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## **Welcome Letter**

The 2010 Defense Centers of Excellence for Psychological Health and Traumatic Brain Injury (DCoE) Annual Report highlights DCoE's work across the spectrum of care through integration; evaluation and analysis of best practices; education and knowledge exchange; and interagency collaboration during the past year.

Our achievements in 2010 were a result of the continuing hard work and dedication of the DCoE staff and its partners. While several of these accomplishments built upon successes from previous years, many were new initiatives. The annual report focuses on identified and prioritized areas of interest relating to the health and well-being of our service members, veterans and their families.

Collaboration with the service medical departments and the Office of the Secretary of Defense for Health Affairs allows DCoE and its component centers to improve the treatment our warriors and their families receive and to increase education, awareness and communication in research in psychological health and traumatic brain injury across the Defense Department.

DCoE and its component centers are keenly aware of our responsibility to identify and promote best practices, foster research and promulgate knowledge that will ultimately improve care for our service members with traumatic brain injuries and mental health problems. It is my intention that one day we will look back and see that our work has had a profound impact.

I encourage you to read the 2010 DCoE Annual Report in its entirety. We are making progress to improve psychological health and traumatic brain injury treatment within the Defense Department in collaboration with our civilian partners — all for the lasting greater good of our service members, veterans and their loved ones.

Sincerely,

Capt. Paul S. Hammer, U.S. Navy Medical Corps, Director





## About DCoE

The Defense Centers of Excellence for Psychological Health and Traumatic Brain Injury (DCoE) was established in November 2007 to integrate knowledge and information about programs for psychological health and traumatic brain injury (TBI) in order to ensure the Department of Defense meets the needs of the nation's military communities, warriors and families. DCoE works across the entire continuum of care for psychological health and TBI to enhance resilience, rehabilitation and reintegration.

DCoE leads a groundbreaking collaborative effort that includes the Department of Veterans Affairs (VA), civilian agencies, community leaders, advocacy groups, clinical experts and academic institutions that are dedicated to expanding the state of knowledge of psychological health and TBI. DCoE is part of the Department of Defense's Military Health System,

#### Directorates

- Clearinghouse, Outreach and Advocacy
- Communications
- Psychological Health Clinical Standards of Care
- Research and Program Evaluation
- Resilience and Prevention
- Strategy, Plans and Programs
- Training and Education
- Traumatic Brain Injury Clinical Standards of Care

which provides a "continuum of care" — from initial accession to deployment to discharge — providing comprehensive health care for all service members. This system is firmly committed to ensuring that every warrior receives excellent care across the spectrum of prevention, screening, diagnosis, treatment, recovery and reintegration and supports building resilience.

DCoE brings together eight directorates and six component centers that identify, evaluate and disseminate promising and best practices and quality standards for the treatment of psychological health and TBI issues within the Defense Department. Working as an integrated group of experts, DCoE is integrating and enhancing the effectiveness of treatment, research and education in psychological health and TBI to meet the needs of all warriors and their families.

#### **Component Centers**

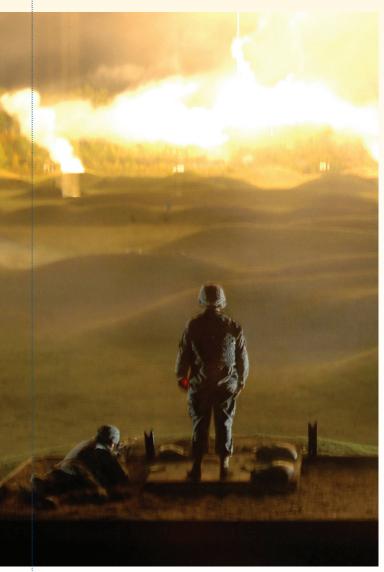
- Center for Deployment Psychology
- Center for the Study of Traumatic Stress
- Defense and Veterans Brain Injury Center
- Deployment Health Clinical Center
- National Center for Telehealth & Technology
- National Intrepid Center of Excellence

## **Enhancing Treatment**

DCoE is firmly committed to improving care through the identification of best practices and quality standards of care for psychological health and TBI. DCoE partners with the Department of Defense, VA and a national network of military and civilian agencies, community leaders, advocacy groups, clinical experts and academic institutions to identify, evaluate and disseminate best practices and quality standards for the treatment of psychological health and TBI.

### **In-Theater Protocols**

The first guidelines used to assess mild TBI among service members in theater were established in 2007 and were based on the service member seeking out medical care.



U.S. Army photo by Sgt. 1st Class Tom Steber

In June of 2010 the Directive Type Memorandum (DTM) 09-033, "Policy guidance for the management of concussion/mild TBI in the deployed setting" was released. This guidance ensured comprehensive evaluation of service members who were exposed to potential concussive events. These new protocols require that anyone who is referred by their chain of command or involved in certain incidents — including vehicle crashes, close proximity to blasts, direct blows to the head or loss of consciousness — must be screened for concussion. The new approach allows for earlier intervention and ensures that the injured service member receives prompt treatment. Additionally, the new guidelines change how recurring concussions (also known as mild TBI) are treated in theater.

The DTM is significant because it fosters line leadership and medical partnerships via the training and tracking of these potentially concussive events. DCoE was instrumental in providing policy guidance for the DTM through the Deputy Assistant Secretary of Defense for Force Health Protection & Readiness.

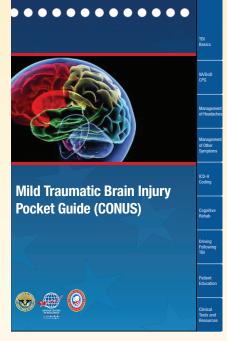
Following suit, a new psychological health in-theater protocol has been drafted. The in-theater protocol is an algorithm that guides medics and non-mental health care providers in the conduct of early screening for psychological health related issues. This protocol is intended to identify psychological health conditions, such as PTSD and depression, to ensure early intervention following exposure to a psychologically traumatic event or an observed change in a service member's behavior. The integral part of the new DoD Directive 6490.05, "Maintenance of Psychological Health in the Theater of Operations" is currently in review. The new protocols are expected to be released in 2011.

### **TBI Reference Tools**

In collaboration with the Defense and Veterans Brain Injury Center, DCoE created the Mild TBI Pocket Guide, an all-encompassing, quick reference on the assessment, treatment and management of patients with mild TBI and related symptoms. This guide contains concise summaries of the clinical recommendations for mild TBI symptoms experienced by service members, mild TBI clinical practice guidelines (CPGs) and the updated Defense Department mild TBI clinical guidance document. As of December 31, 2010, more than 13,000 Mild TBI Pocket Guides were distributed across the country.

An additional reference tool developed to provide guidance to health care professionals was the ICD-9 Pocket Card, a quick reference based on the "International Classification of Diseases, 9th Revision, Clinical Modification," which is the standard system of medical coding for all known diseases and health problems. In 2010, the codes for brain injuries underwent several changes to ensure that TBIs are consistently and accurately diagnosed, documented and tracked. Accurate coding is crucial to providing the proper screening and care for wounded warriors. Additionally, this data will be of value to the Defense Department for policy development and research.

To ensure consistency in standards of care in TBI across the Defense Department and to enhance the care of patients with TBI, DCoE created a TBI Program Guide in late 2010. When the guide is released in 2011, it will assist the services in the



development and implementation of TBI programs throughout the Defense Department.

## Co-occurring Conditions Toolkit: Mild Traumatic Brain Injury and Psychological Health

Complex combinations of symptoms are frequently seen in service members after a concussion. Headaches, sleep disorders, PTSD, acute stress, depression, chronic pain and substance abuse disorder are the most commonly encountered co-existing conditions. DCoE developed the "Co-occurring Conditions Toolkit" based on existing VA/DoD unidiagnostic clinical practice guidelines, including mild TBI, PTSD, major depression, substance use disorders and chronic opioid therapy. This resource for primary care professionals provides instructions and tables on the diagnosis and management of warriors with combinations of these persistent post-concussion symptoms, including pharmacological and non-pharmacological treatment options. Additionally, medication tables are provided that stress medication interactions and multipurpose medications. The purpose of these guidelines is to provide safe and effective treatment while avoiding unnecessary testing and

multiple medications. The Co-occurring Conditions Toolkit is scheduled for publication in February 2011 and will be distributed through DVBIC.

