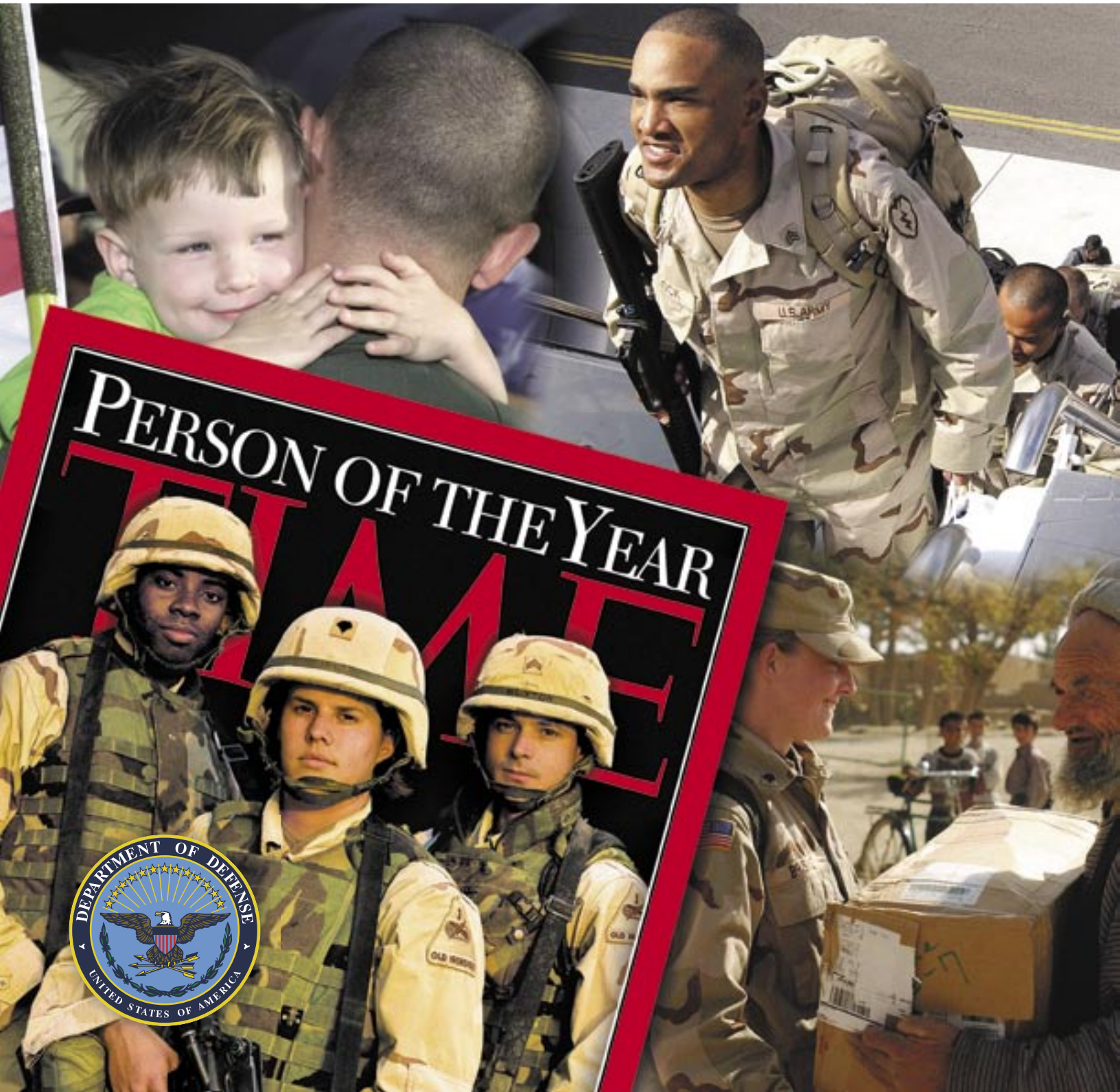
DHCC

DEPLOYMENT HEALTH CLINICAL CENTER

Deployment Health Clinical Center
Annual Report FY 2004



Contents

Introduction

Background and Mission

The DoD Deployment Health Clinical Center (DHCC) was established in 1999 pursuant to Section 743 of the Strom Thurmond National Defense Authorization Act. Located at Walter Reed Army Medical Center in Washington, DC, DHCC was originally the Gulf War Health Center with a mission of providing clinical care to Gulf War veterans with symptoms from that deployment.

In 1999, DHCC became the clinical component of three centers of excellence dedicated to improving deployment health. The other two centers are the Naval Health Research Center in San Diego, California, which is the core research component, and the Defense Medical Surveillance Service established at the Army Medical Surveillance Activity, which serves as the surveillance component. In 2003 the Armed Forces Epidemiological Board was designated as the scientific and public health advisory board for these centers of excellence including DHCC.

With significant expertise in the care of post-war syndromes, DHCC served as the tertiary level of care for the Comprehensive Clinical Evaluation Program, instituted in June 1994 for treatment of Gulf War illnesses. DHCC played a key role in the development of the DoD/VA Post-Deployment Health Evaluation and Management Clinical Practice Guideline, which replaced the Comprehensive Clinical Evaluation Program in 2002. DHCC remains the tertiary level of care available to deployment veterans with idiopathic symptoms and other post-war syndromes and concerns, while promoting post-deployment guideline implementation throughout military primary care.

The core mission of the DHCC is to improve deployment-related health by providing caring assistance and medical advocacy for military personnel and families with deployment-related health concerns. DHCC serves 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-pronged strategy of:

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

- **Outreach and Provider Education:** Development and dissemination of deployment healthcare best practices through clinical practice guidelines, health information, health risk communication strategies, and clinical education programs

- **Clinical and Services Research:** Deployment-related clinical and health services research that uses science to advance the effective delivery of deployment-related healthcare.

The "tip of the DHCC spear," the convergence of these three overlapping emphases, is the DoD/VA Post-Deployment Health Evaluation and Management Clinical Practice Guideline.

Summary of FY 2004 Accomplishments

In this time of multiple operations supporting the Global War on Terrorism, DHCC has expanded clinical programs in support of military personnel returning from Operations Iraqi and Enduring Freedom while creating and disseminating a wide range of educational products and services for providers throughout the military heath system. DHCC continued the Specialized Care Program for military personnel with chronic, idiopathic concerns and symptoms following deployment, while adding a new program providing intensive assistance for those with operational and combat stress issues. By the end of FY 2004, DHCC's Web site, PDHealth.mil, was receiving 700,000 visits per month, up from 400,000 at the end FY 2003. The percentage of users who have visited the Web site 10 times or more increased to 30% in FY 2004 from 24% in FY 2003. Subscriptions to *Deployment Health News*, DHCC's daily electronic news digest, grew fourfold during the same period.

During FY 2004, DHCC staff produced multiple print and online education products to support adoption of the DoD/VA Post-Deployment Health Evaluation and Management Clinical Practice Guideline and supporting practice guidelines. DHCC developed the Providers Desk Reference Toolbox, which received the Best of Category Award, for the Miscellaneous Large Press 4-Color Process Category, in recognition of printing judged to be of superior quality in the Print Quality Award Competition for the Printing Industries of Maryland. Nearly 5,000 Toolboxes were distributed to military medical facilities throughout the Air Force and Army, and distribution to the Navy is underway. Five thousand additional boxes are available for distribution in 2005.

DHCC staff responded to 182 Web inquires and 823 helpline inquiries from military personnel, families, and providers. Risk communication brochures were created for health issues of high concern after deployment, and 679 Soldiers returning from Iraq and Afghanistan through Walter Reed Army Medical Center received their required Post-Deployment Health Assessments from credentialed DHCC providers.

DHCC continued to administer a portfolio of deployment-related clinical and health research funded by the Centers for Disease Control and Prevention, the National Institute of Mental Health, the National Institute on Aging, the Department of Veterans Affairs, and the Department of Defense. DHCC's clinicians and scientists published 20 articles in peer-reviewed publications, developed 19 abstracts, and delivered 20 presentations at conferences and workshops. DHCC sponsored the Deployment Health Visiting Lecturer Program at Walter Reed Army Medical Center for the second year and initiated a new track at the Force Health Protection Conference called the Deployment Healthcare Track. The track offered 66 presentations at the 2004 conference, which was sponsored by the Army Center for Health Promotion and Preventive Medicine and held in Albuquerque, New Mexico.

Direct Health Service Delivery

The Specialized Care Program

The DHCC's multi-disciplinary, three-week Specialized Care Program completed its 100th cycle in August 2004. Started in 1995 to care for individuals with idiopathic symptoms related to the 1991 Gulf War, the Specialized Care Program is now a prescribed level of care prescribed for selected military personnel under the DoD/VA Post Deployment Health Evaluation and Management Clinical Practice Guideline. The Specialized Care Program is for patients who continue to present with chronic illness or idiopathic physical symptoms related to military deployment in spite of comprehensive guideline care.

Based upon internationally recognized approaches for the management of chronic illness, the program seeks to improve physical conditioning and decrease symptoms through a gradual, paced physical reactivation program. Program participants receive therapeutic interventions in a variety of modalities to improve their ability to cope with their illness and guidance and support in adopting positive health behaviors. Program participants are intensively taught a wide range of new physical and behavioral strategies to help them develop control over their symptoms and their functioning. The clinical team collaborates with each program member to create an individualized symptom management plan. The members of each Specialized Care Program cycle of three to eight participants support one another toward improved health and symptom management.

Members of the Specialized Care Program begin the day with physical therapy and stretching.

"If you have medically unexplained symptoms and the doctors can't find a cause... it is easy to start to doubt yourself."

Affected military personnel and families learn strategies to improve their self-care knowledge and future health expectations. The program emphasizes clinical follow-up and use of a primary care manager to implement and coordinate the recommendations of specialists after program participants' return to their local healthcare system.

A member of the Specialized Care Program addresses DHCC staff at program graduation.

In FY 2004, DHCC ran 11 Specialized Care Program cycles. Each participant received an average of 25 provider contacts and 45 hours of group education and treatment. All program participants receive clinical follow-up contacts for up to 40 weeks to ensure that management recommendations are implemented, to monitor their status, and to provide continuing support.

"You have given us hope, educated us in so many ways, and made us stronger in our individual battles we still have to win. Words can't begin to describe the appreciation and respect we have. The SCP [Specialized Care Program] has become a turning point for us. We will use the knowledge gained here to become better, stronger, people."

— *Specialized Care Program Class 09-04*

The Specialized Care Program Track II

Track II of the Specialized Care Program was launched in FY 2004. This program provides evidence-based treatments for posttraumatic stress disorder for individuals who have been through basic care and continue to experience difficulty after deployment. Through multiple treatment modalities, patients get help in dealing with the lingering effects of combat and the process of re-integration.

> "It was hard to know what was going on inside me... I've learned new ways to deal with things."
>
> – *Specialized Care Program Track II Graduate.*

Given recent evidence that anywhere from 11% (Army returning from Afghanistan) to 29% (Marines returning from Iraq) of returning military personnel experience one or more psychiatric problems following deployment,[1] DHCC sees the Specialized Care Program Track II as a response to the current needs of many returning military members. DHCC is continuously improving this new service using after-action analysis, outcomes analysis and monitoring, and fine-tuning of program components. Six to eight cycles of this program are planned in FY 2005. (For more information about the Specialized Care Program Track II, see Appendix E.)

[1] Hoge CW, Castro CA, Messer SC, McGurk D, Cotting DI, Koffman RL. Combat duty in Iraq and Afghanistan, mental health problems, and barriers to care. New England Journal of Medicine 2004 July 1;351(1): 13-22.

