



Deployment Health Clinical Center Annual Report FY2003



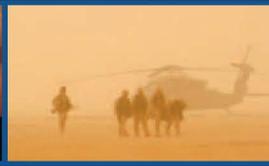




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Introduction

Background

The DoD Deployment Health Clinical Center (DHCC) was established in 1999 as the result of the Thurmond National Defense Authorization Act. Located at the Walter Reed Army Medical Center (WRAMC) in Washington, DC, it is one of three centers of excellence dedicated to improving deployment health.

The **core mission** of the DHCC is to **improve deployment health** by providing caring assistance and advocacy for military personnel and families with post-deployment health concerns while simultaneously serving as a catalyst and resource center for the continuous improvement of deployment healthcare across the Military Health System (MHS). The Center accomplishes this mission through a three-component strategy consisting of:

- **Health Care Services:** Direct healthcare delivery, clinical consultation, and healthcare delivery process improvement
- **Education and Informatics Support:** Development and dissemination of deployment healthcare best practices through health information, communications, and clinical education
- **Research:** Deployment-related clinical and health services research.

Mission and Goals

The overarching goal of the DHCC is to contribute to the security of the United States by helping to achieve its commitment to maintain, protect, and preserve the health of U.S. Armed Forces men and women. DHCC's mission includes the responsibility to:

- Improve deployment-related healthcare
 - Maintain and improve primary and tertiary healthcare for individuals with deployment-related health concerns
- Leverage health information and risk communication systems for deployment healthcare
 - Use health information systems and risk communication strategies to improve care as well as to improve the military's capacity for managing emerging deployment-related medical conditions
- Develop a program of militarily relevant clinical research
 - Develop and publish research related to deployment health services and clinical care improvement



- Implement a military medical deployment health clinical education program
 - Assist in developing, implementing, and sustaining an evidence-based military medical deployment health education program to increase the volume, quality, use, rate, and ease of use of deployment-related healthcare and communication knowledge to military clinicians
- Collect and disseminate deployment health lessons learned
 - Ensure that “lessons learned” from combat operations and other military deployments and research findings are translated into effective preparation for future deployments
- Support the contingencies of current deployments and U.S. Armed Services strategic initiatives.

The DHCC adopted the following 2003 goals and objectives to fulfill this mission:

- Provide direct clinical support to veterans and other military healthcare beneficiaries with post-deployment health concerns
- Create, pilot, and disseminate healthcare strategies and best practices that enhance troop readiness and well-being while reducing the incidence of chronic disorders
 - Capture lessons learned from post-deployment health clinical care
- Develop and disseminate educational products and clinical tools to support the evidence-based DoD/VA Post-Deployment Health Clinical Practice Guideline (PDH-CPG) among military clinicians
 - Develop a survey instrument to assess the training needs of military clinicians as they adopt the PDH-CPG
- Develop and disseminate policies, treatment guidance, and risk communication products to military clinicians concerning emerging health threats in the OEF and OIF combat theaters
- Use information technology to facilitate the tracking and management of post-deployment health information
 - Create a Post-Deployment Health Tracking Database tool
- Administer and continually develop a portfolio of deployment health research projects.



Introduction

Expertise in War-Related Syndromes

The DHCC possesses extensive expertise in the history of, research about, and treatment of post-war syndromes, chronic pain, and Medically Unexplained Physical Symptoms (MUPS) in veterans. War-related syndromes have been recognized since the Civil War. They are frequently characterized by symptoms such as fatigue, sleep disturbances, forgetfulness, and persistent headaches. Exhaustive medical evaluations rarely yield recognized physiologic etiology for these symptoms, and many patients appear to be in fair to normal overall health.

Experience from the Gulf War shows that an operation's length and number of battle-related casualties are not good predictors of the development of subsequent post-deployment health concerns. Another lesson learned from the Gulf War is that the military community was not prepared to deal with Gulf War veterans who presented with symptoms that did not fit with a known disease etiology.

DHCC's charter states that "[i]t is crucial that the lessons from the Gulf War experience be applied in improving protection of troops, responding to health concerns and assisting veterans and their family members through difficult transitions." At its inception, DHCC has met this challenge through key involvement in the Comprehensive Clinical Evaluation Program (CCEP). A prototype for best practices in the surveillance, evaluation, and treatment of deployment-related health concerns, the program provided exhaustive medical evaluations and a stepped-care strategy for veterans reporting health concerns they associated with their Gulf War experience. In 2002, the CCEP transitioned to the DoD/VA Post Deployment Health Evaluation and Management Clinical Practice Guideline (PDH-CPG). Providing structured algorithms for screening, assessing, evaluating, and managing post-deployment health issues, it widens the scope to all deployment veterans and their families as well as incorporating a primary care-based, longitudinal care model. In 2003, responding to a directive from the Army Surgeon General, PDH-CPG implementation was revitalized through a variety of educational outreach products and events.

Another lesson learned from the Gulf War experience was that military clinicians were not sufficiently expert in risk communication techniques to be able to maintain and increase the trust and confidence of veterans whose post-deployment health issues were difficult to diagnose and treat. DHCC has responded to this need in 2003 by providing risk communication training, a daily electronic newsletter with links to risk communication articles, and risk communications literature for specific emerging health issues associated with Operations Enduring Freedom and Iraqi Freedom (OEF, OIF).

DHCC's role as a center of excellence for improving deployment health has grown throughout 2003. DHCC has taken a leadership role in implementing a Care Manager Collaborative Care Model for primary care and the PDH-CPG Re-Deployment Assessment process to assess and screen sick and injured



veterans demobilizing from OEF/OIF at Walter Reed Army Medical Center, DHCC's host organization. DHCC was also asked in 2003 by the Office of the Assistant Secretary of Defense for Health Affairs to "evaluate, promulgate and implement" a medical program for depleted uranium exposure and to provide clinician and patient information materials for leishmaniasis, another OEF/OIF health concern.

Promoting Resiliency in a Post 9/11 World

A paradox of the service member's mission is that in the service of life and to protect the goods of a free and peaceful society, he or she may need to enter into combat, experience the loss of a comrade, cause the death of an enemy combatant, or be exposed to other potentially traumatic experiences. One frequently occurring post-war health concern is post-traumatic stress disorder (PTSD). According to the definition given by the American Psychiatric Association, PTSD is a disorder caused by a traumatic event that "crosses the boundaries of a normal human experience," with typical symptoms of "relived events of traumatic experience, sickening, emotional reaction to that remembrance, and agonizing dreams." In other words, a service member may have trouble integrating and processing his or her "normal" response to an "abnormal" situation.

On September 11, 2001, the terrorist attacks visited upon the World Trade Center and the Pentagon issued in a new era in our nation's history. We now understand that every citizen is a potential target, and in a sense, a participant in the War on Terrorism. The real risk of PTSD for victims of past or future terrorist attacks and for our nation's citizens at large is now a concrete public health concern.

DHCC takes seriously the need to better understand and more effectively treat PTSD in veterans who have been deployed. The strength, fitness, and readiness of troops in all services depend on a frank, objective understanding of PTSD and effective treatment and preventive measures. DHCC has contributed to this goal in 2003 in many ways—providing direct clinical care to veterans and victims of the Sept. 11 Pentagon attack, facilitating learning and discussion on this issue through newsletter articles and Web site content on PDHealth.mil, sponsoring DHCC Grand Rounds presentations on PTSD, as well as undertaking two PTSD-related clinical research projects. The experience of the first of these projects, CSP 494, which tests two treatment modalities for chronic PTSD patients, helps reveal the cost to the U.S. military and individual service members of the stigma associated with the disorder and the ensuing delay of treatment. Promptly assisting service members at risk for developing PTSD saves time and money and promotes Armed Forces health.

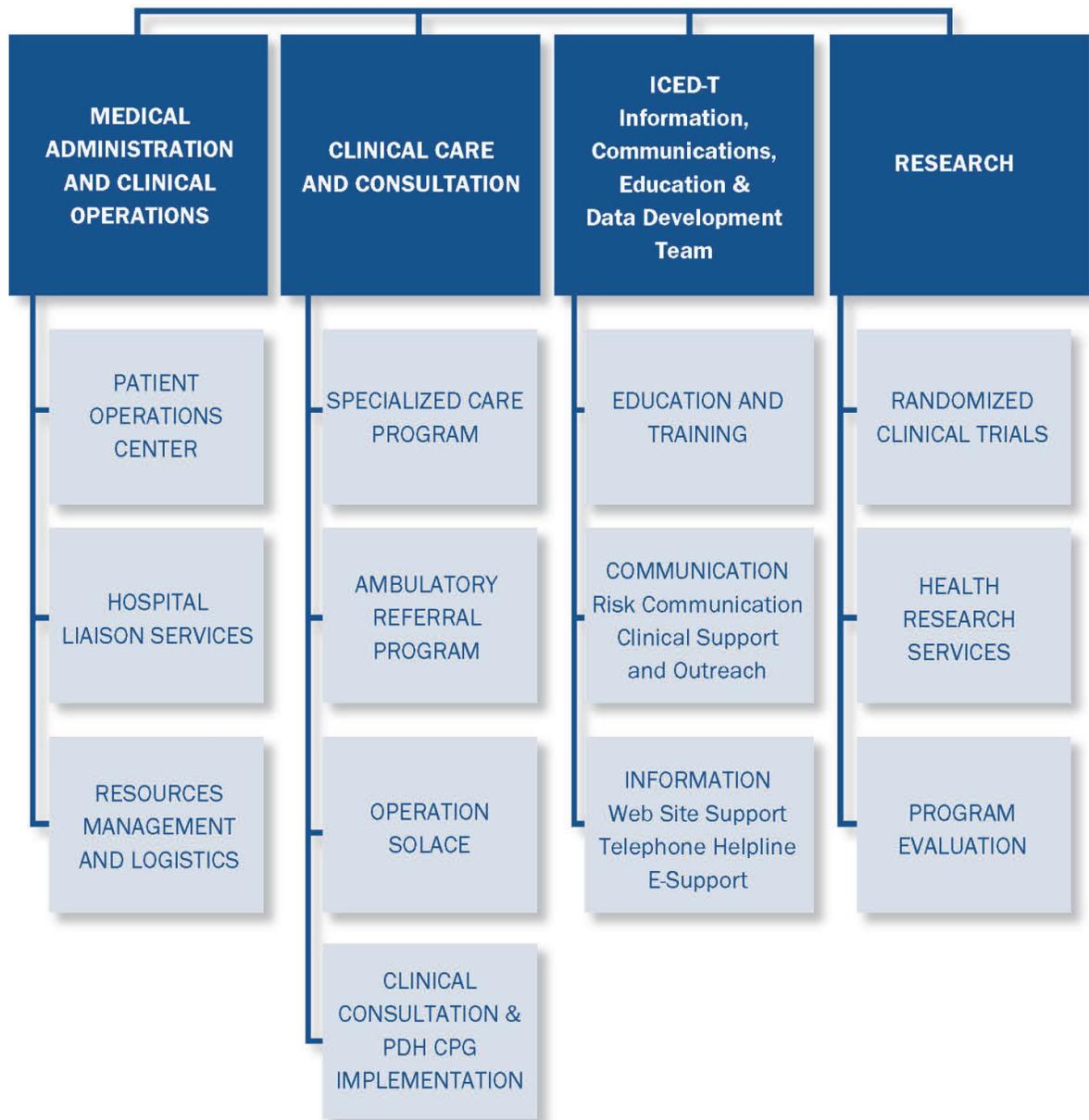
The Center's second PTSD study, Project DESTRESS, whose target population comprises military members affected by Sept. 11 Pentagon attack and other stressful deployment-related events, has the goal of preventing PTSD chronicity. Early intervention strategies like those being evaluated in this study may potentially be used in the effort to create and sustain mentally tough Armed Forces as well as to promote the resiliency of the American public during the War on Terrorism.



Introduction

DHCC Organizational Structure

Figure 1: DoD Deployment Health Clinical Center





Military Medicine in the 21st Century

Participating in a results-oriented environment, DHCC clinicians operate on two levels. While providing state-of-the-art clinical care to post-deployment patients, DHCC clinical staff—including a physician, nurse practitioners, a registered nurse, a physical therapist, social workers, a psychologist, medical technicians and medical administrators—analyze the processes they execute, provide improvements to the process, and document and disseminate these improvements through DHCC's clinical communications programs.

Seen as a center of excellence for treating war-related illnesses, the DHCC also takes the lead in evaluating, promulgating, and implementing clinical policies and programs for emerging deployment health issues such as depleted uranium exposure medical management.

With expertise in survey creation, statistics, and longitudinal demographic research techniques, DHCC informatics professionals, research staff, and epidemiologists uncover health trends in military populations, assess the effectiveness of treatment modalities, devise strategies to target measurable outcomes, and implement and manage databases that provide data for healthcare analysis, research, and quality improvement efforts.

