

2011

Annual Report

Defense Centers of Excellence for Psychological Health & Traumatic Brain Injury



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Welcome Letter from the Director

I am pleased to share with you the 2011 Defense Centers of Excellence for Psychological Health and Traumatic Brain Injury (DCoE) Annual Report. As an organization, we saw a lot of positive change take place, which ultimately allows us to better serve our sailors, airmen, Marines, soldiers and those in military medicine. This report showcases the integral advancements that DCoE contributed to over the past year in the realm of psychological health and traumatic brain injury by highlighting products, programs, initiatives and achievements of 2011.

The organization gained significant traction in narrowing its scope to better assist the Defense Department and Department of Veterans Affairs along the continuum of care for psychological health and traumatic brain injury. The goals for DCoE in 2011 were straightforward — get better organized, develop a strategy, focus on execution and continue to deliver quality products. Along those same lines we continued to look for more strategic opportunities to thoroughly develop a comprehensive base of knowledge in the evaluation, diagnosis, treatment and rehabilitation of psychological health and traumatic brain injuries. Through hard work and the dedication of DCoE staff, we achieved and exceeded the goals we set forth.

However, we also know there is more to do. We have been at war for 10 years with an all voluntary military force. With multiple deployments can come multiple injuries. We are faced with new challenges as we still grapple with the uniqueness of treating the brain. Yet, these challenges just reaffirm our commitment to improve care for our wounded warriors.

As we move into 2012, we will look at how to better serve our military medicine community. We will continue on our charted course to develop a thorough and comprehensive base of knowledge in the evaluation, diagnosis, treatment and rehabilitation of psychological health and traumatic brain injury, and use that knowledge to consistently provide timely, accurate, comprehensive and focused information to the Defense Department and to the military services. We also look forward to continuing to develop a thorough and comprehensive analysis of gaps in research and aggressively advocate to fill those gaps, as well as effectively leveraging our knowledge and clinical expertise to improve the system of care and ensure a lasting and positive impact on the lives of our wounded warriors and their families.

I invite you to read in its entirety the 2011 DCoE Annual Report, to see the progress that has been made in psychological health and traumatic brain injury through the work of DCoE and its collaborative network. We have come a long way in a short time, though we will not rest until we have met the needs of our warriors, veterans, their families and the medical community that serves these heroes.

About the Defense Centers of Excellence *for Psychological Health & Traumatic Brain Injury*

Mission of DCoE

Improving the lives of our nation's service members, families and veterans by advancing excellence in psychological health and traumatic brain injury prevention and care.

Vision of DCoE

To be the Department of Defense's trusted source and advocate for psychological health and traumatic brain injury knowledge and standards, and profoundly improve the system of care.

Throughout history, unprecedented advancements in the medical field occur during wartime. Over the past 10 years as the United States has been in conflict in Afghanistan and Iraq, an overwhelming need for advancements regarding the nature and treatment of psychological wounds and traumatic brain injury has come to the forefront.

The Defense Centers of Excellence for Psychological Health and Traumatic Brain Injury (DCoE) was mandated by Congress and created by the Department of Defense to improve the lives of our nation's service members, families and veterans by advancing excellence in psychological health and traumatic brain injury prevention and care. DCoE partners with the Department of Veterans Affairs and an extensive network of similarly focused agencies, to be the Defense Department's trusted source and advocate for psychological health and traumatic brain injury knowledge and standards, and profoundly improve the system of care. In 2011, DCoE prioritized three strategic areas of focus within its broad scope of efforts and initiatives along the continuum of care: 1) to identify, evaluate, and analyze best practices and research in psychological health and traumatic brain injury, 2) to develop psychological health and traumatic brain injury clinical guidance and recommendations, and 3) to promulgate knowledge related to psychological health and traumatic brain injury.

Through these three strategic priorities, DCoE is the principal integrator and authority on knowledge related to psychological health and traumatic brain injury, and helps set the standards of care throughout the Department of Defense. Through its three strategic priorities, the organization is able to accelerate improvements to care, promote refinements, consolidate efforts and eliminate redundancies. DCoE has a great impact upon all phases of the "continuum of care" ensuring that our nation's service members, veterans and military families receive the best care, wherever they are and whenever they need it.

DCoE Directorates and Centers

DCoE headquarters is comprised of five directorates¹ including Psychological Health Clinical Standards of Care, Traumatic Brain Injury Clinical Standards of Care, Education, Resilience and Prevention and Strategic Communications. In 2011, five centers² align with DCoE to ensure the mission and vision is carried out, including the Center for Deployment Psychology (CDP), the Center for the Study of Traumatic Stress (CSTS), the Defense and Veterans Brain Injury Center (DVBIC), the Deployment Health Clinical Center (DHCC) and the National Center for Telehealth and Technology (T2).

Directorates

Psychological Health Clinical Standards of Care Directorate

Through a national collaborative network, the Psychological Health Clinical Standards of Care directorate provides evidence-based psychological health clinical guidelines and resources, consultation and advisory services to support implementation and standardization of effective, high quality psychological health care throughout the Military Health System (MHS).

The directorate:

- Identifies, develops and revises clinical practice guidelines (CPGs), evidence-based practices and clinical support tools. Prioritizes the development of evidence-based clinical prediction rules (CPRs) where CPGs and evidence-based practices are lacking
- Supports the dissemination and implementation of CPGs, evidence-based practices and clinical support tools
- Provides consultation and advisement to the Office of the Secretary of Defense, the services, and psychological health providers and programs to improve the quality and effectiveness of care for service members, veterans and their families

¹ Research was removed as a stand-alone directorate in 2011, but its capabilities were incorporated into the remaining five directorates.

² As of 2012, DCoE is comprised of three centers: DHCC, DVBIC and T2. CDP and CSTS are now aligned under the Uniformed Services University of the Health Sciences. The two centers will continue to be collaborative partners, as is the National Intrepid Center of Excellence.