A Solder receives his Post-Deployment Health Assessment.

Worldwide Ambulatory Referral Care Program

DHCC receives referrals for care of military personnel presenting with a variety of symptoms, illnesses, and health concerns after deployment. Many of these concerns have unclear etiologies and present challenges to the affected individual and his or her primary care provider. Administered by an internal medicine physician with extensive experience in post-deployment medicine, the program receives referrals from military sites around the world. The internist performs a clinical evaluation, including necessary laboratory diagnostics. The internist may initiate medical and pharmacological treatment and provide follow-up recommendations for the referring provider. If the diagnosis or management remains unclear, the internist may extend the work-up and consult the wide array of specialists available at the Walter Reed Army Medical Center. Appropriate follow-up is offered until all necessary evaluations and treatments are complete, and then an assessment for participation in the Specialized Care Program is made. Should the individual eventually participate in the Specialized Care Program, the internist continues to address unique health concerns during the program until they are satisfactorily addressed. DHCC provided these services to approximately 447 patients in FY 2004. Commonly, these individuals have a variety of musculoskeletal injuries, sleep disorders, and chronic pain conditions related to deployment or war.

Direct Health Service Delivery

Post-Deployment Health Assessments

Ambulatory patients returning from Operations Iraqi and Enduring Freedom and other deployments require post-deployment screening using the DD Form 2796. DHCC providers administer this Post-Deployment Health Assessment for Soldiers who return from war through Walter Reed Army Medical Center with injuries and other health concerns. The assessment is administered in the context of a comprehensive medical interview and insures assessment of the individual's overall medical and psychological status. The Post-Deployment Health Assessment also provides the opportunity for counseling regarding individual exposure concerns and post-exposure malaria chemo-prophylaxis. Participating personnel receive post-deployment tuberculin skin testing, serum collection, and other testing as medically indicated. Illness or injuries not previously addressed are identified and appropriate care and consultation are rendered. DHCC saw 679 patients in FY 2004 for Post-Deployment Health Assessments.

Tracking Depleted Uranium Exposures

Part of the Post-Deployment Health Assessment is a questionnaire concerning possible exposure to depleted uranium. In FY 2003, DHCC was tasked by the Office of the Assistant Secretary of Defense for Health Affairs with evaluating, promulgating, and implementing a DU exposure screening and medical management process as well as with providing central archiving for medical records pertaining to DU exposure. In FY 2004, this screening and medical management process was devised at DHCC in conjunction with the Army, Navy, Marines, and Air Force and disseminated through online and print media, at the 2004 Force Health Protection Conference, and at other meetings. During FY 2004, DHCC received and archived the results of 1,019 24-hour urine tests for depleted uranium. DHCC facilitated referral of individuals with confirmed positive bioassay results to the VA's Depleted Uranium Follow-up Program at the Baltimore VA Medical Center and coordinates ongoing medical follow-up.

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 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. During the past year, military personnel and their family members have sought information and assistance from the DoD Helpline for a variety of deployment-related concerns including leishmaniasis, potential depleted uranium exposure, and adverse reactions to the anti-malarial drug mefloquine. Callers have also requested information on how to access healthcare following their deployment. In particular, re-deploying National Guard and Reserve Component personnel have called DHCC requesting information on their benefits and where to receive care near their home. The Clinician Helpline provides access for clinical consultation, referral services for post-deployment health issues, and guideline implementation information. More than twice as many veterans and family members sent inquiries electronically to the DHCC during this timeframe as the previous year, while the number of clinician inquires remained stable.

Contact DHCC

DoD Helpline for Military Personnel and Families:
1-800-796-9699

From Europe:
00800-8666-8666

DHCC Helpline for Clinicians and Providers: 1-866-559-1627

DHCC Email:
PDHealth@amedd.army.mil

Figure 1. Inquiries to DHCC Helplines

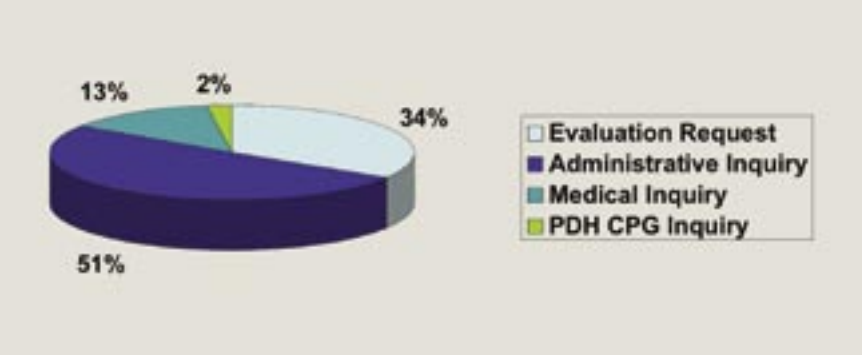


Figure 2. Helpline Call Demographics

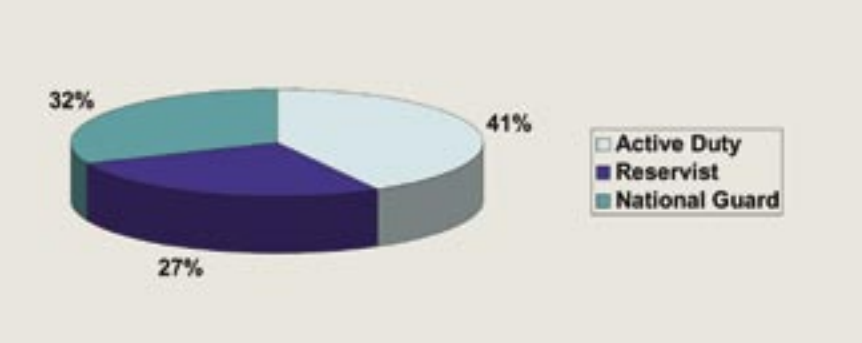
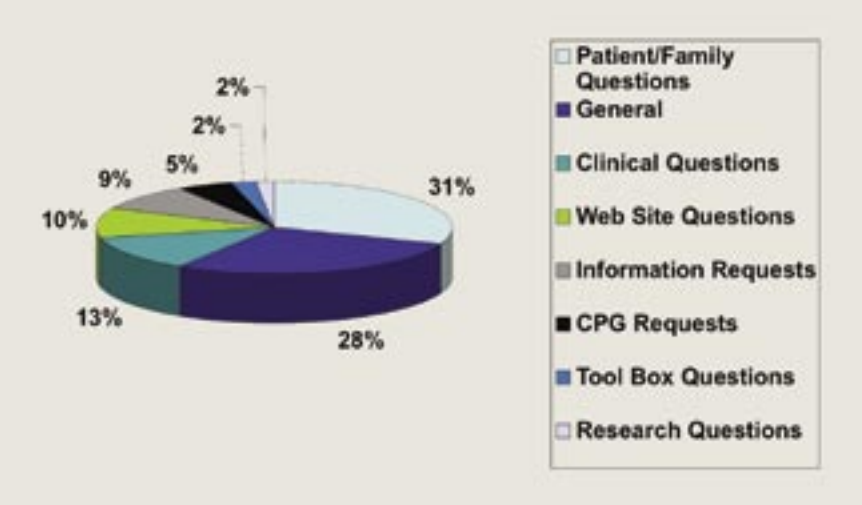


Figure 3. Web/Email Questions



Outreach and Provider Education

Championing Best Practices

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 2004 outreach to military healthcare providers included developing Web-enabled training and delivering 20 presentations (see Appendix B) on deployment-related health and healthcare. In addition, DHCC developed a variety of printed educational materials and Web content and sponsored training programs at Walter Reed Army Medical Center, the 7th Annual Force Health Protection Conference, and around the world.

Figure 4. DHCC Representation at Military Healthcare Conferences

- Association of Military Surgeons of the United States, November 13–21, 2003, San Antonio Texas—3000 Attendees
- Prince Georges County Police Seminar, November 14–25, 2003, Maryland—150 Attendees
- JFCOM Surgeon's Seminar, December 8–12, 2003, Norfolk, Virginia—250 Attendees
- TRICARE Conference, January 26–28, 2004, Washington DC—2500 Attendees
- National Gulf War 2004 Conference, April 30–May 2, 2004, Washington DC—200 Attendees
- Association of the United States Army Medical Symposium, May 17–21, 2004, San Antonio, Texas—5000 Attendees
- 7th Annual Force Health Protection Conference, August 8–13, 2004, Albuquerque, New Mexico—1500 Attendees

Promoting Guideline-Based Care

The DoD/VA Post-Deployment Health Evaluation and Management Clinical Practice Guideline was launched in 2002 in response to the Institute of Medicine[2,3] recommendation for the integration of deployment healthcare into primary care. This increases continuity of care and reduces repetitive testing and frustration for patients with deployment-related health issues. Created by a panel of experts in the DoD and the Veterans Administration, the guideline furnishes structured algorithms for screening, assessing, evaluating, and managing post-deployment health issues using a primary care-based, longitudinal care model. This approach has necessitated a transition from an emphasis on specialty care to primary care, and required all primary care providers to use the screening and evaluation methodologies in the guideline.

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[2] 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.

[3] 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.

The guideline has two entry points. The first is the Post-Deployment Health Assessment. Should the returning military member endorse certain screening questions on this assessment, the provider will follow the guideline to address his or her deployment-related health concern. The other entry point is the military unique vital sign, which should be asked of every patient at every primary care clinic visit: "Is your health concern today related to a deployment?" All patients (military personnel, family members, and retirees) who answer "yes" to this question should be provided care for their concern using the guideline.

> The military unique vital sign: *"Is your health concern today related to a deployment?"*

In response to the terrorist attacks of September 11, 2001 and Operations Enduring and Iraqi Freedom, there is increased urgency in ensuring that every primary care provider knows how to manage patients with deployment-related health concerns. DHCC was tasked with providing revitalization support for the guideline in 2003.

Video and Web-Based Clinical Training

Guideline Training Briefs
During FY 2004, DHCC staff produced seven concise Training Briefs designed to guide clinicians through implementation of the post-deployment health guideline. The video series reinforces the key steps that clinicians must remember to address during a deployment-related healthcare visit: how to ask the military unique vital sign, risk communication principles for patient care, responding to positive endorsement of the military unique vital sign, and correctly coding the visit. The videos also include a brief review of the Post-Deployment Health Assessment process. These training briefs are available on the DHCC Web site, PDHealth.mil, and on CDs that are included in the Providers Desk Reference Toolbox.

Deployment Health Clinical Training Series
DHCC's Deployment Health Clinical Training Series comprises 11 video training modules from 16–47 minutes in length. The modules are of greater complexity and depth than the guideline Training Briefs.

Figure 5. Deployment Health Clinical Training Series

Topics include:

- How to administer the Post-Deployment Health Assessment
- An in-depth look at guideline-based deployment health screening, evaluation, coding, and medical management in primary care
- Clinical health risk communication guidance and exercises
- A thorough review of suicide, suicide prevention, and suicide screening
- Prevention, diagnosis, and treatment of deployment health threats including malaria, leishmaniasis, depleted uranium exposure, and vaccine health.

Like the guideline Training Briefs, these video modules are available on the DHCC Web site, PDHealth.mil, and on CDs that are included in the Providers Desk Reference Toolbox.