Using modern electronic capabilities, DHCC information management personnel use DHCC's Web site, PDHealth.mil, to provide a wide variety of healthcare, risk communication, and clinical algorithms to military clinicians worldwide. The Web site serves as a repository for DoD and service-specific healthcare policies and directives. It gives access to multi-media training and educational opportunities as well as fact sheets, primers, research findings, and news items. It also makes health-related information and resources available to military personnel and families.

A flexible, proactive, and highly effective organization, the Deployment Health Clinical Center seeks to provide deployment-related health protection, assessment and care for America's Finest both directly and by offering resources and guidance to the military healthcare community.



Health Care Services

Keeping Our Promise

The DHCC seeks to give veterans the highest quality care in return for the sacrifices they have made. This is what the Department of Defense promises and owes to each service member. A key element of the Center's therapeutic environment is to give veterans two simple things they need and deserve: validation and gratitude. For those patients suffering from MUPS or chronic pain, especially those who may have experienced frustrations or delays in their experiences with the military healthcare system, the DHCC offers the simple, but important statement: "We believe you." Even if their complaints have not received a specific diagnosis or well-understood etiology, DHCC's clinical staff members reassure patients that their concerns and discomfort are respected and taken seriously.

The other simple, but important, message that clinicians and staff convey to each patient receiving care at the DHCC is: "Thank you." The service members who come to the Deployment Health Clinical Center know that their service to their country and the sacrifices they have made are acknowledged and appreciated.

This perspective helps DHCC achieve its goal of improving veterans' satisfaction with their care and contributes to demonstrable improvement in health outcomes. In FY03, DHCC provided clinical care to more than 1000 patients during 3400 patient encounters.

Patient Care

DHCC accomplishes its chartered mission to "maintain and improve primary and tertiary healthcare for individuals with deployment-related health concerns" through its patient care programs. DHCC's FY03 healthcare service activities included the traditional DHCC stepped care program for patients with chronic, multi-symptom illness, healthcare and advocacy for personnel affected by the Pentagon attack of September 11th, and providing the mandated Post-Deployment Health Assessment to OIF casualties demobilizing through WRAMC.

The DoD/VA PDH-CPG program, which grew out of the Comprehensive Clinical Evaluation Program (CCEP), was mandated for implementation throughout DoD in 2002. Evolving in part from DHCC experiences with Gulf War veterans, the guideline provides a structure for military primary care providers to use to treat both straightforward, diagnosable post-deployment conditions, as well as providing a clear roadmap for complex cases requiring extensive follow-up.



The traditional constituency of the DHCC, Gulf War veterans and those suffering from MUPS and chronic pain, has been expanded to all post-deployment service members and their families. DHCC receives referrals to the Ambulatory Referral Care Program (ARP) and the Specialized Care Program (SCP)—secondary and tertiary care corresponding to former Phases II and III of the CCEP—from military primary care providers. DHCC also provides support to clinicians throughout the Military Health System (MHS) through clinical consultation services.

The Specialized Care Program (SCP)

The SCP treatment program was established on principles and practices found to be effective in the multidisciplinary treatment of chronic pain and other chronic illness. Originally established as the final phase of the CCEP for Gulf War veterans, through the PDH-CPG, the SCP continues to provide referral care to veterans with health concerns related to all deployments.

During a three-week program, the SCP provides service members and their families with knowledge and skills for coping with multi-symptom chronic illnesses. Employing a multi-disciplinary system of care, the SCP provides a comprehensive package to the patient including medical care, nursing, psycho-educational learning, counseling, family support and education, resource coordination, exercise and physical activity, and case management. Clinicians from internal medicine, psychiatry, psychology, social work, physical therapy, nursing, and nutritional medicine provide guidance to patients on an individual as well as a group basis.



The program was suspended from April–September 2003 to allow DHCC clinical personnel to assist in caring for OEF/OIF casualties. During the first six months of FY03, 24 patients participated in 6 SCP treatment cycles. Each patient received an average of 15 individual provider contacts and 38 hours of group treatment. All patients received clinical follow-up contacts for up to 40 weeks to ensure post-discharge treatment plan implementation as well as to monitor their status and to provide on-going support for their health and functional gains.



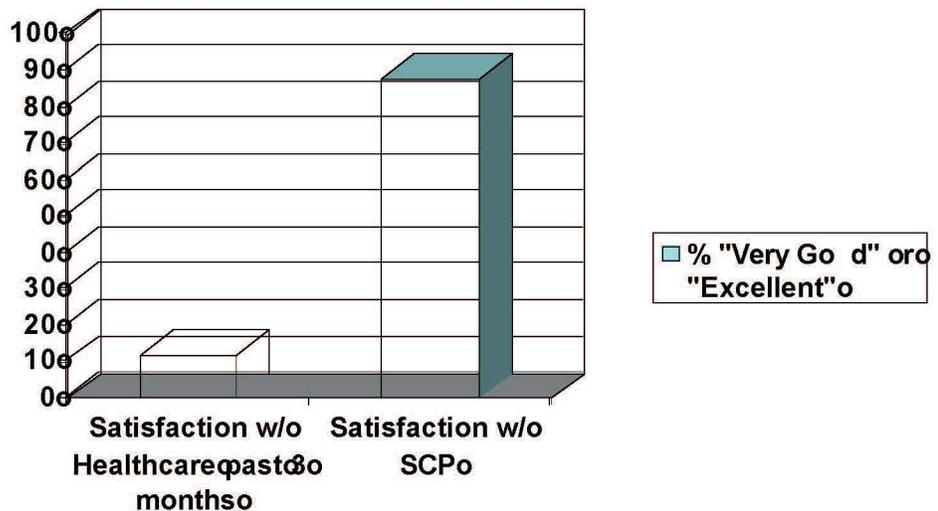
Health Care Services

In individual and group short-term therapy sessions, patients develop a symptom management plan including goals and action steps to allow them to continue the treatment strategies and techniques they learn. Cognitive behavioral therapy (CBT) seeks to address cognitive and emotional issues underlying illness behavior. Patients receive counseling, symptom and disease management, and CBT. Exercise routines are tailored to the patient with disabilities. Health self-care skills along with relaxation and general lifestyle wellness techniques round out the treatment program.

Patients who complete SCP tend to enjoy a higher level of functioning and are better able to cope with chronic illness especially when the diagnosis is uncertain. They learn strategies to access the health-care system with improved knowledge and expectations. The program also emphasizes the importance of a primary care manager to coordinate the recommendations by specialists when patients return to their local healthcare system.

DHCC follows patients who have completed the SCP with clinical and program evaluations to improve service not only for current and former patients but also for future program participants. While participation in follow-up is voluntary, it is a vital component of the DHCC's continuous quality improvement efforts. While at intake, most patients reported low satisfaction with their healthcare services over the last three months, exit questionnaires revealed that more than 80% of patients were satisfied with care received during the program. At the one-month follow-up point, most patients remained satisfied with care received through the SCP program.

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Worldwide Ambulatory Referral Care Program (ARP)

The ARP receives referrals for care of patients with multiple chronic illnesses that have unclear etiologies and that present challenges to the patient and their care provider. Administered by an internal medicine physician with extensive experience in post-deployment medicine, the program receives referrals from all points in the United States and overseas. The internist performs a clinical evaluation, including necessary laboratory diagnostics, and may initiate medical and pharmacological treatment with any new diagnoses. If diagnosis and the pathway to appropriate treatment remain unclear, the internist may pursue more imaging studies or referrals to specialists. Appropriate follow-up is offered until the necessary treatments have been completed. Should the patient go on to enter the SCP, the internist continues to address their health concerns during the program until they have been satisfactorily addressed. The ARP provided these services to approximately 400 patients in 2003.

Operation Iraqi Freedom (OIF) Post Deployment Health Assessments

As casualties began returning to the United States from the OIF theater of operation, the DHCC became involved with administering the Post-Deployment Health Assessment (PDHA) to outpatients at the Walter Reed Army Medical Center. From January–March 2003, DHCC helped design and promulgate the enhanced assessment.

From April–September 2003, the Center administered the PDHA to 673 service members at WRAMC: 130 Active Duty, 288 National Guard, 323 U.S. Army Reserve members, and 2 civilian contract personnel. During the assessment of each re-deploying service member, DHCC clinicians ensured that appropriate malaria chemoprophylaxis had been administered, and offered risk communication for malaria, leishmaniasis, depleted uranium, and other environmental and battlefield exposures.

Implementing the newly enhanced assessment gave DHCC the opportunity to measure its effectiveness, make minor adjustments to the current re-deployment guides, and obtain valuable feedback from our deployed forces.

DHCC clinical personnel also provided case management functions for this outpatient population and assisted with a host of administrative and clinical issues that drew upon their experience and expertise. The case management model was successful and was picked up by the larger Walter Reed medical staff as a best practice.





Health Care Services

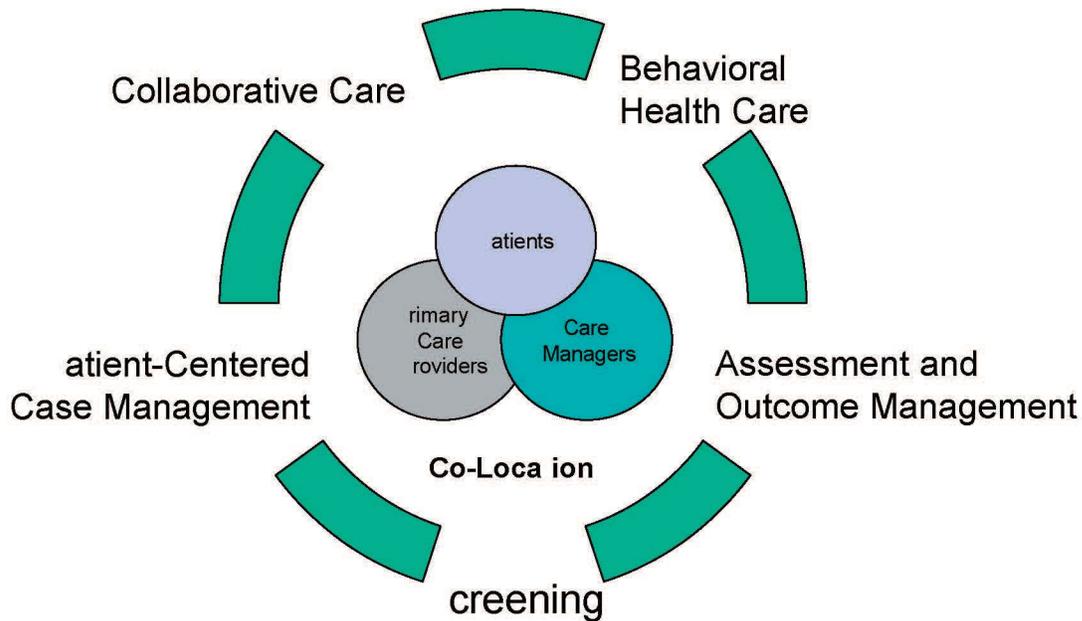
Operation Solace

DHCC met its goals to support the contingencies of current deployments and to create, pilot, and disseminate primary care best practices enhancing troop readiness through its continued participation in Operation Solace during FY03. DHCC's management and oversight of the Operation Solace Care Manager Program continued into July 2003.

Operation Solace, a tri-service effort funded by the Army Surgeon General in response to the attacks of September 11th 2001, provided direct care to those affected by the Pentagon Attack. It consisted of two components, the first of which placed clinical social workers and advanced practice nurses in the Pentagon to provide outreach and walking rounds to those directly affected by the blast. It was hoped that Pentagon personnel experiencing stress-related symptoms, who might not seek services formally, would respond to informal supportive services provided by walking rounds. The goal of this component was pro-active—prevention of PTSD and other chronic health problems through early intervention and referral when needed.

DHCC's main focus was the second component of Operation Solace, placing a Care Manager (CM) in the primary care clinics of the five military treatment facilities (MTFs) closest to the Pentagon to meet the needs of patients presenting with health concerns related to the attack. In the first year of the program, FY02, the PDH-CPG was being actively implemented in MTFs throughout the military healthcare system. For Operation Solace, the PDH-CPG deployment-related screening was expanded to include terrorism and environmental exposure screening questions.

Whereas the primary care provider used to address all the patients' primary care needs, the Care Manager Model placed a Care Manager with behavioral health skills in the MTF. If the patient replied: "Yes" to the enhanced screening question, he or she was referred to the Care Manager who assessed the patient to screen for a variety of somatic and behavioral health concerns.



licensed behavioral health professional with time to devote to patients with terrorism (September 11th), exposure (such as anthrax), or deployment-related concerns. The model sought to increase patient satisfaction with the military health system by providing a CM to meet the needs of a small, but high risk, population while expanding the risk communication and patient education resources of the primary care clinic.