- Guides and coordinates the direction of research inquiries, promotes translation of knowledge into practice, and provides results of promising research to a wide range of stakeholders

Traumatic Brain Injury Clinical Standards of Care Directorate

The Traumatic Brain Injury Clinical Standards of Care directorate identifies best practices, and develops comprehensive clinical practice recommendations and clinical support tools for health care providers within the MHS who manage patients who have sustained a traumatic brain injury. The overarching goal of the directorate is to create clinical recommendations that reflect the current state of science. This will inform a standard of care for traumatic brain injury patients across the continuum of severity and in each clinical practice environment with the intent to maximize the functioning and recovery of the traumatic brain injury patient.

The directorate:

- Prioritizes the development of clinical recommendations where none exist, disseminates existing clinical standards, and evaluates and defines gaps and barriers to application of clinical standards
- Evaluates the perceived gap in dissemination and implementation of existing Defense Department accepted traumatic brain injury guidelines
- Tracks and analyzes potentially concussive events as outlined in Directive Type Memorandum (DTM) 09-033 "Management of Concussion/Mild TBI in the Deployed Setting" to identify emerging trends that can inform Department of Defense policy on preventative measures to reduce the risk of traumatic brain injury to service members
- Identifies key clinical gaps in the management of traumatic brain injury where additional research is needed and promotes the translation of scientific knowledge into clinical practice

Education Directorate

The Education directorate identifies, assesses and promotes effective training and education in the areas of psychological health and traumatic brain injury for a variety of audiences.

The directorate:

- Identifies education and training programs related to psychological health and traumatic brain injury
- Assesses psychological health and traumatic brain injury programs for implementation throughout the Defense Department
- Establishes guidelines for core components of psychological health and traumatic brain injury education and training programs
- Establishes standardized guidelines for psychological health and traumatic brain injury training and education programs

- Refines a seven-phased psychological health and traumatic brain injury evaluation framework involving clinical and non-clinical programs of various levels of complexity from single outcome to multiple outcome initiatives from planning to execution
- Tracks and coordinates the DCoE psychological health and traumatic brain injury program evaluation suite of services, including 1) tool kits and education for self-assessment; 2) technical assistance to analyze evaluation strategies, diagnose limitations and discuss solutions for existing programs; and 3) on-site evaluation including reviews of resourcing, manning and statistics (measures, metrics)

Resilience and Prevention Directorate

The Resilience and Prevention directorate is responsible for optimizing resilience for improved psychological health and readiness for service members, leaders, units, families, support personnel and communities.

The directorate:

- Facilitates a cultural shift towards resilience-based and primary prevention model of psychological health in Defense Department and Department of Veterans Affairs
- Encourages and supports ongoing multi-agency and multi-disciplinary collaboration between experts in resilience and prevention research and practice with Defense Department and Department of Veterans Affairs leaders, medical agencies and other support agencies
- Identifies and disseminates best practices, innovative programs, and practical tools that empower our Defense Department, policy makers, medical agencies and other support agencies in facilitating resilience
- Provides needs assessments and consultation services for selecting and developing, implementing and evaluating resilience-based programs effectively in various system contexts

Strategic Communications Directorate

The Strategic Communications directorate informs internal and external audiences about DCoE programs and products, and information on psychological health and traumatic brain injury. This directorate brings relevant information, tools and resources to warriors, families, leaders, clinicians, and the communities that empower them and support them.

The directorate:

- Increases awareness and knowledge of psychological health issues and traumatic brain injury and programs and initiatives that will help warriors, veterans and their families deal with them
- Partners with the Real Warriors Campaign to encourage psychological health help seeking behavior for warriors, veterans and their families
- Disseminates relevant information to multiple target audiences including service members, military family members, leaders, clinicians and the communities

- Actively engages with service members, families, caregivers, clinicians, researchers, leaders, educators and support organizations to connect, share, collaborate, and coordinate, to serve the needs of warriors and families affected by traumatic brain injury or psychological health concerns
- Provides a coaching support service to bridge knowledge gaps in mental health support during transitional periods, such as post-deployment, permanent change of station or transition between health care systems
- Provides a call and contact triage service to answer and direct inquiries regarding psychological health and traumatic brain injury

Centers



Center for Deployment Psychology (CDP)

www.deploymentpsych.org

CDP designs and delivers programs for military and civilian providers that are culturally sensitive and clinically competent. Since its inception in 2007, CDP has trained more than 20,000 mental health providers to assist service members, veterans and their loved ones throughout the deployment cycle.

Providers attending CDP workshops increase knowledge test scores an average of 60 percent and they report better patient outcomes after applying what they have learned in these sessions. Half of all attendees have adopted evidence-based treatments for posttraumatic stress disorder (PTSD), and some of them use modified versions of these therapies in deployed settings.

The CDP subject matter experts are frequently tapped by the media to share insights about appropriate care of our warriors and veterans. Requests for additional trainings significantly increased in 2011.

To achieve its mission, CDP has established the following goals and objectives:

- Develop and conduct courses for military and civilian behavioral health professionals, residents, interns and other professionals-in-training on the treatment of military personnel, veterans and their family members throughout the deployment cycle
- Promote a multidisciplinary approach to the behavioral health care and treatment of military personnel and their families
- Train mental health providers to address the unique needs of underserved military populations including reserve component members, retirees and their family members
- Increase awareness of the deployment-related behavioral health needs of service members and their families
- Conduct research on deployment-related needs of service members and their families, in addition to interventions aimed at addressing these needs. Make recommendations and proposals that support deployment-related policy and program development, operations and management based on psychological research



Center for the Study of Traumatic Stress (CSTS)

www.centerforthestudyoftraumaticstress.org

Since its establishment in 1987, CSTS has been at the forefront of translational research, education, consultation and training aimed at mitigating and fostering recovery from the psychological effects and health consequences of exposure to military operations, natural disasters, weapons of mass destruction and public health threats. CSTS scientists provide scientific and academic leadership pertaining to 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.

