Telehealth

Provides clinical care in circumstances where distance separates those receiving services and those providing services. The value VA derives from Telehealth is not in implementing Telehealth technologies alone, but how VA uses health informatics, disease management, care/case management and Telehealth technologies to facilitate access to care and improve the health of Veterans with the intent to provide the right care in the right place at the right time.

Virtual Teams and 3D Printing

Virtual Teams can be to health care delivery, as 3D printing will become to manufacturing?

Since time immemorial, health care delivery has depended on the direct “hands on” assessment, investigation, diagnosis, treatment and care of people with various conditions by their trusted practitioners.

Over time, and across many different cultures, the nature of health has constantly changed, as has the name and role of those designated to deliver formal health care services. Throughout the twentieth century, as the complexity of these various processes to assess, investigate, diagnose, treat and care increased, the emphasis of an emerging health care system was focused on developing hospitals where physicians, nurses and other health care professionals mostly managed acute conditions.

In many senses, this changing face of health care mirrored, as well as followed, in the footsteps of similar changes to manufacturing industry. Traditional goods and products that had been previously made in small workshops and cottages by individual crafts people, as well as many other new ones, were now being mass-produced in factories. At that time, whether in relation to how work or health care were organized, a unifying principle was to bring people to physical places (factories or hospitals) where a concentration of capital assets could create the required product in the most efficient and consistent way.

At the end of the twentieth century, and into the twenty-
In The News:
Study Shows Savings from VA Telehealth Program

Veterans getting their care via the Veterans Health Administration’s home-based telehealth programs are experiencing better outcomes with lower costs than Vets who are not enrolled, according to a new study.

This is the first time the VA has been able to directly compare populations of Veterans accessing telehealth with those who get all their care in person. Data from 2009 to 2012 showed that annual costs of telehealth patients dropped about four percent after a year using telehealth programs, compared with a one-year spike of 48 percent in costs for those Veterans outside telehealth.

The study by Dr. Adam Darkins, the VA’s lead on telemedicine implementation, showed that telehealth patients had higher pharmacy costs, which was attributable to better compliance with prescriptions. The telehealth population also saw decreases in hospital admissions and emergency room visits.

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Virtual Teams and 3D Printing (continued)

Adam Darkins, MD, MPH, FRCS

and the development of the “medical home”. It seems to me, that we are on the cusp of yet another change, one where the social organization of health care has another opportunity to follow in manufacturing’s footsteps. Three-D printing now makes it possible to create goods locally, ones that until recently, were mass-produced either in the US or off-shore.

As the cost of 3-D printing falls, and its functionality grows exponentially, most of us can anticipate having this technology in our homes before long. Rapidly evolving virtual health technologies make it possible to assess heart failure, sleep disorders, epilepsy, pulmonary diseases, Parkinson’s disease etc. in the home and other non-hospital/clinic settings.

These changes were not technology driven; instead their impetus and the technological innovations to support them were driven by other forces. Globalization and off-shoring of the traditional manufacturing base in the USA and western industrial countries meant manufacturing shifted focus toward light engineering and assembly, instead of large capital equipment production.

First, manufacturing led the way in creating a new social order; with the diminishing importance of the large factory, growth of industrial parks and just-in-time processes sprung up with reduced need for inventory. Once again, health care followed suit, with its focus on primary care, satellite clinics, ambulatory day-surgery and inventory chain management.

With improved life expectancy and lifestyle changes, health care had to transition from treating acute conditions to managing chronic disease, something hospitals are not ideally suited to do. Consequently, we saw the expansion of clinic-based care

Embracing internet protocol (IP) video interactions should be part of how personal devices morph over the next few years, and offer the opportunity to provide virtual care across the continuum.

In many ways, the missing link to managing more care in the home and local community is not the technology, which is already fairly sophisticated, but rather it is bringing the right clinical expertise, to the right place, at the right time; or to put it another way, creating, developing, managing and sustaining virtual teams.

So, as you read this edition of our newsletter don’t think of virtual team-working in the hallowed tradition of the physical care team, multi-disciplinary team or tumor board, nor that it will necessarily be based on the same general processes as those used in delivering physical services.

Increasingly, team working is going to be virtual, and so our thinking about the location of care needs to be flexible and focused on the patient.
Virtual team performance, benefits from a clear concept of what it is, where it takes place and how it will ensure that team members have the necessary competencies to reach expected levels of performance.

Throughout this fiscal year, the VHA National Telehealth Training Center has worked on these issues and has developed training to create virtual teams, platforms and clinical processes for Clinical Video Telehealth, Home Telehealth, Store-and-Forward Telehealth are rapidly evolving and also converging. They are part of a wider portfolio of Virtual Care modalities that include secure messaging, the plain old telephone system (POTS), e-consults, mobile health and TeleRadiology. Clinicians have a plethora of ways in which they can connect with other team members and interact with patients, both synchronously and asynchronously. Whether they use these other modalities apart from Clinical Video Telehealth, Store-and-Forward Telehealth and Home Telehealth, staff need to be aware of other modalities, and how they are appropriately used. We believe virtual teams possess a set of core competencies that enable this awareness and ensure the right technology is used to provide the right care at the right time.

Our ongoing work on training virtual teams is focused on competencies that foster collaboration, coordination and communication. Whatever virtual care modality is used, the driving force for virtual team performance is not the technology, it is access for the Veteran patients so they receive the right care at the right place and the right time.

Another key to successful virtual teams is that they can self-assemble to meet the clinical needs in the field and not try to adopt a rigid construct for team performance. An example of high-performing virtual teams is found in the integration of Telehealth into PACT and ICU.

The pace of change in Telehealth is so rapid that if we wait until the next innovation is upon us, the tasks ahead will appear formidable. We know we must proactively prepare our telehealth community to recognize and take advantage of the emerging technology. The field must be agile, flexible and willing to change their methods of delivering care for patients. Key to this change will be the need for expertly trained staff to be deployed locally. Our approach to supporting the creation, sustainment and ongoing development of successful virtual teams is through
The long term goals of developing a culture of patient centered virtual care and improving access are all focused around developing teams of dedicated and committed VA employees who work closely together on a consistent basis to redesign the core beliefs related to care in this dynamic system.

