



# Deployment Health Clinical Center FY 2006 and FY 2007 Report



*It is our duty to embrace, care for and help heal those  
wounded warriors returning from battle.*

*It is our solemn obligation to honor those  
who have given the ultimate sacrifice...*

*and it is part of our oath  
to never leave a fallen comrade behind.*

**This report is dedicated to the Soldiers, Sailors, Marines, Airmen, and Coast Guard  
members of our Armed Forces and their families whose selfless sacrifices  
allow all to be free.**

# Contents



<b>ACKNOWLEDGEMENTS</b> .....	1
<b>INTRODUCTION</b> .....	2
Executive Summary .....	2
What's New .....	2
FY 2006/2007 Accomplishments—Ongoing Programs.....	3
<b>DIRECT HEALTH SERVICE DELIVERY</b> .....	4
Specialized Care Programs .....	4
Specialized Care Program Evaluation .....	4
Worldwide Ambulatory Referral Care Program .....	5
Tracking Depleted Uranium Exposures .....	5
Medical Management of Embedded Metal Fragments .....	6
Clinical Consultation through Helplines and Email.....	6
<b>OUTREACH AND PROVIDER EDUCATION</b> .....	7
Deployment Health Integration in Primary Care .....	7
Clinical Practice Guidelines .....	9
Web-Based Outreach to Providers and Military Personnel .	10

Post-Deployment Health Assessment and Reassessment . . .	11
Fostering Trust between Providers and Military Personnel	11
Deployment Healthcare Track at the Force Health Protection Conference .....	13
<b>HEALTH SERVICES RESEARCH</b> .....	15
<b>FY 2008 OUTLOOK</b> .....	23
Direct Health Service Delivery .....	23
Outreach and Provider Education .....	23
Health Services Research.....	23
Defense Center of Excellence for Psychological Health and Traumatic Brain Injury .....	23
<b>APPENDIX A: COLLABORATIONS</b> .....	24
DHCC Inter-Service, Inter-Agency, and University Collaborations .....	24
Detailed List of DHCC Collaborations.....	24
<b>APPENDIX B: PUBLICATIONS</b> .....	27
Manuscripts.....	27
Abstracts.....	28
Presentations .....	32
<b>APPENDIX C: RESEARCH PROJECTS</b> .....	38
<b>APPENDIX D: DEPLOYMENT HEALTHCARE TRACK PRESENTATIONS</b> .....	45
2006 .....	45
2007 .....	46

# Acknowledgements



The Deployment Health Clinical Center would like to acknowledge and thank each of these organizations/individuals for their continued support, guidance, and leadership throughout the previous two years.

Defense Center of Excellence for Psychological Health and Traumatic Brain Injury

Defense Health Board

Force Health Protection & Readiness

The Henry M. Jackson Foundation for the Advancement of Military Medicine

North Atlantic Regional Medical Command

Walter Reed Army Medical Center

Uniformed Services University of the Health Sciences

Our Soldiers, Sailors, Airmen, Marines, and Their Families



1



## Executive Summary

The DoD Deployment Health Clinical Center (DHCC), one of three centers of excellence devoted to deployment health, is uniquely positioned to support service members and their healthcare providers during the Global War on Terrorism. DHCC's core mission is to improve deployment-related health by providing expert, caring assistance and medical advocacy for military personnel with deployment-related health concerns and their families while simultaneously serving as a catalyst and resource center for the continuous improvement of deployment-related healthcare across the military healthcare system. This mission is accomplished through a three-component strategy of:

- **Direct Health Service Delivery:** Tertiary referral care for individuals with deployment-related health issues, clinical consultation, and primary healthcare quality improvement programs



- **Outreach and Provider Education:** The championing of deployment healthcare best practices through development and dissemination of clinical practice guidelines, health information, health risk communication strategies, and clinical education programs
- **Clinical and Health Services Research:** Deployment-related clinical and health services research that uses science to advance the effective delivery of deployment-related healthcare.

This FY 2006 and 2007 Report summarizes DHCC's accomplishments in its support of the military healthcare system as it delivers cutting-edge, highly effective health services to deployment veterans and their families.

## What's New

- In FY 2006, DHCC oversaw the pilot/demonstration project of RESPECT-Mil at Fort Bragg. More than 4,000 primary care patients were screened in primary care for depression/posttraumatic stress disorder, of which 10% screened positive. Treatment results are encouraging. About two-thirds of patients with moderate to severe depression and/or posttraumatic stress disorder achieved a clinically significant drop in symptom severity at 6-10 weeks, about 70% with moderate to severe depression achieved a drop in symptom severity at 12 weeks or more, and roughly 90% of those with posttraumatic stress disorder achieved a drop in symptom severity at 12 weeks or more.



- In FY 2007, as requested by the Army Surgeon General, DHCC established a Center of Excellence at Fort Bragg for the rollout of RESPECT-Mil. DHCC and staff from the Center of Excellence trained providers at 13 primary rollout sites in the AMEDD.
- DHCC's research projects screened 8673 individuals, enrolled 579 in clinical trials or pilot programs, interviewed 252 in focus groups or diagnostic interviews, and provided treatment to 526 patients.
- DHCC's research programs are funded by institutions including the Centers for Disease Control and Prevention, the Department of Veterans Affairs, the Department of Defense, the U.S. Congress, the National Institute on Aging, the National Institute of Mental Health, the Samueli Institute for Information Biology, and the Henry M. Jackson

# Introduction

Foundation for the Advancement of Military Medicine. In FY 2006 and 2007, DHCC's researchers and clinicians collaborated with 14 medical schools, educational, and research institutions, 14 VA hospitals, and medical treatment facilities at five armed forces installations on 16 research protocols. This research focuses on innovative ways to improve deployment-related healthcare specifically the primary care detection and treatment of combat-related traumatic stress.

- DHCC researched data governance policies of federal agencies for the Office of the Assistant Secretary of Defense for Health Affairs Risk Communication Working Group to identify ways to keep risk communication information current.

## 3 FY 2006/2007 Accomplishments— Ongoing Programs

- DHCC's clinical team provided assessments and clinical services to nearly 2900 patients



during more than 6400 patient encounters in FY 2006 and 2007.

- Subscriptions to the *Deployment Health News* grew to 2,325 from 1,379 during FY 2006 and 2007.
- Nearly 7,900 copies of DHCC's award-winning Providers Desk Reference Toolbox were distributed to military medical facilities throughout the Army, Air Force, and Navy.
- The staff responded to more than 1500 Web and helpline inquiries from military personnel, families, and providers.
- DHCC offered eighteen cycles of its Specialized Care Program Track II for posttraumatic combat-related stress. Seven cycles of the Specialized Care Program Track I for medically unexplained physical symptoms were also offered.

- Intensive clinical evaluations were performed for more than 400 patients referred to DHCC with deployment-related chronic illnesses with unclear etiologies.
- The Center was represented at twenty-five national and international meetings, conferences, and symposiums.
- The Deployment Healthcare Track was sponsored at the 9th and 10th Annual Force Health Protection Conferences offering nearly 100 presentations.
- DHCC's clinicians and scientists submitted 26 manuscripts for publication in peer-reviewed journals, developed 79 abstracts, and delivered 102 presentations at conferences and workshops in this two year period.



# Direct Health Service Delivery

The Deployment Health Clinical Center (DHCC), the clinical component of three DoD deployment health centers of excellence, provides direct, tertiary care to service members, expert referral care for complex deployment-related health concerns, consultation services to clinicians, service members, and families, and longitudinal tracking of veterans with deployment exposures. Through the Center's various programs, DHCC's clinical team provided services to nearly 2900 patients during 6400 patient encounters in FY 2006 and 2007.

"I've had a hard time coming back and admitting I was different. You opened me up to realizing I was destroying my life instead of fixing it..."

## Specialized Care Programs

DHCC offers two programs of intensive, tertiary care for deployment veterans: the Specialized Care Programs Track I and Track II. Employing evidence-based therapies, these comprehensive, three-week programs are delivered by a multidisciplinary staff of deployment-health specialists including an internist, health psychologist, physical therapist, registered nurse, and clinical social worker. Alternative and complementary practices including yoga, massage, and relaxation therapy are employed as well.

The Specialized Care Program Track I is the tertiary level of care under the DoD/VA Post-Deployment Health Evaluation and Management Clinical Practice Guideline. The program is designed to treat the sickest patients who continue to present with deployment-related chronic illness or idiopathic physical symptoms that interfere significantly with their life and work in spite of comprehensive

guideline-based care and multiple visits with primary and specialty care physicians.

The program seeks to improve physical conditioning and decrease symptoms through a gradual, paced physical reactivation program. Program participants receive cognitive behavioral therapy to adopt a more constructive attitude towards their physical challenges and to become active partners in their healthcare. They are empowered to better cope with their illness and to adopt positive health behaviors. Each program member receives an individualized symptom management plan, while the members of each cycle of three-to-eight participants support one another. The program emphasizes clinical follow-up and primary care management after return to the local healthcare system. In FY 2006 and 2007, 36 patients participated in 7 cycles of the Specialized Care Program Track I.

The Specialized Care Program Track II provides evidence-based treatments for posttraumatic stress for individuals who have been through basic care and continue to experience difficulty after deployment. Through traditional and alternative treatment modalities, patients receive help in dealing with the lingering effects of combat and to assist in the process of constructive re-integration. These veterans may be referred after receiving treatment according to the DoD/VA guidelines for posttraumatic stress or depression. Exposure therapy in a group setting is crucial to the success of the program. The members of the groups draw courage from one another in exploring and articulating difficult feelings and distressing memories. In FY 2006 and 2007, DHCC delivered 18 cycles of the Specialized Care Program Track II program to 82 participants.

Patients of both programs receive an average of 28 provider contacts and 48 hours of group treatment during the program as well as clinical follow-up

contacts for up to 40 weeks to monitor status and provide on-going support. Continuous Quality Improvement Meetings were held for all cycles the Specialized Care Track I and Track II Programs. Anecdotally, attendees report that the overall experience was positive, and they have a high positive regard for the staff, both clinical and administrative. Responding to interest in creating similar programs from other military treatment facilities, DHCC will continue to share best practices in the treatment of posttraumatic stress and medically unexplained physical symptoms.

## Specialized Care Program Evaluation

DHCC collects medical and behavioral status along with socio-demographic data from Specialized Care Program participants at four time points: entrance, exit, one-month follow-up and three-month follow-up. The data collection methodology is designed to facilitate future longitudinal analyses, revealing the impact of the programs on the pattern of health transition among Soldiers with deployment-related health concerns. So far DHCC has gathered data

"...I needed to realize this. Now I've changed direction and I know I'll get there. [DHCC staff] pushed me; that's what I needed."

—Specialized Care Program Track II Graduate

for 122 patients at entrance, 122 patients at exit, 66 patients at one-month follow-up, and 50 patients at three-month follow-up.

A series of data analyses have been performed on the existing data. The t-test analysis demonstrates that in the period between entrance and exit, patients' average number of physical

# Direct Health Service Delivery

symptoms significantly declined from 6.8 to 5.8 ( $t = 2.06, p = 0.04$ ). The PTSD Checklist (PCL) scores also decreased (from 62.5 to 59.2), though not to a statistically significant degree ( $t = 1.55, p = 0.12$ ). Additionally, the Transformed Physical Score (PCS), using the SF-12 Health Survey to measure physical health improvement, increased slightly from 35.4 to 36.0, which is not statistically significant ( $t = -0.39, p = 0.69$ ). On the other hand, the Transformed Mental Score (MCS), measuring mental health improvement, increased fairly strongly from 31.9 to 36.1, and this enhancement is statistically significant ( $t = -2.73, p < 0.01$ ). Overall, these results suggest that participants in the Specialized Care Programs achieve modest, but statistically significant, improvements in physical as well as mental/emotional functioning. When more data has been collected, DHCC staff will further examine the trends indicated by these health scores.

5

DHCC's Continuous Quality Improvement Committee met throughout FY 2007 to examine aspects of the Specialized Care Programs seeking ways to improve care and to assess the Track II program that was initiated in FY 2006. The team discussed ways to increase referrals, refine the focus of the SCP programs, and to better understand Soldiers' needs for continuity of care once they have left the program. The decision was made to further examine and refine the SCP follow-up process to ensure it was meeting the needs of program graduates. Using FOCUS-PDCA, the quality improvement model used at Walter Reed, the team developed a list of questions that would be used to survey program participants. The survey will begin in FY 2008.

## Worldwide Ambulatory Referral Care Program

The DHCC's Worldwide Ambulatory Referral Care Program receives referrals for care of patients

## What I Learnt

"On reflection my time at the DHCC was invaluable for my future career as a military medic and taught me a lot about the management of PTSD. The opportunity to observe all aspects of the course allowed me to see how the soldiers changed over their time there, and how important the correct environment is. I was also lucky enough to be treated as a peer by the soldiers and taken into their confidence both within and outside the course, which has given me a deeper and more informed understanding of the effects of PTSD than I ever had before. This was a great honour and also highlighted the importance of the soldiers helping each other, and staying in touch after the course has ended."

—Visiting Medical Student Lt Elaine Walker, Royal Army Medical Corps, British Army, who spent her trauma elective at DHCC and the Washington Hospital Center

with chronic physical symptoms that have unclear etiologies and that present challenges to the patient and their care provider. Administered by an internal medicine physician with extensive experience in post-deployment medicine, the program receives referrals from throughout the United States and

overseas. The internist performs a clinical evaluation, including necessary laboratory diagnostics, and may initiate medical and pharmacological treatment for any new diagnoses. If diagnosis and the pathway to appropriate treatment remain unclear, the internist may pursue more imaging studies or referrals to specialists. Appropriate follow-up is offered until all necessary treatments have been completed. Should the patient go on to enter one of the Specialized Care Programs, the internist continues to address his or her health concerns during the program. The Ambulatory Referral Care Program provided these services to approximately 419 patients with 324 follow-up visits in FY 2006 and 2007. Commonly, these individuals suffer from a variety of musculoskeletal injuries, sleep disorders, and chronic pain conditions related to deployment or war.

## Tracking Depleted Uranium Exposures

Part of the Post-Deployment Health Assessment, administered upon re-deployment, is a list of questions concerning possible exposure to depleted uranium (DU). DHCC originally worked with Office of the Assistant Secretary of Defense for Health Affairs and representatives from the Army, Navy, Marines, and Air Force to create and disseminate the medical management and tracking process for depleted uranium exposure. In FY 2006, DHCC staff participated in a series of meetings to review and update this process with these same parties along with representatives from the Armed Forces Institute of Pathology, the U.S. Army Center for Health Promotion and Preventive Medicine, and the Baltimore VA Depleted Uranium Follow-Up Program. The working groups discussed depleted uranium analytical protocols, quality assurance and control programs, updates to the DD Form 2872 (the DU questionnaire), and the contents of the bioassay results letter sent to ordering physicians and veterans.

# Direct Health Service Delivery

DHCC provides central archiving of depleted uranium test results for all the Services. During FY 2006 and 2007, DHCC received the results of 1016 24-hour urine bioassays for depleted uranium analysis bringing the total archived to 2,620. During the spring of 2007, the VA held its biennial follow-up for participants in the Depleted Uranium Follow-up Program, to which DHCC refers patients with positive exposure from the current conflict. DHCC will continue to coordinate medical management and follow-up for them, as needed.

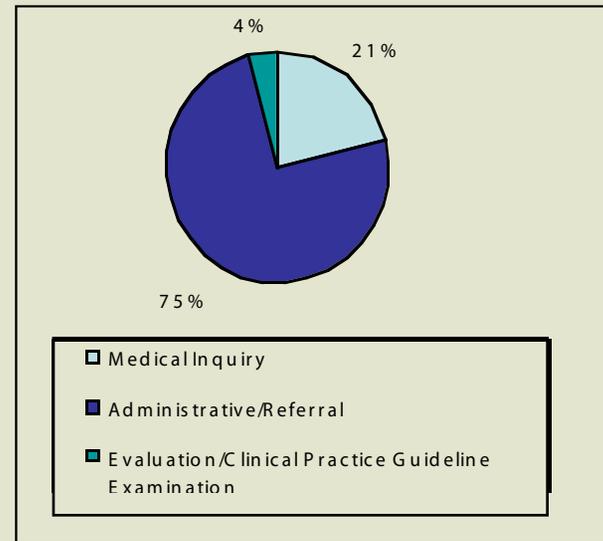
## Medical Management of Embedded Metal Fragments

The Department of Defense has expanded its awareness of the potential health consequences of embedded metal fragments other than depleted uranium. In 2005, the Office of the Assistant Secretary of Defense for Health Affairs assembled a panel of experts to develop Health Affairs policy on the medical management of embedded metal fragments associated with munitions. The policy addresses the removal of these fragments and subsequent medical follow-up. Representatives for the panel were solicited from each Service, the Armed Forces Institute of Pathology, the Armed Forces Radiobiology Research Institute, and the Deployment Health Clinical Center. The panel met several times in FY 2006 and again in July 2007 to discuss the development of a registry of personnel with embedded metal fragments and to define the procedures for fragment content analysis.

## Clinical Consultation through Helplines and Email

DHCC operates two toll-free telephone helplines with access from Europe and the United States: the DoD Helpline for Military Personnel and Families

Figure 1. Inquires to DHCC Helplines

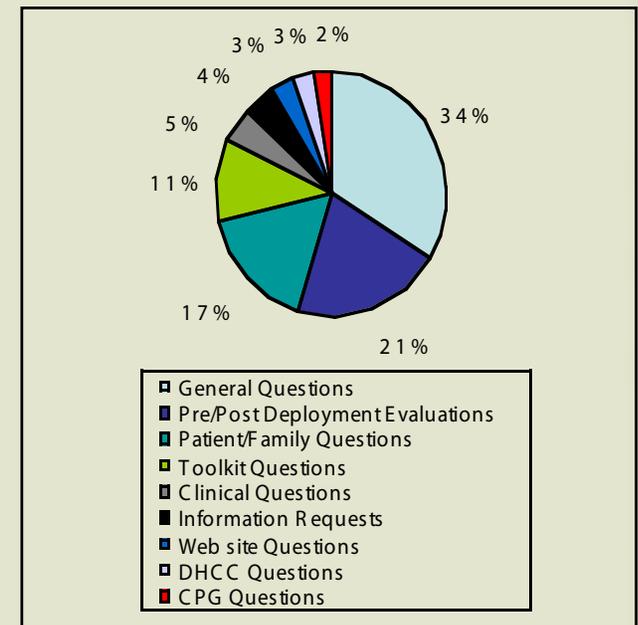


and the DHCC Helpline for Clinicians and Providers. DHCC also provides an email support service that can be accessed both directly and through the Center's Web site. Military personnel and their family members receive information and assistance from the DoD Helpline for a variety of deployment-related concerns. A letter sent at the end of 2005 from the Office of the Assistant Secretary of Defense for Health Affairs generated an increase of phone calls in the December 2005–January 2006 timeframe (see Figure 1). The letter, sent to 100,000 veterans from first Gulf War who were deployed in the vicinity of Khamisiyah, Iraq during demolition operations for chemical warfare munitions in March of 1991, described research into the sequelae of this exposure and urged veterans with concerns to contact the DoD Helpline for Military Personnel and Families for further information. DHCC staff facilitated referral of these callers to the appropriate facility for consultation and testing.

DHCC's Clinicians Helpline provides access for clinical consultation, referral services for post-deployment health issues, guideline implementation information, and guidance on Post-Deployment Health Reassessment Program. DHCC staff responded more than 1000 phone inquiries during FY 2006 and 2007 and more than 500 inquiries through the DHCC Web site.

The Deployment Health Support Directorate, Office of the Assistant Secretary of Defense for Health Affairs, requested that DHCC assume responsibility for its 1-800 Contact Center. DHCC added staff to accomplish this task and worked on the implementation of this transition in FY 2006, while continuing to support patients and providers through its two existing helplines.

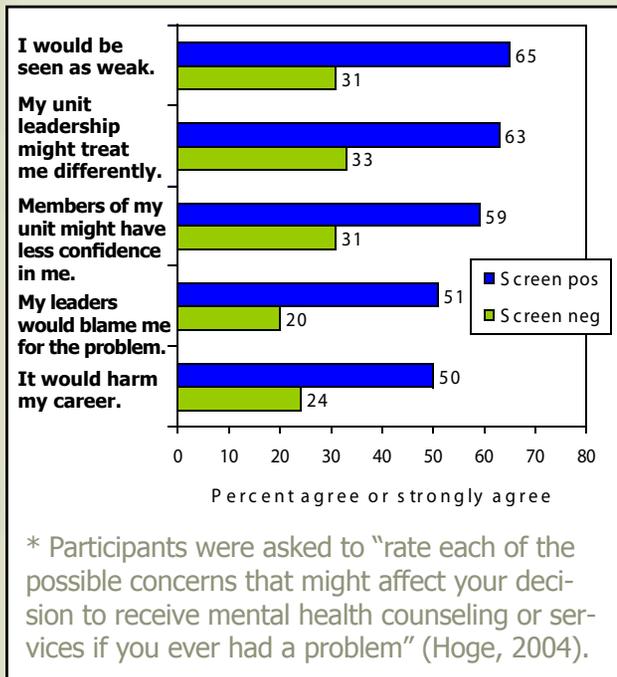
Figure 2. Web/Email Questions



# Outreach and Provider Education

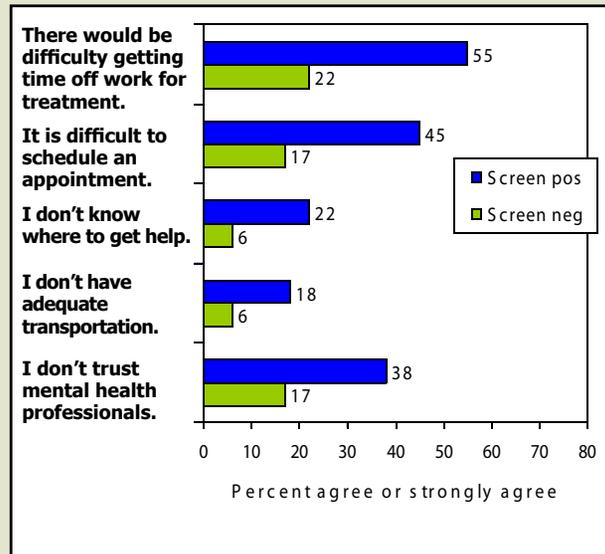
DHCC is chartered with the mission to develop, implement, and sustain deployment-related health education programs for disseminating clinically relevant knowledge to providers. DHCC's FY 2006/2007 outreach to military healthcare providers included developing Web content, sponsoring training programs locally and the 9th and 10th Annual Force Health Protection Conferences, and delivering presentations in the U.S. and around the world. DHCC continued to champion the DoD/VA Post-

Figure 3. Barriers to Care and Mental Health Risk \*



Deployment Health Evaluation and Management Clinical Practice Guideline. It also promoted the use of associated guidelines for medically unexplained

Figure 4. Barriers to Care and Mental Health Risk (cont.)



symptoms, posttraumatic stress, and depression by primary care providers. DHCC staff participated in research on the efficacy of current guidelines and the creation of new ones.