Experience from the Oklahoma City bombing and from the Gulf War indicates that it makes medical and economic sense to identify and work intensively with the population at risk for developing chronic health problems as a result of a deployment or terrorism. By intervening early, the significant impact to the health of affected individuals and the cost to the military healthcare system for care of chronic illnesses can be avoided. By one calculation, the number of individuals likely to be at risk from the Pentagon attack is estimated to be 2000. Based on this number and using the cost per person to the DoD for treatment of chronic MUPS, subtracting the cost of the Operation Solace Care Managers during FY02 and FY03, the DoD avoided as much as \$17 million in costs by instituting this intervention program.



Health Care Services

Figure 4. Reasons for Seeking Care by Site

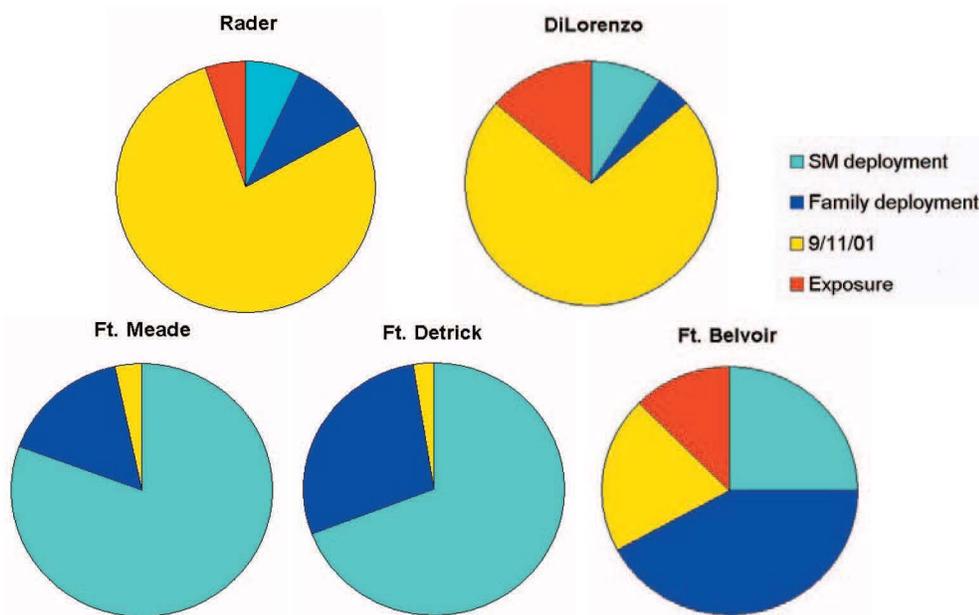


Figure 4 shows that patients presenting with concerns about the Pentagon attack clustered significantly in the clinics closest to the Pentagon. As one looks at data from MTFs further away from the Pentagon, deployment-related stress concerns predominated. In FY03, this increase in deployment-related concerns reflected the impact of OEF/OIF on the patient population.

Operation Solace Care Managers ensured compliance with the PDH-CPG at these MTFs by conducting briefings, staff education presentations, and by participating in each installation's strategic planning to ensure that incoming residents and staff received training. The Operation Solace PDH-CPG initiative identified more than 300 patients with deployment-related health concerns. The low volume, high-risk population responding "Yes" to the deployment-related screening question received the intensive care they needed.

Because of the demonstrated success of the CM program, the Department of the Army expanded the program Army-wide by funding a one-year pilot program called the Deployment Health Care Manager Program. A central component of the Army's Deployment Cycle Support Program (DCSP), this program hired 68 Care Managers to provide Deployment Care Manager services at 36 Army MTFs. These Care Managers are all licensed clinical social workers dedicated to meeting the deployment health needs of Army beneficiaries affected by current contingency operations, including OEF, OIF and Noble Eagle.



In FY03, DHCC's Operation Solace program met its goals to:

- Provide direct clinical support to military healthcare beneficiaries with deployment-related health concerns
- Create, pilot, and disseminate primary care strategies and best practices that enhance troop readiness and well being while reducing the incidence of chronic disorders
- Facilitate the adoption of the PDH-CPG.

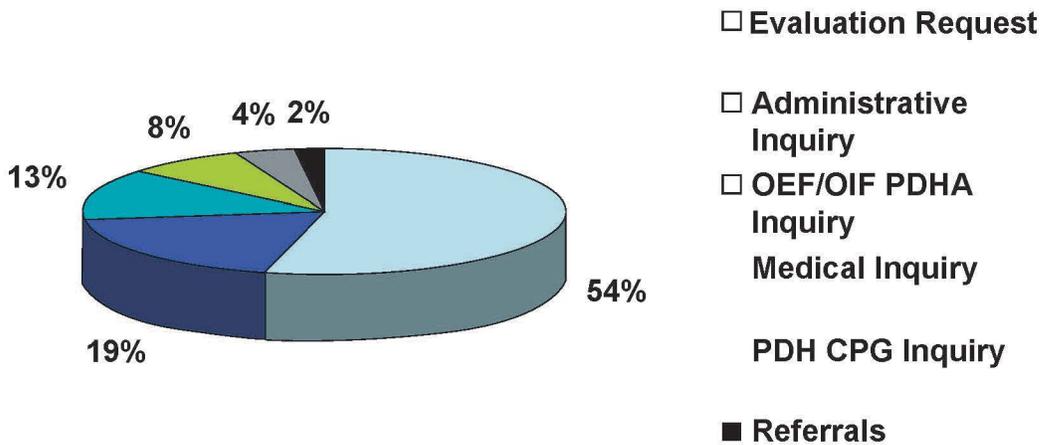
Clinical Consultation through Helplines and Email

DHCC operates two toll-free telephone helplines:

- DoD Patient Helpline for Service Members, Veterans, and Families
- DHCC Helpline for Clinicians and Providers.

During FY03, toll-free access to the patient helpline was added from Europe. DHCC also provides an email support service that can be accessed both directly and through the Center's Web site. The clinicians helpline provides access to clinical consultation and referral services for post-deployment health issues and guideline implementation questions. The consultation service responded to 792 phone inquiries during FY03 and 235 inquiries through the DHCC Web site.

Figure 5: Inquiries to the DHCC Helplines

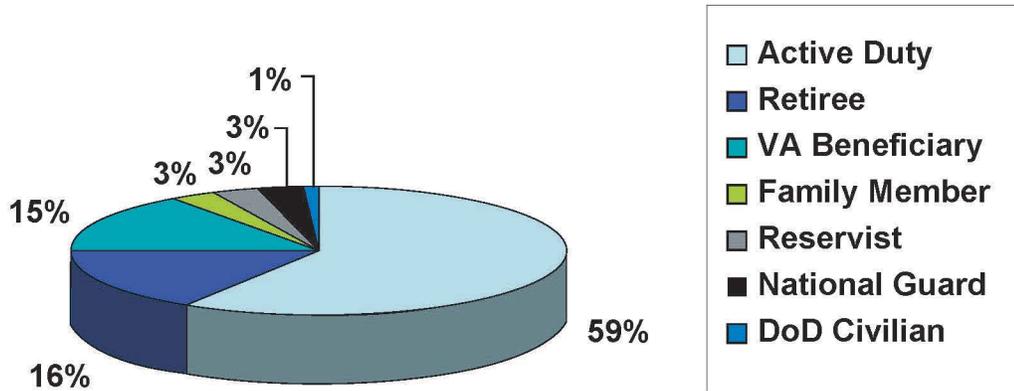


* Inquiries listed in decreasing order of frequency



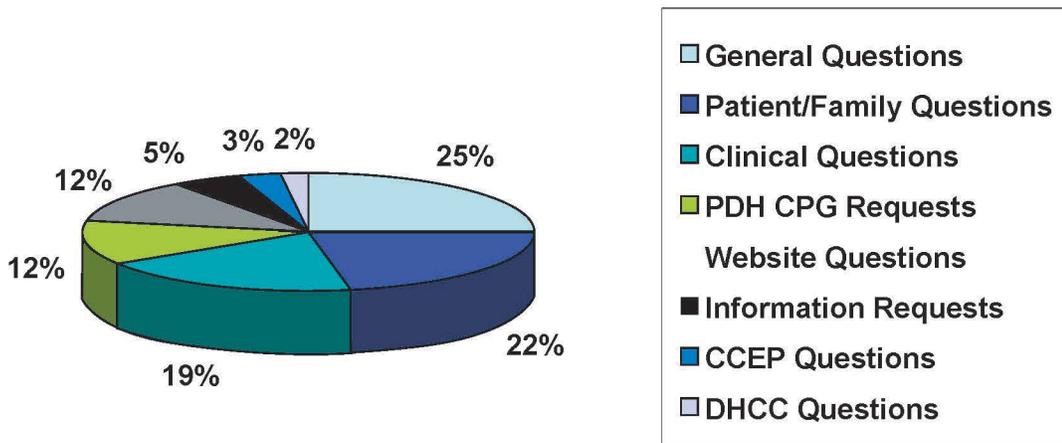
Health Care Services

Figure 6: DHCC Helpline Caller Demographics



* Inquiries listed in decreasing order of frequency

Figure 7: Web/Email Questions



* Inquiries listed in decreasing order of frequency



Support and Consultation to the Army Family Assistance Hotline

At the request of the Army Chief of Staff, DHCC provided support and consultation to the volunteer and professional staff of the Army Family Assistance Hotline. The assistance line was established in March 2003. From March–May, the 24/7 staff of 32 handled approximately 80,000 calls. DHCC behavioral health staff provided educational and on-site support including:

- Pre-exposure training for the staff in providing emotional first aid to distressed callers
- Education on deployment-related issues
- Support sessions to the staff for processing difficult call situations
- Follow-up care for DoD beneficiaries during or after hotline consultation.

Following the end of major combat operations in OIF, call volume declined, allowing an opportunity to learn from the experience. Gail Lovisone, Army Family Assistance Hotline Chief, provided the May 2003 DHCC Grand Rounds presentation on hotline operations, the data obtained, management of complex cases, and overall lessons learned.



Information, Communication, Education and Data Development

Meeting the Needs of Military Clinicians during Peacetime and War

During FY03, the United States Armed Forces were deployed worldwide on peacekeeping missions, prosecuted the War on Terror in Afghanistan, ramped up for a major engagement in the Middle East, and began Operation Iraqi Freedom. DHCC's mission to improve deployment healthcare extended to all these activities. DHCC had the following FY03 information, communication, education and data development objectives:

- Facilitate compliance with the DoD/VA PDH-CPG through a variety of educational products and events
- Revitalize and build continued awareness of the PDH-CPG as mandated by DoD leadership
- Ensure that lessons learned from previous deployments and current operations were and are translated into military healthcare process improvement
- Evaluate, promulgate, and implement medical management policies and programs as directed by DoD leadership
- Meet the contingencies of current deployments by providing clinical practice guidance, risk communication products, and other educational materials concerning emerging health threats in the OEF and OIF combat theaters
- Use current survey methodologies and statistical software to gather, analyze, and report on high-impact deployment-related findings
- Use information technology to facilitate the tracking and management of post-deployment health data.

DHCC's communication and education personnel met these FY03 goals through the DHCC Web site, informatics initiatives, and clinical education and communications programs. The resources, tools, algorithms, statistical data, and communication products developed for military clinicians were designed to protect the health of the men and women who protect our nation.

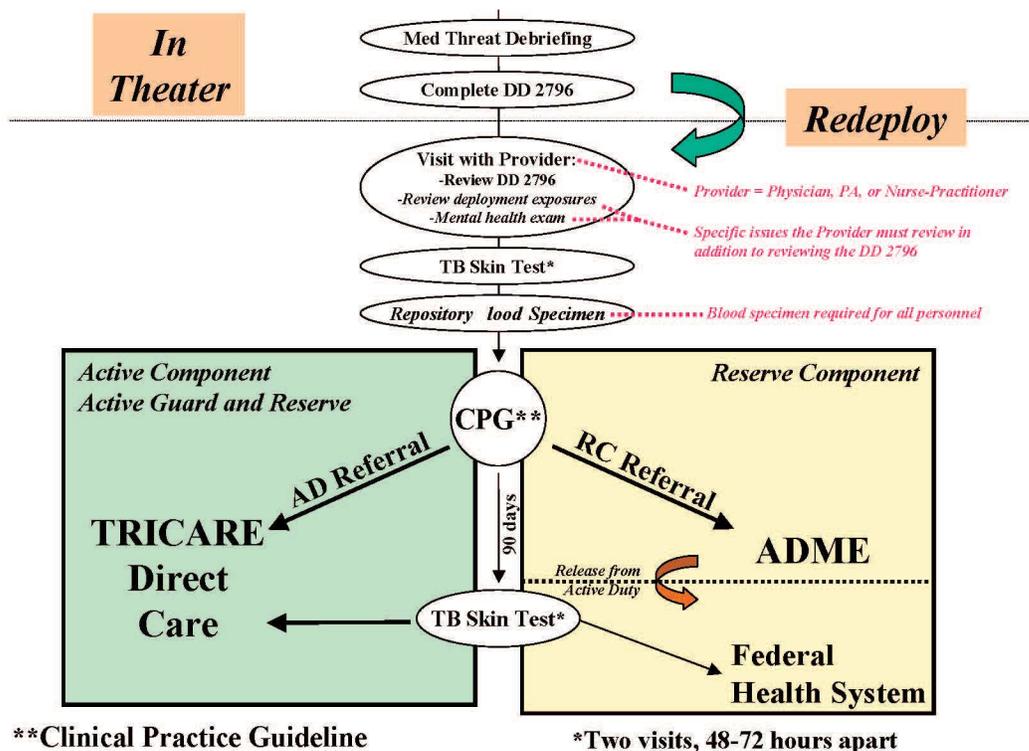
Enhanced Post-Deployment Health Assessment (PDHA)

As part of the preparation for the Iraqi War, DHCC was asked to collaborate in designing an enhanced Post-Deployment Health Assessment (PDHA) and an Expanded DD Form 2796 to fulfill the statutory requirement that a thorough mental and physical assessment be performed for each re-deploying service member. The new process mandates a face-to-face encounter with a medical professional during which the more comprehensive DD Form 2796 responses are discussed. Should a service member require non-urgent follow-up for any post-deployment health concerns, the PDH-CPG process guides



the clinician to refer the patient to their home station primary care provider for care. The Army Medical Surveillance Activity receives PDHA assessment data and performs trending and surveillance.

