The Palo Alto Assistive Technology Program has been actively promoting assistive technology for the veteran through high profile visits with the Secretary of Veterans Affairs Robert McDonald and Apple CEO Tim Cook. Read excerpts from local press reports.

Jason Green from the Daily News Staff Writer San Jose Mercury News reported on the Secretary McDonald.

"Palo Alto VA medical center is one of the crown jewels of our healthcare system," he told reporters at a briefing.

"Every day, great care is delivered to veterans in every healthcare facility nationwide, but it’s especially evident here in Palo Alto and that’s why I’m here today."

Apple CEO Tim Cook also visited Palo Alto VAMC. According to Mikey Campbell of the Apple Insider,

"Apple CEO Tim Cook on Thursday tweeted out a photo and brief message highlighting a recent visit to the Veterans Affairs hospital in Palo Alto, Calif., saying he was happy to meet with doctors who now use iPads to treat patients. The Apple chief visited the VA Palo Alto Health Care System today with California Congresswoman Anna G. Eshoo."

Since its debut, the iPad has been making inroads into the medical sector as doctors turn to the tablet for everything from reference material to chart management. A big part of the iPad’s success in the field comes thanks to a healthy selection of industry apps.

Cook’s visit comes one day after newly appointed Secretary of Veterans Affairs Robert McDonald surveyed the Palo Alto VA HCS as part of a nationwide tour of VA hospitals. As reported by the San Jose Mercury News, McDonald lauded the facility as being one of the best in the system.

"Palo Alto VA medical center is one of the crown jewels of our healthcare system," he said. "Every day, great care is delivered to veterans in every healthcare facility nationwide, but it’s especially evident here in Palo Alto and that’s why I’m here today."
Telehealth continues to emerge and expand as a productive and effective means of service provision within the VA healthcare system across a multitude of programs and services. Telepractice, the term adopted by the American Speech-Language Hearing Association (ASHA) to include a variety of clinical settings, is defined as the application of telecommunications technology to the delivery of speech language pathology and audiology professional services at a distance by linking clinician to client/patient or clinician to clinician for assessment, intervention, and/or consultation.

The Assistive Technology (AT) Program at the James A Haley Veterans’ Hospital in Tampa, FL began implementation of an Assistive Technology Inter-facility Consult (IFC) in August 2014 to provide AT services at a distance to decrease travel burdens on patients who have complex AT needs. Several needs were identified in order to maximize services provided by the AT programs, namely, expanding the knowledge and skills of the subject matter experts (SME) to clinicians who may have clinical barriers to optimal service provision secondary to reduced technology awareness and resources. By networking and outreach to clinicians within the VISN via telepractice, we strive to ultimately maximize the level of service offered to our Veterans and Servicemembers. The preparation, organization and eventual implementation of the VISN 8 IFC was the result of a team effort across VAs including the facility telehealth coordinators (FTC), clinical applications coordinators (CAC), AT staff, clinicians, ADPACs, as well as section and service chiefs.

Administratively, each site identified a person as the designated telehealth contact. A Telehealth Service Agreement (TSA) was developed by the FTC and signature by each service chief was obtained to reflect agreement. Each referring site CAC is responsible for ensuring clinical access to both consults within the CPRS menu. Two consults were developed to expand outreach including an AT E-consult and an AT IFC. Both consults can be accessed only by speech-language pathologists and/or occupational therapists to ensure that the care is initially addressed by the primary/treating clinician at the facility. Additionally, it guarantees that continued follow-up service, once consultation and support has been provided by Tampa, is available from the referring provider. It was designed to include a built-in checklist of basic demographic and diagnostic information. The E-consult along with the available documentation within VistaWeb is reviewed by the AT staff and answered including recommendations towards technology assessment and/or trials. If the need for a face-to-face interaction is identified secondary to complex needs, the E-consult is answered with a recommendation for the referring provider to place an IFC. Completion of the AT E-consult and AT IFC consultations have been configured by the CAC to notify the referring provider as an alert in CPRS and is accessed through VistaWeb.