## VA/DoD Major Depressive Disorder Toolkit

Major depressive disorder is a psychological health issue that affects warriors and veterans. DCoE collaborated with the U.S. Army Medical Command and VA to create the "VA/DoD Major Depressive Disorder Toolkit." The purpose of this toolkit is to assist health care professionals screen, assess and manage depression in the primary care setting. It was developed as a companion to the VA/DoD clinical practice guideline for Management of Major Depressive Disorder, providing guidance to providers and the services on how to implement the guidelines.

The "VA/DoD Major Depressive Disorder Toolkit" also serves as an educational resource for patients and their family members.

## **Clinical Practice Guidelines**

DCoE actively collaborates with the Defense Department and VA to establish and update recommendations that offer clear treatment and referral recommendations to providers for diagnosis and treatment. This is accomplished through the development of clinical practice guidelines, or CPGs.

In 2010, DCoE provided guidance to VA and the U.S. Army Medical Command on several CPGs. As a subject matter expert on psychological health, DCoE provided information to update the 2004 VA/ DoD CPG for Management of PTSD and Acute Stress Disorder, the Bipolar Disorder CPG and the Management of Chronic Opioid Therapy CPG. Additionally, DCoE played an instrumental role in surveying and reviewing the content and quality of other clinical practice guidelines on chronic pain for possible augmentation to the existing VA/DoD Chronic Opioid Therapy CPG.

## Cognitive Rehabilitation Program

As a leader in promoting the standards of TBI care, the military health system must also implement the leading science of care. To this end, in 2009, DCoE developed a clinical guidance package for cognitive rehabilitation in TBI and subsequently produced a peer reviewed manuscript. In 2010, this package was approved by Health Affairs and implemented at 13 military treatment facilities that are serving as demonstration sites. As the program continues, DCoE is responsible for monitoring the outcome variables, as well as providing recommendations to Health Affairs about further advancement of the program.

This evaluation could significantly impact the treatment and reimbursement of cognitive rehabilitation therapy of mild TBI within DoD. The results of the pilot testing will be briefed to the Health Affairs Clinical Proponency Steering Committee in early 2011.



U.S. Army photo by Spc. Jason A Young

## **Education and Awareness**

DCoE is dedicated to ensuring that service members, veterans, families and health care providers get the information they need in the most effective way possible. DCoE accomplishes this by utilizing a variety of information vehicles.

## 24/7 Outreach Center

Questions about psychological health and TBI are often complicated in nature, and it is easy to become overwhelmed by the volume and sources of information. DCoE's 24/7 Outreach Center serves as a central source of information on psychological health and TBI for any warrior, family member, caregiver, clinician, researcher, educator, military leader or other interested party.

As the only DoD resource center dedicated exclusively to psychological health and traumatic brain injury concerns, the DCoE Outreach Center has collaborative agreements with other DoD and VA hotlines and resource centers to ensure that service members, veterans and families get a warm hand-off to the agency or program that can best address their needs. The Outreach Center works closely with Military OneSource and the National Suicide Prevention Lifeline to share resources and make referrals.

During the past year, the DCoE Outreach Center responded to over 4,660 contacts. Greater than 20 of these inquiries were from service members in crisis. All crisis contacts resulted in immediate assistance and This resource is amazing. I am overwhelmed that our government can so quickly and comprehensively provide extensive reference and referral material. Thank you ... you have made my day.

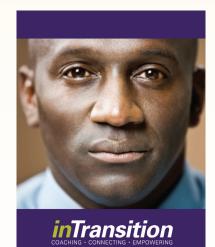
support from the Outreach Center and the National Suicide Prevention Lifeline.

Health resource consultants who staff the Outreach Center possess clinical expertise and knowledge in both psychological health and traumatic brain injury issues. They understand the unique needs of the military and veteran communities and provide current information and offer assistance to service members, veterans and families.

The DCoE Outreach Center can be reached by phone toll-free at 866-966-1020, by email at resources@dcoeoutreach.org or live online chat via DCoE's website at www.dcoe.health.mil/24-7help.aspx.

## inTransition

Changes in duty status, relocation or return to civilian life are common transitions in the military; however, they may be more challenging for service members receiving mental health treatment. In the fall of 2010, DCoE became the lead on the inTransition program to help maintain the continuity of care through transition periods. InTransition offers service members an assigned coach to meet weekly, or more if needed, providing a stable relationship for the service member to rely on during a period of transition. The coach learns the goals and needs of the service member, and uses motivational interviewing to



encourage continuing treatment during the transition. The coach also works with the service member to provide assistance on maintaining healthy lifestyle choices and provides community resources to address additional needs. The service member works with the same coach throughout the transition process to ensure continuity and stability of support.

DCoE works closely with the Defense Department and VA to bridge the potential gaps in behavioral health support during transitional periods — gaps that can lead to service members' disengagement from treatment or the deterioration of their health status. inTransition connects service members with their new provider, helping them locate community resources, support groups, crisis intervention services and other assistance. Coaches do not replace the functions of case managers, but rather facilitate the access to and utilization of health services. Enrollment into the program is free and can be initiated by the service member or through referral from a service member's current provider or case manager.

The inTransition program provides free resources for both service members and providers. Transition coaches can be reached at 800-424-7877. To learn more about the program, visit www.health.mil/InTransition.

### Sesame Workshop: Talk, Listen, Connect

In just one year an estimated 1,345 children from military families experienced the death of a parent serving in the military.<sup>1</sup> DCoE teamed with Sesame Street Workshop to develop and produce the third episode, "When Families Grieve," in the Talk, Listen, Connect initiative, a multiphase, bilingual, multimedia resource that guides families through the kinds of changes that are often intrinsic to the military.

The death of a parent is one of the most difficult things a child can experience; but children are not the only ones who feel overwhelmed and undergo changes in their behavior.

Defense Manpower Data Center (2006-2007) Grieving is a family experience and, thus, the entire family needs support during this most difficult time. "When Families Grieve," hosted by Katie Couric, features the Sesame Street muppets and personal stories of several families with children coping with the death of a parent.

"When Families Grieve" received the CINE Golden Eagle Award for high quality production in children's programs. This episode, as well as the first two award winning episodes, "When Parents Are Deployed" and "Coming Home: Military Families Cope With Change," are available free for download on iTunes or by visiting http://www. sesameworkshop.org/initiatives/ emotion/tlc. Each episode provides



resources and emotional support to military families with young children coping with challenging transitions in their lives.

# A Handbook for Family and Friends of Service Members — Before, During and After Deployment

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A Handbook for Family &
Friends of Service Members
Before, During and After Deployment

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In collaboration with Vulcan Productions, DCoE released the toolkit, "A Handbook for Family and Friends of Service Members — Before, During and After Deployment." This handbook was developed by a team of medical, mental health and military family experts as an extension of the award-winning PBS documentary "This

Emotional Life," a multi-platform project produced by Vulcan Productions and NOVA/WGBH Science Unit.

The handbook includes information specifically designed to help families and friends become aware of the stressors and feelings that could be encountered throughout the deployment cycle and how to develop skills to become more resilient despite these stressors and feelings. The toolkit also identifies outside resources that may be useful for support before, during or after a loved one's deployment. DCoE, in conjunction with the Real Warriors Campaign and Military OneSource, is distributing the first 198,000 toolkits to families and friends of the military community. As of December 31, 2010, more than 110,000 handbooks were distributed.



Illustration by Real Warriors Campaign

### Real Warriors Campaign: Encouraging Help-Seeking Behavior

Unlike visible wounds, psychological wounds, such as PTSD, are often invisible and can worsen if left untreated or unidentified. The Real Warriors Campaign, a national public education initiative, is an integral part of the overall Defense Department effort to educate service members, veterans and families about the resources available for the treatment of invisible wounds and to encourage their use. During 2010, the campaign has made great strides in reaching service members with the message that seeking help for these invisible wounds is a sign of strength.

Since its launch in May 2009, the Real Warriors Campaign has built relationships and partnered with 129 like-minded organizations and programs that help spread Real Warriors Campaign messages and give the campaign credibility among stakeholders. Federal, military, national and local partners, such as the Substance Abuse and Mental Health Services Administration and the National Institute of Mental Health, actively support Real Warriors Campaign efforts by distributing campaign materials, sending visitors to its website, and writing about the campaign in their publications, enabling the campaign to reach more than 1.8 million individuals through partner articles, blogs and newsletters. The National Football League (NFL) Players Association is partnering with the campaign to produce Game Day events during the 2010-2011 football season. During these events former NFL players join service members and their families

Our stories need to be shared with anyone who has struggled or may struggle in the future, so they too can win this terrifying battle. I'm winning the battle with PTSD and you can too.

