



2014 Annual Report

A Component Center of the
Defense Centers of Excellence
for Psychological Health and
Traumatic Brain Injury

This app is life changing.

I know a lot of us are waiting for care or a slot in a PTSD clinic and this app just might save a few lives. I know it saved mine.

User, PTSD Coach

The past 3-4 days I have come to the point of suicide ... what you are putting out there is saving lives.

You saved mine today.

Brenda, Virtual Hope Box

First day back to work since I've received treatment for PTSD. Thanks to prayers, information, education, counseling and your app, I made it through the first day.

Love the app.

User, Provider Resilience

I'm not a soldier but appreciate that this app is available for free.

I have moderately severe brain injury and struggle with coping daily even 4 years after my accident. I like that I have a **real tool with real practical suggestions**, as well as assessments I can use to see how I'm doing. Thank you very much!

LifeArmor is going to be my new best friend.

Thank you!

Teresa, LifeArmor

This app is essential

for returning troops, like myself. I love the app and it has helped tremendously.

User, PE Coach

FROM THE DIRECTOR

Imagine you are gazing at a large white space representing the 525,600 minutes in a year. In the middle of that space, there is a very small black dot, which represents the 100 minutes a year that a service member receives medical care in a military treatment facility. T2 operates not only in those 100 minutes that are physically shared by a provider and a patient, but even more importantly, we help service members and their families during those other 525,500 minutes.

We operate throughout this “white space” by developing and providing technology-based tools to enhance health. Technology allows our service members and their families to access information 24/7 at their own pace for self-education, self-assessment and in some cases, self-care in an anonymous environment.

Our mission is to enable the military population to enhance health using technology, and every year, the importance of using technology to reach our audience grows. As service members leave military service, younger men and women are coming in who rely on technology via smartphones, tablets, game consoles and other devices to both influence the world and be influenced by it.

For these “digital natives” (generally those born after 1980), technology is not only enthusiastically embraced, but for them, resonates at a core level and is an essential part of their daily lives. Digital natives now make up two-thirds of the active-duty population, about half of the reserves and nearly 60 percent of the National Guard. For those whom technology is the gateway for help, we have a moral obligation to be at the gate to meet them.

In 2014, we focused on systematically translating our work into integrated tools for the Military Health System (MHS). Building on the progress of the six previous years, we further matured our programs and focused on disseminating our

mobile and Web applications to support self-care solutions within the “white space.” We conducted training sessions in some of the largest military mental-health training programs in the country to ensure that clinicians had the tools to use our programs, keeping pace with the digital natives that they serve. Research data advanced the empirical evidence supporting our products and the technology mission in general.

It was gratifying to see the MHS, DoD and tech industry recognize our innovative work with 13 awards in 2014, including the DoD Innovation Award and the Federal Government Distance Learning Association Annual Award for Innovation.

Thank you for your interest in this important work. I invite you to read about our seventh year of service to the Defense Department — **using technology to enhance health.**



Col. Rick L. Campise, Ph.D., ABPP

CONTENTS

The Changing Landscape	3
About T2	4
Leadership	7
Operations	8
Financial Information	8
Public Affairs	9
Professional Development	9
Mobile Health	10
Mobile Resources	12
Websites	12
Mobile Applications	13
Continuing Development	16
Telehealth and Technology Solutions	17
Telehealth	17
Technology Accomplishments	18
Technology Enhancement Center (TEC)	19
T2-TATRC Collaboration	19
Advancing the Body of Knowledge	21
Education and Training Program	21
Suicide Surveillance and Research	22
Research	22
Publications, Presentations, Partnerships and Collaborations	23
Publications	23
Selected Presentations	25
Partnerships and Collaborations	27
Resource Directory	34

THE CHANGING LANDSCAPE

We started with an idea of merging psychology and technology to deliver health education and care through the power of digital communication. We now deliver trusted psychological health resources to a globally dispersed American military force.

When we began in 2008, it was during a time of increasing deployments with a growing realization of unanticipated consequences from the post-9/11 combat experience. Better armor saved more lives, but resulted in survivors with complex blast and trauma injuries that impacted their psychological health. The combat experience brought intrusive memories into their lives back home. While medical care healed physical injuries, the psychological wounds of war were slower to reveal themselves and difficult to treat with traditional clinical approaches.

We were working in a landscape where knowledge of the psychological challenges was evolving, while at the same time, there was increasing social and political pressure to deliver care.

From our vision, we integrated behavioral science principles into products that continuously deliver help directly to each individual through now-ubiquitous mobile devices. To address the rise in suicide rates, we applied our knowledge to the management and study of suicide prevention.

Our resources also support a ready medical force to deliver immediate and continuous access to psychological help by placing trusted information and self-care tools in the hands of patients to extend treatment between appointments.

Now our landscape is changing again. After more than a decade of combat operations, the focus is on transitioning the force. As the Defense Department restructures itself to maintain a broad portfolio of

capabilities across the widest range of missions in its history, it is also challenged with frequent commitments, compressed time frames, reduced forces and limited resources.

Readiness and resilience have emerged as priorities that stretch from the largest organizations supporting those capabilities to the individuals who must perform those missions. Psychological health readiness is now a very visible component of a medically ready force, and must address conditions ranging from traumatic events to the daily concerns of coping with life's challenges.

As military missions changed, the center's vision became a commitment to long-term psychological health readiness and resilience. People use our technology-based solutions that build resilience through positive behavior change.

Finding the opportunities in digital technology and psychological health requires the continuous monitoring of both fields. The ability to capitalize on those opportunities relies on the seamless collaboration of the center's unique teams of psychologists and developers.

We now know how to adapt existing and evolving technologies, broaden everyone's access to psychological health resources and strengthen the promise of a better future.

The landscape will always be changing.

We are ready.



About T2

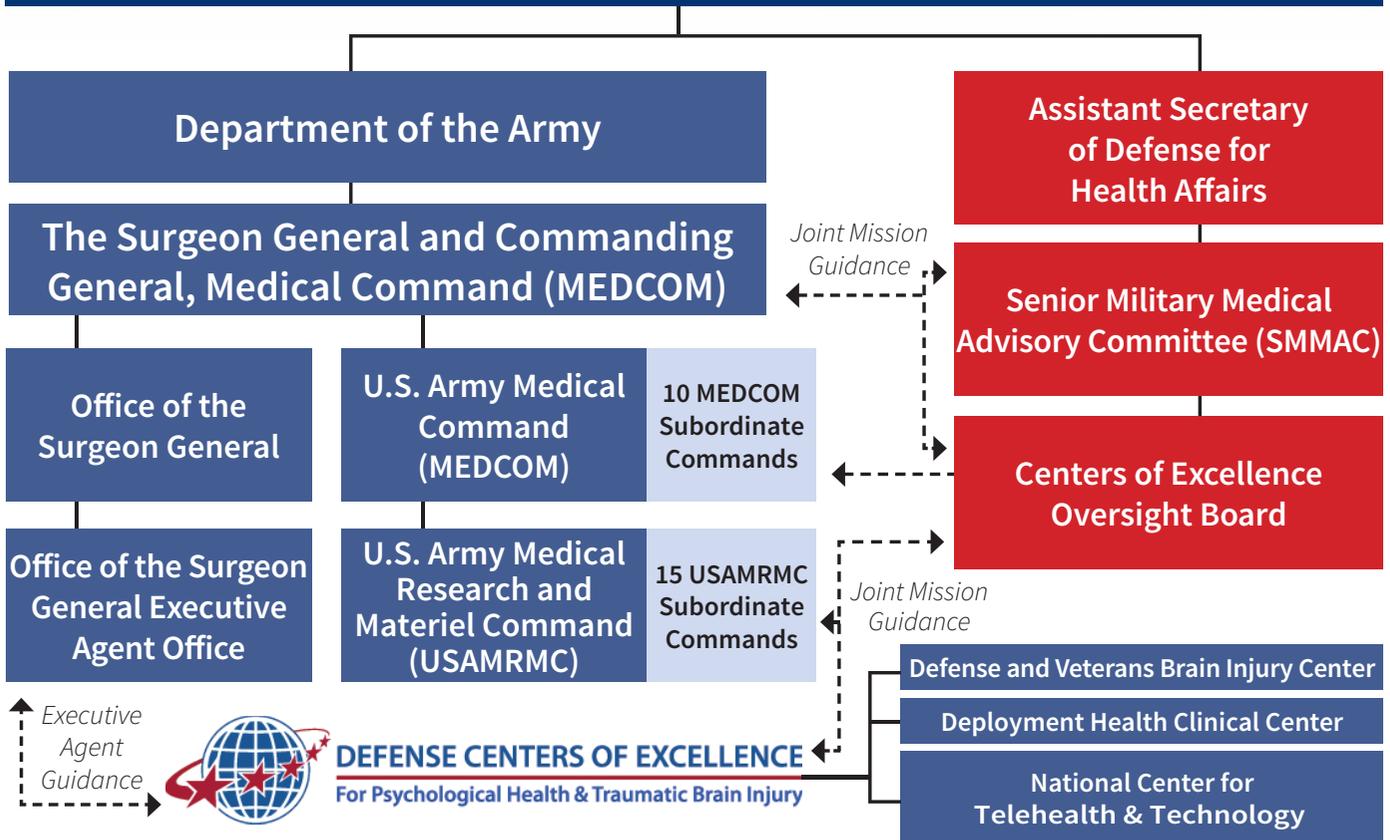
The National Center for Telehealth & Technology (T2) is a component center of the Defense Centers of Excellence (DCoE) for Psychological Health and Traumatic Brain Injury. DCoE is aligned with the U.S. Army Medical Research and Materiel Command within the Department of Defense (DoD).