Outreach and Provider Education

A Toolbox for the Busy Clinician

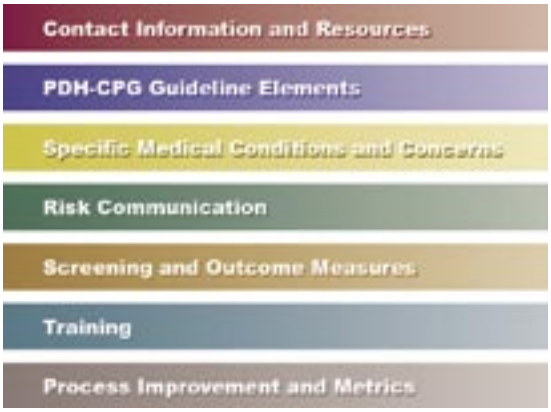
Figure 6. Post-Deployment Guideline Toolbox

DHCC also produced the Providers Desk Reference Toolbox this year. Lessons learned from the original rollout of the deployment health guideline indicated that the original tools promoting adoption of the guideline often did not make it to the clinicians providing care. The new and improved "Toolbox" has a small footprint for the desktop, and the reference cards contained in it condense complex material and can fit into a lab coat pocket.

The Toolbox contains CDs of the guideline and other DoD/VA supporting guidelines as well as the guideline Training Briefs and Deployment Health Clinical Training Series. Lastly, the Toolbox includes sample brochures explaining the goals and rationale of the guideline for clinicians and patients and a copy of the Immunization Tool Kit developed and provided by the Walter Reed National Vaccine Healthcare Center. The contents of the Toolbox can be found on PDHealth.mil for those who prefer Web-based information (http://www.PDHealth.mil/guidelines/toolbox.asp).

An improved distribution process is being used to ensure that each military medical treatment facility receives the Toolboxes it needs and that each Toolbox reaches a primary care provider's desktop. In FY 2004, 4,366 Toolboxes were distributed to Army and Air Force providers, and distribution to the Navy is underway. Five thousand additional boxes are available for distribution in 2005.

Figure 7.
Toolbox Table of Contents



Fostering Optimal Healthcare by Promoting Good Communication

Health risk communication is the science of communicating technical information about health risk under circumstances involving some combination of medical uncertainty, low trust, high concern, or perceived crisis. DHCC is the only activity that uniquely focuses on improving the risk communication skills of military clinicians. Military providers must have the communication skills necessary to convey accurate information even when the available medical evaluation is inconclusive, as in the case of idiopathic physical symptoms, or when the long-term consequences of an exposure have not been conclusively determined by science and are a source of concern for the patient. Examples of these concerns include the anthrax and other vaccines, mefloquine, pyridostigmine bromide tablets, depleted uranium exposure, and other sources of environmental health concern that can arise after deployment.

In recognition of this need, DHCC has the designated responsibility to develop and disseminate deployment-related health risk communication materials for clinician use. DHCC's health risk communication outreach activities in FY 2004 included daily distribution of the *Deployment Health News*, live and video-delivered training sessions, development of the Health-e VOICE distance learning tool (see page 17), and the development and distribution of fact sheets for conditions and exposures of high health concern among deployed personnel and their families. These fact sheets, downloadable from PDHealth.mil, were accessed 16, 500 times. DHCC collaborated with the Office of the Assistant Secretary of Defense for Health Affairs Risk Communication Working Group to create these fact sheets.

Figure 8. Press Coverage of Depleted Uranium and the Anthrax Vaccine

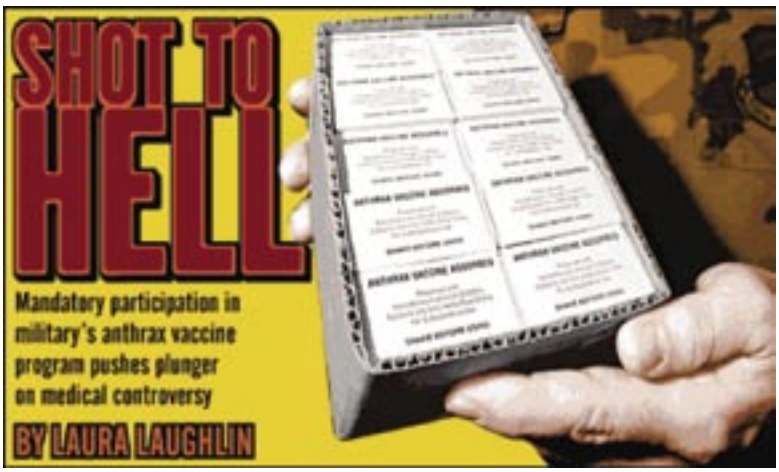
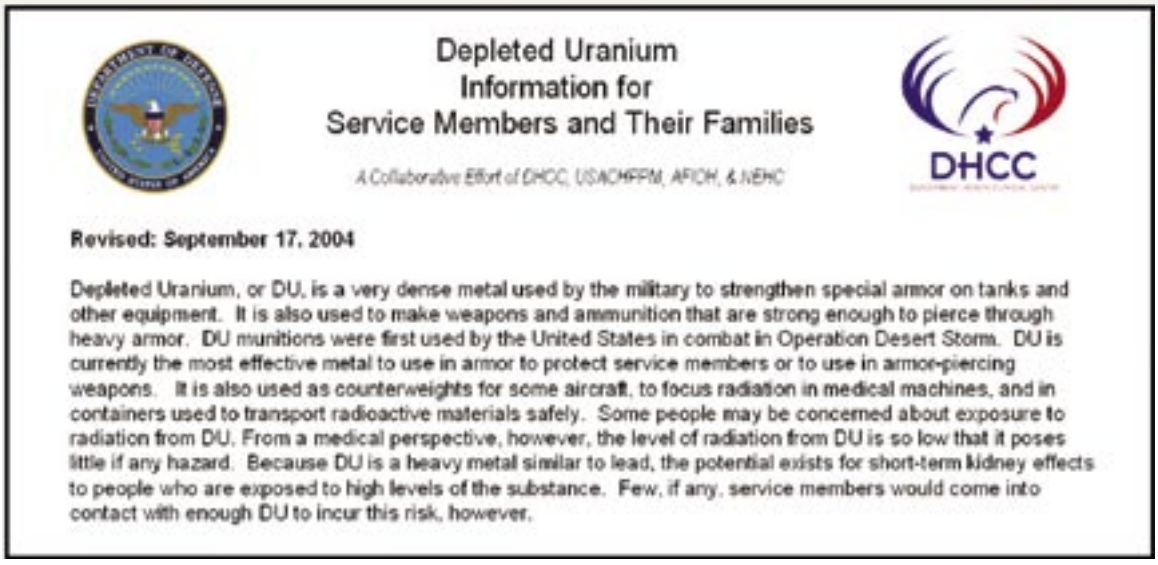


Figure 9. Depleted Uranium Risk Communication Fact Sheet



Depleted Uranium
Information for
Service Members and Their Families

A Collaborative Effort of DHCC, USACHPPM, AFIOH, & NEHC

DHCC

Revised: September 17, 2004

Depleted Uranium, or DU, is a very dense metal used by the military to strengthen special armor on tanks and other equipment. It is also used to make weapons and ammunition that are strong enough to pierce through heavy armor. DU munitions were first used by the United States in combat in Operation Desert Storm. DU is currently the most effective metal to use in armor to protect service members or to use in armor-piercing weapons. It is also used as counterweights for some aircraft, to focus radiation in medical machines, and in containers used to transport radioactive materials safely. Some people may be concerned about exposure to radiation from DU. From a medical perspective, however, the level of radiation from DU is so low that it poses little if any hazard. Because DU is a heavy metal similar to lead, the potential exists for short-term kidney effects to people who are exposed to high levels of the substance. Few, if any, service members would come into contact with enough DU to incur this risk, however.

DHCC published 243 issues of the *Deployment Health News,* each containing five to eight links or attachments, in FY 2004. Subscriptions to this daily electronic newsletter grew fourfold from the previous year. The newsletter makes military and VA clinicians aware of articles in the public news media about deployment-related health issues; issues that could cause patients to become concerned and to seek medical advice and care. The newsletter is composed of news links and summaries of articles related to military service, deployments, military health care, homeland security, and the Global War on Terrorism. Topics include environmental and occupational health, medications, immunizations, biological and chemical warfare, and medically unexplained symptoms. The information presented is gathered from publicly available sources including periodicals, professional journals, and government and private sector Web sites.

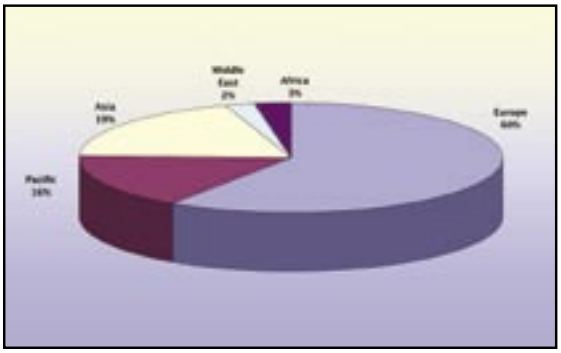
Deployment Health Visiting Lecturer Program

The DHCC Deployment Health Visiting Lecturer Program is an initiative to partner with various departments and disciplines at the Walter Reed Army Medical Center to foster inter-disciplinary collaboration regarding post-deployment healthcare. Collaborators in FY 2004 included the Walter Reed Army Medical Center Departments of Medicine, Social Work, Psychiatry, and Nursing Education and Research. Continuing health education credits are provided for physicians, nurses, psychologists, social workers, and health administrator executives through the Uniformed Services University of Health Sciences. The program also highlights upcoming certification and educational opportunities as well as important scientific developments relevant to deployment health. The average lecture attendance was 139 participants. Satisfaction with these education sessions was high in 2005, in the 3.9–5.0 range on a scale of 0.0–5.0.

Figure 10. The 2004 DHCC Deployment Health Visiting Lecturer Program

- **Acute Distress Disorder: Early Interventions and the Role of Primary Care,** Richard A. Bryant, PhD, University of New South Wales, Sydney, Australia, presented in collaboration with the WRAMC Department of Psychiatry—55 Attendees
- **Leishmaniasis,** Naomi Aronson, MD, Director Leishmaniasis Center, WRAMC, presented in collaboration with the WRAMC Department of Medicine—240 Attendees
- **Trauma, Loss and the Quest for Meaning,** Robert A. Neimeyer, PhD, Department of Psychology, University of Memphis, presented in collaboration with the WRAMC Department of Medicine—90 Attendees
- **Docs in the Box: Lessons Learned from Iraq,** Panel of Primary Care Providers, Trauma Physicians, Psychiatrists, and Nurses, presented in collaboration with the WRAMC Department of Psychiatry —160 Attendees

Figure 11. Web Visitors Outside of North America



Reaching Out in Cyberspace to Providers and Military Personnel

Healthcare information technology plays a significant role in the dissemination of valuable tools and information to providers and patients. DHCC's Web site, PDHealth.mil, is a central part of the DHCC's education and information dissemination functions. All of DHCC's print, online, and video-enabled products are available worldwide on PDHealth.mil. These include videos of the DHCC Deployment Health Visiting Lecturer Program, risk communication presentations and fact sheets, the DoD/VA Post-Deployment Health Evaluation and Management Clinical Practice Guideline interactive algorithm and related tools, the Providers Desk Reference Toolbox, and the Deployment Health Clinical Training Series.

With military personnel deployed worldwide in combat, humanitarian, and peacekeeping missions, the use of PDHealth.mil for the global distribution of deployment-related health information is crucial. Access to PDHealth.mil from regions outside of continental United States was as follows: Europe (59%), Asia (19%), the Pacific (18%), Africa (3%), and the Middle East (2%).

International Interest
Members of the military healthcare command from the armies of Norway, Lithuania, and Canada received tours and briefings at DHCC in 2004.