Providing improved access to care requires finding innovative and creative ways to provide care using Telehealth modalities to their fullest capacity. This team approach is based on real-time communication and intervention and can be well adapted to include virtual telehealth teams using technology to bridge the gaps of distance and geography.

The goals of the Telehealth Virtual Team correspond with those of the Patient Aligned Care Team model. The three pillars of the program include creating access to care for Veterans in all areas, providing seamless coordination of care between VA and Non-VA, Inpatient and Outpatient, and Specialty and Primary Care and redesigning practice to best use the team members in facilitating true patient centered care.

The creation of the Telehealth Virtual Team requires a bit more forethought for success than traditional face-to-face teams. Virtual teams require a level of commitment and purpose that cannot be left to chance. Virtual teams require a specific set of knowledge, skills and competencies to achieve the overall goal of delivering safe and effective care across geographical distances.

Clinical telehealth teams have the shared goal of safe and effective patient care encounters – and the guiding principles include using technology to deliver care in a manner that works for the staff and meets the needs of the patients.

Guiding principles also dictate the way the team functions – and each team member must have a clear idea of what is expected of them in their virtual role; what pieces of the patient encounter are they responsible for and exactly how are they to carry out each task? Which documentation items are they to complete and which templates should they use to carry out this function?

Compared to a face-to-face environment, the processes are often times very different than the actual roles and responsibilities in a virtual
Virtual care has transformed the way health care is delivered, especially for those with limited or no access to care. While virtual care has extended beyond the reach of VHA, including in foreign countries, it remains clear that it is becoming more and more entrenched in the health care arena.

While the VA has been a pioneer in addressing patient access issues, the advent of improved technology and communications through stable and robust Internet connectivity has also contributed to the expansion and acceptance of this delivery model.

The patient centered medical home model has also increased our ability to bring specialty care directly to the patient in a timely and appropriate way – i.e., the right care, in the right place, at the right time. In addition to improving access, virtual care also has the potential to reduce wait times, reduce hospitalizations, and preserves quality of life for the patient while at the same time providing a high level of care.

In training for Store-and-Forward Telehealth, we have long wrestled with the question that since care can be delivered virtually, why can’t training be delivered virtually?

Since there is an abundance of technology available to us, and with the prospect of excellent communications and bandwidth opportunities, the prospect became more of a reality. Coupled with new education platforms like Adobe Connect, Blackboard and MyTelehealth, we decided that the time has come for us to pilot distance learning, techniques-based certification programs.

Towards the end of calendar year 2013, the addition of a new training specialist who brought the Store-and-Forward Telehealth Training Team to full staffing, we looked at options for delivering totally virtual programs.

But first, we needed to look at the personnel needs that might allow us to take advantage of the technology and educational applications that were available to us. The logical solution was to look towards our very robust and expansive Store-and-Forward Telehealth Preceptor Program.
Given the complexity and nature of our work it sometimes makes it difficult for any one of us to reach our goals unassisted.

For this reason, working in teams of people with complementary skills, pooling experience and accomplishing common goals is vital to our success. As we coordinate our efforts with other services in a mutually supportive manner, our Veterans benefit in many ways, including having improved communication, service coordination and customer service.

Although most of us work in teams, we often take for granted the support of others outside of our own office or clinic space. It is often those individuals or groups of individuals that enable us to meet our Home Telehealth Veterans’ needs.

We have a Champions Recognition Program that honors the contributions of individuals or teams that have not only made a difference for our Veterans but have been strong supporters and collaborators with our Home Telehealth staff. Because of the key role that our virtual team members play, we have dedicated space in this edition to recognize them for their contributions.

Our first Champion virtual team member comes from the VA Roseburg Healthcare System in VISN 20. Dr. Tracy Weistreich is the Associate Director of Patient Care Services.

Dr. Weistreich has been a champion for Home Telehealth even before she was directly involved with the program. Originally, Home Telehealth and Ambulatory Care Services were under the Chief of Staff.

Last summer, organizational charts were realigned and Home Telehealth moved under Dr. Weistreich.

Together with her local Home Telehealth team, she helped to brainstorm how to grow the service and also supported the team with a rural health proposal which was funded so they can provide Home Telehealth mental health services. She has been an amazing cheerleader for us.

Our next Champions are a team of Pharmacists from the West Palm Beach VAMC in VISN 8.

Pharmacists, Dr. Guadalupe Garcia, Dr. Brandon Utter, and Dr. Nicole Ganzer graciously provided training to the Home Telehealth Care Coordinators on psychiatric medications. Not only did they volunteer to do training but they offered a series of educational sessions to include Pharmacotherapy.

(Continued Page 14)
The English poet, John Donne (1572-1631), stated that “no man is an island” and this remains true today with regards to the work that is being done by the National TeleMental Health Center (NTMHC).

It takes remote teams of dedicated individuals working in partnership nationally to provide exceptional service to our Veterans every day. National TeleMental Health Center clinical experts have established and provided consultative and therapeutic services nationally to Veterans who have clinically challenging and complex psychiatric conditions.

To date, National TeleMental Health Center programs have been established for Veterans in all 21 VISNs at 75 different sites allowing these nationally recognized clinical content experts to come to the Veteran, regardless of their location. Since the inception of the National TeleMental Health Center in July 2010, over 6,500 encounters have occurred representing approximately 2,000 unique Veteran patients. Our expert clinical teams, comprised of psychiatrists and psychologists, are located in VA facilities throughout the country – VA Connecticut Healthcare System (TelePain, TeleSchizophrenia, TeleC&P, TeleBipolar), VA Boston Healthcare System (TeleBipolar), the Philadelphia VA Medical Center (TeleInsomnia) and the Providence VA Medical Center (TeleNon-Epileptic Seizure).