The mission of T2 is to lead the innovation of health technology solutions for psychological health and traumatic brain injury across all the services, and deliver tested, valued health solutions that improve the lives of service members, veterans and their families. Our vision is world-class health care and optimized health in the DoD through effective leveraging of behavioral science and technology.

T2 produces Web- and mobile-based psychological health care resources and tools that support the individual whenever and wherever they need help. These resources are based on clinical evidence and developed in collaboration with DCoE, the military services, the Department of Veterans Affairs, academia and other government agencies. T2's products are developed with multidisciplinary teams of psychologists, software engineers and product managers.

T2 leads the DoD in applying existing and emerging technologies to deliver psychological health care options to the military community. As the benefits of these services grow, the need will continue. T2 supports the DoD's goals of increasing access to care, establishing best practices and quality standards for health technology and telehealth, and reducing both military suicide rates and the prevalence of stigma associated with seeking behavioral health services.

Department of Defense



Since its establishment in 2008, the National Center for Telehealth & Technology has grown from the launch of one website (AfterDeployment) to include six websites, 27 mobile applications, over 100 published studies and over 125 presentations. All have been developed to better support the psychological health of military service members, veterans and their families, and to enhance DoD health programs with innovative technology.

Through T2's seven years supporting a vision of world-class health care and optimized health in the DoD, it expanded from a primary focus of resources for the beneficiary population to also include resources for clinicians and for improving the military's telehealth system.

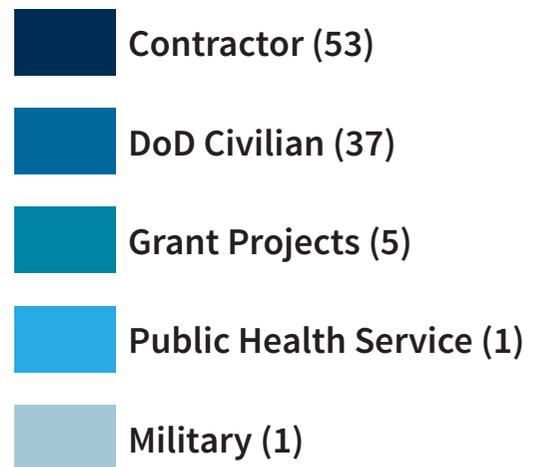
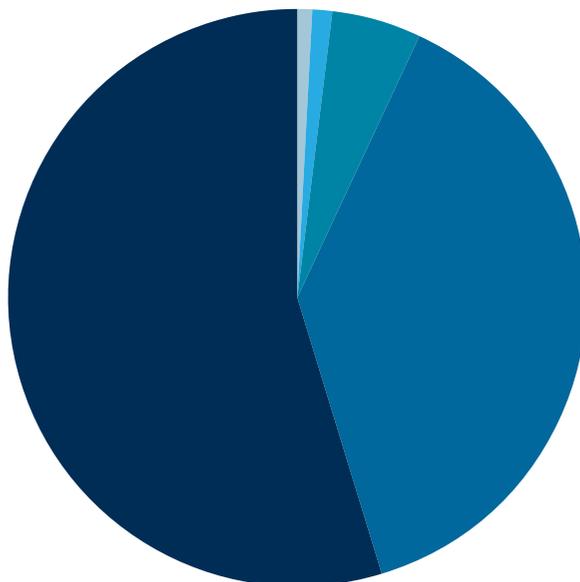
The DoD Suicide Event Report, known as DoDSER; the Virtual Hope Box Study; and the Technology Enhancement Center usability lab are examples of work that supports T2's vision of world-class health care in the DoD.

T2 Division Structure

T2 is organized into the Mobile Health, Telehealth and Emerging Technology programs, which are supported by the Technology, Operations, National Capital Region, and Research, Outcomes and Investigations divisions.



T2's Staff Distribution



LEADERSHIP



Col. Rick L. Campise, Ph.D., ABPP

Interim director, Colonel Campise leads the organization in the development of technology solutions supporting psychological health and traumatic brain injury.



Mark A. Reger, Ph.D.

Deputy director and director of the Research, Outcomes and Investigations division, Dr. Reger drives the psychological health research efforts for the organization.



Capt. Charles M. Blue, USPHS

Deputy director, National Capitol Office, Captain Blue manages integration with DCoE and coordination with other DoD organizations.



Karl O. "Skip" Moe, Ph.D., ABPP

Chief of staff, Dr. Moe oversees all administrative, personnel and fiscal activities for the center.



Robert Ciulla, Ph.D.

Director of the Mobile Health Program, Dr. Ciulla spearheads T2's development of mobile and Web applications supporting psychological health and traumatic brain injury.



Don Workman, Ph.D.

Director of the Emerging Technologies Program, Dr. Workman leads his team in clinician training programs and applying cutting-edge technology such as virtual reality, virtual worlds and gamification.



Jamie Adler, Ph.D.

Director of the Telehealth Program, Dr. Adler leads his team in the development of programs, policies and platforms to expand DoD telemental health.



Bob Kayl, MSE, MHR

Director of the Technology division, Mr. Kayl manages all the technical resources and requirements for T2's development programs.