In terms of equipment, the AT Lab uses a portable telehealth station cart for synchronous service. The referring provider is able to telephone in from their clinical workstation using Jabber software or via a V-tel conference room. From our experience thus far, the V-tel conference room allowed for several advantages including ample space for the entire team to be present (i.e., patient, caregiver(s), clinician, graduate student, vendor), a sufficient sized table or space to allow for multiple devices, improved video resolution as well as increased ability to pan up/down and left/right, zoom in/out to visualize various positions as needed throughout the evaluation. Certainly, having a variety of assistive devices for the assessment dependent upon the needs of the patient is optimal. Contact via telephone, email and/or telehealth with the referring provider prior to the actual visit with the patient can be completed in order to identify solutions to potential problems such as a lack of test equipment. Possible solutions can include obtaining loaner equipment from the state AT device loan programs, local vendors and resources from the Tampa AT Lab.
A TELEHEALTH CASE STUDY: COLLABORATION BETWEEN TAMPA AND WEST PALM BEACH

REASON FOR REFERRAL: AT evaluation including computer access, environmental control and speech/voice for patient with probable ALS.

BACKGROUND INFORMATION: Pt XXX is a 72 yo 60% SC USMC Veteran male currently undergoing differential diagnosis of PLS vs ALS 2’ to onset of progressive speech and swallowing impairment as well as LE weakness since January 2014. He presents with moderate expressive speech deficits (dysarthria) though is a functional unaided communicator given repetition for communication repairs. He; however, has significant difficulty effectively communicating over the telephone, as expected, given lack of face to face contact. His daughter and girlfriend provide support as his primary caregivers. Physically, he ambulates with a seated rolling walker though easily fatigues for long distances. He is still able to grip objects such as his smartphone and text using his LUE. Pt XXX indicates that he has never been much of a talker and has limited technology skill. He is a retired construction worker.

EVALUATION: Referring provider coordinated obtaining multiple SGDs (speech generating devices) via local vendors including Forbes Rehab Services, Shelton Technology and Resources as well as Tobii ATI. The devices included tablet technologies of varying platforms including multiple options for accessories, access, language representation and portability. The evaluation team included the patient, his girlfriend, his daughter, the primary SLP in WPB including a graduate student, as well as the Tampa AT/SLP and AT/OT. The primary goal of the patient and his family was to identify a system that would enable him to more effectively communicate with others in face to face interactions, but more importantly, with out of state family members over the telephone. The patient explored the various devices via direct selection/touch enter access while alternative access options were discussed. Primary clinician assisted with positioning the patient as well as the camera throughout the assessment for optimal visualization by the team in Tampa in terms of seating position and range of mobility. The patient and family were educated to mount solutions, computer and environmental control options, vendor technical support including in-the-home visits and programming/software compare/contrast. Caregiver agrees to act as communication advocate to assist with and facilitate use of an SGD in the natural environment.

OUTCOME: The Tobii M8 with Communicator SonoKey software is selected as an appropriate AT match. The M8 is a portable communication device with text and symbol based representation that allows for both touch enter access as well as switch scanning. It is thin and lightweight with a protective case and 8” clear display which can be seen outdoors. They verbalized a desire to have a device that was portable and also offered flexibility should his physical abilities continue to decline rather than have to learn a new system at that time. (cont. page 6)
The StandBar Solution

Standing addresses the secondary complications created by prolonged wheelchair use:

- Improve/maintain bone integrity/skeletal development
- Lessen/manage the progression of scoliosis
- Strengthen cardiovascular system and build endurance
- Improve Circulation
- Reduce Swelling
- Improve bowel function and regularity
- Aid in kidney and bladder functions
- Improve/maintain range of motion
- Management of atrophy in the trunk and lower extremities
- Manage pressure (ulcers) through changing positions
- Improve strength to trunk and lower extremities
- Decrease joint/muscle contractures

The benefits of standing are well documented and essential to good physical and emotional health. However, for those who are unable to stand without assistance, access to the benefits of standing are sometimes out of arms reach.

Parallel bars are commonly used for the rehabilitation of patients with physical disabilities and impairments. Although standard parallel bars provide safety and stability during the performance of a variety of therapeutic activities, they are fixed structures and therefore limit their availability for use outside of a treatment facility. The psychological benefit of being able to safely stand, balance, and converse with others at eye level without the assistance of a caregiver is immeasurable. This ability can improve an individual's confidence, self-image, public image and overall sense of well-being through increased independence.