Outreach and Provider Education

Figure 12. Web Visitor Domain Types

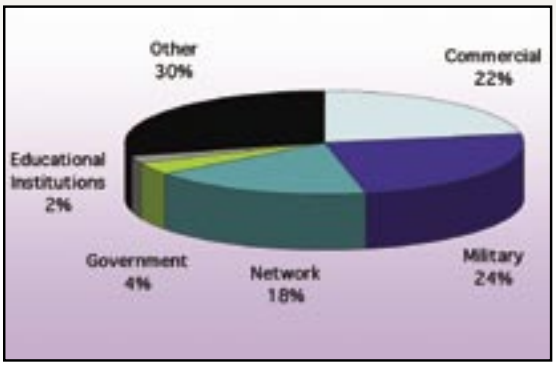
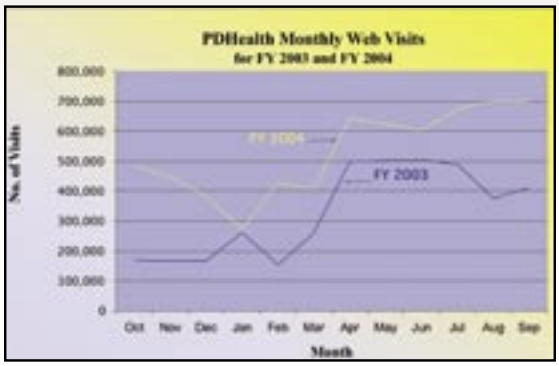


Figure 13. Monthly Web Visits



The top five most visited PDHealth.mil pages were the 1) Reserve Component, 2) Deployments, 3) Emerging Health Concerns, 4) the Clinicians section, and the 5) Library. The percentage of users who have visited the Web site 10 times or more increased to 30% in FY 2004 from 24% in FY 2003.

An important way we can support military personnel is to ensure that their families have the resources they need to successfully weather long and frequent separations. Two new PDHealth.mil sections, one for families and friends and the other for children, provide links to resources and Web-based learning opportunities to help families meet these challenges.

DHCC staff adds information to PDHealth.mil daily. Trends in helpline inquiries are analyzed and additional information is posted to PDHealth.mil to address the needs of these callers. DHCC also strives to meet the needs of providers and military medical leadership by ensuring that current military medical policies and directives are made available through the Web site.

The Emerging Health Concerns section on PDHealth.mil is a response to the urgent need for health information related to current deployments. Topics include diagnosis and treatment information, military policies, studies and research findings concerning environmental exposures and infectious diseases endemic to areas of military operation, and other preventive medicine and clinical issues of high importance. This section is updated weekly, and relevant information is added and modified as new deployment-related health concerns and critical information about those concerns emerge.

With troops deployed to 120 countries, Web activity increased to 700,000 visits per month in FY 2004, up from 400,000 per month during the previous year.

The Seventh Annual Force Health Protection Conference

For the first time, a Deployment Healthcare Track was added to the Annual Force Health Protection Conference. The seventh annual conference, sponsored by the Army Center for Health Promotion and Preventive Medicine, took place in Albuquerque, New Mexico, in August. DHCC initiated this new track as part of its continuing effort to improve the overall quality of the deployment healthcare delivery system. The Deployment Healthcare Track provided the third highest number of presentations in the conference with 66. The goal of the track was to inform attendees about timely issues related to the assessment and treatment of military personnel and families with deployment-related health concerns.

Presentation topics included evidence-based medicine, depleted uranium exposure, family practice and deployments, complementary and alternative therapies, idiopathic symptoms, PTSD, and women's issues. Quality feedback was high, ranging from 4.6–4.7 on a scale of 0.0–5.0. The emphasis was on innovative ideas, collaborations, and research related to post-deployment health; technology and automation; epidemiology; health service research; and measuring, improving, and evaluating the quality of care. Cross-disciplinary and interagency collaborations and partnerships were fostered during the conference.

A complete listing of the presentations in the Deployment Healthcare Track at the 7th Annual Force Health Protection Conference is available in Appendix D. DHCC will again sponsor the Deployment Healthcare Track at the 8th Annual Force Health Protection Conference in Louisville, Kentucky, in August 2005.

Figure 14. Most Attended Deployment Healthcare Track Sessions

- Leishmaniasis: Baghdad Boil and Kala Azar Brought Back from Iraq. Naomi Aronson, MD, COL, USA, Director, Leishmaniasis Treatment Center, Walter Reed Army Medical Center and Uniformed Services University of the Health Sciences.
- Moving the Medical Systems toward the Electronic Age on the Battlefield. Coleen Martinez, PhD, LTC, USA, Deputy Commander, USAMMDA at Fort Detrick and CFLCC Liaison Officer to CJTF-7 in Kuwait/Iraq.
- They Sacrifice; We Serve Their Post Deployment Healthcare Needs: Today, Tomorrow, and Always! Charles Engel, Jr., MD, MPH, LTC, USA, Director, Deployment Health Clinical Center and Assistant Chair, Psychiatry, Uniformed Services University of Health Sciences.
- Healing From Traumatic Injuries Plenary Session. Christopher Reid, Counselor, Department of Veterans Affairs, Washington DC.
- Case Management to Improve Post Deployment Healthcare: Lessons from the RESPECT Depression Project. Allen J. Dietrich, MD, Professor of Community and Family Medicine, Dartmouth Medical School.

Health Services Research

"Health services research is the multidisciplinary field of scientific investigation that studies how social factors, financing systems, organizational structures and processes, health technologies, and personal behaviors affect access to health care, the quality and cost of health care, and ultimately our health and well-being. Its research domains are individuals, families, organizations, institutions, communities, and populations."[4]

DHCC's deployment-related clinical research is extramurally funded and self-sustaining. DHCC has successfully completed a wide range of projects that put science behind post-deployment healthcare delivery process improvement. Current projects are competitively funded by the Centers for Disease Control and Prevention, the Department of Veterans Affairs, the Department of Defense, and the National Institute on Aging. DHCC's scientists and staff complete scientifically credible work and regularly publish it in peer-reviewed medical journals. DHCC staff published 20 articles and book chapters, 19 abstracts, and delivered 20 presentations at conferences and workshops in FY 2004.

The research team consists of personnel with expertise in general medicine, psychiatry, epidemiology, statistics, demography, risk communication, psychology, and social work, as well as other support personnel. The team has a number of functions in support of DHCC including:

- Clinical epidemiologic and health services research
- Guideline implementation
- Statistical analysis
- Survey development
- Data collection
- Database creation and management
- Research consultation to clinicians
- Manuscript and report preparation

Clinical Trials and Research Projects

CSP 494: Randomized Controlled Trial of Military Women with Posttraumatic Stress Disorder

Many women experience trauma before entering the military or during their service. Traumatic exposure can have profound effects on a person's well-being and function and may lead to the development of posttraumatic stress disorder. There is a great need to develop effective treatments for this condition. Research aimed at testing treatments for posttraumatic stress disorder in military and veteran women is especially important, due to the high prevalence of the disorder in this population.

The objective of this multicenter clinical trial is to evaluate the efficacy of prolonged exposure therapy for treating posttraumatic stress disorder and associated problems in military women. The hypothesis is that prolonged exposure therapy will be more effective than present centered therapy for treatment of posttraumatic stress in female veterans and military personnel. This is a VA Cooperative Study with Walter Reed Army Medical Center the only participating DoD site. The Walter Reed site is funded by the Army Medical Research and Materiel Command, and the study is co-chaired by the DHCC director along with the deputy-director and director of the VA National Center for PTSD.

A total of 250 participants were randomized across 12 sites as of August 2004. WRAMC stopped enrolling patients in September 2004. The study team presented lessons learned to date, including its work with women who have experienced sexual assault, at the 7th Annual Force Health Protection Conference. The study continues through mid-2005, and final results will be available in late 2005.

[4] AcademyHealth. "Glossary of Terms Commonly Used in Health Care" on www.AcademyHealth.org. January, 2004.

Project DeSTRESS: Brief Cognitive-Behavioral Intervention for Victims of Mass Violence
Project DeSTRESS is an innovative clinical trial evaluating a Web-based, therapist-assisted intervention designed to help individuals at risk for developing chronic post-traumatic stress disorder after experiencing military-related trauma. This study, funded by the National Institute of Mental Health, was implemented in June 2002, in collaboration with the Boston VA, the VA National Center for PTSD, and Boston University School of Medicine. The major aim of this study is to evaluate Web-based, therapist-assisted implementation of stress inoculation training, an empirically-valid treatment that helps people manage stress and recover from traumatic events. This research is testing whether stress inoculation training is effective when delivered over the Web with intermittent therapist assistance and guidance for daily homework activities. The clinical trial compares Web-based stress inoculation training with a Web-based supportive care approach that consists of education and symptom monitoring.

The results from this pilot study will be used to create interventions that can be implemented in large populations following mass violence, terrorism, or military conflicts. The study will be completed in late FY 2005.

HEALTH-e VOICE Tool: A Web-Based Method for Optimizing Primary Care Provider Risk Communication Skills.
When 1991 Gulf War veterans began presenting for care with symptoms they attributed to their deployment, many military providers were not prepared to deal with these health issues, especially when the symptoms did not fit with known disease. These veterans, concerned about exposures they experienced during the 1991 Gulf War, often did not feel that that their concerns were understood by their providers. These individuals sometimes felt as if doctors minimized their concerns or made the assumption that they suffered from psychosocial issues. Military clinicians, for their part, were not always sufficiently expert in health risk communication techniques to be able to maintain and increase the trust of these individuals. This situation left many providers and veterans feeling frustrated.

Health-e VOICE, the **Health**care **e**lectronic **V**alues-based, **O**pen, **I**nteractive **C**ollaborative **E**ducation project, is funded by the Centers for Disease Control and Prevention. The project is based on the hypothesis that improved health risk communication by primary care providers helps to alleviate unnecessary patient distress and physical health concerns, reduce frustration and tension in the doctor-patient relationship, and rebuild patient trust in both care providers and the health system.

The foundation for the Health-e VOICE tool is the DoD/VA Post-Deployment Health Evaluation and Management Clinical Practice Guideline, which prescribes a stepped care strategy for providing risk communication regarding deployment-related health concerns. In this strategy, interventions and clinical risk communication techniques are matched to the patient's needs in a stepped fashion, going from least to most intensive approaches. This stepped approach has been used successfully for a variety of clinical conditions including hypertension, depression, and back pain.

Health Services Research

A taping session for the Health-e VOICE distance learning tool.

The Health-e VOICE Web-based distance learning tool was created based on focus group data and offers a series of teaching vignettes dealing with patient communication. The vignettes interactively teach primary care providers appropriate health risk communication techniques to use when they encounter patients with deployment-related health concerns. The tool will be evaluated using a randomized controlled trial in FY 2005. The overall objective of the trial is to assess the effect of the Health-e VOICE tool on primary care providers' risk communication skills and on their capacity to appropriately address veterans' deployment-related health issues, as well as to evaluate the tool's effect on patient satisfaction with care.

Veteran Status, Health, and Mortality in Older Americans

Funded by the National Institute on Aging, this study examines the excess mortality among American veterans age 70 years or older compared with non-veterans. Data used for this study comes from the Survey of Asset and Health Dynamics among the Oldest Old. The research decomposes the effect of veteran status (veterans versus non-veterans) into the direct effect and the indirect effects of physical health conditions and mental disorders on the mortality of older Americans, using a structural hazard rate model.

The primary study hypothesis is that aging veterans manifest a "crossover effect" in rates of mortality compared with civilians at the same ages. At ages below 65–70, veterans have a lower mortality than their civilian counterparts, while at ages greater than 70, veterans have "crossed over" the civilian mortality rate so they have a higher rate than their civilian counterparts. The major aim of the research is to use structural survival modeling to investigate this crossover mortality effect and characterize some its root causes. Specifically, structural models will describe the process of how veteran status affects the mortality of older Americans.

