OFFICE OF THE UNDER SECRETARY OF DEFENSE
4000 DEFENSE PENTAGON
WASHINGTON, DC 20301-4000

PERSONNEL AND
READINESS

AUG 1 2012

The Honorable Carl Levin
Chairman
Committee on Armed Services
United States Senate
Washington, DC 20510

Dear Mr. Chairman:

This letter is in response to section 1634(b) of the National Defense Authorization Act for Fiscal Year 2008 (Public Law 111-181), which requires the Secretary of Defense to submit an annual report setting forth the amounts expended by the Department of Defense (DoD) during the preceding year on activities relating to the diagnosis, treatment, and rehabilitation of members of the Armed Forces with traumatic brain injury (TBI) and psychological health (PH) concerns, including posttraumatic stress disorder (PTSD). The medical treatment of our Service members falls under my purview, and I have been asked to respond.

The enclosed report details Department accomplishments for the previous calendar year, as requested by the legislation. The highlights of the Department's efforts includes increased civilian mental health staffing to augment care to help meet established access standards for urgent and routine appointments; new virtual reality technologies help assess and treat Service members in remote or underserved locations to provide more timely care than with traditional face-to-face appointments; and the development of partnerships to develop networks that offer education, outreach, and case management support to improve the timeliness and coordination of healthcare services for recovery, rehabilitation, and reintegration. Further we improved screening and surveillance efforts to facilitate the early identification and treatment of Service members and families with TBI or psychological health concerns.

The report includes a statement of the Department's priorities relating to the prevention, diagnosis, research, treatment, and rehabilitation of TBI and PH, including PTSD, and an assessment of the progress made toward achieving those priorities. In addition, it provides the status of expenditures associated with fiscal year appropriations starting with the Fiscal Year 2007 Supplemental Appropriation. Using these funds, the Military Services have been able to better care for Service members with mental health illnesses and traumatic brain injuries. I apologize for this report being delayed due to an extensive data collection process.

A similar letter has been sent to the Chairmen of the other congressional defense committees. Thank you for your interest in the health and well-being of our Service members, veterans, and their families.

Sincerely,

Jo Ann Rooney
Principal Deputy

Enclosure:
As stated

cc:
The Honorable John McCain
Ranking Member

OFFICE OF THE UNDER SECRETARY OF DEFENSE
4000 DEFENSE PENTAGON
WASHINGTON, DC 20301-4000

PERSONNEL AND
READINESS

The Honorable Jim Webb
Chairman
Subcommittee on Personnel
Committee on Armed Services
United States Senate
Washington, DC 20510

AUG 1 2012

Dear Mr. Chairman:

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Principal Deputy

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As stated

cc:
The Honorable Lindsey Graham
Ranking Member

OFFICE OF THE UNDER SECRETARY OF DEFENSE
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WASHINGTON, DC 20301-4000

PERSONNEL AND
READINESS

The Honorable Howard P. "Buck" McKeon
Chairman
Committee on Armed Services
U.S. House of Representatives
Washington, DC 20515

AUG 1 2012

Dear Mr. Chairman:

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Jo Ann Rooney
Principal Deputy

Enclosure:
As stated

cc:
The Honorable Adam Smith
Ranking Member

OFFICE OF THE UNDER SECRETARY OF DEFENSE
4000 DEFENSE PENTAGON
WASHINGTON, DC 20301-4000

PERSONNEL AND
READINESS

AUG 1 2012

The Honorable Joe Wilson
Chairman
Subcommittee on Military Personnel
Committee on Armed Services
U.S. House of Representatives
Washington, DC 20515

Dear Mr. Chairman:

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Jo Ann Rooney
Principal Deputy

Enclosure:
As stated

cc:
The Honorable Susan A. Davis
Ranking Member

OFFICE OF THE UNDER SECRETARY OF DEFENSE
4000 DEFENSE PENTAGON
WASHINGTON, DC 20301-4000

PERSONNEL AND
READINESS

AUG 1 2012

The Honorable Daniel K. Inouye
Chairman
Committee on Appropriations
United States Senate
Washington, DC 20510

Dear Mr. Chairman:

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Jo Ann Rooney
Principal Deputy

Enclosure:
As stated

cc:
The Honorable Thad Cochran
Vice Chairman

OFFICE OF THE UNDER SECRETARY OF DEFENSE
4000 DEFENSE PENTAGON
WASHINGTON, DC 20301-4000

PERSONNEL AND
READINESS

AUG 1 2012

The Honorable Daniel K. Inouye
Chairman
Subcommittee on Defense
Committee on Appropriations
United States Senate
Washington, DC 20510

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Sincerely,

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Principal Deputy

Enclosure:
As stated

cc:
The Honorable Thad Cochran
Vice Chairman

OFFICE OF THE UNDER SECRETARY OF DEFENSE
4000 DEFENSE PENTAGON
WASHINGTON, DC 20301-4000

PERSONNEL AND
READINESS

The Honorable Harold Rogers
Chairman
Committee on Appropriations
U.S. House of Representatives
Washington, DC 20515

AUG 1 2012

Dear Mr. Chairman:

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Jo Ann Rooney
Principal Deputy

Enclosure:
As stated

cc:
The Honorable Norman D. Dicks
Ranking Member

OFFICE OF THE UNDER SECRETARY OF DEFENSE
4000 DEFENSE PENTAGON
WASHINGTON, DC 20301-4000

PERSONNEL AND
READINESS

AUG 1 2012

The Honorable C.W. Bill Young
Chairman
Subcommittee on Defense
Committee on Appropriations
U.S. House of Representatives
Washington, DC 20515

Dear Mr. Chairman:

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Jo Ann Rooney
Principal Deputy

Enclosure:
As stated

cc:
The Honorable Norman D. Dicks
Ranking Member

Report to Congress On Expenditures for Activities on Traumatic Brain Injury and Psychological Health, Including Posttraumatic Stress Disorder, for 2011

In Accordance with Section 1634(b) of the National Defense Authorization Act For Fiscal Year 2008

Preparation of this report cost the Department of Defense a total of approximately $12,000 for the 2011 Fiscal Year.

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1.0 Introduction

The effects of military deployments on psychological health (PH), including Posttraumatic Stress Disorder (PTSD), and traumatic brain injury (TBI), have gained great visibility throughout the Department of Defense (DoD) and the Department of Veterans Affairs (VA). As a result, the DoD, in coordination with VA, and with the support of Congress, has increased attention on programs and initiatives designed to improve the diagnosis, treatment, and rehabilitation of members of the Armed Forces with PH and TBI concerns.

Since the first infusion of PH and TBI funding in the fiscal year (FY) 2007 Supplemental Appropriation, the DoD has initiated and sustained more than 150 projects to address the recommendations outlined in various task forces and commissions (such as the President's Commission on Care for Returning Wounded Warriors, also known as the Dole-Shalala Commission, and the DoD Task Force on Mental Health).

1.1 Executive Summary

The DoD submits this report annually in accordance with the National Defense Authorization Act for FY 2008, section 1634(b). This report, the fourth annual submission, conveys Army, Navy, Air Force, and Defense Centers of Excellence for Psychological Health and Traumatic Brain Injury (DCoE) accomplishments made during the previous year, as requested in the legislation. In addition, the report provides the status of expenditures associated with the fiscal year appropriations, starting with the initial appropriation for FY 2007. The information is organized into seven DoD priority action areas:

Access-to-Care:

The access-to-care initiative improved staffing and innovative delivery strategies, including outreach and prevention services, primary-care-based PH services, improved primary care capability for TBI, specialty PH care, specialized TBI care, and improved inpatient care.

Due to increased screening referrals and help-seeking in the face of sustained operations, the military Services have increased civilian mental health (MH) staffing, including contractors and government civilians, to augment care in instances when military MH providers have been deployed, and to meet established access standards for urgent and routine appointments. Each Service provides MH care designed to best serve its unique operational requirements.

Quality of Care:

The quality of care initiative provides Service members and their families the best possible care by developing and publishing evidence-based clinical practice guidelines (CPGs) as well as clinical management guidelines. In addition, it increases the availability of clinical training, tools, equipment, and guidance needed for state-of-the-art care.

The DoD continues to develop and implement training and certification programs for DoD and civilian providers to assist in the treatment of Service members, from accession through separation from service. The Services began assessing the effectiveness of these training programs using such assessment tools as provider surveys

and patient feedback. New virtual reality technologies are used to assess and treat Service members in remote or underserved locations. The use of this technology allows providers to provide more timely care than if they were to rely on traditional face-to-face appointments. The Services are using new specialty-care equipment to identify TBI patients and those suffering with complications caused by posttraumatic stress. In addition, collaboration with VA and other civilian partners, such as the National Football League, continues to advance the care and treatment of our Service members.

Resilience:

Resilience promotion encompasses solid prevention and mitigation and is most pertinent to PH, although leaders can influence TBI prevention through enforcement and oversight of safety programs. This strategic goal develops individuals who are more resistant to the stresses of deployment and combat.

The Services have implemented training courses to educate Service members about the signs and symptoms of operational and combat-related stress, and encourage Service members to seek help if they experience those symptoms. Additionally, these projects improve the command climate support for those seeking MH care. Overall resilience rates, as measured by feedback from Service members and their families, indicate an increase in individuals who said they are provided with tools that allow them to identify, manage, and refer fellow Service members exhibiting signs of operational stress. Projects under this initiative help sustain resilient Service members and families.

Transition:

This initiative improves the quality and effectiveness of treatment through transition and coordination of care across The DoD, VA, and civilian networks. It ensures rapid and effective information sharing to support continuity of care and support across all levels.

The Services have established partnerships throughout the care community to develop networks that offer education, outreach, and case management support for active duty and Reserve Component Service members. These projects improve the timeliness and coordination of healthcare services across the recovery, rehabilitation, and reintegration process. Additional case managers have been added to Service staff; these managers are facilitating improvements in the continuity and coordination of care for Service members and veterans with TBI and PH issues as they transition between care providers and from the DoD to the VA. The DoD continues to gather feedback from Service members and families on how to continue making improvements to the transition process.

Screening and Surveillance:

The screening and surveillance initiative promotes the use of consistent and effective assessment practices and accelerates development of electronic tracking, monitoring, and management of PH and TBI concerns. The DoD is incorporating screening and surveillance initiatives into the lifecycle health assessment process as screening tools are developed and validated.

The DoD continues to improve screening and surveillance efforts to facilitate the early identification and treatment of Service members with TBI or PH concerns. These

efforts encompass Service members and families, help to provide the capability to characterize and understand factors related to psychological risk and resilience, and identify targets for preventive action and mitigation of negative behavioral outcomes. Significant among these is the DoD's efforts to monitor and standardize suicide surveillance data to help better identify and support at-risk populations. Additionally significant is the early identification for mild TBI using a computer-based tool designed to detect speed and accuracy of attention, memory, and thinking ability.

Leadership and Advocacy:

A priority of the DoD is to strengthen and maintain a culture of leadership and advocacy, creating a supportive environment, free of stigma, for Service members and veterans in need of clinical care for PTSD or other MH concerns, as well as TBI. Taking care of people is a leadership responsibility, and the program encompasses this responsibility at every level of leadership, with special emphasis on families and the community environment.

Leadership initiatives include hosting regular community events to advocate increased awareness for TBI and PH effects and services. Regular speaking engagements and conferences provide forums discussing PTSD, suicide, TBI and other PH issues for DoD leadership. Strategic communication programs in the Services help to build public awareness and promote discussion about deployment-related MH concerns.

Research:

DoD is committed to providing a research program to prevent, mitigate, and treat the detrimental effects of traumatic stress and TBI on psychological and physical functioning, wellness, and overall quality of life for Service members, their caregivers, and families. The DoD is focused on advancing the state of medical science in areas of the most pressing needs.

The return on investment from Congressional funding for TBI and PH has only just begun. This return includes greatly accelerated capability development and improved care for wounded, ill, and injured Service members, veterans, and their families. The DoD has formed working groups to help guide the translation of research finding to clinical use. The DoD and VA continue to increase collaborative efforts for mutually beneficial clinical practices and health services and to explore new treatment options for Service members, including new methods of care for those who do not respond to, or are reluctant to engage in, other established therapies.

The actions described in the report address each of the seven priority areas and include detailed descriptions of completed actions, followed by subsections for in-progress and planned actions. The unfulfilled actions under the seven priority areas will carry to the next annual submission for discussion.

The military Services implemented improvements in their consistency and capability to respond to PH and TBI conditions across the full continuum of care, including the development and improvement of programs dedicated to prevention, protection, identification, diagnosis, treatment, recovery, research, and rehabilitation of Service members and veterans with mental health illnesses and traumatic brain injuries. With the PH and TBI

funding, the military Services have been able to better care for Service members. They have added providers to shorten times for access to care, expanded training to improve provider awareness of the symptoms and treatments for these conditions, and invested heavily on research to learn about better approaches to care for these Service members.

1.2 Purpose of this Report

The actions described in the following sections address each of the seven priority areas and provide detailed descriptions of completed actions, followed by explanations of in-progress and planned actions. The unfulfilled actions under the seven priority areas will carry to the next annual submission for discussion. This report addresses PH, including PTSD, and TBI concerns, as follows:

- The following funding tables outline expenditures from FY 2011 (Table 1), FY 2010 (Table 2), FY 2009 (Table 3), FY 2007/2008 (Table 4);
- Amounts allocated to the Defense and Veterans Brain Injury Center (DVBIC) (Section 2.0, Table 5); and
- Priorities, amount expended, and an assessment of select outcomes for activities relating to the prevention, diagnosis, research, treatment, and rehabilitation of TBI and PH concerns, including PTSD, in Service members during the years supported by the FY 2011 Appropriation (Section 3.0).

TABLE 1: FY 2011 ($ millions)

	O&M Funding [1]	Appropriated RDT&E [2]	Procurement	Total
FY 2011 Appropriation	$669.2	$112.6	$0.0	$781.8
Total Available FY 2011 Funding	$669.2	$112.6	$0.0	$781.8
Amount Obligated	$568.5	$8.6	$0.0	$577.1
Percentage of Net Funding Obligated	85%	8%	N/A	74%
Amount Expended	$244.2	$0.2	N/A	$244.4
Percentage of Net Funding Expended	36%	0%	N/A	31%

[1] O&M Obligations are as of September 30, 2011.

[2] Research Development Test and Evaluation Appropriation and Funding Obligations as of December 31, 2011. Funding amounts are based upon current estimates and remaining available for execution until September 30, 2012. Actuals may vary based upon projects selected for funding.

TABLE 2: FY 2010 ($ millions)

	O&M Funding [1]	Appropriated RDT&E	Procurement	Total
Total Available FY 2010 Funding	$655.9	$230.3	$0.0	$886.2
Amount Obligated	$570.0	$230.3	$0.0	$800.3
Amount Expended	$459.4	$69.1	$0.0	$528.5

[1] O&M Obligations are as of September 30, 2010.