Real Warriors Campaign Volunteer
Staff Sgt. Megan Krause, U.S. Army Reserve

to watch NFL games and discuss common challenges faced by service members, veterans and former players reintegrating into civilian life.

At the heart of the campaign are the stories of Real Warriors, who have had the strength to reach out for treatment and are proving through example that reaching out makes a real difference. These Real Warriors are featured in video profiles and public service announcements that have been used to kick-off group therapy sessions at Vet Centers, educate students at the United States Military Academy, and orient new state directors for psychological health for the National Guard.

The Real Warriors Campaign has generated significant media coverage from a variety of media sources, including CNN, the Associated Press and the Today Show. In addition to recognition in the media, the campaign has earned more than 25 industry awards to date from such highly respected organizations as the Public Relations Society of America. At least 50 influential blogs and websites list the campaign as a resource.



U.S. Air Force photo by Staff Sgt. Chad Trujillo

## Social Media

In late December 2009, DCoE launched its presence on social media with an organizational fan page on Facebook, followed by a page on Twitter and a You-Tube Channel. DCoE uses social media networks to reach target audiences using transparent, conversational language that encourages feedback and two-way interaction. This medium has provided yet another avenue to ensure relevant information and resources are reaching the right people at the right time, impacting and engaging a broader audience than ever before. The focus over the past year has centered on establishing a recognized online presence that is seen as a credible and trusted resource for warriors and their families coping with psychological health and TBI concerns. The use of social media channels has allowed DCoE to humanize the organization and develop relationships with the audiences by creating a comfortable environment for users to share information.

Beginning in January 2010, the DCoE Blog underwent changes to be more visually appealing and user friendly, as well as improved and expanded content to be more engaging to a variety of audiences. Second to the DCoE homepage, the blog receives the most visits I thank you for the words of wisdom and hope, I deal daily with individuals who feel hopeless. As a nurse, I would like to share these thoughts of yours with others to pass on the hope. Thank you!

Facebook Fan

and views of any page on the site and continues to be one of the most popular pages on the DCoE website.

In its first year DCoE Social Media:

- Added more than 3,250 fans on Facebook and 800 followers on Twitter.
- Garnered more than 3.1 million impressions with suicide prevention messaging on Facebook alone in September 2010. DCoE created a kinetic typography video that spread viral. "A Creed for a Comrade" was circulated widely, appearing on military websites, blogs, social media (Facebook had more than 1.4 million impressions) and through traditional media channels. The creed has been used in presentations and training events on military bases by DCoE and by service representatives.

## Monthly Webinars

DCoE hosts an ongoing webinar series to provide information and facilitate discussion on a variety of topics related to psychological health and TBI. Target audiences vary each month, based on the topic, but the webinar series is designed to educate and provide a collaborative platform for service members, veterans, family members, providers and caregivers to learn and share information. Experts from government agencies and the civilian sector present resources and best practices associated with psychological health and TBI care. The interactive online environment enables participants to ask questions of subject matter experts and share comments on the issues. These hour-long sessions are open to the public and generally feature two to four presentations.

Since the first DCoE webinar in December 2009, more than 2,770 key stakeholders in the military health community have virtually participated in these events. All past webinar materials can be downloaded online at www.dcoe.health.mil/Training/MonthlyWebinars.aspx. The following topics were presented over the past year:

- Support for Family Caregivers
- Mobile Technologies: A "Smart" Connection to PH and TBI Care
- Sports, the Military and Recurrent Concussion
- Sexual Assault and Sexual Trauma in the Military
- Addressing Trauma, Grief and Loss in Military Children
- The National Intrepid Center of Excellence: An Overview (In Partnership with the National Intrepid Center of Excellence)
- Reintegration: Adjusting to Life at Home After Deployment
- Reintegration Programs: Case Studies of Successful State Reintegration Programs (In partnership with the Substance Abuse and Mental Health Services Administration)
- All the Way Home: Preventing Suicide Among Service Members and Veterans
- Understanding, Addressing and Combating Stigma Surrounding Seeking Help for PH Issues in Today's Military
- Family Support Strategies and Techniques (In partnership with the National Military Family Association)

## Web-based Case Studies

It is necessary for the Defense Department and VA to work directly with health care providers to spread awareness of updated clinical practice guidelines, tools and new research. In September 2010, in partnership with VA, DCoE launched a 12-module series of TBI case studies as an opportunity for health care professionals to gain additional understanding about the assessment and treatment of mild TBI. These actual mild TBI cases serve as clinical practice guideline implementation tools. Specifically, they can help health care professionals put into practice the VA/DoD CPG for the Management of Concussion/Mild TBI (2009), the updated Defense Department Mild TBI Clinical Guidance (2008), ICD9 coding guidance for TBI and the Military Acute Concussion Evaluation.

Case studies are released monthly and each has a different focus, including but not limited to screening and diagnosis for mild TBI, headache management, sleep dysfunction management and ICD9 coding. Additionally, case studies are Web based and available on the Military Health System eLearn system, as well as the VA Learning Management System. One free continuing education unit or continuing medical credit is offered per course.

# Improving Communication with Providers

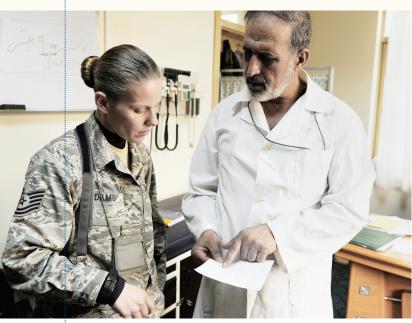
DCoE works closely on TBI issues with all the services, as well as the Defense and Veterans Brain Injury Center, Force Health Protection & Readiness and the National Intrepid Center of Excellence through a series of working groups. The working groups provide a platform to promote communication among the organizations and the services to ensure the best use of resources, to avoid duplication and, most importantly, to improve TBI care for wounded warriors. DCoE led the neuroendocrine sequelae of TBI working group that identified key areas of testing, evaluation and treatment that will guide the development of clinical practice guidelines for TBI.

As an additional tool to enhance communication and improve the consistency of TBI care for wounded warriors, DCoE launched an e-newsletter, "TBI Case Management Quarterly Newsletter." This informative publication provides up to the minute news and guidance on TBI issues to over 1,200 TBI case managers who work at local military treatment facilities. An email distribution group allows for the instant ability to disseminate important information about the care of TBI patients.

## Mental Health Provider Training for the Treatment of Post-Traumatic Stress Disorder and Acute Stress Disorder

In order to best treat and care for service members affected by PTSD and TBI, providers are encouraged to obtain ongoing education and apply evidence-based treatment modalities. In collaboration with the Center for Deployment Psychology, DCoE developed recommendations, which resulted in approved guidelines by Health Affairs for Evidence-Based Practices for PTSD and acute stress disorder (ASD). The memorandum encourages providers to obtain ongoing education and apply evidence-based treatment modalities for PTSD and ASD. The two recommended treatments for PTSD are cognitive processing therapy and prolonged exposure therapy.

DCoE developed an online calendar to make available up-to-date Department of Defense training opportunities that are specifically related to evidence-based treatments for PTSD and TBI. Updated monthly,



these calendars are particularly helpful to health care providers assigned to military installations. The goal is to integrate training efforts and maximize attendance at the training sessions offered by both the services and the Center for Deployment Psychology.

## PH and TBI 101

It is necessary to keep military and civilian leadership informed about the most current information on the invisible wounds of war. To achieve this, DCoE created "PH and TBI 101" to educate on the basics of psychological health and TBI, emphasize help seeking behavior, illustrate the adverse consequences related to delayed treatment and dispel misconceptions surrounding psychological health and TBI diagnoses. Additionally, this training emphasizes suicide rates and the most current prevention strategies, highlighting the Defense Department efforts toward building resilience and encouraging help seeking behavior.

"PH and TBI 101" content is available in three delivery methods: a 30-minute classroom version, a one-hour classroom version and a 10-minute desk side briefing. A training pilot will be offered at the National Defense University in 2011. The Joint Medical Executive Skills Institute has also received the content and is in the beginning phases of development of an online module to be hosted on their web portal.