Longitudinal Health Study of Gulf War Veterans

In this study, DHCC is collaborating with the Environmental Epidemiology Service of the Veterans Health Administration. In its third year, the study covers the first three years of a proposed twenty-year longitudinal follow-up of how the health status of Gulf War veterans changes over time and to what extent these changes differ from non-deployed 1991 Gulf War-era veterans. The study is similar to the DoD Millennium Cohort Study[5] in design and data collection method but is specifically targeted to Gulf War veterans.

The same permanent panel of Gulf War era veterans (15,000 Gulf War veterans and 15,000 non-Gulf War veterans) used in the VA National Survey, which was completed in the mid-1990s, comprises the study population. A combination of mail surveys and telephone interviews has been used. The study is also conducting a passive records-based analysis for mortality outcomes, assessment of healthcare utilization, and disability compensation. The results should provide a basis for answering many questions related to the health effects of 1991 Gulf War service and offer important findings that can be applied to their future care.

Program Evaluation

Specialized Care Program Outcome Evaluation
DHCC monitors outcomes of the Specialized Care Program and the new Specialized Care Program Track II. The research team automated Specialized Care Program data collection in FY 2004 using Computer Assisted Personal Interviewing and Computer Assisted Telephone Interviewing software. The Computer Assisted Personal Interviewing software enables the research staff to conduct the intake and exit symptom inventories electronically. This facilitates real time data storage and organization and facilitates immediate Specialized Care Program clinician access to pertinent patient health information while preserving patient privacy. The Computer Assisted Telephone Interviewing software is used to conduct patient telephone surveys for program evaluation information post-treatment at one and three months. Patient information collected using both of these systems can be easily exported to statistical software packages for data analysis.

[5] Gray GC, Chesbrough KB, Ryan MA, Amoroso P, Boyko EJ, Gackstetter GD, Hooper TI, Riddle JR. The Millennium Cohort Study: a 21-year prospective cohort study of 140,000 military personnel. Millennium Cohort Study Group. *Mil Med*. 2002 Jun;167(6):483-8.

FY 2005 Research Outlook

In FY 2005, the DHCC Research Team will continue to administer its portfolio of research. The following projects are at various stages of development.

Re-Engineering Systems for the Primary Care Treatment of Depression and PTSD (RESPECT)
The RESPECT-MIL project is designed to improve the primary care implementation of the three DoD clinical practice guidelines that are central to post-deployment care. This quality improvement initiative will test a care manager model to improve the treatment response for depression and posttraumatic stress disorder in military primary care and to overcome barriers to care for troops returning from Afghanistan and Iraq. The study proposes implementation of a Three Component Model system of care that utilizes care managers and is organized according to the DoD/VA Post-Deployment Health Evaluation and Management Clinical Practice Guideline as well as the supporting guidelines for posttraumatic stress disorder and major depressive disorder.

In this approach, providers are trained to use relevant screening instruments; to communicate successfully with primary care patients about posttraumatic stress disorder, depression, idiopathic symptoms, and deployment-related health concerns; and to implement primary care-based management approaches. Of particular importance is enlisting patients' involvement and empowering them to become actively

engaged in their treatment and recovery and coordinating continuity of care. After treatment has begun, care managers track patients through periodic phone contact to determine their progress in following their treatment plan. The care managers also convey relevant information to primary care providers and mental health supervisors as needed. This coordinated care system is expected to lead to better treatment outcomes and satisfaction with post-deployment primary care.

Manuals for primary care providers, care managers, and psychiatrist supervisors were written in FY 2004. In FY 2005, the RESPECT-MIL care manager model will be pilot tested at Fort Bragg.

Patient-Provider Trust in Primary Care: An Empirical Literature Review

The "Trust Project" was initiated in 2002 by an interdepartmental team of a physician, social worker, internist-psychiatrist, and health risk communicator with the goal of conducting a systematic literature review of empirical evidence regarding patient-provider trust in primary care. While trust is frequently cited as a key aspect in the provider-patient relationship, direct empirical evidence is limited. The methodology of this review is to describe the key findings from empirical literature on provider-patient trust and to identify gaps, strengths, and weaknesses in the literature. The goal is to better understand the relationship between providers and military personnel and families in the military healthcare arena, which has similarities to managed care systems, to improve care for patients. Thirty-one articles have been identified to be the basis for key data. Both the content and quality of the research is currently being assessed. The objective is to summarize this literature in a manuscript for submission to a peer-reviewed medical journal in FY 2005.

Pilot Study and Validation of a Primary Care PTSD Screener

Posttraumatic stress disorder among recently deployed soldiers is a critical psychiatric problem facing the Department of Defense. Experiencing traumatic stress may lead to serious and sometimes permanent functional impairment. Research in civilian settings indicates that while most mental healthcare is delivered in primary care, primary care providers often do not recognize symptoms of posttraumatic stress disorder. The stigma associated with seeking psychiatric medical care, particularly in the military, also creates an obstacle to the diagnosis and treatment of posttraumatic stress disorder. Improving screening procedures for primary care patients presenting with posttraumatic stress disorder may lead to earlier diagnosis and intervention.

The long-range goal of the proposed research is to develop a simple screening tool that could be used in a primary care setting for rapid identification of patients with symptoms of posttraumatic stress disorder. The proposed screening tool will be compared to longer survey measures of posttraumatic stress disorder along with a research diagnostic clinical interview to determine the sensitivity and specificity of the screening tool. Research surveys will be administered to 250 primary care patients at three DoD primary care clinics to determine the rates of the disorder in the sample as well as the validity of the screening tool. The research aims to improve recognition of posttraumatic stress disorder in primary care settings.

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 new prospective longitudinal study to understand whether stress response, ability to cope with stress, or personality affect the likelihood of developing medically unexplained symptoms after a deployment. Measures will be both self-reported and physiological and will comprise 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.

Appendix A: Collaborations

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

Department of Defense

- Armed Forces Epidemiologic Board
- Armed Forces Institute of Pathology
- Armed Forces Radiobiology Research Institute
- Global Emerging Infections Surveillance and Response System
- Deployment Health Support Directorate, Office of the Assistant Secretary of Defense for Health Affairs
- Office of Clinical Program Policy, Office of the Assistant Secretary of Defense for Health Affairs
- National Quality Management Program, TRICARE Management Activity
- Uniformed Services University of the Health Sciences

Department of the Air Force

- Air Force Institute for Operational Health
- Air Force Medical Support Agency

Department of the Army

- Army Medical Command Quality Management Directorate
- Center for Health Promotion and Preventive Medicine
- Medical Research and Materiel Command
- Medical Surveillance Activity
- Proponency Office for Preventive Medicine
- Walter Reed Army Institute of Research
- Walter Reed National Vaccine Healthcare Center

Department of the Navy

- Navy Environmental Health Center
- Naval Health Research Center (San Diego, California)

Department of Veterans Affairs

- Cooperative Studies Program Coordinating Centers (Palo Alto, California)
- Environmental Epidemiology Service
- Environmental Agents 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 Center for Environmental Health
- National Institute of Mental Health
- National Institute on Aging

Other Collaborations

- Boston University School of Medicine
- Dartmouth University School of Medicine
- Duke University Medical School
- Indiana University
- MacArthur Foundation
- Regenstrief Institute
- University of New South Wales (Sydney, Australia)
- Washington University School of Medicine

Appendix A: Collaborations

Detailed List of DHCC Collaborations

Collaborations to Improve Quality of Post-Deployment Healthcare

1. **Reenergizing Clinical Practice Guideline Implementation:** DHCC has on-going education and consultation efforts to promote adoption of the DoD/VA Post-Deployment Health Evaluation and Management Clinical Practice Guideline 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, and medical staff from all Branches of Service. In FY 2004, DHCC designed and implemented additional tools and training to support revitalization of the guideline. DHCC created the more compact guideline Toolbox to replace the 2002 Tool Kit. DHCC also collaborated with clinicians and scientists from the Office of the Assistant Secretary of Defense for Health Affairs Clinical Programs and Policies, the Office of the Army Surgeon General, the Deployment Health Support Directorate, the Walter Reed Army Institute of Research, the Armed Forces Radiobiology Research Institute, and the National Vaccine Healthcare Center to create the Deployment Health Clinical Training Series and the post-deployment health guideline Training Briefs.

2. **DoD/VA Post-Deployment Health Evaluation and Management Clinical Practice Guideline Quality Monitoring:** DHCC provides input to the Scientific Advisory Panel of the National Quality Management Program on this and other deployment-relevant practice guidelines and deployment health issues. The National Quality Management Program conducts studies of screening for deployment-related conditions and concerns and depression in military primary care, monitors adoption of the guideline throughout the military healthcare system, generates reports, and makes recommendations to the Department of Defense.

3. **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 post-deployment 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

1. **VA Sharing Agreement, Specialized Care Program:** The DHCC Specialized Care Program operates under a Walter Reed – Washington DC Veterans Affairs Medical Center sharing agreement. The Specialized Care Program is a three-week day treatment program designed for veterans with persistent, disabling symptoms as a result of a deployment. The VA is authorized to send patients to the Specialized Care Program for rehabilitative care of chronic deployment-related health concerns. The initiative was started as a part of the DHCC collaboration with the Washington DC Veterans Affairs Medical Center's War-Related Illness and Injury Study Center. The sharing agreement extends from June 1, 2002 through September 30, 2005.

2. **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 with the Office of the Assistant Secretary of Defense for Health Affairs Risk Communication Working Group, the DoD Global Emerging Infections Surveillance

and Response System, the Air Force Institute for Operational Health, the Army Center for Health Promotion and Preventive Medicine, and the Navy Environmental Health Center results in the development of a variety of health risk communication materials and fact sheets. In FY 2004, the topics of greatest focus included depleted uranium exposure, leishmaniasis, mefloquine, and severe acute respiratory syndrome.

3. **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. The first team visit took place in September 2004, with additional visits scheduled for FY 2005. 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. Distribution to the Navy will continue into 2005.

4. **Clinical Follow-up after Depleted Uranium Exposure:** DHCC was tasked by the Office of the Assistant Secretary of Defense for Health Affairs in FY 2003 with evaluating, promulgating, and implementing a depleted uranium exposure screening and medical management process as well as with providing central archiving for records pertaining to depleted uranium exposure tests. Collaboration between DHCC, the Deployment Health Support Directorate, the Army Center for Health Promotion and Preventive Medicine, the Armed Forces Institute of Pathology, and the Veteran Health Administration's Depleted Uranium Follow-up Program occurred in FY 2004. The screening and medical management process was managed by DHCC in conjunction with points of contact in each Branch of Service and disseminated through online and print media and at the Force Health Protection Conference. In FY 2004, DHCC archived 1019 24-hour depleted uranium urine bioassay results packets and facilitated referral to the VHA's Depleted Uranium Follow-up Program for the two patients with confirmed cases of depleted uranium exposure. This activity will continue in FY 2005.

5. **Nerve and Mustard Agent Exposure:** In FY 2004, DHCC 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's role will be to coordinate healthcare evaluations for military personnel exposed to these agents to ensure appropriate follow-up. This activity will continue in FY 2005.

6. **Scientific Advice and Review—Armed Forces Epidemiologic Board:** DHCC information and research products are validated through coordination with the Armed Forces Epidemiological Board. The Board is a DoD advisory body of prominent civilian epidemiologists and scientists. Their input adds depth and independent external validation to DHCC clinical, research, and quality improvement initiatives.