The National TeleMental Health Center collaborates with the national network of Facility Telehealth Coordinators and Telehealth Clinical Technicians for their expertise, dedication and patient centered focus on the Veteran.

These teams are instrumental in ensuring that Veterans are provided with care that is safe, efficient and timely. In addition to greeting the Veteran, providing necessary documentation and ensuring comfort with the video equipment process, they alert the provider prior to initiating the encounter to any concerns that may not be easily identified during the video session.

(Continued Page 19)
In January 2014, Telehealth Services began User Acceptance Testing (UAT) of the newest Home Telehealth technology – “Browser”.

This technology was an optional 2010 Home Telehealth contract element and Cardiocom was the first Home Telehealth vendor to submit and receive approval for the use of their browser technology, NetResponse, after a rigorous review to ensure it met all VA security standards. Browser technology allows Veterans in Home Telehealth programs to receive and transmit biometric data, symptom responses and health education information contained in their assigned Disease Management Protocol (DMP) via any internet-enabled device owned and used by the Veteran. These devices could include Personal Computers (PCs), Laptops, smartphones, or computer tablets. Patients enter a secure website and enter a login and password. Using separate peripheral biometric devices such as a blood pressure monitor, a scale, and a blood glucose meter, patients obtain their specific measurements and enter these manually in the website. In addition, they respond to appropriate symptom questions and receive pertinent health information. This allows Veterans a more flexible way to learn self-care management as well as being monitored by Home Telehealth Care Coordinators for any alerted changes being communicated to their health care team. Therefore, Veterans can receive, complete and send their results while they are at work, traveling, or just within their own home.

All VA Veterans Integrated Service Networks (VISN) participated in the NetResponse user acceptance testing that started in January. The testing was limited to one site in each VISN with ten patients at each site and continued for eight weeks. Both the Veterans and Home Telehealth staff involved in the testing were very positive about the technology and this was reflected in the high ratings in the post-testing evaluations from both groups. One Veteran stated, Home Telehealth “has come so far from the little box on the desk. The phone system (interactive voice response) was better, but this is great!” Both staff and Veterans found the training to be very simple and Veterans enjoyed the flexibility the technology offers.

As a result of this nationwide, collaborative effort and successful testing, Telehealth Services recently announced that NetResponse was available nationally for all Veteran Home Telehealth patients as of June 18, 2014! There have been numerous vendor trainings available for the mandatory Home Telehealth staff which
The Newest Home Telehealth Technology (continued)

have been well received and attended. Within the first three days of national release, approximately 60 new patients were enrolled on NetResponse and that number has grown to over 350 patients at the time of publication.

Browser is considered another “modality” of Home Telehealth care – similar to the in-home messaging devices, Interactive Voice Response (IVR), cellular modem transmission, and video via Plain Old Telephone System (POTS). As always, staff will receive specific information and training prior to implementing the browser technology for their Home Telehealth patients. This is just another example of how VA is bringing the “right care, to the right place and at the right time” for our nation’s Veterans.

In closing, our appreciation goes out to the NetResponse pilot sites and lead clinicians listed below for their willingness to participate, attention to detail, and valuable feedback throughout the pilot that will assist both Veterans and staff as we begin to utilize this exciting new technology nationally: VISN 1 – Providence (Jackie Graff), VISN 2 – Syracuse (Jan Luke), VISN 3 – Brooklyn (Lumara Romero), VISN 4 – Wilkes-Barre (Katherine Davis), VISN 5 – Washington D.C. (Carolyn Rainey), VISN 6 – Salisbury (Sonja Whitfield), VISN 7 – Atlanta (Jillian McDaris), VISN 8 – Tampa (Susan Clayton), VISN 9 – Huntington (Tammy Winters), VISN 10 – Chillicothe (Jan Kaney), VISN 11 – Battle Creek (Linda Fayer), VISN 12 – Hines (Renee Randall-Flores), VISN 15 – Wichita (Mike Goodwin), VISN 16 – Shreveport (Tim Story), VISN 17 – San Antonio (Lisa Alexander), VISN 18 – Albuquerque (Yuuki Nakayachi), VISN 19 – Cheyenne (Kimberly Bennett-Sutton), VISN 20 – Roseburg (Dayna Kaney), VISN 21 – Sierra Nevada (Anita Denise Savell), VISN 22 – Long Beach (Alyssa Colodny), and VISN 23 – Black Hills (Suzanne Silverston).

Telehealth Virtual Teams and Master Preceptors (continued)

the role of an existing cadre of experts known as Telehealth Master Preceptors or Telehealth Preceptors. For the purpose of this article we will call both groups Telehealth Master Preceptors.

The VHA Telehealth Services National Training Center, located in three different sites, provides expertise in the areas of Clinical Video, Store and Forward and Home Telehealth. The Telehealth Services National Training Center has worked diligently to develop expertise and competencies to foster collaboration, coordination and communication required by providers of telehealth services. Gaining expertise is strictly voluntary and the Telehealth Master Preceptors dedicate their precious free time in support of training of others involved in delivering care using telehealth modalities. The Telehealth Master Preceptors are an extension of the Telehealth Services National Training Center and VISN missions. They uniformly exhibit a passion and commitment to training and excellence in patient care.

The training curriculum and programs were developed around a foundation of core concepts with an emphasis on understanding the importance and value of virtual teams and the elements to ensure their success. The Telehealth Master Preceptors explore how to effectively collaborate and transform traditional methods of transferring clinical skills to the virtual environment throughout the program.

The core content of the training and instruction curriculum begins with the exploration of what it means to work virtually within a variety of collaborative structures. As we know, structures can be informal and formal, as well as virtual and traditional. The core content of the training focuses on a platform that creates a structure that yields a collaborative virtual team structure. Virtual collaborative team structures evolve along a continuum, beginning with work groups and progressing to teams to communities of practice. These structures can arise from a specialty or specific focus and their purpose can be purely social, task-focused or goal-directed. The reality is that most virtual teams are a hybrid, containing many different structures, directions and goals. The structures also rely on a variety of methods and technologies to communicate, and technology is the great enabler that allows teams to accomplish defined tasks and/or goals.