## Deployment Health Integration in Primary Care

The Department of Defense and the Army continue to develop and deliver state-of-the-art methodologies to identify service members with deployment-related stressors and to treat them in a timely and appropriate way. Many recent combat veterans who have experienced psychological trauma do not seek care for their health issues because they are de-

terred by the stigma associated with suffering from posttraumatic stress or because they believe they can work through the issues by themselves.<sup>1</sup> Recent data analysis shows that while 28% of returning Soldiers met survey criteria for posttraumatic stress disorder, major depression, or generalized anxiety disorder, only 27% of these Soldiers received care.<sup>2</sup> Since 90% or more of service members have at least one primary care visit per year, the primary care setting represents a unique opportunity to address behavioral health issues proactively and effectively.

DHCC has championed the concept of behavioral health integration into primary care for several years beginning with Operation Solace after the September 11, 2001 attack on the Pentagon. The Center continues research on this treatment model and undertook several outreach initiatives to disseminate findings and best practices throughout FY 2006 and 2007.

<sup>1</sup> Engel C.C. (2006, July 17). Statement to the Committee on Veterans' Affairs, United States House of Representatives Subcommittee on Health.

<sup>2</sup> Hoge C.W., Castro C.A., Messer S.C. et al. (2004). Combat duty in Iraq and Afghanistan, mental health problems, and barriers to care. *New England Journal of Medicine*, 351:13-22.

# Outreach and Provider Education

In 2005, DHCC initiated an innovative research program in cooperation with the MacArthur Foundation and its Initiative on Depression and Primary Care called *Re-Engineering Systems for the Primary Care Treatment of Depression and PTSD in the Military (RESPECT-Mil)*. According to this treatment model, primary care providers are trained to screen all

“You made it easy to ask for help when I was afraid as to what would happen if I did.”

their patients for posttraumatic stress disorder and depression and to communicate with them about behavioral health issues as well as idiopathic symptoms and other deployment-related health concerns. If treatment for posttraumatic stress disorder or depression is initiated, care facilitators track patients through periodic phone contact to determine their progress in following their treatment plan and convey relevant information to primary care providers and mental health supervisors.

The RESPECT-Mil initiative is being rolled out phases. From March–August 2005, manuals for primary care providers, care facilitators, and psychiatrist supervisors were produced and DHCC and MacArthur Foundation researchers made regular site visits to Fort Bragg to train providers. In 2006, the model was tested at Fort Bragg. Pilot implementation was assessed using clinical staff focus sessions and clinic level data collection and analysis to evaluate symptom improvement rates, occupational functioning, patient satisfaction with care, and condition-specific healthcare quality measures. The study demonstrated that implementation of the RESPECT protocol in the military is feasible, that it often leads to clinically meaningful results, and that primary

care providers are pleased with the tools and resources the program affords them to more effectively manage symptoms of depression and posttraumatic stress in their practices. For more information on this research project and outcomes see page 20.

Starting in FY 2007, the Army Surgeon General directed that a RESPECT-Mil Center of Excellence be established at Fort Bragg, that all Army primary care providers be trained in the methodology, and that the RESPECT-Mil program model be rolled out to 15 AMEDD sites (3 in Europe, 1 in HI, and 11 in CONUS). DHCC's Director is the Program Director of this effort and of the Center of Excellence at Fort Bragg.

“I didn't know if I would still be able to do my job and you helped me realize that I could.”

— Soldier enrolled in RESPECT-Mil

During 2007, the RESPECT-Mil Center of Excellence staff trained primary care and behavioral health champions at 13 of the 15 sites, with the remaining two sites scheduled for training in early 2008. This training has been very well received. A number of RESPECT-Mil Care Facilitators have also been trained. All of the primary care clinics at Fort Bragg, Fort Stewart, Fort Benning, Fort Carson, and Fort Hood are implementing RESPECT-Mil. Other sites are on the way to full operation in 2008. The major obstacle to full implementation has been the slow process of recruiting and hiring care facilitators, who are RNs by training and in high demand. The program cannot be implemented without these are facilitators. Measurement of program implementation to date reveals that a high percentage of Soldiers are being screened for depression and PTSD during their primary care clinic visits and



RESPECT-Mil Care Facilitators track patients through periodic phone contact to determine their progress in following their treatment plan and convey relevant information to primary care providers and mental health supervisors.

8

that an impressive number of Soldiers with previously undetected behavioral health needs are being referred for assistance. Initial results also suggest sufficient fidelity to the RESPECT-Mil protocol. An independent review of the program by the Military Health System Clinical Quality Management Program revealed that RESPECT-Mil clinics were screening for depression and PTSD about 15 times more frequently than control clinics. The study concluded that the program was an effective primary care-based mental health program that warrants further dissemination.

In support of this effort, DHCC staff sponsored a workshop at the 9th Annual Force Health Protection Conference on *Behavioral Health Integration in Military Primary Care*. While reviewing current initiatives in the Army, Air Force, and Navy for integrating behavioral health consultation services into primary care, the workshop examined the historical and theoretical background of the concept. A work-

# Outreach and Provider Education

Figure 5. The 2006 Artiss Symposium—Mental Health in Primary Care: Improving Outreach and Outcomes for Soldiers and Their Families

- **Combat Stress Care: Concepts and Practice During OIF II.** MAJ Geoffrey G. Grammer, MC, USA, Assistant Program Director, Geriatric Psychiatry Fellowship, WRAMC.
- **Mental Health in Primary Care: Improving Outreach and Outcome.** LTC(P) John Bradley, MC, USA, Chief, WRAMC Department of Psychiatry.
- **Leadership Perspectives of Mental Health in Primary Care.** BG Philip Volpe, MC, USA, Commander, 44th MEDCOM, Fort Bragg.
- **RESPECT-MIL: Post-Deployment Mental Health Care at Fort Bragg Primary Care.** COL Charles Engel, MC, USA, Chief, DHCC, MAJ Darin Gould, MC, USA, Fort Bragg and CPT Chris Yamamoto, MC, USA, Fort Bragg.
- **Mental Health of UK Troops after Iraq.** Professor Simon Wessely, Institute of Psychiatry, London, England.
- **Mental Health Consequences of War: Can the VA Cope?** Kathryn Magruder, PhD, Ralph H. Johnson VA Medical Center, Charleston, South Carolina.
- **Pre and Post Deployment Mental Health Screening.** COL Charles Hoge, MC, USA, WRAIR.
- **Putting Psychological Services into Practice in Primary Care: Rationale, Evidence, and Barriers.** LTC Patrick O'Malley, MC, USA, WRAMC Department of Medicine.
- **Family Assistance Centers and School Based Mental Health: TAMC experience.** COL (Ret) Michael Faran, MD, TAMC Department of Psychiatry.
- **Mental Health in Primary Care: Where Do We Go from Here?** MAJ Scott Moran, MC, USA, WRAMC Department of Psychiatry.

shop was given at the 2007 conference for RESPECT-Mil champions at the rollout sites. Additional sessions on RESPECT-Mil lessons learned, behavioral health integration in deployed and post-deployment contexts, and PTSD screening methodologies in primary care were offered at both conferences.

DHCC collaborated with the WRAMC Departments of Psychiatry, Medicine, Nursing, Social Work, and Psychology to put on the Artiss Symposium *Mental Health in Primary Care: Improving Outreach and Outcomes for Soldiers and Their Families*. Continuing health education credits were provided for physi-

cians, nurses, psychologists, and social workers through the Uniformed Services University of the Health Sciences

## Clinical Practice Guidelines

DHCC has been an important contributor and champion of the DoD/VA Post-Deployment Health Evaluation and Management Clinical Practice Guideline since it was launched in 2002 in response to the Institute of Medicine<sup>3,4</sup> recommendation for the integration of deployment healthcare into primary care. DHCC was involved in the expert panel that

created the guideline and served as champion for the initial rollout and subsequent tools development. In FY 2004, DHCC created 18 Web-based training modules and the award-winning Post-Deployment Health Providers Desk Reference Toolbox. By the end of FY 2007, 7,900 Toolboxes had been distributed to Army, Air Force, Navy providers.

The DHCC Staff Training and Assistance Team was created to provide training on the guideline and supporting tools to primary care providers and support staff as well as to offer advice and assistance to military treatment facility commanders on guideline implementation. In FY 2006, the team made a site visit to Kimbrough Ambulatory Care Clinic, Fort Meade, MD.

The DHCC director was designated DoD champion of the DoD/VA Major Depressive Disorder Guideline. He and the DHCC deputy director participated on the expert panel revising this guideline in FY 2007. It is expected that this guideline will be released in 2008. In 2007, COL Engel narrated a training module entitled *Managing Depression in Primary Care Using the DoD/VA Major Depressive Disorder Clinical Practice Guideline*. The training module and the newly developed *Improvement in Care for Patients with Medically Unexplained Symptoms* were added to the Deployment Health Clinical Training Series, which is posted on the DHCC Web site.

<sup>3</sup> Institute of Medicine, Committee on the Evaluation of the Department of Defense Comprehensive Clinical Evaluation Program, Division of Health Promotion and Disease Prevention. 1997. *Adequacy of the Comprehensive Clinical Evaluation Program: A Focused Assessment*. Washington DC: National Academy Press.

<sup>4</sup> Institute of Medicine, Committee on the Evaluation of the Department of Veterans Affairs Uniform Case Assessment Protocol. 1998. *Adequacy of the VA Persian Gulf Registry and Uniform Case Assessment Protocol*. Washington DC: National Academy Press.

# Outreach and Provider Education

DHCC provided behavioral health input to the Amputation Management/Rehabilitation Clinical Practice Guideline Development Working Group, which reviewed and graded literature related to pre-

“Wow!! Loads of great information. I’ll make sure our clinicians look this over.”

—PDH-CPG Toolbox recipient, Fort Huachuca, AZ

and post-operative management and rehabilitation of amputations, formulated specific, evidence-based recommendations for the management of amputation rehabilitation, developed an algorithm defining and outlining the care and management of amputation rehabilitation, and developed an outline of patient education topics/processes. The DHCC deputy director researched and wrote four annotations on behavioral health assessment, treatment, patient education, and peer support processes. The new guideline was

released in 2007. Currently, the DHCC deputy director is on a working group developing tool kits designed to enhance this guideline’s implementation.

The DHCC director and deputy director are consultants to the Scientific Advisory Panel of the Military Health System Clinical Quality Management (formerly the National Quality Management Program). Military Health System Clinical Quality Management performs research and program evaluation of DoD healthcare problems, processes, and high interest issues, including evaluation of clinical practice guideline implementation and utility. DHCC consultants have contributed to research studying the implementation and efficacy of the DoD/VA post-deployment health, medically unexplained symptoms, depression, and posttraumatic stress disorder clinical practice guidelines.

In FY 2006, DHCC consultants contributed to a report summarizing research on screening and referral patterns for posttraumatic stress, utilizing the DD Form 2796/Post-Deployment Health Assessment for a population of close to 300,000. DHCC’s deputy director developed and taped a briefing of these results for CME credit through the Uniformed Services University of the Health Sciences, which was posted to the Military Health System Clinical Quality Management Web site. The study and a related GAO study revealed that a disappointingly low number of service members who screen positive for posttraumatic stress are subsequently referred for mental health services. A 2007 follow-on study examined similar referral patterns in the Fort Bragg RESPECT-Mil program during the first three months of full implementation. The study design allowed for a more complete and comprehensive analysis of referral patterns. Initial data patterns suggested that a similar percentage of Soldiers who screened positive were referred for follow on help

(approximately 25%). However, it also indicated that a substantial percentage of screened positives were false positives (close to 40%), a number declined referral (about 10%), and a number were already engaged in some kind of assistance (approximately 25%). These results suggest that the findings in the initial Military Health System Clinical Quality Management study and the GAO report may not be as alarming as initially thought. The RESPECT-Mil program is attempting to collect similar data regarding its implementation at 15 other sites. DHCC also provided input to study on post-partum depression in FY 2006.

## Web-Based Outreach to Providers and Military Personnel

DHCC’s Web site, [www.PDHealth.mil](http://www.PDHealth.mil), is fundamental to the Center’s communication function. The print, online, and video-enabled outreach products developed by DHCC are made available on the site along with forms and instructions for the military medical community on key post-deployment assessments. Printed guides were created that show how to quickly access specific information, and the left navigation menu was reorganized to make accessing information on the site easier and more intuitive. Among the most visited pages were the Post-Deployment Health Reassessment Program, the DD Form 2796, and the Standard Health Assessment Tools Page for Clinicians.

Approximately 12 new or updated links were added to the Web site each week. DHCC added sections that support use of the DoD/VA guidelines for medically unexplained symptoms, major depressive disorder, and posttraumatic stress disorder. These new sections contained background on these guidelines as well as clinical guidance and guideline implementation information. A fact sheet was



# Outreach and Provider Education

added to PDHealth.mil describing recent changes in coding for deployment-related healthcare visits. The Education section was enhanced with a reorganization of post-deployment health conference and event information as well as a section for accessing electronically-enabled post-deployment health briefings and presentations. These education and training opportunities are listed by topic, and many of the selections provide free continuing health education credits.

11 Traumatic Brain Injury (TBI) has been called the signature wound of the Iraq war. They are a byproduct of improved armor that allows troops to survive once-deadly attacks but does not fully protect the head from roadside explosives and suicide bombers. To assist providers in the evaluation and management of these injuries, a TBI Page was added to PDHealth.mil. It contains clinical guidance including practice guidelines, fact sheets, education and training materials, information on TBI research, and links to other TBI Web pages.

Enhanced information on healthcare and support services for service members and families was added to the site. Included is information on accessing TRICARE, military treatment facilities, and the VA. Resource material was added on DoD Family Services, DoD Helplines, Military OneSource, Transition and Employment Services Assistance for Wounded Warriors, Casualty Assistance Information, and the DoD Mental Health Self-Assessment Program.

To support the RESPECT-Mil rollout, two pages were added to PDHealth.mil. The first provides material about the RESPECT-Mil concept of care and answers general questions about the program. The second provides access to the educational materials, tracking forms, and measurement tools used by sites that are rolling out the program.

## Post-Deployment Health Assessment and Reassessment

DHCC provides expert advice and assistance in the formation of post-deployment health policies and procedures. At the beginning of Operation Iraqi Freedom, the Center helped design the Post-Deployment Health Assessment (PDHA), an enhanced post-deployment evaluation and screening using the DD Form 2796 for re-deploying service members. The PDHA affords assessment of the patient's overall medical and psychological status and provides the opportunity for counseling and treatment related to individual exposure concerns, pain control, sleep needs, and malarial prophylaxis. Patients receive post-deployment tuberculosis skin testing and have a blood sample taken and sent to the DoD Serum Repository per congressional mandate. The DD Form 2796 was updated in September 2007.

The Post-Deployment Health Reassessment (PDHRA) Program, mandated by the Assistant Secretary of Defense for Health Affairs in March 2005, is designed to provide outreach, early intervention, and a reduction in barriers to care for service members with deployment-related health concerns that emerge subsequent to return from deployments. The PDHRA provides for a second health assessment using DD Form 2900 during the three- to six-month time period after return from deployment, ideally at the three to four month mark.

Officially launched in June 2005, the program was piloted in selected locations through December 2005 by the Army, Navy, and Marines in both active and Reserve Components. Lessons learned from this pilot testing were incorporated into the broader implementation of the program in each of the Services during 2006. The memorandum creating the PDHRA Program



designated PDHealth.mil as the location for healthcare providers to find relevant information. This includes clinical guidance, policies, and resource material for program implementation, a list of service-specific PDHRA Program points of contact, clinician training developed by Force Health Protection & Readiness and DHCC, and a Toolbox reference card ([http://www.pdhealth.mil/downloads/DDForm2900\\_Primer.pdf](http://www.pdhealth.mil/downloads/DDForm2900_Primer.pdf)). This card was updated in September 2007 to conform to the revised DD Form 2900 released that month. DHCC helplines also provide a place for service members and clinicians to get their questions answered about the program.

## Fostering Trust between Providers and Military Personnel

DHCC is the only DoD activity that uniquely focuses on helping military clinicians improve their ability to communicate technical information about health risk to their patients. DHCC has the designated responsibility to develop and disseminate deployment-related health risk communication materials for clinician



## Deployment Health News

DHCC's Daily Online Newsletter

### ARCHIVE

April 4, 2008

[4/4/2008](#)  
[4/3/2008](#)  
[4/2/2008](#)  
[4/1/2008](#)  
[3/31/2008](#)

#### More Information

For more deployment health information visit DHCC Web site [www.pdhealth.mil](http://www.pdhealth.mil)

To contact Deployment Health Clinical Center, call 800.796.9699 or [click here](#).

To subscribe to Deployment Health News, [click here](#).

To discontinue Deployment Health News, [click here](#).



#### [WTU Puts Soldiers Families First](#)

Overall, the Army has transformed how it provides treatment to wounded, ill and injured soldiers, including those from active, Reserve and Guard components. Each soldier assigned to a WTU is provided with a triad of support: squad leader; nurse; case manager and a primary care manager. And being wounded on the battlefield is a prerequisite for squad leaders or platoon sergeants serving as WTU cadre.

Source : *Military.com* ★

#### [Reservists shortchanged by military health-care system: ombudsman](#)

*Discrepancies do not apply to those serving in Afghanistan*

Canadian reservists get far inferior health care than regular members of the military, a double standard that is unacceptable, the military ombudsman has concluded. Mary McFadyen released a strongly worded report on Thursday that said reservists are often denied the medical benefits offered to full-time soldiers and are receiving far less compensation for their injuries. Care that is delivered to reservists isn't always adequate or ongoing, and not always delivered in a timely manner.

Source : *CBC News* ★

#### [Wounded Marines Praise Medical Care](#)

Two Marines who were injured in Iraq praised the medical care they've received at the National Naval Medical Center here during interviews yesterday in conjunction with a grand re-opening ceremony for their newly renovated outpatient quarters.

Source : *Military.com* ★

#### [Deployments Take MH Toll on Soldiers and Providers](#)

Longer deployments and not enough time between them are fraying the nerves of U.S. Army soldiers, but the good news is that more soldiers are willing to seek mental health care.

Source : *Psychiatric News* ★

#### Training Opportunity

##### [Amygdala, Stress and PTSD Conference](#)

*Tuesday 29 April; 8:00 am to 5:00pm; Sanford Auditorium*

Since 2004, the Amygdala Conferences at the Uniformed Services University have brought together scientists and clinicians working towards solving the biological basis of post traumatic stress disorder. The conferences focus on the neurobiology of the amygdala, stress and PTSD and have included speakers at the forefront of their fields.

Source : *Uniformed Services University* ★

# Outreach and Provider Education

use and for distribution to patients. DHCC's health risk communication outreach activities in FY 2006 and 2007 included daily distribution of the *Deployment Health News*, delivery of three sessions on patient-provider trust and risk communication at the 9th Force Health Protection Conference, collaboration with the Office of the Assistant Secretary of Defense for Health Affairs Risk Communication Working Group, and contributions to a patient-provider trust research project.

DHCC published 242 issues of the *Deployment Health News* in FY 2006 and 238 in FY 2007, and subscriptions to this daily electronic newsletter increased to 2,325 from 1,379. The newsletter covers health issues related to military service, deployments, homeland security, and the War on Terrorism. Information is gathered from the news media and publicly available sources including periodicals, professional journals, and government and private sector Web sites. Provision of these articles is intended to rapidly inform clinicians of information to which patients may be exposed, in part, because that information sometimes causes patients to seek medical advice and care. DHCC created a new format for the *Deployment Health News* in 2006. The new format is visually more attractive and allows the transmission of larger documents without overloading the recipients' e-mail system.

The objective of the project entitled *Patient-Provider Trust in Primary Care: An Empirical Literature Review* was to assess and summarize the existing medical literature pertaining to patient-provider trust. A MEDLINE database search for primary care studies of this issue identified 940 studies, 108 of which were English language empirical studies. Of these, 28 made trust a central focus. Five (18%) evaluated interventions, five (18%) evaluated scales to measure trust, 15 (54%) were observational designs, and three (11%) studies were qualitative. These 28 studies addressed three main areas: measurement of trust, factors affecting trust, and efforts to change trust.

The literature review yielded the following findings. Empirical efforts to study primary care patient-provider trust are increasing in frequency but the literature in this area remains largely undeveloped. Most studies are qualitative, methodologically problematic, or study trust peripherally. Consensus is needed with regard to the definition of patient-provider trust and its domains. Valid and reliable measures are needed that are sufficiently sensitive to measure change. Key questions, such as what organizational, provider, and patient-level interventions can effectively

The *Deployment Health News* received a new design in 2006.

# Outreach and Provider Education



Bronze Star and Purple Heart recipient Timothy Maxwell, Lt Col, USMC, the 2007 Deployment Healthcare Track Keynote Speaker, spoke inspiringly of his experience recovering from a traumatic brain injury suffered during a mortar attack in Afghanistan.

improve trust in the primary care relationship remain virtually unstudied. These results were presented at the 9th Force Health Protection Conference.

## Deployment Healthcare Track at the Force Health Protection Conference

DHCC staff continued to sponsor the Deployment Healthcare Track at the Force Health Protection Conference in 2006 and 2007. More than 2000 individuals registered for the 9th Annual Conference, which featured nine tracks and 540 presentations, while more than 2700 registered for the 2007 conference, which provided ten tracks and 600 presentations. Attendees included physicians, nurses, behavioral health providers, researchers, and healthcare administrators and policymakers. The 2006 Deployment Healthcare Track provided 47 presentations with an aggregate attendance of more than 1900. The 2007 track offered 43 sessions with an average 42 attendees per session.

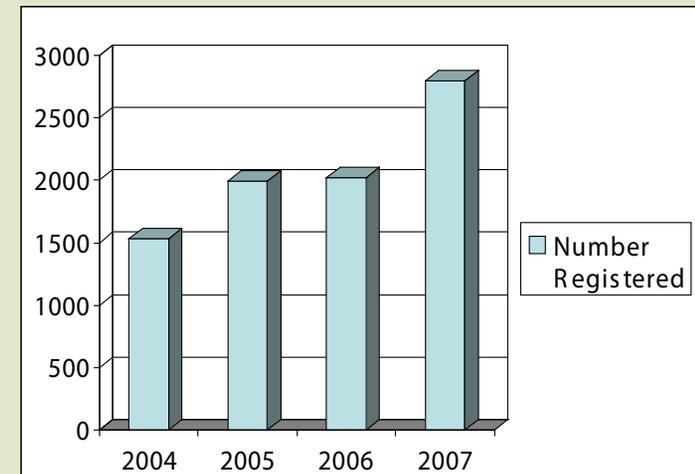
In 2006, DHCC worked with the Service Family Practice Consultants to send surveys to Army, Navy, and Air Force Family Practice/Primary Care Providers to solicit input regarding presentation topics that would address their specific needs. These providers were chiefly interested in issues during deployment and post-deployment. Specifically, they requested information on treating trauma injuries, working with foreign patients and host nation medical systems and providers, dealing with the unpredictable and challenging air medical evacuation system, and region-specific illnesses and endemic conditions.

Post-deployment concerns about which providers were interested included the treatment of traumatic injuries, once again, as well as musculoskeletal injuries, the psychiatric sequelae of combat, the significant increase of tobacco usage after deployment, and administrative and practical concerns involving medical management of polytrauma cases; medical separation, transition to the VA, and

disability processing; and successful delivery of behavioral healthcare across disciplines.