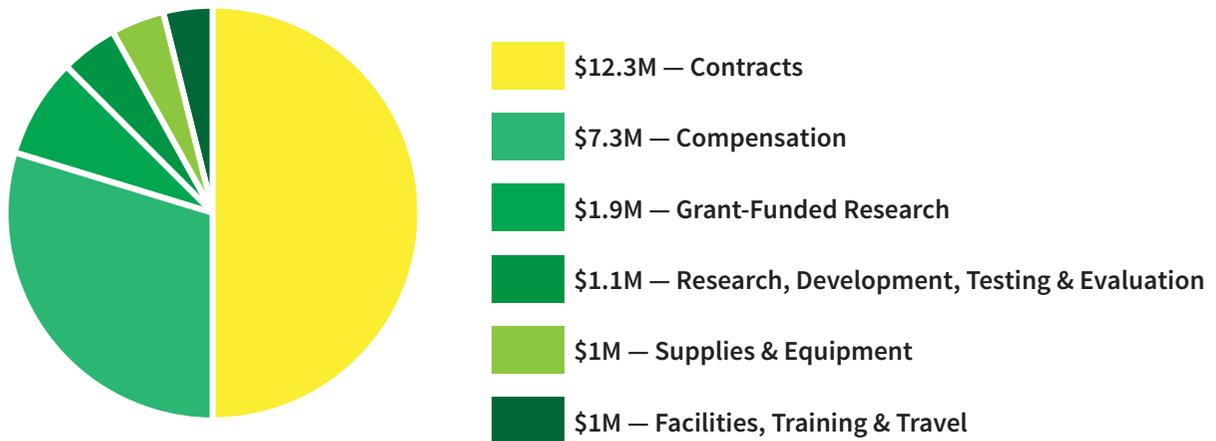
OPERATIONS

Financial Information

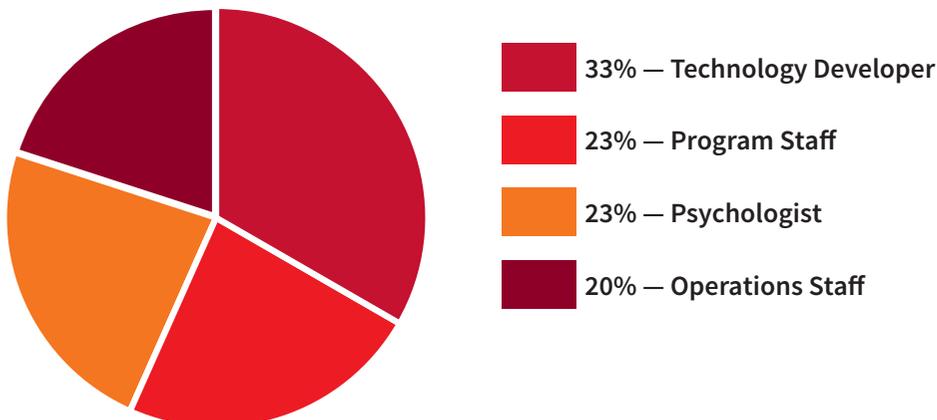
The 2014 fiscal year operating budget was \$22.8 million, which included \$21.7 million for operations and maintenance and \$1.1 million for research, development, testing and evaluation, with an additional \$1.9 million for grant-funded research projects.

T2's multidisciplinary approach, which encourages collaboration among integrated teams of psychologists, technology developers and program staff, has improved the efficiency and effectiveness of research, development and the production of health resources.

Fiscal Year 2014 Expenditures



Staff Distribution by Role



Public Affairs

The Public Affairs Office leads the coordinated effort to inform the military community of service members, families, veterans and military health care providers of the education and care resources developed for psychological health and mild traumatic brain injuries.

Successive national promotions and coordination with major commands within the Defense Department have increased recognition of T2's contributions to the medical readiness of the armed forces.

Professional Development

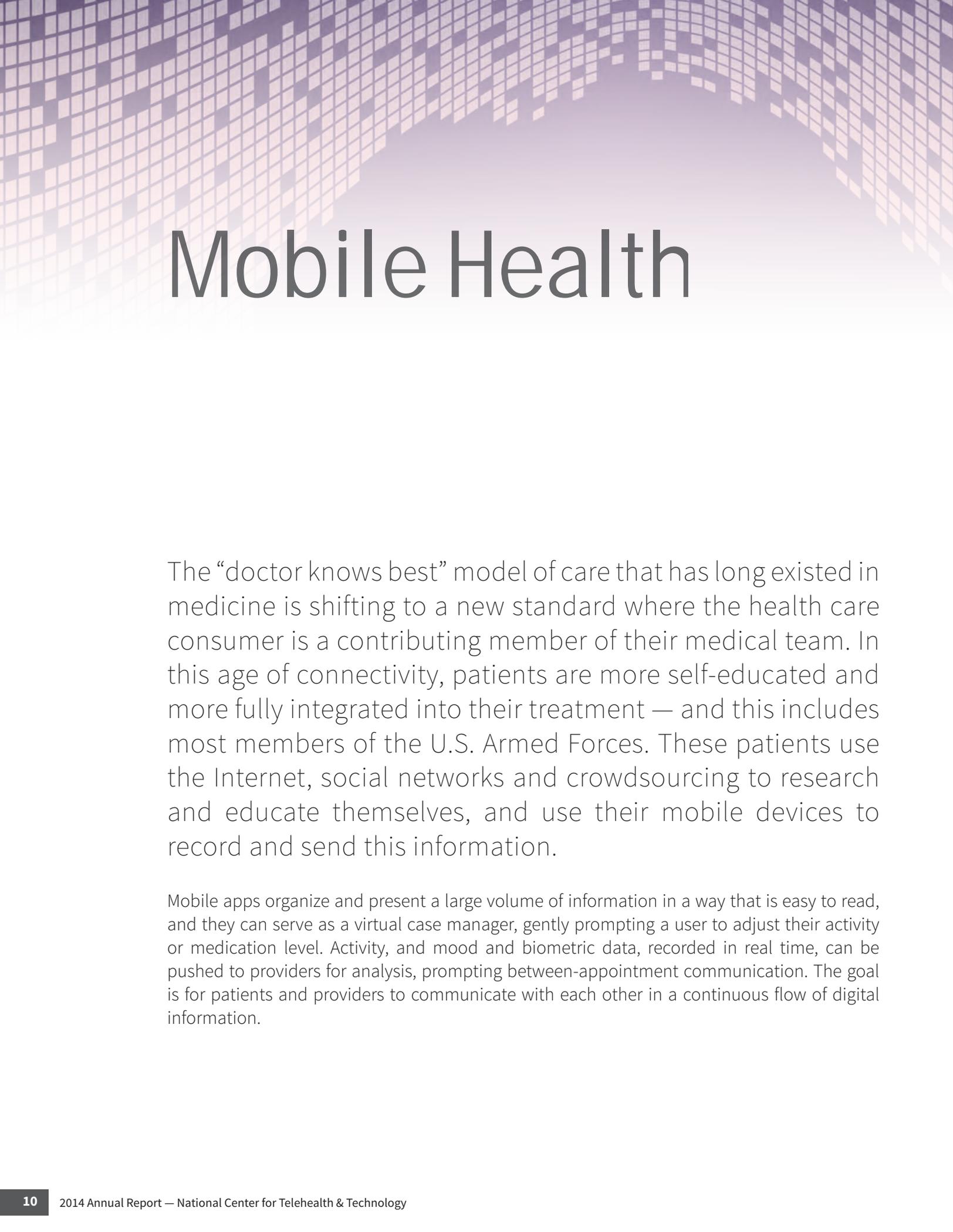
The Professional Development Office (PDO) was established in late 2014 in order to grow and maintain T2's skilled and capable workforce. The PDO increases staff awareness of professional development and training opportunities, consolidates professional development resources for easier access, and provides centralized support and assistance to staff in need of training. The PDO facilitated eight individual courses and five group courses during the fall quarter.



T2 coverage in major media



T2 Public Affairs Officer Joe Jimenez coaches Telehealth Director Jamie Adler, Ph.D., before an interview.



Mobile Health

The “doctor knows best” model of care that has long existed in medicine is shifting to a new standard where the health care consumer is a contributing member of their medical team. In this age of connectivity, patients are more self-educated and more fully integrated into their treatment — and this includes most members of the U.S. Armed Forces. These patients use the Internet, social networks and crowdsourcing to research and educate themselves, and use their mobile devices to record and send this information.

Mobile apps organize and present a large volume of information in a way that is easy to read, and they can serve as a virtual case manager, gently prompting a user to adjust their activity or medication level. Activity, and mood and biometric data, recorded in real time, can be pushed to providers for analysis, prompting between-appointment communication. The goal is for patients and providers to communicate with each other in a continuous flow of digital information.



Program manager Matt Higgins and Mobile Health Director Robert Ciulla, Ph.D., present T2 mobile apps to Army Medicine leaders.

Technology tools are a vital cog in the future of the military's system for health:

- Military health care consumes 10 percent of the DoD budget. Apps can be used an unlimited number of times at minimal sustainment cost.
- Mobile technologies offer in-the-moment symptom-surveillance data that can be shared and tracked.
- More than half of all Americans look online for health information and more than one-third use the Internet for diagnostic purposes.
- One out of every five smartphone owners has a health-related app on their phone, with exercise, diet and weight control apps being especially popular.
- Information can be accessed privately 24/7 via a smartphone.

Evolving health technologies will enhance the military health care system as their integration continues, and T2 is a key pioneer in this niche of behavioral health care. As more health care consumers and providers adopt the benefits of mobile health, the system can improve the access to care for the widely dispersed members of the military community.

MOBILE RESOURCES

T2's health technologies offer a digital delivery system consistent with the government's call for vital health information to be available anywhere and anytime. T2's products can be used confidentially to overcome stigma and complement clinical care. They provide continual access to essential resources, essentially supporting the military community in the time between appointments. This is a core theme of the patient-centered medical home, a model of care that transforms the health care system into a system for health.

Last year, T2 released the **Virtual Hope Box** mobile app, which has received much praise from both users and providers, and which also received a **2014 DoD Innovation Award**. Some of T2's earliest apps and websites are still popular, winning awards and being regularly praised in user comments.