Figure 8: Post-Deployment Health Assessment Process



DHCC accomplished its goal to develop and disseminate resources to military clinicians to assist their implementation of the enhanced PDHA. These resources include:

- DD Form 2796 Primer
- DD Form 2796 Provider Fact Sheet
- Model for the required Medical Threat Debriefing
- PDHA Tracking Database that MTFs can download for local use.



Information, Communication, Education and Data Development

DHCC's Web site, PDHealth.mil, served as the primary distribution method for the Enhanced DD Form 2796, as well as PDHA resources and DoD and Service-specific PDHA policies and directives. DHCC responded to more than 100 PDHA phone inquiries from MTFs, demobilization sites, and SRPs from April–June 2003.

DHCC accomplished its goals to support the contingencies of current deployments and to use lessons learned to improve processes by administering the PDHA to 673 service members at WRAMC. This experience allowed DHCC to fine tune its re-deployment guides. DHCC also began a series of standardized focus groups, continuing into FY04, to assemble and analyze lessons learned from the PDHA and the OIF re-deployment process.

PDH-CPG Revitalization

Military patients enter the PDH-CPG process in two ways. Either as a follow-up from their PDHA interview or through the "military unique vital sign" asked during a healthcare visit. During every primary healthcare appointment in the MHS, the patient should be asked: "Is your health concern today related to a deployment?" If the answer is: "Yes," the provider is directed to follow the algorithms in the PDH-CPG for assessment, medical management, referral, and follow-up.

The mandatory PDH-CPG rollout was initiated in FY02 with two worldwide satellite broadcasts and the distribution of over 2000 guideline tool kits to military and VA healthcare facilities. DHCC also supported the guideline rollout with phone consultation services and provider reference tools made available on PDHealth.mil.

In FY03, as a response to the War on Terrorism and the major deployment in Iraq, the importance of the PDH-CPG gained additional recognition. To re-energize and accelerate implementation efforts, DHCC implemented the following plan:

- **Needs Assessment Survey:** Created a Web-based survey to assess the needs of providers in all services for PDH-CPG training. During FY03, more than 60% of MTFs replied to the survey.
- **PDH-CPG VTCs:** In collaboration with Army Medical Command, delivered a series of seven video teleconferences (VTCs) to nearly 500 medical professionals in the North Atlantic, Western, Great Plains, Southeast, Pacific, and European regions. Topics included a history of the PDH-CPG; its role in ensuring troops receive appropriate care for post-deployment concerns; proper use of the CPG in a clinical setting; use of coding and record keeping within the CPG; risk communication as an integral part of the CPG structure; and the integration of the CPG with the PDHA process.
- **Replenished Tool kits:** Existing tool kits at 300 military installations were replenished and augmented.



- **Operation Solace Care Managers:** Provided education and mentoring at pilot MTFs for adoption of the guideline.
- **PDH Guidelines Category Added to PDHealth.mil:** The second most highly accessed Web site category in FY03, the PDH Guideline section includes:
 - Interactive and downloadable copies of the guideline
 - Guideline algorithms
 - Softcopy of the tool kit
 - Link to the guideline broadcast
 - Supporting guidelines for medical management of specific conditions.
- **PDH-CPG Exhibits:** DHCC participated in several conferences with a traveling exhibit that facilitated an exchange of information about DHCC's mission and services, particularly the PDH-CPG. More than 45,000 pieces of promotional and educational literature were distributed. These conferences included:
 - **The Association of Military Surgeons of the United States**, November 10–13, 2002, attended by military and civilian personnel supporting the healthcare needs of DoD beneficiaries.
 - **Population Health Conference**, March 17–20, 2003, attended by more than 300 clinical and administrative personnel from TRICARE Region 1.
 - **Medical Command/Association of the United States Army Commanders Conference**, June 2–6, 2003, attended by more than 1000 leaders and members of the Army Medical Department.
 - **The Force Health Protection Conference**, August 10–15, 2003, attended by approximately 1500 healthcare, medical research, and behavioral health practitioners.
 - **The United States Army Europe Land Combat Expo**, Heidelberg Germany, September 7–14, 2003, attended by more than 6000 military and civilian personnel from throughout Germany.
- **Re-energized Promotion and Outreach Efforts:** To meet the growing need for accurate, timely informational products, DHCC hired additional staff and began the design and distribution of additional promotional materials and tools. These efforts will continue into FY04.



Information, Communication, Education and Data Development

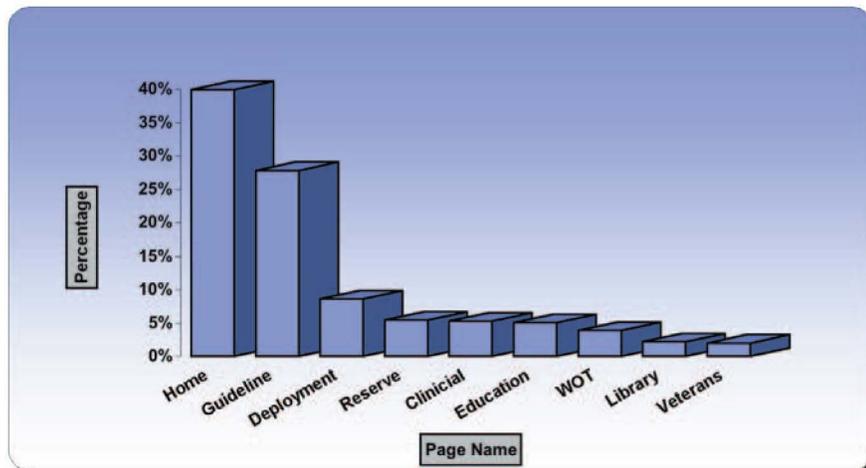
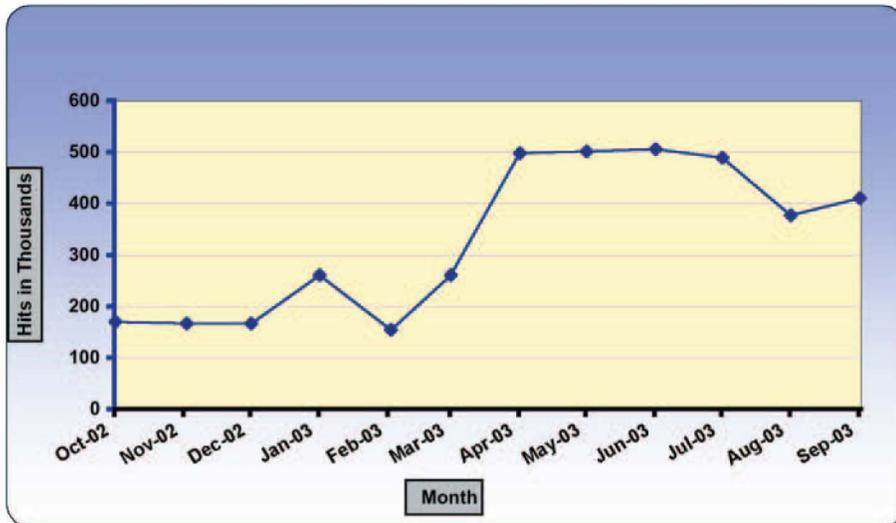
DHCC Web Site

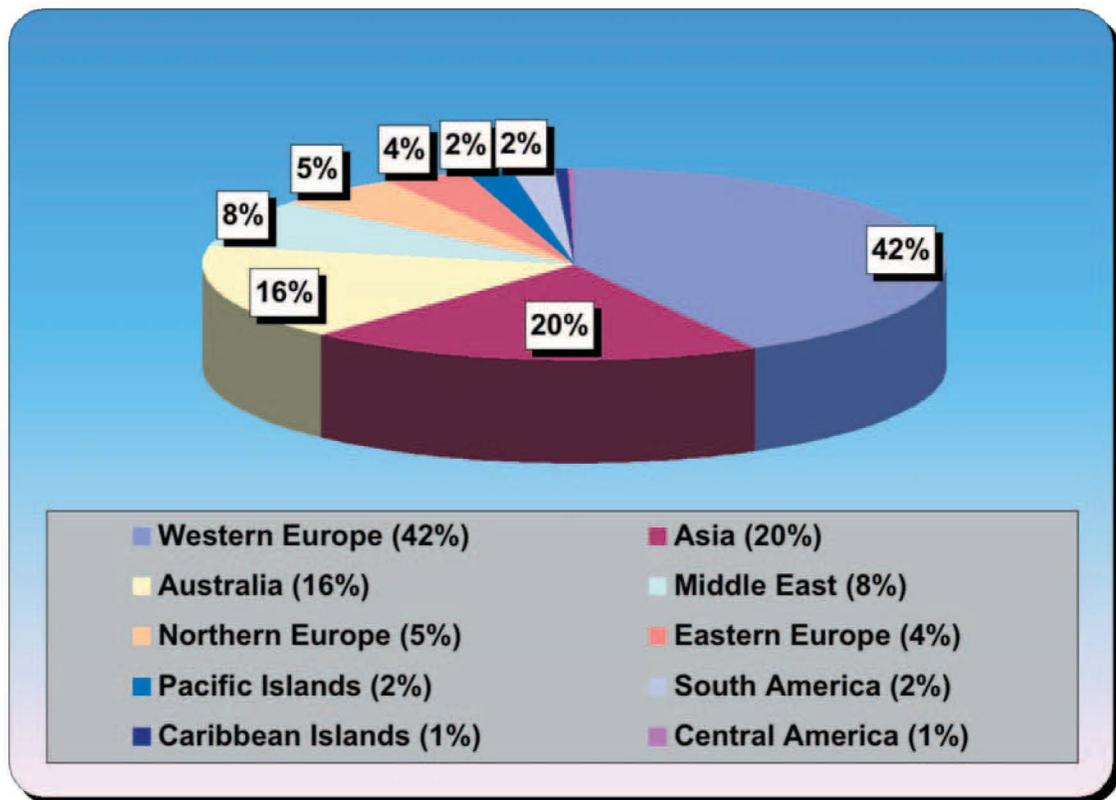
DHCC's primary objective for creating PDHealth.mil was to deliver timely health information in a user-friendly format to clinicians as well as to the broader military community. The Center remained focused on this goal during FY03 by offering new services while expanding outreach to all branches of the Armed Services. This year, DHCC added a Library and Reserve Component Resources Center and expanded the Education and Training section to include a multimedia center. Updated information on major deployments since the Gulf War was added including Operation Enduring Freedom (OEF) and Operation Iraqi Freedom (OIF). To keep clinicians, service members, and their family members informed about new developments in post-deployment healthcare, the PDHealth.mil Home Page was significantly enhanced to include:

- **Spotlights:** Highlights new post-deployment events and activities.
- **News Flash:** Contains alerts on issues of urgent relevance to the military healthcare community such as leishmaniasis.
- **Enhanced Post Deployment Assessment:** Provides the interface where military clinicians can download the tools, primers, and forms for administering this assessment.
- **DoD and Service-Specific Toll-Free Telephone Numbers**

Reserve component personnel play an essential role in strengthening U.S. Armed Forces in operations around the world. To address the needs of reserve and guard personnel along with their family members, an entire section on the DHCC Web site addresses issues related to the transition from civilian to military life, healthcare services, deployment stress, and the family difficulties and stresses caused by activation. The new section lists other Web sites providing information relevant to the reservist along with toll-free telephone numbers to call centers located around the United States. The Reserve Component page of PDHealth.mil is now the fourth most popular, receiving close to a quarter of million hits in the last six months of FY03.