Coordinating the virtual team requires identifying a set of competencies. The competencies consist of the development of a mission, and acquiring the appropriate expertise and supporting diverse team member dynamics. The competencies help in understanding key leadership strategies, roles and responsibilities of other team members, and the steps needed to accomplish the teams goals and tasks. Virtual collaborative team structures, accountability, technology and resources are all fundamental in the process, and need to be addressed.

The Telehealth Master Preceptor competencies also involve the dynamic of an ever-changing VHA clinical virtual environment. This includes virtual modalities such as eConsults and Secure Messaging. However, the focus of the Telehealth
VA is committed to providing tools for disease prevention, increasing access for both disease prevention and illness care and creating an environment in which the Veteran is at the center of every interaction.

Across the Nation, that means identifying Patient Care Aligned Teams (PACTs) who provide primary care as close to the Veteran’s home as possible and utilize an array of technologies, often referred to collectively as Virtual Care Modalities.

VISN 9 has embraced PACTs and the Virtual Care Modalities individually as well as the aggregated impact their joint usage can have. Their importance individually and collectively can best be appreciated against a backdrop of the characteristics of the Veterans in VISN 9. VISN 9 is the 10th largest VISN in square mileage, but ranks fourth among VISNs for the number of Veterans who both use VHA and reside in rural areas. In fact, the percentage of Veterans in VISN 9 using VHA and residing in rural areas is third highest among Networks at 56.57%; yet, VISN 9 only serves five percent of the Nation’s Veterans treated within the VA.

Through the use of technology, VHA is returning to the days of bringing medical care into the home or into Community Outpatient Based Clinics (CBOCs) closer to Veterans’ home in an integrated fashion. By bringing services closer, it is now possible to view the patient and optimization of his/her health truly as the center of the universe (Patient Centered Care) rather than as we did the past in which the bricks and mortar of the healthcare delivery system itself was central.

Let’s provide an illustrative example with the experiences of Mr. TR, a proud and regal bearing gentleman, probably between the ages of 55 and 84, with the common medical problems of Diabetes (incidence of 20% of all VISN 9 users) and high blood pressure, who lives about 100 miles, one way, from any main VA medical center. He has been a user of VA health care for many years. In the past, he had to drive to the closest VA medical center for each and every encounter.

Today, from his home, Mr. TR (and family members as well) may receive visits from providers on his computer at home, such as nutritionists assisting him with better food choices and healthier food preparation techniques. He may have enrolled in a Home Telehealth program using one of several instruments through which he inputs data daily (e.g. weights, BP, pulse, symptoms, glucose monitoring) to assist nurses at the medical center working from protocols to optimize control of his diabetes and blood pressure.

Because Mr. TR has opted-in to Secure Messaging through the MyHealthE Vet portal,
he can request his medication refills on line, converse via secure email with his PACT provider or any one of the specialists or Home Telehealth Nurses that are involved in his care, review standard informational literature about his conditions, and review portions of his own VA electronic record. Mr. TR can utilize all of the above to view and re-review any time he needs to without having to initiate a phone call, which would probably require leaving a message and then waiting for a return call.

Mr. TR now drives 50 miles or less one way to the nearest CBOC, which number 40 in VISN 9, to see a member of his PACT team for any needed in person follow up, although much of his follow up care may occur by telephone or as already mentioned, secure messaging. At the CBOC, laboratory samples may be collected, evaluation of his retina to determine if eye disease is present (a complication of diabetes which can be asymptomatic), and Clinical Telehealth (CVT) appointments in an array of specialties may take place; all without requiring the 200 miles round trip of years gone by.

Finally, his Primary Care Physician can even send a query, called an e-consult, to a specialist about a finding, a laboratory value or a symptom asking if Mr. TR needs to be seen by a specialist, and if yes, can the care be rendered through Clinical Video Telehealth instead of physically face-to-face requiring the daunting 200 mile round trip?

Without the Virtual Care modalities described above, each of these encounters would have necessitated at least one visit to the medical center and the Home Telehealth program would not even be possible. Without the Home Telehealth program, additional visits, including often to Emergency rooms either at the VA Medical Center, or if significant illness to a local institution, would have occurred.

Additional characteristics of the circumstances surrounding Mr. TR which may or may not be present include lack of personal vehicle to traverse the distance to the medical center, or inability to navigate congested traffic areas in which the majority of medical centers are located. If these are present, true barriers to access exist. But even if transportation did not limit access, without the integration of all these services, the health of Mr. TR is unlikely to be optimized.

Change the medical snapshot of Mr. TR to add or substitute other chronic conditions, e.g. mental health diagnoses, chronic pain, need for organ transplantation, and/or congestive heart failure to name a few. Specialized mental health programs are available via Clinical Video Telehealth at CBOCs and even into the Home, making such care more accessible than ever before.

Sixty-six of the 478 Veterans (13.8%) that have been served year-to-date by a National Network of experts for various treatment modalities in mental health through Clinical Video Telehealth are from VISN 9. Without Clinical Video Telehealth, the distance for Veterans in VISN 9 would have precluded most using this important therapy. The experts can be anywhere in the country, review electronic medical record of the Veteran, be able to converse and have eye contact with the Veteran and provide consultation to the patient and local provider, even from the CBOC.

Similarly, nine out of 87 of Veterans (10%) have received evaluation for an organ transplant via Clinical Video Telehealth by a VISN 9-located transplant center. Many transplant candidates drive long distances. This service is in its infancy but expanding rapidly to provide both the transplant evaluation and, soon, the follow up post-transplant visits closer to the Veterans’ home. A recent article highlighted that distance is a barrier to access for transplantation services nationally; the VA has undertaken to lessen the negative impact of distance from the transplant center for the Veterans it serves.