Dr. Jonathan Woodson, assistant secretary of defense for health affairs, presents Nigel Bush, Ph.D., with a 2014 DoD Innovation Award for the Virtual Hope Box mobile app. Also shown is Vice Adm. Michael L. Cowan, MD, USN (Ret), and AMSUS executive director.

Websites

AfterDeployment celebrated its sixth anniversary in 2014. Acknowledged as best-in-class by multiple governmental organizations, the website continues to deliver useful psychological health and traumatic brain injury self-care information and assessments for service members, veterans and their families. The **LifeArmor** mobile application complements the AfterDeployment site by bringing many of its features to mobile platforms.

In 2014, AfterDeployment's site assessments, provider's portal and library were revised and improved. A clinical guide to help health care providers interested in using AfterDeployment tools as part of their in-person practice will be published on the website in 2015.

Military Kids Connect[®] addresses stressful issues and transitions that are common in military life for children of service members. Sections for parents and educators focus on supporting children through the challenges of military life. The educators' section features instructional aids for helping civilian classmates better understand the language and culture of their friends from military families.

Video tours of 10 military bases were produced to help teens get used to their new homes. A clinical guide to help health care providers using Military Kids Connect tools with their in-person practice has been completed and will be published on the website in 2015.

The **Moving Forward** and **Parenting for Service Members** websites were developed in collaboration with the Department of Veterans Affairs Mental Health Informatics Section. These sites were created to assist with problem-solving and parenting skills as part of Congress' Integrated Mental Health Strategy, a joint initiative of the departments of Defense and Veterans Affairs. A companion app for each of these websites was released in 2014.

- **Moving Forward** is an eight-module online educational and life coaching program to teach problem-solving and stress-management skills to military and veteran populations. The website received five awards in 2014: a Silver Award from the Television, Internet & Video Association of DC for a Government/Web-based resource; a Silver OMNI Inter-media Award; a Silver Innovative Award from the Federal Government Distance Learning Association (FGDLA); a Best in Class Interactive Media Award; and a Gold Brandon Hall Award.
- **Parenting for Service Members** is a six-module self-help Web course addressing both everyday parenting problems and family issues unique to military life. The website received five awards in 2014: a Silver Award from the Television, Internet & Video Association of DC for a Government/Web-based resource; a Gold Innovative OMNI Inter-media Award; a Gold Innovative Award from the Federal Government Distance Learning Association (FGDLA); a Best in Class Interactive Media Award; and a Gold Brandon Hall Award.

The **Military Families Near and Far** project includes a website developed by Sesame Workshop® and two mobile applications, Feel Electric! and Sesame for Military Families. The website features Muppet® characters to help preschool military children coping with the deployment, homecoming, injury or death of a parent. It also offers creative tools to improve parent-child communication by promoting self-expression of military children. For parents, the website includes the highly successful Talk, Listen, Connect resources, which help parents and caregivers face the challenges of deployments, homecomings, changes and grief.

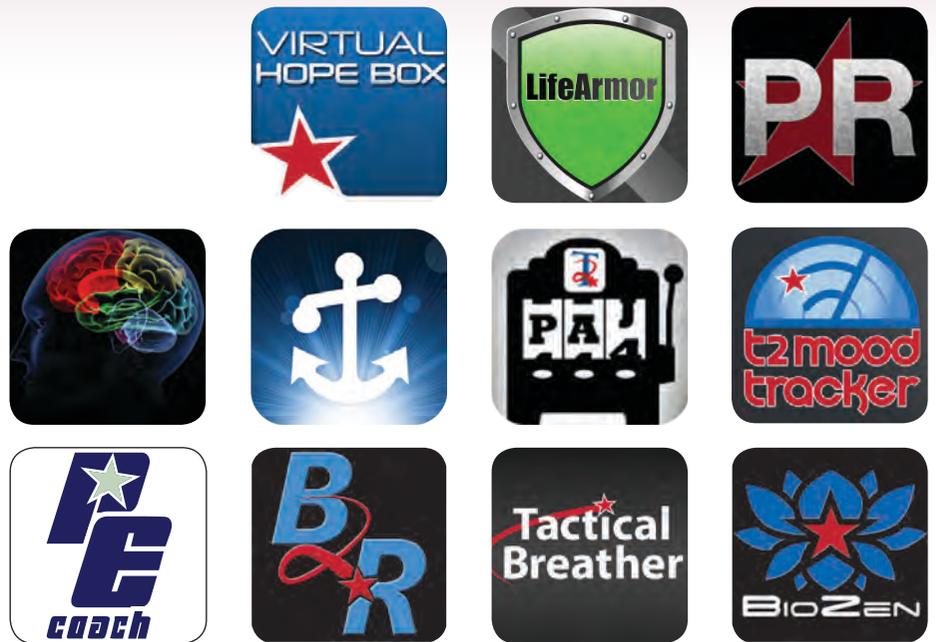
Mobile Applications

The global capability of mobile applications makes them useful tools for America's warriors, who are dispersed around the globe and can benefit from access to health care information wherever they are. Information from a website or an app can be viewed on a mobile device and can foster a ready force through screening and education, and prepare service members for the often unexpected changes of military life. In this time of always-on and easily accessed handheld computational capability, patients can arrive at a doctor's office equipped with medical information and incisive questions.

T2 has developed 11 mobile apps in partnership with the VA's National Center for PTSD, and has collaborated with Sesame Workshop® on three mobile apps for young children.

Apps released in 2014 include Virtual Hope Box and companion apps for both the Moving Forward and the Parenting for Service Members websites.

MOBILE APPS



COLLABORATIVE APPS



WEBSITES



COLLABORATIVE WEBSITES

- militaryparenting.dcoe.mil
- familiesnearandfar.org
- startmovingforward.dcoe.mil



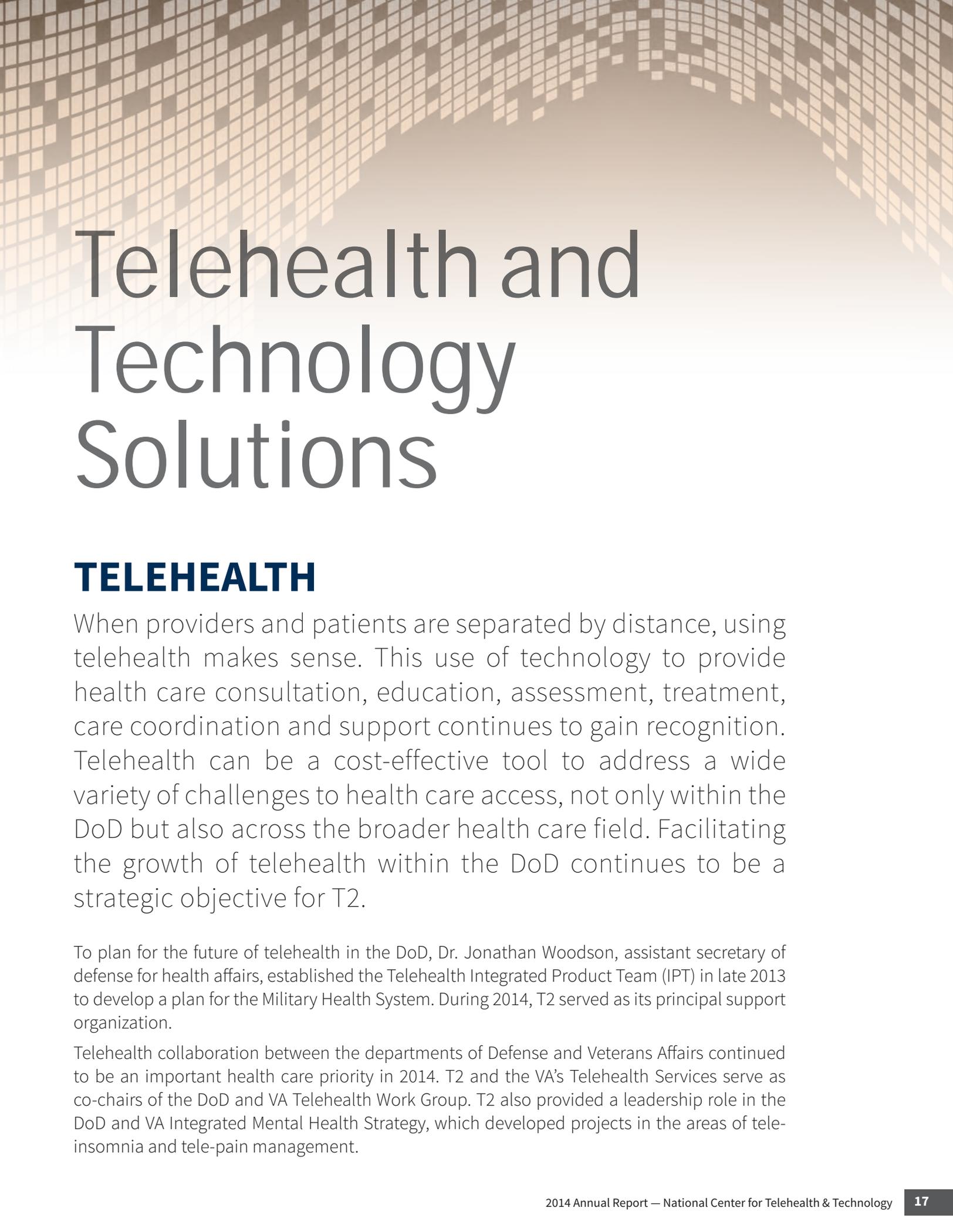
CONTINUING DEVELOPMENT

The following T2 programs are currently in development:

- Work on the Virtual Lifestyle Coach (VLC) pilot program progressed in 2014. In-person coaching for weight management has been shown to be effective at helping service members get control over their weight and maintain healthy changes; this project created a virtual coach to achieve the same thing for less money and greater convenience. Funded by the Military Health System’s Innovations Council, VLC is based on the content behind successful DoD initiatives for weight management and will be designed as a mobile application designed for tablets. The program includes modules for assessing risk as well as readiness for change, goal setting and weight-loss strategy development, and exercises to increase readiness to change.
- The Breathe2Relax mobile app teaches diaphragmatic breathing to reduce stress. However, many users have requested a more streamlined tool, so T2 is repurposing the technology into a more streamlined version called Breathe2Relax2Go. This tool will provide a simpler easy-to-use method that is more customizable and more likely for a user to remember the breathing techniques.
- Nightmares are a common symptom accompanying post-traumatic stress that leads to insomnia and poor sleep quality — which in turn can exacerbate other behavioral health issues. T2’s SleepEasy mobile app, due out in 2015, follows the process of Imagery Rehearsal Therapy to change the “script” of nightmares, changing the story from frightening to favorable.
- Finally, weight management is not just a problem for civilians, but a growing one for the military as well. As part of the DoD Healthy Base Initiative, T2 is creating the Habits4Health mobile app to help service members and their families build healthy habits.



T2 Usability specialist Gabe Ganser works with an airman for product testing.



Telehealth and Technology Solutions

TELEHEALTH

When providers and patients are separated by distance, using telehealth makes sense. This use of technology to provide health care consultation, education, assessment, treatment, care coordination and support continues to gain recognition. Telehealth can be a cost-effective tool to address a wide variety of challenges to health care access, not only within the DoD but also across the broader health care field. Facilitating the growth of telehealth within the DoD continues to be a strategic objective for T2.

To plan for the future of telehealth in the DoD, Dr. Jonathan Woodson, assistant secretary of defense for health affairs, established the Telehealth Integrated Product Team (IPT) in late 2013 to develop a plan for the Military Health System. During 2014, T2 served as its principal support organization.

Telehealth collaboration between the departments of Defense and Veterans Affairs continued to be an important health care priority in 2014. T2 and the VA's Telehealth Services serve as co-chairs of the DoD and VA Telehealth Work Group. T2 also provided a leadership role in the DoD and VA Integrated Mental Health Strategy, which developed projects in the areas of tele-insomnia and tele-pain management.



T2 leaders describe mobile health programs to Sergeant Major of the Army Raymond F. Chandler III.

In 2014, T2 authored the DoD’s report to Congress on the “**Use of Telemedicine to Improve the Diagnosis and Treatment of Posttraumatic Stress Disorder, Traumatic Brain Injuries, and Mental Health Conditions**,” as mandated by the National Defense Authorization Act for Fiscal Year 2014.

TECHNOLOGY ACCOMPLISHMENTS

The Technology division is a critical link for all T2 personnel, ensuring that T2 excels at leveraging existing and emerging technology. The division provides the developers and programmers who lead the innovation of T2 health technology solutions by creating T2’s mobile and Web applications. The Technology division also supports network connectivity, information assurance and security, hardware maintenance, software installation and SharePoint design and maintenance.

To improve the security of mobile data stored on Android and iOS devices, the Technology division developed a mobile encryption module to protect the health information and security of user data. All T2 mobile applications are in the process of being updated to include this National Security Agency level of encryption, which will ensure that the confidential health information being recorded by the users will remain safe while the user is saving and transferring data.



A new Software Development Life Cycle Plan was established in 2014, which includes software engineering best practices and greatly improved the process for producing Information Management/Information Technology solutions. This plan ensures even better-quality products and improves predictability for future software development.

TECHNOLOGY ENHANCEMENT CENTER (TEC)

Usability testing ensures that when applications reach the hands of the audience, they perform in the most intuitive and effortless way. Also, issues are less expensive and easier to fix in the development phase rather than after product release.

T2's behavioral health usability lab is one-of-a-kind within the Defense Department and evaluates user experience at every stage of the product development lifecycle. Testing is performed across a wide range of commercially available user devices and operating systems. As T2 is located on Joint Base Lewis-McChord, service members regularly visit the lab to test products and provide valuable feedback.

Testing and observation rooms are equipped with a wide array of technologies to allow developers and other observer-stakeholders to track and record virtually every aspect of user interaction. Multiple remote-controlled video cameras capture user actions and reactions from all angles while eye-tracking hardware pinpoints precise areas of users' focus as they review websites and other applications.

T2-TATRC COLLABORATION

T2 was awarded a grant in collaboration with the Telemedicine and Advanced Technology Research Center (TATRC) to test the integration of two separate information-technology systems: the secure TATRC Mobile Health Care Environment Research (MHCE-R) System and the T2 Mood Tracker mobile application. This will result in a mobile app that transmits the patient's information from their mobile device to their clinician's records within a secure environment.