To achieve this mission, CSTS has established the following goals and objectives:

- Develop and carry out research programs to extend knowledge of the medical and psychiatric consequences of trauma, disaster, terrorism and bioterrorism
- Educate public and private agencies on how to prevent or mitigate negative consequences

- Consult with the private sector and government agencies on medical care of trauma victims, their families and communities, and their recovery following traumatic events, terrorism and bioterrorism
- Maintain an archive of medical literature on the health consequences of trauma, terrorism and bioterrorism for individuals, families, organizations and communities
- Provide opportunities for post-doctoral training of medical scientists to research the health consequences of trauma, disaster, terrorism and bioterrorism



Defense and Veterans Brain Injury Center (DVBIC)

www.dvbic.org

DVBIC provides state-of-the-art clinical care, innovative clinical research, care coordination and professional education programs for traumatic brain injury by collaborating with military, veteran and civilian health partners, local communities, families and individuals affected by traumatic brain injury. DVBIC conducts congressionally mandated clinical research and traumatic brain injury programs across the entire Department of Defense and Veterans Affairs networks. The center brings together a comprehensive network of 17 sites throughout the Department of Defense and Department of Veterans Affairs, including two civilian sites.

To achieve this mission, DVBIC has established the following goals and objectives:

- Develop and provide innovative advanced TBI-specific evaluation, treatment and follow-up care for all military personnel, their dependents and veterans with brain injury
- Conduct robust clinical research that defines optimal care and treatment for individuals with traumatic brain injury
- Continue Congressional mandates such as: Family Caregiver Program, 15-Year Longitudinal Study and Cognitive Rehabilitation for TBI
- Provide care coordination for patients with traumatic brain injury throughout the Department of Defense, the Department of Veterans Affairs and civilian medical support system
- Provide TBI-specific education and training to Department of Defense providers
- Develop and deliver effective educational materials for the prevention and treatment of traumatic brain injury and management of its long-term effects



Deployment Health Clinical Center (DHCC)

www.pdhealth.mil

Established in 1996, 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.

To achieve this mission, DHCC has established the following goals and objectives:

- Improve systems of care for deployment health through clinical consultation and primary health care quality improvement program implementation and evaluation
- Conduct outreach and provider education by developing and disseminating deployment health care promising practices through clinical practice guidelines, health information, and clinical and military family education programs
- Optimize and synchronize the efforts of Defense Department intensive outpatient programs that provide multi-disciplinary care for post-deployment psychological health concerns
- Perform deployment-related clinical and health services research that uses science to advance the effective delivery of deployment-related health care by studying complementary and alternative modalities, innovative web-based and telephonic health service delivery methods, population-based systems, and cutting-edge collaborative care models



National Center for Telehealth and Technology (T2)

www.t2health.org

The mission of T2 is to lead the development of telehealth and technology solutions for psychological health and traumatic brain injury to improve the lives of our nation's warriors, veterans and their families.

To achieve this mission, T2 has established the following goals and objectives:

- Leverage innovative technologies to reduce barriers to care such as stigma
- Develop psychological health and traumatic brain injury telehealth standards, processes and quality assurance protocols
- Deploy technologies that support delivery of education and treatment in remote or underserved areas
- Research and validate the safety and efficacy of technological applications for psychological health and traumatic brain injury care
- Serve as the primary Department of Defense office for the application of technology to psychological health and traumatic brain injury care. Coordinate and collaborate with other Department of Defense, Department of Veterans Affairs and civilian partners

Dr. Robert Ciulla, right, the National Center of Telehealth & Technology Population and Prevention Program chief, shows Christine Bader, center, and Dr. Nancy Dickey how to use several mobile device applications developed by T2 during the Defense Health Board's tour of the facility Aug. 9, 2011, at Joint Base Lewis-McChord, Wash. Photo by Ingrid Barrentine.



DCoE Impact on the Continuum of Care

The continuum of care constitutes the underlying framework for the Defense Department's holistic, comprehensive response to psychological health and traumatic brain injury. It is a public health model that builds on more than a century of advancements in medical understanding and encompasses a variety of approaches and programs, each of which can be benchmarked for its effectiveness in addressing the needs of our wounded warriors. DCoE's program and product portfolio seeks to drive innovation across the continuum of care by identifying treatment pathways and other clinical and research modalities that deliver superior outcomes.

Several projects, such as the DCoE Outreach Center, the METC training program and review of 18 pilot projects, touch each aspect of the continuum of care. The DCoE Outreach Center is available to service members, veterans, military families, health care providers, researchers and the public to provide information and resources regarding psychological health and traumatic brain injury. Trained health care consultants are available 24 hours a day, seven days a week via toll free phone calls, live online chat and email. As the only

Defense Department resource center dedicated exclusively to psychological health and traumatic brain injury concerns, the DCoE Outreach Center has collaborative agreements with other Department of Defense and Department of Veterans Affairs 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. The DCoE Outreach Center won the 2011 Communicator Award for its public service announcement, which was created to bring more awareness to the center.

The Medical Education Training Command (METC) requested that DCoE conduct a review of their 16-week behavioral health technician program. The report was presented to METC faculty and included findings, recommendations and examples of educational methods METC faculty could use to enhance their training. DCoE also highlighted additional resources and services that METC could leverage.

DCoE conducted the review of 18 psychological health and traumatic brain injury programs, and determined the need to enhance existing programs through program evaluation across the military services. Therefore, DCoE created the "Program Evaluation Guide" primarily targeted to military service portfolio and program managers. Forty-two individuals across the services have participated in pilot training on program evaluation based on the framework identified in the guide. DCoE also recently completed an environmental scan and gap analysis of existing clinical practice guidelines and clinical support tools. This report identified key gaps in existing guidance for providers. The environmental scan and interviews with key stakeholders noted gaps in guidance for relationship problems, chronic pain and when treating more than one psychological health problem at the same time. Further, tools to aid in the implementation of existing guidelines were shown as lacking, indicating a need to increase the use of CPGs. DCoE initiated a number of projects to address the gaps identified in these analyses, to include training in implementation, dissemination of existing clinical support tools with utilization feedback, and petitions to the Evidence Based Practice Working Group to fill critical gaps in guidance.