DHCC aims to use new technology in its approach to deliver medical news and information while improving the quality of healthcare. For this reason, the Education and Training section of PDHealth.mil was expanded to include a multi-media center. This resource center provides learning materials in a variety of formats for DHCC target populations. The new Library section contains professional books and articles, fact sheets and patient education materials, government documents and publications, policies and directives, tests and measures, government forms, and related libraries and database links. PDHealth.mil is one way in which DHCC meets its communications goals to provide answers, improve healthcare, and enhance the quality of life of our military men and women.





ten thousand hits. The statistics indicate that DHCC is meeting its target of providing much needed resources to our military community.



Clinical Health Risk Communication

DHCC's charter contains clear language stipulating that "[t]he Center shall employ risk-communication expertise...to devise and disseminate effective health risk information to highly concerned, relatively untrusting, and sometimes highly visible groups." DHCC met this requirement through its risk communication outreach activities. Risk communication articles are disseminated regularly by way of the Deployment Health News. The Risk Communication section of PDHealth.mil contains articles and guidance for clinicians.

DHCC incorporated risk communication into the PDH-CPG and these principles were an important part of the PDH-CPG video teleconference series over the summer of 2003. DHCC provided clinical education on risk communication for the June 2003 DHCC Grand Rounds. In June, DHCC also presented a video teleconference on risk communication to social workers in the National Capital Region. Both the Grand Rounds class and the video teleconference for social workers earned continuing education credits for the participants. These, along with other Grand Rounds presentations, were digitized for Web site presentation, enabling education of a broader, worldwide audience.

DHCC published 244 issues of the Deployment Health News in FY03. This electronic newsletter, published each business day, covers health issues related to military service, deployments, homeland security, and the War on Terrorism. It includes topics such as environmental and occupational health, medications, immunizations, biological and chemical warfare, and medically unexplained symptoms. Information is gathered from publicly available sources including periodicals, professional journals, and government and private sector Web sites. DHCC also published a print brochure to promote subscription to this service.

Fact sheet development is an important activity for the DHCC. The following fact sheets were developed during FY03:

- **Mefloquine:** The fact sheet covered the use of the malaria medication, who should or should not use it, possible adverse side effects, and when the medication should be stopped.
- **Depleted Uranium:** Fact sheets were prepared in FY03, to be completed in FY04. They provided information to clinicians and service members about the potential health impacts of this substance as well as the ongoing health surveillance program for service members exposed to it.
- **Leishmaniasis:** Fact sheets were prepared in FY03, with anticipated final completion early in FY04. The sheets were targeted to both service members and clinicians. They covered the definition of the disease, its method of transmission, and its diagnosis and treatment.



Information, Communication, Education and Data Development

Clinical Education and Training

DHCC's chartered mission includes the responsibility to offer a continuing medical education program. DHCC fulfilled this mission, in part, by inaugurating the DHCC Grand Rounds Series during FY03. Speakers were sought to present evidence-based deployment-related medical presentations to providers at WRAMC. Of the thirteen Grand Rounds, five were presented in collaboration with other disciplines at WRAMC, including General Medicine, Psychiatry, Nursing, and Social Work.

Reducing the Cost of Caring: Self and Team Care for Professionals in a Troubled World presented by Kendall Johnson, PhD, was the series' most highly attended lecture with 46 participants. PTSD presentations by Matthew Friedman, MD, PhD, and Paula Schnurr, PhD, Director and Assistant Director of the National Center for Post Traumatic Stress Disorder for the Department of Veteran Affairs, were also highly attended. Overall speaker quality and content quality were consistently rated by attendees in the 4.5–5.0 range on a 0.0–5.0 scale. The DHCC Grand Rounds series was broadcast over closed circuit television at WRAMC, and three of the presentations were video teleconferenced to other military installations. The presentations have been made available through the multimedia center on PDHealth.mil as streaming video, and videotapes are also available for worldwide distribution.

Data Development and Informatics

In keeping with the U.S. Government focus on “performance reporting” and “results-oriented government,” DoD MHS senior leadership has focused on performance measures that include patient and provider satisfaction measures as well as the efficacy of treatment protocols. DHCC has a role in helping MTF clinics re-engineer and improve post-deployment healthcare by promoting the evidence-based PDH-CPG as well as by carefully measuring the effectiveness of the treatment protocols used in DHCC. During FY03, the DHCC met its chartered goal to use current survey methodologies and informatics capabilities to develop and administer surveys to evaluate the impact of its services among providers. As part of the Operation Solace project, DHCC staff developed a Provider Satisfaction Survey to measure provider satisfaction with the services provided by the Operation Solace Care Managers. The survey was administered to providers both in-person and through electronic mail and resulted in an approximately 33% response rate. The survey results indicated that providers were highly satisfied with the services provided and led to the Deployment Care Manager approach being disseminated throughout the Services and into the Deployment Cycle Support Program as a best practice.

A PDH-CPG Training Needs Assessment Survey was developed and administered over the World Wide Web, in partnership with the U. S. Army Center for Health Promotion and Preventive Medicine (CHPPM). To assist in developing effective and useful clinical tools in deployment healthcare, providers were asked to complete the survey describing their knowledge about, utilization of, and training needs for



Figure 12: DHCC FY03 Grand Rounds Training Programs

Month/Year	Presentor(s)	Presentation Title	Attendees
Sept/2002	Paula Schnurr, PhD	Integrating Research Findings on PTSD into Clinical Practice: Focus on Psychotherapy Research	24
Dec/2002	Matthew Friedman, MD; Paula Schnurr, PhD	An Update on New Scientific Evidence on Treating Service Members With Post Traumatic Stress Disorder	16
Dec/2002	Matthew Friedman, MD; Paula Schnurr, PhD	Psychotherapy for PTSD: A Tale of Two Trials	22
Feb/2003	LTC USAF David Arreola, PhD	The Organizational Health Center: A Model For Building Healthy Organizations and People	2 (ice storm)
Mar/2003	David Cowan, PhD	Did Exposures to Oil Well Fires in the Gulf War Increase the Rate of Asthma among Veterans? A Review of 3 Recent Studies	13
Apr/2003		Suspended due to OIF/OEF	
May/2003	OIF Patient; LTC Charles Engel, MD, MPH; Dan Bullis	Post Deployment Health: Issues for Inpatient Nursing	25
May/2003	Gail Lovisone	The Army Family Assistance Hotline: Helping Soldiers and Families During OEF/OIF	15
Jun/2003	Timothy O'Leary, MS	Clinical Health Risk Communication: A Tool to Improve Health Care Communication	23
Jun/2003	LTC Charles Engel, MD, MPH	Trauma, Toxins and Medically Unexplained Symptoms	13
Jun/2003	LTC Charles Engel, MD, MPH	The Impact of the Gulf War on the Military Health Care System	10
Jun/2003	Timothy O'Leary, MS	Clinical Health Risk Communication:	19
Jul/2003	Kendall Johnson, PhD	Reducing the Cost of Caring: Self and Team Care for Professionals in a Troubled World	46
Aug/2003	Larry Fletcher, BS	The Medical Operational Data System (MODS)	18
Sept/2003		Program Cancelled	



Information, Communication, Education and Data Development

full implementation of the PDH-CPG. The ultimate goal is to use this feedback to develop reference materials and training methods that are comprehensive, effective, and specific to clinic and provider needs. The survey was sent to primary care providers at approximately 150 Army, Navy (and Marines), and Air Force Medical Treatment Facilities (MTFs). At the end of FY03, more than 60% of MTFs had returned at least one response. Data collection will continue into FY04.

DHCC's chartered responsibility to "[u]se health information systems to improve care as well as to improve the military's capacity for the early identification of emerging deployment-related illnesses" translates into the FY03 goal to use information technology to facilitate the tracking and management of post-deployment health data.

To meet this goal, DHCC developed two tracking databases in FY03 using the Microsoft Access software package. The first database, the Post-Deployment Health Tracking Database (PDHDB), is an outcome and metric management system that tracks and serves as a surveillance tool of patients' post-deployment status. The PDHDB can be used to track patient demographics, exposures (including depleted uranium), health concerns, symptoms, referral and follow-up visits, and the post-deployment assessment process. The second database, the PDHA tracking database, was developed as a tool to track completion of the components associated with the PDHA (Post-Deployment Health Assessment). Both databases are currently available on PDHealth.mil for MTFs, clinics, and providers to download for local use. DHCC has begun working with the Air Force ICDB (Integrated Clinical DataBase) and Army Health-e Forces to integrate the PDHDB into this Web-based portal to consolidate information. Integrating the PDHDB into the ICDB and Health-e Forces will expand the utility of the database and allow for the consistent and standard tracking of health information across sites. At the end of FY03, DHCC submitted a proposal to the Telemedicine and Advanced Technology Research Center as part of the Army Medical Department (AMEDD)'s Tele-health Initiative to request funding to further facilitate the implementation of the PDHDB into the ICDB.



Health Services Research

DHCC's deployment-related clinical research is essentially extramurally-funded and self-sustaining. The Center has successfully completed and is currently undertaking a wide range of projects that put science behind post-deployment healthcare delivery process improvement. DHCC projects have been competitively funded by the CDC, VA, DoD, and NIH. Research program goals are to change practice delivery by completing scientifically credible work and regularly publishing it in peer-reviewed medical journals. DHCC scientists and clinicians published 22 articles in FY03. FY03 also saw the pilot of a program to promote the PDH-CPG through the placement of primary care-based Deployment Care Managers after the Pentagon attack, the results of which were presented at international meetings.

DHCC's Research Team comprises epidemiologists, a statistician, psychologists, social workers, project directors, research associates, as well as an administrative assistant. The team has a number of functions in support of the Deployment Health Clinical Center including:

- Clinical epidemiologic and health services research
- Statistical analysis
- Questionnaire development
- Data collection
- Database creation and management assistance
- Direct assistance to DHCC clinicians conducting research
- Clinical research manuscript preparation
- Document clearance and tracking for protocols, articles, and abstracts requiring approval by federal offices and agencies. These include the Human Use Committee, Clinical Research Committee, Public Affairs Office, local and university-based research offices, and the Human Subjects Research Review Board.

Clinical Trials

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

FY03 marked the second year of the Randomized Controlled Trial of Military Women with Post Traumatic Stress Disorder (CSP 494), a study that evaluates two methods of psychotherapy for PTSD. The study comprises twelve study sites, eleven in VA hospitals and one in the DoD. Following referral by a mental health clinician or therapist, each participant is randomized into either Prolonged Exposure Therapy (PE) or Present Centered Therapy (PCT). Participants are then assessed one week after the conclusion of therapy and at three and six-month intervals.



Health Services Research

The DoD site completed seven patients in the training phase of the study and two randomized patients, and completed screening of 69 patients who did not meet eligibility criteria. Study staff collaborated with worldwide healthcare systems to refer these patients to appropriate treatment.

Twenty-four presentations were provided to both patients and providers. Two Grand Rounds presentations promoted the trial, including: *"A Tale of Two Clinical Trials: An In-Depth Session on the Use of New Scientific Evidence to Inform Therapeutics for PTSD"* and *"An Update on Empirically Based PTSD Intervention."* The study team presented *"Implementing A Randomized Clinical Trial for Military Women with PTSD"* supplemented by an eight-minute tape at the 6th Annual Force Health Protection Conference. In FY03, a study audit yielded an "exceptional" rating. An audit by the VA Good Clinical Practice Program found the study to be in compliance. Study staff attended the annual meeting of the VA/DoD Collaborative Studies group in September to participate in an update on the overall progress of the clinical trial.

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

In keeping with the Deployment Health Clinical Center's goal to improve the quality, accessibility, and effectiveness of deployment-related healthcare, the research team has been involved in multiple projects. One such study is Project DESTRESS.

Project DESTRESS is an innovative pilot study designed to help individuals experiencing military-related trauma effectively manage their symptoms. This study, funded by the National Institute of Mental Health (NIMH), was implemented in June 2002, in collaboration with the Boston VA and Boston University. The major aim of this study is to evaluate an abbreviated, primary care-based form of Stress Inoculation Therapy (SIT), a Web-based therapeutic modality that helps people manage stress and recover from trauma that otherwise would typically require several individual meetings with a therapist. This research will test whether SIT can be successfully completed in a single meeting with a therapist, followed by a program of self-directed Web-based information and guidance with daily homework activities.

The project staff has been diligently working to enroll participants into the study. In FY03, the staff conducted more than 30 briefings to clinics, commanders, providers, and military personnel in MTFs in the National Capital Region. The staff has been aggressively marketing the study by attending health fairs, using health communication materials such as brochures and posters, placing advertisements in military newspapers, and implementing a study-specific Web site and toll-free numbers.



To date, the staff has received 57 referrals and enrolled 14 participants into the study. The goal of this study for FY04 is to reach out, assist, and make this program accessible to individuals experiencing military-related trauma in the last two years, specifically those resulting from September 11th, OEF, and OIF. DHCC expects that the results from this pilot study will have an impact on how programs such as these can be generalized to populations following mass violence and terrorism.