Technology Usage Among Active Duty Soldiers

355 soldiers completed anonymous surveys assessing their technology use habits

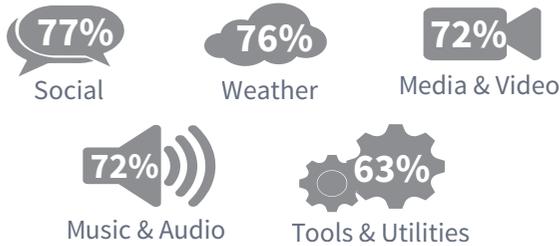
Mobile Technology

Smartphones

95% of Service Members own a smartphone



Top 5 most commonly used app types

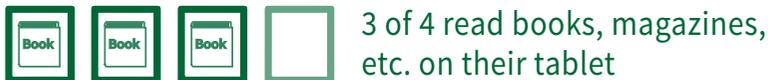


Top 5 most commonly played game types



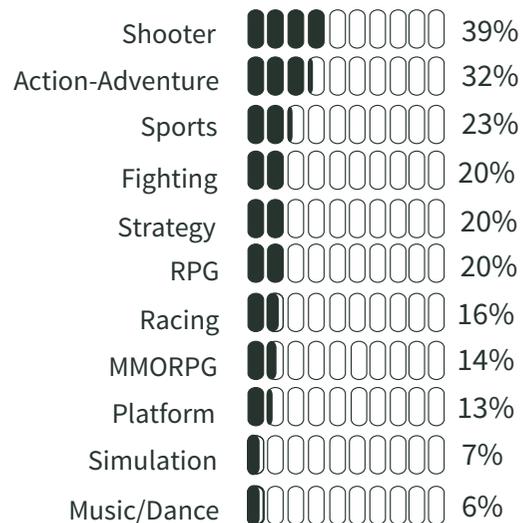
Tablets

36% of Soldiers own a tablet

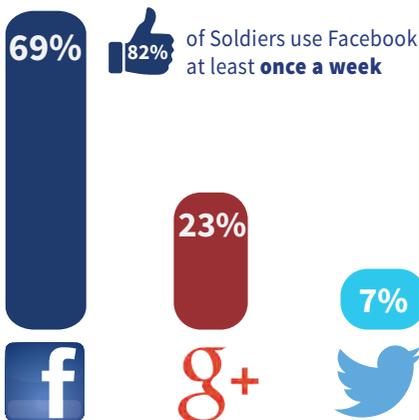


Video Games

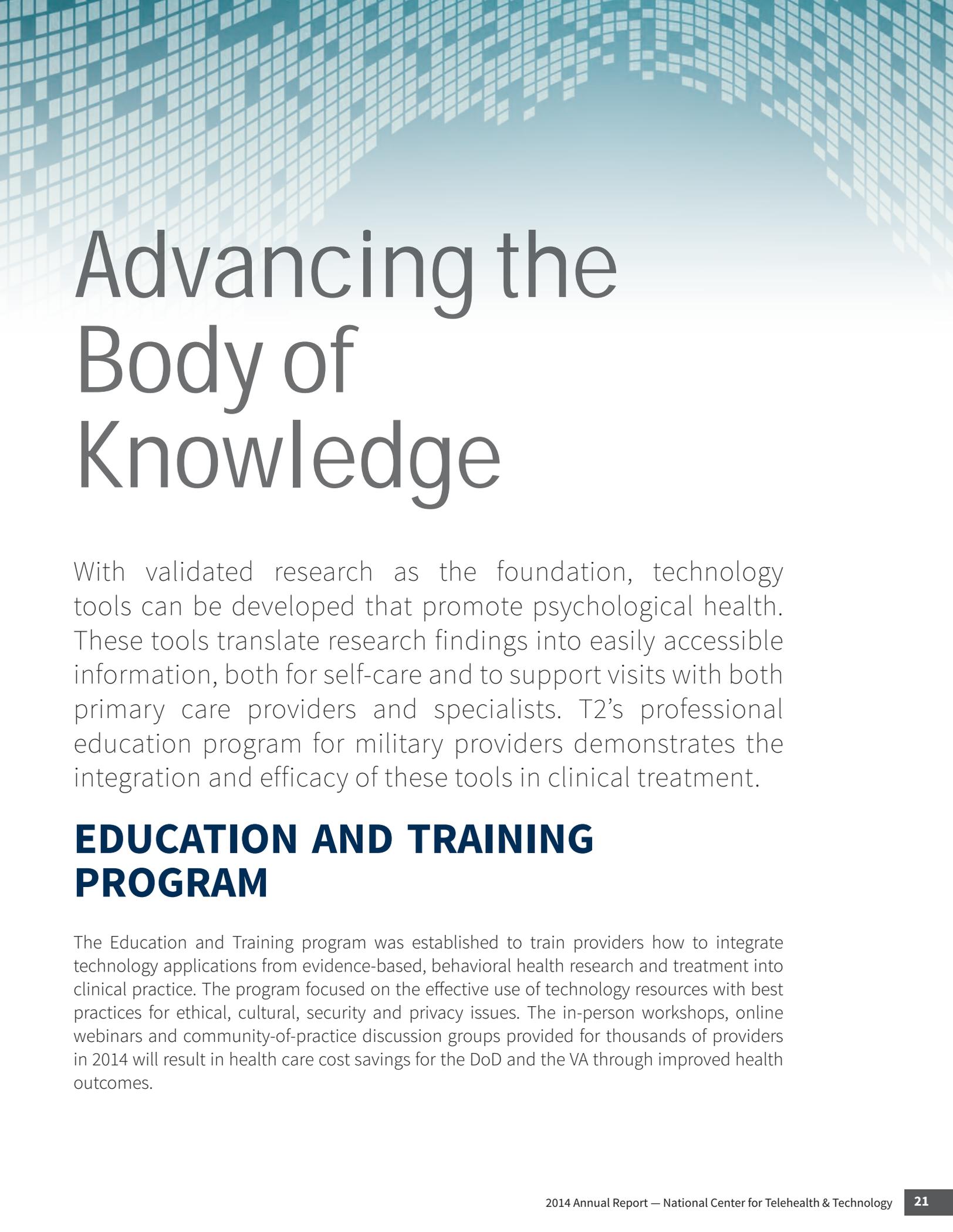
Weekly video game play



Social Media



Daily Use Less than 3% use MySpace ever



Advancing the Body of Knowledge

With validated research as the foundation, technology tools can be developed that promote psychological health. These tools translate research findings into easily accessible information, both for self-care and to support visits with both primary care providers and specialists. T2's professional education program for military providers demonstrates the integration and efficacy of these tools in clinical treatment.

EDUCATION AND TRAINING PROGRAM

The Education and Training program was established to train providers how to integrate technology applications from evidence-based, behavioral health research and treatment into clinical practice. The program focused on the effective use of technology resources with best practices for ethical, cultural, security and privacy issues. The in-person workshops, online webinars and community-of-practice discussion groups provided for thousands of providers in 2014 will result in health care cost savings for the DoD and the VA through improved health outcomes.

SUICIDE SURVEILLANCE AND RESEARCH

T2 prepared the sixth **DoD Suicide Event Report** (DoDSER) for the Defense Suicide Prevention Office to improve the military's suicide prevention efforts. The annual DoDSER report is widely used in suicide prevention efforts by leadership, and provides validated data trends to understand suicide risk factors.

This year, the DoDSER team made significant efforts to continue to improve the DoDSER's data quality to further improve report accuracy and utility. Changes included improving the online help and establishing a process to resolve problems commonly encountered in submitting event reports.

Meetings in 2014 led to better strategies for understanding suicide risk factors experienced by reservists in a civilian status. Participants included the Suicide Prevention General Officer Steering Committee (SPGOSC) and the Office of the Assistant Secretary of Defense (Manpower & Personnel) for Reserve Affairs.

RESEARCH

Research, Outcomes, and Investigations (ROI) gathers data and conducts research to support the use of T2 products. It examines the use of technology in the military population, performs gap analyses and systematic reviews, determines best practices and policies, and evaluates technology opportunities for the DoD and military suicide research data.

Two of T2's research programs were ranked in the top 10 in a comprehensive review of all MHS psychological-health program assessments of evaluation readiness (out of a total of 115 programs). T2's other five programs ranked at least mid-level.

In 2014, ROI completed three major multi-year studies:

- A comprehensive study of more than four million service members found that suicide was not associated with deployment to OEF/OIF. However, there was an increase in the hazard of suicide as a function of separation from military service, especially among those who served for less than four years. A manuscript describing the detailed results was accepted for publication in **JAMA Psychiatry**.

- In the first of two clinical evaluations, a study of high-risk patients using T2's Virtual Hope Box (VHB) mobile app regularly found it to be beneficial, easy to use, and would recommend it to their peers. The VHB is used by clinicians with patients who are struggling with coping and negative thoughts, including patients who may be at risk for suicide. A second and much larger clinical trial of VHB effectiveness is underway and will be completed in late 2015. A manuscript on T2's Virtual Hope Box was published in the **Journal of Suicide and Life-Threatening Behavior**. The VHB has received numerous accolades, including a 2014 DoD Innovation Award.
- A three-year randomized controlled trial evaluated the safety and effectiveness of using in-home tele-behavioral health care (by video conferencing over a computer) to deliver psychotherapy for depression for service members and veterans. The results were compared to the same treatment delivered face-to-face with a provider, and analyses are underway.

PUBLICATIONS, PRESENTATIONS, PARTNERSHIPS AND COLLABORATIONS

Working collaboratively with other organizations has been a cornerstone of T2's success. In 2014 the organization continued to build upon that work by advancing existing partnerships and collaborations while developing new relationships with government, academic and private sector organizations.

Publications

T2 published 21 peer-reviewed scientific manuscripts on research studies or book chapters in 2014 with 17 additional manuscripts in press awaiting publication (or published in early 2015).

Armstrong, C. M., Reger, M. A., & Gahm, G. A. (2014). Emerging and Young Adulthood: Military Suicides. In M. van Dulmen, R. Bossarte, & M. Swahn (Eds.), *Developmental and Public Health Perspectives on Suicide Prevention: An Integrated Approach* (pp. 152-165). New York, NY: Sciknow Publications Ltd.