What is the next dot in the evolving technologies and their usage to “connect” in this story of Mr. TR? The latest addition in the story of connected health is the Virtual Electronic Life Record (VLER). VLER is a gateway that will permit access to medical information from both VA and non-VA, Veteran-authorized VLER participating providers displayed in the VA Computerized Record System.

This, too, is in its infancy, but is anticipated to be a major component in allowing Mr. TR to be the center of his healthcare universe. None of these technologies operate in a vacuum; rather they are part of a continuum referred to as connected care joining separate and seemingly disjointed episodes of care. Mr. TR has the advantages of a delivery system that has become nimble, integrative, individually patient responsive and yes, far more efficient with HIS time.

So, who really is Mr. TR? If you guessed Tyrannosaurus Rex, you couldn’t be more wrong. He is Mr. TransformeR (Mr. TR), a Veteran who is the agent of change himself (adopter of new technologies). He is the driver forcing his health care delivery system to constantly transform portions of the brick and mortar into cyberspace resulting in improved access and optimization of his health.
environment, so it is important to meet early and often to discuss potential issues ahead of time, and to address specific things as they come up in a day-to-day clinical setting.

Communication methods are variable too – and in a virtual world many types of communication tools are used every day, such as Instant Messaging, Secure Messaging, CPRS alerts for clinical considerations, telephones, cell phones, fax machines and email are only a few. Discuss ahead of time how certain types of communication will be handled, and then incorporate new tools, as a team, when they become available.

The development of the virtual team must be aligned with the individual needs of the team. Some teams are much further along than others – and some are just starting out with their work group, their specialty or even their individual role within the larger team. Helping each team and each individual reach the level of achievement for that team can be done in many ways.

Mini-residencies allow for an entire team to meet, train, answer questions and plan for future development in a very compressed and scheduled venue. This strategy is very effective for starting a program and getting everyone on the team up to speed quickly over a period of less than a week.

Intensive training for specific roles can be provided for specific roles within a team. Teaching a group of providers in the use and functionality of telehealth equipment can be done in a group setting, and can allow for condensed training and facilitates team building.

The development of a core group of mentors and preceptors is key to the success of any virtual team. These are the individuals in the field who are teaching, training, mentoring and supporting the team on a daily basis.

The Daily Huddle is an integral part of the virtual team, and is one of the key strategies used to achieve true care coordination. Selecting a formal time and place to huddle is critical to the success of the team. For a virtual team this requires using the technology available at each location to meet. It is always best to use a form of video conferencing for this virtual huddle so that real-time information can be exchanged between all team members. The inclusion of the extended team must be planned ahead so that connections can be established and input into the huddle can be achieved. The use of all of the available technology is strongly encouraged.

Communication day-to-day and in real-time using Instant Messaging with Lync is a sure path to a successful virtual team – and including other technologies such as Jabber, EX series connections and cell phones when necessary will make the communication chains stronger as they are used.

Other strategies of the virtual team include: increasing non-face-to-face care; increasing shared medical appointments; increasing the use of Clinical Video Telehealth for specialty care; increasing Veteran education, increasing Veterans’ self-management skills and home telehealth monitoring through care coordination with the use of messaging devices; and increasing the focus of health prevention activities. Communicating with patients using in-home messaging devices and the MyHealtheVet secure messaging system makes simple questions, answers and exchanges of information quick and easily included into the CPRS note.

Points to remember when planning and deploying a virtual team include the realization that face-to-face discussions are beneficial – especially with a new or developing team. The benefits of establishing relationships and communicating
The Impact of Virtual Teams on Conditions of Participation

Virtual teams, defined by ManagementHelp.org, “are a group of individuals who work across time, space, and organizational boundaries with links strengthened by webs of communication technology.”

They have complementary skills and are committed to a common purpose, have interdependent performance goals, and share an approach to work for which they hold themselves mutually accountable. A very similar definition for virtual teams used by the Society for Human Resource Management is: “an interdependent group of individuals, who predominantly use technology to communicate, collaborate, share information and coordinate their efforts in order to accomplish a common work-related objective.”

In telehealth, we are in a unique position within the VA to promote and participate in these teams to provide Veteran centered care. The Conditions of Participation (COP) standards that allude to the benefits of virtual teams are many, but a few that are especially applicable are listed below. Within the Conditions of Participation standards, a number of Elements of Performance are listed which are examples of the documents and or strategies that may be used to successfully meet the Conditions of Participation standard.

Core Standard #1
Telehealth programs are integrated into the clinical practice and operational routines of each clinic (PACT or specialty); facility or health care system.

Elements of Performance: Policy and/or SOP
During a Conditions of Participation review, we look for virtual teamwork evident in the development and operationalization as well as the sustainment of clinics in each telehealth modality. The policy or Standard Operating Procedure (SOP) is the foundation that virtual teams implement and use to sustain the high quality clinical care and routines.

Core Standard #11
The Telehealth program demonstrates clinical collaboration with other programs such as Mental Health, Patient Aligned Care Team, Home Based Primary Care, Spinal Cord Injury, and other specialty care initiatives.

Elements of Performance: Referrals and/or other contacts are made for social services, caregiver support and/or other services. Data reports used such as the Care Access Need (CAN) report, Compass of Measures, Electronic Waiting Lists.

Virtual teams are assessed as they optimize collaboration with other programs and stakeholders across the continuum of care. This teamwork is essential to provide needed clinical care and effective case management.

(Continued Page 15)
Real Teamwork Makes a Real Difference (continued)

for Depression, Dementia and ADHD, Sleep and Anxiety Disorders, Schizophrenia, and Bipolar Disorder. Sessions occur monthly and there are plans to continue the Pharmacotherapy Series to encompass other conditions.

Our final Champions come from VISN 15. First we have Heather Dingus, a licensed clinical Social Worker at the Robert J. Dole VAMC in Kansas. Heather serves as a discharge planner on the medical floor. She routinely places telehealth consults for the Veterans who are being discharged to home who may need extra support. She also calls the telehealth office when she notes an inpatient that would benefit from our program. She continues to be a staunch supporter of the telehealth program.