The Deployment Healthcare Track's plenary sessions both years addressed several of these needs. In 2006, keynote speaker, Anthony Principi, former Secretary of the U.S. Department of Veterans Affairs, spoke on *Key Health Trends Across Compensation, Pension, and Separation Examinations*. Ms. Barbara Goodno, from the DoD Severely Injured Center, offered the plenary presentation *The DoD Severely Injured Support Center: Ensuring Seamless Support for OIF/OEF Service Members and Their Families*, and Charles A. Peck, COL, USA (Ret.) presented *An Overview of the U.S. Army Disability System: From Injury and/or Illness to Fitness for Duty*. In 2007, keynote speaker, Timothy Maxwell, Lt Col, USMC spoke on *Wounded Warriors Benefit from the Team Healing Concept* from his own experience of traumatic brain injury from his service in OEF, while Drs. Richard Tedeschi and Lawrence Calhoun,

Figure 6. Registration for the Force Health Protection Conference



# Outreach and Provider Education

Figure 7. The 2006 Deployment Healthcare Track Plenary Presentations

- **Key Health Trends Across Compensation, Pension and Separation Examinations.** Anthony J. Principi, JD, Former Secretary of the Department of Veterans Affairs.
- **The DoD Severely Injured Support Center: Ensuring Seamless Support for OIF/OEF Service Members and Families.** Barbara Goodno, MS, DoD Severely Injured Support Center.
- **An Overview of the U.S. Army Disability System: From Injury and/or Illness to Fitness for Duty.** COL Charles A. Peck, USA (Ret.), MD.
- **Case Management to Improve Post Deployment Healthcare: Lessons from the RESPECT Depression Project.** Allen J. Dietrich, MD, Dartmouth and COL Charles Engel, MC, USA, Chief, DHCC.
- **An Update on Important Post-Deployment Health Considerations for Returning Combat Veterans with Traumatic Brain Injuries.** CAPT Eric McDonald, USN (Ret.), MD, Consultant to Traumatic Brain Injury Program, ER Physician, San Diego Veterans Hospital.
- **In Harms Way: Infections of Deployed American Troops.** COL Naomi Aronson, MC, USA, Director, Infectious Diseases Division, Uniformed University of the Health Sciences.

psychologists and educators, discussed *Facilitating Posttraumatic Growth*. Their book of the same name was distributed to session attendees.

Other track presentations responded to training needs articulated by providers. In 2006 additional sessions were offered on the theme of *Caring for Wounded Warriors with Traumatic Injuries*. A workshop entitled *Improving Recovery of Wounded Warrior through Better Communication with Them and Their Families* detailed experiences of both wounded veterans and care providers during each stage of care from battlefield injury, through medical evacuation, to hospitalization at the home station. Six sessions were delivered pertaining to *Family Practice/General Medicine Physicians: First Line of Defense for OIF/OEF Service Members and Their Families*. The topic of *Complementary and Alternative Medicine Treatment Options for Returning Combat Veterans* was explored during four sessions in 2006 while six sessions were offered in 2007 including the plenary session by Dr. Wayne Jonas on *Optimal*

*Health Environments: Lessons Learned for Military Healthcare*. The 2006 sessions entitled *In Harms Way: Infections of Deployed American Troops* and *Meeting the Neighbors: An Informed Approach to Humanitarian Aid* discussed challenges faced by military healthcare providers in theatre. Many sessions both years

focused specifically on the diagnosis and treatment of as well as research pertaining to posttraumatic stress in combat veterans.

Deployment Healthcare Track speakers included active duty, retired, and Reserve Component service members from the Army, Air Force, Navy, and Marines. Speakers included military and civilian personnel from the U.S. and Canada, as well researchers from government and educational institutions. A list of presentations and speakers is available in Appendix D. DHCC will again sponsor the Deployment Healthcare Track at the 11th Annual Force Health Protection Conference in Albuquerque, New Mexico in August 2008.

Figure 8. The 2007 Deployment Healthcare Track Plenary Presentations

- **Wounded Warriors Benefit from the Team Healing Concept.** Timothy Maxwell, Lt Col, USMC, MS, U.S. Marine Corps Wounded Warrior Regiment, Camp Lejeune, North Carolina.
- **Facilitating Posttraumatic Growth.** Richard G. Tedeschi, PhD and Lawrence G. Calhoun, PhD, University of North Carolina at Charlotte.
- **Wounded: Vietnam to Iraq.** Ronald Glasser, MD, Minnesota Spina Bifida Clinic, Vietnam Veteran.
- **Fort Carson Soldier Readiness Center (SRC): Collaborative Interdisciplinary Efforts Aimed at Establishing Evidence-Based Best Practices.** Heidi Terrio, COL, USA, MD, MPH, Fort Carson Soldier Readiness Center.
- **Optimal Healing Environments: Lessons Learned for Military Healthcare.** Wayne B. Jonas, MD, President and CEO of the Samueli Institute.

# Health Services Research

DHCC's deployment-related clinical research is driven largely by extramural funding. DHCC's research efforts strive to support the clinical, scientific, and policy goals of the Center. DHCC has successfully completed and continues to be engaged in a wide range of projects designed to scientifically evaluate health services delivery for post-deployment medical concerns. Current projects are competitively funded by the National Institute of Mental Health, the Department of Defense, the Department of Veterans Affairs, the Centers for Disease Control and Prevention, and the National Institute on Aging. DHCC's FY 2006 and 2007 active research projects screened 8673 individuals, enrolled 579 in clinical trials or pilot programs, interviewed 252 in focus groups or diagnostic interviews, and provided treatment to 526 patients. DHCC's scientists and staff regularly publish in peer-reviewed medical journals. DHCC's clinicians and scientists submitted or published 26 manuscripts in journals, created 79 abstracts, and delivered 102 presentations at conferences and workshops in the U.S., Canada, and worldwide in FY 2006 and 2007.

The research team consists of personnel with expertise in the social and behavioral sciences, general medicine, psychiatry, epidemiology, statistics, demography, risk communication, as well as administrative personnel. The team serves a number of functions in support of the DHCC mission to improve post-deployment care, to include:

- Clinical, epidemiological, and health services research
- Clinical practice guideline implementation
- Program evaluation
- Development of surveys and mental health screening tools
- Database creation and management
- Research consultation to clinicians
- Manuscript and report preparation

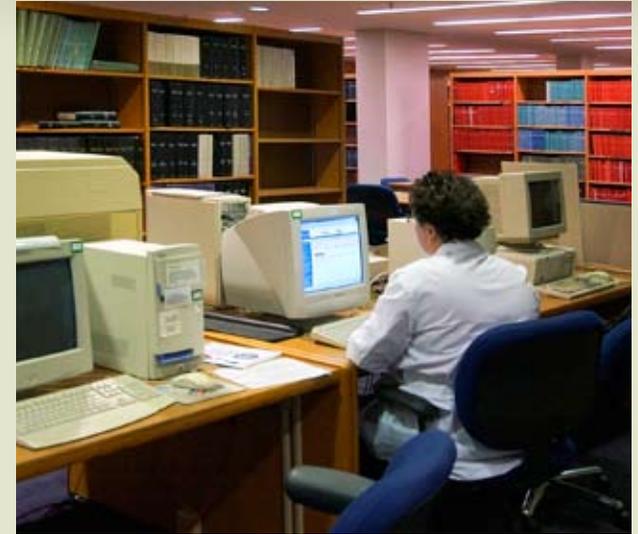
DHCC's FY 2006/2007 research portfolio consisted of the following sixteen projects.

## A Single-Item PTSD Screener (SIPS) for Primary Care

Posttraumatic stress disorder (PTSD) among recently deployed Soldiers is a critical psychiatric problem facing the Department of Defense. Research indicates that while most mental healthcare is delivered in primary care, primary care providers often do not recognize symptoms of posttraumatic stress disorder. Improving screening procedures for primary care patients presenting with posttraumatic stress disorder may lead to earlier diagnosis and intervention, thereby reducing long-term impairment.

The goal of this study is to develop and test a simple screening tool for use in a primary care setting for rapid identification of patients with symptoms of posttraumatic stress disorder. The Single-Item PTSD Screener (SIPS) for Primary Care is being compared to a longer, existing posttraumatic stress disorder screening tool. Responses to the SIPS will be evaluated against the criterion, PTSD diagnosis, determined by a diagnostic interview. Sensitivity, specificity and likelihood ratios of the SIPS are being evaluated.

Of the 3258 primary care patients at three DoD primary care clinics who completed the SIPS, two hundred thirteen received a diagnostic interview. In patients with "Bothered a Little" responses, the sensitivity and specificity were 0.76 and 0.79, respectively. Positive endorsement of the SIPS was indicative of PTSD status. The SIPS is expected to improve a primary care provider's ability to recognize PTSD symptomatology in their patients and to facilitate early intervention to reduce the burden of this disorder within the DoD. A manuscript is in



preparation, and plans are underway to evaluate a refined version of the question to see if we can improve upon the operating characteristics.

Medical treatment facilities included in this study are the primary care clinics at Walter Reed Army Medical Center, the Rader Clinic at Fort Myer, and the DiLorenzo Clinic at the Pentagon.

## A Study of Prazosin for the Relief of Combat Stress-Induced Nightmares and Sleep Disturbance

Trauma-related nightmares and sleep disruptions following exposure to life-threatening events are persistent symptoms that often cause significant impairment in social and occupational functioning. Paroxetine (marketed as Paxil) is one of only two FDA approved medications for the treatment of posttraumatic stress disorder, but its treatment efficacy remains mixed. Preliminary research shows that the medication prazosin ameliorates both nightmares and sleep disturbances in veterans from Vietnam and OEF/OIF. It is expected that

results from this double-blind, 12-week randomized controlled clinical trial will support the use of prazosin over both paroxetine and placebo for the treatment of combat-related nightmares.

Funded by the Department of Defense, this multi-site study is a collaboration between DHCC and researchers from Madigan Army Medical Center and the VA Puget Sound Healthcare System. The study began recruitment and enrollment in FY 2007.

## Acupuncture for the Treatment of Trauma Survivors

Posttraumatic stress resulting from combat-related traumatic events has been treated with only moderate success using presently available psycho- and pharmacological therapies. Furthermore, an important subset of people who suffer from posttraumatic stress disorder find currently efficacious treatments undesirable because of side-effects, psychosocial stigma, and high cost. Acupuncture, with few known side effects, has the potential to be an effective alternative treatment for posttraumatic stress disorder or an adjunct to other therapies. Acupuncture has been shown to improve well-being and to successfully treat stress, anxiety, and pain conditions.

The objective of this two-arm, 12-week randomized controlled trial is to determine the effectiveness of acupuncture for alleviating symptoms associated with posttraumatic stress disorder. As of the end of FY 2007, 245 active duty service members have been screened for entrance into the study, 75 have been enrolled after meeting preliminary criteria, and 55 have qualified and have been randomized to study condition. Forty-two individuals have completed the study through the 3-month follow-up. Recruitment for the study was completed in June 2007, and data collection continues through October 2007.

The study is Congressionally funded and the study team consists of personnel from DHCC, the Uniformed Services University of the Health Sciences, the VA, the Samueli Institute, the University of Western Ontario, and the National Center for PTSD.

## CSP 494: A Randomized Controlled Trial of Military Women with Post-Traumatic Stress Disorder (PTSD)

This VA Cooperative Study included 11 VA sites and Walter Reed Army Medical Center. It was a randomized single-blind clinical trial that compared two types of individual psychotherapies for the treatment of posttraumatic stress disorder (PTSD) in women. The efficacy of prolonged exposure therapy for treating PTSD and associated problems in active duty and veteran women was evaluated. The study hypothesis was that prolonged exposure therapy would be more effective than present-centered therapy for the treatment of PTSD in female veterans and active duty personnel. The primary outcome variable was PTSD severity at the 3-month follow-up assessment as measured by the Clinician Administered PTSD Scale (CAPS), a diagnostic interview that captures PTSD symptom severity.

A total of 284 participants were randomized in the multi-site trial. Two hundred-one (71%) completed all treatment sessions. Two hundred thirty-five participants (83%) completed the post-treatment assessment, 230 (81%) completed the three-month follow-up assessment, and 213 (75%) completed the six-month follow-up assessment. Women who received prolonged exposure experienced greater reduction of PTSD symptoms relative to women who received present-centered therapy (effect size, 0.27;  $P = .03$ ). The prolonged exposure group was more likely than the present-centered therapy group to no longer meet PTSD diagnostic criteria (41.0% vs 27.8%; odds ratio, 1.80; 95% confidence interval, 1.10-2.96;

$P = .01$ ) and achieve total remission (15.2% vs 6.9%; odds ratio, 2.43; 95% confidence interval, 1.10-5.37;  $P = .01$ ). Effects were consistent over time in longitudinal analyses, although in cross-sectional analyses most differences occurred immediately after treatment. The study concluded that prolonged exposure is an effective treatment for PTSD in female veterans and active-duty military personnel. It is feasible to implement prolonged exposure across a range of clinical settings. These findings were reported in the *Journal of the American Medical Association (JAMA)* in 2007.

## DESTRESS: Web-Based Therapy for Victims of Mass Violence

This study, funded by the National Institute of Mental Health, began in June 2002 in collaboration with Dr. Brett Litz at Boston University School of Medicine and the Boston VAMC, and Dr. Richard Bryant at the University of New South Wales, Sydney, Australia. The randomized controlled trial evaluated an Internet-based cognitive-behavioral therapy self-management intervention for individuals with



# Health Services Research

posttraumatic stress disorder. Thirty-nine victims of mass violence were randomly assigned to receive Web-based cognitive-behavioral treatment or supportive care, each requiring 56 login visits. Participants reported daily PTSD and depression symptoms and accessed self-help materials electronically.

Results of this study indicated that participants who received cognitive-behavioral therapy reported greater gains than those who received supportive care. One-third of those who received cognitive-behavioral treatment achieved high end-state functioning 6 months after treatment (one quarter of the intent-to-treat group). The intervention was well tolerated, and the dropout rate was similar to that of face-to-face trials. The study concluded that self-management cognitive-behavioral treatment may be a way of delivering effective treatment to large numbers with unmet needs and barriers to care.

17

With intensive therapist input during a single session of therapy, supplemented systematically with self-directed Web-based guidance for daily homework activity, patients with PTSD can benefit from strategies that have demonstrated efficacy in reducing PTSD symptoms. DHCC is currently



engaged in the evaluation of an abbreviated version of the Web-based cognitive-behavioral treatment intervention intended to treat primary care patients with nurse oversight.

## DESTRESS-PC: A Brief Online Self-Management Tool for PTSD

The broad objective of this proposed research is to improve primary care mental health services for military personnel and veterans with posttraumatic stress disorder related to war-zone trauma. The research is also relevant to providing early, high quality access to low-stigma mental health services for victims of other traumatic events, including terrorist attacks and natural or man-made disasters. The study hypothesis is that a brief Internet-based online self-management tool for posttraumatic stress disorder, DESTRESS-PC, based on empirically valid cognitive-behavioral therapy strategies, will improve posttraumatic stress disorder symptoms, related functional status, and attitudes regarding mental health treatment among veterans and military personnel with posttraumatic stress disorder who are seeking primary healthcare after service in Operations Iraqi Freedom or Enduring Freedom (OIF/OEF).

A primary care-based randomized controlled trial is proposed to assess the feasibility and efficacy of DESTRESS-PC for reducing the posttraumatic stress disorder symptoms of war-zone exposed soldiers and veterans, increasing their mental health-related functioning; reducing depression, generalized anxiety, and somatic symptoms; and improving attitudes regarding formal mental health treatment. The DESTRESS-PC intervention will be delivered to participants via the Internet, with participants logging on to a secure Web site hosted on private (i.e., nonmilitary) servers. Participants' progression through the intervention will be monitored by nurse managers, and participants will have ad lib and



routine access to their nurse manager via e-mail and telephone. Nurse managers will be supervised by mental health professionals and will have contact with participants' primary care providers.

The trial should begin in FY 2008. It is hoped that the DESTRESS-PC intervention will significantly improve symptoms of depression, generalized anxiety, and somatization at 6-week, 12-week, and 18-week follow-up, and that patients randomized to the DESTRESS-PC protocol will report significantly improved attitudes toward mental health treatment at the same follow-up timeframes.

## Evaluation of Acceptability of Collecting Information About Adverse Childhood Events from Military Personnel

The National Defense Authorization Act 2006, Section 733, "Baseline Health Data Collection Program," mandates that DoD implement a baseline health instrument to improve health surveillance and contribute to a system that supports early intervention and prevention programs among service personnel throughout their military careers.

This baseline assessment has been called for by past Presidential Review Directive, Institute of Medicine reports, and the Armed Forces Epidemiological Board.<sup>5</sup> The assessment will collect relevant demographic, medical, psychosocial, occupational, and health risk factor data from all U.S. military personnel upon entry into the armed forces.

Current research indicates that adverse childhood events, such as loss of a parent, abuse, or living in a household which includes a family member who is incarcerated, a substance abuser, or mentally ill may contribute to negative adulthood consequences.<sup>6,7,8,9</sup> Recent efforts to use self-reported adverse childhood event information as part of military health surveillance have raised questions regarding the validity of the information. If sensitive questions are viewed as unacceptable by military respondents and family members, then the accuracy of reported information will be compromised.

This year-long study, funded by DoD, was a DoD, VA, and Centers for Disease Control and Prevention collaborative effort to examine the acceptability of collecting adverse childhood event data as a part



of routine military health surveillance. The study consisted of three components. The first was a focus group-based study, conducted at Fort Bragg, to assess the views of service members and their spouses regarding the collection of adverse childhood event data. Participants were recruited at the Robinson Clinic and the Womack Army Medical Center's Primary Care Clinic. Seven hundred eighty-four participants were screened and 40 participants were consented and interviewed. Data analyses of the interviews are complete. The second component was a panel of subject matter experts, the Collaborative Adverse Childhood Experiences Study Committee, which met in February 2006 to discuss the acceptability, practicality, legal, and ethical aspects of using adverse childhood event data as a part of routine health surveillance.

<sup>5</sup> Armed Forces Epidemiological Board (2006). Armed Forces Epidemiological Board 2006 June Meeting. Wright-Patterson AFB, OH.

<sup>6</sup> Anda, R. F., Croft, J. B., Felitti, V. J., Nordenberg, D., Giles, W. H., Williamson, D. F. et al. (1999). Adverse childhood experiences and smoking during adolescence and adulthood. *Journal of the American Medical Association*, 282, 17, 1652-1658.

<sup>7</sup> Chapman, D. P., Whitfield, C. L., Felitti, V. J., Dube, S. R., Edwards, V. J., & Anda, R. F. (2004). Adverse childhood experiences and the risk of depressive disorders in adulthood. *Journal of Affective Disorders*, 82, 217-225.

<sup>8</sup> Dong, M., Dube, S. R., Felitti, V. J., Giles, W. H., & Anda, R. F. (2003). Adverse childhood experiences and self-reported liver disease: new insights into the causal pathway. *Archives of Internal Medicine*, 163, 1949-1956.

<sup>9</sup> Dube, S. R., Felitti, V. J., Dong, M., Chapman, D. P., Giles, W. H., & Anda, R. F. (2003). Childhood abuse, neglect, and household dysfunction and the risk of illicit drug use: the adverse childhood experiences study. *Pediatrics*, 111, 3, 564-57.

A report outlining the recommendations of the panel is complete. The study team also completed the third component, a review of past efforts in the military to collect adverse childhood event data anonymously. The team developed a manuscript based on this effort that is currently under review for the journal *Military Medicine*.

## Health-e VOICE—A Clinical Communication Training Tool

Many patients have health risk concerns related to environmental, occupational, or other potential toxic exposures. Currently, there is little known about how to improve health risk communication in clinical settings. A 1998 U.S. Department of Health and Human Services report identified emerging interactive health communication technologies as a powerful way of achieving "Healthy People 2010" public health communication goals. Health-e VOICE (**H**ealthcare **e**lectronic **V**alues-based, **O**pen, **I**nteractive **C**ollaborative **E**ducation) was developed as an interactive, Web-based distance-learning tool designed to improve DoD healthcare providers' effectiveness when communicating with veterans, military personnel, and family members about their deployment-related health concerns. The objective of this trial was to evaluate the impact of Health-e VOICE training on the ability of primary care providers to appropriately address deployment-related health concerns of their patients. All 2,110 participants were enrolled through the Family Practice Residency Clinic at Womack Army Medical Center, Fort Bragg. Forty primary care providers—21 in the Health-e VOICE treatment condition and 19 in the control condition—were enrolled.

Of a total of 2,063 patients, 1,197 were patients of providers in the treatment condition and 866 were patients of providers in the control condition. Health-e VOICE training was not significantly associated with any trial outcomes. Interestingly,

# Health Services Research

patients with war-related health concerns who received services from a Health-e VOICE trained provider reported lower satisfaction than those who received services from providers who received standard patient-provider communication training. This difference, while statistically significant, was small, unexpected, and of unclear clinical significance. Internet-based risk communication training for primary care providers seeing war veterans with health concerns is not sufficient to improve provider or patient-based outcomes. Changes in fund of knowledge may not be translated into behavioral change or to changes in patient perceptions of the care that providers offer in the absence of structural changes in care (e.g., duration of an appointment). A paper summarizing study findings was published in *Patient Education and Counseling*.

## 19 Preference-Weighted Analysis of Posttraumatic Stress Disorder in Veterans

Extant symptom- and generic quality of life-focused measures used to assess the disease burden of post-traumatic stress disorder are useful at the clinical level because they describe functioning. However, these measures are not useful at the policy level because they fail to assess how people value different health problems (e.g., what domains of health-related quality of life do people prefer most versus least). In contrast, preference-weighted health status measures can capture this information and fill in the blanks for healthcare policy makers. Policy makers can then allocate resources based in part on how well interventions could maximize the quality of life domains that society values the most.

Study team members calculated the preference-weighted health status score (PWHSS) for 840 veterans receiving VA primary care services. The PWHSS rates preferences in a range from 0 (death)

to 1 (perfect health). As part of a different study, veterans were assessed for health-related quality of life, mental health disorders, and medical ICD-9 diagnoses. Several groups of veterans were created based on the veterans' diagnoses. Their responses were then weighted on the health-related quality of life measure with previously published preferences for the domains of health-related quality of life to create the PWHSS benchmark. The study team compared the PWHSS among veterans diagnosed with posttraumatic stress disorder and other disorders. Lower PWHSS significantly correlated with increased posttraumatic stress disorder severity and number and type of mental health disorders. In other words, the analysis suggests that society at large sees the health status associated with a diagnosis of posttraumatic stress disorder as less desirable than the health status of veterans not diagnosed with this disorder. A manuscript summarizing the study findings is being prepared.

## Prospective Study of Functional Status in Veterans at Risk for Unexplained Illness

DHCC is collaborating with the East Orange New Jersey VA War-Related Illness and Injury Study Center on a prospective longitudinal study to understand whether stress response, ability to cope with stress, or personality affect the likelihood of developing medically unexplained symptoms after service in OIF/OEF. Measures are both self-reported and physiological and include pre- and post-deployment physicals as well as phone interviews and mailed surveys after return from deployment. The study is expected to help identify individuals at risk for developing medically unexplained symptoms after future deployments and guide future work on intervention strategies. To date, 391 service members have completed pre-deployment health

screening (phase I). Seventy eight service members have completed post-deployment health screening (phase II); this represents an 84% completion rate for phase II.

## Real-Time Measurement of Daily Stress Responses Among Soldiers with Occupational Stress—A Feasibility Study

There is a lack of research on how everyday patterns of responding to stress relate to symptoms of occupational stress in the military or how these patterns predict recovery as a result of treatment. Assessment instruments such as global, retrospective, single-administration questionnaires do not provide sufficient real-time information on stress responses.