“The Web site was such a comfort to me because when I’d log on, I’d be reminded that these are normal reactions.”
—*DESTRESS study participant*

Health Services Research

HEALTH-e VOICE

Health professionals caring for military personnel and veterans need to be prepared to address the concerns of patients presenting with ambiguous symptoms as fully as they do for people with more clinically identifiable diseases. In response to the need for enhancing providers’ clinical risk communication skills, and in keeping with DHCC’s goals to improve deployment veterans’ satisfaction with their care and to demonstrate improved intermediate and long term health outcomes, the DHCC Research Team, in collaboration with associates at Widmeyer Communications and Affiliated Computer Systems (ACS), has acquired a CDC grant to develop a Web-based interactive distance-learning tool called “Health-e VOICE” (HeV).

The Health-e VOICE proposal 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 rebuild patient trust in both care providers and the health system. The foundation for this tool is the Post-Deployment Health Clinical Practice Guideline (PDH-CPG), which prescribes a stepped care strategy for treatment where interventions and clinical risk communication techniques are matched to the patient’s needs in a stepped fashion, going from least to most intensive interventions.

This program is divided into two phases. The first phase is the HeV tool development, and the second phase evaluates the effectiveness of this tool. The HeV tool will be developed using findings and conclusions from focus groups. Focus groups, composed of military personnel, their spouses and primary care providers, were used to uncover and construct providers’ and veterans’ mental models (knowledge base, misconceptions, and beliefs) pertaining to deployment-related health concerns in general and medically unexplained symptoms (MUS) in particular. In FY03, focus groups were conducted at six DoD medical treatment facilities. A total of 49 participants provided input to the development of the HeV tool.



Health Services Research

In FY04, the information collected from the focus groups will be used to script the six electronic patient-care vignettes comprising the HeV tool. The vignettes will interactively teach providers appropriate clinical risk communication techniques to use when they encounter patients with deployment-related health concerns. Once the tool is developed, it will be evaluated using a randomized controlled trial. The overall objective of the trial is to assess the effect of Health-e VOICE training on the ability of primary care providers to appropriately address veterans' deployment-related health issues and to evaluate the tool's effect on patient satisfaction with care. It is anticipated that once operational, the Health-e VOICE tool will further the chartered mission of the Deployment Health Clinical Center to improve the post-deployment health of military personnel and their families and the effectiveness of military clinicians.

ECA Study Data

This project uses existing population-based data from the National Institute of Mental Health Epidemiologic Catchment Area (ECA) survey to estimate the expected prevalence and incidence rate of a variety of mental diseases among Army active duty personnel. The major aim of this project is to provide knowledge useful for fashioning health policies and programs for policy-makers and planners in the military. Intensified efforts to understand the distribution of various mental diseases in the military may help to foster trust between veterans and the government agencies providing their benefits and healthcare.

Three research articles, generated by this study, were published or accepted for publication by professional journals. The first paper, published in the *American Journal of Psychiatry*, addresses Multiple Idiopathic Physical Symptoms (MIPS) in the ECA study by performing a competing risk analysis of one-year incidence, mortality, and resolution. DHCC found that most individuals suffering from MIPS recovered over the ensuing year while predicted mortality among them was higher than for individuals not having MIPS as a baseline. The second article was published in *Military Medicine* and used general population data to project MIPS in the U.S. Army, comparing those projections with the general population. A third manuscript entitled "Projecting Mental Disorder Prevalence from Historical Surveys to Populations of Interest: An Illustration Using the ECA with the U.S. Army" was accepted for publication by *Social Psychiatry and Psychiatric Epidemiology*.



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 (AHEAD). The research decomposes the effect of veteran status (veterans versus non-veterans) into the direct effect and the indirect effects by means of physical health conditions and mental disorders on the mortality of older Americans, using a structural hazard rate model.

The major aim of the research is to develop a series of structural survival models to test the underlying hypothesis that at older ages veterans tend to have higher mortality than do their non-veteran counterparts, and that this excess mortality will be elevated as a cohort ages. Specifically, these 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. In FY03, the study generated two papers that are under review. A third is in development.

Program Evaluation

Specialized Care Program Outcome Evaluation

The Specialized Care Program (SCP) is another effort of DHCC to improve the quality, accessibility, and effectiveness of deployment health-related military medical care. The SCP has two components. One involves clinical management and the other is the program evaluation component. The DHCC research team is responsible for the program evaluation component.

In FY03, SCP data collection was automated using the Computer Assisted Personal Interviewing (CAPI) and Computer Assisted Telephone Interviewing (CATI) software. The CAPI has enabled the research staff to conduct the Intake and Exit program evaluation questionnaires electronically. This has facilitated real time data storage and organization and made it possible for research team members to give SCP clinician staff immediate access to pertinent patient health information. The CATI, on the other hand, is used to conduct patient telephone surveys 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 facilitating further research in FY04.



Health Services Research

Operation Solace Program Evaluation

As discussed earlier in the report, Operation Solace was established by the U.S. Army Surgeon General to meet the healthcare needs of people affected by the Pentagon attack, military deployments, and homeland security concerns. Patients seen in several National Capital Region Primary Care Clinics were referred to Operation Solace Care Managers if they reported September 11th, bio-terrorism or deployment-related concerns on initial screening. The Care Managers identified patient concerns, resolved barriers to care, and coordinated referrals and follow-up.

During the initial visit with the Care Managers, patients were invited to complete a Clinical Assessment Tool (CAT). This tool was a self-administered 34-item questionnaire that inquired about:

- Reason for visit
- Recent physical symptoms
- Physical and mental health-related quality of life
- Common mental disorders (anxiety, alcohol abuse, depression, probable PTSD)
- Symptom-related difficulty and activity limitation
- Satisfaction with care
- Recent healthcare use

Patient responses to the different measures in the CAT were scored immediately and “preliminary indicators” or flags were raised to assist the Care Managers to identify patients’ areas of concerns and provide appropriate care tailored to each patient’s specific needs. Following data collection, information from the CATs was transferred to a database established and maintained by the DHCC research team, for storage and data analysis purposes.

Between April and December 2002, approximately 130 patients were referred to the Care Managers. 100 of the 117 adults in this group completed the CAT (response rate of 85%). 58% of the respondents were male, 70% were currently married, the average age was 37 years, and the average level of education was three years of college.



Figure 13 shows the reason for visit information, which is broken down by deployment concerns only, Pentagon attack concerns only, Pentagon attack and deployment-related concerns, other concerns, and no response.

Figure 13. Operation Solace Reason for Visit

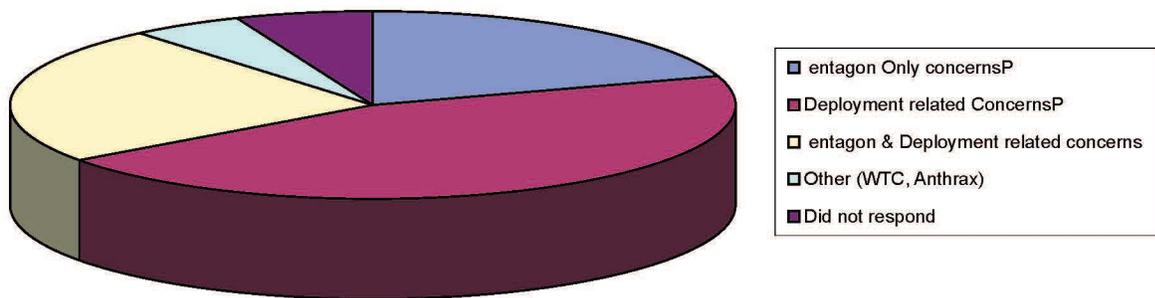
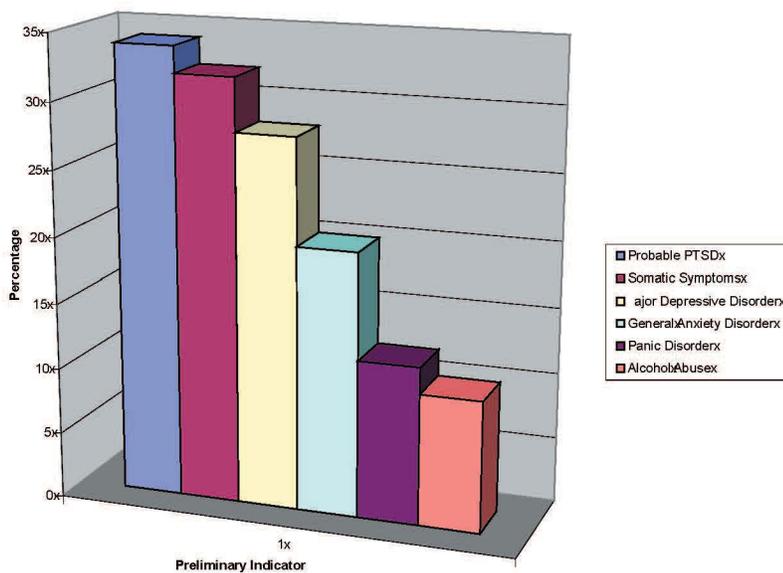


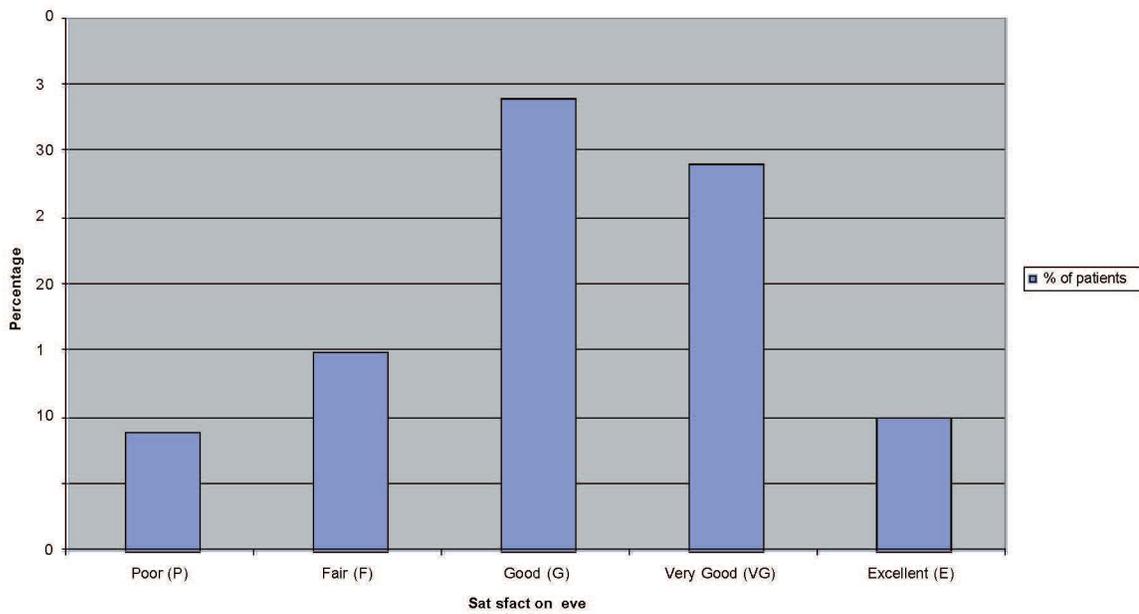
Figure 14 presents the percentage of patients triggering positive for the various mental disorders measures on the CAT. Among these, “Probable PTSD” was most common, followed by Multiple Somatic Symptoms and Major Depressive Disorder.

Figure 14. Operation Solace Percentage of Patients with “Preliminary Indicators”





Health Services Research



* Before seeing the Care Manager

DHCC's involvement with the Operation Solace program ended in July 2003. However, a future plan for this program is to conduct post-program evaluations and compare the results to the base-line or pre-program data. These outcomes could be beneficial in increasing the effectiveness of the Care Manager Model during the Deployment Health Care Manager Program pilot in FY04.



Appendix A: DHCC Collaborations

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

Department of Defense

- Uniformed Services University of the Health Sciences (USUHS)
- Office of Clinical & Public Health Program Policy
- Deployment Health Support Directorate
- National Quality Management Program

Department of the Air Force

- Air Force Institute for Operational Health (AFIOH)

Department of the Navy

- Naval Health Research Center, San Diego
- Naval Environmental Health Center (NEHC)

Department of the Army

- MEDCOM Quality Management Directorate
- National Capital Area Primary Care Clinics
- Center for Health Promotion and Preventive Medicine (CHPPM)
- Walter Reed Institute of Research (WRAIR)
- Walter Reed Army Medical Center (WRAMC) Vaccine Health Center
- Medical Research and Materiel Command (MRMC)

Department of Veterans Affairs

- Employee Education Service
- Environmental Epidemiology Service
- Environmental Agents Service
- Cooperative Studies Program Coordinating Centers (West Haven CT, Palo Alto CA)
- National Center for PTSD
- Office of Quality & Performance
- War-Related Illness & Injury Center (East Orange NJ, Washington DC)
- 14 Veterans Affairs Medical Centers (VAMCs)



Appendix A: DHCC Collaborations

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

- Armed Forces Epidemiological Board
- Boston University School of Medicine
- Dartmouth University School of Medicine
- University of New South Wales, Sydney, Australia

Detailed List of DHCC Collaborations

Collaborations to Improve Quality of Post-Deployment Healthcare

- 1. Clinical Practice Guideline Revitalization:** On-going education and consultation efforts to promote adoption of the PDH-CPG through collaborations with the VA healthcare system, Office of the Assistant Secretary of Defense for Health Affairs, the Walter Reed Vaccine Health Center, and medical staff from all Services. The development of additional tools and training materials will extend into 2004.
- 2. Federal Clinician Education and Consultation:** Ongoing support is provided to all DoD MTFs through a state-of-the-art Web site (www.PDHealth.mil) providing a one-stop repository for post-deployment health information for clinicians and patients, toll-free helplines for both clinicians with questions and for patients who need care, a daily newsletter providing 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.
- 3. Informatics Solutions for Post-Deployment Healthcare Quality Data Collection and Emerging Illness Surveillance:** DHCC is coordinating with Office of the Assistant Secretary of Defense for Health Affairs and TRICARE Management Activity to link deployment health tracking information through CHCS2 and the mobile MODS system.