Elizabeth Fry, a nurse at the St. Joseph CBOC in Missouri. Elizabeth has been an asset to the VISN 15 Eastern Kansas Health Care System’s Home Telehealth program. She recently transferred from the Kansas City VA and is very enthusiastic about Home Telehealth. In a little over six months, Elizabeth has increased one provider’s Home Telehealth panel from two to fifteen. The provider had less than1.5% Home Telehealth participation and is now meeting the goal. She is very enthusiastic about Home Telehealth. With her on-site and able to assist other providers and staff on the benefits of Home Telehealth and she has proven that Home Telehealth can make a difference.

Stephen Covey once said, “Getting teams to work together is essential for achieving goals. But going beyond that and getting those same teams to fully collaborate is when the real magic occurs.”

We are very grateful for the true collaboration we have from our virtual teammates.

Team expectations in a face-to-face environment cannot be overstated. Team members who are learning new skills or developing new processes can really benefit from this level of engagement and interaction. More established teams can be quite effective with less and less face time.

Know that the ideal technology to support every virtual team in every situation does not exist! Using videoconferencing for team meetings along with a multitude of other technologies such as email and fax, telephone and instant messaging is the most effective way to keep information flowing. Even the highest tech organizations depend on non-computerized methods of communication for simple tasks and sharing or information.

It is good to recognize that for some tasks this is actually the ideal! The use of high level interactions is just not necessary for all interactions, so matching the technology to the task is the best solution. Sometimes even simple meetings are best handled by phone to prevent the distractions that can occur with face-to-face or teleconferenced venues.

Don’t underestimate the complexity of working in a virtual team. The scope of the job and the goals of the team can be accomplished using technology – but sometimes the use of technology can create even more problems – so be ready to problem solve and be flexible in the planning stages. And remember to support team members even when things don’t go smoothly on the first attempt.
Core Standard #23
The Telehealth program, including the VISN and facility, ensures a competent workforce. All telehealth staff has the educational backgrounds, experience, documented orientation, required training, and competencies, as required by Position Functional Statements or Position Descriptions and consistent with the program’s mission, goals and objectives. In addition, training and competency related to equipment usage, set up, troubleshooting, use of software, infection control and data are also important aspects of a competent workforce.

Elements of Performance: Policy and/or SOP, position descriptions and functional statements (if requested), documentation of training completed from My Telehealth with dates for all staff including Facility Telehealth Coordinators, providers/readers, Telehealth Clinical Technicians, Imagers etc. documented annual competency assessments are completed for Telehealth staff.

Virtual teams must be well trained and competent to establish the trusted, working relationships required that provide high quality care. There are also virtual relationships within Telehealth Services such as those between Quality Management and Training Center staff, as well as with all telehealth staff across the nation.

Core Standard #31
The Telehealth program, including the VISN and facility, maintain an emergency plan and implement strategies to minimize the risks of disruption of care due to environmental and technology emergencies in accordance with VHA Telehealth Services guidance. The Telehealth emergency plans must interface with local and VISN emergency planning processes and include a communication cascade to all Telehealth staff.

Elements of Performance: Technology/equipment problem tracking spreadsheet, QIR submittals, Help desk reports (if requested).

To meet this standard, virtual teams must negotiate the important risk management elements for safe care with the health care team. This risk management is integrated across service lines and staff to ensure safe care. Often, telehealth staff must rely on the virtual team to follow through in the case of an emergency/disaster and to provide any ‘hands on’ care that may be required.

The Conditions of Participation standards and the Elements of Performance are part of the foundational structure of all telehealth programs and the means for the program to demonstrate achieving the standard. However, the demonstration of a safe, high quality program is the ultimate reflection of a provision of care to be proud of. During Conditions of Participation reviews, there are often practices that reflect excellent virtual team work that could be replicated across the VISN or across the nation. These leading practices are identified on the Telehealth Services Quality Management SharePoint site. Some of these notable programs will be highlighted at the Telehealth Services national conference in July 2014. We look forward to seeing you there!

Virtual Teams and 3D Printing (continued)
If the ability to communicate and offer health care services traverses the continuum of care, but the mode of care delivery we employ remains linear, fragmented and provider-centric, we will not follow manufacturing into a transformational change that promises an exciting new future.

We need to remember that following the lead of manufacturing through earlier changes resulted in significant increases in access to health care, and improved quality. Virtual team working has the capability to further increase the efficiency of care, if approached correctly.

So, enjoy this edition of our newsletter, and explore with us the concept of the virtual teams, and how they will transform health care. Training of these teams needs to focus on the competencies that foster collaboration, coordination and communication - key attributes to their development and optimal functioning.

Home telehealth, clinical video telehealth, store-and-forward telehealth are likely to radically change as they join mobile health, secure messaging and other technologies in platform agnostic ways for patients to get the right care, in the right place, at the right time from any device. They will be able to do so because there is a virtual team that will serve them, whether in an intensive care unit (Tele-ICU) setting, within a VA medical center, or receiving cognitive therapy in a community-based health care clinic for an exacerbation of their PTSD that surfaced while on an annual vacation.
Providing Virtual Education and Support to TCTs
Jeffrey C. Owens LPN, MP TRI/CVT Lead TCT - VISN 12

In 2011, TeleAudiology was piloted from Madison to Iron Mountain. A PC Anywhere connection was used to connect to the Madison provider so they were able to assume control of the patient side computer for Hearing Aid Fitting connection and adjustment software.

As a Clinical Video Telehealth and TeleRetinal Imaging Master Preceptor, I realized that the technology could provide virtual assistance to the Telehealth Clinical Technicians at our CBOCs, which are located between 80 and 225 miles from Iron Mountain VA.