## **Training Program Guidance**

To improve course or training program effectiveness as well as ensure consistent application of Adult Learning Theory, a series of training program guidance was developed to include topics such as: Leading Practices in Training, e-Learning Best Practices, and Guidance for Self Evaluating Training Programs. Guides and one-page fact sheets were developed for DoD training program managers, course developers and/or instructors. Topics include course design, development and evaluation. Dissemination of these products will begin in Spring 2011 along with a Training Program Manager's Toolkit.

U.S. Air Force photo by Staff Sgt. Manuel J. Martinez

## American Nurses Credentialing Center

As one method of supporting policy and training development for community providers who treat service members and their families, DCoE worked with the American Nurses Credentialing Center, the largest nurse credentialing body, to increase understanding of military culture, deployment issues, co-occurring mild TBI and PTSD, depression and family issues. DCoE experts led the creation of credentialing questions for the Family Psychiatric Mental Health Nurse Practitioner exam that were sensitive to military culture and needs, as well as deployment issues. The work served as a model for other nursing specialties that employ the American Nurses Credentialing Center for certifying their members. It also illustrated a model for enhanced communication between the Defense Department and community partners.



U.S. Navy photo by Mass Communication Specialist 1st Class Ruben Perez

# Support of Telehealth and eLearning

Behavioral health care providers who are deployed, stationed in theater or work in remote settings often do not have on-site supervisors who are trained and certified in behavioral health. In order to provide a framework for supporting the development of a telehealth clinical supervision program, DCoE conducted an environmental scan of programs and examined the various clinical telehealth supervision models, the different mechanisms used to provide remote clinical supervision and provided recommendations of the most effective methods. This report will be available on the DCoE website in early 2011.

## Military Culture in University Setting

DCoE conducted a scan of behavioral health graduate programs that focused on military and veteran populations for 381 colleges and universities. These colleges and universities represented the most heavily populated areas of the country with Active Duty, National Guard and Reserve components. This data will be used to inform future DCoE efforts to support National Guard and Reserve component training needs.

# Course Assessment and Analysis

DCoE created the Course Analysis Tool primarily for Department of Defense course instructors and developers for information on best practices in adult learning; to provide a systematic method for collecting course information and evaluating its content; tips and techniques that enable a uniform comparison; and a detailed understanding of psychological health and TBI programs and trainings. The tool enables course developers and instructors to obtain deeper understanding of their courses, receive guidance on developing training and education programs and facilitate a community of practice among course developers and instructors. This web-based tool will be available in 2011 for course developers, program managers, instructors and training evaluation staff.

## **Information Sheets**

DCoE created easy-to-read information sheets for service members, families, veterans and health care providers, which provide overviews of DCoE's component centers and programs. Information sheets are available for download on the DCoE website. The following information sheets were created in 2010:

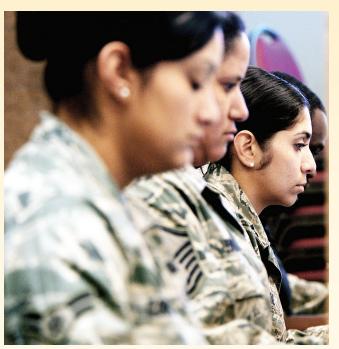
- About DCoE
- About NICoE
- DCoE/DoD Suicide Prevention Efforts
- Automated Neuropsychological Assessment Metrics
- afterdeployment.org
- RESPECT-Mil
- inTransition
- Common Data Elements for Research in Psychological Health and Traumatic Brain Injury
- Defense and Veterans Brain Injury Center

## **Dissemination of Key Materials**

The materials that DCoE produces are only valuable if they reach the audiences that need them most. Over the past year, there has been an increased effort in disseminating DCoE's products and programs to various stakeholders, including service members, veterans, family members, community members, health care providers, researchers and other federal agencies.

DCoE promoted key initiatives within the organization, as well as other useful programs and policies throughout the Defense Department and VA — including, but not limited to the DCoE Outreach Center, the inTransition program, the Real Warriors Campaign, clinical practice guidelines—through printed materials, social media tools and general outreach. DCoE distributed more than 175,000 materials, including:

- Mild TBI Pocket Guides
- ICD-9 Code Pocket Card
- A Handbook for Family & Friends of Service Members
- Fact sheets on topics ranging from driving following a TBI to the Suicide Prevention and Risk Reduction Committee.



U.S. Air Force photo by Airman 1st Class Joshua Green

To support providers, service members and military families, DCoE has exhibited information at diverse conferences across the country and internationally. Over the past year, DCoE attended 42 conferences, potentially reaching more than 78,500 stakeholders. Targeted conferences varied in nature to ensure that all audiences from service members to clinicians to policy makers received crucial information on psychological health and TBI. For example, team members attended the Association of the United States Army Medical Symposium in San Antonio, Texas, which attracted a total audience of 2,000 key Army medical leaders; as well as the 132nd National Guard Association of the United States General Conference & Exhibition in Austin, Texas, which was attended by 4,000 National Guard members, family members, military leaders, industry representatives and lawmakers. These conferences provided DCoE the platform to directly engage key audiences by discussing available resources such as the DCoE Outreach Center and inTransition program, and providing materials to clinicians such as the TBI Pocket Guides and other clinical tools.

In addition to attending and exhibiting at conferences, DCoE subject matter experts were guest speakers or panelists at these conferences, thereby increasing awareness of available products and services.

## Increasing Communication in Research Priorities and Promoting Translation of Knowledge into Practice

DCoE does not directly fund research projects, nor does it conduct research through Research Development Test & Evaluation (RDT&E) Funds. DCoE does play a role in leading collaboration across the military and civilian sectors regarding psychological health and TBI. DCoE plays an instrumental role in guiding and coordinating research inquiries, identifying gaps, directing research efforts to appropriate channels for action, promoting translation of knowledge into practice and providing results of promising research to a wide range of stakeholders.

## **Common Data Elements**

Nine manuscripts describing the rationale and recommendations for common data elements for clinical research in TBI and psychological health were published in The Archives of Physical Medicine and Rehabilitation, November 2010 (Vol. 91, No. 11). Nearly 50 organizations participated in the workshop, which DCoE co-sponsored with the National Institute of Neurological Disorders and Stroke, VA and the National Institute on Disability and Rehabilitation Research. Nearly 140 national and international psychological health and TBI experts participated in the workshop, representing 21 U.S. and international universities, 19 Defense Department entities, nine affiliates from the National Institutes of Health, 16 grantee institutions from the National Institute on Disability and Rehabilitation Research, the Centers for Disease Control and Prevention and other key stakeholders, including representatives of both VA's central office and local VA medical centers.

Additionally, the recommended TBI common data elements, protocols for data collection and a data dictionary are posted online at www.commondataelements.ninds.nih.gov and will be continuously updated as research and advancements are made. The National Institute of Neurological Disorders and Stroke awarded a two-year grant to test the common data element recommendations for feasibility and utility. Recommended TBI common data elements will be collected on 2,000 patients who make three visits to emergency rooms or out-patient rehabilitation centers. The enrollment will be completed September 30, 2011. Several manuscripts from a March 2010 workshop discussing pediatric considerations and necessary modifications to the recommendations are in progress and will be published in the Journal of Neurotrauma in late 2011.

## Program Evaluations & Clinical Consultation

As part of ongoing Defense Department mandated efforts to examine health care and improve treatment for service members and their families, DCoE conducted program evaluations of 18 pilot projects in psychological health and TBI. Major installations where DCoE conducted these site visits include the San Antonio Military Medical Center, Walter Reed Army Medical Center and National Naval Medical Center.

DCoE focused on observing project successes and challenges, ultimately leveraging lessons learned as the foundation for a culture of continuous improvement, which will accelerate the translation of findings to enhanced standards of care. Using a transparent, collaborative process to collect information, these evaluations identified preliminary program effectiveness, methods necessary to validate effectiveness, and established enhanced relationships across the services to advance recommendations on policy, clinical practice, and successful program design and outcomes. Conducted "virtually" or in-person, these site visits resulted in facilitated knowledge exchange to effect improvements in care:

• Emerging practice guidance based on new research or clinical practice guidelines for program managers and clinicians;

- Empirical evidence regarding which programs are effective and possibly appropriate for DoD-wide dissemination; and
- Feedback suggestive of knowledge gaps for future research consideration.

A report for each evaluation addressed program areas including: strengths, lessons learned, opportunities and success factors. Draft reports were provided to program points of contact for review and comment prior to delivering a summary report to the Force Health Protection Council in February 2011.