Appendix A: Collaborations

DHCC Health Services Research Collaborations

During FY 2004, DHCC investigators published 20 scholarly articles in scientific journals and books. Major ongoing projects and collaborations are as follows.

1. **A Randomized Clinical Trial of Cognitive-Behavioral Treatment For Posttraumatic Stress Disorder in Women—VA-DoD Cooperative Study 494:** This multi-center, randomized clinical trial evaluated two methods of psychotherapy for PTSD in military women. It was conducted at Walter Reed Army Medical Center and 11 Veterans Administration hospitals around the country and was funded by the U.S. Army Medical Research and Material Command for $445,078.00 — 17 September 2002 to 16 October 2004 with the research ending on 16 September 2004. It was conducted in collaboration with the VA as Cooperative Study Program 494. Key collaborations included the VA National Center for PTSD, White River Junction VAMC, Dartmouth University Medical School Department of Psychiatry, and the Palo Alto California VA Cooperative Studies Program Coordinating Center.

2. **"Health-e VOICE": A Tool to Optimize Clinical Risk Communication Practices Using A Stepped Communication Model:** It is important for health professionals who care for military personnel and veterans to be prepared to address the concerns of patients who present with ambiguous symptoms as fully as they do for people with more clinically identifiable diseases. In response to the need for enhanced provider clinical risk communication skills, DHCC is collaborating with the Centers for Disease Control and Prevention and consultants to develop and evaluate a Web-based interactive distance learning tool called "Health-e VOICE." This project is funded by the Centers for Disease Control and Prevention at $461,177 per year for three years. The Health-e VOICE protocol is based on the hypothesis that improved clinical risk communication may alleviate unnecessary patient distress and physical health concerns, reduce frustration and tension in the doctor-patient relationship, and reintroduce patient trust in both care providers and the health system. The foundation for this tool is the DoD/VA Post-Deployment Health Evaluation and Management Clinical Practice Guideline's strategy for treatment in which interventions are matched to the patient's needs in a stepped fashion, going from least to most intensive.

3. **Randomized Controlled Trial of a Brief Cognitive-Behavioral Intervention for Victims of Mass Violence— Project DESTRESS:** This study compares the effectiveness of a primary care-based self-management program of stress inoculation training, an evidence-based treatment for posttraumatic stress disorder, to standard supportive primary care (supportive counseling) for individuals who were exposed to the September 11, 2001 terrorist attack on the Pentagon or military-related trauma. Both kinds of therapy are provided in one 2-hour session with eight subsequent weeks of daily systematic Web-based follow up to promote self-help. Outcomes of treatment are assessed at three and six months following intervention. The major aim of this study is to evaluate whether an abbreviated program of primary care-based self-management skills will de-stigmatize and decrease barriers to effective mental healthcare following war, terror, or other traumatic events. This two-year study was funded at ~$250,000 per year by the National Institute of Mental Health for FY 2003 and 2004 and continues on a no-cost extension into 2005. Collaborators include Brett Litz, PhD (Co-Investigator) of Boston University and Boston VAMC, Richard Bryant, PhD (Co-Investigator) of the University of New South Wales, Sydney, Australia, and COL Derm Cotter, MD (Associate Investigator), of the Walter Reed Army Medical Center Department of Psychiatry.

4. **Veteran Status, Health and Mortality in Older Americans:** This study examines the excess mortality among American veterans age 70 years or older during a 2–3-year interval from 1993/94 to the end of 1995. Data used for this study comes from the Survey of Asset and Health Dynamics among the Oldest Old. The primary study hypothesis is that aging veterans manifest a "crossover effect" in rates of mortality compared with civilians at the same ages. At ages below 65–70, veterans have a lower mortality than their civilian counterparts, while at ages greater than 70, veterans have "crossed over" the civilian mortality rate so they have a higher rate than their civilian counterparts. The major aim of the research is to use structural survival modeling to investigate the crossover mortality effect and characterize some of its root causes. Specifically, structural models will describe the process of how veteran status affects the mortality of older Americans by means of physical health, mental disorders, and some unidentified factors while controlling for the confounding effects of other related factors. This project is funded by the National Institute on Aging for a total of $50,000. Collaborations include Uniformed Services University of the Health Sciences Department of Psychiatry and Han Kang, DrPH, of the Department of Veterans Affairs Environmental Epidemiology Service.

5. **Longitudinal Health Study of Gulf War Veterans:** In its third year, the study covers the first three years of a proposed twenty-year longitudinal follow-up of how the health statuses of Gulf War veterans change over time and to what extent these changes differ from other military peers and civilians. DHCC is collaborating with the VA Environmental Epidemiology Service, Washington DC Veterans Affairs Medical Center War-Related Illness and Injury Center, the Saint Louis Veterans Affairs Medical Center, and Washington University School of Medicine Department of Medicine. The DHCC portion of the project is funded for approximately $60,000 over three years by the U.S. Army Medical Research and Materiel Command.

6. **Re-Engineering Systems for the Primary Care Treatment of Depression and PTSD (RESPECT):** In cooperation with the MacArthur Foundation and its Initiative on Depression and Primary Care, this research proposes to test a care manager model to improve the treatment response for depression and posttraumatic stress disorder in primary care. The proposed Three Component Model system of care is organized according to the DoD/VA Post-Deployment Health Evaluation and Management Clinical Practice Guideline as well as the supporting guidelines for posttraumatic stress disorder and major depressive disorder. Providers will be trained to use relevant screening instruments, communicate successfully with primary care patients about posttraumatic stress disorder and depression, and to implement primary care-based treatment modalities. Care managers will be involved in treatment monitoring and follow-up care activities. DHCC is collaborating with investigators from Dartmouth University School of Medicine, Duke University Medical School, Indiana University, and the Regenstrief Institute to develop the training programs and research protocol, and in 2005, DHCC will collaborate with Womack Army Medical Center, Fort Bragg to pilot this program.

Appendix B: Publications

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Appendix B: Publications

Abstracts, cont'd.

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Liu X, Engel CC, Kang H. Veteran Status & Functional State Transitions among Older Americans. Annual Meeting of the Population Association of America. Boston, Massachusetts. April 2004.

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Mishkind M, Adkins J, Jaffer A, Engel CC. Implementing Clinical Practice Guidelines: Identifying Training Needs & Opportunities. Seventh Annual Force Health Protection Conference, US Army Center for Health Promotion & Preventive Medicine. Albuquerque, New Mexico. August 2004.

Mishkind M, Sjoberg T, Jaffer A, O'Leary T, Tinker T, McGough M, Tipton S, Engel CC. Disparate Views Between Military Physicians & Their Patients Regarding War-Related Health Concerns and Military Health Care Quality. 2004 Annual Teaching & Research Forum of the American Academy on Physician and Patient, Indianapolis, Indiana. October 2004.

Reissman DB, Engel CC. Psychosomatic Dimensions of National Response Readiness for Terrorism, Disasters, & Other Public Health Emergencies (Workshop 1508). American Psychosomatic Society, 62nd Annual Scientific Meeting, Orlando, Florida. March 2004.

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Adkins J, Rogut D, Jaffer A, Mishkind M, Bruner V, Engel C. Post-Pentagon Attack: Psychiatric Morbidity, Healthcare Use and Satisfaction. (Poster). American Psychological Association Conference, Honolulu, Hawaii. July 2004.

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Bruner V, Gore K, DeDeyn J, Jaffer A, Litz B, Bryant R, Engel CC. Can An Internet-based Self-Management Approach Reduce Traumatic Stress? Seventh Annual Force Health Protection Conference. Albuquerque, New Mexico. August 2004.

Appendix B: Publications

Clymer R, Roesel T, Friedman K, Halpern S, Engel CC. The Deployment Health Clinical Center Specialized Care Program for Veterans with Persistent Post-Traumatic Health Concerns. Seventh Annual Force Health Protection Conference. Albuquerque, New Mexico. August 2004.

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Mishkind M, Adkins J, Jaffer A. Implementing Clinical Practice Guidelines: Identifying Training Needs and Opportunities. Seventh Annual Force Health Protection Conference. Albuquerque, New Mexico. August 2004.

Mishkind M, Sjoberg T, Jaffer A, O'Leary T, Tinker T, McGough M, Tipton S, Engel CC. Military Providers and Patients with Deployment Related Health Concerns: A Disparity of Perceptions Regarding Health Care Delivery. Seventh Annual Force Health Protection Conference. Albuquerque, New Mexico. August 2004.

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Rogut D, Vaeth M, Ulsher J, Adkins J. Tracking Deployment-Related Healthcare Through Clinical Information Systems. Seventh Annual Force Health Protection Conference. Albuquerque, New Mexico. August 2004.

Rogut D, Vaeth M, McCalla I, Mitchell P, Adkins J. A Web-Based Training Program to Improve Post-Deployment Healthcare. Seventh Annual Force Health Protection Conference. Albuquerque, New Mexico. August 2004.

Appendix C: Research Projects

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.

Amount of Funding: $445,078.00 - 17 September 2002 to 16 October 2004 with the research ending on 16 September 2004.

DHCC Staff Assigned:
Denise B. Gonzalez, LGSW, study coordinator
Kristie Gore, PhD, assessment social worker

Principal Investigator/Site Investigator:
LTC Charles Engel, Jr., MD, MPH (Principal Investigator and Study Co-Chair); Vivian Sheliga, DSW, BCD, LCSW (SI)

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 Peterson, LCSW, Department of Social Work, WRAMC; Victoria Bruner, LCSW, BCETS, DHCC; and Corina Miller, LCSW-C, Psychiatric Liaison, the Department of Psychiatry, WRAMC.

Name of Project: Health-e VOICE

Funding Organization: Centers for Disease Control and Prevention (CDC)

Amount of Funding: $460,000 (Note: Funding expired August 31, 2004)

DHCC Staff Assigned:
Col Joyce Adkins, PhD (Associate Investigator)
David W. Armstrong, III, PhD, FACSM

Principal Investigator/Project Leader:
LTC Charles C. Engel, Jr., MD, MPH (Principal Investigator)
Terry Sjoberg, BSc (Project Director)

Collaborating External Personnel and Organizations:
Tim Tinker, DrPH, MPH, Widmeyer Communications
David Frank, MA, Widmeyer Communications

Presentations:
Sjoberg TJW, Jaffer A, Cowan DN, Tinker T, DeBakey S, Engel CC. Health-e VOICE: A randomized clinical trial of improving clinical risk communications between providers and redeployed veterans. Fifth Annual Force Health Protection Conference, US Army Center for Health Promotion & Preventive Medicine. Baltimore, Maryland. August, 2002.

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

Appendix C: Research Projects

Name of Project: Brief Cognitive-Behavioral Intervention for Victims of Mass Violence

Funding Organization: National Institute of Mental Health

Amount of Funding:
Year 1 funding $257,240. Year 2 funding $ 219,240.

DHCC Staff Assigned:
Victoria Bruner, RN, LCSW, BCETS
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David W. Armstrong III, PhD FACSM

Principal Investigator/Project Leader:
LTC Charles C. Engel, Jr., MD, MPH (Principal Investigator)
Ambereen Jaffer, MPH (Project Leader)

Collaborating External Personnel and Organizations:
Brett Litz, PhD (Co-Investigator) Boston University/ Boston Department of Veterans Affairs Medical Center; Richard Bryant, PhD (Co-Investigator) University of New South Wales, Sydney, Australia; LTC Dermot Cotter, MD (Associate Investigator) WRAMC

Name of Project: Specialized Care Program (SCP) - Data Collection & Analysis

DHCC Staff Assigned:
Ronnie Robinson, MSc
Cheryl Blount, BSc

Principal Investigator/Project Leader:
Ambereen Jaffer, MPH (Project Leader)

Appendix D: Force Health Protection Deployment Healthcare Tack Presentations (by Author)

Topics and Presenters

The Fort Bragg Story. Robert Adams, MD, MBA, COL, USA, Deployment Health, Womack Army Medical Center, Fort Bragg.