This study evaluated the use of portable personal digital assistants (PDAs) to track stress response processes over time providing a closer approximation of what individuals actually do and feel on



a day to day basis. This technique, termed Ecological Momentary Assessment (EMA), was used with nine members of DHCC's Specialized Care Programs during their three weeks at WRAMC to ascertain the feasibility of broader use. Data collected between March and May of 2006 indicates that, generally, people reported that it was easy to participate in the study, the survey helped them to reflect on daily distress, interfered some with daily activities, interfered minimally with treatment, did not enhance treatment much, and were neutral about participating in future similar studies. DHCC study staff members collaborated with researchers from American University on this effort.

## RESPECT-Mil: Primary Care-Based Management of Depression

Re-Engineering Systems of Primary Care Treatment in the Military (RESPECT-Mil) is a project designed to improve the primary care implementation of DoD clinical practice guidelines that are integral to post-deployment care. The treatment model, based on



MacArthur Foundation-funded research with collaborators in the VA, Duke University, and Dartmouth Medical School, leads to better treatment outcomes and increased satisfaction with post-deployment primary care. The RESPECT-Mil quality improvement initiative utilizes a Three Component Model approach to care that incorporates RESPECT-Mil Care Facilitators (RCFs) to foster improved implementation of practice guideline recommendations for particular conditions after deployment. The RESPECT-Mil protocol is modeled after the RESPECT-Depression protocol, which has been proven effective in multi-site randomized controlled trials in the civilian sector.<sup>10</sup> For RESPECT-Mil, primary care providers are trained to screen for and communicate with their patients about posttraumatic stress disorder and depression. If treatment is initiated, RCFs track patients through periodic phone contact to determine their progress in following their treatment plan and convey relevant information to primary care providers and mental health supervisors.

During the 2006 pilot test at Fort Bragg, 4,159 primary care patients received depression/posttraumatic stress disorder primary care screenings; about 10% screened positive for depression or posttraumatic stress disorder (1 or both); about two-thirds of patients with moderate to severe depression and/or posttraumatic stress disorder (PTSD) achieved a clinically significant drop in symptom severity at 6-10 weeks; about 70% with moderate to severe depression achieved a drop in symptom severity drop at 12 weeks or more; and about 90% of those with PTSD achieved a drop in symptom severity at 12 weeks or more.

<sup>10</sup> Oxman T.E., Deitrich A.J., Williams J. W. Jr., Kroenke, K. (2002). A three-component model for re-engineering systems for the treatment of depression in primary care. *Psychosomatics*, 43, 6, 441-50.



## Sleep Deprivation and the Immune System

20

Insomnia, lack of sleep leading to fatigue, may affect the immune system. Deployed Soldiers can suffer from lack of sleep for many reasons. These include an intense operational tempo, poor sleep environment, or acute operational stress reactions causing disordered sleep. Recently published experiments on sleep-deprived mice reveal immunological defects. Similar experiments have not yet been performed in humans. Microarray technology can be used to explore how the 10,000 genes related to the immune system are expressed in white blood cells. If insomnia affects Soldiers' immune systems, this could contribute to susceptibility to infectious diseases in the battlefield environment. These diseases include malaria, leishmaniasis, yellow fever, and dengue. With knowledge of what immune deficiencies arise due to insomnia, preventive measures could be developed to counteract this susceptibility.

The purpose of this pilot exploratory study is twofold: (1) to determine what immunological factors

# Health Services Research

are altered in Soldiers from the field with insomnia, and (2) to obtain genetic microarray results to serve as normal controls for comparison to a larger recently completed microarray study of Iraq returnees with leishmaniasis. The results from the disease-free Soldiers will also be placed in a new database of normal controls for future genetic microarray studies. This research is being conducted in collaboration with personnel from Infectious Disease, Walter Reed Army Medical Center, the Uniformed Services University of the Health Sciences, and Walter Reed Army Institute of Research.

By the end of FY 2007, the recruitment phase of the study had been completed under DHCC supervision. Blood analysis is expected to be completed through collaboration with the Department of Medicine Infectious Disease at Walter Reed, which has now assumed the primary supervisory role for this study.

21

## Veteran Status, Health and Mortality in Older Americans

This study was funded by the National Institute on Aging from FY 2002 through FY 2006 and was extended into FY 2007 by Walter Reed Army Medical Center and the Uniformed Service University of the Health Sciences. It evaluates whether older veterans experience higher mortality than do their non-veteran counterparts and uses demographic modeling to see if this trend increases with age and whether physical health is more important than mental health in the process of mortality convergence and crossover between older veterans and non-veterans. Using data from the Survey of Asset and Health Dynamics among the Oldest-Old (AHEAD) and the Survey of Health and Retirement Study (HRS), the study employs such statistical techniques as the structural hazard rate model, the multinomial logit regression, and mathematical simulation.

The project produced the following findings. The first finding suggests a mortality crossover between veterans and non-veterans that probably occurs just before age 70. Since this crossover does not tend to happen abruptly, the two mortality schedules might experience a long-standing process of convergence, an idea that has not drawn sufficient attention so far from scientists and planners. Second, among Americans age 70 years or older, the mortality differences between veterans and non-veterans diverge at a considerable pace, with an increased excess death rate over age among older veterans. The disadvantaged survivorship in the veteran population is very small at age 70, but becomes more and more sizable in progressively older age groups. At age 85, the excess death rate among veterans is considerable.

Third, while the study managed to capture much of the veteran status's effect through the two health dimensions in the "young-old" and the "old-old" demographic categories, many details regarding the mechanisms inherent in the excess mortality and transitions in functional status among older veterans remain unknown beyond age 85. At age 70, variations in physical health and mental disorders account for approximately 61% of the total effect of veteran status on the mortality of older Americans. At age 75, the portion of such indirect effects falls to 42%. At age 85, only one-fifth of the excess mortality among veterans is captured by physical health conditions and mental disorders.

Fourth, veteran status does not have significant influences on transitions in functional status among those functionally independent at baseline. Older veterans and non-veterans who are initially independent in their activities of daily living share a similar pattern of disability incidence and functional ability persistence. However, veterans who were initially disabled demonstrate much lower disability resolution than their non-veteran



counterparts, and such effects increase substantially with time. Manuscript preparation and submission of study results will continue into FY 2008.

## Vitamin D Deficiency in OIF/OEF Veterans with Chronic Pain, Fatigue, and Anxiety

Vitamin D has been long recognized as essential to bone health. Acquired primarily through sun-light exposure, it is acquired secondarily by vitamin D-fortified milk consumption. Vitamin D deficiency is prevalent in the general population. As much as 5–30% of the U.S. population age 19 to 50 may have deficiency depending on a number of factors. Variables effecting vitamin D levels include the latitude where individuals live, the amount of seasonal sun-exposure they receive, the amount consumed through milk, food, or supplements, or the degree of their skin pigmentation. The prevalence of vitamin D deficiency in the U.S. military population is not known, although a study of Finnish military recruits found that 5% were deficient in the summertime. Those deficient were more than three times as likely to have a stress

fracture over the next 90 days, when compared to those who had adequate vitamin D stores. Recently, vitamin D deficiency in the general population has also been linked to chronic musculoskeletal pain. Ninety-three percent of 151 patients seen at the Mayo

"[During the practice,] my mind wanders...but when I come back to the practice my thoughts become quiet...it's empowering to know you can change the way you feel and your mood."

—Yoga nidra study participant

Clinic with chronic musculoskeletal pain had vitamin D deficiency. The degree of anxiety found in patients with fibromyalgia has been correlated to low vitamin D levels. Finally, vitamin D receptors have been found in the brain. Experimental knockout mice for the vitamin D receptor reveal anxiety behaviors, suggesting that vitamin D has a role in brain function.

The purpose of this study is to retrospectively analyze the diagnoses of Specialized Care Program patients, primarily OIF/OEF veterans, to see if there is a correlation with their vitamin D levels, as determined during their routine care. Specifically, the focus will be on chronic musculoskeletal pain, fatigue, and anxiety, but other illnesses such as bone-related illnesses will be looked at as well. The degree of vitamin D deficiency present in this segment of the OIF/OEF veteran military population will be determined.

By the end of FY 2007, preliminary results on a small study cohort revealed that 30 of 61 OIF/OEF veterans who had chronic pain also had vitamin

D deficiency. Since half of these patients suffered from deployment-related bone or joint injuries, the recommendation is made to consider screening OIF/OEF veterans with chronic musculoskeletal pain for vitamin D deficiency, so that optimum bone health can be achieved through proper supplementation.

## Yoga as an Adjunctive Treatment for PTSD—A Feasibility Study

The scientists leading this study have a long-term research goal of developing complementary and alternative therapies that might ameliorate the symptoms of posttraumatic stress disorder. The style of yoga chosen for this study, yoga nidra, does not require physical poses and can therefore be practiced by anyone. Yoga nidra emphasizes the less strenuous practices of yoga including deep relaxation, deep breathing, and meditation; it can reduce physical, emotional, mental, and even subconscious tension. The technique produces a deep state of

"[My Inner Resource] calmed me down and brought peace."

—Yoga nidra study participant

relaxation through body scanning, deep breathing techniques, and arousal of the parasympathetic nervous system. Yoga nidra is practiced while the participant lies on his or her back, which is more comfortable for many than seated meditation.

The purpose of this study was to determine the feasibility of investigating the effectiveness of yoga nidra for reducing anxiety and symptoms of posttraumatic stress disorder in a military population. Feasibility was measured by ease of recruitment for study participation, attendance in

"I feel more accepting of situations in my life that I cannot control."

—Yoga nidra study participant

yoga classes, and compliance with daily homework. Participation involved the completion of 18 classes over a 10-week period, with daily home practice and homework logs. Approximately 100 subjects were screened for eligibility, 7 participants entered the study, and six completed the yoga nidra classes. Overall class attendance was 67%, and overall home practice adherence was 43%. Thus, findings reveal it is feasible to offer this type of intervention to active duty service members with posttraumatic stress disorder and that participants are largely compliant with the prescribed program. Anecdotally, study participants reported feelings of self-efficacy and empowerment and reported using skills (e.g. Inner Resource) learned in class to work with situations in their everyday lives. A presentation summarizing study findings was offered at the 10th Annual Force Health Protection Conference.

# FY 2008 Outlook

In FY 2008, DHCC will continue to coordinate efforts to support continuous improvement of deployment-related healthcare across the military healthcare system, especially in the area of combat-related behavioral health.

## Direct Health Service Delivery

The DHCC clinical team plans to continue to deliver the Specialized Care Programs Track I and Track II and to provide evaluation and care for veterans with difficult-to-diagnose deployment-related health concerns. DHCC is working on plans to disseminate a version of the Specialized Care Program Track II to six additional AMEDD sites in FY 2008.

The RESPECT-Mil program rollout will expand to seventeen additional AMEDD military treatment facilities and twenty-one Warrior Transition Units in FY 2008. DHCC will continue coordinate the program through the RESPECT-Mil Center of Excellence.

23



## Outreach and Provider Education

DHCC will participate in a working group developing tool kits designed to enhance implementation of the Amputation Management/Rehabilitation Clinical Practice Guideline, released in late 2007. DHCC consultants will continue to support revision of the DoD/VA Major Depressive Disorder Guideline scheduled for release in 2008. Center staff will continue to consult with the Scientific Advisory Panel of Military Health System Clinical Quality Management (formerly the National Quality Management Program).

DHCC will again conduct the Deployment Healthcare Track at the 11th Annual Force Health Protection Conference, taking place in Albuquerque, New Mexico in August.

## Health Services Research

The DHCC research team continues its clinical trial *A Placebo-Controlled Trial of Prazosin Vs. Paroxetine for Combat Stress-Induced Nightmares and Sleep Disturbance*. The results of the very successful clinical trial,

*Acupuncture for the Treatment of Trauma Survivors*, will be published in 2008. *DESTRESS-PC: Randomized Trial of an Online Early Intervention for Combat PTSD in Primary Care* awaits IRB approval. Participant recruitment should begin during FY 2008. Data analysis, manuscript preparation, and the design of new projects continue.

The DHCC research team will continue to disseminate the tools it is developing and testing along with research findings on addressing deployment-related mental health concerns in the military population.

## Defense Center of Excellence for Psychological Health and Traumatic Brain Injury

DHCC will collaborate with and coordinate its activities with the new Defense Center of Excellence for Psychological Health and Traumatic Brain Injury. DHCC's clinicians and researchers will provide expertise and information to support the mission of the Center of Excellence.



# Appendix A: Collaborations

## DHCC Inter-Service, Inter-Agency, and University Collaborations

### Department of Defense and Military Services

- Armed Forces Institute of Pathology
- Armed Forces Radiobiology Research Institute
- Defense and Veterans Brain Injury Center
- Defense Health Board (assumed the Armed Forces Epidemiological Board)
- Force Health Protection & Readiness, Office of the Assistant Secretary of Defense for Health Affairs
- Military Health System Clinical Quality Management (formerly National Quality Management Program, TRICARE Management Activity)
- Naval Health Research Center (San Diego, California)
- Navy Environmental Health Center
- Office of Clinical Program Policy, Office of the Assistant Secretary of Defense for Health Affairs
- Uniformed Services University of the Health Sciences
- U.S. Air Force Institute for Operational Health
- U.S. Air Force Medical Support Agency
- U.S. Army Center for Health Promotion and Preventive Medicine
- U.S. Army Medical Command Quality Management Directorate
- U.S. Army Medical Research and Materiel Command
- U.S. Army Medical Surveillance Activity
- U.S. Army Proponency Office for Preventive Medicine
- Walter Reed Army Institute of Research
- Walter Reed National Vaccine Healthcare Center

### Department of Veterans Affairs

- Cooperative Studies Program Coordinating Centers (Palo Alto, California)
- Environmental Agents Service
- Environmental Epidemiology Service
- National Center for PTSD
- Office of Quality and Performance
- 14 Veterans Affairs Medical Centers
- Veterans Affairs Maryland Health Care System Depleted Uranium Follow-Up Program (Baltimore, Maryland)
- War-Related Illness and Injury Centers (East Orange, New Jersey, and Washington, DC)

### Department of Health & Human Services

- Centers for Disease Control and Prevention
- National Institute of Mental Health
- National Institute on Aging

### University and Other Collaborations

- American University
- Boston University School of Medicine
- Center for the Study of Traumatic Stress
- Dartmouth University School of Medicine
- Duke University Medical School
- Indiana University
- The John D. and Catherine C. MacArthur Foundation
- Medical University of South Carolina
- Regenstrief Institute, Inc.
- Rutgers University/University of Medicine and Dentistry of New Jersey
- Samueli Institute for Information Biology
- University of New South Wales (Sydney, Australia)
- University of Western Ontario
- Walter Reed Society
- Washington University School of Medicine

## Detailed List of DHCC Collaborations

### Collaborations to Improve Quality of Post-Deployment Healthcare

**Clinical Practice Guideline Creation and Revision:** The DHCC deputy director contributed behavioral health expertise to the Amputation Management/ Rehabilitation Clinical Practice Guideline Development Working Group. Consisting of healthcare providers and clinical practice guideline specialists/ medical education consultants from all Branches of Service and the VA Dept of Evidence-Based Practice, the group reviewed and graded literature related to amputation, formulating recommendations, developed an algorithm defining and outlining care, and developing patient education materials. The DHCC director has been designated DoD champion of the DoD/VA Major Depressive Disorder Guideline. The DHCC director and deputy director participated on the expert panel revising this guideline in FY 2007.

### Clinical Practice Guideline Implementation:

DHCC continues education and consultation efforts to promote use of the DoD/VA Post-Deployment Health Evaluation and Management Clinical Practice Guideline (PDH-CPG) through collaborations with the VA healthcare system, Office of the Assistant Secretary of Defense for Health Affairs, the National Vaccine Healthcare Center, Army Medical Command, Navy Environmental Health Center, Air Force Medical Support Agency, and medical staff from all Branches of Service. In FY 2004, DHCC created 18 Web-based courses and the award-winning PDH-CPG Toolbox to support this effort. In FY 2006, a Web-based training module on the Medically Unexplained Symptoms Clinical Practice Guideline was added to the Deployment Health Clinical Training Series on the DHCC Web site, and in FY 2007 another module on the Major Depressive Disorder Clinical Practice Guideline was added. By the end of FY 2007, 3,650 Toolboxes had

# Appendix A: Collaborations



25 been distributed to Army providers, 1,757 to Air Force, and 2,493 to Navy providers.

**DoD/VA Post-Deployment Health Evaluation and Management Clinical Practice Guideline Quality Monitoring:** The DHCC director and deputy director are consultants to the Scientific Advisory Panel of Military Health System Clinical Quality Management (formerly the National Quality Management Program) helping researchers assess implementation of the DoD/VA post-deployment health, depression, and posttraumatic stress disorder clinical practice guidelines. DHCC consultants contributed to research and a written report on screening and referral patterns for posttraumatic stress. The DHCC deputy director collaborated with Military Health System Clinical Quality Management to create a Web-enabled CME presentation on the posttraumatic stress referral study. DHCC consultants also provided major input on a study on post-partum depression in 2006. DHCC consultants also played a critical role on a

study examining referral patterns during the initial stages of RESPECT-Mil implementation in 2007.

**Federal Clinician Education and Consultation:** Ongoing support is provided to all DoD medical treatment facilities through DHCC's state-of-the-art Web site, PDHealth.mil (<http://www.PDHealth.mil>). PDHealth.mil provides a one-stop repository for deployment-related health information for clinicians and patients. DHCC also furnishes toll-free helplines for both clinicians with questions and for patients who need care, a daily electronic newsletter highlighting current events and newly developed information in the area of post-deployment health, and clinical resources to enhance health risk communication and improve the doctor-patient relationship.

## Collaborations in Provision of Post-Deployment Clinical Care

**Center for the Study of Traumatic Stress:** The Center for the Study of Traumatic Stress provides DHCC with valuable input about the health risks associated with extreme warfare environments and terrorism. Established in 1987, the Center addresses Department of Defense concerns about psychological, behavioral and healthcare consequences resulting from these health threats. The Center pioneered research on the effects of exposure to weapons of mass destruction prior to Desert Storm generating an unprecedented body of research, scholarship and one of the world's largest databases (over 18,000 articles) on psychological, social and behavioral consequences of exposure to traumatic events and other extreme environments (e.g., desert, space, undersea). This includes mental health responses ranging from resilience, distress, health risk behaviors, disaster behaviors and psychiatric illness such as posttraumatic stress disorder, acute stress disorder and depression. In addition, the Center has developed an extensive

knowledge and research capability to address preparing for, responding to, mitigating and recovery from natural and human made disasters.

**Clinical Follow-up after Depleted Uranium Exposure:** DHCC provides central archiving for records pertaining to depleted uranium exposure tests. Collaboration between DHCC, Force Health Protection & Readiness, the Army Center for Health Promotion and Preventive Medicine, the Armed Forces Institute of Pathology, and the Veterans Health Administration's Depleted Uranium Follow-up Program continues. During FY 2006 and 2007, DHCC received the results of 1016 24-hour urine bioassays for depleted uranium analysis bringing the total archived to 2,620. There were no new confirmed cases of depleted uranium exposure in FY 2006 or FY 2007. DHCC facilitates referral of patients with positive exposure to the VA's Depleted Uranium Follow-up Program. In spring 2007, the VA held their biennial follow-up for participants in the Depleted Uranium Program. DHCC helped coordinate the follow-up of service members who were exposed to DU during the current conflict.



# Appendix A: Collaborations



DHCC will continue to coordinate medical management follow-up for them, as needed.

## **Clinically Oriented Health Risk Communication:**

DHCC collaborates with multiple agencies and organizations to build effective systems for federal clinician and military/veteran health risk communication as well as clinical and public health education on deployment health issues. On-going collaboration through the Office of the Assistant Secretary of Defense for Health Affairs Risk Communication Working Group includes the Air Force Institute for Operational Health, the Army Center for Health Promotion and Preventive Medicine, and the Navy Environmental Health Center. This collaboration results in the development of a variety of health risk communication materials and fact sheets for inclusion in the OSD Family Readiness Library. DHCC also participates in the DoD/VA/HHS Health Risk Communication Subcommittee—an interagency effort to ensure consistent and accurate information for the public. DHCC provided

review and comments on the draft DoD Risk Communication Manual as well as fact sheets on solvents, depleted uranium, reproductive health, chlorine and meningococcal disease. DHCC coordinated and hosted a meeting with Army G-1 on the use of PDHRA terms and the terms of the seven stages of deployment for use on public information materials.

**Nerve and Mustard Agent Exposure:** Since FY 2004, DHCC has collaborated with the Army Proponency Office for Preventive Medicine on policies for the evaluation and follow-up of casualties of nerve and mustard agent exposure incidents that did not occur in storage, demilitarization, or research settings. DHCC is available to coordinate healthcare evaluations for military personnel exposed to these agents to ensure appropriate follow-up. In FY 2007 these policies were reviewed and the need for additional clinical guidance was identified. Revision of these policies will continue in FY 2008.

## **Staff Training and Assistance Team Outreach:**

The Staff Training and Assistance Team was assembled in late FY 2003 to provide staff training and assistance to military treatment facilities in each Branch of Service for the implementation of the DoD/VA Post-Deployment Health Evaluation and Management Clinical Practice Guideline and use of newly created guideline tools. In FY 2005, the team made eight visits to military treatment facilities from all Branches of Service, presenting to more than 400 providers. The team made one visit in FY 2006. The DHCC Staff Training and Assistance Team also began distribution of the guideline Providers Desk Reference Toolbox to the Services in the summer of 2004 in coordination with the Army Medical Command, the Air Force Medical Support Agency, and the Navy Environmental Health Center. By the end of FY 2007, nearly 7900 copies had been sent out to military primary care providers.

**Walter Reed Society:** Throughout the year the DHCC staff members provide volunteer support to the Walter Reed Society, which was established in 1996 to assist the hospital command with issues related to patient care, education, and family support for staff and patients. Past projects of the Society include the improvement of waiting rooms, provision of playground equipment, and creation of a healing garden. In response to the Global War on Terrorism, the Society has set up the Operation Iraqi Freedom Family Support Fund to provide assistance to family members of patients at Walter Reed. DHCC personnel support the Society's efforts to care for these Soldiers and their family members who come to the hospital to be with them during their recovery. Many volunteer hours are spent meeting Soldiers and family members, assessing their financial and related needs, and receiving and distributing packages that are sent in support of our troops. This work keeps the DHCC close to the Soldiers and helps the staff understand their experiences and their needs.



# Appendix B: Publications

## Manuscripts

Armstrong D. W., Bradley D. (2006). Hormonal responses to opioid receptor blockade during rest and exercise in cold and hot environments. *European Journal of Applied Physiology*, 97, 1, 43-51.

Caldwell J. Y., Davis J. D., DuBois B., Echo-Hawk H., Erickson J. S., Goins R. T., et al. (2005). Culturally competent research with American Indians and Alaska Natives: Findings and Recommendations of the First Symposium of the Work Group on American Indian Research and Program Evaluation Methodology (AIRPEM). American Indian and Alaska Native Mental Health Research: *The Journal of the National Center*, 12, 1, 1-21. Available online: [http://www.uchsc.edu/ai/ncaianmhr/journal\\_online.htm](http://www.uchsc.edu/ai/ncaianmhr/journal_online.htm).

Crowley B. (2006, September). Assessing Civil Competences: A Case Vignette. *American Academy of Psychiatry and Law*, 14-15.