Updated with lessons learned from evaluating those 18 pilot and demonstration projects, a process guide outlining the same DCoE methodology offers the services guidance for developing objective measures of program effectiveness and planning continuous self-evaluations.

### Literature reviews

DCoE supported health care providers in both the Defense Department and VA through analysis of the literature and initiation of work groups or consensus groups to make recommendations or develop guidelines for providers across the military services.

In order to identify additional areas for potential research, DCoE completed a series of literature reviews of the most current scientific and medical literature on issues affecting the management of service members who have sustained a TBI or have psychological health concerns. This information will be used to advance the treatment of psychological health and TBI, identify existing gaps in information, and formulate clinical practice guidelines. Topics included:

- TBI and sleep disturbances
- Portable, field-based devices for the early management of mTBI
- TBI clinical practice guidelines and clinical support tools profiles and analysis
- Management of severe TBI
- Effects of altitude on TBI
- Neuroendocrine sequelae of TBI
- TBI and dizziness: the role of vestibular disturbances

- Implementation of CPGs and support tools in the Defense Department
- Post-deployment family relationship problems
- Treatment of co-occurring PTSD and substance use disorders
- Military suicide postvention analysis and advocacy
- Empowering the family support structure
- A review of National Guard and Reserve psychological health and TBI reintegration needs
- Review of integrative mind-body skills associated with autonomic nervous system (ANS) regulation and measures of autonomic nervous system regulation
- Psychological fitness model for Chairman's model of Total Force Fitness
- Spiritual fitness model for Chairman's model of Total Force Fitness
- Modified literature review of wellbeing in the context of suicide prevention and resilience
- Review of leading principles and practices in peer support programs with an emphasis on (1) operational stress control, (2) suicide prevention, and (3) recovery and rehabilitation from injury and illness.
- Review of employee health promotion (EHP) practices
- Leveraging technology for psychological health and TBI

### PDHA/PDHRA TBI Questions

All service members complete the Post-Deployment Health Assessment (PDHA) immediately upon returning from deployment and the Post-Deployment Health Reassessment (PDHRA) 90 days later with a health care provider. These assessments identify service members who may be having persistent symptoms from their deployment. In cooperation with other organizations, DCoE developed a summary documentation package regarding questions used in the PDHA/PDHRA on TBI. To improve TBI screening, and increase the ability to provide treatment sooner, recommendations were submitted to the Deployment Health Working Group through Force Health Protection and Readiness in Health Affairs for modifications and updates.



U.S. Army photo by SSG Daniel Yarnall

## Collaboration

Since its inception, DCoE has led an innovative collaborative effort that includes VA, civilian agencies, community leaders, advocacy groups, clinical experts and academic institutions. Over the past year this network has continued to make strides towards expanding the state of knowledge of psychological health and TBI. Collaboration with leading military and civilian experts is the essence of DCoE's work to ensure that service members, veterans and families receive the best services and treatment available for psychological health and TBI concerns.

## Defense Department and VA Integrated Mental Health Strategy

The Integrated Mental Health Strategy addresses the issues of quality, access and continuity of mental health care within the Defense Department and VA. DCoE was named the lead on several integrated mental health strategic plans including: creating functional integration in translation of research to practice, suicide prevention, chaplains' roles in mental health resilience programs, women's mental health, mental health outcomes, caregiver support and quality of mental health. DCoE's work in these five areas will aid in the enhancement of the Defense Department and VA collaboration, provide guidance to providers and the services and aid in the development of and updates to policy within the Defense Department and the Military Health System.

## Suicide Prevention and Risk Reduction Committee

DCoE chairs the Suicide Prevention and Risk Reduction Committee (SPARRC), which examines military suicide, standardizes reporting, collaborates with other experts in the field and advises on future prevention initiatives. SPARRC includes representatives from military service suicide prevention programs, the National Guard Bureau, Reserve Affairs, the Office of the Armed Forces Medical Examiner, National Center for Telehealth and Technology, VA and the Substance Abuse and Mental Health Services Administration (an entity of the National Institutes of Health). Standardizing suicide reporting across the Defense Department has been an essential element to understanding suicide in military services. The Standardized Suicide Nomenclature Policy Memorandum was developed by a SPARRC subcommittee to standardize measures and definitions of suicide. Representatives from the Defense Department and VA proposed that agencies adopt the Centers for Disease Control's (CDC) self-directed violence classification system for the basis of all future data collection and reporting. The policy was approved by VA and is currently awaiting approval by the Defense Department.

The SPARRC Family Subcommittee Report provided insights into barriers facing key family audiences and information analysis by examining the current state of suicide prevention services available to military family members so they can be active participants in sustaining the mental health of their service member. The subcommittee developed recommendations to strengthen suicide prevention services across the Defense Department and provided descriptions of suicide prevention information and dissemination methodologies of current suicide prevention programs.

An additional report offered recommendations to senior leaders on ways to strengthen suicide postvention efforts for service members and their families. This paper provided background information on suicide postvention data trends; activities and research; and gaps in knowledge on the subject and the concerns of stakeholder groups including the media, military, family members and political committees.

SPARRC also launched a "one-stop shop" website for suicide prevention resources (http://suicideoutreach.org) in October 2010. The website provides links to suicide prevention websites maintained by the services and reliable and accurate information on a range of suicide prevention topics. This streamlined access to suicide prevention resources serves as a clearinghouse of information for service members, veterans, family members, health care professionals and the general public.

### PH & TBI Online Network

In 2010 DCoE began the development of an internetbased "PH & TBI Network" to facilitate individual-level connections among users within and across agencies, subjects and disciplines to enhance and sustain the communication required to advance the state of the knowledge on psychological health and TBI. The primary users of this network platform will be federal program managers; however, individuals from academia and the health care delivery fields will also be able to access the site in order to ensure the largest possible body of subject matter expertise for a bidirectional flow of information.

The site is designed based on a social networking model: individual users can search for other users and/or projects using semi-structured keywords (e.g. agency, subject, discipline) or free text. Users will create relationships with other users, join existing projects or work groups, or create new projects or work groups. This organic collaboration is intended to develop products that increase transparency and awareness of ongoing research studies and patient care projects across agencies; enable identification and analyses of existing and emerging knowledge gaps and priority focus areas; foster the development of research supporting activities and clinical support activities; and enable identification and dissemination of novel practices.

This platform is currently under development, and expected to be fielded in 2011.

### Substance Abuse Prevention

Substance abuse can be a co-occurring disorder with psychological health issues and TBI. DCoE assisted the Defense Department in implementing and maintaining effective substance misuse prevention programs by providing specific objectives, strategies, anticipated outcomes, timelines and measurement tools in a technical report. This Defense Department technical report provided a status update about substance abuse within the military and suggested opportunities for enhancing prevention efforts on an enterprise level. Additionally, DCoE provided key contributions to the National Defense Authorization Act Substance Abuse Working Group for the report to Congress for the National Defense Authorization Act 2010, Section 596, "Comprehensive Plan on Prevention, Diagnosis, and Treatment of Substance Use Disorders and Disposition of Substance Abuse Offenders in the Armed Forces."

## DCoE Hosted Education & Training Events

#### Warrior Resilience Conference

The Warrior Resilience Conference is an annual event hosted by DCoE to promote actionable discussions on resilience and health-of-the force by subject matter experts from across the Defense Department, VA, federal agencies and academia. This is accomplished through training and promotion of Total Force Fitness, information exchange to develop best practices for the Defense Department, and initiation of strategic Total Force Fitness guidance to enhance the combat readiness, operational effectiveness and sustainment of the force in the context of full spectrum operations. The 2011 Warrior Resilience Conference will feature the Chairman of the Joint Chiefs of Staff, Admiral Mike Mullen and increase leader awareness of the chairman's emerging Total Force Fitness Initiative.

#### Trauma Spectrum Conference

The Trauma Spectrum Conference is an annual, scientific conference hosted by the Defense Department, VA and the National Institutes of Health to highlight the latest research related to psychological health and TBI. The Third Annual Trauma Spectrum Conference held Dec. 7-8, 2010, addressed the range of disorders caused by trauma. This conference focused on emerging research on polytrauma and its impact not only on those affected with multiple injuries but also on their support networks. Panelists and attendees discussed emerging research for TBI, psychological health conditions, vision and eye injuries, hearing injuries, extremity injuries and amputations; presented emerging treatments in support of polytrauma recovery and reintegration; informed practice regarding the needs of caregivers and families dealing with a polytrauma patient; addressed health, psychosocial, gender, cultural, geographic and other disparities that may impact diagnosis, care, treatment and recovery concerns around polytrauma; and raised awareness for future development of treatments, practices and policies.