TABLE 3: FY 2009 ($ millions)

	O&M Funding [1]	Appropriated RDT&E	Procurement	Total
Total Available FY 2009 Funding	$575.0	$163.1	$20.0	$758.1
Amount Obligated	$532.3	$162.5	$19.2	$714.0
Amount Expended	$333.9	$46.7	$9.0	$389.6

[1] O&M Obligations are as of September 30, 2009.

TABLE 4: FY 2007/2008 ($ millions)

	O&M Funding [1]	Appropriated RDT&E	Procurement	Total
Total Available FY 2008 Funding	$454.5	$506.1	$18.9	$979.5
Amount Obligated	$416.0	$505.9	$17.5	$939.4
Amount Expended	$400.3	$193.1	$15.7	$609.1

[1] O&M Obligations are as of September 30, 2008.

2.0 Amounts Allocated to DVBIC

The DVBIC serves active duty Service members, their beneficiaries, and veterans through state-of-the-art medical care, innovative clinical research initiatives, and educational programs for TBI. In 2007, DVBIC became the TBI operational component of Defense Centers of Excellence for Psychological Health and Traumatic Brain Injury (DCoE).

The DVBIC obligated 100 percent of the $34.25 million in Operations and Maintenance (O&M) funding, and $1.7 million in Procurement funding it received in 2009. For 2010, DVBIC obligated $36.62 million in O&M funding. DVBICs 2011 budget was $38.38 million in O&M funding. During 2011, DVBIC requested an additional $3.98M in O&M funding from the TRICARE Management Activity, increasing its obligations for 2011 to $42.36 million. DVBIC's 2012 budget is $32.59 million. This information can be found in Table 5, below.

TABLE 5: DVBIC ALLOCATION ($ millions)

Fiscal Year	O&M	Procurement	Obligation
2009	$34.25	$1.7	$35.95
2010	$36.62	$0	$36.62
2011	$38.38	$0	$42.36
2012	$32.59	$0	TBD

3.0 Priorities, Amount Expended, and an Assessment of Outcomes Related to Improving Diagnosis, Treatment, and Rehabilitation for TBI and PH (including PTSD)

The plan for implementing the PH and TBI strategies is founded on seven strategic goals to transform the system of care addressing PH and TBI concerns for Service members and their families. The following subsections discuss DoD and Service-specific actions by priority area, and have been organized within each priority area by completed actions; a description and assessment of select outcomes within each area; and a description of the planned actions for the upcoming year.

3.1 Access to Care

3.1.1 Executive Summary

The primary objective of the access-to-care initiative is to provide Service members and their family members with timely access to comprehensive health care related to PH or TBI concerns. This involves improved staffing and innovative delivery strategies, including outreach and prevention services, primary-care-based PH services, improved primary care capability for TBI, specialty PH care, specialized TBI care, and improved inpatient care. The DoD is committed to providing the necessary funding, coordination, and support to Service and benefit operations to assure there are adequate mental health (MH)[1] resources to meet the MH treatment needs of Military Health System (MHS) beneficiaries. A full spectrum of MH care is available to Service members and their families through the MHS and TRICARE before, during, and after deployment.

Due to increased screening referrals and help-seeking in the face of sustained operations, the military Services have increased civilian MH staffing, including contractors and government civilians, to augment care in instances when military MH providers have been deployed, and to meet established access standards for urgent and routine appointments. Each Service provides MH care designed to best serve its unique operational requirements. Some key accomplishments last year include improved access

[1] Throughout this report, the terms mental health (MH), behavioral health (BH), and psychological health (PH) appear in various contexts. For the purposes of this report, the following definitions help distinguish the difference in use of these terms:

mental health – clinically-related treatment for a disorder

behavioral health – behaviors that are observable (e.g., alcohol, spousal, or substance abuse), and may include mental health

psychological health – overall psychological well-being, including mental health

to care rates, the Army's Child and Family Assistance Centers, the Navy's "My Ongoing Recovery Experience," and the expansion of video teleconferencing to provide specialty care access.

3.1.2 Description and Assessment of Outcomes for Access to Care

In September 2011, the DoD established the first dedicated MH Program Manager to oversee the 2008 Memorandum of Agreement that allowed for the detail of Public Health Service behavioral health (BH) officers to augment medical staff at military medical treatment facilities (MTFs) within the United States. This dedicated Program Manager continued establishing standardized processes, assisting with a formal review of the first four years of the program, and improved program effectiveness by strengthening stakeholder communication as well as officer and supervisor communications. In 2011, 47 officers were accepted and placed at MTFs, making for a total of 172 officers: 101 at Army installations, 24 at Navy installations, 29 at Air Force installations, and 18 at Joint Task Force Capital Medical Region installations (Fort Belvoir and Walter Reed National Military Medical Center).

ARMY:

- The primary objective of access-to-care initiatives is to ensure soldiers and their families have timely access to comprehensive PH and TBI-related care.
- During 2011, the Army funded 20 unique PH projects to address access-to-care, providing a range of expanded healthcare services to beneficiaries. The majority of Army access-to-care funding was directed to hire additional BH providers. The Army invested resources to specifically recruit BH assets in 2011 and was able to successfully hire or retain 79 percent of all funded staff.
- In all, Army funded 778 positions under the auspices of access-to-care, and obligated over $129.6 million. The Army obligated 94 percent of the funded resourcing it was provided for PH care. As a result of additional staffing, the Army was able to increase the number of BH clinic encounters from 854,119 in 2006, to 1,732,601 in 2011, a 103 percent increase.
- In late 2007, the Army was recording fewer than 4,000 BH encounters per day (across all product lines, to include primary care, emergency departments, etc.). By late 2010, that number had risen slightly above 6,000 encounters per day. During the last year, the Army has decreased slightly and now the average daily encounters are slightly below 6,000 per day.
- From 2009, the proportion of direct care provided to active duty family members has increased (29, 31, and 32 percent for 2009, 2010, and 2011, respectively), with the proportion of care delivered in the purchased care sector decreasing.
- For 2011, the Army successfully met access-to-care standards for active duty beneficiaries, on average, 81 percent of the time. The Army continues working toward improving its compliance with the DoD 7-day access-to-care standard of 90 percent. Urgent care access-to-care is currently met at an average rate of 98 percent within 24 hours for active duty beneficiaries, surpassing the DoD's established goal of 95 percent.

- During 2011, Embedded Behavioral Health (EBH) teams were operating or standing up at six different installations. The EBH teams provide multidisciplinary community BH care to Army soldiers close to their unit areas and in close coordination with unit leaders. Utilization of this model has shown statistically significant reductions in inpatient psychiatric admissions, off-post referrals, high-risk behaviors, and the number of soldiers who are non-deployable. Below are the 2011 operating or partially operating EBH teams:
    - Fort Carson, Colorado (has an established EBH team);
    - Fort Knox, Kentucky (being implemented);
    - Fort Leonard Wood, Missouri (being implemented);
    - Fort Drum, New York (being implemented);
    - Schofield Barracks, Hawaii (being implemented); and
    - Fort Bragg, North Carolina (being implemented).

- A significant Army project is the Child and Family Assistance Centers (CAFACs), which provide direct BH care for Army soldiers and their families, including marriage and family therapy, and is directed at the promotion of optimal military readiness and wellness in Army children and families. The CAFAC is based on a public health model to increase capacity and flexibility in the delivery of BH services through Army and civilian partnerships. In 2011, four sites were operational, with an additional three sites in development.

- Army School Behavioral Health programs expanded to operate at seven different Army installations in a total of 37 school venues. Access-to-care for the first appointment was less than 48 hours on average. The no show rate for School Behavioral Health program appointments was only 2.6 percent.
- Expansion of tele-BH has increased access-to-care for sites with limited BH resources in the direct care system and/or TRICARE network. Since January 2010, there have been 45,000 tele-BH encounters across 66 sites in garrison and 54 in theater.
- The Army funded all known access-to-care requirements for TBI during 2011, obligating a total of $63.7 million. The Army funded six unique projects providing a range of expanded TBI healthcare services to beneficiaries:
    - To ensure timely access-to-care, the Army funded 415 additional TBI staff members in locations ranging from large Army hospitals to rural outpatient clinics;
    - Deployed theater providers in support of interdisciplinary TBI care;
    - Continued funding to support a five-person rehab surge team, made up of a neurologist and four occupational therapists, to assist with any gaps in TBI coverage;
    - Completed the equipment outfitting of six TBI facility projects that were initiated in 2010;
    - Incorporated access-to-care into Army Medical Command's organizational inspection program. Army military medical treatment facilities (MTFs) were

given specific recommendations for process improvement and were formally assessed on access-to-care as part of their 2011 organizational inspection; and

- Telehealth is now actively utilized by primary care and other specialty care providers. The Army provided over 3,700 telehealth encounters specifically for patients with TBI. This represents a doubling of telehealth workload in 2011 compared to 2010. At some locations, evidence supports that patients are seen sooner using telehealth rather than those who receive standard face-to-face appointments.

- For 2011, the Army increased the percentage of permanent government positions by nine percent, from 56.3 percent to 65.4 percent, surpassing their projected goal of seven percent. The goal of this increase is to reduce the number of contract positions, thus resulting in savings to the government.

NAVY:

- Navy Medicine increased timely access to appropriate levels of healthcare through continued sustainment for provider and support staff as well as the development and implementation of innovative portals to care and supported the timely first response and early identification of PH and TBI concerns, with efforts directed at facilitating efficient and standardized treatment/care coordination.

- Navy contracted and filled more than 270 provider and support staff positions (including the continuation of funded 2010 positions) at MTFs Service-wide.

- Investment continued and expanded in innovative and high-tech care solutions, such as the virtual Navy My Ongoing Recovery Experience (MORE) substance abuse program, through support of increased staffing to fill identified gaps, monitor daily use of the MORE program, and respond to possible at-risk users.

- Navy increased access to residential PTSD care through the Overcoming Adversity and Stress Injury Support program, Navy Medical Center San Diego (NMCSD). Navy increased bed capacity from five beds in 2010, to 20 beds 2011.

- NMCSD increased access to Substance Abuse Recovery Program services treating co-occurring MH and substance abuse disorders through an increased number of treatment teams, from six teams in 2010 to nine in 2011, and increased bed capacity, from 70 beds in 2009 to 100 beds in 2011. Wait times for services have decreased as a direct result of increased staffing and bed capacity.

- Navy facilitated an increase in capability for alternative and complementary care by supporting training and education efforts such as acupuncture, mind-body, etc.

- Navy sustained support for PH outreach coordinators for both Navy and Marine Corps Reservists. Outreach teams create both a safety net, and non-stigmatized entry into care by providing outreach, support, and intervention.

- The Navy and Marine Corps facilitated efficient and standardized treatment and care coordination for TBI through support of the East and West Offices of Neurotrauma and the expansion of Regional TBI programs at NMCSD, Naval Hospital Camp

Pendleton, Naval Health Clinic New England, Naval Medical Center Portsmouth, and Naval Hospital Camp Lejeune.

- The Navy is continued conducting a needs assessment of all regional TBI programs to determine current patient populations, capacities, staffing, features, and metrics. The data obtained in the needs assessment will be used to develop a validated plan which ensures the resources necessary to provide care are consistent with target goals.
- The Navy worked closely with regions and MTFs to determine and support staffing needs as well as identify and resolve any gaps in services.
- Use of progressive and alternative therapies along with advanced technologies provided both gateways to new care as well as convenient options for sustained care.
- Providing informative support, including metrics, tools, and guidance, facilitated appropriate staffing to allow for more effective decisions.
- Coordinated efforts of the Navy and Marine Corps Public Health Center, Naval Health Research Center (NHRC), and Navy Center for Combat and Operational Stress Control (NCCOSC) identified leading/lagging indicators for access-to-care, and provided key metrics that guide manpower decisions at all levels (enterprise, regional, and local). The number of Navy direct care MH encounters continued to rise significantly, from 30,000 monthly encounters in June 2007, to more than 60,000 monthly encounters in June of 2011.
- Active duty beneficiaries account for more than 60 percent of the total MH workload and continue to rise at a greater pace than other beneficiary categories.
- Workload and clinic efficiency metrics show a correlation between the rise in MH encounters and an increase in hours worked. The increase is evident in all skill types, but most dramatically in direct care professionals, direct care paraprofessionals, and administrative/clerical skill types.
    - Clinic efficiency metrics show a general increase in both assigned and available staff since the inception of PH/TBI funding in 2007.
    - Clinic efficiency metrics helped determine the number of assigned and available staff along with workload data to identify those clinics showing significant under or over the optimal utilization.
    - The Navy realized a 50 percent increase between second quarter 2011 and third quarter 2011 in the number of MTFs operating within their optimal percentile for utilization during 2011.

AIR FORCE:

- The Air Force (AF) exercised contract options to maintain 96 PH specialty care and Behavioral Health Optimization Program providers at 75 MTFs worldwide. These personnel provided clinical capacity for specialty PH care services that enabled uniformed Service members to conduct outreach, prevention, and resilience activities to base AF populations. This is enabling outreach to operational units at high risk for PH issues such as explosive ordinance division and remotely piloted aircraft units.

- The AF deployed an additional 39 secure and portable video teleconference (VTC) units to facilities around the world. The AF now has 57 of the planned 85 locations operational. These VTC units are providing BH specialty care access to beneficiaries, easing access while reducing cost of travel and network care in areas where network BH specialty care is in short supply.
- The AF is currently operating ten virtual reality (VR) therapy sites, and relocated one VR site during 2011 to Dyess Air Force Base (AFB), TX. The VR units are enabling access to this therapy to PTSD patients and enabling the AF to gather data on outcomes with this therapy. VR unit relocation is supporting active and reserve component Service member demand at Dyess AFB.
- The AF TBI Clinic at Joint Base Elmendorf-Richardson (JBER) acquired responsibility for all TBI screening and referral assessments for uniformed Service members in the joint population. The AF TBI clinic at JBER maintained a 95 percent access-to-care standard for AF and Army Service members in Alaska, completing over 3,500 pre- and post-deployment neurocognitive screenings. The AF TBI clinic evaluated 191 TBI referrals over a 90-day period following the Service members' return from deployment.

DCoE:

In November 2007, the DoD established the Defense Centers of Excellence for PH and TBI (DCoE) to maximize the health and care of Service members, veterans, and their families in all areas related to PH and TBI. DCoE works with a collaborative network involving other federal agencies, academia, and public-private partners to lead clinical efforts toward developing excellence in practice standards, education and training, and comprehensive direct care for our military community with PH concerns and TBI. DCoE consists of a headquarters and three component centers (DVBIC, the Deployment Health Clinical Center (DHCC), and the National Center for Telehealth and Technology (T2)).