Crowley B. (2006). Law and psychiatry: Assessing civil competence. *Journal of Psychiatric Practice*, 12, 6, 402-405.

Davis J. D., Engel C. C., Mishkind M., Jaffer A., Sjoberg T., Tinker T., McGough M., Tipton S., Armstrong D., O'Leary T. (2007). Provider and patient perspectives regarding health care for war-related health concerns. *Patient Education and Counseling*; 68, 1, 52-60.

Engel C. C. (2006). Explanatory & Pragmatic Perspectives Regarding Idiopathic Physical Symptoms and Related Symptoms. *CNS Spectrums*, 11, 3, 225-232.

Engel C. C. (2005). Improving Primary Care for Military Personnel and Veterans with Posttraumatic Stress Disorder – The Road Ahead. *General Hospital Psychiatry*, 27, 3, 158-160.

Engel C. C. (2006). Mirror, Mirror...Whose Explanation is the Fairest? *CNS Spectrums*, 11, 3, 187-188.

Engel C. C., Hyams K. C., Scott K. (2006). Managing Future War Syndromes: International Approaches to War-Related Idiopathic Symptoms Since the 1991 Gulf War. *Philosophical Transactions of the Royal Society of London, Series B, Biological Science*, 361, 707-720. Published online 24 March 2006.

Engel C. C., Locke S., Reissman D. B., DeMartino R., Kutz I., McDonald M., Barsky A. J. (2007). Terrorism, trauma, and mass casualty triage: How might we solve the latest mind-body problem? *Biosecurity and Bioterrorism*, 5, 2, 155-63.

Freed M. C., (2007). [Review of the book RealWorld evaluation: Working under budget, time, data, and political constraints]. *Evaluation and Program Planning*, 30, 3, 320-321.

Freed M. C., Rohan K.J., Yates B.T. (2007). Estimating health utilities and quality adjusted life years in seasonal affective disorder research. *Journal of Affective Disorders*, 100, 1-3, 83-89.

Gifford R. K., Ursano R. J., Stuart J. S., Engel C. C. (2006). Stress and Stressors of the Early Phases of the Persian Gulf War. *Philosophical Transactions of the Royal Society of London, Series B, Biological Sciences*, 361, 585-591. Published online 24 March 2006.

Grieger T. A., Cozza S. J., Ursano R. J., Hoge C., Martinez P. E., Engel C. C., Wain H. J. (2006). Post-traumatic Stress Disorder and Depression in Battle-Injured Soldiers. *American Journal of Psychiatry*, 163, 10, 1777-1783.

Hoge C. W., Terhakopian A., Castro C. A., Messer S. C., Engel C. C. (2007). Association of posttraumatic stress disorder with somatic symptoms, health care visits, and absenteeism among Iraq war veterans. *American Journal of Psychiatry*, 164, 1, 150-3.

Litz B., Engel C. C., Bryant R., Papa A. (2007). A randomized controlled proof of concept trial of an Internet-based therapist-assisted self-management treatment for posttraumatic stress disorder. *American Journal of Psychiatry*, 164, 1-8.

Liu, X., Engel C. C., Armstrong, D. W., Kang, H. Linkages of health conditions, functional status and self-rated health in older Americans. Manuscript submitted for publication.

Liu, X., Engel C. C., Armstrong, D. W., Kang, H. (In press). Survival convergence and the preceding mortality crossover for two population subgroups. *Population Research and Policy Review*.

Liu X., Engel C. C., Kang H., Armstrong D. W. (2006). Veterans and functional status transitions in older Americans. *Military Medicine*, 171, 10, 943-9.

Liu, X., Engel, C. C., Liang, J. *Decomposition of causal effects in multinomial logit models*. Manuscript submitted for publication.

Liu X., Engel C. C., Kang H. K., Cowan D. (2005). The effect of veteran status on mortality among older Americans and its pathways. *Population Research and Policy Review*, 24, 6, 573-592.

## Appendix B: Publications

Mori D.L., Sogg S., Guarino P., Skinner J., Williams D., Barkhuizen A., Engel C. C., Clauw D., Donta S., Peduzzi P. (2006). Predictors of exercise compliance in individuals with Gulf War veterans illnesses: Department of Veterans Affairs Cooperative Study 470. *Military Medicine*, 171, 9, 917-23.

Riddle J. R., Smith T. C., Smith B., Corbeil T. E., Engel C. C., Wells T. S., Hoge C. W., Adkins J., Zamorski M., Blazer D. (2007). [for the Millennium Cohort Study Team]. Millennium Cohort: the 2001-2003 baseline prevalence of mental disorders in the U.S. military. *Journal of Clinical Epidemiology*, 60, 2, 192-201.

Robinson R., Davis J., Gore K., Dube S., Engel C. C. (under review). Acceptability of adverse childhood experiences questions for health surveillance in U.S. Armed Forces. *Military Medicine*.

Schnurr P. P., Friedman M. J., Engel C. C., Foa E. B., Shea M. T., Chow B. K., Resick P. A., Thurston V., Orsillo S. M., Haug R., Turner C., Bernardy N. (2007). Cognitive behavioral therapy for posttraumatic stress disorder in women: a randomized controlled trial. *Journal of American Medical Association*, 297, 8, 820-30.

Schnurr P. P., Friedman M. J., Engel C. C., Foa E. B., Shea M. T., Resick P. M., James K., Chow B. K. (2005). Issues in the Design of Multisite Clinical Trials of Psychotherapy: VA Cooperative Study No. 494 as an example. *Contemporary Clinical Trials*, 26, 626-636.

### Abstracts

Armstrong D. W., Gore K. L., Freed M. C., Liu X., Engel C. C. Screening for Posttraumatic Stress Disorder (PTSD) in Primary Care. Congress of Epidemiology, Seattle, WA, June 21-24, 2006.

Armstrong D. W., Gore K. L., Freed M. C., Liu X., Engel C. C. Screening for Posttraumatic Stress Disorder (PTSD) in Primary Care. USUHS Research Week, Bethesda, MD, May 16-18, 2006.

Bruner V., Frederich P. Caring for the Caregiver. 9th Annual Force Health Protection Conference, Albuquerque, NM, August 2006.

Bunin J., Engel C. C., Davis J. D., Sheliga V., Adkins J., O'Leary T. Patient-Provider Trust in Primary Care: An Empirical Literature Review. Poster presentation. American College of Physicians, Philadelphia, PA, April 6-9, 2006.

Burnett D., Dietrich A., Engel C. C., Frances J., Goodie J., Isler W., Stewart P., Wilson R. Where to from here? The Future of Behavioral Health Primary Care Integration in the Military: Panel Discussion and Audience Questions/Comments. 9th Annual Force Health Protection Conference, Albuquerque, NM, August 2006.

Clymer R., PTSD as a Relational Disturbance, American Academy of Psychotherapists, Annual Institute and Conference, San Diego, CA, October 24-27, 2007.

Clymer R. The Coalitional Enforcement Hypothesis: The Pre-historic Origin of Inclusion/Exclusion. American Academy of Psychotherapists, Pine Mountain, GA, June 20-24, 2007.

Clymer R., Bruner V., Liu X., Engel C. C. The Deployment Health Clinical Center Specialized Care Track II Program for Service Members Returning from OEF/OIF. 10th Annual Force Health Protection Conference, Louisville, KY, August 5-10, 2007.

Clymer R., Roesel T., Friedman K., Bruner V., Engel C. C. The Deployment Health Clinical Center Specialized Care Program for Veterans with Healthcare Resistant Health Concerns. Uniformed Services Academy of Family Physicians, Hilton Head, SC, March 11-16, 2007.

Cockfield D., Engel C. C., Choate C., Walter J., Jonas W., Gore K., Fritts M., Armstrong D., Greene R., Carnes R., Miller R. Yoga Nidra as an Adjunctive Therapy for PTSD: Lessons Learned and Future Steps. Uniformed Services University of the Health Sciences Research Week, Bethesda, MD, May 14-16, 2007.

Cockfield D., Engel C. C., Choate C., Walter J., Jonas W., Gore K., Fritts M., Armstrong D., Greene R., Carnes R., Miller R. Yoga Nidra as an Adjunctive Therapy for PTSD: Lessons Learned and Future Steps. 10th Annual Force Health Protection Conference, Louisville, KY, August 5-10, 2007.

Cordova E., Benedek D., Armstrong D. W., Osuch E., et al. Evaluating the Efficacy of Acupuncture as a Treatment for Posttraumatic Stress in Military Personnel. 9th Annual Force Health Protection Conference, Albuquerque, NM, August 2006.

Cordova E., Benedek D., Gore K., Armstrong D., Osuch E., Grieger T., Choate C., Jonas W., Ursano R., Engel C. C. Rationale and Design of a Randomized Controlled Trial of Acupuncture for PTSD. 10th Annual Force Health Protection Conference, Louisville, KY, August 5-10, 2007.

Cowan D. N., Jaffer A., Engel C. C. Did Exposure to Oil Fire Smoke in the Gulf War Increase the Risk of Asthma? 2006 Epidemiology Congress, Seattle, WA, June 2006.

## Appendix B: Publications

Crowley B. Comprehensive Psychiatry in 2006: Regulation and Science Affecting Private Practice and Military Practice. American Psychiatric Association, Toronto, Canada, May 20–25, 2006.

D'Andrea E. A., Ackerman A., Hamtil H., Engel C. C., Quigley K. S. Health and Psychological Features of Soldiers Deploying to Iraq and Afghanistan. Health Services Research and Development Service National Meeting, Washington, DC, February 21–23, 2007.

Davis J., Engel C. C. Acceptability of Adverse Childhood Experiences (ACE) Questions in Routine Military Health Surveillance: A Qualitative Examination. 10th Annual Force Health Protection Conference, Louisville, KY, August 5–10, 2007.

29 Davis J. D., Gunthert K. C., Forand N., Wenzel S., Engel C. C., Armstrong D. W. An Ecological Momentary Assessment Study of Daily Stress Responses Among Soldiers with Occupational Stress: A Feasibility Study. Poster presentation. 9th Annual Force Health Protection Conference, Albuquerque, NM, August 2006.

Davis J. D., Engel C. C., Sjoberg T., Armstrong D. W., O'Leary T. Provider & Patient Perspectives Regarding Health Care for War-Related Health Concerns. 9th Annual Force Health Protection Conference, Albuquerque, NM, August 2006.

Davis J. D., Bunin J., Engel C. C., Sheliga V., Adkins J., O'Leary T. Trust in the Physician-Patient Relationship: An Empirical Literature Review. 9th Annual Force Health Protection Conference, Albuquerque, NM, August 2006.

Davis J., Robinson R., Engel C. C. Acceptability of Adverse Childhood Experiences (ACE) Questions in Routine Military Health Surveillance: A Qualitative Examination. 10th Annual Force Health Protection Conference, Louisville, KY, August 5–10, 2007.

Davis J., Robinson R., Engel C. C. The Collaborative Adverse Childhood Experiences (CACES): Evaluating the Utility of Adverse Childhood Experiences (ACE) Health Surveillance in U.S. Military Personnel. 10th Annual Force Health Protection Conference, Louisville, KY, August 5–10, 2007.

Dietrich A., Engel C.C., Frances J., Stewart P., Wilson R. Behavioral Health Integration into Primary Care: Service-Specific Context and History. 9th Annual Force Health Protection Conference, Albuquerque, NM, August 2006.

Dietrich A., Engel C.C., Case Management to improve post deployment Health Care: Lessons from the RESPECT-Depression Project. 9th Annual Force Health Protection Conference, Albuquerque, NM, August 2006.

Engel C.C. Behavioral Health and Military Primary Care—Why Integration? Why Now? 9th Annual Force Health Protection Conference, Albuquerque, NM, August 2006.

Engel C. C. Deployment-Related Health Concerns and Somatic Symptoms: A Primary Care Provider's Guide. Uniformed Services Academy of Family Physicians, Hilton Head, SC, March 11–16, 2007.

Engel C. C. Hospital and Behavioral Health Preparedness. Uniformed Services University of the Health Sciences Research Week, Bethesda, MD, May 14–16, 2007.

Engel C. C. Improving Deployment Healthcare for Soldiers and Families Through Collaborative Care. 10th Annual Force Health Protection Conference, Louisville, KY, August 5–10, 2007.

Engel C. C. Prevalent Health Outcomes in Current and Past Conflicts: Implications for Primary Care. Uniformed Services Academy of Family Physicians, Hilton Head, SC, March 11–16, 2007.

Engel C. C. RESPECT-Mil Primary Care Based Treatments of Depression and Posttraumatic Stress Disorder. Uniformed Services Academy of Family Physicians, Hilton Head, SC, March 11–16, 2007.

Engel C. C. The Deployment Health Clinical Center Specialized Care Program for Veterans with Healthcare Resistant Health Concerns. Uniformed Services Academy of Family Physicians, Hilton Head, SC, March 11–16, 2007.

Engel C. C., Armstrong D.W., Liu X, Davis J., Sjoberg T. Internet-Based Risk Communication Training for Primary Care Providers and Patient Satisfaction. USUHS Research Week, Bethesda, MD, May 16–18, 2006.

Engel C. C., Cozza S. Course of Pain, PTSD, and Depression Among War-Wounded U.S. Military Personnel-Implications for Post-War Medical Services. Academy of Psychosomatic Medicine, Tucson, AZ, November 2006.

Engel C. C., Dietrich A. RESPECT-Mil: History of RESPECT-Mil Depression. 10th Annual Force Health Protection Conference, Louisville, KY, August 5–10, 2007.

## Appendix B: Publications

Engel C. C., Friedman M., Foa E., Shea T., Schnurr P., Resick P. CSP #494: Randomized Clinical Trial of Prolonged Exposure for PTSD in Veteran and Active Duty Women. 22nd Annual Meeting of the International Society for Traumatic Stress Studies, Hollywood, CA, November 5, 2006.

Engel C. C., Goertz C., Cockfield D., & Cordova E. Complementary and Alternative Medicine for Servicemembers with PTSD/Trauma Symptoms: A Review of Current Research. 9th Annual Force Health Protection Conference, Albuquerque, NM, August 2006.

Engel C. C., Hollifield M. Acupuncture and PTSD: The Road Ahead. 10th Annual Force Health Protection Conference, Louisville, KY, August 5–10, 2007.

Engel C. C., Latzka M. RESPECT-Mil: History of RESPECT-Mil and Program Updates. 10th Annual Force Health Protection Conference, Louisville, KY, August 5–10, 2007.

Engel C. C., Latzka M., Duda R., Wilson R., Barry S., Stewart P., Lee L. RESPECT-Mil: Open Discussion and Concluding Remarks. 10th Annual Force Health Protection Conference, Louisville, KY, August 5–10, 2007.

Engel C. C., Litz B., Papa A., Gore K., Bruner V., Bryant R. A Randomized Controlled Proof of Concept Trial of an Internet-based Therapist-Assisted Self-Management Treatment for Posttraumatic Stress Disorder. 10th Annual Force Health Protection Conference, Louisville, KY, August 5–10, 2007.

Engel C. C., Liu X., Sjoberg T., Davis J. D., Armstrong D. W. Does Health-e VOICE Training Have a Positive Impact on Satisfaction of Patients with Post-Deployment Health Concerns? 9th Annual Force Health Protection Conference, Albuquerque, NM, August 2006.

Engel C. C., O'Leary T., Liu X., Sjoberg T., Davis J. D., Armstrong D. W. Web Based Communication Training to Improve Care for Returning Service Members with Post-Deployment Health Concerns. 9th Annual Force Health Protection Conference, Albuquerque, NM, August 2006.

Engel C. C., Williams J. W., Magruder K. M., Kirchner J., Schnurr P. P. VA and DoD Are Innovating to Improve Primary Care for Soldiers and Veterans with Mental Disorders: Research and Implementation Efforts. Workshop for the Annual Department of Veterans Affairs Health Services Research & Development National Meeting, Washington, DC, February 21–23, 2007.

Freed M. C., Engel C. C. Cost-Effectiveness for Mental Health Providers: Basics of Decision Making. (Behavioral Health Track) 9th Annual Force Health Protection Conference, Albuquerque, NM, August 2006.

Freed M. C., Engel C. C. Treatment Decisions in Primary Care: What Makes an Expensive Intervention Cost-Effective? 9th Annual Force Health Protection Conference, Albuquerque, NM, August 2006.

Freed M. C., Rohan K. J., Yates B. T. With Labin, S. N., Rowe, A., & Levin, R. Patient-level quality adjusted life years in treatment outcome research: A new approach for assessing cost-effectiveness. Part of a panel presentation entitled, Models and Methods: Costs and Benefits in Public and Private Sectors. American Evaluation Association (AEA)/Canadian Evaluation Association (CEA) Conference, Toronto, Canada, October, 2005.

Freed M. C., Yeager D., Liu X., Gore K. Engel C. C., Magruder K. Preference-Weighted Health Status Associated with Posttraumatic Stress Disorder in Veterans. Uniformed Services University of the

Health Sciences Research Week, Bethesda, MD, May 14–16, 2007.

Freed M. C., Yeager D., Liu X., Gore K., Engel C. C., Magruder K. Preference-Weighted Health Status Associated with Posttraumatic Stress Disorder in Veterans: A Policy-Friendly Assessment of Illness Severity. 10th Annual Force Health Protection Conference, Louisville, KY, August 5–10, 2007.

Freed M. C., Yeager D., Liu X., Magruder K., Gore K., Engel C. C. Preference-Weighted Health Status Associated with Trauma-related Nightmares: Just How Benign are These Dreams? 10th Annual Force Health Protection Conference, Louisville, KY, August 5–10, 2007.

Gore K., Armstrong D. W., Freed M. D., Liu X., Engel C. C. A Single-item Screener for PTSD in a DoD Primary Care Setting. 9th Annual Force Health Protection Conference, Albuquerque, NM; August 2006.

Gore K., Freed M. C., Armstrong D., Liu X., Engel C. C. One-Question Screening for Posttraumatic Stress Disorder (PTSD) in Primary Care. 2006 International Society for Traumatic Stress Studies Annual Meeting, Hollywood, CA, November 4–7, 2006.

Gore K. L., Freed M. C., Messer S., Engel C. C. The Infamous Criterion A in the Assessment and Diagnosis of PTSD. (Behavioral Health Track) 9th Annual Force Health Protection Conference, Albuquerque, NM, August 2006.

Grieger T., Benedek D., Ursano R., Cozza S., Engel C. C. Early Screening for Posttraumatic Stress Disorder in Injured Soldier Using the PTSD Checklist. 160th Annual Meeting of the American Psychiatric Association, San Diego, CA, May 23, 2007.

## Appendix B: Publications

Grieger T.A., Cozza S.J., Ursano R.J., Martinez P.E., Wain H.J., Engel C.C. Early Predictors of Later PTSD and Depression in Battle-injured Soldiers. Abstract NR-4240. 159th Annual Meeting of the American Psychiatric Association, Toronto, Canada; May, 2006.

Johnson J., Gauer R., Armstrong D.W. Glucosamine in Treatment of Plantar Fasciitis: A Pilot Study. American College of Sports Medicine, Denver, CO; May 31–June 3, 2006.

Latzka M., Duda R., Wilson R., Barry S., Stewart P., Lee L. RESPECT-Mil Discipline Specific Working Groups. 10th Annual Force Health Protection Conference, Louisville, KY, August 5–10, 2007.

31 Latzka M., Duda R., Wilson R., Barry S., Stewart P., Lee L. RESPECT-Mil Site Implementation Plan Development. 10th Annual Force Health Protection Conference, Louisville, KY, August 5–10, 2007.

Liu X., Engel C. C., Armstrong D., Gore K., Freed M.C. Propensity Score Method for Bias Reduction in Diagnostic Tests of Health Measures. Southern Demographic Association 2006 Annual Meeting, Durham, NC, November 3-5, 2006.

Liu X., Engel C. C., Armstrong D. W., Kang H. Health Conditions, Disability and Self-Rated Health in Older Americans. Population Association of America meeting, Los Angeles, CA; March 30–April 1, 2006.

Liu X., Engel C. C., Armstrong D. W., Kang H. Linkages of Health Conditions Functional Status and Self-Rated Health in Older Americans. Southern Demographic Association, Oxford, MS; November 3–5, 2005.

Liu X., Engel C. C., Gore K., Freed M. C. Reducing Bias in Diagnostic Tests of Health Measures with the Propensity Score Method. 2007 Population Association of America Annual Meeting, New York, NY, April 2007.

Litz B., Engel C. C., Bryant R., Bruner V., Gore K. A Randomized Controlled Pilot Trial of an Internet-Based Cognitive-Behavioral Intervention. ISTSS (International Society for Traumatic Stress Studies Conference), Toronto, Canada; November 2005.

O'Leary T., Engel C. C. Clinical Risk Communication. 9th Annual Force Health Protection Conference, Albuquerque, NM, August 2006.

Oxman T., Engel C. C. RESPECT-Mil Primary Care Based Treatments of Depression and Posttraumatic Stress Disorder. Uniformed Services Academy of Family Physicians, Hilton Head, SC, March 11–16, 2007.

Papa A., Gore K., Bruner V., Bryant R., Litz B., Engel C. C. Symptom Reduction in a Web-Based Treatment for Posttraumatic Stress Disorder. National Institutes of Health Research Festival, Bethesda, MD, October 17–18, 2006.

Quigley K., D'Andrea E., Ackerman A., Hamtil H., Engel C. C. Health and Psychological Features of Soldiers Deploying to Iraq and Afghanistan. Association of Military Surgeons of the U.S., San Antonio, TX, November 5–10, 2006.

Roesel T. Adult Vitamin D Deficiency: Review of the Literature and Implications for Force Health Protection. 10th Annual Force Health Protection Conference, Louisville, KY, August 5–10, 2007.

Roesel T. Fibromyalgia and Chronic Fatigue Syndrome: Post-Deployment Clinical Aspects. 9th Annual Force Health Protection Conference, Albuquerque, NM, August 2006.

Scaer R., Berceci D., Bruner V. Healing Combat Related Trauma in Iraqi War Vets. Psychotherapy Networker Symposium, Washington, DC, March 15–18, 2007.

Sjoberg T., Engel C. C., Jaffer A., Mishkind M., Armstrong D. W., Tinker T., O'Leary T. The Health-e VOICE Clinical Communication Training Tool: Description, Methods and Testing. American Academy on Physician and Patient 2005 Forum, Chicago, IL; October 2005.

Terhakopian A., Hoge C., Castro C., Messer S., Engel C. C. Comorbidity of Posttraumatic Stress Disorder, Physical Health Problems, and Functional Impairment Among Veterans of Operation Iraqi Freedom One Year After Deployment. American Psychiatric Association, Toronto, Canada; May 20–25, 2006.

Terhakopian A., Benedek D., Engel C. C., Ursano R. Disaster, Mass Trauma, Prevention and Early Intervention. Uniformed Services University of the Health Sciences Research Week, Bethesda, MD, May 14–16, 2007.

Vaeth M., Wilson R. The Role of Deployment-Related Clinical Practice Guidelines in Primary Care. Uniformed Services Academy of Family Physicians, Hilton Head, SC, March 2007.

Wilson R. Behavioral Health Optimization Project (BHOP). 9th Annual Force Health Protection Conference, Albuquerque, NM, August 2006.

# Appendix B: Publications

Wilson R. In Return for their Sacrifice: Deployment Health Clinical Center Efforts to Improve Post-War Care. Veterans Administration/Department of Defense Conference, Las Vegas, NV, April 11, 2007.