Tracking Troop Health: Deployment Health Databases for Command and Treatment Facilities. Joyce Adkins, PhD, MPH, Col, USAF, Associate Director, Clinical Practices, Deployment Health Clinical Center.

DU Panel: Depleted Uranium Exposure Health Risks and Health Physics. David Alberth, MEd, Master Consultant of Health Physics, US Army Center for Health Promotion and Preventive Medicine.

PDH-CPG Toolbox: A Streamlined, Targeted Resource for Military Primary Care. Lyn Albrecht, MS, Information Design and Management Officer, Deployment Health Clinical Center.

Q-fever in OIF Deployed Soldiers: An Emerging Disease of Military Importance. Alicia Anderson, MAJ, Epidemiologist, Walter Reed Army Institute of Research.

Leishmaniasis: Baghdad Boil and Kala Azar Brought Back from Iraq. Naomi Aronson, MD, COL, USA, Director, Leishmaniasis Treatment Center, Walter Reed Army Medical Center and Uniformed Services University of the Health Sciences.

Veterans' Centers: Making an Effective Transition from Combat to Community..Alfonso Batres, PhD, MSSW, Chief, Readjustment Counseling Service, Department of Veterans Affairs.

Can an Internet-Based Self-Management Approach Reduce Traumatic Stress? Victoria Bruner, LCSW, Project Leader, Project DESTRESS, Deployment Health Clinical Center.

Military Occupational Psychiatry. Rosemary Carr-Malone, MD, LCDR, Forensic Psychiatry Fellow, Walter Reed Army Medical Center.

Deployment Health Clinical Center Specialized Care Program for Veterans with Health Care Resistant Health Concerns. Roy Clymer, PhD, Director, Specialized Care Program, Deployment Health Clinical Center.

Intelligence Support to Force Health Protection: The Way Ahead. David Davis, MAJ, Chief, Information Mgt Division, Deployment Health Support Directorate.

Case Management to Improve Post Deployment Healthcare: Lessons from the RESPECT Depression Project. Allen J. Dietrich, MD, Professor of Community and Family Medicine, Dartmouth Medical School.

They Sacrifice; We Serve Their Post Deployment Healthcare Needs: Today, Tomorrow, and Always! Charles Engel, Jr., MD, MPH, LTC, USA, Director, Deployment Health Clinical Center and Assistant Chair, Psychiatry, Uniformed Services University of Health Sciences.

A Research Agenda for Deployment Health Care: Improving Care for Our Fighting Forces. Charles Engel, Jr., MD, MPH, LTC, USA, Director, Deployment Health Clinical Center and Assistant Chair, Psychiatry, Uniformed Services University of Health Sciences

Medically Unexplained Symptoms: A Challenge for Physicians; A Frustration for Service Members. Charles Engel, Jr., MD, MPH, LTC, USA, Director, Deployment Health Clinical Center and Assistant Chair, Psychiatry, Uniformed Services University of Health Sciences.

Post-Deployment Clinical Practice Guidelines. Charles Engel, Jr., MD, MPH, LTC, USA, Director, DHCC and Assistant Chair, Psychiatry, Uniformed Services University of Health Sciences.

The Evolution of the US Army's First Medical Family Assistance Center in Support of the Global War on Terrorism: Implementation of Service Brokering to Families During Sustained Periods of Crisis. Louann Engle, LCSW, CPT, Department of Social Work, Walter Reed Army Medical Center.

Appendix D: Force Health Protection Deployment Healthcare Tack Presentations (by Author)

Primary Care Providers in the 21st CSH: Fear Not—Shoot to Save. Janis Follwell, MD, CPT, USA, Chief, Family Practice, Fort Leonardwood.

DoD Deployed Health Care Providers Panel: Experiences, Issues, and Answers Following Operations Enduring and Iraqi Freedom . Gonzalez, Benjamin, MD, MAJ, USA, Staff Physician, Walter Reed Army Medical Center.

The Care of Military Women with Traumatic Stress Concerns: What They've Said and What We've Learned. Denise Gonzalez, LGSW, Clinical Trial Coordinator, CSP494, Deployment Health Clinical Center.

Can an Internet-Based Self-Management Approach Reduce Traumatic Stress? Kristie Gore, PhD, Clinical Therapist, Deployment Health Clinical Center.

Optimal Healing Environments in the Military. Wayne B. Jonas, MD, Director of the Samueli Institute and Associate Professor, Department of Medicine and Pathology, Uniformed Services University of Health Sciences.

Post Deployment Health Care in the Military Health System. Joseph Kelly, PhD, RN, Health Services Researcher, Lockheed Martin.

Importance of Family Practice in the Assessment and Treatment of Deployment Health Care. John Kugler, MD, COL, USA, Chief, Primary Care, DeWitt Army Hospital, Fort Belvoir.

DoD Deployed Health Care Providers Panel: Experiences, Issues, and Answers Following Operations Enduring and Iraqi Freedom. Rick Malone, MD, COL, USA, Chief, Forensic Psychiatry, Walter Reed Army Medical Center.

Moving the Medical Systems toward the Electronic Age on the Battlefield. Coleen Martinez, PhD, LTC, USA, Deputy Commander, USAMMDA, Fort Detrick and CFLCC Liaison Officer to CJTF-7 in Kuwait/Iraq.

Mission Impossible: Digitalization in the Desert. Coleen Martinez, PhD, LTC, USA, Deputy

Commander, USAMMDA, Fort Detrick and CFLCC Liaison Officer to CJTF-7 in Kuwait/Iraq.

Health Info Panel: Enhancing Patient, Family and Provider Health Information and Training through Health Information Systems. Iris McCalla, MS, Web Manager, Deployment Health Clinical Center.

DU Panel: VA Depleted Uranium Follow-up Program. Melissa McDiarmid, MD, Director, VA DU Follow-up Program and Professor, Department of Medicine, University of Maryland School of Medicine.

Risk Communication in a Clinical Setting: A New Application for Improving the Provider-Patient Relationship. Timothy O'Leary, MS, Clinical Risk Communication Officer, Deployment Health Clinical Center.

A Research Agenda for Deployment Health Care: Improving Care for Our Fighting Forces. Patrick O'Malley, MD, LTC, USA, Chief, General Internal Medicine, Walter Reed Army Medical Center.

Health Info Panel: Army One Source—Supporting Soldiers, Deployed DoD Civilians, and Family Members Using a 24/7 Information and Referral Service. Peter Murdock, MAJ (USA Ret.), RN, MHA, Project Officer, Community and Family Support Center.

Ensuring a Seamless Transition from DoD to the VA Health Care System. Jennifer Perez, LCSW, Veterans Administration Medical Center, Washington DC.

Cutaneous Leishmaniasis in Operation Iraqi Freedom/Operation Enduring Freedom (OIF/OEF) Soldiers. Joseph Pierson, MD, LTC, USA, Dermatologist, Keller Army Community Hospital.

Appendix D: Force Health Protection Deployment Healthcare Tack Presentations (by Author)

DODI6490.3 (Revised) Deployment Health Surveillance and Readiness. R. Craig Postlewaite, DVM, MPH, Chief, Environmental Health Team, Deployment Health Support Directorate.

DU Panel: ASD (HA) Policy for the Operation Iraqi Freedom Depleted Uranium Medical Management. R. Craig Postlewaite, DVM, MPH, Chief, Environmental Health Team, Deployment Health Support Directorate.

Post Deployment Health Concerns for Guard and Reserve Members. Sandra Pufal, COL, USA, Office of the Assistant Secretary of Defense for Reserve Affairs.

Healing From Traumatic Injuries Plenary Session. Christopher Reid, Counselor, Department of Veterans Affairs, Washington DC.

Healing from Traumatic Injuries Panel: Blackhawk Down. Christopher Reid, Counselor, Department of Veterans Affairs, Washington DC.

Addressing the Problem of Military Sexual Trauma. Patricia Resick, Director, Women Sciences Division, VA Boston Healthcare System.

Neuropsychiatric Side-Effects of Mefloquine. Elspeth Cameron Ritchie, MD, COL, USA, Psychiatry Consultant to the Army Surgeon General.

Healing from Post Traumatic Injuries: Patient Panel. Jill Roark, LCSW-C, Department of Social Work, Walter Reed Army Medical Center.

Ensuring a Seamless Transition from DoD to the VA Health Care System. Jill Roark, LCSW-C, Department of Social Work, Walter Reed Army Medical Center.

Tracking Troop Health: Deployment Health Databases for Command and Treatment Facilities. Ronnie Robinson, MS, Research Associate, Deployment Health Clinical Center.

"Face-to-Face": A Clinical Approach to Post-Deployment Evaluation using DD 2796 at a Military Medical Center. Thomas Roesel, MD, PhD, Director, Clinical Evaluation Program, Deployment Health Clinical Center.

Depleted Uranium (DU) Case Management Program Panel. Dori Rogut, APRN, BC, Team Leader, Clinical Practice Guidelines, Deployment Health Clinical Center.

A Web-Based Training Program to Improve Post-Deployment Health Care. Dori Rogut, APRN, BC, Team Leader, Clinical Practice Guidelines, Deployment Health Clinical Center.

Tracking Deployment-Related Health Care through Clinical Information Systems. Dori Rogut, APRN, BC, Team Leader, Clinical Practice Guidelines, Deployment Health Clinical Center.

Randomized, Placebo-Controlled Trial of Combination Preventive Treatment with Pyridostigmine, DEET, and Permethrin. Michael Roy, MD, LTC, USA, Walter Reed Army Medical Center.

Deployment Environmental Epidemiology in the Army: Determining Its Feasibility and Applications. Vivian Rush, MD, MPH, Medical Officer, US Army Center for Health Promotion and Preventive Medicine.

DoD Deployed Health Care Providers Panel: Experiences, Issues, and Answers Following Operations Enduring and Iraqi Freedom. Frank Samarin, MD, Capt, USAF, Flight Surgeon, 347 ADS/ SGGF.

Prevalence of Depression in Aviators Deployed in Operation-Iraqi Freedom. Brett Schneider, MD, MAJ, USA, Chief, Community Health and Telepsychiatry, Walter Reed Army Medical Center.

Appendix D: Force Health Protection Deployment Healthcare Tack Presentations (by Author)

Strategic Challenge with OIF—German Medical Observer Program in Operational Medicine with Emphasis on Prevention and Occupational Health. Wolfgang Schubert, MHS, GN, NEHC, LCDR, Pharmacist, Naval Environmental Center.

The Care of Military Women with Traumatic Stress Concerns: What They've Said and What We've Learned. Vivian Sheliga, DSW, LCSW, LTC (USA Ret.), Associate Director, Clinical Education and Training, Deployment Health Clinical Center.

Federal Strategic Health Alliance (FEDS-HEAL) Program and the Army Reserve, Operation Iraqi Freedom (OIF). Michael Silverman, COL, Physician, US Army Reserves.

Military Providers and Patients with Deployment Related Health Concerns: A Disparity of Perceptions Regarding Health Care Delivery. Terry Sjoberg, BSc, Project Manager, Health-e-VOICE, Deployment Health Clinical Center.

Ensuring a Seamless Transition from DoD to the VA Health Care System. Lisa Skolnick, LCSW-C, Department of Social Work, Walter Reed Army Medical Center.