Collaborations in Provision of Post-Deployment Clinical Care

- 1. VA Sharing Agreement, Specialized Care Program:** DHCC operates under a Walter Reed – Washington VAMC sharing agreement. The DHCC Specialized Care Program is a three-week day treatment program designed for veterans with persistent, disabling symptoms as a result of wartime deployment. The VA can 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 VAMC's War-Related Illness & Injury Study Center (WRIISC). The sharing agreement extends from June 1, 2002 through September 30, 2004.
- 2. Operation Solace Response to September 11:** In response to the September 11, 2001 attack in the national capital region, the Army Surgeon General chartered "Operation Solace." DHCC managed the clinical component of this project until July 2003. Care Managers served in primary care clinics at Ft. Belvoir, Ft. Myer, DiLorenzo Clinic in the Pentagon, Ft. Detrick, Ft. Meade, and Andrews Air Force Base. These Care Managers facilitated local efforts to implement the PDH-CPG for those affected by the events of September 11, the October 2002 anthrax attacks, and Operations Enduring Freedom and Iraqi Freedom. Other tasks performed by the care managers included participation in soldier readiness programs, demobilization, and responding to and coordinating care for patients reporting health concerns related to terrorism, bioterrorism, and deployments. In addition, the Care Managers provided training to primary care clinicians across the National Capital Region in areas associated with stress and trauma and medically unexplained symptoms.
- 3. Clinically Oriented Health Risk Communication:** DHCC collaborates with multiple agencies and organizations to build effective systems to facilitate Federal clinician and military/veteran health risk communication as well as clinical and public health education around deployment health issues. On-going collaboration with the Air Force Institute for Operational Health (AFIOH), CHPPM, and the Naval Environmental Health Center (NEHC) have resulted in the development of a variety of health risk communication materials and fact sheets.
- 4. PDH-CPG VTCs:** In collaboration with Army Medical Command, DHCC delivered a series of seven video teleconferences (VTCs) to nearly 500 medical professionals in the North Atlantic, Western, Great Plains, Southeast, Pacific, and European regions. Topics included a history of the PDH-CPG; its role in ensuring troops receive appropriate care for post-deployment concerns; proper use of the CPG in a clinical setting; use of coding and record keeping within the CPG; risk communication as an integral part of the CPG structure; and the integration of the CPG with the PDHA process.
- 5. Scientific Advice & Review:** Armed Forces Epidemiological Board: DHCC information and research products are validated through coordination with the Armed Forces Epidemiological Board. The AFEB 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: DHCC Collaborations

DHCC Health Services Research Collaborations

During FY03, DHCC investigators published 22 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 Post-Traumatic Stress Disorder in Women—VA-DoD Cooperative Study 494:**

This is a multicenter randomized clinical trial to evaluate two methods of psychotherapy for PTSD in military women. It is being conducted at WRAMC and 11 VA hospitals around the country. It is funded by the U.S. Army Medical Research and Materiel Command for \$445,078.00 — 17 September 2002 to 16 October 2004 with the research ending on 16 September 2004. It is conducted in collaboration with the VA as Cooperative Study Program 494. Key collaborations include 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”: 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 CDC and consultants to develop and evaluate a Web-based interactive distance learning tool called “Health-e VOICE.” This project is funded by CDC 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 PDH-CPG’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 (SIT), an evidence-based treatment for PTSD, to standard supportive primary care (Supportive Counseling (SC)) for individuals who were exposed to the September 11, 2001 terrorist attack on the Pentagon. Both SIT and SC is 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 an abbreviated program of primary care-based self-management skills to destigmatize and decrease barriers to effective mental healthcare following war, terror, or other traumatic events. This is a two-year study funded at ~\$250,000 per year by the National Institute of Mental Health. Collaborators include Brett Litz, PhD (Co-Investigator) of



Boston University & Boston VAMC, Richard Bryant, PhD (Co-Investigator) University of New South Wales, Sydney, Australia, and COL Derm Cotter, MD (Associate Investigator), of WRAMC 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 come from the Survey of Asset and Health Dynamics Among the Oldest Old (AHEAD). 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, Dr.P.H. of the Department of Veterans Affairs Environmental Epidemiology Service.

5. Estimating Prevalence and Incidence Rates of Mental Illnesses in the Military Using ECA

Study Data: This project uses existing population-based data from the National Institute of Mental Health Epidemiologic Catchment Area survey to estimate the expected prevalence and incidence rate of a variety of mental illnesses among Army active duty personnel. A series of multivariate statistical models have been employed to model the relationship between socio-demographic characteristics and the distribution of mental disorders in U.S. workers. Then regression coefficients derived from these models and known socio-demographic characteristics of U.S. Army active duty personnel are used to predict mental status in the Army. High, Medium, and Low estimates of prevalence and incidence rates for selected mental illnesses are obtained by altering the value of regression intercepts. The major aim of this project is to provide knowledge useful for fashioning health policies and programs for policy-makers and planners in the military. Intensified efforts to understand the distribution of various mental diseases in the military may foster trust between veterans and the government agencies that provide benefits and healthcare for them. The key DHCC collaboration is with the Walter Reed Army Institute of Research Psychiatric Epidemiology Division in the Department of Military Psychiatry.



Appendix B: DHCC Publications

LTC Charles Engel

Papers

Ralph R, Engel C. Evaluation and Management of Medically Unexplained Physical Symptoms. *The Neurologist* (to be published early 2004).

Clauw D, Engel C, Aronowitz R, Dphil EJ, et al. Unexplained Symptoms After Terrorism and War: An Expert Consensus Statement, *Journal of Occupational and Environmental Medicine*, 2003 Oct; (45)10: 1040–8.

Engel C. Somatization and Multiple Idiopathic Physical Symptoms: Relationship to Traumatic Events and Posttraumatic Stress Disorder. *Trauma and Health: Physical Health Consequences of Exposure to Extreme Stress*. PP Schnur and BL Geen.

Engel C. Post-War Syndromes: Illustrating the Impact of the Social Psyche on Notions of Risk, Responsibility, Reason and Remedy. *Journal of American Academy of Psychoanalysis and Dynamic Psychiatry*.

Mori D, Sogg S, Guarino P, Engel C, et al. Predictors of Exercise Adherence in Veterans with Gulf War Veterans Illnesses: Results from the Department of Veteran Affairs Cooperative Study No. 470. *Annals of Behavioral Medicine*.

Abstracts

Engel C, Pavlova M, Sheliga V. Risk Communication, Terrorism, and the Federal Care Provider: Results from a Multi-Agency Effort to Improve Clinical Communication of Risk. 6th International Conference, Scientific Committee on Education and Training in Occupational Health, ICOH, October 2002.

Litz BT, Bryant RA, Engel C. Brief Cognitive-Behavioral Treatment for Victims of Mass Violence. 18th Annual Meeting of the International Society for Traumatic Stress Studies, October 2002.

Engel C. Operation Solace: The US Military's National Capital Area Behavioral Health Response following the 9–11 Terrorist Attack. World Federation of Mental Health Biennial Congress 2003, February 2003.

Engel C. Doxycycline Treatment of Gulf War Veterans Illnesses: VA Cooperative Study (CSP #475). American Society for Microbiology 103rd Annual Meeting, May 2003.



Engel C. Unexplained Physical Symptoms in a Post-September 11 World. 17th World Congress on Psychosomatic Medicine, August 2003.

Engel C, Adkins J, Cowan D, Bruner V, Springer S, Jaffer A. Operation Solace: Preventative Behavioral Health Care Delivered in the Primary Care Setting. August 2003.

Engel C. Research Methods in Military Behavioral Health. Force Health Protection Annual Meeting, August 2003.

Engel C. Iraqi Freedom Syndrome and the Aftermath: Behavioral Health Implications. Force Health Protection Annual Meeting, August 2003.

Engel C, Adkins J, Cowan D, Bruner V, Rogut D, Simmons C, Springer S, Jaffer A, Mishkind M. Operation Solace: Preventative Behavioral Health Care Delivered in the Primary Care Setting. Force Health Protection Annual Meeting, August 2003.

Engel C, Adkins J, Cowan D, Simmons I, Rogut D. The DOD/VA Post-Deployment Health Clinical Practice Guideline. Force Health Protection Annual Meeting, August 2003.

Peer-Reviewed Publications

Dona ST, Clauw DJ, Engel CC Jr, Guarino P, Peduzzi P, Williams DA, Skinner JS, Barkhuizen A, Taylor T, Kazis LE, Sogg S, Hunt SC, Dougherty CM, Richardson RD, Kunkel C, Rodriguez W, Alicea E, Chiliade P, Ryan M, Gray GC, Lutwick L, Norwood D, Smith S, Everson M, Blackburn W, Martin W, Griffiss JM, Cooper R, Renner E, Schmitt J, McMurtry C, Thakore M, Mori D, Kerns R, Park M, Pullman-Mooar S, Bernstein J, Hershberger P, Salisbury DC, Feussner JR. Cognitive behavioral therapy and aerobic exercise for gulf war veterans' illnesses: a randomized controlled trial. *JAMA* 2003; 289(11):1396-404.

Hoge CW, Messer SC, Engel CC, Krauss M, Amoroso P, Ryan MAK, Orman DT. Priorities for Psychiatric Research in the U.S. Military: An Epidemiological Approach. *Military Medicine*. 2003; 168(3):182-185.

Jackson JL, O'Malley PG, Hemmer P, Inouye L, Pangaro L, Tofferi J, Engel CC, Omori D, Roy MJ. Measuring Outcomes for Military Medical Education. *Military Medicine* 2003; 168(S1):51-58.

Book Chapters

Engel CC Jr, Jaffer A, Adkins J, Sheliga V, Cowan D, Katon WJ. Population-based health care: A model for restoring community health and productivity following terrorist attack. In Ursano RJ, Fullerton CS, Norwood AE, Editors. *Terrorism and Disaster: Individual and Community Mental Health Interventions*, New York: Cambridge University Press. 2003; pp. 287-307.



Appendix B: DHCC Publications

Victoria Bruner

Abstracts

Bruner V, Rogut D, Simmons CI, Springer S, Adkins J, Engel CC. The Operation Solace Care Manager Model. Force Health Protection Conference; Albuquerque, NM. August 2003.

Presentations

Bruner V. Traumatic Grief and Disaster Mental Health Issues for the Behavioral Health Services. Quantico Marine Base, March 2003.

Bruner V. Cognitive Behavioral Interventions for Victims of Mass Violence for Department of Social Work. Walter Reed Army Medical Center, August 2003.

Bruner V. The Cost of Caring: Coping with Compassion Fatigue. 2290th Medical Support Company, September 2003.

David Cowan

Abstracts

Cowan, DN. Did Oil Well Fire Smoke in the Gulf War Increase the Risk of Asthma Among Veterans? Force Health Protection Conference, August 2003.

Cowan D, Jaffer A, Robinson R, Engel C. Operation Solace: Managed Care Experience Using Primary Care for Clinical Screening for Post-September 11 Health Concerns. 13th World Congress on Disaster and Emergency Medicine; Melbourne, Australia. May 2003.

Cowan D, Jaffer A, Robinson R, Engel C. Operation Solace: Managed Care Experience Using Primary Care for Clinical Screening for Post-September 11 Health Concerns.

Cowan DN. A case control study of asthma among U.S. Army Gulf War veterans and modeled exposure to oil well fire smoke, with reference to two additional studies. Presented to the Institute of Medicine Committee on the Gulf War and Health. National Academy of Sciences Institute of Medicine, Washington, DC. March 2003.



Cowan DN. Did Exposure to Oil Well Fire Smoke in the Gulf War Increase the Risk of Asthma among Veterans? A Review of Three Recent Studies. DHCC Grand Rounds Series, Walter Reed Army Medical Center, Washington, DC. March 2003.

Gregg EW, and the TRIAD Study Group. Translating Research into Action for Diabetes (REIAD) Study. *Diabetes Care*. 2002; 25:386-389.