Bush N. E., Ouillette G., & **Kinn J. T.** (2014). Utility of the T2 Mood Tracker mobile application among army warrior transition unit service members. *Military Medicine*, 179(12), 1453-1457. doi:10.7205/MILMED-D-14-00271

Bush N. E., Prins A., Laraway S., O'Brien K., Ruzek J., & **Ciulla, R.** (2014). A pilot evaluation of the AfterDeployment.org online posttraumatic stress workshop for military service members and veterans. *Psychological Trauma: Theory, Research, Practice, and Policy*, 6(2), 109-119. doi:10.1037/a0032179

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Selected Presentations

T2 presented research findings at multiple national conferences including 24 professional presentations. These conferences were opportunities to disseminate relevant findings, engage key stakeholders and network with existing and new partners. The conferences included the American Association of Suicidology, Military Health System Research Symposium, AMSUS, American Psychological Association, Association of Clinical Research Professionals and International Society for Traumatic Stress Studies.

Bush, N. E. (2014, August). *A virtual hope box smartphone app as an accessory to therapy: Proof of concept in a clinical sample of veterans*. Paper presented at the 2014 Military Health System Research Symposium, Fort Lauderdale, FL.

Bush, N. E. (2014, December). *A virtual hope box smartphone app: Proof of concept in a clinical sample of veterans*. Paper presented at the annual meeting of AMSUS, Washington, DC.

Edwards-Stewart, A. & Kinn, J. (2014, December). *Mental health providers' use of new technologies in treatment*. Paper presented at the annual meeting of AMSUS, Washington, DC.

Edwards-Stewart, A., Kinn, J., & Cooper, D. (2014, December). *Over-the-horizon technologies that might be used to enhance health*. Paper presented at the annual meeting of AMSUS, Washington, DC.

Kinn, J., & Edwards-Stewart, A. (2014, December). *Use of mobile applications to support service members' psychological health*. Paper presented at the annual meeting of AMSUS, Washington, DC.

Luxton, D. D. (2014, April). *Predictors of suicidality among help-seeking active duty military and OEF/OIF veterans: Analysis of baseline data from current clinical trials*. Paper presented at the 47th Annual Conference of the American Association of Suicidology, Los Angeles, CA.

Luxton, D. D. (2014, April). *Caring letters: A suicide prevention randomized controlled trial at the VA Palo Alto health care system*. Paper presented at the 2014 Global Conference & Exhibition of the Association of Clinical Research Professionals, San Antonio, TX.

Luxton, D. D. (2014, April). *Gender differences in suicide risk in a military clinical sample*. Paper presented at the 47th Annual Conference of the American Association of Suicidology, Los Angeles, CA.

Luxton, D. D. & June, J. (2014, August). *Can post treatment follow-up contacts prevent suicide behavior?* Paper presented at the annual meeting of the American Psychological Association, Washington, DC.

Reger, M., Smolenski, D. J., & Skopp, N. (2014, August). *The association between suicide and OIF/OEF deployment history*. Paper presented at the 2014 Military Health System Research Symposium, Fort Lauderdale, FL.

Skopp, N. A., Smolenski, D. J., Bush, N. E., & Luxton, D. D. (2014, November). *Comparison of suicide decedents and suicide attempters in the US*. Paper presented at the Trauma and Suicide in Military Personnel and Veterans: Contribution of Pre-Military, Military, and Post-Military Factors Symposium at the 30th Annual Meeting of the International Society for Traumatic Stress Studies, Miami, FL.

Smolenski, D. J. (2014, December). *Time-to-event analysis of suicide following OEF/OIF deployment*. Paper presented at the annual meeting of AMSUS, Washington, DC.

Partnerships and Collaborations

T2's research and development are strengthened by diverse partnerships and collaborations with other individuals and organizations. They provide opportunities to work with colleagues on synergistic ideas, share professional resources, learn from other disciplines and enhance the credibility and validity of the center's programs. Collaborators with the following T2 projects are shown in the following lists.

AfterDeployment

- brainline.org
- Center for the Study of Traumatic Stress
- Clemson University
- Department of Defense, Sexual Assault Prevention and Response Office
- Department of Veterans Affairs, National Center for PTSD
- Department of Veterans Affairs, Office of Mental Health
- Georgetown University
- Harborview Medical Center
- HelpforDepression.com
- Iowa State University
- Madigan Army Medical Center, Integrated Pain Management Center (CPAIN Project)
- Madigan Army Medical Center, Pediatric Clinic
- Military OneSource
- Mothers At War
- Navy Bureau of Medicine
- Northwestern University
- Our Forgotten Warriors
- San Jose State University
- Screening for Mental Health
- Seattle University School of Nursing

- Trauma and Neurosurgery Program, St. Michael's Hospital, Toronto, Canada
- TRICARE Family Advocacy Program
- TRICARE Online
- U.S. Army Telemedicine and Advanced Technology Research Center
- University of Iowa
- University of Kansas Medical Center
- University of Maryland
- University of North Texas
- University of Southern California, Center for Innovation and Research on Veterans & Military Families
- University of Washington
- VA Portland Health Care System
- VA Puget Sound Health Care System

Association between Suicide and OIF/OEF Deployment History: Military Operational Medicine Research Program, Suicide Prevention and Counseling Research Grant

- Office of Public Health, Veterans Health Administration, Washington

Caring Letters for Military Suicide Prevention: A Randomized Controlled Trial

- Landstuhl Regional Medical Center
- Madigan Army Medical Center
- Naval Medical Center San Diego
- Tripler Army Medical Center
- University of Washington
- VA Palo Alto Health Care System
- VA Western New York Healthcare System

Daily Diary Assessment of Post-Traumatic Stress Symptoms in U.S. Military Service Members

- Walter Reed National Military Medical Center

Department of Defense Suicide Event Report (DoDSER)

- Armed Forces Medical Examiner's Office System
- Army, Navy, Air Force and Marine Corps Suicide Prevention Programs
- CDC National Violent Death Reporting System
- DoD's Suicide Prevention and Risk Reduction Committee
- U.S. Army Public Health Command, Behavioral and Social Health Outcomes Program
- VA Eastern Colorado Health Care System, Mental Illness Research, Education and Clinical Centers
- VA Palo Alto Health Care System

DoDSER - Centers for Disease Control National Violent Death Reporting System (CDC-NVDRS) Collaborative Studies

- CDC-NVDRS

DoDSER Gender Comparison Study

- UC San Francisco, San Francisco VA Medical Center PTSD Program

Enterprise-wide Environmental Scan and Targeted Survey of Health Technology Needs and Uses in the Military Community

- Rand Corporation Survey Research Group

Examining the Usability, Acceptability, and Effectiveness of the Provider Resilience Application in VA Mental Health Providers

- San Jose State University
- VA National Center for PTSD
- VA Puget Sound Health Care System

Reliability and Initial Validation of the INTRuST Structured Assessment for Evaluation of TBI (SAFE-TBI)

- Dartmouth College
- University of California, San Diego
- University of Washington

mHealth Convergence Feasibility Study: Integration of mCare/Mobile Health Care Environment — Revised and the T2 Mood Tracker Mobile Application

- Telemedicine and Advanced Technology Research Center's Mobile Health Innovation Center

MilitaryKidsConnect

- Center for the Study of Traumatic Stress
- DoD Education Activity
- DoD Military Community and Family Policy
- Joint Base Lewis-McChord Morale Welfare and Recreation
- Joint Base Lewis-McChord Teen and Youth Center
- Madigan Army Medical Center, Department of Adolescent Medicine
- Military Child Education Coalition
- Military OneSource
- Military Student Transition Counselor Program
- National Child Trauma Stress Network
- National Guard Teen Advisory Board
- National Military Family Association
- Project FOCUS (Families Overcoming Under Stress)
- Scottish Centre for Telehealth and Telecare
- Sesame Workshop
- Steilacoom High School Student 2 Student® Program
- University of California at Los Angeles
- University of Minnesota, Family Social Science
- University of Southern California School of Social Work

Military Mental Health Stigma Project

- Clemson University
- Iowa University

Military Suicide Research Consortium — Effectiveness of a Virtual Hope Box Smartphone App in Enhancing Veterans' Coping with Suicidal Ideation: A Randomized Clinical Trial

- Florida State University
- VA Eastern Colorado Health Care System
- VA Portland Health Care System