- DCoE's Outreach Center became operational under a new contractor on May 15, 2011. The Outreach Center offers trained, professional health resource consultants with expertise in PH and TBI, 24 hours a day, 7 days a week. Between May 15, 2011, and December 31, 2011, the Center provided the following services:

Transaction Method	Number
Telephonic Inquiries	1,262
Service Requests	863
Chats	404
E-mails	187
Follow-up E-mails	489
Total	3,205

- DCoE is the DoD lead for 18 of the 28 DoD/VA Integrated Mental Health Strategy (IMHS) actions, which focus on improving the continuity of care across the DoD and VA. In particular, DCoE, as the DoD IMHS action lead, developed and executed DoD/VA IMHS #23, the role of the chaplain in integrated provision of mental health

to Service members. DCoE led the collaboration between DoD and VA chaplains and mental health professionals to explore and determine best practices for senior DoD/VA leadership and how to best structure roles for chaplains to become fully integrated with VA mental health care.

- The *inTransition* program has been operational since February 2010 and continues to serve the transition needs of Service members. Providers are the crucial link to a successful transition for Service members receiving mental health treatment, and the *inTransition* program supports Service members to ensure a smooth and seamless process. Of particular note, the combined marketing and communications efforts (including public service announcements, site visits, conferences, media outreach, etc.) conducted in September 2011 fostered a surge in activity. During 2011, there were 8,960 calls for *inTransition* and 881 open coaching cases.
- DCoE updates its online resource library weekly to include relevant and current resource information for PH and TBI. The library contains resources for families, http://www.dcoe.health.mil/ForFamilies/Resources.aspx, Service members, http://www.dcoe.health.mil/ForWarriors/Resources.aspx, and providers, http://www.dcoe.health.mil/ForHealthPros.aspx. From October 2011, when the new contract began, through the end of the year, there were 55 updates to the resource library database.
- Throughout 2011, DCoE continued to promote and advance access-to-care through the publication of the Military TBI Case Management Quarterly Newsletter and provided a national-level resource fact sheet for military case managers. The newsletter is primarily electronic, sent to more than 1,200 email subscribers per quarter, and is posted on the TBI Case Management page of DCoE's Web site (http://www.dcoe.health.mil/ForHealthPros/TBICaseManagement.aspx). Internet hits on the newsletter between fall 2010 and summer 2011 totaled more than 60,000. Additionally, the newsletter is printed in hardcopy as handouts during conferences.

DVBIC:

- During 2011, DVBIC received accreditation from the Commission on Accreditation of Rehabilitation Facilities (CARF) at its Johnstown, PA, facility, and re-accreditation at its Charlottesville, VA, facility. CARF is an independent, non-profit accreditor of health and human services. Achieving accreditation requires a service provider to commit to quality improvement, focus on the unique needs of each person the provider serves, and monitor the results of services.
- In 2011, 32 patients were treated for TBI at DVBIC Johnstown, and 26 patients were treated for TBI at DVBIC Charlottesville.

DHCC:

- DHCC improved access with alternative PH treatment delivery methods. DHCC's study, "Delivery of Self-Training and Education for Stressful Situations-Primary Care Intervention (DESTRESS-PC): A Brief Online Self-Management Tool for PTSD," evaluates cognitive behavioral therapy that leads Service members with PTSD to healing through a secure Web site. This delivery method is relevant for providing

timely, high quality access to low-stigma MH services for victims of terrorist attacks or disasters.

- "Delivery of Self Training and Education for Stressful Situations-Telephone," (DESTRESS-T), is DHCC's eight-week, telephone-based structured psychotherapy intervention for war-zone exposed Service members diagnosed with PTSD. The DESTRESS-T intervention will include a telephone care management protocol to monitor patients and support their adherence to treatment. This cutting-edge telemedicine approach will offer an intensive, low stigma, and low burden psychosocial intervention for Service members seeking MH treatment. This protocol is under review with the Institutional Review Board and the treatment manuals are under development. The DHCC DESTRESS-T study team worked on protocol development and created patient workbooks and provider training manuals in 2011.

T2:

- During 2011, T2 operated two Web sites that facilitate access to care:
  - *Afterdeployment.org*. Developed for Service members, veterans, families, and healthcare providers serving the military community, the site provides educational libraries, self-assessments, interactive exercises, personal stories, podcasts, community forums, resource lists, a geospatial locator, a provider portal, links to social media, RSS feeds, polls, daily quotes, and health tips on 18 common post-deployment adjustment issues (stress, depression, etc.). Use statistics indicated 5000 to 6000 visits to the site per month.
  - *SuicideOutreach.org*. Developed in collaboration with the Suicide Prevention and Risk Reduction Committee (SPARRC), the site centralizes suicide prevention resources and links to Service-specific information. The site includes information on suicide facts, common misconceptions, taking action in crisis situations, risk factors, warning signs, and dealing with grief reactions.
- Released four mobile applications that provided for access to basic skills commonly used in behavioral health care.
- Concluded the proof of concept study that provided the only behavioral health care on the island of American Samoa. Safe, effective behavioral health care was delivered to Reservists in the 100th Infantry Battalion, 442nd Regimental Combat Team and Military Intelligence Service and veterans who live on American Samoa. Psychologists working from Tripler Army Medical Center handled 278 medical encounters. This project not only provided necessary care but also avoided more than $700,000 in cost of care.
- Provided the first ever DoD-level training course on telehealth. The Introduction to Telemental Health Delivery Course was attended by both novice and experienced providers from all military Services.

3.1.3 Description of Actions Planned for Access to Care

ARMY:

- The Army BH System of Care has been implemented to provide efficient and evidence-based BH practices through further development and refinement of

Army-wide standards. For 2012, the Army will continue standardization efforts through the BH System of Care. The intended outcome is to optimize care and maximize limited resources.

- U.S. Army Medical Command leadership has directed the expedited proliferation of Embedded Behavioral Health (EBH) teams to all brigade combat teams by the end of 2013 under the BH System of Care. EBH is a program that provides multidisciplinary community BH care to Service members in proximity to their unit area, and in close coordination with their unit leaders.
- The Army BH System of Care will be supporting other enterprise efforts, such as the Integrated Disability Evaluation System and Patient Centered Medical Home, by realigning personnel assets by the end of 2012. The BH System of Care will expand other evidenced-based programs such as School Behavioral Health and Child and Family Assistance Centers through 2012.
- The Army continues working to increase the percentage of government positions and decreasing the number of contracts. Contractors now comprise 34.6 percent of TBI access-to-care staff. The goal is to decrease this percentage by another seven percent in 2012 for additional cost-savings to the government.
- The Army is considering a policy, similar to the June 2010, Directive-Type Memorandum (DTM) 09-033, "Policy Guidance for Management of Concussion/Mild Traumatic Brain Injury in the Deployed Setting," that will mandate a medical evaluation for all soldiers involved in possibly concussive events that occur in the non-deployed setting.
- The Army will continue to increase the number of telehealth services offered and improve access-to-care with increased encounter volume. The telehealth program will continue to standardize and leverage existing resources to meet garrison and theater needs, and will explore options for developing and maintaining a global appointment scheduling function.

NAVY:

- Navy Medicine continued to coordinate at all levels, regional and local, to provide and facilitate appropriate training, education, and resources to maximize provider and health care capabilities. For 2012, the Navy will continue to enable timely access to comprehensive healthcare for Service members and their families, including:
    - Enhance increased capacity to provide 100 percent of active duty PH and TBI care and recapture family care where appropriate;
    - Improve access by supporting implementation of alternative or complementary medicines; and
    - Improve access by developing Navy tele-MH and tele-TBI implementation guidance.
- Navy will focus on various access-to-care target measures for 2012, including increased direct care encounters; decreased wait time for services, decreased purchased care costs, and increased civilian resource partnerships.

AIR FORCE:

- In 2012, the AF will continue to purchase support to fill personnel requirements for specialty PH care services needed across the AF Medical Service. In addition, the AF projects implementation of the following three new projects: contract for 86 PH providers and PH case management nurses to fully support the Behavioral Health Optimization Program in Patient Centered Medical Home (PCMH); contract VTC services that will provide world-wide support to bases where psychiatry services are minimal or non-existent; and conduct a pilot program at two AF locations to test a full-integration of PH services in PCMH model.
- For 2012, the AF expects full installation of the remaining 28 VTC units by the end of June. With full deployment of VTC capability, provider-to-provider communication, patient to provider treatment and consultation encounters will begin in earnest. A joint AF/VA VTC program for uniformed Service members seeking behavioral therapies for PTSD, TBI, and chronic pain will be implemented between Bolling AFB in Washington, D.C., and the New Haven, Connecticut, VA.
- In 2012, the AF will relocate a virtual reality unit to Offutt AFB, Nebraska, to meet the demand at that location. The AF will continue provider training in the therapeutic use of all VTC units to further improve their utility.
- In 2012, the AF TBI Clinic at JBER will continue to ensure patients are seen within access-to-care standards to provide timely neurocognitive screenings and quick response to TBI evaluation referrals.

DCoE: During 2012, DCoE will:

- Partner with the Services and federal agencies to review access to care and stigma policies and programs and develop a comprehensive approach to decreasing stigma. Continue work as the DoD/Services integrator for stigma actions. DCoE is lead for coordinating efforts on Targeted Response #16, 18, and 19 of the DoD Suicide Task Force. In addition, DCoE has an internal stigma initiative, "Help-seeking and Stigma Reduction for Psychological Health Care;"
- Develop partnerships with regional medical commands to increase overall PH and TBI awareness;
- Incorporate the interactive customer evaluation for the *inTransition* program, fact find with U.S. Army Medical Command and VA for possible utilization of *inTransition* at demobilization sites, and determine if there is a potential for the use of *inTransition* by polytrauma patients;
- Continue to update the Suicide Prevention and Risk Reduction Web site as a clearinghouse of suicide prevention resources and information in coordination with the Defense Suicide Prevention Office; and
- Collaborate with the DoD's Sexual Assault Prevention and Response Office to establish a memorandum of understanding between the Sexual Assault Helpline and the DCoE Outreach Center to refer callers in need of assistance related to sexual assault.

DVBIC: In 2012, DVBIC will:

- Continue to develop partnerships with DoD sites (MTFs and Warrior Transition Units) to increase the number of active duty Service members served by the DVBIC neuro-rehabilitation programs;
- Initiate collaborative research activities with military, VA, and civilian sites to further the knowledge base of best practices for individuals with TBI;
- Increase community partnerships for volunteer vocational work for TBI patients and increase behavioral and vocational staff to accommodate more complex patients and to achieve better vocational outcomes; and
- Increase coordination with VA to reduce redundancies and to fill gaps in the rehabilitation continuum for veterans with TBI.

DHCC: In 2012, DHCC will:

- Begin a $15 million multi-site clinical trial to improve access-to-care. DHCC is partnering with RAND and RTI International to evaluate the Stepped Enhancement of PTSD Services Using Primary care (STEPS UP intervention), which increases access to enhanced PTSD and depression treatment in the primary care setting. STEPS UP will be studied in 18 primary care clinics at six Army posts (Fort Bliss, TX; Fort Bragg, NC; Fort Campbell, KY; Fort Carson, CO; Fort Stewart, GA; and Fort Lewis, WA).

T2: In 2012, T2 will:

- Complete a comprehensive telehealth review of DoD-wide telehealth capabilities and strategies to identify gaps and opportunities to improve access for both active and reserve component beneficiaries. Based on the review and accompanying gap analysis, T2 will draft a proposed strategic plan that will be delivered to the OSD Cost Assessment and Program Evaluation (CAPE) office.
- Enable a functional and sustainable DoD telehealth system through leadership and education, demonstrated solutions, standardization, future-oriented policy and planning, and data-driven results. Continue to assess the possibilities of using virtual worlds as a means of providing access to care.
- Add enhancements to *Afterdeployment.org,* including the addition of new modules on personal finances, pain management, and suicide. Additionally, significant upgrades will be released for the sleep topic module, since difficulty sleeping has been identified as one of the unanticipated, but most common and significant, post-deployment problems.
- Work with the VA on using *Afterdeployment.org* as a clinical tool for walk-in clinics and primary care as well as BH clinics will continue.

3.2 Quality of Care

3.2.1 Executive Summary

The primary objective of the quality of care initiative is to ensure that Service members and their families receive the best possible care by developing and publishing

evidence-based clinical practice guidelines (CPGs) as well as clinical management guidelines in the absence of conclusive evidence. Another objective is to ensure availability of clinical training, tools, equipment, and guidance needed for state-of-the-art care.

The DoD continues to develop and implement training and certification programs for DoD and civilian providers to assist in the treatment of Service members throughout their lifecycle, from accession through separation from service. The Services are now assessing the effectiveness of these training programs using assessment tools such as provider surveys and patient feedback. New virtual reality technologies are used to assess and treat Service members in remote or underserved locations. This technology allows providers to provide more timely care than if they were to rely on traditional face-to-face appointments. The Services have purchased and are using new specialty-care equipment to identify TBI patients and those suffering with complications caused by posttraumatic stress. In addition, collaboration with the VA and other civilian partners, such as the National Football League, continues to advance the care and treatment of our Service members. Key outcomes for last year include PTSD training programs, traumatic event management training, quality of care metrics, substance abuse training, and many other training opportunities for medical providers.

3.2.2 Description and Assessment of Outcomes for Quality of Care

ARMY:

- The primary objective of the Army quality of care initiative is to ensure that soldiers and their families receive the best possible care. During 2011, the Army funded seven PH and 10 TBI projects under quality of care, obligating 96 percent of funded resources for 2011. This resourced 65 personnel and funded approximately $10.86 million for PH initiatives, and $6.5M for TBI initiatives.
- Significant among the quality of care projects is the Army's PTSD training program, designed to train all Army Medical Department BH providers on VA and DoD-recommended treatment modalities for the treatment of PTSD. In 2011, a total of 776 providers were trained on the following evidence-based practices:
    - Prolonged Exposure (trained 233 providers);
    - Eye Movement Desensitization Reprocessing (trained 273 providers);
    - Cognitive Processing Therapy (trained 228 providers); and
    - Cognitive-Behavioral Conjoint Therapy (trained 42 providers).
- Based on 2011 Army provider-level satisfaction surveys, the average satisfaction score for psychiatry, psychology, social work, MH, and child guidance providers was approximately 91 percent. Satisfaction rates increased from 90.74 percent in January 2011, to 91.5 percent by December 2011.
- The Army obtained certification for the prototype of an automated BH data platform intended to collect standardized clinical data throughout the BH clinical care process. Using a system of standardized outcome data for viewing by provider and therapist markedly changed outcomes of cases that were not on track for improvement with usual care. Usually, 22 percent of cases improve with treatment, but 52 percent of those using the new outcome system improved. Conversely, 20 percent of cases

deteriorated with usual treatment versus only 6 percent of those using the new outcome system.

