCT planning, development and service delivery.

1. Patient needs driving services
   - Already a high priority, we need to improve our process for identifying patient needs and deficits in

service delivery that can be met through telehealth

2. Organizational development and human resource issues
    - Only two of the facilities have organized CCT oversight committees and some have yet to designate telehealth coordinators with time allotted to perform the function.
3. Technology platform issues
    - The IT reorganization has significantly impacted telehealth, not only with budgeting and technology acquisition, but also with availability of technology support and very significantly with connectivity and bandwidth. The CCTT Office will need to work closely with OIT and other VISN entities to develop a comprehensive plan to deal with technology issues in the coming year.
4. Quality assurance issues / Data and information needs
    - Standardized VISN and facility CCT report cards will be developed as well as a mechanism for reporting CCT outcomes at all levels of the organization. Newly developed data tracking processes at the national level will be most helpful in facilitating this.
5. Training issues
    - VISN standards for CCHT training will be developed and the significant need for CCGT training will be addressed with VISN resources and through the RMTTC
6. Coding and business process issues
    - Much progress has been made with coding and clinic set-up standardization. The VISN will institute a new process to audit telehealth clinic set-ups and assure that encounters are properly closed out to ensure that workload data reaches Austin.
7. Emergency and disaster recovery issues
    - Updated VISN policy and procedure will need to be developed for both CCHT and CCGT.