Mobile Applications

- Center for Deployment Psychology
- Center for the Study of Traumatic Stress
- Defense Health Agency Health Care Information Technology Directorate, Innovations & Advance Technology Development Division
- Defense Health Information Management System
- Healthy Base Initiative
- Military Health System's Innovations Office and Working Group
- Military Suicide Research Consortium, Florida State University
- Naval Center for Combat and Operational Stress Control
- Tripler Army Medical Center
- Uniformed Services University of the Health Services
- U.S. Air Force Medical Systems
- U.S. Army Program Executive Office Soldier
- U.S. Army Telemedicine and Advanced Technology Research Center
- U.S. Navy & Marine Corps Public Health Center
- University of British Columbia
- UCLA – Santa Monica
- University of North Dakota
- University of Puerto Rico
- University of Washington
- VA National Center for PTSD
- VA Office of Mental Health Services
- VA Portland Health Care System

- VA Puget Sound Health Care System, American Lake
- Walter Reed Army Medical Center
- Warrior Transition Battalion, Madigan Healthcare System

Randomized Control Trial of In-Home Telebehavioral Health Care Utilizing Behavioral Activation for Depression

- Medical University of South Carolina
- VA Medical Center, Charleston, South Carolina
- VA Portland Health Care System

Stepped Care for Inpatient Trauma Patients

- University of Washington

A Comparative Effectiveness Trial of Optimal Patient-Centered Care for US Trauma Care Systems

- Harborview Medical Center
- University of Washington

T2 Mood Tracker Functionality in a Case-Level Sample of Army Warrior Transition Unit Service Members

- Warrior Transition Battalion, Madigan Healthcare System

Telehealth

- American Telemedicine Association
- Army, Navy and Air Force Telehealth Offices
- Camp LeJeune Marine Corps Base (Naval Hospital), North Carolina
- Cannon Air Force Base, New Mexico
- Defense and Veterans Brain Injury Center
- Defense Health Agency, Healthcare Operations Directorate
- Defense Health Cost Assessment and Program Evaluation Office
- DoD/VA Health Executive Council Telehealth Work Group

- Department of Veterans Affairs National Telemental Health Center
- Department of Veterans Affairs Telehealth Services Office
- Deployment Health Clinical Center
- Federal Agency Telehealth Consortium
- Landstuhl Regional Medical Center
- Madigan Army Medical Center
- Office of the Assistant Secretary of Defense, Health Affairs
- Office of the Deputy Assistant Secretary of Defense for Health Services
- Philadelphia VA Medical Center
- Puget Sound Enhanced Multi-Service Market
- U.S. Army Medical Information Technology Center
- U.S. Army Telemedicine and Advance Technology Research Center
- VA Connecticut Healthcare System
- VA Puget Sound Health Care System
- Walter Reed National Military Medical Center



Resource Directory

Mobile Apps {This list is interactive, click the link for more information or the appropriate icon to download the app to your device.}

ACT Coach

t2health.dcoe.mil/apps/ACTCoach



Breathe2Relax

t2health.dcoe.mil/apps/breathe2relax



CBT-i Coach

t2health.dcoe.mil/apps/CBT-i



Concussion Coach

t2health.dcoe.mil/apps/ConcussionCoach



CPT Coach

t2health.dcoe.mil/apps/CPTCoach



LifeArmor

t2health.dcoe.mil/apps/lifearmor



Mindfulness Coach

t2health.dcoe.mil/apps/MindfulnessCoach



Moving Forward

t2health.dcoe.mil/apps/MovingForward



mTBI Pocket Guide

t2health.dcoe.mil/apps/mtbi



Navy Leader’s Guide Mobile App

t2health.dcoe.mil/apps/navy-leaders-guide



Parenting2Go

t2health.dcoe.mil/apps/Parenting2Go



PE Coach

t2health.dcoe.mil/apps/pe-coach

Clinician’s guide available through the link above.



PFA Mobile

t2health.dcoe.mil/apps/PFAMobile



Positive Activity Jackpot

t2health.dcoe.mil/apps/positiveactivityjackpot

Clinician’s guide available through the link above.



Provider Resilience

t2health.dcoe.mil/apps/provider-resilience



PTSD Coach

t2health.dcoe.mil/apps/ptsd-coach



Stay Quit Coach

t2health.dcoe.mil/apps/StayQuit



T2 Mood Tracker

t2health.dcoe.mil/apps/t2-mood-tracker



Tactical Breather

t2health.dcoe.mil/apps/tactical-breather



Virtual Hope Box

t2health.dcoe.mil/apps/virtual-hope-box

Clinician’s guide available through the link above.



The Big Moving Adventure



Feel Electric!



Sesame Street for Military Families



Websites

T2 Health	t2health.dcoe.mil
AfterDeployment	afterdeployment.dcoe.mil
Military Families Near and Far	familiesnearandfar.org
Military Kids Connect	militarykidsconnect.dcoe.mil
Parenting for Service Members	militaryparenting.dcoe.mil
Moving Forward	startmovingforward.dcoe.mil

Related Resources

- T2 Health Publications
- Web Applications Clinicians Guide
- AD Provider Portal
- MKC Parent Resources
- MKC Educator Resources

T2 Resources on Social Media {This chart is interactive, click the X to visit the social media channel.}

	Facebook	Google+	LinkedIn	SlideShare	Twitter	YouTube
AfterDeployment	X				X	X
Military Kids Connect	X				X	X
MKC Moves		X				
Moving Forward	X					
Parenting for Service Members	X					
Psychological Health Providers for the Military Community			X			
T2	X	X	X	X	X	X

Awards

Military Kids Connect

Academy of Interactive & Visual Arts — Communicator Award of Excellence for Teen Tour: Joint Base Elmendorf-Richardson (2015)

Association of Marketing and Communication Professionals — Platinum AVA Digital Award for Animated Graphic Novel: Moving — Al's Story (2015)

Association of Marketing and Communication Professionals — Gold AVA Digital Award for Teen Tour: Fort Carson (2015)

Television, Internet, and Video Association of DC — Silver DC Peer Award for Teen Tour: Joint Base San Antonio (2014)

Television, Internet, and Video Association of DC — Bronze DC Peer Award for Animated Graphic Novel: Dylan's Story — mTBI (2014)

Telly Council — Bronze Telly Award for "Colorful Countdown" (2013)

Television, Internet, and Video Association of DC — Silver DC Peer Award for Grief and Loss Graphic Novel (2013)

Academy of Interactive & Visual Arts — Communicator Award of Excellence for "Colorful Countdown" (2013)

Academy of Interactive & Visual Arts — Communicator Award of Excellence for Government Website (2013)

Association of Marketing and Communication Professionals — Honorable Mention AVA Digital Award (2013)

Academy of Interactive & Visual Arts — Gold W3 Award (2012)

Academy of Interactive & Visual Arts — Silver W3 Award (2012)

Television, Internet, and Video Association of DC — Gold DC Peer Award for "Family Perspectives: Communication is the Key" (2012)

Television, Internet, and Video Association of DC — Silver DC Peer Award for "Crossroads: Baseball or the Band" (2012)

Telly Council — Bronze Telly Award for "Crossroads" Video Series (2012)

Moving Forward

Health Information Resource Center — Silver Web Health Award (2014)

OMNI Intermedia Awards — Silver Award for Government (2014)

OMNI Intermedia Awards — Silver Award for Educational (2014)

Federal Government Distance Learning Association — Silver Innovative Award (2014)

Interactive Media Awards — Best in Class Award (2014)

Brandon Hall Group Excellence Awards Program — Gold Award (2014)

Parenting for Service Members

Health Information Resource Center — Silver Web Health Award (2014)

Brandon Hall Group Excellence Awards Program — Gold Award (2014)

Academy of Interactive & Visual Arts — Communicator Award of Excellence for Education Website (2014)

Academy of Interactive & Visual Arts — Communicator Award of Excellence for Government Website (2014)

Federal Government Distance Learning Association — Gold Innovative Award (2014)

Interactive Media Awards — Best in Class Award (2014)

Feel Electric

Parents' Choice Foundation — Parent's Choice Award (2012)

PTSD Coach

American Telemedicine Association — President's Award for Innovation (2012)

Federal Communications Commission — Chairman's Award (2011)

Tactical Breather

Apps 4 Army Competition — 2nd Place General Wellness Award (2010)

T2 Mood Tracker

Apps 4 Army Competition — 1st Place General Wellness Award (2010)

Virtual Hope Box

Department of Defense — Innovation Award (2014)





DEFENSE CENTERS OF EXCELLENCE
For Psychological Health & Traumatic Brain Injury

National Center for Telehealth & Technology

9933 West Hayes Street
Joint Base Lewis-McChord, WA 98431
253-968-1914
t2health.dcoe.mil
mrmc.dcoe.t2-contactus@mail.mil