- The U.S. Army Medical Department Center and School has developed standardized traumatic event management training for BH providers and unit ministry teams. This promotes one consistent approach throughout the Army. The Joint Mental Health Advisory Team 7 Report (February 2011) indicates that 47.8 percent of BH providers are conducting psychological debriefings in theater. Additionally, traumatic event management (TEM), the term used by the Army to reference interventions and support activities in response to possibly traumatizing events, is a flexible set of interventions specifically focused on stress management for units and individual soldiers. The goal of TEM is to enhance posttraumatic growth, an adaptive process resulting from exposure to possibly traumatizing events. Some TEM intervention themes include: improved relationships, renewed hope for life, an improved appreciation of life, an enhanced sense of personal strength, and spiritual development. In August 2011, 50 TEM sessions, involving 429 Service members, were conducted in Afghanistan.
- In conjunction with DoD partners, the Army implemented medical algorithms, leadership actions, and reporting requirements for concussion care in theater as required by DTM 09-033, "Policy Guidance for Management of Concussion/Mild Traumatic Brain Injury in the Deployed Setting" (June 2010). Throughout 2011, the Army continued the validation program to ensure that TBI clinics are in compliance with the TBI operational order.
- The Army and the DoD continue to work closely with the National Football League to ensure that policies are similar and based on the highest levels of available research for treating individuals with concussion/mild TBI.
- Local Army TBI clinics provided more than 40 local events, such as Town Hall meetings, outreach informational briefings, and symposiums to educate soldiers and family members about TBI and TBI services.
- The Army's Rehabilitation and Reintegration Division exhibited at 11 conferences, educating soldiers, family members, and the public about the Army's TBI program.
- TBI educational opportunities were funded so TBI providers and staff could be kept abreast of the most effective practices to provide the highest quality of care to soldiers and beneficiaries.
- The Army funded the Vestibular Assessment and Rehabilitation course for 40 rehabilitation specialists at the former Walter Reed Army Medical Center in Washington, D.C., and a vision rehabilitation course in San Antonio, Texas, for 24 optometrists. In addition, the Army funded 3,248 "Frame of Choice" custom sunglasses in 2011 to ameliorate visual deficits in soldiers with TBI.
- The Army published Department of the Army Executive Order 242-11, mandating TBI training for soldiers, leaders, and health care staff. All training materials available on the Army Training Network Web site, a secure, online tool designed for trainers and educators to provide best practices, a database of training solutions and collaborative tools.

- The Army produced two new, and one updated, educational videos for medical personnel and providers (TBI 302, 505, and 301 v2). These videos are available on the MHS Learn Web site, a centralized, Web-based platform that provides the military medical workforce and the beneficiary population with a single source for managing, delivering, and tracking learning, and on DVD.
- In August 2011, 432 Army providers attended the DVBIC TBI Military Training Conference. This event hosts DoD/VA healthcare providers who treat Service members and veterans, and care for families that experience TBI.
- Southeastern Regional Medical Center hosted 12 "Grand Rounds" events during 2011 to educate providers about the latest TBI assessment and intervention methods. More than 60 Army and VA-sites participated in these events.
- The Army purchased $520,000 of TBI equipment to implement the latest proven technology for soldiers and beneficiaries with TBI, including $83,000 of neurosurgery/imaging equipment; it also hired five staff devoted to neuroimaging.
- The Europe Regional Medical Command added two driving simulators in to assist soldiers having post-injury driving difficulties.
- As a result of the 2010 Pain Management Task Force Report, the Army has focused efforts on medication and pain management. In 2011, the Army hired three staff to spearhead its medication management program.
- Eight trained rehabilitation specialists will spearhead the concussion care facilities in Afghanistan.
- During 2011, the Army worked to integrate speech and language pathology clinical practice guidance into the TBI Rehabilitation Toolkit to produce a comprehensive guide for TBI rehabilitation.

NAVY: In 2011, the Navy:

- Supported the Naval Center for Combat and Operational Stress Control expansion of the Psychological Health Pathways (PHP) pilot. The PHP program provides a standardized framework for core clinical and care management processes utilizing scalable electronic data capture. The methodology is facilitated by a consultation team of subject matter experts in military PH and care management. Key components include evidence-based treatment, standardized evaluation and re-evaluation processes, multidisciplinary care, data management, and care management.
- Worked closely with regional and MTF leadership to develop and implement long-term sustainment plans for incorporation of PH training into the residency programs at Naval Hospital Camp Lejeune and Naval Hospital Camp Pendleton. Contract staff will transition to Navy Medicine assets as needed and specific curricula will be fully completed by end of 2012.
- Continued working to develop an advanced, field-deployable, computerized neurocognitive assessment device to promote better screening, and subsequent treatment of Service members in theater with possible TBI event exposures.

- Continued to support Internet nursing skills training that includes a specific training curriculum on identifying and treating PTSD.
- Supported the successful development of a treadmill testing protocol that has the potential to change the standard of care for Service members with lower extremity amputations, reduce medical care costs, and enable Service members to successfully return to active duty or transition to a productive civilian life.
- Made substantial progress in meeting identified target measures for 2011, including:
    - Supporting high quality, evidence-based healthcare for Service members and their families;
    - Supporting high quality clinical standards and practices through institutionalized trainings and collaboration within and throughout the DoD and VA;
    - Providing training to healthcare professionals in best practices to address mild TBI (mTBI), combat stress, substance abuse therapy, PH treatment options, and alternative therapies; and
    - Developing systems that monitor and track training to ensure established goals are achieved, and ensured that systems are in place to enable MTFs to meet quality of care goals and objectives.
- Coordinated efforts with the Navy and Marine Corps Public Health Center, the Naval Health Research Center, and the Naval Center for Combat and Operational Stress Control to establish quality of care metrics based on utilization of clinical practice guidelines (CPGs) and evidence-based best practices for four focus areas: Major Depressive Disorder, mTBI, PTSD, and Substance Use Disorders. These represent the four CPGs jointly approved by the DoD and VA.
- Coded, on average, 4 percent of Navy MTF enrollees with a diagnosis for depression. Based on clinical treatment guidelines, newly diagnosed and treated members diagnosed with Major Depressive Disorder should be treated with an anti-depressant medication as a first-line treatment option along with psychotherapy.
    - Navy Medicine utilization of antidepressant medication for these patients for at least 84 days (acute phase) is above the MHS Healthcare Effectiveness Data and Information Set (HEDIS) 50^{th} percentile and falls, on average, in the 75^{th} percentile. Navy Medicine utilization of antidepressant medication for these patients for at least 180 days (continuation phase) is below the MHS HEDIS 50^{th} percentile.
- Implemented the VA/DoD clinical practice guideline that recommends prescribing Selective Serotonin Reuptake Inhibitors (SSRI) as a first-line defense for newly diagnosed PTSD.
    - 87 percent of PTSD cases on a new SSRI received a timely follow-up.
    - On average, Navy Medicine PTSD cases received 6 treatment encounters in their first three months. This is on pace to meet or surpass the target goal of 20 treatment encounters in the first year.

- During 2011, for 36 percent of individuals in the Navy Medicine system, initiated treatment within 14 days of a substance use disorder diagnosis. Of those, more than 22 percent engaged with two or more additional treatments after the initial visit within 30 days.

AIR FORCE

- During 2011, the AF trained uniformed and civilian PH providers in evidence-based therapies (EBT) for the treatment of PTSD. An additional 194 providers were trained in at least one EBT for the treatment of PTSD. All AF MTFs have BH providers trained on EBT for PTSD. Through clinical practice guidelines, standardized therapies are providing PTSD patients in AF MTFs the best EBT.
- The AF completed a project in which computer-based training (CBT) modules were developed to enhance provider skills in the use of VR. Enhanced the ability of BH staff to employ VR therapeutically. In addition to CBT models for PTSD, four modules were developed for use in the treatment of phobias (e.g., flying and heights, and for relaxation therapy). With these models, the total of MHS Learn offerings now stands at twelve courses and five awareness tools.
- In 2011, the AF supported 200 attendees to the annual Operational Problems in Behavioral Health Sciences Symposium Course that provides training on recent advances in MH care and policy to AF personnel serving in MH, alcohol and drug abuse, and family advocacy programs. This course provided approximately 5,000 continuing education units in: cognitive behavioral couples therapy an EBT for PTSD, ethics, health service inspection best practices, treatment of suicidal patients and clinician resilience, conducting evaluations and preparing medical evaluation board reports, BH consultation to commanders, leadership, technology in MH, BH in PCMH, resiliency programs, and preparing MH evaluation reports for discharge and separation procedures.
- The AF trained PH providers in the AF Behavioral Health Optimization in Primary Care Program (BHOP) model to provide brief interventions for behavioral issues related to MH and other conditions primarily seen in PCMH. The AF trained 29 new PH providers in the BHOP model, supporting the AF strategy to employ BHOP in every MTF. BHOP is making BH care available in most AF Family Health Clinics now, giving patients ready access with reduced concern about stigma. Eleven BHOP providers were trained to the master-clinician level to provide consultation and mentoring, shown to enhance implementation of treatment models into practice for newly trained providers.
- The TBI Clinic at JBER conducted a thorough review of coding procedures to improve the quality of diagnosis data and treatment of TBI patients. They initiated an Interdisciplinary Case Management program in collaboration with various support services, including the Anchorage, Alaska, VA and the Army Warrior Transition Unit in Alaska to provide enhanced coordination and management of complex cases. Since the inception of this program in March 2011, 1,200 patients were assessed, and 88 have been provided this collaborative care management service. This service supports both Army and AF members in Alaska.

- The AF sent primary and specialty care providers to DVBIC's annual TBI Symposium in February 2011 to learn current best practices in TBI evaluation and care. This training is improving application of DoD/VA clinical practice guidelines for evaluation and treatment of TBI. The 65 attendees rated this training as "very relevant" to their practices. In addition, educational materials and TBI management tools were distributed to primary care providers across the AF Medical System.
- The AF enhanced capabilities of substance abuse professionals with state-of-the-art training on substance abuse prevention and treatment techniques. Throughout 2011, substance abuse staff were updated on evolving trends in substance abuse and treatment; 249 substance abuse staff attended training in: Motivational Interviewing; Group and Individual Counseling; Treatment Program Management; and Substance Abuse Prevention Specialists.
- The Substance Use Assessment Tool (SUAT) was converted to a Web-based application to enhance standardization and data management in the evaluation of drug and alcohol disorders. Empirically-based protocols for assessment and treatment planning were incorporated into the tool. SUAT report functions were expanded to monitor quality of care outcomes and used to process 9,286 cases in 2011. The AF secured host servers, help-desk services, and operational approval for AF network compliance.

DCoE:

- DCoE provided stakeholders with evidence-based practices and metrics for maintaining healthy behaviors.
- DCoE provided an all-day workshop on the eight mind-body domains Total Force Fitness Model at the Military Healthcare System conference.
- DCoE provided training on integrative health and wellness practices for clinical and non-clinical support personnel at multiple national military conferences (e.g., Armed Forces Public Health and Military Health System, etc.), which included a summary of evidence-based information, description of range of programs and resources, skills training and sample metrics for ensuring quality services.
- DCoE published VA/DoD Substance Use Disorders Clinical Support Tools, in collaboration with VA, and initiated development of the VA/DoD PTSD Clinical Support Tools.
- *inTransition* continued to provide coaches to link Service members to care as they undergo transitional changes. In 2011, the *inTransition* mailing list grew to more than 2,100 contacts and there were more than 17,000 downloads of *inTransition* promotional materials.
- DCoE developed and published a series of white papers on critical issues in resilience and prevention, which included summaries of latest evidence, metrics, and practice recommendations. Topics include Peer Support Programs, Mind-Body Skills for Regulating the Autonomic Nervous System (ANS), Measures of ANS Functioning, Wellness and Worksite Health Promotion, Leveraging Technology for Psychological

Health and Traumatic Brain Injury, and Well-Being in the Context of Suicide Prevention and Resilience.

- DCoE developed a clinical recommendation (CR) for the treatment of Neuroendocrine Dysfunction (NED) resulting from mTBI. This CR is intended to increase awareness and provide guidance to primary care providers in the MHS regarding the consideration and referral process for Service members with neuroendocrine dysfunction. The final NED CR will be released in the spring of 2012. Through system level analysis of access and referral variables, information regarding access-to-care and quality of care may be evaluated.
- DCoE championed the deployed setting concussion detection, management and surveillance data analysis program based on DTM 09-033, "Policy Guidance for Management of Concussion/Mild Traumatic Brain Injury in the Deployed Setting." This data analysis program provides reliable tracking for individuals exposed to possibly concussive events (PCEs), evaluates the effectiveness of the guidance provided in the DTM, with respect to the time to evaluation and results of treatment following a PCE, and provides a valid source of clinical data to inform future guidance for the management of concussion in the deployed setting.
- DCoE assisted the Services in the development of a program implementation evaluation tool to evaluate the implementation of a Cognitive Rehabilitation Treatment Pilot Program at 13 designated pilot sites.
- DCoE released "Co-occurring Conditions Toolkit: Mild Traumatic Brain Injury and Psychological Health" to assist providers with assessment and management of patients with concussion, posttraumatic stress, pain, and other common comorbid conditions. .
- DCoE released six more mild TBI Web-based case studies via MHS Learn for DoD and civilian healthcare professionals. The Web-based case studies use patient vignettes as a way in which to educate healthcare professionals about the clinical recommendations contained within the VA/DoD mTBI/concussion clinical practice guideline.
- In education initiatives, DCoE:
    - Conducted a curriculum review for the Medical Education Training Command's 16-week Behavioral Health Technician curriculum.
    - Conducted a review of the Citizen Soldier Support Program, a congressionally-authorized, federally funded, DoD grant administered through the Odum Institute for Research and Social Science at the University of North Carolina, Chapel Hill.
    - Released the Training Effectiveness Toolkit, a standardized, measureable approach to training design, delivery, and continuous improvement.
    - Led the TBI Prevention and mTBI Awareness Campaign, a five-year public health awareness and prevention campaign with the goal of decreasing the incidence of mTBI.
    - Began implementing an integrated DoD program evaluation strategy, training, and assessments for PH and TBI programs.

- DCoE identified gaps in the management of vestibular disturbances following mTBI specifically relating to dizziness and vertigo. A consensus panel convened and developed a clinical algorithm containing descriptions of common symptoms, focused exams to test for dizziness conditions, red flags, and guidance for referral to specialty physicians.
- In collaboration with the Vision Center of Excellence, DCoE formed a steering committee to identify gaps in treatment related to visual disturbances following TBI.