Lincoln AE, Bullman T, Kang HK, DeBakey S, Paxton M, Cowan DN, Hooper T, Gackstetter G. Does neurotoxic exposure contribute to motor vehicle fatalities? A case-control study of fatal crashes among Gulf War veterans. American Public Health Association Annual Meeting. November 2002, Philadelphia, PA.

Book Chapters

Cowan D. Health Care Professionals. In: *Guns in American Society: An Encyclopedia of History, Politics, Culture, and the Law*. Vol 1. Gregg Lee Carter, Editor. ABC CLIO, Santa Barbara, CA 2002.

Cowan D. Medicine and Gun Violence. In: *Guns in American Society: An Encyclopedia of History, Politics, Culture, and the Law*. Vol 2. Gregg Lee Carter, Editor. ABC CLIO, Santa Barbara, CA 2002.

Cowan D. Doctors for Sensible Gun Laws. In: *Guns in American Society: An Encyclopedia of History, Politics, Culture, and the Law*. Vol 1. Gregg Lee Carter, Editor. ABC CLIO, Santa Barbara, CA 2002.

Presentations

Lincoln AE, Dobrovitsky MV, DeBakey S, Cowan DN, Kang HK, Hooper TI, Gackstetter G. Hazards Associated With Military Service: Fatal Motor Vehicle Crashes Among Veterans of the Gulf War Era. 6th Annual Force Health Prevention Conference, Albuquerque, NM. August 2003.

Lincoln AE, Dobrovitsky MV, DeBakey S, Cowan DN, Kang HK, Hooper TI, Gackstetter G. Hazards Associated With Military Service: Fatal Motor Vehicle Crashes Among Veterans of the Gulf War Era. NIOSH National Occupational Injury Research Symposium; Pittsburgh, PA. October 2003.

Lincoln AE, Bullman T, Kang HK, DeBakey S, Paxton M, Cowan DN, Hooper T, Gackstetter G. Does neurotoxic exposure contribute to motor vehicle fatalities? A case-control study of fatal crashes among Gulf War veterans. American Public Health Association Annual Meeting; Philadelphia, PA. November 2002.



Appendix B: DHCC Publications

David Cowan, cont'd

DeBakey S, Paxton M, Weaver R, Lange J, Cowan D, Lincoln AE, Kang H, Hooper T, Gackstetter G. Risk of motor vehicle fatality associated with prior morbidity among Gulf War era veterans. American College of Epidemiology Annual Meeting, Albuquerque, NM. September 22–24, 2002.

Gackstetter G, DeBakey S, Cowan D, Paxton M, Weaver R, Lange J, Kang H, Bullman T, Lincoln AE, Hooper T. Fatal motor vehicle crashes among veterans of the Gulf War era: A nested case-control study. American College of Epidemiology Annual Meeting, Albuquerque, NM. September 22–24, 2002.

Brian Crowley

Publications

"The Assessment of Danger in Everyday Practice." *Psychiatric Times*, Vol. 20, No. 6, June 2003, pp. 74–78.

"Measures to Take After Diagnosis of Violence or Danger." *Psychiatric Times*, Vol. 20, No. 7, July 2003, pp. 15–17.

Presentations

"The Future of Psychiatry" in "Practicing Psychiatry in 2003." Symposium 7, American Psychiatric Association Annual Meeting, San Francisco. May 19, 2003.

"Dangerousness to Others: Assessment in Psychodynamic Practice." Paper presented to American Academy of Psychoanalysis and Dynamic Psychiatry at its Winter Meeting in San Antonio. December 7, 2002.



Amberleen Jaffer

Abstracts

Jaffer A, Robinson R, Cowan DN, Engel CC. Symptoms and Morbidity Among Primary Care Patients With September 11 Pentagon Attack-Related Health Concerns. American College of Epidemiology Annual Scientific Sessions. Chicago, Illinois, September 8, 2003. Published in *Annals of Epidemiology* 2003; 13(8):575.

Engel C, Sjoberg T, Jaffer A, Adkins J, Tinker T, DeBakey S, Cowan D. Health-e VOICE: A randomized controlled trial of Web-based training to improve risk communication between health care providers and patients with military-related health concerns. 6th International Conference of the Scientific Committee on Education and Training in Occupational Safety and Health. The International Commission on Occupational Health. Baltimore, Maryland. October 2002.

Presentations

Engel C, Adkins J, Cowan D, Simmons C, Bruner V, Springer S, Jaffer A. Operation Solace: Preventive Behavioral Health Care Delivered in the Primary Care Setting. Force Health Protection Conference, Albuquerque, New Mexico. August 2003.

Jaffer A, Cowan D, Robinson R, Engel C, Bruner V, Rogut D, Simmons C, Springer S. Somatic symptoms and psychiatric morbidity among patients seeking care after the Pentagon attack. 36th Annual Society for Epidemiologic Research Meeting, Atlanta, Georgia. June 2003.

Jaffer A, Cowan D, Robinson R, Engel C, Rogut D, Bruner V, Simmons C, Springer S. The Operation Solace Managed Care Experience: Characteristics of Patients Seen in Primary Care in Relation to the Pentagon Event. 13th World Congress on Disaster & Emergency Medicine. Melbourne, Australia. May 2003

Jaffer A, Robinson R, Cowan D, Engel C. Somatic Symptoms and Psychiatric Morbidity Among Patients Seeking Care After the Pentagon Attack. Society for Epidemiologic Research 36th Annual Meeting, June 2003.

Jaffer A, Robinson R, Cowan D, Engel C. Somatic Symptoms and Psychiatric Morbidity Among Patients Seeking Care After the Pentagon Attack. Annual Meeting of the American College of Epidemiology, September 2003.



Appendix B: DHCC Publications

Xian Liu

Papers

Liu X, Engel C, Cowan D, McCarroll J. Using General Population Data to Project Idiopathic Physical Symptoms in the Army. *Military Medicine* 167, No. 7:576–580.

Messer SC, Liu X, Hoge CW, Cowan DN, Engel CC. Projecting national survey prevalences to populations of interest. In: American Psychiatric Association. Syllabus and Proceedings from the APA Annual Meeting, May 17–22, 2003, p. 23.

Liu X, Engel C, Liang J. Decomposition of Causal Effects in Multinomial Logit Models. (pending consideration of publication in *Sociological Methodology*).

Liu X, Engel C, Kang H. Veteran Status and Transitions in Functional Status in Older Americans. To be presented at Population Association of American 2004 Annual Meeting, April 2004.

Engel C, Liu X, Hoge C, Smith S. Multiple Idiopathic Physical Symptoms in the ECA Study: Competing Risk Analysis of One-Year Incidence, Mortality, Resolution." *American Journal of Psychiatry* 159: 998–1004.

Collins TL, Engel CC, Liu X, Johantgen M, Smith S. Do Mental Disorders Matter? A Study of Absenteeism among Care-Seeking Gulf War Veterans with Ill-Defined Conditions and Musculoskeletal Disorders. *Occupational & Environmental Medicine* 59:532–536.

McCarroll JE, Ursano RJ, Newby JH, Liu X, et al. Domestic Violence and Deployment In US Army Soldiers. *The Journal of Nervous and Mental Disease* 191:3–9.

McCarroll JE, Ursano RJ, Fullerton CS, Liu X, Lundy A. 2002. Somatic Symptoms in Gulf War Mortuary Workers. *Psychosomatic Medicine* 64:29–33.

Presentations

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



Dori Rogut

Presentations

Rogut D. Compassion Fatigue for the National Family Team Building Symposium. Falls Church, VA. February 11, 2003.

Rogut D. Effects of Deployments on Children. Hearts Apart Support Group at Fort Belvoir, VA. February 20, 2003.

Rogut D. Effects of Deployments on Children. Fort Belvoir Elementary School Parents Night; Fort Belvoir, VA. February 27, 2003.

Rogut D. Effects of Deployments on Families. Fort Belvoir Senior Spouses; Fort Belvoir, VA. March 13, 2003.

Posters

Rogut D, Bruner V, Simmons CI, Springer S, Adkins J, Engel C. Operation Solace Care Manager Model. Force Health Protection Conference, August 2003.

Vivian Sheliga

Abstracts

Sheliga V, Woodward P, Gonzalez D, Engel CC. Implementing A PTSD Randomized Clinical Trial Protocol: Challenges and Lessons Learned. Force Health Protection Conference, August 2003.

Presentations

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

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



Appendix C: Research Projects

Name of Project:

A Randomized Clinical Trial of Cognitive-Behavioral Treatment For Post-Traumatic Stress Disorder in Women-VA-DoD Cooperative Study N. 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; Nancy Meyer, LICSW, assessment social worker.

Principal Investigator/Site Investigator:

LTC Charles Engel, Jr. (PI and Study Co-Chair); Vivian Sheliga, DSW, BCD, LCSW (SI)

Collaborating external personnel and organizations:

Paula P. Schnurr, Ph.D., and Matthew J. Friedman, M.D., Ph.D., VA National Center for PTSD; Kenneth E. James, Ph.D., Cooperative Studies Program Coordinating Center, Palo Alto, CA; Study therapists: Catherine Sheehan, LCSW, Department of Social Work, WRAMC; Victoria Bruner, LISW, BCETS, DHCC; Corina Miller, LCSW-C, Psychiatric Liaison, the Department of Psychiatry, WRAMC; and Pamela Woodward, LCSW-C, DHCC.



Name of Project:

Health-e VOICE

Funding Organization:

Centers of Disease Control and Prevention (CDC)

Amount of Funding:

\$460,000

DHCC Staff Assigned:

Lt Col Joyce Adkins, PhD (Associate Investigator)

Principal Investigator/Project Leader:

LTC Charles Engel, Jr., MD, MPH (Principal Investigator)

Terry Sjoberg, BSc (Project Leader)

Collaborating External Personnel and Organizations:

Dr. Tim Tinker, DrPH, MPH, Widmeyer Communications

Dr. David Cowan, PhD, MPH

Dr. Samar DeBakey, MD, MPH

Presentations/Publications:

Engel CC Jr, Sjoberg TJW, Jaffer A, Adkins J, Tinker T, DeBakey S, Cowan DN. [Abstract] HEALTH-e VOICE: A randomized controlled trial of web-based training to improve risk communication between health care providers and patients with military-related health concerns. 6th International Conference of the Scientific Committee on Education and Training in Occupational Safety and Health. The International Commission on Occupational Health. Baltimore, Maryland, October 27-30, 2002.



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:

\$257,240 (for year 1 of the study). Year 2 funding of \$ 219,240 is contingent upon successful enrollment of human subjects and demonstrated progress.

DHCC staff assigned:

Kristie Gore, Doctoral candidate in Clinical Psychology
Judy Dedyn, Doctoral candidate in Clinical Psychology
Victoria Bruner, RN, LCSW, BCETS

Principal Investigator/ Project Leader:

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

Collaborating external personnel and organizations:

Dr. Brett Litz, PhD (Co-Investigator) Boston University/
Boston Department of Veterans Affairs Medical Center
Dr. 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

Funding Organization: N/A

Amount of Funding: N/A

DHCC staff assigned:

Ronnie Robinson, MSc.
Cheryl Blount, BSc.

Principal Investigator/ Project Leader:

Ambereen Jaffer, MPH (Project Leader)



Name of Project:

Operation Solace (Data Collection/Management)

Funding Organization:

N/A --- project ended July 2003.

Amount of Funding:

N/A

DHCC staff assigned:

Ronnie Robinson, MSc.
Ambereen Jaffer, MPH

Principal Investigator/Project leader:

LTC. Charles C. Engel, Jr., M.D, MPH
Ronnie Robinson, MSc (Project Leader)

Presentations/publications:

(Poster/ Abstract) Jaffer A, Cowan D, Robinson R, Engel C, Bruner V, Rogut D, Simmons C, Springer S. Somatic symptoms and psychiatric morbidity among patients seeking care after the Pentagon attack. American College of Epidemiology. Annual Scientific Sessions. September 2003, Chicago, Illinois.

(Presentation) Engel C, Adkins J, Cowan D, Simmons C, Bruner V, Springer S, Jaffer A. Operation Solace: Preventive Behavioral Health Care Delivered in the Primary Care Setting. Force Health Protection Conference, US Army Center for Health Promotion & Preventive Medicine. August 2003, Albuquerque, New Mexico.

(Presentation) Jaffer A, Cowan D, Robinson R, Engel C, Bruner V, Rogut D, Simmons C, Springer S. Somatic symptoms and psychiatric morbidity among patients seeking care after the Pentagon attack. 36th Annual Society for Epidemiologic Research Meeting. June 2003, Atlanta, Georgia.

(Presentation) Jaffer A, Cowan D, Robinson R, Engel C, Rogut D, Bruner V, Simmons C, Springer S. The Operation Solace Managed Care Experience: Characteristics of Patients seen in Primary Care in Relation to the Pentagon Event. 13th World Congress on Disaster & Emergency Medicine. May 2003, Melbourne, Australia.