Dr. Vivian W. Pinn, associate director for research on woman's health at the National Institutes of Health (NIH) delivers opening remarks at the Third Annual Trauma Spectrum Conference Dec. 7, 2010.

#### Defense Department/VA Suicide Prevention Conference

On Jan. 10-14, 2010, the Defense Department and VA sponsored the second annual joint conference on suicide prevention, which concentrated on the challenges posed by suicide in the service member and veteran communities and highlighted innovative ways to address the issue. Approximately 980 attendees participated in the five-day conference, which included representatives from the Defense Department, VA, the services, and federal and civilian agencies. Keynote speakers included VA Secretary, Eric Shinseki; Ms. Ellen Embrey, performing the duties of Assistant Secretary of Defense for Health Affairs; Chairman of the Joint Chiefs of Staff, Admiral Mike Mullen; and his wife, Mrs. Deborah Mullen.

The conference featured a mix of plenary and breakout sessions divided into four tracks: clinical, research, multi-disciplinary, and practical applications and tools. Additionally, the final day provided opportunities for the services, including the National Guard and Reserve Component and VA to meet in smaller working groups to discuss their specific mental health and suicide prevention issues. By the end of the conference, the attendees heard the views of senior Defense Department and VA leadership who stressed the need to proactively reach out to service members, veterans and families as well as to develop practical applications, tools and research to reduce risk and encourage help seeking behavior. Attendees also learned from first-hand testimonies that emphasized the importance of recognizing when someone needs help, how to support those who seek help and ways to support those affected by suicide.

For information on the past years' conferences, including presentations and videos, please visit www.dcoe.health.mil/Events/PastConferences.aspx.

## A System of Resilience

Resilience is a set of actions and attitudes that prepare individuals and groups for adapting to challenging situations by establishing a 'new normal' and realizing one's potential for growth. DCoE supports a military culture based on resilience, which increases both psychological and physical readiness.

DCoE supported the intent of the Chairman's Strategic Guidance for 2009-2010 by providing subject matter expertise for the development of the Total Force Fitness model designed to enhance the health-of-the-force. DCoE authored two of the eight key domains published in Military Medicine serving as the foundation document for the Total Force Fitness initiative. The first paper was on psychological fitness and the second on spiritual fitness. DCoE is currently actively engaged in the development and dissemination with the office of the Chair of the Joint Chief of Staff of a DoD Instruction for Total Force Fitness.

Partnering with our NATO allies, DCoE participated in the NATO Work Group on Resilience Training and made two site visits to assess on-going programs, one to Canada's Third Location Decompression Program and the other to the United Kingdom's Trauma Incident Management and Third Location Decompression Program. This partnership identified potential increases in access to care for behavioral health, and could lead to enhanced resilience and prevention practices.

By producing and disseminating key references within the Defense Department, DCoE increased awareness of programs across the Department and provided opportunities for synchronizing the Department's approach to enhancing resilience and readiness. As an example, following the Fort Hood tragedy, DCoE developed a model of the Provider Development Cycle Sustainment Model for the Defense Department leadership. Additionally, DCoE published the only known review of the Defense Department resilience programs in Military Medicine.



U.S. Marine Corps photo by Lance Cpl. David Nygren

## **Component Centers**

DCoE's work spans across six component centers, all staffed by subject matter experts on psychological health or TBI related issues. To ensure consistency and limit redundancy, DCoE facilitates communication and consolidates information and data regarding research, training and clinical services from each of the component centers. DCoE shares this critical data and lessons learned with key stakeholders within the Defense Department, other federal agencies and public entities. The following pages contain snapshots of component centers' accomplishments.

## Center for Deployment Psychology (CDP)



**CDP** trains military and civilian psychologists, as well as other mental health professionals, to provide high-quality, deployment-related behavioral health services to military personnel and their families. CDP is an innovative Defense Department training consortium that was created to promote the education of psychologists and other behavioral health specialists about issues pertaining to the deployment of military personnel. Over the past year, CDP has reached significant milestones, including conducting its 20th iteration of "Topics in Deployment Psychology," a two-week course for health care providers, and the 22nd version of "Addressing the Psychological Health Needs of Warriors and their Families," a one-week course for civilian providers who treat our service members and their families. Additionally,

CDP has trained its 4,000th provider in empirically supported treatments of combat PTSD and presented seminars, lectures or presentations that have reached over 10,000 behavioral health professionals worldwide.

#### **Selected Accomplishments**

#### **Training Health Providers**

"Topics in Deployment Psychology" was presented five times bringing the total number of these classes offered to 20 with more than 600 military providers trained. CDP enhanced the learning experience for the audience by expanding the types of learning activities to include more interactive exercises, case presentations and joint service activities. Additionally, the courses continue to be a powerful tool for disseminating up-to-date information to providers, particularly to those who work with warriors and their families

In addition to these workshops, CDP personnel assigned to military treatment facilities (MTFs) provided ongoing supervision, consultation and education to behavioral health trainees and MTF staff. This allows for continued support of these providers as they implement new practice guidelines and treatment protocols. The ongoing contact with providers who have been trained in CDP workshops also offers an opportunity for us to obtain feedback and evaluation data that help guide program improvement efforts. Experts from CDP led or co-led numerous workshops to train providers across the nation in using evidencebased treatments for PTSD. Over the past year, CDP completed 18 workshops and achieved the milestone of training our 4,000th provider in empirically supported treatments for PTSD. Additionally, CDP continued to field a survey that asked providers trained through the CDP workshops about the use of their training. Surveys found that the majority of those who responded had used the treatments recommended with patients and had positive results.

Because many warriors, particularly National Guard and Reserve members, and their families obtain behavioral health care outside of DoD facilities, the CDP conducts workshops for civilian providers as well. These week-long programs introduce providers to military culture, the stress of deployment and the psychological health and TBI issues that might develop among deploying warriors. The CDP completed eight of these workshops to over 600 providers last year bringing the total number of providers trained in this program to more than 1,400.

#### Veterans In Education Settings

Recognizing that a large number of veterans are entering college when they return from deployment, the staff of CDP developed a new program specifically designed for staffs at college and university counseling centers. The "University Counseling Center Core Competency Program" was presented to nearly 500 professionals from more than 40 institutions.

#### Lecture Series

CDP subject matter experts offered lectures and seminars to professional and community groups throughout the country. These included seminars and rounds delivered at military training facilities, outreach efforts in military and civilian communities and lecturing to professional groups. These efforts succeeded in raising military cultural awareness about the consequences of deployment-related stress among professionals.

#### **Online Training**

CDP continued its partnership with Essential Learning and developed web-based training content based on its current live training modules. A total of seven courses were produced and are offered in Essential Learning's online training suite, which gives providers around the world access to CDP courses. Additionally, in partnership with the American Psychological Association, CDP offered a one-day web-based training through the APA's online continuing education program. This program was one of the most popular offerings on their site this year. CDP also introduced its Provider Portal on their website, which allowed providers trained by CDP to access support materials and request consultation when treating warriors or their families with evidence-based protocols supported by CDP.

DoD photo by Cherie Cullen



## Center for the Study of Traumatic Stress (CSTS)



Since its establishment in 1987, CSTS has been at the forefront of translational research, education, consultation and training aimed at mitigating and fostering recovery around the psychological effects and health consequences of exposure to military operations, natural disasters, weapons of mass destruction and public health threats. Over the past year, CSTS scientists have provided scientific and academic leadership around the neurobiology of stress, the mental health of service members, the impact of combat injuries on military families and children, and the dissemination of educational resources for the military health care system and civilian communities affected by traumatic events.

#### Selected Accomplishments

#### Research in Neuroscience

CSTS participated in several projects that analyzed the neurobiology of trauma with implications for PTSD and related brain injury prevention and treatment. In support of the psychological health of active duty service members, CSTS began coordinating and conducting the largest study ever undertaken of mental health risk and resilience among military personnel, the U.S. Army Study to Assess Risk and Resilience in Service Members. This program will examine suicide, as well as a number of other mental health outcomes, with an emphasis on the effects of deployment. In addition, in collaboration with Columbia University, CSTS launched research to conduct a longitudinal national survey of mental health and health care utilization among Reserve Component members, the first such survey conducted on a national level to target this population.