Surveillance

DCoE engages in surveillance efforts in relation to psychological health and traumatic brain injury.

In order to advise the Defense Department on the management of traumatic brain injury and to promote continuous advancements in the clinical standards of care, it is first necessary to identify, record and analyze potentially concussive events and the rate of subsequent traumatic brain injury occurring in the deployed setting. DCoE worked in collaboration with numerous organizations, including U.S. Central Command, to establish reporting requirements, collect exposure data, and analyze the reporting and screening data. The Traumatic Brain Injury Exposure Tracking System is a concussion detection, management and surveillance program which uses metrics from the “Combined Information Data Network Exchange Blast Exposure and Concussion Incident Report” with the ultimate goal to provide a reliable tracking mechanism for individuals exposed to potentially concussive events. These requirements outlined in the DTM 09-033, “Management of Concussion/Mild TBI in the Deployed Setting” policy have enabled the Department to evaluate the effectiveness of the guidance with respect to the time taken to complete a medical evaluation for suspected concussion and results of treatment following a potentially concussive event, and to provide a valid source of clinical data to inform future guidance. In collaboration with Department of Defense Joint Trauma Analysis and Prevention of Injury in Combat and the Armed Forces Health Surveillance Center, DCoE conducted comprehensive, retrospective analyses of relevant event-triggered concussion data and associated activities to coordinate blast-specific data analyses to inform the services and commanders of the combatant commands.

A second surveillance effort was a policy memorandum, to implement the use of a standardized suicide nomenclature signed in October 2011. The standardized system of nomenclature will help reduce inconsistencies in the reporting of suicides, suicide attempts and suicide risk factors across the services, the Department of Defense and Department of Veterans Affairs.

Prevention

Prevention plays a crucial role in the continuum of care. While the most visible accomplishment in this realm is the work DCoE participates in regarding suicide prevention, prevention efforts can be seen in many different aspects of psychological health and traumatic brain injury.

In 2011, DCoE launched a multi-pronged study on resilience and prevention to include retrospective data analyses and prospective program evaluations. This evaluation measures the effectiveness of current military resilience and prevention programs across the services. The study also offered a retrospective review and analysis of psychological health outcomes with pre-existing data from the Armed Forces Health Surveillance Center. Since veteran

programs are not a part of this specific study, DCoE is taking additional efforts to ensure that the Department of Veterans Affairs is aware of the lessons learned through the previous and current service specific resilience programs. A list of resilience programs of the Department of Defense and Department of Veterans Affairs has been collected for the gap analysis.

It is imperative to have an accurate survey of existing programs and resources to learn and improve upon suicide prevention services. In collaboration with DCoE, the RAND Center for Military Health Policy Research reviewed and cataloged suicide prevention programs across the services to inform recommendations for enhancements of current programs. The findings were presented for the first time at the United States Public Health Services (USPHS) Training and Scientific Symposium and at Department of Defense and Department of Veterans Affairs Suicide Prevention Conference in March of 2011. The report, “The War Within: Preventing Suicide in the U.S. Military” was completed and distributed across the Department of Defense. This report provided recommendations for improvement of suicide prevention programs and complemented the Defense Department Suicide Prevention Task Force recommendations, which came out earlier in the year.

As chair of the Suicide Prevention and Risk Reduction Committee (SPARCC), DCoE had a lead role in the creation of the “Family Outreach for Suicide Risk and Prevention Dissemination Toolkit,” which provides program managers and leaders in the military and the Department of Veterans Affairs with tools and mechanisms to help them empower family members to play a more significant role in suicide prevention efforts. The tool kit inventories and evaluates current suicide prevention communications to families; highlights key programs that are effective in providing information to families; and suggests a variety of approaches for the services, the Department of Defense and the Department of Veterans Affairs to optimize communication to the families of service members and veterans about the warning signs of suicidal behavior and available resources.

SPARRC played a crucial role in the creation and dissemination of materials regarding suicide prevention. The website suicideoutreach.org was developed to aggregate suicide prevention resources and facilitate distribution of information. Fact sheets were created, available for family members, friends, military leaders, commanding officers and chaplains on a range of topics including background information on the SPARRC, coping after a suicide and risk and protective factors of suicide. An already useful tool for soldiers, the ACE (Ask-Care-Escort) card, a pocket-sized, easy access tool, was adapted for family members. In late 2011, DCoE successfully transferred SPARRC responsibilities to the Office of the Deputy Assistant Secretary of Defense.

DCoE created a screening and assessment tool reference guide that inventoried 77 suicide prevention tools, 43 of which were clinical and 34 were non-clinical. A number of these tools aim to assess suicidal ideation and suicidal behavior, support suicide prevention, increase resilience and help address the aftermath of suicide. The reference guide provides primary care providers in the Department of Defense and Department of Veterans Affairs with information on clinical and non-clinical tools to use when assessing suicide intent and behavior. This guide also supports suicide prevention, resilience promotion and postvention efforts.



Marines complete a Post Deployment Health Reassessment survey in a mobile screening unit from the Deployment Health Center aboard Camp Lejeune, N.C., July 22. U.S. Marine Corps photo by Cpl. Justin M. Martinez.

Additional efforts by DCoE on suicide prevention included collaboration with the Department of Veterans Affairs and the services to customize Veterans' Crisis Line messaging; provided subject matter expertise to support the writing of the Blue Star Families suicide prevention public service announcement campaign; and collaborated with the USAA on a widely distributed article. The most intensive communication for the hotline occurred during National Suicide Prevention Month in September 2011.

The VA/DoD Evidence Based Practice Working Group is leading the effort to develop a VA/DoD CPG to address the management of suicidal ideation and behaviors. DCoE is providing subject matter experts to this joint Departmental effort to develop guidance for providers. The final CPG is expected to be released late 2012.