Wilson R. RESPECT-Mil Primary Care Based Treatment of Depression and Posttraumatic Stress Disorder. Uniformed Services Academy of Family Physicians, Hilton Head, SC, March 11–16, 2007.

Wilson R., Dietrich A., Yamamoto C. Gould D., Kennedy K. Primary Care Integration: Service-Specific Context/History. 9th Annual Force Health Protection Conference, Albuquerque, NM, August 2006.

Wilson R., Engel C.C., Dietrich A., Yamamoto C., Gould D., Kennedy K., Isler W., Burnett D., Goodie J. Where to from here? The Future of Primary Care Behavioral Health in the Military. Panel discussion. 9th Annual Force Health Protection Conference, Albuquerque, NM, August 2006.

Yamamoto C., Gould D., Engel C. C., Williams J., Oxman T., Barry S., Lee P., Dietrich A. Systematic Approach to Major Depression and Posttraumatic Stress Disorder in Military Primary Care: Initial Results of RESPECT.Mil. North American Primary Care Research Group 34th Annual Meeting, Tucson, AZ, October 15–18, 2006.

## Presentations

Armstrong D. W., Gore K. L., Freed M. C., Liu X., Engel C. C. Screening for Posttraumatic Stress Disorder (PTSD) in Primary Care. Congress of Epidemiology, Seattle, WA, June 21–24, 2006.

Armstrong D. W., Gore K. L., Freed M. C., Liu X., Engel C. C. Screening for Posttraumatic Stress Disorder (PTSD) in Primary Care. USUHS Research Week, Bethesda, MD, May 16–18, 2006.

Bruner V., Clymer R., Liu X., Engel C. C. The Deployment Health Clinical Center Specialized Care Track II Program for Service Members Returning from OEF/OIF. 10th Annual Force Health Protection Conference, Louisville, KY, August 5–10, 2007.

Bruner V., Frederich P. Caring for the Caregiver. 9th Annual Force Health Protection Conference, Albuquerque, NM, August 2006.

Bunin J., Engel C. C., Davis J. D., Sheliga V., Adkins J., O'Leary T. Patient-Provider Trust in Primary Care: An Empirical Literature Review. Poster presentation. American College of Physicians, Philadelphia, PA, April 6–9, 2006.

Burnett D., Dietrich A., Engel C. C., Frances J., Goodie J., Isler W., Stewart P., Wilson R. Where to from here? The Future of Behavioral Health Primary Care Integration in the Military: Panel Discussion and Audience Questions/Comments. 9th Annual Force Health Protection Conference, Albuquerque, NM, August 2006.

Clymer R., PTSD as a Relational Disturbance, American Academy of Psychotherapists, Annual Institute and Conference, San Diego, CA, October 24–27, 2007.

Clymer R. The Coalitional Enforcement Hypothesis: The Pre-historic Origin of Inclusion/Exclusion? American Academy of Psychotherapists, Pine Mountain, GA, June 2007.

Clymer R., Roesel T., Friedman K., Bruner V., Engel C. C. The Specialized Care Program Tracks I and II, Uniformed Services Academy of Family Physicians Meeting, Hilton Head, SC, March 2007.

Cockfield D., Engel C. C., Choate C., Walter J., Jonas W., Gore, K., Fritts M., Armstrong, D., Greene R., Carnes R., Miller R. Yoga Nidra as an Adjunctive

Therapy for Posttraumatic Stress Disorder: Lessons Learned and Future Steps. 10th Annual Force Health Protection Conference, Louisville, KY, August 5–10, 2007.

Cordova E., Benedek D., Armstrong D. W., Osuch E., et al. Evaluating the Efficacy of Acupuncture as a Treatment for Posttraumatic Stress in Military Personnel. 9th Annual Force Health Protection Conference, Albuquerque, NM, August 2006.

Cordova E., Benedek D., Gore K., Armstrong D., Osuch E., Grieger T., Choate C., Jonas W., Ursano R., Engel C. C. Rationale and Design of a Randomized Controlled Trial of Acupuncture for PTSD. 10th Annual Force Health Protection Conference, Louisville, KY, August 5–10, 2007.

Cowan D. N., Jaffer A., Engel C. C. Did Exposure to Oil Fire Smoke in the Gulf War Increase the Risk of Asthma? 2006 Epidemiology Congress, Seattle, WA, June 2006.

Crowley B. Comprehensive Psychiatry in 2006: Regulation and Science Affecting Private Practice and Military Practice. American Psychiatric Association, Toronto, Canada, May 20–25, 2006.

Crowley B. Comprehensive Psychiatry in Private Practice. American Psychiatric Association Annual Meeting, San Diego, May 22, 2007.

D'Andrea E. A., Ackerman A., Hamtil H., Engel C. C., Quigley K. S. Health and Psychological Features of Soldiers Deploying to Iraq and Afghanistan. Health Services Research and Development Service National Meeting, Washington, DC, February 21–23, 2007.

# Appendix B: Publications

33

Davis J. D., Bunin J., Engel C. C., Sheliga V., Adkins J., O'Leary T. Trust in the Physician-Patient Relationship: An Empirical Literature Review. 9th Annual Force Health Protection Conference, Albuquerque, NM, August 2006.

Davis J. D., Engel C. C., Sjoberg T., Armstrong D. W., O'Leary T. Provider & Patient Perspectives Regarding Health Care for War-Related Health Concerns. 9th Annual Force Health Protection Conference, Albuquerque, NM, August 2006.

Davis J. D., Gunthert K. C., Forand N., Wenze S., Engel C. C., Armstrong D. W. An Ecological Momentary Assessment Study of Daily Stress Responses Among Soldiers with Occupational Stress: A Feasibility Study. Poster presentation. 9th Annual Force Health Protection Conference, Albuquerque, NM, August 2006.

Davis J., Robinson R., Engel C. C. Acceptability of Adverse Childhood Experiences (ACE) Questions in Routine Military Health Surveillance: A Qualitative Examination. 10th Annual Force Health Protection Conference, Louisville, KY, August 5–10, 2007.

Davis J., Robinson R., Engel C. C. The Collaborative Adverse Childhood Experiences Study (CACES): Evaluating the Utility of Adverse Childhood Experiences (ACE) Health Surveillance in U.S. Military Personnel. 10th Annual Force Health Protection Conference, Louisville, KY, August 5–10, 2007.

Dietrich A., Engel C.C., Frances J., Stewart P., Wilson R. Behavioral Health Integration into Primary Care: Service-Specific Context and History. 9th Annual Force Health Protection Conference, Albuquerque, NM, August 2006.

Dietrich A., Engel C.C., Case Management to improve post deployment Health Care: Lessons from the RESPECT-Depression Project. 9th Annual Force Health Protection Conference, Albuquerque, NM, August 2006.

Engel C.C. Behavioral Health and Military Primary Care—Why Integration? Why Now? 9th Annual Force Health Protection Conference, Albuquerque, NM, August 2006.

Engel C. C. Behavioral Health & the War on Terror. Surgeon General's Track. Annual Meeting of the Association for the U.S. Army. San Antonio, TX, July 18, 2006.

Engel C. C. Deployment-Related Health Concerns and Somatic Symptoms: A Primary Care Provider's Guide. Uniformed Services Academy of Family Physicians Meeting, Hilton Head, SC, March 2007.

Engel C. C. Doing Research in a Graduate Medical Education Setting. Department of Family Practice Faculty Development Seminar, Womack Army Medical Center, Fort Bragg, NC, November 9, 2005.

Engel C. C. Early psychiatric intervention after mass trauma and the role of primary care. Department of Psychiatry Grand Rounds. University of Texas Health Sciences Center at San Antonio. San Antonio, TX, September 19, 2006.

Engel C. C. Early Psychiatric Intervention in Primary Care Following Disaster or War. Grand Rounds, Department of Psychiatry, Medical University of South Carolina, Charleston, SC, April 7, 2006.

Engel C. C. Evidence-Based Psychiatry: Investing in the Future of Real World Practice. Presentation at National Institute of Mental Health, Rockville, MD, November 13, 2006.

Engel C. C. Forward Psychiatry in the Military. Presentation for the C-SPAN televised symposium, "Soldiers, Psyche, and the Department of Veterans Affairs. What Are the Lessons of Vietnam?" American Enterprise Institute, Washington DC, November 7, 2005.

Engel C. C. "Health-e VOICE": Preliminary results of a randomized trial of a web-tool to optimize clinical risk communication for military personnel & veterans. Department of Family Practice Grand Rounds, Womack Army Medical Center, Fort Bragg, NC, November 9, 2005.

Engel C. C. Idiopathic symptoms & their syndromes: Challenges to valid identification of pathogenesis. Presentation at the National Institute of Neurological Diseases and Stroke, Bethesda, MD, August 3, 2006.

Engel C. C. Improving Deployment Healthcare for Soldiers and Families Through Collaborative Care. 10th Annual Force Health Protection Conference, Louisville, KY, August 5–10, 2007.

Engel C. C. In Return for their Sacrifice: Deployment Health Clinical Center Efforts to Improve Post-War Care. Presentation to Veterans Service Organization Representatives, Department of Defense Deployment Health Support Directorate, Falls Church, VA, April 27, 2006.

Engel C. C. In Return for their Sacrifice: Improving the Post-Deployment Care. Presentation for Veterans Service Organization Representatives, Department of Defense Deployment Health Support Directorate, Falls Church, VA, September 8, 2006.

Engel C. C. Introduction to primary care-behavioral health integration models. Distinguished Visiting Professor Presentation, Wilford Hall Medical Center, San Antonio, TX, September 20, 2006.

## Appendix B: Publications

Engel C. C. Introduction to the DoD-CDC Collaborative Adverse Childhood Experiences Study (CACES). Meeting of the DoD-CDC Collaborative Adverse Childhood Experiences Study Consensus Panel. Rockville, MD, February 2, 2006.

Engel C. C. Making PTSD Compensation 'Effective': Values, Perspectives & Science. Presentation for the National Academy of Science Institute of Medicine. Washington, DC; May 2, 2006.

Engel C. C. Medically unexplained physical symptoms in primary care. Department of Psychiatry Grand Rounds, Wilford Hall Medical Center, San Antonio, TX, September 21, 2006.

Engel C. C. Mental & physical health after Iraq War service: Comparing & contrasting the UK, US & 1991 Gulf War experiences. Grand Rounds, Department of Psychiatry, Madigan Army Medical Center, Tacoma, WA, July 6, 2006.



Engel C. C. Mental health of U.S. troops returning from Iraq & Afghanistan. Welcoming Returning Operation Iraqi Freedom and Operation Enduring Freedom Service Members: Developing A Community Response. University of Pittsburgh, Johnstown, PA, May 3, 2006.

Engel C. C. Mental health surveillance, outcomes, and the management of the military force. Presentation for the National Academy of Science Institute of Medicine Medical Follow-up Agency. Washington, DC, June 15, 2006.

Engel C. C. Mental health services research in post-war primary care. "Mapping the Landscape of Deployment Related Adjustment and Mental Disorders—A Working Group to Inform Research". Convened by Department of Veterans Affairs Office of Research and Development, National Institute of Mental Health, and United States Army Medical Research and Materiel Command. Rockville, MD, May 17–18, 2006.

Engel C. C. Mental health system response to disasters: potentially applicable military innovations. Presentation to the Mental Health Interest Group. 2006 Annual Research Meeting of Academy Health. Seattle, WA, June 27, 2006.

Engel C. C. Occupational outcomes and some thoughts on pragmatic studies of military families. "Mapping the Landscape of Deployment Related Adjustment and Mental Disorders—A Working Group to Inform Research". Convened by Department of Veterans Affairs Office of Research and Development, National Institute of Mental Health, and United States Army Medical Research and Materiel Command. Rockville, MD, May 17–18, 2006.

Engel C. C. Posttraumatic Stress Disorder: The Primary Care Provider's Guide. Presentation to the Army Reserve Forces Policy Committee. Annual Meeting of the 38th Parallel Medical and Nursing Societies, Seoul, Korea, November 1 & 3, 2006.

Engel C. C. Post-Traumatic Stress Disorder (PTSD) in U.S. military personnel. Invited Pentagon briefing for Israeli Defense Force leaders. Arlington, VA, February 6, 2006.

Engel C. C. Prevalent Health Outcomes in Current and Past Conflicts: Implications for Primary Care. Uniformed Services Academy of Family Physicians Meeting, Hilton Head, SC, March 2007.

Engel C. C. Primary Care & Early Intervention After Mass Trauma—Role, Rationale, & Challenges. The Sidney E. Frank Conference at New York Medical College. Early Psychological Intervention Following Mass Trauma: The Present and Future Directions. New York Medical College, Valhalla, NY, June 13, 2006.

Engel C. C. Re-Engineering Systems of Primary Care for the Mental Health Sequelae of War. Uniformed Services University of the Health Sciences Research Week, Bethesda, MD, May 14–16, 2007.

Engel C. C. RESPECT-Mil: Post-Deployment Mental Health Care in Ft Bragg Primary Care. 2006 Artiss Symposium. Walter Reed Army Medical Center, Washington, DC, June 12, 2006.

Engel C. C. RESPECT-Mil: Post-Deployment Mental Health Care in Ft Bragg Primary Care. Army Medical Department General Officer Mental Health Summit. Walter Reed Army Institute of Research, Silver Spring, MD, June 20, 2006.

# Appendix B: Publications

Engel C. C. RESPECT-Mil: The Army Surgeon General's Program to Improve Mental Health Care for Soldiers Receiving Primary Care. Presentation to the Army Reserve Forces Policy Committee. Annual Meeting of the 38th Parallel Medical and Nursing Societies. Seoul, Korea, October 30, 2006.

Engel C. C. The Deployment Health Clinical Center Specialized Care Program for Veterans with Health-care Resistant Health Concerns. Uniformed Services Academy of Family Physicians, Hilton Head, SC, March 11–16, 2007.

Engel C. C. What is PTSD? How real is it? Army Medical Department General Officer Mental Health Summit. Walter Reed Army Institute of Research, Silver Spring, MD, June 20, 2006.

35 Engel C. C., Armstrong D.W., Liu X, Davis J., Sjoberg T. Internet-Based Risk Communication Training for Primary Care Providers and Patient Satisfaction. USUHS Research Week, Bethesda, MD, May 16–18, 2006.

Engel C. C., Dietrich A. RESPECT-Mil: History of RESPECT-Depression. 10th Annual Force Health Protection Conference, Louisville, KY, August 5–10, 2007.

Engel C. C., Friedman M., Foa E., Shea M. T., Schnurr P., Resick P. (Symposium) CSP 494: Randomized Clinical Trial of Prolonged Exposure for PTSD in Veteran and Active Duty Women. 2006 International Society for Traumatic Stress Studies, Hollywood, CA, November 4–7, 2006.

Engel C. C., Goertz C., Cockfield D., & Cordova E. Complementary and Alternative Medicine for Servicemembers with PTSD/Trauma Symptoms: A Review of Current Research. 9th Annual Force Health Protection Conference, Albuquerque, NM, August 2006.

Engel C. C., Grieger T., Cozza S., Martinez P. Course of pain, PTSD, and depression among war-wounded U.S. military personnel—implications for post-war medical services. 53rd Annual Meeting of the Academy of Psychosomatic Medicine, Tucson, AZ, November 15–19, 2006.

Engel C. C., Hollifield M. Acupuncture and PTSD: The Road Ahead. 10th Annual Force Health Protection Conference, Louisville, KY, August 5–10, 2007.

Engel C. C., Latzka M. RESPECT-Mil: History of RESPECT-Mil and Program Updates. 10th Annual Force Health Protection Conference, Louisville, KY, August 5–10, 2007.

Engel C. C., Latzka M., Duda R., Wilson R., Barry S., Stewart P., Lee L. RESPECT-Mil: Open Discussion and Concluding Remarks. 10th Annual Force Health Protection Conference, Louisville, KY, August 5–10, 2007.

Engel C. C., Litz B., Papa A., Gore K., Bruner V., Bryant R. A Randomized Controlled Proof of Concept Trial of an Internet-Based Therapist-Assisted Self-Management Treatment for PTSD. 10th Annual Force Health Protection Conference, Louisville, KY, August 5–10, 2007.

Engel C. C., Liu X., Sjoberg T., Davis J. D., Armstrong D. W. Does Health-e VOICE Training Have a Positive Impact on Satisfaction of Patients with Post-Deployment Health Concerns? 9th Annual Force Health Protection Conference, Albuquerque, NM, August 2006.

Engel C. C., O'Leary T., Liu X., Sjoberg T., Davis J. D., Armstrong D. W. Web Based Communication Training to Improve Care for Returning Service Members with Post-Deployment Health Concerns. 9th Annual Force Health Protection Conference, Albuquerque, NM, August 2006.



Freed M. C. An Overview of Research Methods for Clinical Decision Making. Department of Psychology, American University, Washington, DC, November 2006.

Freed M. C., Engel C. C. Cost-Effectiveness for Mental Health Providers: Basics of Decision Making. (Behavioral Health Track) 9th Annual Force Health Protection Conference, Albuquerque, NM, August 2006.

Freed M. C., Engel C. C. Treatment Decisions in Primary Care: What Makes an Expensive Intervention Cost-Effective? 9th Annual Force Health Protection Conference, Albuquerque, NM, August 2006.

Freed M. C., Feliciano M., Kuesters P., Engel C. C. Posttraumatic Stress Disorder for the Non-Behavioral Health Provider. DiLorenzo TRICARE Health Clinic, The Pentagon, Washington, DC, April 2007.

## Appendix B: Publications

Freed M. C., Rohan K. J., Yates B. T. With Labin, S. N., Rowe, A., & Levin, R. Patient-level quality adjusted life years in treatment outcome research: A new approach for assessing cost-effectiveness. Part of a panel presentation entitled, Models and Methods: Costs and Benefits in Public and Private Sectors. American Evaluation Association (AEA)/ Canadian Evaluation Association (CEA) Conference, Toronto, Canada, October, 2005.

Freed M. C., Yeager D., Liu X., Magruder K., Gore K., Engel C. C. Preference-Weighted Health Status of Trauma-Related Nightmares: Just How Benign are These Dreams? 10th Annual Force Health Protection Conference, Louisville, KY, August 5–10, 2007.

Freed M. C., Yeager D., Liu X., Gore K., Engel C., Magruder K. Preference-Weighted Health Status Associated with Posttraumatic Stress Disorder in Veterans: A Policy-Friendly Assessment of Illness Severity. 10th Annual Force Health Protection Conference, Louisville, KY, August 5–10, 2007.



Gore K., Armstrong D. W., Freed M. C., Liu X., Engel C. C. A One-Question Screening Tool for Posttraumatic Stress Disorder (PTSD) in a DoD Primary Care Setting. 9th Annual Force Health Protection Conference, Albuquerque, NM, August 2006.

Gore K. L., Freed M. C., Messer S., Engel C. C. The Infamous Criterion A in the Assessment and Diagnosis of PTSD. (Behavioral Health Track) 9th Annual Force Health Protection Conference, Albuquerque, NM, August 2006.

Grieger T. A., Cozza S. J., Ursano R. J., Martinez P. E., Wain H. J., Engel C. C. Early Predictors of Later PTSD and Depression in Battle-injured Soldiers. Abstract NR-4240. 159th Annual Meeting of the American Psychiatric Association, Toronto, Canada; May, 2006.

Johnson J., Gauer R., Armstrong D.W. Glucosamine in Treatment of Plantar Fasciitis: A Pilot Study. American College of Sports Medicine, Denver, CO; May 31–June 3, 2006.

Latzka M., Duda R., Wilson R., Barry S., Stewart P., Lee L. RESPECT-Mil Discipline Specific Working Groups. 10th Annual Force Health Protection Conference, Louisville, KY, August 5–10, 2007.

Latzka M., Duda R., Wilson R., Barry S., Stewart P., Lee L. RESPECT-Mil Site Implementation Plan Development. 10th Annual Force Health Protection Conference, Louisville, KY, August 5–10, 2007.

Litz B., Engel C. C., Bryant R., Bruner V., Gore K. A Randomized Controlled Pilot Trial of an Internet-Based Cognitive-Behavioral Intervention. ISTSS (International Society for Traumatic Stress Studies Conference), Toronto, Canada; November 2005.



Liu X., Engel C. C., Armstrong D. W., Kang H. Health Conditions, Disability and Self-Rated Health in Older Americans. Population Association of America meeting, Los Angeles, CA; March 30–April 1, 2006. 36

Liu X., Engel C. C., Armstrong D. W., Kang H. Health Conditions, Functional Status and Self-Rated Health in Older Americans. 2007 Annual Meeting of the Population Association of America, New York, New York, March 29–April 1, 2007.

Liu X., Engel C. C., Armstrong D. W., Kang H. Linkages of Health Conditions Functional Status and Self-Rated Health in Older Americans. Southern Demographic Association, Oxford, MS; November 3–5, 2005.

Liu X., Engel C. C., Gore K., Freed M. C. Reducing Bias in Diagnostic Tests of Health Measures with the Propensity Score Method. 2007 Population Association of America Annual Meeting, New York, NY, March 31–April 1, 2007.

# Appendix B: Publications

O'Leary T., Engel C. C. Clinical Risk Communication. 9th Annual Force Health Protection Conference, Albuquerque, NM, August 2006.

Oxman T., Engel C. C. RESPECT-Mil Primary Care Based Treatments of Depression and Post Traumatic Stress Disorder. Uniformed Services Academy of Family Physicians Meeting, Hilton Head, SC, March 2007.

Quigley K. S., D'Andrea E. A., Ackerman A., Hamtil H., Engel C. C. Health and Psychological Features of Soldiers Deploying to Iraq and Afghanistan. Association of Military Surgeons of the U.S., San Antonio, TX, November 5–10, 2006.

Roesel T. Adult Vitamin D Deficiency: Review of the Literature and Implications for Force Health Protection. 10th Annual Force Health Protection Conference, Louisville, KY, August 5–10, 2007.

Roesel T. Fibromyalgia and Chronic Fatigue Syndrome: Post-Deployment Clinical Aspects. 9th Annual Force Health Protection Conference, Albuquerque, NM, August 2006.

Rofey D., Corcora K.J., Kavanagh G., Freed M. C. Alcohol Expectancy and Gender Predict Alcohol Relevant Stroop Interference. Association for Advancement of Behavior Therapy (AABT)/Association for Behavioral and Cognitive Therapies (ABCT) Conference, Washington, DC, November, 2005.

Scaer R., Berceci D., Bruner V. The Somatic Manifestations of Trauma: Psychobiology and Applications to Combat Stress. 2006 International Society for Traumatic Stress Studies, Hollywood, CA, November 4–7, 2006.

Sjoberg T., Engel C. C., Jaffer A., Mishkind M., Armstrong D. W., Tinker T., O'Leary T. The Health-e VOICE Clinical Communication Training Tool: Description, Methods and Testing. American Academy on Physician and Patient 2005 Forum, Chicago, IL; October 2005.

Terhakopian A., Hoge C., Castro C. Messer S. Engel C. C. Comorbidity of Posttraumatic Stress Disorder, Physical Health Problems, and Functional Impairment Among Veterans of Operation Iraqi Freedom One Year After Deployment. American Psychiatric Association, Toronto, Canada; May 20–25, 2006.

Vaeth M., Wilson R. The Role of Deployment-Related Clinical Practice Guidelines in Primary Care. Uniformed Services Academy of Family Physicians Meeting, Hilton Head, SC, March 2007.