CSTS developed an educational intervention for deploying soldiers and is testing it with soldiers in the mortuary affairs career field, a high-stress military specialty. Additionally, the CSTS Child and Family Program is conducting cutting edge research that addresses the needs of children and families of the combat injured, as well as those children and families affected by a service member's death.

#### Support and Knowledge

Over the past year, CSTS was able to provide educational and scientific products and knowledge in real time, responding to the Defense Department, military and other government and professional stakeholders. Examples include CSTS contributions in shaping the behavioral health response to the shootings at Ft. Hood, the Haiti earthquake and the Gulf oil spill. CSTS also developed an educational package to help the Centers for Disease Control personnel develop resilience methods to cope with the stresses of deployment in response to disasters or other challenging situations. CSTS training initiatives included programmatic outreach to mortuary affairs soldiers and to military and federal responders in utilizing the principles of psychological first aid.

#### 'Courage to Care, Courage to Talk'

The highly successful military health campaign, "Courage to Care, Courage to Talk" fosters communication around the injuries of war through fact sheets, brochures and posters. This campaign engaged the participation of major military treatment centers and was featured in a display at the Pentagon.

#### **Published Materials**

CSTS scientists have published a wide range of peerreviewed book chapters and papers pertaining to their findings about preparing, responding and recovering from experiences of disaster and trauma. These research publications included the impact of the sniper attacks on the homeless population in Washington, D.C., a collection of interviews with scholars and practitioners on family violence research, and assessment and treatment intervention practice recommendations. CSTS scientists and their contributions to the study of traumatic stress have resulted in national recognition this year including Washingtonian magazine's Best Doctor of the Year and a "Presidential Commendation" from the Association for Academic Psychiatry. For more information, go to: www.cstsonline.org.



## Defense and Veterans Brain Injury Center (DVBIC)

DVBIC provides state-of-the-art clinical care, research and professional education programs for TBI by collaborating with military, veteran and civilian health partners, local communities, families and individuals affected by TBI. The center brings together a comprehensive network of 17 sites throughout the Defense Department and VA, including two civilian sites.

#### Selected Accomplishments

#### **Emergency Response and Collaboration**

DVBIC responded to the Fort Hood shooting by mobilizing 12 mental health professionals at the request of the Army and provided additional TBI services in support of local DVBIC personnel. Additionally, DVBIC represented the Defense Department as senior military delegate to the NATO committee on mTBI.

#### Best Practices of TBI Care

DVBIC co-sponsored a mTBI Diagnostics Workshop with the Medical Research and Materiel Command, which brought together more than 20 civilian and military subject matter experts for deliberations on the research currently needed to identify the best combination of tools for the objective diagnosis of concussion in theater.

#### Providing Clinical Care

DVBIC facilitated in-theater TBI care through a DVBIC coordinated web-based consult service to providers in theater and staffed 24/7 by specialists in all TBI-related disciplines. The Tele-TBI Clinic and Remote Assessment Center provided comprehensive assessment and headache management advice to service members at seven remote military treatment facilities. In addition, DVBIC enabled the participation of the military services and VA to develop a joint coding proposal to improve accuracy of ICD9 codes, which are crucial to the accurate identification and surveillance of TBIs sustained in-theater and stateside.

#### Education

Over the past year, DVBIC distributed more than 100,000 TBI-related educational products. One of these products was the newly published "Traumatic Brain Injury: A Guide for Caregivers of Service Members and Veterans," a resource for family caregivers of service members and veterans who have sustained a moderate or severe TBI. The curriculum can be downloaded from the Center of Excellence for Medical Multimedia

TBI Regional Care Coordinator/Education Coordinator **Catchment Area and Contact information** 



To find a point of contact in your region, please visit www.DVBIC.org or call 800-870-9244

(CEMM) website: www.TraumaticBrainInjuryAtoZ.org. Additionally, DVBIC provided hundreds of Defense Department and VA providers with access, via videoteleconference, to medical specialists and timely information regarding the assessment and treatment of TBI through the monthly "TBI Staff Lecture Series" hosted by Walter Reed Army Medical Center.

#### Conferences

DVBIC hosted the TBI Military Training Conference on August 30, 2010 for more than 900 healthcare providers, representing 20-plus disciplines from deployed settings, military installations, and VA treatment facilities. The Honorable Erik K Shinseki, Secretary of VA, offered the keynote address. In December 2009, DVBIC hosted the 6th Annual Blast Conference in Tampa, Fla., in collaboration with the local VA medical center.

#### Research

In 2010, DVBIC subject matter experts authored more than two dozen peer-reviewed manuscripts. Experts also developed and initiated several new research protocols, including the congressionally mandated pilot study to evaluate the effectiveness of cognitive rehabilitation on mild TBI.



## Deployment Health Clinical Center (DHCC)

DHCC's mission is to improve deployment-related health care through caring assistance and health advocacy for military personnel and families, while simultaneously serving as a Military Health System resource center and catalyst for deployment-related health care innovation, evaluation and research. DHCC provides tertiary-level referral care; clinical consultation and education; web-based and conference outreach; health services delivery research; and dissemination of deployment health care best practices.

#### **Selected Accomplishments**

## Implemented Models to Improve Primary Care Treatment

Re-Engineering Systems of Primary Care Treatment in the Military (RESPECT-Mil) is an innovative, collaborative care model that integrates PTSD and depression treatment into primary care. Expansion to provide screening and brief interventions for risky drinking behaviors is currently being piloted. During FY10, there were:

- 43 primary care clinics across 17 Army Installations were providing screening for Depression and PTSD
- 361,341 primary care visits were screened for Depression and PTSD
- 6,749 visits resulted in a referral to enhanced behavioral health services for previously unmet behavioral health needs
- 4,167 cases were followed in RESPECT-Mil

#### Tri-Service Behavioral Health Integration Model

Meetings began in the fall of 2009 for a tri-service, six-site pilot of a blended model for integrating behavioral health care into primary care called Re-Engineering Healthcare Integration Programs (REHIP)

If it were not for the RESPECT-Mil providers, I would not be anywhere near where I am today. I honestly feel like I owe some the happiest moments of my life and the best moments of my career to the RESPECT-Mil program.

- Army Corporal Mary Elizabeth McKay

that includes the Army RESPECT-Mil; the Air Force Behavioral Health Optimization Program (BHOP); and the Navy Behavioral Health Integration Program (BHIP). A memorandum of understanding has been completed for this effort. Two Army, two Air Force and two Navy sites have been selected for the pilot and clinical services at these sites are scheduled to commence in February 2011.

#### Multi-Site Clinical Trial

DHCC is partnering with RTI International and RAND to provide the STEPS UP intervention (Stepped Enhancement of PTSD Services in Primary Care) for enhanced PTSD and depression treatment. The intervention will be studied in 18 primary care clinics at six Army posts where the current standard of care (RESPECT-Mil) is cutting edge. Improving access to guideline concordant care for PH concerns, the power of STEPS UP lies in combining telephonic centralized care management with pharmacotherapies and evidence-based web, telephone, and in-person therapies. Course of treatment is determined by patient preference, symptom severity and the health care provider. Researchers plan to recruit 1,500 active-duty soldiers in this five-year trial.

#### Alternative Delivery Methods

DHCC's study "DESTRESS-PC (DElivery of Self-TRaining & Education for Stressful Situations-Primary Care Intervention): A Brief Online Self-Management Tool for PTSD" evaluates the effectiveness of cognitive behavioral therapy that leads service members with PTSD to healing through a secure website. Recruitment for this study is nearly complete. "Delivery of Self Training and Education for Stressful Situations - Telephone (DESTRESS-T)" is a six-week, telephone-based, structured psychotherapy intervention for war-zone exposed soldiers diagnosed with PTSD. The first study of its kind in the military, the protocol for this effort is currently being developed.

#### Research to Improve Mental Health Services

DHCC's seven FY2010 research protocols are funded by NIH and the Defense Department. In collaboration with leading thinkers, DHCC's research evaluates innovative population-based collaborative care models, studies delivery of intensive, low burden, low stigma PH health care services, and has pioneered examination of alternative and complementary therapies for PTSD. DHCC research includes demographic and epidemiological work, as well as program evaluation.