A mobile alternative to traditional parallel bars has been developed at the James A. Haley VA Medical Center. The StandBar is assistive technology that can be attached to any power wheelchair and transforms the chair into a therapeutic device.

The unique and innovative features of the StandBar that distinguish it from traditional parallel bar systems are as follows:
The StandBar Solution, cont.

- The StandBar is mobile because it is attached to an individual's power wheelchair. This feature enables the StandBar to be used anywhere at any time. For instance in the home, at a friend or family members home, when traveling, or in the park etc. Again, parallel bars at your finger tip anywhere at any time.

- The StandBar is lightweight and can be deployed by the user, repositioned, or removed with one hand. The StandBar can be positioned and secured as a parallel bar or repositioned as a lap bar for added security when sitting. StandBars can be fitted to a power wheelchair unilateral or bilateral to accommodate individual needs. This ability is made possible because the mount/receiving tube is designed to accommodate mounting on either side of the wheelchair.

- The StandBar has a traditional horizontal hand grip, but is improved with the addition of a vertical staff hand grip. The vertical grip feature increases the ability of an individual, who presents with weakness or trunk flexor hypertonia to assume a more upright posture in stance due to a more comfortable and effective hand position. The vertical grip will also benefit those individuals who find it easier to pull themselves to a standing position as opposed to a traditional armrest or push bar. The safe hand grip transition, from vertical to horizontal position, is made possible by a smooth six inch radial bend in the bar. Therefore hand contact with the bar is never compromised. This feature is extremely important in the process of developing an individuals' confidence in their own balance and stability.

- The StandBar is adjustable in height and reach. The height can be adjusted by repositioning a through bolt, up or down, in the receiving tube or using the hi/lo seat positioning function on the power wheelchair if available

Although parallel bars are the prior art that provide safety and stability during the performance of a variety of therapeutic activities, the mobility and vertical grip options of the StandBar make it a unique assistive device in our efforts to provide independence to those who need it most.

For additional information on the StandBar, please contact:
Karl Hayward, StandBar Project Manager, karl.hayward@va.gov
Office: (813) 972-2000 ext. 4788
Cell: (813) 382-3633
AT Expanding Services

The AT Program has developed an AT Boot Camp where veterans can come in for one week as an inpatient on the Polytrauma Rehabilitation unit for intensive AT evaluation and training. The AT Boot Camp is open to veterans in VISN 1-6. AT will provide AT TeleHealth screening prior to acceptance into the program to determine their goals and needs. After they have completed the program, then the AT Program will follow up with them and their treating therapists via TeleHealth.

AT Professional Development

The AT Program continues to provide monthly AT in-services to all rehabilitation staff on various topics of Assistive Technology. Topics have included: VISOR services, adaptive driving, adaptive sports and APP exchange.

In addition, the AT Team is actively participating in the development of the National Assistive Technology Conference being held in Tampa Nov 4-5, 2014.

AT Community Outreach

AT Team Members have been actively promoting AT services at various conferences over the past several months:

- Trimak on clinical use of 3D Printing
- Ft. Eusits on AT services provided to active duty service members at the VA
- RESNA 2014 Annual Conference on using mobile devices for home environmental control
- ASCIP Preconference Workshop on Rehab in the Era of Technology
- DVBIC TBI Global Synapse on TBI Tools

AT Lab Highlights…Denver

The Eastern Colorado Healthcare System (ECHCS) Assistive Technology program hosted a Deep Dive in conjunction with University of Pittsburgh Rehab Science and Technology in April 2014. Approximately 30 VA employees attended the 1 ½ day event in Denver that included clinicians from 8 VA’s across the country in addition to VA Central Office. The ECHCS team has four clinicians that are in the process of obtaining their ATP certification this calendar year.