Wilson R. Behavioral Health Optimization Project (BHOP). 9th Annual Force Health Protection Conference, Albuquerque, NM, August 2006.

Wilson R. In Return for their Sacrifice: Deployment Health Clinical Center Efforts to Improve Post-War Care. Veterans Administration/Department of Defense Conference, Las Vegas, NV, April 11, 2007.

Wilson R. RESPECT-Mil Primary Care Based Treatment of Depression and Posttraumatic Stress Disorder. Uniformed Services Academy of Family Physicians, Hilton Head, SC, March 11–16, 2007.

Wilson R., Dietrich A., Yamamoto C. Gould D., Kennedy K. Primary Care Integration: Service-Specific Context/History. 9th Annual Force Health Protection Conference, Albuquerque, NM, August 2006.

Wilson R., Engel C.C., Dietrich A., Yamamoto C., Gould D., Kennedy K., Isler W., Burnett D., Goodie J. Where to from here? The Future of Primary Care Behavioral Health in the Military. Panel discussion. 9th Annual Force Health Protection Conference, Albuquerque, NM, August 2006.

Yamamoto C., Gould D., Engel C. C., Williams J., Oxman T., Barry S., Lee P., Dietrich A. Systematic Approach to Major Depression and Posttraumatic Stress Disorder in Military Primary Care: Initial Results of RESPECT.Mil. 34th North American Primary Care Research Group Annual Meeting, Tucson, AZ, October 15–18, 2006.

37



# Appendix C: Research Projects

**Name of Project:** A Placebo-Controlled Trial of Prazosin Vs. Paroxetine for Combat Stress-Induced Nightmares and Sleep Disturbance.

**Funding Organization:** Department of Defense.

**DHCC Staff Assigned:**

Michael C. Freed, PhD (Clinical Research Psychologist; Project Director).  
Phoebe Kuesters (Project Coordinator).  
Molly Feliciano, MSN, RN, CRNP (Nurse Practitioner, Certified).

**Principal Investigator:**

COL Charles Engel, MD, MPH.

**Collaborating External Personnel and Organizations:**

Murray A. Raskind, MD, University of Washington School of Medicine, VA Puget Sound Health Care System.  
Elaine R. Peskind, MD, University of Washington School of Medicine, VA Puget Sound Health Care System.  
Miles M. McFall, PhD, University of Washington School of Medicine, VA Puget Sound Health Care System.

**Status:**

Active; enrolling participants.

---

**Name of Project:** A Randomized Clinical Trial of Cognitive-Behavioral Treatment for Posttraumatic Stress Disorder in Women—VA-DoD Cooperative Study No. 494.

**Funding Organization:** U.S. Army Medical Research and Materiel Command.

**DHCC Staff Assigned:**

Kristie L. Gore, PhD (Study Coordinator).

**Principal Investigator:**

COL Charles Engel, MD, MPH (Principal Investigator and Study Co-Chair).

**Collaborating External Personnel and Organizations:**

Paula P. Schnurr, PhD, and Matthew J. Friedman, MD, PhD, VA National Center for PTSD.  
Kenneth E. James, PhD, Cooperative Studies Program Coordinating Center, Palo Alto, CA.

**Study therapists:** Catherine Sheehan, LCSW, Department of Social Work, WRAMC; Victoria Bruner, LISW, BCETS, DHCC; and Corina Miller, LCSW-C, Psychiatric Liaison, the Department of Psychiatry, WRAMC.

**Presentations:**

Sheliga, V., Woodward, P., Gonzalez, D., Engel, C.C. Implementing a Randomized Clinical Trial for Military Women with PTSD. Sixth Annual Force Health Protection Conference, August 2003.

Sheliga, V., Peterson, C., Gonzalez, D., Woodard, P., Engel, C. C. Special Care for Special Women. A 7 minute video of the CSP494 Randomized Clinical Trial Team discussing the challenges and rewards of participating in a clinical trial for military women with Post-Traumatic Stress Disorder. Sixth Annual Force Health Protection Conference, August 2003.

Gonzalez, D., Meyer, N., Gore, K., DeDeyn, J., Bruner, V., Peterson, C., Engel, C. C. The Care of Military Women with Traumatic Stress Concerns: What They've Said and What We've Learned. Seventh Annual Force Health Protection Conference, NM. August 2004.

Gonzalez, D., Meyer, N., Gore, K., DeDeyn, J., Bruner, V., Peterson, C., Engel, C. C. Post-traumatic Healthcare Needs: What Do Military Women Say? Annual Meeting of the International Society for Traumatic Stress Studies, New Orleans, LA. November 2004.

**Papers:**

Schnurr P. P., Friedman M. J., Engel C. C., Foa E. B., Shea M. T., Resick P. M., James K., Chow B. K. (2005). Issues in the Design of Multisite Clinical Trials of Psychotherapy: VA Cooperative Study No. 494 as an Example. *Contemporary Clinical Trials*, 26, 626-636.

Schnurr P. P., Friedman M. J., Engel C. C., Foa E. B., Shea M. T., Chow B. K., Resick P. A., Thurston V., Orsillo S. M., Haug R., Turner C., Bernardy N. (2007). Cognitive behavioral therapy for posttraumatic stress disorder in women: a randomized controlled trial. *Journal of American Medical Association*, 297, 8, 820-30.

**Status:**

Trial complete.

---

**Name of Project:** Acupuncture for the Treatment of Trauma Survivors.

**Funding Organization:** U.S. Congress.

**DHCC Staff Assigned:**

Elizabeth Harper-Cordova, MA (Study Coordinator).  
Thomas Roesel, MD, PhD (Medical Monitor).

**Principal Investigator:**

COL Charles Engel, MD, MPH.

# Appendix C: Research Projects

## Collaborating External Personnel and Organizations:

David M. Benedek, MD, DFAPA, Uniformed Services University of the Health Sciences (Co-Investigator).

Elizabeth A. Osuch, MD, University of Western Ontario.

Thomas A. Grieger, MD, DFAPA, Uniformed Services University of the Health Sciences.

Robert J Ursano, MD, Uniformed Services University of the Health Sciences.

Christine H. Goertz, DC, PhD, Samueli Institute.

Wayne Jonas, MD, Samueli Institute.

## Presentations:

Cordova E., Benedek D., Armstrong D. W., Osuch E., et al. Evaluating the Efficacy of Acupuncture as a Treatment for Posttraumatic Stress in Military Personnel. 9th Annual Force Health Protection Conference, Albuquerque, NM, August 2006.

Cordova E., Benedek D., Gore K., Armstrong D., Osuch E., Grieger T., Choate C., Jonas W., Ursano R., Engel C. C. Rationale and Design of a Randomized Controlled Trial of Acupuncture for PTSD. 10th Annual Force Health Protection Conference, Louisville, KY, August 5–10, 2007.

## Status:

Active.

---

**Name of Project:** An Ecological Momentary Assessment Study of Daily Stress Responses Among Soldiers with Occupational Stress—A Feasibility Study.

**Funding Organization:** DHCC.

## DHCC Staff Assigned:

Jamie D. Davis, PhD (Associate Investigator).

## Principal Investigator:

COL Charles Engel, MD, MPH.

## Collaborating External Personnel and Organizations:

Kathleen C. Gunthert, PhD, American University.

Susan Wenze, American University.

Nicholas Forand, American University.

## Presentations:

Davis J. D., Gunthert K. C., Forand N., Wenze S., Engel C. C., Armstrong D. W. An Ecological Momentary Assessment Study of Daily Stress Responses Among Soldiers with Occupational Stress: A Feasibility Study. Poster presentation. 9th Annual Force Health Protection Conference, Albuquerque, NM, August 2006.

## Status:

Trial complete.

---

**Name of Project:** Collaborative Adverse Childhood Experiences Study.

**Funding Organization:** Department of Defense, Office of the Assistant Secretary of Defense for Health Affairs.

## DHCC Staff Assigned:

Ronnie Robinson, MS (Study Coordinator).

## Principal Investigator/Associate Investigator:

MAJ Mary Krueger, MD (Principal Investigator),

Womack Army Medical Center.

COL Charles Engel, MD, MPH (Associate Investigator).

## Collaborating External Personnel and Organizations:

COL Bruce Ruscio, MPH, DrPH, Office of the Assistant Secretary of Defense for Health Affairs.

Shanta Dube, MPH, Centers for Disease Control and Prevention.

Tim Tinker, DrPH, MPH, Widmeyer Communications.

Marty McCough, MPA, Widmeyer Communications.

Stacia Tipton, MA, Widmeyer Communications.

## Presentations:

Davis J., Robinson R., Engel C. C. Acceptability of Adverse Childhood Experiences (ACE) Questions in Routine Military Health Surveillance: A Qualitative Examination. 10th Annual Force Health Protection Conference, Louisville, KY, August 5–10, 2007.

Davis J., Robinson R., Engel C. C. The Collaborative Adverse Childhood Experiences (CACES): Evaluating the Utility of Adverse Childhood Experiences (ACE) Health Surveillance in U.S. Military Personnel. 10th Annual Force Health Protection Conference, Louisville, KY, August 5–10, 2007.

## Papers:

Robinson R., Davis J., Gore K., Dube S., Engel C. C. (under review). Acceptability of adverse childhood experiences questions for health surveillance in U.S. Armed Forces. *Military Medicine*.

## Status:

Active.

# Appendix C: Research Projects

**Name of Project:** Exploratory Study of Biological Markers in Blood as Assessed by Microarray in Operation Iraqi Freedom Patients.

**Funding Organizations:** Uniformed Services University of the Health Sciences, Walter Reed Army Institute of Research.

**Principal Investigator/Associate Investigator:** Thomas Roesel, MD, PhD, FACP (Principal Investigator).  
COL Naomi Aronson, MD, USUHS, WRAMC (Associate Investigator).

**Collaborating External Personnel and Organizations:**  
Sheila Peel, PhD, Walter Reed Army Institute of Research.

**Status:**  
Complete.

---

**Name of Project:** Health-e VOICE.

**Funding Organization:** Centers for Disease Control and Prevention.

**DHCC Staff Assigned:**  
Jamie D. Davis, PhD.

**Principal Investigator:**  
COL Charles Engel, MD, MPH.

**Collaborating External Personnel and Organizations:**  
LTC Jeffrey J. Johnson, MD, Womack Army Medical Center, Fort Bragg.  
Tim Tinker, DrPH, MPH, Widmeyer Communications.

**Presentations:**  
Sjoberg T. J., Jaffer A., Cowan D.N., Tinker T., De-

Bakey S., Engel C. C. Health-e VOICE: A randomized clinical trial of improving clinical risk communications between providers and redeployed veterans. Fifth Annual Force Health Protection Conference, U.S. Army Center for Health Promotion & Preventive Medicine, Baltimore, MD. August 2002.

Engel C. C., Sjoberg T. J., Jaffer A., Adkins J., Tinker T., DeBakey S., Cowan D. N. Health-e VOICE: A randomized clinical trial of improving clinical risk communications between providers and patients with military-related health concerns. Sixth International Conference of the Scientific Committee on Education and Training in Occupational Safety and Health. The International Commission on Occupational Health, Baltimore, MD. October 2002.

Sjoberg T. J., Jaffer A., Mishkind M., O'Leary T., Engel C. C. Military providers and patients with deployment-related health concerns: A disparity of perceptions regarding health care delivery. Seventh Annual Force Health Protection Conference, Albuquerque, NM. August 2004.

Engel C. C., Liu X., Sjoberg T., Davis J.D., Armstrong D. W. Does Health-e VOICE Training Have a Positive Impact on Satisfaction of Patients with Post Deployment Health Concerns? Ninth Annual Force Health Protection Conference, Albuquerque, NM. August 2006.

Engel C. C., O'Leary T., Liu X., Sjoberg T., Davis J. D., Armstrong D. W.. Web Based Communication Training to Improve Care for Returning Service Members with Post-Deployment Health Concerns. Ninth Annual Force Health Protection Conference, Albuquerque, NM. August 2006.

Davis J. D., Engel C. C., Sjoberg T., Armstrong D. W., O'Leary T. Provider & Patient Perspectives Regarding Health Care for War-Related Health Concerns.

9th Annual Force Health Protection Conference, Albuquerque, NM, August 2006.

**Papers:**

Davis J. D., Engel C. C., Mishkind M., Jaffer A., Sjoberg T., Tinker T., McGough M., Tipton S., Armstrong D., O'Leary T. (2007). Provider and patient perspectives regarding health care for war-related health concerns. *Patient Education and Counseling*; 68, 1, 52–60.

**Status:**

Trial complete.

---

**Name of Project:** Preference-Weighed Health Status Associated with Posttraumatic Stress Disorder in Veterans: A Policy-Friendly Assessment of Illness Severity

**Funding Organizations:** Department of Defense/Henry M. Jackson Foundation (internally funded).

**DHCC Staff Assigned:**

COL Charles Engel, MD, MPH.  
Kristie L. Gore, PhD.  
Xian Liu, PhD.

**Principal Investigator:**

Michael C. Freed, PhD.

**Collaborating External Personnel and Organizations:**

Derik Yeager, MBS, Medical University of South Carolina.  
Kathryn M. Magruder, PhD, MPH, Medical University of South Carolina, Ralph H. Johnson VA Medical Center.

**Status:**

Manuscript preparation.

# Appendix C: Research Projects

**Name of Project:** Primary Care PTSD Screener (PPS): A Feasibility Study Comparing Measures of PTSD.

**Funding Organization:** DHCC.

**DHCC Staff Assigned:**  
Kristie L. Gore, PhD (Study Coordinator).

**Principal Investigator:**  
COL Charles Engel, MD, MPH.

**Collaborating External Personnel and Organizations:**  
CPT El Castro, MD, WRAMC.  
LTC Van Coots, MD, Rader Clinic, Fort Belvoir.  
COL Dale K. Block, Medical Corps, DiLorenzo Clinic, Army Pentagon.

## 41 Presentations:

Gore K., Armstrong D. W., Freed M. D., Liu X., Engel C. C. A Single-item Screener for PTSD in a DoD Primary Care Setting. 9th Annual Force Health Protection Conference, Albuquerque, NM; August 2006.

Gore K., Freed M. C., Armstrong D. W., Liu X., Engel C. C. One-Question Screening for Posttraumatic Stress Disorder (PTSD) in Primary Care. 2006 International Society for Traumatic Stress Studies Annual Meeting, Hollywood, CA, November 4–7, 2006.

Armstrong, D. W., Gore, K. L., Freed, M. C., Liu, X., Engel, C. C. Screening for Posttraumatic Stress Disorder (PTSD) in Primary Care. Poster presented at the 2nd North American Congress of Epidemiology in Seattle, WA, June 2006.

Armstrong, D. W., Gore, K. L., Freed, M. C., Liu, X., Engel, C. C. Screening for Posttraumatic Stress Disorder (PTSD) in Primary Care. Poster presented at USUHS Research Day meeting in Bethesda, MD, October, 2006.

**Status:**  
Trial complete. Data analysis and manuscript preparation ongoing.

---

**Name of Project:** Project DE-STRESS: Brief Cognitive-Behavioral Intervention for Victims of Mass Violence.

**Funding Organization:** National Institute of Mental Health.

**DHCC Staff Assigned:**  
Kristie Gore, PhD (Project Director).

**Principal Investigator/Site Investigator:**  
COL Charles Engel, MD, MPH (Principal Investigator).

**Collaborating External Personnel and Organizations:**  
Brett T. Litz, PhD (Co-Investigator), Boston University School of Medicine, the Boston VAMC.  
Richard Bryant, PhD (Co-Investigator), University of New South Wales, Sydney, Australia.

**Presentations:**  
Bruner, V., Gore, K., DeDeyn, J., Jaffer, A., Litz, B., Bryant, R., Engel C. C. Can an Internet-Based Self-Management Approach Reduce Traumatic Stress? Seventh Annual Force Health Protection Conference, U.S. Army Center for Health Promotion & Preventive Medicine, Albuquerque, NM. August 2004.

Bruner, V., Gore, K., DeDeyn, J., Jaffer, A., Litz, B., Bryant, R., Engel C. C. Using Computer Technology for Stress Reduction after Military Trauma Exposure. International Congress on Military Medicine, Washington, DC. September 2004.

Bruner, V., Gore, K., DeDeyn, J., Jaffer, A., Litz, B., Bryant, R., Engel C. C. A Therapist-Guided Internet-Based Self-Management Approach to Post-Traumatic Stress after Military Events. 2004 Annual Meeting of the International Society for Traumatic Stress Studies, New Orleans, LA. November 2004.

Litz B., Engel C. C., Bryant R., Bruner V., Gore K. A Randomized Controlled Pilot Trial of an Internet-based Cognitive-Behavioral Intervention. ISTSS (International Society for Traumatic Stress Studies) Conference, Toronto, Canada. November 2005.

Papa, A., Gore, K., Bruner, V., Bryant, R., Litz, B., Engel, C. Symptom Reduction in a Web-Based Treatment for Posttraumatic Stress Disorder. Poster presented at the National Institutes of Health Research Festival, October 2006.

**Papers:**  
Litz B., Engel C. C., Bryant R., Papa A. (2007). A randomized controlled proof of concept trial of an Internet-based therapist-assisted self-management treatment for posttraumatic stress disorder. *American Journal of Psychiatry*, 164, 1-8.

**Status:**  
Trial complete.

---

**Name of Project:** Prospective Study of Functional Status in Veterans at Risk for Unexplained Illness

**Funding Organization:** East Orange, New Jersey VA

**Principal Investigator:**  
COL Charles Engel, MD, MPH.

# Appendix C: Research Projects

## **Collaborating External Personnel and Organizations:**

Karen S. Quigley, PhD, War Related Illness and Injury Study Center, Department of Veterans Affairs, East Orange, NJ.

Michael Byrnes, MD, Dept of Veterans Affairs, Ft Dix, New Jersey.

Karen G. Raphael, PhD, Univ. of Medicine and Dentistry of New Jersey.

Chin-Lin Tseng, PhD, Univ. of Medicine and Dentistry of New Jersey.

Shelley A. Weaver, PhD, War Related Illness and Injury Study Center, Department of Veterans, East Orange, NJ.

Drew A. Helmer, MD, MS, War Related Illness and Injury Study Center, Department of Veterans Affairs, East Orange, NJ.

Thomas Findley, MD, PhD, War Related Illness and Injury Study Center, Department of Veterans Affairs, East Orange, NJ.

Patricia A. Findley, PhD, MSW, LCSW, School of Management and Labor Relations Rutgers, the State of University of New Jersey.

Hannah L. Reade, BA, CMA, War Related Illness and Injury Study Center, Department of Veterans Affairs, East Orange, NJ.

Judith (Sonny) Lyons, PhD, G.V. Montgomery Veterans Affairs Medical Center, Jackson, MS.

## **Presentations:**

D'Andrea E. A., Ackerman A., Hamtil H., Engel C. C., Quigley K. S. Health and Psychological Features of Soldiers Deploying to Iraq and Afghanistan. Health Services Research and Development Service National Meeting, Washington, DC, February 21–23, 2007.

## **Status:**

Active. Data collection continues.

**Name of Project:** Randomized Trial of an Online Early Intervention for Combat PTSD in Primary Care: DESTRESS-PC

**Funding Organizations:** National Institute of Mental Health and Department of Defense

## **DHCC Staff Assigned:**

Elizabeth Harper Cordova, MA (Project Director).

## **Principal Investigator/Site Investigator:**

COL Charles Engel, MD, MPH (Principal Investigator).

## **Collaborating External Personnel and Organizations:**

Brett T. Litz, PhD, Boston University School of Medicine, the Boston VAMC.

Kathryn Magruder, MD, MPH, Medical University of South Carolina/Charleston VA

Sean Thomas, MD, Womack Army Medical Center, Fort Bragg

## **Status:**

Approval process ongoing; recruitment not started

**Name of Project:** Re-Engineering Systems for the Primary Care Treatment of Depression and PTSD—Military (RESPECT-Mil).

**Funding Organization:** Henry M. Jackson Foundation for the Advancement of Military Medicine.

## **Principal Investigator:**

COL Charles Engel, MD, MPH.

## **Collaborating External Personnel and Organizations:**

CPT Chris J. Yamamoto, MC, USA, Womack Army Medical Center.

Allen J. Dietrich, MD, Dartmouth Medical School.

Sheila L. Barry, Dartmouth Medical School.

John Williams, MD, MHSc, Durham VA Medical Center.

Thomas Oxman, MD, Dartmouth Hitchcock Medical Center.

## **Presentations:**

Dietrich A., Engel C.C., Frances J., Stewart P., Wilson R. Behavioral Health Integration into Primary Care: Service-Specific Context and History. 9th Annual Force Health Protection Conference, Albuquerque, NM, August 2006.

Dietrich A., Engel C.C., Case Management to improve post deployment Health Care: Lessons from the RESPECT-Depression Project. 9th Annual Force Health Protection Conference, Albuquerque, NM, August 2006.

Engel C.C. Behavioral Health and Military Primary Care—Why Integration? Why Now? 9th Annual Force Health Protection Conference, Albuquerque, NM, August 2006.

Engel C. C. Re-Engineering Systems of Primary Care for the Mental Health Sequelae of War. Uniformed Services University of the Health Sciences Research Week, Bethesda, MD, May 14–16, 2007.

Engel C. C. RESPECT-Mil: Post-Deployment Mental Health Care in Ft Bragg Primary Care. 2006 Artiss Symposium. Walter Reed Army Medical Center, Washington, DC, June 12, 2006.

Engel C. C. RESPECT-Mil: Post-Deployment Mental Health Care in Ft Bragg Primary Care. Army Medical Department General Officer Mental Health Summit. Walter Reed Army Institute of Research, Silver Spring, MD, June 20, 2006.

# Appendix C: Research Projects

Engel C. C. RESPECT-Mil: The Army Surgeon General's Program to Improve Mental Health Care for Soldiers Receiving Primary Care. Presentation to the Army Reserve Forces Policy Committee. Annual Meeting of the 38th Parallel Medical and Nursing Societies. Seoul, Korea, October 30, 2006.

Engel C. C., Dietrich A. RESPECT-Mil: History of RESPECT-Depression. 10th Annual Force Health Protection Conference, Louisville, KY, August 5–10, 2007.

Engel C. C., Latzka M. RESPECT-Mil: History of RESPECT-Mil and Program Updates. 10th Annual Force Health Protection Conference, Louisville, KY, August 5–10, 2007.

43 Engel C. C., Latzka M., Duda R., Wilson R., Barry S., Stewart P., Lee L. RESPECT-Mil: Open Discussion and Concluding Remarks. 10th Annual Force Health Protection Conference, Louisville, KY, August 5–10, 2007.

Latzka M., Duda R., Wilson R., Barry S., Stewart P., Lee L. RESPECT-Mil Discipline Specific Working Groups. 10th Annual Force Health Protection Conference, Louisville, KY, August 5–10, 2007.

Latzka M., Duda R., Wilson R., Barry S., Stewart P., Lee L. RESPECT-Mil Site Implementation Plan Development. 10th Annual Force Health Protection Conference, Louisville, KY, August 5–10, 2007.

Wilson R. RESPECT-Mil Primary Care Based Treatment of Depression and Posttraumatic Stress Disorder. Uniformed Services Academy of Family Physicians, Hilton Head, SC, March 11–16, 2007.

Wilson R., Dietrich A., Yamamoto C. Gould D., Kennedy K. Primary Care Integration: Service-Specific Context/History. 9th Annual Force Health Protection Conference, Albuquerque, NM, August 2006.