#### **Clinical Programs for PTSD and MUPS**

DHCC offers two intensive, integrative, outpatient specialized care programs (SCP): Track I for deployment-related, medically unexplained physical symptoms (MUPS) and Track II for PTSD and re-integration issues. The programs offer tertiary care for service members who have exhausted resources at their home clinic and are highly effective for the military population with their focus on a therapeutic group process (buddy care). Each three-week class comprises eight participants and emphasizes strengthbased resiliency and education which enables service members to cultivate skills and learn proven methods for managing their symptoms. Yoga and acupuncture are used as adjunctive therapies to reduce stress and to help alleviate PTSD and MUPS symptoms.

#### **Deployment Health Clinical Education**

DHCC offered the Deployment Health Care Track at the Annual Force Health Protection Conference for the eighth year. This conference is the nation's largest military preventive medicine and public health conference with more than 3,000 registrants. The track delivered 51 presentations on such as subjects as population-based health interventions, reducing stigma/promoting resilience, military families and children, and deployment health concerns such as: sleep, functional problems, high risk behaviors, moral conflict and injury, and TBI screening, diagnosis and treatment.



Defense Centers of Excellence for Psychological Health & Traumatic Brain Injury Annual Report 2010



## National Center for Telehealth & Technology (T2)

**T2** was established as a DCoE component center in 2007 with the commitment to operate a comprehensive program to develop, evaluate, research, standardize and deploy new and existing technologies for psychological health and TBI. It serves as the primary Department of Defense office for cutting-edge approaches to the use of technology in the areas of psychological health and TBI.

#### **Mobile Applications**

Released to the Android Marketplace in September 2010, the T2MoodTracker was designed to help individuals monitor their moods within an 'electronic diary' format. The T2MoodTracker provides userfriendly touch-screen 'visual analogue' scales along six dimensions (depression, anxiety, general stress, posttraumatic stress, traumatic brain injury, and general well-being). The T2MoodTracker won gold in the morale, welfare and recreation category for their Telehealth Mood Tracker mobile application in the Apps for the Army competition.

Two dozen mobile applications are planned for future release in collaboration with VA and the National Centers for Post-Traumatic Stress Disorder.

#### Web-based Applications

In addition to afterdeplyment.org, T2 has developed other useful web-based applications. In collaboration with SPARRC, T2 developed SuicideOutreach.org, a site which centralizes suicide prevention resources and links to service-specific information within a metadata 'clearinghouse' platform. Due to the lack of web-based applications aimed at deployment-related issues designed for direct child and teen use, T2 is designing MilitaryKidsConnect.org for military children of all ages. The application will focus on education, interaction and social support throughout the entirety of the deployment cycle. The targeted launch date is fall 2011.

#### Department of Defense Suicide Event Report (DoDSER)

The DoDSER is a suicide surveillance program in which the services ask designated professionals to collect standardized records following suicides and other suicide behaviors, review the records for information related to the DoDSER items, and submit the information online via a web form. The items are reviewed annually in collaboration with the services



and the DoD Suicide Prevention and Risk Reduction Committee and an annual report is published each year. The DoDSER program represents a significant improvement in a key component of the DoD's suicide prevention mission.

#### Research

T2 is dedicated to coordinating and implementing cutting edge research to improve the psychological and TBI health care of service members and their families. The T2 staff maintains an active internal research program and continues to develop collaborative research opportunities with a broad network of stakeholders. Recent projects have focused on the use of virtual reality in clinical practice, the detection of suicide risk factors, the impact of deployment on psychological health, the use of technology to improve health outcomes and service member assessments of technology-based approaches to care.

#### Virtual World Conference

T2 hosted the Virtual Worlds Conference at the Seattle Science Foundation in August 2010. The theme of the conference was the use of virtual world's technological applications for improving psychological health and TBI. Leading researchers and clinicians were brought together to discuss opportunities, challenges, key developments and research findings. The conference allowed attendees to attend in person or through interactive web conferencing. Discussions focused on how future directions can leverage virtual worlds to improve the psychological health of service members, veterans and their families. Due to the immense success of this first conference and the continued changes in the world of technology, T2 plans to host a similar meeting in 2011.

## afterdeployment.org

Afterdeployment.org is an online platform that aids the military community with post deployment needs. This collaborative initiative launched by T2 supports service members, veterans, families and health care providers. The website provides interactive, media-rich, self-paced solutions that address commonly experienced post-deployment adjustment challenges.

Over the past year, afterdeployment.org updated the website to offer a more user-friendly atmosphere. Post deployment needs are vast, and afterdeployment.org provides educational libraries spanning 18 topics: post-traumatic stress, depression, anger, drugs and alcohol, tobacco, physical injury, resilience, military sexual trauma, health and wellness, sleep, families and friendships, anxiety, traumatic brain injury, life stress, stigma, families with kids, spirituality and work adjustment. Additionally, the website offers 29 standardized self-assessments, where users can anonymously receive immediate feedback and recommendations tailored to their scores.

Through interactive exercises, warriors can obtain 'hands-on' guidance with various self-management strategies, such as, deep-breathing exercises and developing a trauma-trigger record. As a companion to the written resources and interactive activities, afterdeployment.org offers video-based presentations from service and family members describing their post-deployment adjustment challenges and successful coping strategies. We need tools that are easily accessed, afford users privacy and use platforms that engage the preferences of our population. Afterdeployment.org meets all of these qualifications.

- Gregory A. Gahm, Ph.D., T2 Director





## National Intrepid Center of Excellence (NICoE)

**NICoE** The National Intrepid Center of Excellence (NICoE) is a new state-ofthe-art facility dedicated to advancing the treatment, research, and diagnosis of complex combat related psychological health and TBI conditions. NICoE is located at Naval Support Activity Bethesda, home of the National Naval Medical

Center, which will become the new Walter Reed National Military Medical Center in September 2011. The concept of NICoE grew from the need to understand PTSD and TBI, often referred to as the signature wounds from the Afghanistan and Iraq wars. The Intrepid Fallen Heroes Fund (IFHF) led the fundraising effort for NICoE, securing \$65 million in private donations from the American people and overseeing the construction and equipping of the facility.

#### **Selected Accomplishments**

#### **Ribbon Cutting Ceremony**

DOD photo by Cherie Cullen

The 72,000 square foot, two-story facility was officially transferred from the Intrepid Fallen Heroes Fund to the Department of Defense in a dedication ceremony attended by more than 1,000 people on June 24, 2010.

#### NICoE Transfer to Department of the Navy

NICoE was transferred from DCoE to the Department of the Navy for further alignment under the National Naval Medical Center, effective August 10, 2010.

Through this center, we now have a place to deliver the care our wounded warriors deserve and in a way we can all be proud of.

- Deputy Defense Secretary William J. Lynn, III

#### Patient Care

In October 2010, NICoE began seeing its first patients. By the spring of 2011, NICoE clinical operations will be at full operating capacity.

#### Advanced Technology

NICoE features cutting-edge technology, such as the CAREN (Computer Assisted Rehabilitation Environment) and an extensive virtual reality suite. The CAR-EN, one of only seven such machines in the world, features a motion platform, embedded treadmill and virtual environments for evaluating and rehabilitating a patient's vision, reaction time, gait and multitasking ability. Additionally, NICoE utilizes some of the most advanced imaging technologies in the world, including a Positron Emission Tomography-Computed Tomography (PET-CT), Magnetic Resonance Imaging (MRI) and Magnetoencephalography (MEG), enabling providers to view brain scans and images in multiple dimensions.

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## **Stay Involved**

#### DCoE in Action Newsletter

DCoE publishes monthly e-newsletters to provide information on current DCoE initiatives, spotlight leadership and promising practices, and encourage innovation in PH and TBI. To subscribe to DCoE in Action, please visit www.dcoe.health.mil/subscribe.

#### **DCoE** Online

DCoE's website provides resources and information for warriors, veterans, families and health care providers. Learn more at www.dcoe.health.mil.

#### afterdeployment.org

www.afterdeployment.org provides educational resources and skills-development exercises aimed at overcoming challenges to the adjustment process following a deployment.

#### Social Networking

Do you tweet? Are you on Facebook? Are you an avid blog reader? DCoE is there:

- www.facebook.com/dcoepage
- www.twitter.com/dcoepage
- www.dcoe.health.mil/blog

#### **Real Warriors**

Watch videos of warriors sharing their experiences, download valuable resources and learn more about the Real Warriors campaign:

- www.realwarriors.net
- www.facebook.com/RealWarriors
- www.twitter.com/RealWarriors

#### Media Inquiries

To set up an interview with a subject matter expert or to find out more about DCoE, members of the media should contact DCoEmedia@tma.osd.mil.



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