The team at ECHCS consists of an OT, HBPC OT, COTA, SLP, Seating and Mobility Specialist, Low Vision Optometrist and Blind Rehabilitation Specialist. We have successfully completed three CARF surveys over the years. During this fiscal year, our focus has included: expanding services and equipment provided to Veteran’s on our inpatient units, improving vendor relations and templates, educating staff and stakeholder’s on the benefits of AT and hosting our first Deep Dive.
AT Lab Highlights...Tampa

Beginning September 29, 2014 the AT program will be developing an inpatient AT Lab in the new Polytrauma Center. This inpatient lab will be centrally located among other specialty programs including the vestibular clinic, adapted driving, virtual reality, vision impairment as well as the sensory technology adaptation room (STAR). Additionally, the inpatient lab will proximate the Prosthetics and Sensory Aids Service to continue to foster team collaboration relating to assistive technology services and procurement. The outpatient AT Lab will remain in the current location within the Polytrauma Transitional Rehabilitation Program as well as the OIF OEF Post-Deployment clinic.

- Staff including the core AT team, adapted driving, audiology, adapted sports as well as wheeled mobility and seating are currently participating in ongoing planning efforts towards the upcoming Rehabilitation AT Conference scheduled for November 2014
- AT staff continue to work with the Get Well Network for accessibility including trials with the Autonome in conjunction with Accessibility Services, Inc. (ASI)
- AT staff are collaborating with the Prosthetics and Sensory Aids Service towards the development of a national EADL template to demonstrate implementation of appropriate justification and doc-

AT Lab Highlights...Minneapolis

Veterans who are seen in the SCI/D Center for annual evaluations now receive assessment of AT needs by rehabilitation engineer, Dr. Brian Fay, in addition to other clinicians. The added services began in FY14-Q4 and have resulted in additional veterans receiving assistance with computer access and environmental control.

Preparation has begun for CARF accreditation. Minneapolis received CARF accreditation in 2012 for TBI, CVA and Amp programs. For the next evaluation in 2015, the Assistive Technology Program’s services to the Inpatient TBI program will also be included.

Beau Bedore, SLP and Brian Fay, PhD are working with AAC vendor Talk To Me Technologies to assess the company’s newest eyegaze-controlled AAC technology. Both VA clinicians were impressed with the responsiveness of the vendor’s systems and excited to see a real T9 keyboard option. Talk To Me is based in Cedar Falls, IA and provides services beyond device selection/delivery including device training/customization. This will hopefully improve outcomes for veterans living in rural areas that use AAC.

Don MacLennan, SLP and John Ferguson, PhD received funding on a QUERI grant to develop a smart phone app to enable use of the Spaced-Retrieval learning technique. An app for the Android OS was developed and trialed with a patient in the Polytrauma Transitional Rehabilitation Program (PTRP). Working with SLP Fellow Jesse Bjella, the patient was able to learn his prescription medications using the app after other learning techniques had failed. Plans are to submit for an implementation grant to explore facilitators and barriers to related to clinical application of this app within the PTRP setting.
AT Lab Highlights...San Francisco

The San Francisco AT site has had steady growth in both clinical space and clinical staff. Many of our Veteran patients live far from the San Francisco VA Medical Center, which is located in the southern territory of our patient catchment area. Many of our existing and new Veteran patients live in the Northern areas of our territory, which extends to the California/Oregon border. Traditionally we have had Community Based Outpatient Clinics (CBOC) located in these northern areas which allowed us to provide expanded Primary Care closer to where many of our Veterans live, but for the majority of specialty clinic services, like Assistive Technology Clinics, these still necessitated a long drive into San Francisco. Our medical center has worked to address this issue by expanding available services and staff to provide expanded access to specialty care closer to where our Veterans live. Recently this has included AT services and Occupational Therapists whose primary role is to evaluate and treat Veterans who have assistive technology needs. In our Santa Rosa CBOC we have opened a new wheelchair seating clinic space within the Rehab and Prosthetic Service space. This has allowed our Therapists the option of seeing patients in their home environments or in a clinic which has greater access to specialty equipment. Additionally we have two new therapists based in Santa Rosa and Eureka whose primary role is to evaluate and treat patients in our Home Based Primary Care (HBPC) program which is designed to address the Rehab needs of Veterans who are primarily home bound. Due to the nature of the individuals being seen in this program this involves a significant amount of custom wheelchair, patient lifts and other specialty adaptive or assistive technology evaluations. These programs are meeting the assistive technology needs of our Veterans by providing care closer to where they live.