DVBIC:

- DVBIC provided more than 60 clinicians at 10 DoD and VA healthcare facilities to augment staffing and to function as force multipliers to ensure state-of-the-science TBI care was delivered by providing primary and specialty care, rehabilitation services, and case management. This care was enhanced through the leveraging the DVBIC network via frequent communication platforms and continuing education opportunities. In addition, many DVBIC clinicians function as researchers as well, which allows for a unique access to patients with minimized additional time burden to patients.
- DVBIC provided the foundation and consensus statements for the DCoE clinical recommendations for post-injury Automated Neuropsychological Assessment Metric.
- DVBIC responded to almost 3,000 inquiries at Info@DVBIC.org, a Web-based resource for military and civilian patients, caregivers, and providers.
- DVBIC hosted military and civilian provider training: seven trainings in conjunction with Center for Deployment Psychology (CDP), four trainings for the American Red Cross; two trainings for Walter Reed Army Institute of Research (WRAIR); and one provider training at West Point.
- The Regional Education Coordinator (REC) program continued to support the DoD/VA healthcare systems by training and educating DoD, VA, and civilian providers and communities to advance awareness, prevention, diagnosis and treatment of TBI through classes, briefings, exhibits at awareness events and conferences, and visits to non-DVBIC sites in regions throughout the nation. DVBIC formed a partnership with the Services to ensure that deploying health care providers have access to the most current and effective TBI clinical tools.
    - A network of 14 RECs conducted 295 presentations to audiences of Service members, veterans, families and military and civilian providers on a variety of TBI topics.
    - The REC network provided logistical support, content development, and TBI materials during 2011 for over 160 presentations used in trainings conducted by clinical staff to audiences of Service members, veterans, families, and military and civilian providers on a variety of TBI topics.
    - RECs staffed 114 exhibits during 2011 for DVBIC resource exhibits at military, veteran, and civilian conferences and events. Most notably, these exhibits appeared at: the Armed Forces Public Health Conference, Federal Interagency Conference on TBI, MHS Conference, National Neurotrauma Symposium, New

England Military Civilian Collaboration Conference, State level Brain Injury Association conferences, United Service Organizations Wounded Warrior and Family Caregivers Conference, Association of Military Surgeons of U.S., Blast Conference, and the Special Operations Medical Association Conference.

- DVBIC conducted outreach to Reserve and National Guard Service members through participation in Yellow Ribbon Reintegration Program events. The Yellow Ribbon Reintegration Program is a DoD-wide effort to promote the well-being of National Guard and Reserve members, their families and communities, by connecting them with resources throughout the deployment cycle. Throughout 2011, DVBIC attended 73 events, and presented TBI resources throughout the nation with the U.S. Army Reserve, Air National Guard, U.S. Navy Reserve, and U.S. Marine Corps Reserve.
- DVBIC produces the majority of its education offerings, but also leverages materials developed in collaboration with others, including BrainLine.org (launched fall 2008), and BrainLineMilitary.org (launched August 2011). Both BrainLine.org and BrainLineMilitary.org are funded by DVBIC and produced by the public television station WETA TV 26.
    - BrainLine.org is available as a mobile site accessible by any smartphone and is uniquely poised to serve those in minority, underserved, and rural communities. It is also include Spanish language resources. BrainLine.org has won 20 multimedia awards in its 3 years of existence.
    - BrainLineMilitary.org has a similar format to BrainLine.org, but focuses on the specific needs of the DoD/VA TBI community. An online TBI course for civilian health care providers who treat Service members and veterans was developed in 2011 and will be launched in 2012 on BrainLineMilitary.org.
- In 2011, DVBIC hosted more than 1,100 DoD and VA health care providers from deployed and stateside settings at the fifth annual Defense and Veterans Traumatic Brain Injury Summit. Sessions explore emerging science, challenges and advances in TBI care in polytrauma facilities, military medical treatment facilities and clinics, and community-based VA facilities. This premier event is the only educational activity that brings together all military Services and VA to focus solely on TBI.
    - DVBIC developed the complementary resource manual *TBI Clinical Tools and Resources,* which was distributed to more than 1,000 attendees at the 2011 Summit. Additionally, the Army purchased 300 copies. This resource can be ordered by providers and found online: http://www.dvbic.org/Providers/TBI-Clinical-Tools-(1).aspx.
    - DVBIC distributed nearly 625,000 educational products, a 71 percent increase from the amount distributed in 2010. The Army requested, and DVBIC delivered, 22,915 products in April 2011 alone. In July 2011, to comply with the June All Army Action Memo, the Army ordered, and DVBIC delivered, nearly five times that amount (115,047).

DHCC:

- DHCC offered clinical programs for PTSD and Medically Unexplained Physical Symptoms (MUPS). DHCC has two intensive, integrative, outpatient specialized

care programs: Track I is for deployment-related MUPS and Track II is for PTSD and re-integration issues. DHCC began transitioning these programs to the National Intrepid Center of Excellence in Bethesda, MD, with the transition completion scheduled for mid-2012. These tertiary level programs received referrals from MTFs worldwide, as well as from the military services of U.S. allies. The programs are highly effective for the military population with their focus on a therapeutic group process (buddy care), emphasis on strength-based resiliency, and education, which enables Service members to cultivate skills to manage their symptoms.

- The mission of the DHCC Tri-service Intensive Outpatient Programming Synchronization (TrIOPS) team, formed in 2011, is to inventory, optimize, and synchronize the efforts of existing Intensive Outpatient Programs (IOPs) for PTSD in the military with the intention of establishing a network and consortium of information and resource sharing. IOPs are defined as programs delivering care for the treatment of post-deployment and/or other military-related PH concerns. These programs are within a spectrum between traditional outpatient therapy and inpatient psychiatric hospitalization and generally consist of, but are not limited to, day treatment programs, IOPs, partial hospitalization programs, and residential programs.
- DHCC led the Deployment Healthcare Track at the Inaugural Armed Forces Public Health Conference in March 2011. This Track delivered 38 presentations by recognized subject matter experts to 3,200 aggregate attendees. Themes and sub-tracks of the Deployment Healthcare Track included:
  - BH screening, intervention, and outcomes in the primary care setting;
  - Resilience;
  - Re-integration;
  - Total Force Fitness;
  - Evidenced Based Management and Treatment Strategies for PTSD, TBI, War Zone-Related Sleep Disorders, and Pain;
  - Clinical Practice Guidelines;
  - Moral Injury;
  - Military Women, Now and in the Future; and
  - Animal Assisted Intervention.

T2:

- Developed smart phone versions of DCoE's mTBI Pocket Guide Mobile Application that offer clinicians a wide range of diagnostic, treatment, and information resources.
- Developed a smart phone version of DCoE's Co-Occurring Conditions Toolkit (CCT) for work with mTBI patients. This new application includes the entire contents of the 132-page spiral-bound CCT, and adds enhancements such as interactive decision trees to aid in the identification of appropriate interventions and timing of services for this challenging patient population.

- Updated and enhanced the Provider Portal on AfterDeployment.org to include additional resources for assessment, client handouts, continuing education, briefing material, a library and information about mobile applications.

CDP:

- Conducted a range of training and education courses for DoD active duty and civilian BH providers.
- Conducted five iterations of its 8-day, pre-deployment BH provider's course, "Topics in Deployment Psychology." This course is designed to prepare active duty providers for working in the deployed setting, in a joint environment, and with the types of PH and TBI issues seen in combat zones. In addition, providers learn self-care, the impact of deployments on family members, and receive training in evidence-based psychotherapies (EBPs) for PTSD and insomnia. Over 130 active duty providers attended the course this year.
- Held seven 1-week, training and education programs for civilian providers who work with Service members and their families. The courses, "Addressing the Psychological Health Needs of Warriors and their Families," held across the country. provided in-depth training for therapists working with Service members, National Guard, Reserve, and family members. it covers military culture, deployment cycle stressors, suicide and depression, couples therapy, substance use, TBI, and training in EBPs for PTSD and insomnia. This year, 461 providers attended the course.
- In support of the DoD/VA IMHS efforts, continued to conduct workshops in EBPs, primarily at military locations. This year, more than 1,000 military, VA, and civilian providers attended workshops in EBPs for PTSD, insomnia and depression.
- Continued its efforts to ensure the use of EBP and fidelity to effective therapy models by providing consultation workshops and ongoing consultation for providers trained in the use of EBPs. In 2011, 34 providers attended these 2-day consultation workshops and 76 therapists have received consultation in EBPs as a part of this ongoing project.
- Held a 1-day University Counseling Center Core Competency Course at 11 locations; 644 participants from more than 60 universities attended The course introduces those interacting with Service members and veterans on college campuses to military culture, deployment cycle stress, reintegration issues, and major PH and TBI concerns.
- Presented education courses to more than 3,000 participants attending professional conferences or training events outside of the core courses offered directly by the Center.
- Completed a major revision to the CDP Web site, www.DeploymentPsych.org. CDP now has worldwide reach in providing education and training support to providers working with Service members, veterans, and their families. The Web site includes information about CDP training and education courses; offers registration to programs open to providers; contains information on topics and disorders often seen in Service members, veterans, and families; and provides resources for working with

clients. Connections with social media programs such as Twitter, Facebook, and LinkedIn, significantly increased traffic to the Web site. The last year indicates an increase of approximately 25% in the number of visits per month (to more than 6,000), the majority of which were new visitors.

  - The Provider Portal continues to be a growing area on the CDP Web site. This password-protected area of the Web site is available to clinicians who have completed CDP training courses (Military Courses and Evidenced Based Psychotherapy workshops). This offers clinicians the opportunity to receive consultation from CDP experts on the treatment of PH conditions, such as PTSD and insomnia, as well as the chance to collaborate with their peers on the treatment of Service members, veterans, and their families.
  - The number of providers enrolled in the Portal rose from 1,400 last year to over 3,500 in 2011. Approximately 10% of the visitors to the Web site this year have been accessing this area of the Web site.
  - Within the Portal, providers have access to additional training and education content including a Webinar series providing a session-by-session overview of Prolonged Exposure Therapy.

- Disseminated through the Web site information of interest to BH care providers. including courses offered by CDP and registration links for these courses; faculty-written articles on particular concerns and conditions relevant to providers working with Service members, veterans, and military families; summaries of topical books, articles, and links to helpful Web resources; and handouts and tools to assist the provider in clinical care (such as the VA/DoD Clinical Practice Guidelines).
- Launched CDP Perspectives, a blog with daily content updates and emails to subscribers. Blog content includes a brief look at a statistic of the week, topical and how-to articles and videos, new research articles, and announcements of upcoming training.
- Supporting the CDP's Consultation Program, conducted a weekly consultation phone call. This year, 183 providers attended a call.
- Hosted eight online courses: Military Cultural Competence; Epidemiology of PTSD in Military Personnel and Veterans; Prolonged Exposure Therapy for PTSD in Veterans and Military Personnel; Cognitive Processing Therapy for PTSD in Veterans and Military Personnel; The Impact of Deployment and Combat Stress on Families and Children, Parts 1 and 2; The Fundamentals of Traumatic Brain Injury; and Provider Resiliency and Self-Care: An Ethical Issue.
- Launched the Serving our Veterans Behavioral Health Certificate course in association with the National Council for Community Behavioral Healthcare. This course is designed to train civilian BH and primary care providers on military orientation and specific issues affecting Service members, veterans, and their families. It offers 14 self-directed, self-paced online courses (over 20 CE credits) that provide the latest clinical guidelines and emphasize cultural sensitivity. During 2011, 145 providers accessed the course.

3.2.3 Description of Actions Planned for Quality of Care

ARMY:

- The Army BH System of Care is intended to address the issue of lack of standardized access to and quality of BH services for soldiers and beneficiaries, in order maximize psychological readiness. Part of this effort is to focus on training and education of recognized best practice based on published clinical practice guidelines and standardization of assessment tools currently utilized.
- The Army will continue to aggressively support training and education efforts to support the "Educate, Train, Treat, Track" action plan.
- The Army plans to collaborate with DCoE and the other Services to update existing TBI educational videos.
- The Army expects to fund over 450 providers to attend the 2012 DVBIC Military TBI Training Conference and will fund approximately 200 providers to attend Deploying Providers training, 50 providers for TBI Vision Rehab training, 12 for a Driving Simulator Training Course, and numerous military Service members for individual pre-deployment concussion management training.
- In 2012, the Army will continue to collaborate with the U.S. Army Forces Command and U.S. Army Training and Doctrine Command to support TBI-related training needs.

NAVY:

- In 2012, the Navy will continue to provide high-quality, evidence-based healthcare for Service members and their families, including:
    - Continuing to increase the number of providers utilizing evidence-based treatments for PTSD and TBI;
    - Further integrating quality of care findings across greater military and civilian health systems to advance the science of care; and
    - Identification of additional quality processes surrounding patient care and implement these processes at Navy MTFs.
- The Navy will continue to increase initiation and engagement of treatment with increased Substance Abuse and Rehabilitation Program counselor training and increasing the use of high-tech, convenient tools like the Web-based Navy My Ongoing Recovery Effort (MORE) program. MORE is a continuing care support system for Service members, family members, and retirees who are enrolled within the Navy's substance abuse and rehabilitation services program, to continue Service member rehabilitation efforts.
- The Navy will focus on various target measures for 2012, including increasing patient satisfaction, creating and updating policies and procedures rooted in evidence, assuring clinical interventions adhere to clinical practice guidelines, and conducting pre- and post-training evaluations, and developing quality assurance plans for training fidelity.

AIR FORCE: In 2012, the AF will:

- Train more than 100 providers on EBTs for PTSD to ensure these therapies are readily available for the treatment of beneficiaries.
- Maintain, enhance, and expand the use of CBT modules for provider training in VR.
- Fully implement BHOP across the AF Medical System with a goal of training 86 providers in the BHOP model. In addition, 11 MH nurses will be trained to provide BH care management in conjunction with BHOP in PCMH.
- Hire an additional nurse case manager to bring the patient caseload within the prescribed guidelines of DTM 08-033, "Interim Guidance for Clinical Case Management for the Wounded, Ill, and Injured Service Member in the Military Health System," (August 2011) and to provide this service to all patients receiving TBI treatment for more than 30 days.
- Participate in a joint pre-deployment TBI training course (two AF providers). This Army-led initiative is designed to provide standardized training across the services for those selected for deployment. In addition, the AF will launch a pilot project utilizing teleconsultation to primary care providers for the evaluation and management of TBI patients. If successful, the program will be expanded across the Air Force Medical Service.
- Continue to provide training to enhance the skills of substance abuse prevention and treatment professionals.
- Deploy SUAT at 75 MTFs worldwide. A point of contact will be trained at each AF base, and an additional 125 technicians and providers will be trained to facilitate implementation across the AF.