PC Anywhere is being used with TeleRetinal Imaging. With PC Anywhere I am able to remote into our eight Medical Centers TeleRetinal Imaging workstations. I can view images in real time that were just taken before being saved to CPRS and provide input on technique or quality before the study is saved. I can troubleshoot, change settings and do a complete image deletion/hard drive check to ensure Conditions of Participation compliance. This model was used with our Conditions of Participation survey’s image deletion audit. With Lync, a connection was made with the surveyor and PC Anywhere to gain access to VISN 12 TeleRetinal Imaging workstations. VISN 12 successfully showed that our TeleRetinal Imaging workstations met the Conditions of Participation standard.

Since VISN 12’s TeleAudiology program has expanded, Lync was integrated into the Global Media Cart computers, which worked very well. The platform is very easy to use, everyone in the VA who has computer access has it, and it improved wait time from software failure in the clinical appointment.

With the successes of using PC Anywhere and LYNIC, I realized that I can assist any Telehealth Clinical Technician with almost anything needed remotely. The Telehealth Clinical Technicians share their screens; I take control and guide them through whatever issue they are having. I have been able to connect to the TeleRetinal Workstations to help imagers with what to do if they find images that may be considered emergent. With LYNC I have been able to help Telehealth Clinical Technicians with documentation problems like how to discontinue a Retinal Imaging order or where to find the Image results. I can also provide training via LYNC’s meeting capabilities with power point presentations or just step-by-step “show and tell”. We can also set up presentations using our GM carts and directly interface via video and computers in a very interactive way.

The possibilities seem endless to be there virtually for the Telehealth Clinical Technicians in both Store-and-Forward Telehealth and Clinical Video Telehealth modalities. In 2010, when I started my position in Telehealth, I felt like I had little support, that I was trained and left in the field to do my best. I am proud to say that, by use of PC Anywhere and Lync, the issues are solved virtually, and have helped me grow into a better Mentor. VISN 12 has used the lessons learned to provide better care and more efficient training. In essence, it has helped us to work together in a virtual environment.
Army Veteran Elizabeth Elzey was a resident in the palliative care unit at the Martinsburg VA Medical Center (VAMC), and used VA Telehealth Services to video chat with her sons in Arizona before she passed away in June.

After speaking with her doctor about her prognosis, Elzey was determined to find a way to reach out to her sons. She spoke with volunteers and social workers who put her in contact with Gabrielle Vaughn, telehealth coordinator at the Martinsburg VAMC.

“When I heard about Ms. Elzey’s request, I knew I had to do my part to help,” said Vaughn. “Telehealth is a great technology that brings providers and Veterans closer together, and in this case we were able to help bring a family together which is very special.”

With help from her telehealth technicians, Vaughn was able to contact the Flagstaff, Arizona Community Based Outpatient Clinic (CBOC), which was the closest location to Elzey’s sons. The Flagstaff CBOC has telehealth technology and is part of the Northern Arizona VA Health Care System.

The technicians used the Clinical Video Telehealth system to have secure, two-way communications between Flagstaff and Martinsburg. It is similar to video chat applications on the Internet.

The family was able to video chat a couple times during her last few weeks. “It is like sitting across from the dinner table and having a cup of coffee,” said Elzey. “I believe the terminally ill need their families, and this technology helps those of us who’s families are far away.”

Kelsey Reid, a social work student intern, had another way in which the Martinsburg VAMC could help this dedicated Army Veteran with her last wishes. Elzey wanted to film a farewell video for her family, including grandchildren she hasn’t seen in years. The Public Affairs Office worked with Reid and Elzey to create this personal and endearing video.

“As a social work student at the Martinsburg VAMC, I feel honored to interact with our Veterans,” said Reid. “I met Ms. Elzey on my second day and knew I had to do my best to help her fulfill her dreams.”

Telehealth technology was developed for use in a variety of different clinics throughout the VA health care system. We took this technology and applied it in a new and innovative way allowing us to grant the last wishes of a terminally ill Veteran. That is what patient centered care is all about.
Training and Virtual Teams (continued)

The revised Store-and-Forward Telehealth Preceptor curriculum is already replete with resources for teaching adult learners virtually. As part of the training, the Store-and-Forward Telehealth Training Team reviews the imager training curriculum so that the preceptor is comfortable with the content of what they have to impart to the imagers they are training.

The Store-and-Forward Telehealth Training Team program goal of continuing to offer virtual programs for preceptors and for Telehealth Clinical Technicians, TeleRetinal and TeleDermatology Imagers has become a reality. Until now, our challenge, which was formidable, was how to transfer skills that are techniques based, by using creative course design and innovative use of video and simulation. We overcame these obstacles and through the diligent work of our preceptors, we have developed programs that are virtual, asynchronous and for which the Imager/Telehealth Clinical Technician can develop entry level competency and subsequently, ongoing competency.

We knew that this exceptional group of imager/trainers would bring to the program a wealth of experience and a varied background that would exquisitely complement our approach to delivering the training. In fact, we began the whole notion of virtual training with our Store-and-Forward Telehealth Preceptor programs in 2013. This approach represented a departure from what was done in the past; namely, while a portion of the preceptor program was conducted virtually, preceptor candidates would still have travel to Boston for two days to become certified as Store-and-Forward Telehealth Preceptors.

Once we stabilized that program, and we were satisfied with the results, we began to look at the techniques-based component of the Imager/Telehealth Clinical Technician program.

Since our Telehealth Clinical Technician/Imager program was already 60% virtual, we decided to concentrate on the skills-based aspect of the program. First we identified preceptors who showed exceptional interest in participating in more advanced training concepts and activities. This included volunteering to serve as consultants during our virtual preceptor program. They participate in the program, serve as mentors for the candidates, and provide help and guidance in the development and preparation of the final project.

Next, we sought out preceptors who also engage in lots of trainings. We then decided to start the process of training virtually with TeleDermatology, since the imaging system is hand-held, and is easier to move around and capture on video. We then convened a work group of senior TeleDermatology imagers to work out the issues and potential challenges of conducting training.

Once we were satisfied with the approach we would take, we produced a modified curriculum, with input from the workgroup, and finalized the details of the skills-based portion of the training.