DCoE worked directly with the Joint Chiefs of Staff in a supportive role for several of the domains of Total Force Fitness (TFF), which defined mind and body domains required for readiness — medical, physical, nutritional, environmental, behavioral, social, psychological and spiritual. DCoE submitted journal articles to various service-specific journals. Each article represented one of the eight domains of TFF.

Screening & Assessment

Screening and assessment tools are imperative to make sure that wounded warriors receive the care that they need. DCoE is active in developing, as well as contributing to current screening tools that evaluate service members both in the deployed setting as well as upon reintegration.

In April 2011, DCoE published "Indications and Conditions for In-Theater Post-Injury Neurocognitive Assessment Tool (NCAT) Testing Clinical Recommendation." The clinical recommendation was reviewed and approved by the Defense Department's TBI Quad Services Working Group, which includes traumatic brain injury representatives from the Army, Navy, Marine Corps, Air Force, DVBIC, NICOE, Force Health Protection and Readiness, U.S. Central Command and the Department of Veterans Affairs. The NCAT clinical recommendation may be used for the assessment of neurocognitive deficits following the diagnosis of concussion. NCAT is best used as one component of a comprehensive assessment for the service member with clinically confirmed concussion and is not intended to be a screening or diagnostic tool for concussion.

Diagnosis

DCoE is firmly committed to improving care through the identification of best practices and quality standards of care for psychological health and traumatic brain injury. Early diagnosis is essential to getting the proper care to wounded warriors.

In 2011, DCoE convened a working group of traumatic brain injury experts from DVBiC, NiCoE, the Department of Veterans Affairs, and the services to revise the in-theater clinical algorithms for the management of concussion. Simultaneously, DVBiC convened a working group to revise the Military Acute Concussion Evaluation (MACE) to reflect the current state of the science. The newly revised in-theater algorithms provide guidance to medics and corpsmen and health care providers in screening for concussion and aids in the diagnosis and management of associated symptoms. This protocol also helps to ensure early appropriate intervention following exposure to a potentially concussive event. The newly revised In-Theater Management of Concussion and mild TBI as well as the newly revised MACE tool are in the final stages of review with publication and distribution imminent.

Accurate coding is crucial to providing the proper screening and care for wounded warriors. 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 traumatic brain injuries are consistently and accurately diagnosed, documented and tracked. Specific Defense Department guidance for coding of case management services was released by DCoE in April 2011 that established activity codes using ICD-9, Evaluation and Management codes and Healthcare Common Procedure Coding System codes. This guidance helps to standardize and improve the accuracy of coding of case management services for patients with mild traumatic brain injury and concussion across the Defense Department. The ICD-9 Pocket Card won a League of American Communications Professionals LLC (LACP) Spotlight Gold Award and Award of Distinction from the Communicators Awards.

Treatment & Recovery

One of DCoE's leading roles in treatment and recovery is seen in the development and enhancement of clinical guidelines and recommendations. DCoE actively collaborates with the Defense Department and the Department of Veterans Affairs to establish and update recommendations that offer clear treatment and referral recommendations to providers for diagnosis and treatment.

Technology allows improvements in the delivery of treatment. One example is the “Mild TBI Pocket Guide” mobile application for health care providers, designed by DCoE, developed at T2 and released in late 2011. This mobile application gives health care providers instant

access to a comprehensive quick-reference guide on medical management of mild traumatic brain injury patients. The application represents the most current clinical standards of care, therefore it helps health care providers both improve the quality of care as well as clinical outcomes for patients who have had a concussion or mild traumatic brain injury. Military and civilian physicians, physician assistants, nurse practitioners and other treatment providers can use the application to find information on assessing, diagnosing, treating and managing common symptoms of mild traumatic brain injury patients. The mobile application contains definitions, causes and severity ratings, clinical guidance from the Defense Department and Department of Veterans Affairs, a summary of cognitive rehabilitation clinical recommendations for patients, recommendations on driving assessment after a mild traumatic brain injury, an ICD-9 coding tool and other clinical resources along with patient education materials. The hard copy of the Mild TBI Pocket Guide won the 2011 Award of Distinction from the Communicators Awards. In addition to the mobile application, hard copies of the pocket guide are still available for order.

Complex combinations of symptoms are frequently seen in service members after a concussion. Headaches, sleep disorders, PTSD, acute stress, depression, chronic pain and substance use disorder are the most commonly encountered co-existing conditions. DCoE developed the “Mild TBI Pocket Guide and Co-occurring Conditions Toolkit” based on existing Department of Defense and Department of Veterans Affairs unidiagnostic clinical practice guidelines, including mild traumatic brain injury, 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 “Mild TBI Pocket Guide and Co-occurring Conditions Toolkit” was first published in February 2011 with 10,000 copies distributed to health care providers through DVBiC. Based on new research and to improve congruence with the source CPGs, a second revised edition of the tool kit was issued in December 2011 with an additional 10,000 copies to be distributed by DVBiC. DCoE worked with center T2 to develop a mobile application version of the tool kit. This mobile application is available to both the android and iPhone market.

To complement the “Mild TBI Pocket Guide and Co-occurring Conditions Toolkit,” a training video with a scenario-based patient encounter was developed to help providers implement the tool kit.

DCoE is leading the development of the “VA/DoD Opioid Therapy for Chronic Pain Toolkit,” in partnership with the evidence based practice working group (i.e., VA Office of Quality and Safety and U.S. Army Medical Command Quality Management Division). These tools, based on the “VA/DoD CPG on Opioid Therapy for Chronic Pain” will provide clinical recommendations based on current science related to the identification, evaluation and treatment of chronic pain. Once completed, this state-of-the-art tool kit will provide clinical guidance to support military and VA clinicians provide high quality treatment to service members with chronic pain.



Senior Airman Kenneth Kerr, a radiology technician, administers an IV prior to a CT scan of the patient's brain. U.S. Air Force photo by Tech. Sgt. Jason W. Edwards.