DCoE: In 2012, DCoE and its component centers will continue to publish, implement, and update educational materials, clinical practice guidelines, and outreach efforts for providers, Service members, and families, including:

- Complete VA/DoD PTSD Clinical Support Tools. Additionally, develop one VA/DoD PTSD Clinical Support Tool for clinic managers.
- Develop and complete VA/DoD Clinical Support Tools for Opioid Therapy for Chronic Pain.
- Develop and complete the VA/DoD Substance Use Disorder Clinical Support Tool mobile application in collaboration with the DCoE T2.
- Educate providers on current treatment protocols for Service members and veterans at planned 2012 professional conferences;
- Expand the TrIOPS team; developing outcome measures and program evaluation strategies; representing IOPs on working groups such as the Army Scheduling, Coding and Workload Manual Revision Working Group; conducting sessions at the Armed Forces Public Health Conference, among other conferences; making site visits to existing IOPs, and providing consultation for developing programs;

- Develop a non-pharmacological toolkit for the management of mTBI and accompanying co-morbidities offering providers and patients an alternative to medication management/interventions;
- Explore the use of the All Partners Access Network (APAN) to create a PH/TBI web-based forum for coordination and information sharing among agencies and institutions involved in PH and TBI research and practice. APAN is a network that provides interoperability and connectivity among partners across a common platform that fosters information exchange and collaboration at no additional cost to DCoE;
- Use interactive customer service evaluation tools to obtain user feedback for the Co-occurring Conditions Toolkit: Mild TBI and PH;
- Develop a Vestibular Disorders Following mTBI clinical recommendation for dissemination, as well as pocket guide, algorithm card, and a mobile application will be launched for practitioners to utilize in MTFs and in theater;
- Host the Visual Dysfunction following mTBI consensus panel meeting;
- Develop white papers on evidenced-based strategies for PTSD prevention, recovery support and successful reintegration, and prevention of substance misuse for warriors and their families.
- Create operationalized definitions of cognitive rehabilitation (CR) interventions and manualized treatment protocols in collaboration with the American Congress of Rehabilitation Medicine to standardize the translation of evidence-based CR into practice of CR at MTFs; and
- Publish a toolkit for program managers including a Program Evaluation Guide, Resource Guide and data collection tool to assess DoD-wide PH and TBI Programs.

T2: In 2012, T2 will:

- Provide training on use of telehealth technology in theaters of operations for deploying combat stress control personnel and teams.
- Use the newly established T2 Technology Enhancement Center to improve the quality, usability, effectiveness, and acceptability of T2 technology products.
- Release several more mobile applications targeted to deliver evidence-based care, to include: Mobile Screener, versions of the *AfterDeployment.org* topic areas, clinical support tool for prolonged exposure treatment for PTSD, Provider Resilience, and T2 Tech Finder.

CDP:

- As part of the DoD/VA IMHS joint effort, CDP acts as the DoD lead on IMHS #25, Development of. CDP hosted three working group meetings that brought together military culture experts from the DoD, VA, and civilian provider communities. CDP subject matter experts and a program manager contributed to the developed the content for a six course, self-paced, Web-based military culture program and information gathered was used to enhance the current CDP live and Web-based military culture training courses. Release of the six-course Military Culture Web

Based Training, Web-based training is expected in August 2012 and will be housed on MHS Learn Web site. CDP will host a Military Culture Web page to support the online course.

3.3 Resilience

3.3.1 Executive Summary

Resilience promotion encompasses solid prevention and mitigation and is most pertinent to PH, although leaders can influence TBI prevention through enforcement and oversight of safety programs. This strategic goal focuses on the full continuum of PH to develop individuals who are more resistant to the stresses of deployment and combat. By using individually targeted approaches consistent with the Services' cultures and organizations, the DoD strengthens the PH of individual Service members and their families.

The Services implemented training courses to educate Service members about the signs and symptoms of operational and combat-related stress, and encourage Service members to seek help if they experience those symptoms. Additionally, these projects improve command support for those seeking MH care. Overall resilience rates indicate an increase in individuals who said they are now provided with tools that allow them to identify, manage, and refer fellow Service members exhibiting signs of operational stress, and they felt more comfortable sharing their stories of their stress. Projects under this initiative help ensure the sustainment of resilient Service members and families.

3.3.2 Description and Assessment of Outcomes for Resilience

ARMY:

Resilience focuses on the full continuum of PH to produce psychologically stronger individuals who are more resistant to the stresses of deployment and combat.

- In 2011, the Army obligated 91 percent of funded resources. The Army funded three unique PH resilience-based initiatives in support of Army soldiers, families, and health care providers. This resourcing supported the hiring or sustainment of 146 providers and support staff, and obligated $10.40 million.
- The Army continued to fund the Resilience Training Research Office (RTRO), which is a preventive approach intended to strengthen individual Service members, their families, their units, and communities. The RTRO is responsible for the development and modification of sustainment and deployment cycle resilience training modules to support Army Comprehensive Soldier Fitness (CSF).
    - RTRO staff are members of the CSF/Walter Reed Army Institute of Research Steering Committee. This committee reviews proposals that are submitted to the Army Medical Research and Materiel Command for funding and coordinates establishing CSF and WRAIR research program priorities.
    - Members of the RTRO staff serve as U.S. representatives on a NATO panel on MH training and a NATO symposium panel titled, "Mental Health and Well-Being Across the Military Spectrum."

- RTRO developed 12 resilience training modules as part of the CSF effort and consulted on the development of nine additional resilience training modules.
- RTRO provided training material used in 3 Basic Officer Leadership Course-A courses, supported 24 Master Resilience Trainer courses, and consulted on research projects that are being funded by the Army.
- RTRO consulted with the WRAIR military psychiatry branch and the U.S. Army Medical Research Unit-Europe to develop post-deployment resilience training for at-risk groups (originally known as "Advanced Battlemind"). This training is intended for Army BH care provider delivery.

- The Army funded and expanded the Care Provider Support Program in 2011. This initiative, expanded Army-wide in 2011 at the direction of the Army Chief of Staff, is an initiative aimed at reducing secondary trauma and burnout among the U.S. Army Medical Command provider force. Professional quality of life scale surveys completed by Army soldiers indicate that burn out scores and secondary trauma scores have decreased from 2010 to 2011. High-risk secondary trauma scores have decreased 4 percent, and high risk burnout scores have decreased 2 percent.
- As a result of the Care Provider Support Program, services are now embedded in MTFs to reduce burnout and compassion fatigue. Additionally, there is an in-residence, 5-day course at Fort Sam Houston, Texas, for self- and Command-identified providers who would benefit from in-depth training and Web-based assessment of burnout and compassion fatigue rates.

NAVY:

- During 2011, Navy Medicine continued to provide Operational Stress Control (OSC) training consistent with the stress continuum model (i.e. "universal language") that improves command climate support for those seeking MH care. Navy Medicine efforts also included the provision of educational materials and training for individual Service members that normalize mental health care. Lastly, Navy Medicine invested in programs to encourage care outreach to individual Service members, their Commands, and their families.
- Navy Medicine continued to provide OSC training consistent with the Navy-Marine Corps Stress Continuum Model that improves command climate support for those seeking MH care.
- OSC program validation utilizes the Naval Center for Combat Operational Stress Control developed the OSC Pre-Awareness, and OSC Post-Training Assessment forms. The OSC program has seen significant increases in awareness in 2011.
  - There has been a significant increase in awareness of OSC model: 79 percent of respondents were familiar with the OSC model in 2010 versus 88 percent in 2011;
  - There has been a significant decrease in perception that current military attitudes create barriers to seeking help for stress problems. Surveys indicate a 6 percent drop in positive responses, from 60 percent in 2010, to 52 percent in 2011; and

- Surveys indicate a significant decrease in perception that Service members will be seen as weak for seeking help, from 35 percent of respondents in 2010 to 26 percent in 2011.

- The Navy OSC Leader course, developed to provide practical and effective specialized training to Navy Officers and Chief Petty Officers on strengthening sailors and their families, reducing unnecessary stress, early identification of problems, and reducing stigma, trained a cumulative total of 1,028 Service members in 2011.
  - Pre- and post-course evaluations completed in 2011 show a significant increase in participant perception of training effectiveness—a 37.4 percent increase (from 71% pre- to 98 % post-) in participants who felt they had the tools to identify operational stress in their sailors; a 55.7 percent increase (from 62% to 97%) in participants who felt they had the tools to manage operational stress in their sailors; a 35.8 percent increase (from 72% to 98%) in participants who felt they knew when to refer a sailor with operational stress; and a 10.8 percent increase (from 79% to 87%) in participants who felt comfortable sharing their own operational stress stories with their sailors.
- Navy Medicine's resilience projects are based on the Maritime Combat and Operational Stress Control (COSC) Doctrine. This Line-led doctrine is based on four foundational principles: the Stress Continuum, the five Core Leader Functions, the four Sources of Stress Injury, and Combat Operational Stress First Aid (COSFA).
- Sustained systemic and ongoing marketing and training efforts for both the Navy and Marine Corps encouraged the framing of military stressors in the COSC doctrine language. Efforts include leadership and enlisted trainings, posters, pocket cards, YouTube and TroopTube videos, educational spots on Armed Forces Network, Weblogs, and more.
- Navy provided significant support to Marine Corps education and training efforts aimed at both individual Service members pre- and post-deployment, leadership, and providers (i.e., Operational Stress Control and Readiness (OSCAR) efforts).
- Throughout 2011, the Navy provided educational materials and training for individual Service members to help normalize mental health care:
  - Continued to provide educational retreats and workshops to Naval Special Warfare Service members and their families based on individual and family assessments that identify training needs as well as provide opportunities for family preparation and reintegration after deployment.
  - Began transitioning COSFA and Caregiver Occupational Stress Control (CgOSC) training efforts from a formal "train the trainer" model to a "train everyone to train" model. In the interim, 140 qualified trainers were designated and provided instruction so that formal training efforts could continue. In 2011, an estimated 378 providers were formally trained enterprise-wide in COSFA foundations with an emphasis on caregivers in addressing healthcare occupational stress. Additionally, 988 Service and family members were formally trained in general

COSFA concepts. Training was also provided via Navy Knowledge Online courses and by CgOSC and COSFA teams at the local level.

- Navy encouraged care outreach to individual Service members and their Commands through Families OverComing Under Stress (FOCUS). Project FOCUS offers evidence-based, family-centered resilience training that enhances the understanding of combat and operational stress, PH, and developmental outcomes for children and families. During 2011, project FOCUS:
  - Delivered 4,200 outreach presentations to a total of 222,362 providers, families, and military audiences. Additionally, a total of 1,209 educational workshops have been provided to 26,863 Service and family members, and 1,677 resiliency training skill building groups have been provided to 14,517 parents, teens, and children;
  - Children reported increased use of positive coping strategies in dealing with stressful events, including significant increases in problem-solving, emotional regulation, and cognitive restructuring;
  - Parents (both Service member and spouse) reported improvements in their family's functioning including more effective problem solving, communication, roles, affective responsiveness, and behavior controls;
  - Parents reported overall perception of positive impact across all core program domains (mean scores ranging from 5.51 to 6.01 on seven-point Likert scale); and
  - Overall parent satisfaction with the program is very high, with mean scores between 6.5 and 6.7 on a seven-point Likert scale.

- Navy conducted evaluation of U.S. Marine Corps Infantry Immersive Training (IIT). The goal of this training is to make combat operational stress more predictable and more controllable, thus improving resilience. Preliminary findings include:
  - Marines who received IIT reported significant increases in sleep quality;
  - Significant dose/response relationship between amount of training/practice and working memory capacity;
  - Marines who received IIT showed significant changes in brain Functional Magnetic Resonance Imaging on a task of emotion processing; and
  - Marines who received IIT reported significantly higher scores measuring difficulties in emotion regulation.
- Navy supported targeted suicide prevention training for approximately 1,000 MH providers (completed) and 100 primary care providers (through end of 2012) as well as supplying staff support to the Navy Suicide Prevention Program office.
- During 2011, the Navy made significant progress against strategic objectives, including active preventive measures and early intervention:
  - Developed and continued implementation of evidence-based wellness and prevention programs; and

- Continued support for informed outreach, education, and training for Service members and their families that focus on wellness promotion, stigma reduction, and effective projects that support and facilitate self-help and buddy-care.

- Navy focused attention to at-risk target populations (caregivers, corpsmen, etc.):
  - Conducted assessments of at-risk Service members and families to identify and develop targeted training efforts; and
  - Provided mental skills and hyper-realistic (in vivo) combined readiness training to deploying corpsmen.
- Navy collaborated across all resilience and performance enhancement projects and programs (i.e., resilience, surveillance, and training, etc.):
  - Continued to work with the Navy and Marine Corps Public Health Center and the Behavioral Health Needs Assessment staff on the Behavioral Health Quick Poll results to demonstrate understanding of the Stress Continuum Model and effectiveness of COSC efforts; and
  - Continued outreach to existing stakeholders within the DoD, VA, and academia as well as facilitated new partnerships.

AIR FORCE:

- During 2011, the AF TBI Clinic at JBER provided resilience education to Army and AF Service members and families. The clinic purchased a variety of pre- and post-deployment resiliency educational materials for patients and families on topics related to PTSD and TBI and conducted resiliency training classes for 850 patients and families.
- The Deployer Transition Center (DTC), a short-stay, post-deployment program for select AF Specialty Codes (primarily security forces, explosive ordinance, and transportation teams) returning from theater, facilitated the transition from a high-stress combat environment back to in-garrison life. This program, housed at Ramstein Air Base, Germany, facilitated the transition of 2,073 deployers in 2011.
  - DTC provided at-risk Service members returning from deployment with insight into traumatic stress, resiliency measures, signs that help may be needed, and sources of help. More than 80 percent of participants have rated the program as "very helpful" in their transition.
  - The AF is conducting post-deployment surveillance on Service members who attend the DTC to determine efficacy of this reintegration program. Favorable outcomes have been observed and reported to senior AF leaders.
- The AF provided family resiliency training for staff working in family related programs. This enabled the application of resiliency concepts to family support. The AF sent 150 Service members to the DoD Family Resilience Conference in April 2011, for training in current approaches to building resiliency. In addition, the AF held a resiliency working group to develop resiliency training materials and provided commercially-purchased resiliency literature for AF MTFs worldwide.