Wilson R., Engel C.C., Dietrich A., Yamamoto C., Gould D., Kennedy K., Isler W., Burnett D., Goodie J. Where to from here? The Future of Primary Care Behavioral Health in the Military. Panel discussion. 9th Annual Force Health Protection Conference, Albuquerque, NM, August 2006.

Yamamoto C., Gould D., Engel C. C., Williams J., Oxman T., Barry S., Lee P., Dietrich A. Systematic Approach to Major Depression and Posttraumatic Stress Disorder in Military Primary Care: Initial Results of RESPECT.Mil. 34th North American Primary Care Research Group Annual Meeting, Tucson, AZ, October 15–18, 2006.

**Status:**  
Pilot test complete.

---

**Name of Project:** Veteran Status, Health and Mortality in Older Americans.

**Funding Organization:** National Institute on Aging.

**DHCC Staff Assigned:**  
Xian Liu, PhD.

**Principal Investigator:**  
Xian Liu, PhD.

**Presentations:**  
Liu X., Engel C., Kang H., Cowan D. The Effect of Veteran Status on Mortality Among Older Americans and Its Pathways. Population Association of America 2003 Annual Meeting, May 2003.

Liu X., Engel C. C., Kang H. Veteran Status and Transitions in Functional Conditions in Older Americans." 2004 Annual Meeting of the Population Association of America, Boston, Massachusetts. April 2004

Liu X., Engel C. C., Kang H. Survival Convergence and the Preceding Mortality Crossover for Two Population Subgroups. Southern Demographic Association Annual Meeting. Hilton Head, South Carolina. October 2004.

Liu, X., Engel, C. C., Kang, H. Survival Convergence and the Preceding Mortality Crossover for Two Population Subgroups. Annual Meeting of the Population Association of America, Philadelphia, PA. March 31-April 2, 2005.

Liu, X., Engel, C. C., Armstrong, D. W. Linkages of Health Conditions, Functional Status and Self-Rated Health in Older Americans. 2005 Annual Meeting of the Southern Demographic Association, Oxford, Mississippi, November 3–5, 2005.

Liu, X., Engel, C. C., Armstrong, D. W. Kang, H. Health Conditions, Disability and Self-Rated Health in Older Americans. 2006 Annual Meeting of the Population Association of America, Los Angeles, CA. March 31–April 2, 2006.

Liu, X., Engel, C. C., Armstrong, D. W., Kang, H. Health Conditions, Functional Status and Self-Rated Health in Older Americans. 2007 Annual Meeting of the Population Association of America, New York, New York, March 29–April 1, 2007.

Liu, X., Engel, C. C., Liang, J. Development of a structural multinomial logit model in population research. 2007 Annual Meeting of the Southern Demographic Association, Birmingham, Alabama, October 11–13, 2007.

# Appendix C: Research Projects

## Publications:

Liu, X., Engel, C. C., Kang, H., Cowan, D. N. (2005). The effect of veteran status on mortality among older Americans and its pathways. *Population Research and Policy Review* 24, 573-592.

Liu, X., Engel, C. C., Kang, H., Armstrong, D. W. (2006). Veterans and functional status transitions in older Americans. *Military Medicine* 171:943-949.

Liu, X., Engel C. C., Armstrong, D. W., Kang, H. (in press). Survival convergence and the preceding mortality crossover for two population subgroups. *Population Research and Policy Review*.

## Articles Under Review:

Liu, X., Engel C. C., Armstrong, D. W., Kang, H. (under review). Linkages of health conditions, functional status and self-rated health in older Americans. *Social Science and Medicine*.

Liu, X., Engel, C. C., Liang, J. *Decomposition of causal effects in multinomial logit models*. Manuscript submitted for publication.

## Status:

Manuscript preparation.

---

**Name of Project:** Vitamin D Levels and their Correlation to Pain, Fatigue, Anxiety, and other Co-morbidities in Specialized Care Program Service Members seen at the Deployment Health Clinical Center

**Funding Organizations:** n/a

## Principal Investigators:

Thomas Roesel, MD, PhD, FACP  
COL Charles Engel, MD, MPH

## Presentations:

Roesel T. Adult Vitamin D Deficiency: Review of the Literature and Implications for Force Health Protection. 10th Annual Force Health Protection Conference, Louisville, KY, August 5–10, 2007.

## Status:

Active.

---

**Name of Project:** Yoga as an Adjunctive Treatment for PTSD—A Feasibility Study.

**Funding Organization:** Samueli Institute for Information Biology.

## DHCC Staff Assigned:

Kristie Gore, PhD.

## Principal Investigators:

COL Charles Engel, MD, MPH (Principal Investigator).

Christine Goertz, DC, PhD, Samueli Institute (Principal Investigator).

## Collaborating External Personnel and Organizations:

Joan Walter, JD, PA-C, Samueli Institute.

Damara Cockfield, MPA, Samueli Institute (Project Coordinator).

Rachel Greene, Henry Jackson/ICHP (Yoga Instructor).

## Presentations:

Cockfield D., Engel C. C., Choate C., Walter J., Jonas W., Gore K., Fritts M., Armstrong D., Greene R., Carnes R., Miller R. Yoga Nidra as an Adjunctive Therapy for PTSD: Lessons Learned and Future Steps. Uniformed Services University of the Health Sciences Research Week, Bethesda, MD, May 14–16, 2007.

Cockfield D., Engel C. C., Choate C., Walter J., Jonas W., Gore K., Fritts M., Armstrong D., Greene R., Carnes R., Miller R. Yoga Nidra as an Adjunctive Therapy for PTSD: Lessons Learned and Future Steps. 10th Annual Force Health Protection Conference, Louisville, KY, August 5–10, 2007.

## Status:

Trial complete.

# Appendix D: Deployment Healthcare Track Presentations

2006

Appenzeller, George, LTC, MC, USA and Warren, Christopher, MAJ, USA. *Post Deployment Reassessment (PDHRA): Lessons Learned from the First Division Wide Implementation.*

Aronson, Naomi, COL, MC, USA, Director, Infectious Diseases Division, USU. *In Harms Way: Infections of Deployed American Troops.*

Bergthold, Richard D., CDR, USN, Bureau of Navy Medicine and Francis, Joseph, CDR, USN, PsyD, Naval Medical Center Portsmouth. *Navy Opportunities: Psychology and Primary Care.*

45 Bruner, Victoria, RN, LCSW, BCETS, DHCC and Frederich, Peter, LTC, USA, Chaplain, Fort Benning, Georgia. *Caring for the Caregiver: Managing Compassion Fatigue.*

Burnett, Daniel, Lt Col, BSC, USAF, MPH, Population Health Support Division. *A Medical Provider's Experience with Behavioral Health-Primary Care Integration and a Depression CPG Integration Program.*

Burnett, Daniel, Lt Col, BSC, USAF, MPH, Population Health Support Division. *The Post Deployment Reassessment (PDHRA) in the US Air Force.*

Burnett, Daniel, Lt Col, BSC, USAF, MPH, Population Health Support Division and Isler, William III, Maj, BSC, USAF, PhD, Wilford Hall Medical Center. *Opportunities: Post Deployment Health Re-Assessment and Behavioral Health Integration.*

Cockfield, Damara, MPA, Samueli Institute. *Yoga Nidra as an Adjunctive Therapy for Post-Traumatic Stress Disorder: A Feasibility Study.*

Cox, Kenneth, COL, USAF, Deployment Health Support Directorate and panel. *Post-Deployment Health Reassessment (PDHRA) Program: How Are We Doing?*

Davis, Jamie, PhD, DHCC. *Patient- Provider Trust in Primary Care: An Empirical Literature Review.*

Davis, Jamie, PhD, DHCC. *Provider & Patient Perspectives Regarding Healthcare for War-Related Health Concerns.*

Dietrich, Allen J., Dietrich, MD, Dartmouth and Engel, Charles, COL, MC, USA, MPH, DHCC, WRAMC, USU. *Case Management to Improve Post Deployment Healthcare: Lessons from the RESPECT Depression Project.*

Dulaney, Megan, Wounded Service Member Coordinator. *From Deployment to Employment.*

Engel, Charles, COL, MC, USA, MPH, Deployment Health Clinical Center (DHCC), Walter Reed Army Medical Center (WRAMC) and the Uniformed Services University of the Health Sciences (USU). *Behavioral Health and Military Primary Care – Why Integration, Why Now?*

Engel, Charles, COL, MC, USA, MPH, DHCC, WRAMC, USU. *Behavioral Health and Military Primary Care – Why Integration, Why Now? Workshop Presentation.*

Engel, Charles, COL, MC, USA, MPH, DHCC, WRAMC, USU. *Complementary and Alternative Medicine for Service Members with PTSD/Trauma Symptoms: A Review of Current Research.*

Engel, Charles, COL, MC, USA, MPH, DHCC, WRAMC, USU and O'Leary, Timothy, MA, DHCC. *Web-Based Communication Training to Improve Care for Returning Service Members with Post-Deployment Health Concerns.*

Farnell, Edwin, CPT, MC, USA, Dwight D. Eisenhower Army Medical Center. *Has the Global War on Terrorism Affected Beneficiaries' Perception of Their Healthcare?*

Flinn, Scott, CAPT, MC, USN, Commander, Naval Surface Forces, Force Surgeon. *The Impact of Sports Medicine and Reconditioning Team (SMART) Clinics on Pre- and Post-Deployment Readiness for Operational Forces.*

Freed, Michael, PhD, DHCC. *Treatment Decisions in Primary Care: What Makes an Expensive Intervention Cost-Effective?*

Gahm, Gregory, COL, MC, USA, Army Behavioral Health Technology Office, Psychology Department, Madigan Army Medical Center and panel. *The Soldier Wellness Assessment Pilot Program at Fort Lewis.*

Goertz, Christine H., DC, PhD, Samueli Institute. *Complementary and Alternative Medicine: Working Towards Optimal Healing Environments in Primary Healthcare for Service Members and Families.*

Goodie, Jeffrey L., Maj (S), BSC, PhD, USU. *Behavioral Health Providers Integrated into Primary Care: What It Can Look Like.*

Goodie, Jeffrey L., Maj (S), BSC, PhD, USU and Isler, William III, Maj, BSC, USAF, PhD, Wilford Hall Medical Center. *Behavioral Health Providers Integrated into Primary Care in the Deployed Context.*

Goodie, Jeffrey L., Maj (S), BSC, PhD, USU and Isler, William III, Maj, BSC, USAF, PhD, Wilford Hall Medical Center. *Considerations for Integrating Behavioral Health Consultation in the Deployed Environment.*

# Appendix D: Deployment Healthcare Track Presentations

Goodno, Barbara, MS, DoD Severely Injured Support Center. *The DoD Severely Injured Support Center: Ensuring Seamless Support for OIF/OEF Service Members and Families.*

Gore, Kristie, PhD, DHCC and Freed, Michael, PhD, DHCC. *A Single-Item Screener for Post-Traumatic Stress Disorder (PTSD) in a DoD Primary Care Setting.*

Harper Cordova, Elizabeth, MA, DHCC. *Evaluating the Efficacy of Acupuncture as a Treatment for Post-Traumatic Stress in Military Personnel.*

Howard, Reginald, COL, USA, MS, Chief, Occupational Health and Physical Health, Tripler Army Medical Center, Skelton, Dennis, CPT, USA, Severely Injured Center and Halfaker, Dawn, CPT, USA (Ret.), Defense Advanced Projects Research Agency. *Traumatic Growth: Improving Post-Deployment Healthcare for Service Members and Families After Combat Trauma*

Isler, William III, Maj, BSC, USAF, PhD, Wilford Hall Medical Center and Goodie, Jeffrey L., Maj (S), BSC, PhD, USU. *Integrated Approaches to Targeting Tobacco, Obesity, and Insomnia in Primary Care.*

Isler, William III, Maj, BSC, USAF, PhD, Wilford Hall Medical Center and Goodie, Jeffrey L., Maj (S), BSC, PhD, USU. *Opportunities: Shared Medical Appointments.*

Krueger, Mary, MAJ, MC, USA, MPH, Womack Army Medical Center. *Meeting the Neighbors: An Informed Approach to Humanitarian Assistance.*

Kugler, John, COL, USA, MD, US Army's Consultant to the Office of the Surgeon General for Family Medicine. *US Army Deployment Healthcare Issues in Family Medicine/General Medical Practice for Service Members and Families: Where Have We Been, Where Are We Going and Why?*

McDonald, Eric, CAPT, USN (Ret.), MD, Consultant to Traumatic Brain Injury Program, ER Physician, San Diego Veterans Hospital. *An Update on Important Post-Deployment Health Considerations for Returning Combat Veterans with Traumatic Brain Injuries.*

Nichols, Donald L., CAPT, MC, USN, Specialty Leader, Navy Family Medicine. *Navy Deployment Healthcare Issues in Family Medicine for Men and Women on Active Duty and Their Families: Where Have We Been, Where Are We Going and Why?*

Pastel, Ross, LTC, USA, US Army Medical Research Institute for Infectious Diseases. *Radiophobia: Long-term Psychological Effects of Radiation Exposure.*

Peck, Charles A., Peck, COL, USA (Ret.), MD. *An Overview of the U.S. Army Disability System: From Injury and/or Illness to Fitness for Duty.*

Principi, Anthony J., JD, Former Secretary of the Department of Veterans Affairs. *Key Health Trends Across Compensation, Pension and Separation Examinations.*

Roesel, Thomas, MD, PhD, DHCC. *Fibromyalgia and Chronic Fatigue Syndrome: Post-Deployment Clinical Aspects.*

Scott, Steven, DO, Chief, Physical Medicine and Rehabilitation, James A. Haley VA Medical Center, Tampa, Florida. *The VA Quality Enhancement Research Initiative (QUERI) for Service Members with Polytrauma and Blast-Related Injuries: Using Evidence-Based Care to Improve Post-Deployment Healthcare.*

Tremblay, Roger, Maj, Canadian Forces, Senior Staff Officer of the Deployable Health Hazards Assessment Teams. *Canadian Forces Deployable Health Hazards Assessment Teams.*

Voelkner, Bill, LTC, USAR, Deployment Health Support Directorate. *"Denominator Data"- Improvements in Determining Population at Risk.*

Wagner, Michael, PhD, The Phoenix Project. *When a Soldier Goes to War, the Family Goes to War, When a Soldier is Wounded, the Family is Wounded, and the Community is Wounded.*

Wenzel, Robert, MAJ (P), USA, MD, Clinic Commander, U.S. Army Health Clinic Butzbach, Germany and panel. *Improving Recovery of Wounded Service Members through Better Clinical Communication with Them and Their Families*

Wilson, Robert J., BSC, USAF, PsyD, DHCC and panel. *Behavioral Health Integration into Primary Care: Service Specific Context/History.*

Wilson, Robert J., BSC, USAF, PsyD, DHCC and panel. *Where to From Here? The Future of Primary Care-Behavioral Health in the Military—Panel Discussion/Audience Questions/ Comments.*

## 2007

Bruner, Victoria, RN, LCSW, BCETS, DHCC. *The Deployment Health Clinical Center: Specialized Care Track II Program for Service Members Returning from OIF/OEF.*

Cockfield, Damara, MPA, The Samuelli Institute. *Yoga Nidra as an Adjunctive Therapy for Posttraumatic Stress Disorder: Lessons Learned and Future Steps.*

Conklin, Philip, Smith College and Dabbs, Clifton, CPT(P), MC, USA, Walter Reed Army Medical Center. *Optimizing Post Theater Adjustment of the Healthcare Warrior.*

# Appendix D: Deployment Healthcare Track Presentations

Cox, Kenneth, Col, BSC, USAF, MPH, Force Health Protection and Readiness Program. *Gender and Health in the Military—Facts and Myths.*

Cox, Kenneth, Col, BSC, USAF, MPH, Force Health Protection and Readiness Program. *Individual Medical Readiness—New Performance Goals and a Medical Readiness Benefit.*

Cox, Kenneth, Col, BSC, USAF, MPH, Force Health Protection and Readiness Program. *Post-Deployment Health Reassessment (PDHRA) Program—Update.*

Dabbs, Clifton, CPT(P), MC, USA, Walter Reed Army Medical Center. *Opiate Monitoring and Integrated Pain Management Program for the Wounded Warriors.*

47 Dabbs, Clifton, CPT(P), MC, USA, Walter Reed Army Medical Center. *The Think Tank Program.*

Davis, Jamie, PhD, DHCC. *The Collaborative Adverse Childhood Experiences Study (CACES): Evaluating the Utility of Adverse Childhood Experiences (ACEs) Health Surveillance in US Military Personnel.*

Dulaney, Megan, Wounded Service Member Team, DoD Computer/Electronic Accommodations Program. *From Deployment to Employment: Assistive Technology Options for Wounded Service Members.*

Ellis, Niki, MD, Centre for Military and Veterans' Health, Brisbane, Queensland, Australia. *Australia's Center for Military and Veteran's Health Deployment Health Surveillance Program: An Integrated Data System to Examine the Effect of Deployments on Defence Personnel.*

Engel, Charles, COL, MC, USA, MPH, DHCC, WRAMC, USU. *A Randomized Controlled Trial of an Internet-Based Therapist-Assisted Self-Management Treatment for Posttraumatic Stress Disorder.*

Engel, Charles, COL, MC, USA, MPH, DHCC, WRAMC, USU and Hollifield, Michael, MD, University of Louisville Medical School. *Acupuncture and PTSD: The Road Ahead*

Engel, Charles, COL, MC, USA, MPH, DHCC, WRAMC, USU and panel. *Improving Deployment Healthcare for Soldiers and Families Through Collaborative Care Best Practices.*

Engel, Charles, COL, MC, USA, MPH, DHCC, WRAMC, USU and Latzka, Michael, LTC, MC, USA, Womack Army Medical Center. *History of RESPECT-Mil and Program Updates.*

Engel, Charles, COL, MC, USA, MPH, Deployment Health Clinical Center (DHCC), Walter Reed Army Medical Center (WRAMC) and the Uniformed Services University of the Health Sciences (USU). *History of the RESPECT-Depression Project.*

Engel, Charles, COL, MC, USA, MPH, DHCC, WRAMC, USU and Harper Cordova, Elizabeth, MA, DHCC. *Rationale and Design of a Randomized Controlled Trial of Acupuncture for PTSD.*

Engel, Charles, COL, MC, USA, MPH, DHCC, WRAMC, USU and panel. *RESPECT-Mil Workshop: Open Discussion and Concluding Remarks.*

Fortunato, John E., PhD, Fort Bliss. *The Fort Bliss Restoration and Resilience Center: "Honing the Tip of the Spear": Intensive Care for Soldiers with Post-Deployment PTSD.*

Gatchel, Robert, PhD, University of Texas at Arlington. *An Effective Interdisciplinary Chronic Pain Rehabilitation Program for Active Duty Military Personnel.*

Glasser, Ronald, MD, Minnesota Spina Bifida Clinic. *Wounded: Vietnam to Iraq.*

Hines, Claude, COL, USA, MS, Program Manager of Theater Medical Information Program, Military Health System. *Medical Information Management on the Battlefield: From Electronic Health Records to Command and Control.*

Hollifield, Michael, MD, University of Louisville Medical School. *Acupuncture and Integrated CBT for Posttraumatic Stress Disorder: A Randomized Controlled Pilot Trial.*

Hospenthal, Duane R., COL, MC, USA, Infectious Disease Consultant to the Army Surgeon General and Murray, Clinton K., MAJ, MC, USA, Infectious Disease Service, San Antonio Military Medical Center. *Clinical Practice Guidelines for the Prevention and Management of Combat-Related Infection.*

Isler, William III, Maj, BSC, USAF, PhD, Wilford Hall Medical Center. *Sleep: The Common Thread in the Deployment Cycle.*

Johnson, George, Col, BSC, USAF, Force Health Protection and Readiness Program. *Medical Standards for Deployment.*

Jonas, Wayne B., MD, The Samueli Institute. *Optimal Healing Environments: Lessons Learned for Military Healthcare.*

Latzka, Michael, LTC, MC, USA, Womack Army Medical Center and Duda, Roger, MAJ, MC, USA, Darnell Army Medical Center. *A Primary Care Provider/Behavioral Health Champions' Experience Implementing RESPECT-Mil.*

# Appendix D: Deployment Healthcare Track Presentations

Latzka, Michael, LTC, MC, USA, Womack Army Medical Center and panel. *RESPECT-Mil Discipline Specific Working Groups.*

Maxwell, Timothy, Lt Col, USMC, MS, US Marine Corps Wounded Warrior Regiment, Camp LeJeune. *Wounded Warriors Benefit from the Team Healing Concept.*

Neal-Walden, Tracy, Lt Col, BSC, USAF, PhD, Wilford Hall Medical Center. *Behavioral Health Integration and Post-Deployment Health Reassessment (PDHRA): The Effective Utilization of Behavioral Health Consultants in the PDHRA Process.*

Pastel, Ross, LTC, USA, PhD, U.S. Army Medical Research and Materiel Command. *Building Resilience and Focus.*

Pastel, Ross, LTC, USA, PhD, U.S. Army Medical Research and Materiel Command. *Psychological Effects of Anthrax Vaccination.*

Petri, Richard, LTC, MC, USA, William Beaumont Army Medical Center. *The Use of Mind-Body Medicine in the Treatment of Soldiers Returning from Combat with Posttraumatic Stress Disorder.*

Pierson, Jerry, COL, MC, USA, Medical Blast Research Coordination Office and Leggieri, Michael J., LTC, USA (Ret.), MS, DoD Medical Research Program for the Prevention, Mitigation and Treatment of Blast Injuries. *DoD Medical Blast Research Coordination Office.*

Roesel, Thomas, MD, PhD, FACP, DHCC. *Adult Vitamin D Deficiency: Review of the Literature and Implications for Force Health Protection.*

Smith, Tyler, PhD and Ryan, Margaret, MD, MPH, DoD Center for Deployment Health Research.

*PTSD: New Onset and Persistent Symptoms After Deployment and Combat Exposures in the Millennium Cohort.*

Sulsky, Sandra, PhD, MPH, Applied Epidemiology Group of the ENVIRON International Corporation. *The Total Army Injury and Health Outcomes Database: Effective Use of Administrative Data for Evaluation Research: The Parachute Ankle Brace.*

Tedeschi, Richard G., PhD, and Calhoun, Lawrence G., PhD, University of North Carolina at Charlotte. *Facilitating Posttraumatic Growth.*

Tedeschi, Richard G., PhD, and Calhoun, Lawrence G., PhD, University of North Carolina at Charlotte. *Review of the Latest Research on the Use of the Posttraumatic Growth Inventory.*

Terrio, Heidi, COL, MC, USA, MPH, and team, Fort Carson Soldier Readiness Center. *Fort Carson Soldier Readiness Center (SRC): Collaborative Interdisciplinary Efforts Aimed at Establishing Evidence-Based Best Practices.*

Uithol, Dawn, MAJ, MC, USA, Family Medicine, Tripler Army Medical Center. *The Emotional Cycle of Deployment: A Military Family Perspective.*

Wilson, Robert, Lt Col, BSC, USAF, PsyD, DHCC and panel. *RESPECT-Mil Site Implementation Plan Development.*



## Deployment Health Clinical Center

Walter Reed Army Medical Center  
6900 Georgia Ave., NW, Bldg 2 Rm 3E01  
Washington, DC 20307-5001

[www.PDHealth.mil](http://www.PDHealth.mil)