This past year, DCoE enhanced two psychological health tool kits to ensure the latest research is implemented: the “VA/DoD Substance Use Disorder (SUD) Toolkit” and “VA/DoD PTSD Toolkit.” These tool kits support military clinicians with state-of-the-science clinical guidance to provide high quality treatment to service members. The updated tool kits provide recommendations that remain current with scientific advancement in the identification, evaluation and treatment of each substance use disorder and PTSD respectively. These tool kits were both developed in collaboration with the evidence based practice working group, and developed based on existing VA/DoD CPGs.

In 2011 there was a need for a clinical recommendation for the management of persistent dizziness and vestibular disturbances following traumatic brain injury. In collaboration with the Hearing Center of Excellence, DCoE convened a consensus conference in November 2011 with the purpose of establishing a standard approach for primary care providers to identify vestibular disturbances following traumatic brain injury and indications for specialty care referral. This initiative will be further developed and implemented in 2012. In 2011 there was a need for a clinical recommendation for the management of visual dysfunction following traumatic brain injury. In collaboration with the Vision Center of Excellence, DCoE convened a steering committee meeting in December of 2011 with the purpose of establishing standard primary care visual diagnostic evaluation recommendations, develop guidance on the indications for specialty care referral, and validate rehabilitation approaches for neuro-visual field loss, oculomotor dysfunction, and blind or low vision rehabilitation. This initiative will be further developed and implemented in 2012, beginning with an expert panel consensus conference.

Sleep disturbances are a common issue among the traumatic brain injury population, which has a negative effect on the neural remodeling necessary for recovery from brain injury and may prolong post-concussion recovery by impeding restorative processes occurring during sleep. DCoE conducted a literature review on the evaluation and treatment of sleep disturbances in mild traumatic brain injury. Following the review DCoE developed objectives for future clinical practice recommendations. The recommendations will provide both in-theater health care providers and primary care providers in the acute care setting, a comprehensive strategy and algorithms for the evaluation, management and treatment of service members who are post-concussive and who are experiencing symptoms of sleep disturbances. The clinical practice recommendations will be published in 2012.

Rehabilitation

Rehabilitation is the restoration of health. While a wounded warrior may never fully restore back to pre-injury state, there are many helpful tools to help adjust to a new normal.

As a leader in promoting the standards of traumatic brain injury care, the military health system must also implement the leading science of care. In 2009, in collaboration with DVBC, DCoE held a consensus conference on best practices in cognitive rehabilitation of mild traumatic brain injury which addressed assessment, cognitive assessment,

interventions, and program implementation and eventuated in a peer reviewed journal publication. In 2010 Health Affairs implemented a policy for the creation of a pilot program at 13 military treatment facilities that are serving as demonstration sites for the purpose of implementing the cognitive rehabilitation clinical guidance package. In 2011, to help inform the future direction of the cognitive rehabilitation pilot program, DCoE and DVBIC developed a program implementation tool to help the services review the pilot sites, and collected program outcome variables.

In an effort to assist military case managers with case management for service members experiencing persistent symptoms related to concussion and mild traumatic brain injury, DCoE published specific guidelines, with a summary fact sheet, in February 2011. The guidance was intended for all military treatment facilities within the MHS to facilitate patient recovery through traumatic brain injury case management practices. The guidelines discuss basic traumatic brain injury information to include diagnostic definitions, critical case management interventions, procedures related to treatments, necessary staffing and training, as well as a list of resources.

Additionally, DCoE launched a collaborative initiative between the Defense Department and Department of Veterans Affairs chaplains and mental health professionals designed to explore the role of the chaplain integrated into mental health settings. An analysis of existing programs in both the Defense Department and Department of Veterans Affairs includes site visits and surveys of chaplains, veterans and service members. The initiative will further explore best practices within the Department of Defense and in turn make recommendations to senior Department of Veterans Affairs' leadership on how to best integrate chaplain roles with mental health care.

Reintegration

Whether reintegrating from a period of deployment or reintegrating from an injury, those with psychological health or traumatic brain injury concerns face unique challenges. DCoE is committed to making these transitions as smooth as possible.

DCoE works closely with the Defense Department and Department of Veterans Affairs to bridge the potential gaps in behavioral health support during transitional periods such as moving from one duty station to another, deploying or transitioning to civilian life. These gaps can lead to service members' disengagement from treatment or the deterioration of their health status, which is why DCoE runs the successful, multi-award winning inTransition program. This program was created to help make sure that service members have a smooth transfer of care between old and new providers and provide crisis management. inTransition offers information, non-medical counseling, education, and advice services for eligible beneficiaries and encourages the use of behavioral health services. In 2011, participants across all of the services received support in finding new mental health providers and accessing mental health resources. Throughout the course of the year, there were 10,600 calls to the program. One thousand two hundred forty-five of these calls became actual

intake calls with service members of which 96 percent of the service members accepted services. Public service announcements for the inTransition program won multiple awards in 2011, including two ASTRID Awards, a National Health Information Award, a Communicators Awards and two Videographer Awards.

The Real Warriors Campaign is a national anti-stigma, public education initiative that for the past 2½ years has been an integral part of DCoE, reaching service members who may be experiencing behavioral health issues. The campaign promotes help seeking behavior as well as the processes of building resilience, facilitating recovery and supporting reintegration of returning service members, veterans and their families. The Real Warriors Campaign has built relationships and partnered with 179 like-minded organizations and programs; generated significant media coverage from a variety of media sources; proved a successful role on social media; and provided vital articles and resources to service members and their families. Additionally, the campaign has earned more than 47 industry awards to date.

Wounded soldier returns to Italy to greet comrades as they come home from Afghanistan deployment.
Photo by Dave Melancon.



2011 Achievements

As illustrated in the first half of this report, much of the work of DCoE can be linked closely to the continuum of care. This next section highlights selected achievements over the past year that primarily promulgate knowledge of psychological health and traumatic brain injury programs and resources to Defense Department, Department of Veterans Affairs, the MHS, the services, civilian and military health care providers, warriors, veterans and their families.