DCoE:

- DCoE coordinated the writing of the Joint Test Publication of Total Force Fitness by providing the content and subject matter expertise for CJCSI 3405.01. In addition, Joint Publication 1: Doctrine for the Armed Forces of the United States will include a chapter on Total Force Fitness.
- DCoE held its third annual Warriors Resilience Conference, which focused on resilience training sessions as well as working groups on the eight domains of the Chairman's Total Force Fitness. The conference included a plenary by Admiral Mullen, Chairman of the Joint Chiefs of Staff, and provided an opportunity for line leaders to learn about the latest resilience-building resources that can be used in any operational environment.
- DCoE served as the DoD lead for several resilience-related DoD/VA IMHS actions, specifically: #15, Suicide Prevention; #23 Role of Chaplains; and #24 Resilience Programs.
- As the principal DoD PH/TBI integrator, DCoE collaborated with multiple federal agencies including:
    - Federal Partners Work Group on topics including family resilience, suicide prevention, reintegration, resilience, recovery, stigma, returning veterans to school, job and career enhancement, PH and TBI resources for civilian providers, and homelessness.
    - The Suicide Prevention and Risk Reduction Committee (comprised of internal DoD components and external partners like Substance Abuse and Mental Health Services Administration (SAMHSA) and VA)
    - Participating in SAMHSA Policy Academy, providing state agencies with technical assistance, and planning support for Guard and Reserve reintegration.
    - Institute of Medicine (part of National Academy of Sciences) where we participated in a workshop on resilience and a working group that reviewed substance use disorders in the military
- Participated in a Military Research Medicine Command Joint planning committee meeting on Family Resilience to identify common themes, efforts, and research gaps related to family resilience. Presented a model of family resilience that was developed jointly by DCoE, USUHS, MC&FP, and the Military Family Research Institute.
- Co-chaired the 16th Annual Institute on Violence Abuse and Trauma Military Track to improve dissemination of military specific resilience and prevention tools.
- Developed an integrated model of violence risk factors for a Military Research Medical Command's military violence prevention joint program planning meeting.
- DoD and VA leads met with the Clearinghouse for Military Family Readiness (DoD Clearinghouse), which works in collaboration with Penn State University, in May 2011 to design fact sheets for family resilience programs to inform and educate

professionals and providers about programs that utilize evidenced-based interventions.

- DCoE provided a suite of public health resources for supporting resilience. Each of these resources provides a range of services and is often the focus of a full presentation, which is intended only to give a brief overview and where one can find more information. Some of the major resources include: Web, videos, radio, television, and events like NFL games, which were recognized with over 40 major awards for excellence in media and communication. The information was tailored for different groups including Service members of all ranks, leaders, providers, patients, and family members.

T2:

- Provided resilience oriented topic areas through *AfterDeployment.org* including one specifically on resilience but also topic areas addressing health and wellness, families with kids, and spirituality. Each topic area includes relevant self-assessments, videos, information, a workshop and references material that supports resilience skills and skill building.

3.3.3 Description of Actions Planned for Resilience

ARMY:

- The Army BH System of Care is intended to provide efficient and evidence-based BH practices through further development and refinement of Army-wide standards. Part of this effort entails continued coordination with Comprehensive Soldier Fitness to ensure the sustainment of resilient soldiers and families, and to continue prevention-based training efforts for Army soldiers, families, and health care providers.

NAVY:

- The Navy will continue to provide high-quality, evidence-based healthcare for Service members and their families, including continued efforts to further build, strengthen, and sustain force health protection and readiness for Service members and their families, including:.
  - Improving communication and coordination of resilience promotion and training with the Navy Total Force Fitness community so liaisons are developed with each relevant entity;
  - Enhancing increased force health fitness through resilience promotion and training of medical and PH providers; and
  - Facilitating the development of one measure of individual and organizational health or resilience per quarter during 2012.
- The Navy will focus on various resilience target measures for 2012, including monitoring outputs on the numbers of attempted and successful suicides, the numbers of Service members seeking early treatment, and for Service members seeking treatment for substance abuse and MH disorders.

AIR FORCE:

- The Air Force TBI clinic will continue to provide resiliency services to patients and families at Joint Base Elmendorf-Richardson, and the Air Force will consider expansion of this program to other AF Specialty Codes.
- The Air Force will continue to train resiliency staff on programs and services to enhance resiliency of Service members and their families.

DCoE:

- DCoE will finalize the work begun with the DoD/VA IMHS working group for strategic action #24, Resilience Programs. The goals of this strategic action are to (a) describe how resilience is conceptualized in the DoD; (b) identify core skills related to resilience and fitness; (c) highlight potentially promising DoD and VA resilience-building programs; and (d) suggest next steps for continued collaboration between the Departments.
- Continue collaborations with the VA and the Defense Suicide Prevention Office to provide updates on the DoD/VA IMHS strategic action #15 to disseminate knowledge of suicide risk and prevention practices through analysis of selected data, through a review of similarly focused DoD and VA prevention programs and through coordinated training and collaboration with entities outside the DoD and VA.

T2:

- Will release *MilitaryKidsConnect.org,* the first Web application supporting military children of all ages throughout the deployment cycle.
- Will release the Provider Resilience mobile app to offer resilience training via smartphones.

3.4 Transition of Care

3.4.1 Executive Summary

This initiative improves the quality and effectiveness of treatment through transition and coordination of care across the DoD, VA, and civilian entities. It ensures rapid and effective information sharing to support continuity of care and support across all levels.

The Services have established partnerships throughout the care community to develop networks that offer education, outreach, and case management support for active duty and Reserve Component Service members. These projects help to improve the timeliness and coordination of healthcare services across the recovery, rehabilitation, and reintegration processes. Additional case managers have been added to Services' staffs; these managers facilitate improvements in the continuity and coordination of care for Service members and veterans with TBI and PH issues as they transition between care providers and from the DoD to VA. The DoD continues to gather feedback from Service members and families on how to continue improvements to the transition process.

3.4.2 Description of Outcomes for Transition of Care

NAVY:

- In 2011, Navy Medicine facilitated partnerships throughout the care community including VA, the Reserves, Wounded Warrior Regiment (WWR), and academia. The Navy worked closely with partners to develop a reintegration network that offers education, outreach, and case management support for active duty, reservists, and wounded Service members.
    - Sustained partnership with the WWR to provide non-medical care coordination services to increase TBI and BH advocacy for Marines and sailors assigned to Marine Corps units.
- Vigorously worked to hire and train case managers in compliance with Navy Bureau of Medicine and Surgery Instruction 6300.17, "Navy Medicine Clinical Case Management."
- Improved systemic process and performance in the Integrated Disability Evaluation System (IDES) for active duty Service members.
    - Supported IDES training events as well as increased staffing to allow efforts to consistently meet established ratios and provider requirements.
- Processing time length for the Medical Evaluation Board (MEB) portion of the IDES is improving—the MEB report goal is 35 days from receipt of all results of referred and claimed conditions.
    - During third and fourth quarter of 2011, three MTFs met the 35 day goal, and other commands are showing steady improvement in their six month averages.
    - Satisfaction rates for IDES Physical Evaluation Board Liaison Officer customer service show a fairly consistent 85 percent for Navy sailors (significantly higher than the DoD average) with Marines falling slightly below the DoD average at 55 percent.
- During 2011, Navy Medicine made substantial progress against strategic objectives in transition of care, including:
    - Improved timeliness and coordination of healthcare services across the recovery, rehabilitation, and reintegration continuum;
    - Improved systemic process and performance in the IDES for active duty Service members and their families across the enterprise; and
    - Fostered integration and collaboration of Navy and Marine Corps programs and other entities such as Navy Safe Harbor, WWR, and VA.

DVBIC:

- Provided subject matter expertise on the development of a one-page handout on TBI-specific resources within the DoD and participated in work group focused on regional resources.

- Supported broader case management and care coordination programs for Service members in both the DoD and VA. The outreach and education to broader case management and care coordination programs for injured Service members within DoD and VA has resulted in better coordination of care to Service members and veterans with TBI between departments.
- Conducted initial assessment and connection to clinical resources within the continental United States of all Service members evacuated from theater who assessed positive for TBI at Landstuhl Regional Medical Center; and completed 2,650 interviews of TBI patients received from all referral sources across DVBIC's 17 sites.
- Tracked the weekly TBI caseload size, number of referrals into each region, origin of referral, symptoms across 28 domains covering physical, psycho-social, and cognitive issues, and the number of intakes and follow ups completed by each regional care coordinator to improve the care coordination workflow.
- Utilized a computer-based database to manage the tracking and follow-up of TBI patients and provided weekly reports from DVBIC to the Service Surgeons' General.
- The Family Caregiver Guide is a multi-module manual designed to provide help to family members and other caregivers who provide care for patients with TBI. The Family Caregiver program continues to support the military Services, family caregivers, and community through maintained outreach and education. In addition to printed versions, the Guide can be found online: http://www.traumaticbraininjuryatoz.org/Caregivers-Journey.aspx.
- During 2011, DVBIC:
    - Deployed educators to VA, DoD, and civilian facilities to train local providers on the use of the Family Caregiver Guide;
    - Maintained metrics on the distribution of the print guide and created and distributed a Family Caregiver Guide public service announcements;
    - Collaborated with the DoD and VA in obtaining qualitative feedback from family caregivers and providers;
    - Disseminated the guide to caregivers of Service members and veterans with moderate or severe TBI who are in, or are just entering the system, and to those that are in the later phases of recovery; and
    - Submitted the final report to Congress, "Traumatic Brain Injury: A Guide for Caregivers of Service members and Veterans: Training Curricula for Family Caregivers on Care and Assistance for Members and Former Members of the Armed Forces with Traumatic Brain Injury," in October 2011, as required by Section 744 of the John Warner National Defense Authorization Act for Fiscal Year 2007, P.L. 109-364. The report describes the progress on implementing the training curricula one year after the development and on the implementation of the guide.

3.4.3 Description of Actions Planned for Transition of Care

NAVY:

- In 2012, the Navy will continue to facilitate and promote seamless transitions across the continuum of care by continuing to increase compliance with Navy Medicine's case management policy (BUMED Instruction 6300.17), further enlarging accountability and tracking for Wounded Warrior case management care, and significantly increasing the number of MEBs accomplished within 35 days.

DCoE: In 2012, DCoE will:

- Continue collaborating with the VA on the promotion of effective family resilience programs in each Service and in the VA. These may be implemented as components of existing Service member resilience programs, or as separate, standalone programs.
- Incorporate the *inTransition* program into the Post-Deployment Health Reassessment checklist for returning Service members in 2012. Post-Deployment Health Reassessments are designed to identify and address health concerns three to six months after return from deployment, with specific emphasis on MH.
- Increase the utilization of *inTransition* in 2012 by:
  - Scheduling onsite or VTC briefings with Service MTFs:
  - Increasing referrals to *inTransition* via promotional efforts and partnerships with communities such as regional medical commands;
  - Capitalizing on social media opportunities, including Facebook pages and Twitter groups, such as family readiness groups and Warrior Transition Units; and
  - Exhibiting and making presentations at military relevant conferences occurring in 2012.

DVBIC: In 2012, DVBIC will:

- Partner with existing enterprise Web-enabled database solution to host and maintain the DVBIC care coordination database functions.
- Develop partnerships or memoranda of agreement with each military Service for the tracking and follow-up of mTBI patients, to include data flow back to the Service.
- Continue to conduct standardized follow-up on all identified TBI patients coming through Landstuhl Regional Medical Center, Germany, and other TBI referral sources.
- Develop online training for providers to augment support and understanding of the Family Caregiver Guide. In 2012, DVBIC will develop a tool to allow for provider review of training to gather additional feedback on the current program.
- Include the Family Caregiver Guide in the current Caregiver Support Training Program, held collaboratively with VA, and develop a Spanish version of the Guide to augment and expand to underserved populations.

3.5 Screening and Surveillance

3.5.1 Executive Summary

Screening and surveillance promotes the use of consistent and effective assessment practices along with accelerated development of electronic tracking, monitoring, and management of PH and TBI concerns. The DoD is incorporating screening and surveillance initiatives into health assessment processes as screening tools are developed and validated.

The DoD continues to improve screening and surveillance efforts to facilitate the early identification and treatment of Service members with TBI or PH concerns. These efforts encompass Service members and families, help to provide the capability to characterize and understand factors related to psychological risk and resilience, and identify targets for preventive action and mitigation of negative behavioral outcomes. Significant is the early identification for mild TBI using a computer-based tool designed to detect speed and accuracy of attention, memory, and thinking ability. The results of such cognitive assessments may help healthcare staff compare a Service member's speed and accuracy of attention, memory, and thinking ability before and after a possible TBI.

The DoD continues to improve the identification of Service members needing treatment for TBI and/or PH concerns, including PTSD, enhancing effective and efficient communication of surveillance findings by increasing the use of surveillance information for informed decision-making and by identifying gaps, redundancies, and needs for the care of at-risk Service members and their families.

3.5.2 Description of Outcomes for Screening and Surveillance

Army:

- The primary objective of the screening and surveillance initiative is to promote the use of consistent and effective assessment practices along with systematic review of systems and events that further inform the utilization of effective interventions and best practices in the support of the Army inventory. In 2011, the Army obligated 100 percent of the funding allocated for screening and surveillance, representing 37 clinical and support staff, and approximately $5.09 million in resourcing requirements.
- Significant of these efforts is the Army's Behavioral Health Surveillance and Assessment Program (consisting of Behavioral and Social Health Outcomes Program and the Public Health Assessment Program) and the Child, Adolescent and Family - Behavioral Health Office (CAF-BHO).
    - The Behavioral and Social Health Outcomes Program provides a unique capability to characterize and understand factors related to psychological risk and resilience, and identify targets for preventive action and mitigation of negative behavioral outcomes.
    - The Public Health Assessment Program is an independent evaluation service which systematically collects information about programs targeting psychological risk and resilience factors to assist stakeholders to improve design, examine

strengths and weaknesses, measure effectiveness and impact, and make decisions about future program planning.

  - The CAF-BHO is responsible for supporting and sustaining a comprehensive and integrated BH System of Care for children and families throughout the Army. The CAF-BHO has the following roles and responsibilities: overall proponency for Child and Family Assistance Centers (CAFACs) and School Behavioral Health (SBH) programs Army-wide; providing training and training assistance at installations for care providers, other behavioral health specialists, and Army soldiers and family members on child and family BH subjects. CAF-BHO is also responsible for maintaining a "repository of knowledge" of professional expertise and reference materials in the field.