AT TeleHealth Case Study, cont.

(cont. from page 3) The patient and family were agreeable to participate in training sessions to increase proficiency with the device. Additionally, his daughter, who has a background in IT, felt confident that she could provide support on her own as well. The primary SLP in West Palm Beach placed the prosthetics consult for the M8 and initiated training with the patient and daughter upon receipt. The Tampa team was available to facilitate additional training sessions as needed via telehealth; however, the patient’s long-term residential plans were altered and he ultimately moved out of state with his daughter to be closer to family for additional support. The primary SLP was instrumental in promoting a seamless transition by contacting the receiving speech pathologist at the new VAMC to notify them of this patient’s case and AAC needs as well as connecting patient with their new local vendor’s direct contact information for in-the-home visits and additional technical support needs. The patient and his family conveyed overall positive feelings about their experience collaborating with the AT team at the Tampa VA. The specialty support and quick access was seen as a significant advantage in comparison to patient's experiences in the private sector.
In August, Cathy Covey (OT) & Laura Hardy (SLP) of the AT Team presented on the topic of “How to build an interdisciplinary AT team” to the PVA Summit conference in Las Vegas. The presentation explained our journey from being a bunch of disconnected rehab clinicians working separately, to working together in an interdisciplinary format to improve service delivery, outcomes, and patient satisfaction. The presentation included a case example in which we demonstrated how having all of the team members -- the patient, family, caregivers, OT, SLP, manufacturer’s representatives and vendors -- involved in a home visit significantly improved the outcomes and speed of resolution of difficulties for a patient with ALS. Response to the presentation was positive & we will be sharing further insights as requested from attendees who visited with us after the presentation.

The presentation summarized some of the recent updates in Seattle, and progress made in the launch of our AT Team. We have…

- Transitioned the majority of new wheelchair referrals to a collaborative format w/ PT & OT completing a co-evaluation and intervention in our clinic space
- Three clinicians planning on acquiring ATP certification by the end of the year
- Improved patient care and satisfaction!

- established an AT referral/consult order, including education to the referring provider regarding our services (so they can learn about what we do)
- established weekly interdisciplinary (OT, SLP, PT) rounds meeting and a process for addressing consults:
  - Consults are added to AT tracking sheet (Excel spreadsheet)
  - Contact patient/caregivers through phone clinic to identify areas of need
  - Consult documentation template is in development
  - Discuss patient’s case during interdisciplinary team rounds
  - Generate appropriate referrals to relevant services
  - Continue to monitor and discuss as needed
  - Completed CPRS templates & health factors for tracking outcome measures from the FMA, QUEST & NOMS
  - Refined our CPRS template for consults and other documentation
  - Acquired an AT lab space for evaluation and equipment trial (!)
Veteran’s Story…Captain James Howard, Ret.

“These devices have given me a greater quality of life and independence”

Captain James Howard, Ret. served in the Army preforming combat engineer demolitions. James is the president of REACHCycles, a Richmond, VA based organization dedicated to providing mobility and independence to children with disabilities. As a Veterans Advocate he is also the Mid-Atlantic Regional Coordinator for the Christopher Reeve Foundation, the Executive Director for Veterans and Athletes United, and a Family Support Case Manager for the Quality of Life Foundation. James was referred to the Assistive Technology Program in 2013.

Tell us about your experience with the Assistive Technology Program (Speech, driving rehab, OT/PT/RT).

I came to the Assistive Technology Program wanting to know what options were available for my new home and van.

What challenges were you having that had you referred to the program?

I moved to Richmond into a new home and couldn’t lock my front door or adjust my thermostat. Also, I couldn’t drive my van, or participate in hobbies like shooting my rifle or fishing.

Who did you see?

Brian, Nicole, and Eric.

What device/program did you get?

I received a Control 4 home automation system for my home that allows me to control my front door lock and thermostat from my cellphone. My van was also adapted with special gas, brake, and steering controls so I can drive it on my own. Also, I received a adapted trigger / mount for my rifle, and a adapted fishing rod holder.

How has the device changed your life or impacted your life?