Training Effectiveness Toolkit

The tool kit was created to serve as a resource to assist in the planning, development and delivery of trainings related to psychological health and traumatic brain injury. The documents provide recommendations to develop a standardized and measureable approach to training design, delivery and continuous improvement through appropriate evaluation. This tool kit was created for individuals who are responsible for training and education activities but may not have prior experience or are interested in enhancing the quality of their existing education and training products.

Warrior Resilience Conference III

DCoE hosted the third Warrior Resilience Conference at the Hyatt Regency Crystal City Hotel in Arlington, Va., Feb. 7-8, 2011 with 600 attendees across the services, including both line leaders and clinical professionals. The purpose of this event was to increase leader awareness of Total Force Fitness while providing an opportunity for line leaders to engage in breakout sessions that delivered concrete information, practical training and tools that can be implemented in operational environments.

Suicide Prevention Conference

The 2011 Department of Defense and Department of Veterans Affairs Suicide Prevention Conference “All the Way Home: Preventing Suicide among Service Members and Veterans” was hosted in Boston, Mass., March 13-17, 2011. The conference disseminated practical tools and innovative research in the area of suicidology to educate representatives from across the Defense Department, Department of Veterans Affairs, services and military health

care providers on current practices and studies related to suicide prevention. The conference was attended by 922 participants, the majority (95 percent) of who expressed satisfaction, noting that they developed new skills and knowledge as a result of their participation.

Trauma Spectrum Conference

The fourth annual Trauma Spectrum Conference was hosted Dec. 8-9, 2011, in Bethesda, Md., at the Natcher Conference Center on the National Institutes of Health campus. This year's conference, "Bridging the Gap Between Research and Clinical Practice of Psychological Health and Traumatic Brain Injury: Prevention, Diagnosis, Treatment and Recovery for the Iraq and Afghanistan Cohort" discussed the gap between clinical care and research by highlighting available resources and best practices to assist with the spectrum of psychological health and traumatic brain injury issues found in the Afghanistan and Iraq cohorts. More than 600 conference attendees learned key topics including, but not limited to, cognitive rehabilitation, sleep disorders, implementation science and co-occurring disorders.

Web-based Case Studies

The Defense Department and the Department of Veterans Affairs work directly with health care providers to facilitate an increased awareness of updated clinical practice recommendations and guidelines, clinical support tools, and new research that can impact the care of patients with traumatic brain injury. In partnership with the Department of Veterans Affairs, DCoE launched a web-based series of traumatic brain injury case studies in September 2010 as an opportunity for health care professionals to gain additional understanding about the assessment and treatment of mild traumatic brain injury. Actual mild traumatic brain injury cases serve as CPG implementation tools and offer continuing education credits to health care providers. To date, there have been seven case studies released with another five case studies completed and awaiting release. Each case study has a different focus, including but not limited to screening and diagnosis for mild traumatic brain injury, headache management, sleep dysfunction management and ICD-9 coding. The web-based case studies are available on the MHS eLearn system, as well as the Department of Veterans Affairs Learning Management System. As added incentive for health care professionals to participate in these online learning opportunities, one free continuing education unit or continuing medical credit is offered per course.

Monthly Webinars

DCoE hosts an ongoing webinar series to provide information and facilitate discussion on a variety of topics related to psychological health and traumatic brain injury. 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 traumatic brain injury 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. In 2011, there were more than 2,076 participants in attendance at the DCoE monthly webinar series. The following topics were presented over the past year:

- Peer-to-Peer Support Model Program
- Compassion Fatigue
- Mild TBI and Co-occurring Psychological Health Disorders: Focus on "Mild TBI with Co-occurring Psychological Health Disorders Toolkit"
- Supporting Military Children in School Settings
- Operational Stress and In Theater Care
- Anatomical/Physiological Changes Secondary to Posttraumatic Stress Disorder
- Reintegrative Medicine: Focusing on Family and Clinical Perspective, and Adaptation Following Incident
- Posttraumatic Stress Disorder and Natural Disasters
- Case Management of Mild Traumatic Brain Injury
- Generational Posttraumatic Stress Disorder and Posttraumatic Growth
- Holidays Apart from Family

Gender-specific Mental Health Needs

DCoE is co-lead for the VA/DoD Integrated Mental Health Strategies (IMHS), Strategic Action #28, which focuses on the gender-specific mental health needs of female veterans and military females, as well as military sexual trauma, and sexual assault/harassment, for both genders. The IMHS #28 work group produced a summary report of the research literature for senior leadership, and also serves as the Defense Department work group for the Mental Health Task Force requirements. The Defense Department co-lead spoke at a Congressional briefing sponsored by the Society for Women's Health Research. Members of the group have co-led the military and veteran break-out session at the Federal Women's Roundtable on Workplace Violence Prevention. The group is working to develop recommendations to senior Defense Department and Department of Veterans Affairs leadership about the mental health needs of female veterans and military females, in order to bridge research and clinical service gaps, enhance existing programs, create systems of monitoring research and services, develop innovative programs to improve care and draft policy.



“Many people with a TBI don’t know anyone else who is dealing with the same diagnosis. They **feel so alone**. *This is a great opportunity for people to share their TBI experiences, feelings, questions with others who can relate.*”

■ [Linda Loebach, DCoE blog](#)

“*I deal with TBI daily* and I want to **thank you** for being one of a very few avenues of information and *encouragement.*”

■ [Dale Snead, facebook](#)

Social Media and Online News

An online presence is imperative to reach a wide audience of service members, veterans, their families, health care providers and researchers. DCoE uses its online news room, as well as social media channels including the DCoE Blog, Facebook, Twitter and YouTube, to inform audiences of DCoE programs and resources, general information on psychological health and traumatic brain injury and to engage in conversation. DCoE has become known as a trusted resource for warriors and their families coping with psychological health and traumatic brain injury concerns, as well as for health care professionals looking for the most up-to-date information, innovative use of technology and opportunities for additional training. In 2011 the DCoE Blog received the most visits and views of any page on the DCoE website. The DCoE social media suite won two awards including the Excellence.Gov Innovation in Use of Social Media Award and the AFCEA Bethesda Annual Achievement Award for Social Media.