Since most sites have a TeleDermatology imager on site, we chose to take advantage of their presence to help guide the process. Using video communication, with the trainee and imager at the training site and a Telehealth preceptor at the remote site, the preceptor would guide, direct and coach the imager through the imaging process. The already certified imager on site would help, with direction from the preceptor, and provide hints and suggestions regarding field composition, focus, and lighting exposure. Consult and template training would have already been conducted remotely prior to skills-based training, so the imager trainee is already conversant with the VistA and CPRS requirements for capturing, uploading the images and for completing the image acquisition component of the training.

We conducted ten trainings using Movi, along with the Primary Care Cart, and with input and review of the outcomes by the workgroup, it was decided that we can now begin to offer this training on a more widespread basis. It also proved the concept of successful skills transfer remotely, and because of our results, we are now working on a similar program for TeleRetinal imaging. The additional challenge with the diabetes pathway is the retinal camera: it is a fixed system that cannot be moved as freely as a hand-held digital TeleDermatology camera. However, the success we enjoyed with TeleDermatology has made us realize that there is creative means using existing technology to allow us to offer our programs in an entirely virtual format.

Moving forward, the Store-and-Forward Telehealth Training Team is looking towards migrating all of its emerging programs to remote format. So far, most of the other Store-and-Forward Telehealth programs can be offered virtually since the skills-based aspect is not as intense or rigorous as TeleRetinal and TeleDermatology Imaging.

Our next step will be to explore the possibility of not only offering techniques-based training virtually, but also to offer them asynchronously, in the same fashion that our didactic portion of the program is offered. We will try to accomplish this with either creative utilization of existing technology, or with evolving systems that are continually being introduced into the telehealth arena.
Master Preceptors clinical competencies is the three Telehealth modalities: Clinical Video Telehealth, Home Telehealth, Store and Forward Telehealth.

The Telehealth Master Preceptor candidates must complete a rigorous training curriculum specific to their selected modality. They study the intricacies of the business, technology and clinical competencies required by each of the three specific modalities, and by the end of the Telehealth Master Preceptor program, they demonstrate their expertise and competencies allowing the Training Center to certify them to train others in the field. Regardless of the modality, the Telehealth Master Preceptors all undertake a core module on virtual team performance.

Upon successful completion of the Telehealth Master Preceptor program they are encouraged to support, coach, mentor and precept others on how to use the technology, apply the business rules and change the way we practice. Telehealth Master Preceptors are facilitators and innovators whose work often goes unrecognized. In high performing Telehealth programs they seamlessly bring about change as part of a continuum of development. Programs that face challenges invariably lack Telehealth Master Preceptors and it is often unclear that their deficiency is causing problems. Only those who are accustomed to performance as part of a virtual team understand how important their expertise is to Telehealth development.

Telehealth Master Preceptors have been traditionally recognized as subject matter experts (SME) offering expertise in training and validating modality specific competencies. They also work with other Subject Matter Experts to produce national and local guidance, operation manuals, as well as other clinical resources. As we continue on our journey to use virtual modalities to increase access to care, it is increasingly important that the previously implicit work that Telehealth Master Preceptors have done to develop virtual teams is explicitly recognized, utilized and valued.

You can find Telehealth Master Preceptors throughout the VA. Every VISN and facility has at least one. They are truly making a difference and changing the way we practice.

No Team is an Island (continued)

They are also integral members of the emergency contact cascade should it need to be implemented during the video conferencing session.

The national networks of Facility Telehealth Coordinators and Telehealth Clinical Technicians are also vital to the process for initiating a new clinic. In conjunction with National TeleMental Health Center staff, providers and other team members from the patient and provider sites, these virtual teams work together to identify clinical opportunities and complete the multiple steps required to establish a new clinic. This coordination requires the work of many disciplines across several facilities nationally including, but not limited to, the Chief of Mental Health Services, Chief of Staff, Clinical Champions, the Clinical Applications Coordinator, Information Security Officer, Information Technology, Business Office and Eligibility and Registration.

As John Donne said, “no man is an island” and in the field of telehealth, it can be said that no team is an island. It takes the work of multiple remote teams partnering together nationally to ensure that the care our Veterans receive is safe, efficient, effective, timely and the highest quality.
VHA Telehealth Services - Overview

VHA Telehealth Services uses health informatics, disease management and telehealth technologies to target care and case management to improve access to care, improving the health of Veterans. Telehealth changes the location where health care services are routinely provided. This is done to provide the right care at the right time, accessible to patients in their own homes and local communities. VHA Telehealth Services, located in Washington DC, divides Telehealth into three modalities and has established training centers for each to support the provision of quality telehealth-based care to Veterans:

• **Clinical Video Telehealth**
  
  is defined as the use of real-time interactive video conferencing, sometimes with supportive peripheral technologies, to assess, treat and provide care to a patient remotely. Typically, Clinical Video Telehealth links the patient(s) at a clinic to the provider(s) at another location. Clinical Video Telehealth can also provide video connectivity between a provider and a patient at home. Clinical Video Telehealth encompasses a wide variety of clinical applications such as specialty and primary care.

• **Home Telehealth**

  is defined as a program into which Veterans are enrolled that applies care and case management principles to coordinate care using health informatics, disease management and Home Telehealth technologies to facilitate access to care and to improve the health of Veterans with the specific intent of providing the right care in the right place at the right time. The goal of Home Telehealth is to improve clinical outcomes and access to care while reducing complications, hospitalizations and clinic or emergency room visits for Veterans in post-acute care settings and high-risk patients with chronic disease.

• **Store-and-Forward Telehealth**

  is defined as the use of technologies to asynchronously acquire and store clinical information (such as data, image, sound and video) that is then forwarded to or retrieved by a provider at another location for clinical evaluation. VA's national Store-and-Forward Telehealth programs operationalize this definition to cover services that provide this care using clinical consult pathway and a defined information technology platform to communicate the event/encounter between providers, as well as enabling documentation of the event/encounter and the associated clinical evaluation within the patient record.