Pre-Deployment, Re-Deployment and Post-Deployment: The Role of a Simple Checklist in the Management of Health Evaluations. Kevin Smith, MD, MPH, CPT, USA, Preventive Medicine Physician, USAMEDDAC, Wuerzburg, Germany.

Getting Physician Reservists Up to Speed on DD Forms 2795 and 2796. Kevin Smith CPT, MD, MPH, CPT, USA, USAMEDDAC, Wuerzburg, Germany.

Depleted Uranium (DU) Case Management Program Panel. Katherine Squibb, PhD, Associate Professor, University of Maryland School of Medicine.

Health Service Support Issues in the Kuwait Theater of Operations. Daniel Sullivan, COL, USA, Chief of Staff, 8th Bde Forward, 8th Medical Brigade.

Ensuring a Seamless Transition from DoD to the VA Health Care System. Xiomara, Telfer, LCSW, Veterans Administration Medical Center, Washington, DC.

Health Info Panel: The Impact of Personal Digital Assistants (PDAs) in the Perioperative Setting. Veronica Thurmond, PhD, LTC, USA, Department of Nursing Research, Walter Reed Army Medical Center.

Interaction Activities That Influence Satisfaction and Likelihood of Enrolling in Web-Based Courses. Veronica Thurmond, PhD, LTC, USA, Department of Nursing Research, Walter Reed Army Medical Center.

Active Component Passback, A Dynamic Experience During the Global War on Terror in Iraq. Scott Uithol, MAJ, USA, Assistant Chief, Outpatient Clinic, Tripler US Army Medical Center.

DU Panel: Implementation of the ASD (HA) DU Policy. Mary Vaeth, MD, COL (USA Ret.), Training Manager, Clinical Practice Guidelines, Deployment Health Clinical Center.

The Evolution of the US Army's First Medical Family Assistance Center in Support of the Global War on Terrorism: Implementation of Service Brokering to Families During Sustained Periods of Crisis. Michael Wagner, Family Assistance Center, Walter Reed Army Medical Center.

Self-Reported Exposures in Deployed Settings: Do They Mean What We Think They Mean? Coleen Weese, MD, MPH, Program Manager, US Army Center for Health Promotion and Preventive Medicine.

Repellant Survey of Service Members Arriving in Kuwait for Operation Iraqi Freedom. Dennis White, LTC, USA, Chief of Professional Services, 8th Medical Brigade.

Appendix D: Force Health Protection Deployment Healthcare Tack Presentations (by Author)

Enhancing the Health of the Fighting Force Through Utilization and Implementation of the DoD Tobacco Use Cessation Clinical Practice Guideline – Part I – Provider, Staff, and Patient Education. Larry Williams, DC, CAPT, USN, Head, Dental Dept M, Military Medical Support Office.

Enhancing the Health of the Fighting Force Through Utilization and Implementation of the DOD Tobacco Use Cessation Clinical Practice Guideline—Part III—Applying the CPG in Your Practice. Larry Williams, DC, CAPT, USN, Head, Dental Dept M, Military Medical Support Office.

Guard and Reserve Force Health Protection and the Military Medical Support Office (MMSO). Larry Williams, DC, CAPT, USN, Head, Dental Dept M, Military Medical Support Office.

Spirituality: A Vital Factor in Healing and Health Promotion. Paul Williams, LTC, CH, Hospital Chaplain, VistaCare.

Physical and Mental Health Status of Canadian Troops 4 to 6 Months After Return from Service in Afghanistan: Findings of a Compulsory Screening Interview Program. Mark Zamorski, MD, MHSA, Acting Head, Post-Deployment Health Section, Directorate of Medical Policy, Canadian Medical Forces Group.

Early Combined Mental Health Intervention Targeting PTSD and High-Risk Behaviors After Acute Injury. Douglas Zatzick, MD, Assistant Professor, Department of Psychiatry and Behavioral Science, University of Washington School of Medicine.

Appendix E: Specialized Care Program Track II

A Clinical Referral Program for Deployment-Related Stress and Adjustment Problems

Background

Combat operations in Iraq and Afghanistan, along with other venues in the Global War on Terrorism, have exposed significant numbers of military personnel to combat stress and the intense demands of military operations. Previous experience as well as recent research indicates the likelihood that many returning veterans may need assistance in recovering from trauma and other stressful exposures. While many of those exposed recover without formal assistance by relying on personal coping resources and available social support, some will need professional help from medical and/or mental health providers. Many of these will recover adequate functioning with minimal intervention. Some, however, will continue to experience difficulties even after the provision of primary and secondary services . These veterans may remain troubled, become high users of medical/mental health services, and, occasionally, vocal critics of provided services.

The Deployment Health Clinical Center (DHCC), originally chartered as the Gulf War Health Center, was charged with developing a treatment program for Gulf War veterans who complained of symptoms after that conflict. A tertiary treatment component of the Comprehensive Clinical Evaluation Program was developed to treat veterans who remained symptomatic after appropriate medical intervention. This program, based on rehabilitative models for chronic pain, had notable success in treating functionally impaired patients who were dissatisfied with previously received medical care. The program came to be recognized as a specialized offering for the treatment of medically unexplained physical symptoms and accepted patients from all subsequent deployments as well as military personnel with symptoms they attributed to other military exposures (e.g., anthrax vaccine). This program came to be known as the Specialized Care Program.

In 1999, the Center was chartered as the Deployment Health Clinical Center and given the mission to improve tri-service post-deployment healthcare. In support of that mission, DHCC collaborated in the development of the DoD/VA Post-Deployment Health Evaluation and Management Clinical Practice Guideline, which defined appropriate care for deployment-related health concerns. DHCC developed tools and Web content to support adoption of the guideline.

These efforts put DHCC in the forefront of the DoD's attempt to provide necessary post-deployment care. As a result of DHCC's contacts with tri-service health centers, a new need was identified—to provide care for veterans returning from Iraq and Afghanistan who continued to experience readjustment problems in spite of suitable assistance or who were unable to obtain necessary assistance at their location. DHCC combined its staff expertise in dealing with distressed veterans with evidence-based treatments for posttraumatic stress disorder to develop a program that offers another tertiary care program to veterans whose other care options have been exhausted.

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[6]Hoge, et. al., (2004).

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Appendix E: Specialized Care Program Track II

Objectives

The Specialized Care Program Track II is designed to be a tertiary care, multidisciplinary, evidence-based program for combat veterans with deployment-related stress, posttraumatic stress disorder, or difficulties adjusting to re-deployment. An intensive, comprehensive, three-week long intensive outpatient program based at Walter Reed Army Medical Center, it combines evidenced-based therapies for posttraumatic stress disorder with the treatment strategies and therapeutic milieu of the Specialized Care Program that has successfully treated veterans for more than eight years.

The program is designed to treat and reduce the symptoms of stress and trauma, to prevent the development of chronic posttraumatic stress disorder, and to reduce co-morbidity, depression, substance abuse, and domestic violence, all of which can contribute to high utilization of healthcare services. It focuses on those who have failed to respond to more routine treatment efforts and are therefore at risk of significant maladjustment and dissatisfaction with their care.

Specific objectives:

- To provide overall healthcare management
- To improve the veteran's understanding and recognition of symptoms of posttraumatic stress disorder, reduce stigma, and normalize responses to his/her combat experience
- To reduce hyper-arousal/avoidance while enabling the individual to acquire coping skills to manage intrusive symptoms common to posttraumatic stress disorder
- To provide a therapeutic group process for mutual support and re-integration into the community
- To manage the associated posttraumatic stress disorder symptoms of depression and grief
- To restore social support systems
- To teach self-care and provide information about available resources.

Scope

The program is designed to treat recent veterans from Iraq and Afghanistan who have had significant combat exposure. It is expected that participants will still be emotionally raw and possibly mistrustful of others who did not serve with them. Accordingly, in order to promote trust and safety within the group, only those who have served in combat operations in support of the Global War on Terrorism will be admitted to the program. This would preclude family members' direct participation, even though they may also have experienced significant stress due to the participant's deployment. On the other hand, family members are encouraged to support the participant by accompanying them to DHCC and "shadowing" their loved one during some parts of the program (e.g., lectures, exercise, yoga, etc.). In addition, non-present family members are routinely contacted to ask if they have any questions or concerns we might address. (This is done only with the program participant's prior permission.)

Members of all three Services are playing vital roles in support of the Global War on Terrorism and are therefore exposed to the potentially traumatizing impact of combat. DHCC has seen, in its experience with medically unexplained symptoms, that simultaneously treating veterans from the various Services facilitates treatment as patients are challenged to see what they have in common. Accordingly, the program is available to all recent combat veterans, regardless of Branch of Service.

Finally, the program is designed to treat moderate to serious posttraumatic stress disorder or related symptoms. Milder symptomology can often be successfully treated at primary and secondary facilities. More severe symptomology will need inpatient treatment (e.g., patients with suicidal or violent ideation, active alcohol or other substance dependence, unstable medical problems). The Specialized Care Program Track II is available to those whose symptoms have grown worse with time and to those who have completed a hospitalization but are still deemed to have intensive treatment needs.

Appendix E: Specialized Care Program Track II

Principal Methods of Care

Individual and Group Treatment
Program participants are brought into the program in groups of three to eight and many treatment activities occur in groups. The group provides participants with peers they "can talk to" and who "can understand," diminishing potential conflicts with providers who may be seen as "part of the system." Group bonding is fostered when participants both give and receive help from peers. In the first week of the program, a previous program graduate meets with the group and provides a participant's perspective promoting an enduring positive group culture. At the same time, other program elements are designed to meet specific individual bio-psychosocial needs. For example, patients are provided individual counseling, an individualized exercise program, and medication management. Family and other social support issues are addressed in individual counseling sessions. Other adjunctive therapies are offered as clinically indicated (e.g., massage, pool therapy, acupuncture, yoga).

Focus on Strength-Based Resiliency
An important component of cognitive behavioral therapy is replacing self-defeating beliefs with more appropriate ones. Individuals with posttraumatic stress disorder frequently harbor a negative self-image based on a perceived failure to adequately cope with combat stress or with the sense of having let their unit down. In all aspects of the program, this negative self-image and these unrealistic beliefs are directly addressed. All clinical staff members continually attempt to re-define symptoms as normal and expected. Symptoms are characterized as temporary and manageable, rather than as chronic or unmanageable. Participants are taught to re-focus on their coping strategies and encouraged to consider alternative positive interpretations of their situation, symptoms, and behavior. Providers communicate their confidence in the group members' abilities to cope and heal.

In addition, maladaptive coping strategies are identified and addressed. All forms of avoidance behaviors are gently confronted. This includes such behaviors as social and interpersonal withdrawal (e.g., from family and friends), as well as various risk-taking behaviors such as substance use and fighting. Participant education puts forth the notion that avoiding the feelings engendered by combat and trauma is the source of symptoms and re-engaging their felt experience will alleviate these symptoms. Group members are taught and encouraged to adopt more appropriate coping mechanisms. However, each individual is afforded broad control over his or her therapy and its pace and is always treated in a way that indicates the staff is confident of his or her ultimate participation and success. Program participants are also encouraged to maximize and involve available positive social supports in the program.

Physical Reactivation and Medical Management
Veterans subjected to recent combat, severe stress, long duty hours, multiple potential environmental exposures, and intense prolonged physical demands often suffer from co-morbid physical conditions and/or concerns. They may have war-related injuries, other injuries or conditions, and/or medically unexplained symptoms. While posttraumatic stress disorder is the primary focus of the program, these other conditions are also treated both to foster participant trust and to address the whole person. Accordingly, a physician/nurse team provides medical management and a physical therapist directs a reactivation/rehabilitation program as components within the Specialized Care Program Track II.


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