Military Families Near and Far

DCoE collaborated with Sesame Workshop and the Electric Company for the launch of Sesame Workshop’s newest initiative: Military Families Near and Far. The new bilingual website for military families was designed to offer a safe, fun place for families to create, communicate and stay connected. The website also helps military children express their feelings about deployed parents, multiple moves, holidays without loved ones and a whole host of unique emotional issues military families face, as well as stay connected to their loved ones while they’re deployed.

Series of Integrative Health and Wellness White Papers

During the past year, DCoE developed a series of academic papers that provide valuable information to program managers and health care providers on topics related to integrative health and wellness. The goal of the papers was to create a framework for the adoption of effective programs by the Defense Department that promote holistic approaches to health and wellness throughout the force. The following papers are available for download from the DCoE website at dcoe.health.mil.

- Measures of Autonomic Nervous System Regulation
- Worksite Health Promotion: Wellness in the Workplace

- Leveraging Technology for Psychological Health and Traumatic Brain Injury
- Mind-Body Skills for Regulating the Autonomic Nervous System
- Identification of Best Practices in Peer Support: White Paper
- Review of Well-Being in the Context of Suicide Prevention and Resilience

Dissemination of Key Materials

To ensure that all audiences from service members to clinicians to policy makers received crucial information on psychological health and traumatic brain injury, DCoE followed a targeted dissemination plan of information and attended key conferences. In 2011 DCoE distributed nearly one million materials, products and programs to various stakeholders, including service members, veterans, family members, community members, health care providers, researchers and other federal agencies. DCoE also exhibited information at diverse, targeted conferences across the country and internationally to support providers, service members and military families. During the past year, DCoE attended conferences which provided DCoE the platform to directly engage key audiences by discussing available resources. 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.

Training Criteria for Evaluation of Psychological Health and Traumatic Brain Injury Education Programs

DCoE developed a self-assessment checklist to help training leads determine whether their programs meet minimum performance requirements. Minimum performance criteria were developed based on training best practices and validated through the assessment of 13 training programs with a documented level of evidence. Following this assessment, additional performance requirements were identified and incorporated into the final self-assessment checklist. A report was compiled based on the findings which describes the process used to develop and refine the self-assessment checklist.

Clinical and Line Leadership Training Materials

DCoE developed a series of education and training products for incorporation into existing joint schools and programs across the Defense Department in support of several Mental Health Task Force actions. Standardized and evidence-based curricula is created for providers and measured and modified on a regular and recurring basis to ensure compliance with policies and guidance, as well as new research findings.

Training Collaboration

In January 2011, DCoE collaborated with the Howard University Department of Psychiatry and the Suicide Prevention Action Group with instruction by the Center for Deployment Psychology to deliver a one-day workshop, "Addressing the Behavioral Health of Military Troops." This initiative provided training to increase the number and diversity of behavioral health providers serving military service members and their families. Topics included an overview of military culture, PTSD, traumatic brain injury, prolonged exposure therapy and cognitive processing therapy. The workshop targeted Howard University psychiatric residents, and psychology and social work graduate students. The goal of this initiative was to provide newly accessioned providers with a review of common post-deployment clinical concerns such as depression, sleep disturbance, posttraumatic stress disorder and traumatic brain injury.

DCoE was requested to develop three of the 12 modules in the Army Office of the Surgeon General three-day pre-deployment TBI provider/medical course. The topics were mild TBI policy overview, clinical algorithms for in-theater concussion management and TBI surveillance.

The Way Ahead

In 2012 DCoE will undergo some structural changes as it aligns under the U.S. Army Medical Research and Materiel Command. However, the vision and mission of DCoE will remain the same. DCoE will continue on its chartered course developing a thorough and comprehensive base of knowledge in the evaluation, diagnosis, treatment and rehabilitation of psychological health and TBI, and furthermore use that knowledge to consistently provide timely, accurate, comprehensive and focused information to the Defense Department and to the military services.

DCoE will continue to identify, evaluate and develop a comprehensive analysis of gaps in research, and aggressively advocate filling those gaps. Through program evaluation, DCoE will look at existing programs and products that relate to psychological health and TBI, as well as the most innovative scientific advancements to ensure that gaps are met and duplicative efforts decreased. In 2012 DCoE will explicitly review National Guard programs with the understanding of the unique challenges that members of the Guard face upon reintegration. Additionally, DCoE will review, create a gap analysis and develop a strategic plan for telemental health to assess how technology can be leveraged to reach more warriors.

DCoE will continue to support all phases of the continuum of care model, but because of the ever-growing need, DCoE will focus on the advancement of clinical guidance and treatment. DCoE will leverage knowledge and clinical expertise into practice to improve the pathways of care. In addition to current efforts of developing and updating clinical practice recommendations and guidelines, and disseminating and facilitating the implementation of standards of care to health care providers, DCoE will extend efforts to ensure that the most innovative screening, diagnosis and treatment methods on psychological health and TBI are available to help heal wounded warriors. New projects include creating a Joint Theater Neurotrauma Registry, as well as a MHS dashboard for psychological health metrics and the MHS PTSD care pathway.

Most importantly, DCoE will continue its commitment to the advancement of psychological health and TBI care to ultimately ensure that this nation's service members get the right care at the right time in the right way. DCoE will facilitate improved access to quality psychological health and TBI care regardless of service, component, status or geographic location and produce and disseminate resources that improve the system of care.





Fire Controlman 1st Class Rodney Thomas holds his daughter one last time aboard the guided-missile cruiser USS Anzio (CG 68) before the ship's departure from Naval Station Norfolk. U.S. Navy photo by Mass Communication Specialist 2nd Class Rafael Martie.



**DEFENSE CENTERS
OF EXCELLENCE**

For Psychological Health
& Traumatic Brain Injury