It’s really great. I can do things now that I haven’t been able to do since my injury. These devices have given me a greater quality of life and independence.

What activities are you doing now that you were not able to do before?

Driving, locking the front door, controlling the thermostat by myself, target practice with my rifle, and fishing.

Would you say your quality of life has improved?

Yes, great deal.

Is there anything we have not covered that you would like to include?

Everybody has been extremely helpful. It’s been really wonderful. The process has been great. I found out what my options were and received the things I needed quickly.
The Assistive Technology Professional (ATP) certification from RESNA recognizes demonstrated competence in analyzing the needs of consumers with disabilities, assisting in the selection of appropriate assistive technology, and providing training in the use of the selected technology.

The certification exam has 200 multiple-choice questions that test competency in the broad field of assistive technology practice. This includes professionals that work in seating & mobility, augmentative and alternative communication (AAC), cognitive aids, computer access, electronic aids for daily living (EADL), sensory, recreation, environmental modification, accessible transportation, and technology for learning disabilities.

Most AT professionals work with individuals that have multiple needs. Knowing and understanding enough about different types of technology is critical for the professional to best serve the client and help him or her achieve their goals. How many of us have had to figure out how to mount a communication device on a wheelchair? Or adjust an eye gaze or switch system for optimal functionality? In addition, every ATP should know enough about different technologies to be able to refer properly to other ATPs. If you don’t know the first thing about EADLs or computer access, for example, then you are doing yourself – and your client – a real disservice. The RESNA community available to ATPs is an invaluable resource for continuing education and information sharing which benefits the AT professional and the Veteran.

Many rehabilitation professionals within the Department of Veterans Affairs currently have the ATP certification. ATPs within the VA have a unique position with the VA’s purchasing ability beyond private insurance. These ATPs are able to utilize technology that is normally cost prohibitive outside the VA System of Care. There has been a significant increase in the number of ATPs due to the increased focus on the provision of assistive technology to Veterans, and the desire for rehabilitation professionals to demonstrate their unique skills, knowledge and experience. The increase in rehabilitation professionals with the ATP certification has helped foster the dissemination of these skills across the country. There is now an easily identifiable group of professionals that clinicians across the country can contact if they have questions about assistive technology. More importantly, a Veteran can easily identify clinicians and engineers that are dedicated to meeting their best interests as it relates to assistive technology.

The VA’s broad resources and these clinicians’ broad spectrum of AT knowledge insures our Veterans receive the best available solutions providing independence, safety, and quality of life. If you are interested in the ATP certification, you should talk to a colleague that has the certification. Of course, you can contact the RESNA office or check out the information at the RESNA website (www.resna.org/certification) to learn more. The ATP certification demonstrates a commitment to Veterans through the Code of Ethics and a commitment to the field through the Standards of Practice.
Assistive Technology Program
Mission
To enhance the ability of Veterans and Active Duty members with disabilities to fulfill life goals through the coordination and provision of appropriate interdisciplinary assistive technology services.

To serve as an expert resource to support the application of assistive technology within the VA health care system

ASSISTIVE TECHNOLOGY EDUCATIONAL OPPORTUNITIES through EES

Program Description: This live – meeting program is designed for Rehabilitation Services physicians and rehabilitation clinicians to address the knowledge gap in providing assistive technology that addresses current health care requirements of Veterans with specific rehabilitative needs. This course will cross many areas of disability including, Polytrauma, Visual impairments, Physical limitations, Cognitive and communication deficits that may limit Activities of Daily Living. There are 5 Assistive Technology (AT) labs located at the Polytrauma Rehabilitation Centers; however, this training would expand that knowledge and skills of providers beyond those 5 AT centers. The training will assist in increasing Veterans’ level of function, independence and safety while providing consistency and care across the VHA system.

Audience: Health care professionals including physicians, speech-language pathologists, occupational therapists and other clinical staff such as physical therapists, recreation therapists, blind rehabilitation specialists and kinesiotherapists.

Topics:  
November 7, 2014 (1-2pm EST) - Outcome Measures  
December 5, 2014 (1-2pm EST) - Integration of Technology

2015—Topics to be announced

Dates: First Friday of every month at 1pm EST