- The Epidemiology Consultant Service (EPICON) of the Walter Reed Army Institute of Research is the central epidemiological investigation source for Army. It provides assistance and support to worldwide Army medical activities. The Army conducted six major BH field studies (EPICONs) in 2011. Each of these consist/consisted of extensive surveys, focus groups, and analysis of installation level data and trends.
- The Army produced 6 program assessment reports, providing outcomes data for several PH-funded programs.
- In collaboration with DCoE, the Army collected theater data for fatal and non-fatal suicide events that occurred in theater during Operation Iraqi Freedom, Operation Enduring Freedom, and Operation New Dawn to populate that portion of the DoD Suicide Event Report (DoDSER). The DoDSER standardizes suicide surveillance efforts across the military Services to support the DoD's suicide prevention mission.
- The Army funded three screening and surveillance TBI programs for 2011, obligating 100 percent of the $10.6 million for: the Automated Neurocognitive Assessment Metric (ANAM), the PureEdge Tool, and ANAM facilities.
- As of the end of 2011, there were 27 total ANAM sites in operation. The Army has 15 contracts and 11 GS embedded proctors at 21 sites; Navy has 4 embedded contract proctors at 4 sites; the Marine Corps has 6 embedded contract proctors at 4 sites; and there are 2 embedded contract proctors at 2 Air Force sites.
- The Army's Neurocognitive Assessment Branch trained 256 providers and 337 ANAM proctors in 2011. This breaks down to: 7 contractor proctors; 40 Army proctors and 33 Army providers; 201 Air Force proctors and 151 Air Force providers; and 89 Navy proctors and 72 Navy providers.
- 2011 was a very productive year for the Neurocognitive Assessment Testing Program (NCAT) for ANAM. The ANAM program tested a total of 317,878 people: 187,150 Army, 54,658 AF, 49,512 Marine Corps, 18,595 Navy, 484 Coast Guard, and 7,479 other during 2011. This makes for more than 1,015,000 ANAM tests administered since the program began. The NCAT program currently carries the capability to test approximately 30,000 Service members per month.
- Continued implementation of DTM-09-033, "Policy Guidance for Management of Concussion/Mild Traumatic Brain Injury in the Deployed Setting," which mandates a

medical evaluation for Service members involved in an event associated with concussion/TBI. This policy has led to early detection of TBI and earlier access to treatment.

- The Army completed the equipment outfitting of eight facility projects that were initiated in 2010.
- The BRAC move of the ANAM program from the Army Office of the Surgeon General to the U.S. Army Medical Command resulted in significant labor savings, as the cost basis for the contract changed from Washington D.C. to Texas labor rates.

NAVY: Throughout 2011, Navy Medicine:

- Built infrastructure to provide screening and surveillance for at-risk populations, as well as establish leading and lagging indicators that guide prevention, wellness, and clinical care efforts. Additionally, Navy Medicine continued efforts to improve assessment and screening, accelerate the development of an information technology infrastructure, and maximize reporting to optimize decision making.
- Completed survey-based assessments of Navy submariners, who typically exhibit relatively high rates of PH issues, and Marine Corps reservists. Results identified key issues, and guided leadership on action plans for resolution.
- Sustained support for the Expeditionary Medical Encounter Database. Published findings included:
    - Visual dysfunction following combat-related TBI from the battlefield;
    - Injury specific predictors of PTSD: results from the United States Navy-Marine Corps Combat Trauma Registry;
    - Alcohol abuse disorders among Service members with mild TBI;
    - Combat-related TBI in Operation Iraqi Freedom;
    - Midterm health and personnel outcomes of recent combat amputees; and
    - Battlefield extremity injuries in Operation Iraqi Freedom.
- Used existing databases to develop gender-specific models of MH outcomes and/or mitigating factors for high risk groups following deployment. Models will be used to analyze patterns, identify key differences, and facilitate effective decision-making with regards to gender-specific prevention and wellness.
- Supported the Navy Mobile Care Team's (MCT) mission to provide preventative psycho-education and to conduct in-theater BH surveillance by way of the Behavioral Health Needs Assessment Survey, providing real-time, actionable intelligence to local command leadership regarding the morale, MH, and resiliency status of their individual augmentee Service members. The MCT is currently on its fifth rotation in support of Operation Enduring Freedom throughout the Afghanistan area of operation.
- Utilized the constructed Computer-Assisted Rehabilitation Environment laboratory to further develop physiological, physical, and cognitive markers of mTBI to enhance surveillance and rehabilitation strategies.

- Continued the partnership with the Navy and Marine Corps Public Health Center (NMCPHC), the Naval Health Research Center (NHRC), and the Naval Center for Combat and Operational Stress Control (NCCOSC) to orchestrate broad and wide-ranging surveillance, screening, and metrics efforts including:
  - NHRC directs large cohort studies and operationally oriented research;
  - NMCPHC Epi-Data Center conducts on-going surveillance and provides operationally focused "quick responses";
  - NMCPHC Health Analysis is MTF and purchased care focused, and provides program/project level evaluation; and
  - NCCOSC provides research facilitation, therapy/treatment evaluations, and evidence-based best practices dissemination.
- Communicated findings effectively and efficiently and provided quality accessible data to those in impact positions, including:
  - Worked with NHRC to develop a quarterly newsletter detailing key findings and highlighting hot topics. The newsletter is disseminated to senior leadership for use in talking points and decision-making; and
  - Coordinated and held the annual Navy strategic offsite conference with "project review tracks," allowing for a detailed look at specific projects across all domains, as well as facilitated partnerships between existing efforts.
- Focused on at-risk populations, including those with multiple deployments, overseas contingency operations, individual augmentee status, and family separation issues.
- Improved electronic data tracking and monitoring, including continued support of the Navy Marine Corps Expeditionary Medical Encounter Database to support collection and analysis of deployment health data to make information gathering more efficient for Service members across the continuum of care.

AIR FORCE:

- The AF conducted ANAM Refresher Training for AF reserve component units and 89 Wing Directors of Psychological Health for the Air National Guard during 2011. The AF incorporated a cognitive assessment screening curriculum into the AF Mental Health Technician (MHT) career-field training at the Medical Education Training Campus (METC) in San Antonio, Texas. This training will assure the AF has skilled providers at each military medical treatment facility to conduct pre- and post-deployment ANAMs.
- The AF continued deployment of the NCAT, the Web-enabled version of the ANAM. The AF completed 80,000 NCAT screenings during 2011. The testing process has been streamlined, and efforts to link screening compliance to AF medical readiness databases are under development.
- The AF continues to develop screening tools used to predict attrition rates related to MH problems, criminal behavior, and Personnel Reliability Program disqualification and decertification among enlisted Service members. The primary measure, the Lackland Behavioral Questionnaire, was administered to over 30,000 trainees during

2011. It is expected that these tools will assist the AF, and potentially the DoD, in the recruitment of uniformed Service members.

- The AF is conducting surveillance of enlisted Service members returned to duty following behavioral issues that arise in basic training to determine rates of successful military service in that population. These initiatives have provided important information under consideration by Line leadership as policies pertaining to accession and retention are under review. The data have provided statistically powerful information that may identify trainees at increased risk for attrition or PH problems.

DHCC:

- Pioneered the concept of BH integration in military primary care. DHCC's collaboration with researchers at Duke and Dartmouth Universities and the MacArthur Foundation and its Initiative on Depression and Primary Care resulted in Re-Engineering Systems for the Primary Care Treatment of Depression and PTSD (RESPECT-MIL).
    - This three-component program consists of prepared primary care practice, BH supervision, and RESPECT-Mil care facilitators. The program manages treatment for depression and PTSD in the primary care setting, and patient treatment response and adherence are tracked by registered nurse care facilitators.
    - First implemented at 15 Army Medical Department sites, the program continued expanding to an additional 35 Army sites and one Navy/Marine Corps site during 2011. The program has touched the lives of many Service members with almost 1.5 million screenings to date, and some 53,000 Service members screened for depression and PTSD per month at RESPECT-Mil primary care sites. As the program expands to include all adult beneficiaries under PCMH, and Service members return from deployment to Iraq and Afghanistan, this number will increase.
    - The RESPECT-Mil system of care calls for universal screening of active duty Service members for depression and PTSD at participating clinics. A positive screen will result in further assessment of the Service member during his or her primary care appointment, discussion of treatment options, referral for care, and possible enrollment in RESPECT-Mil. Suicide screening and assessment for those endorsing positive suicidal ideation is included in this RESPECT-Mil process. Patients with urgent or emergent suicidality are rapidly assisted and numerous 'saves' are reported by participating clinics.
    - From program inception through the end of September 2011, 76 clinics at 31 active Army RESPECT-Mil sites provided 1,664,793 primary care visits to active duty Service members, with 1,322,524 of those visits assessments for PTSD and depression. This represents an overall 80 percent screening rate for active duty primary care visits to participating clinics since February 2007. The screening percentage continues to increase, as RESPECT-Mil becomes the standard of care.
    - Of screened visits, 168,519 (12.7%) resulted in a positive screen, and 49 percent of positive screens resulted in a primary care diagnosis of depression, possible PTSD, or both. In 2011, 604,280 visits were screened (88.4% of total visits),

76,928 visits generated positive screens, and 37,465 resulted in a diagnosis. Program participation continues to increase, with approximately 50,357 visits screened per month at the end of 2011.

  - More than 13,000 Service members have been referred to and followed by RESPECT-Mil and more than 27,700 (nearly 11,450 in 2011) Service members with previously unmet BH needs were referred for care. At present 1,900 Service members are being following by the program. The recently deployed Web-based care manager monitoring tool shows that aggregated remission rates have improved markedly. Depression remission rates have improved from 6 to 24 percent, and PTSD remission rates have improved from 3 to 19 percent.
  - The RESPECT-Mil Implementation Team began creating Periodic Performance Reports that are addressed to U.S. Army Medical Command, the Regional Medical Commands, and the Commander and RESPECT-Mil staff at each site. This increases Command influence on site performance and makes recommendations as to how to improve program fidelity.

- Collaborated with Army, Navy, and AF subject matter experts to create Re-Engineering Healthcare Integration Programs (REHIP), a blended model for integrating BH into primary care that includes the Army RESPECT-Mil; the Air Force Behavioral Health Optimization Program, and the Navy Behavioral Health Integration Program.
- Created a memorandum of agreement to facilitate care coordination between the TRICARE Management Activity, DCoE, DHCC, the Army Office of the Surgeon General, and the Commands at the individual RESPECT-Mil sites. The Primary Care Manager Manual based on RESPECT-Mil protocols has been re-written to include team roles for embedded psychologists and social workers. Manuals for other members of the blended team are in process. Under REHIP, the program will begin screening, monitoring, and management for alcohol misuse.

DVBIC:

- Established data use agreement with Defense Manpower Data Center to match TBI cases with deployment rosters (contingency tracking system). Established data use agreement with Decision Support Services for TBI medical encounters data in the direct care setting for stateside and overseas MTFs.
- Developed new actionable products on TBI medical encounters in stateside and overseas MTFs in the direct care setting for the military Services. The development of new actionable products outlining TBI encounters in the direct care setting has helped Service stakeholders make informed decisions on resource allocation.
- Began revising the surveillance materials in 2011 to standardize collection and reporting practices of TBI surveillance data by the network sites.

T2:

- Prepared the Department of Defense Suicide Event Report (DoDSER). The DoDSER standardizes suicide surveillance efforts across the Services to support the DoD's suicide prevention mission. The DoDSER is used for a variety of suicide behaviors

including suicides, suicide attempts, and some other suicide related behaviors (e.g., deliberate self-harm or some cases in which only suicidal ideation is documented).

3.5.3 Description of Actions Planned for Screening and Surveillance

Army:

- The Army will continue to aggressively pursue and support the BH System of Care Program Evaluation efforts, in order to further inform current standards of practice that will lead to increased efficiencies in the execution of BH services delivered to soldiers and Army families. Standardized metrics will improve effectiveness of clinical service delivery.
- The NCAT Program is involved in head-to-head studies involving new assessments for concussion. Some of these assessments include: the digital quantitative EEG (qEEG), which shows the actual brain electrical events associated with periods of inattention very clearly; ImPACT, computerized neurocognitive assessment tools and services that are used by medical doctors, psychologists, athletic trainers, and other licensed healthcare professionals to assist them in determining an athlete's ability to return to play after suffering a concussion; eye-tracking, the process of measuring either the point of gaze ("where we are looking") or the motion of an eye relative to the head; Meyers Neuropsychological Short Battery, selected tests that are able to discriminate normal versus TBI; and the Sport Concussion Assessment Tool-2, a standardized method of evaluating injured athletes for concussion.
- Funded a half-time individual to develop and pilot assessment templates that will standardize TBI documentation. Technical challenges delayed testing of the primary care initial evaluation documentation template so this goal will move to completion during 2012.

NAVY:

- For 2012, the Navy will continue the identification and communication of deployment associated health threats for Service members and their families, including:
  - Improving the identification of Service members needing treatment for PTSD and/or TBI, with a target to identify within six months of a traumatic event;
  - Enhancing effective and efficient communication of surveillance findings by increasing the use of surveillance information for informed decision-making; and
  - Further improve surveillance and screening efforts by finding improvement opportunities and eliminating roadblocks by improving the identification of gaps, redundancies, and needs in care of Service members and families and continuing to identify new at-risk populations.

AIR FORCE:

- In 2012, the AF will continue to provide training for MHTs at METC to maintain current pre-deployment neurocognitive screening capabilities at all MTFs, including reserve and Guard components. A System Acceptance Test evaluation will

determine product acceptability of the NCAT to meet requirements for potential utilization across the DoD.

- In 2012, the AF will continue to study PH and TBI-related force health issues and their correlation to successful military service. Additionally, the AF will study the outcomes of treatment interventions aimed at enlisted trainees who screen positive for BH and MH issues but do not meet the threshold for separation from military service.

DHCC: In 2012, DHCC will:

- Continue the implementation of RESPECT-Mil will continue to a total of 86 clinics at 35 Army sites and one Marine Corps site during 2012, with significant modifications as PCMH rolls out to all Army RESPECT-Mil sites. RESPECT-Mil will become the BH portion of Patient Centered Medical Home and will be known as PCMH-BH. Under the PCMH Operational Order, the caseload and roles of care facilitators will change, and the program will expand to all adult beneficiaries. Further, the RESPECT-Mil implementation team will become the primary training organization for the new internal BH consultants. The RESPECT-Mil implementation team will expand to include trainers in the Behavioral Health Optimization Program model of care. Five new Army sites will begin implementing the PCMH-BH model in 2012, adding care facilitators to their teams. The RESPECT-Mil implementation team will continue to train champions at all sites, but with modifications to training as required to meet PCMH-BH goals.
- Initiate REHIP at two Army sites, serving as a test-bed for the PCMH-BH team, to be implemented between 2012 and 2016.

DVBIC: In 2012, DVBIC will:

- Finalize the NCAT Release 2 and implement this Web-based NCAT system;
- Define remaining problems that limit the use of post-injury NCAT in theater and in the continental United States, and effective resolve those problems;
- Define the role of non-neuropsychologists in proctoring and interpreting NCATs;
- Expand existing data use agreements to acquire patient-level data in order to develop a surveillance registry of Service members with TBI;
- Participate in a joint DoD/VA workgroup to develop procedures for bi-directional sharing of data between the DoD and VA;
- Establish a periodic TBI workgroup charter with federal agencies involved in the collection and reporting of TBI epidemiological information; and
- Examine healthcare utilization for TBI in the direct and purchase cared setting.

T2: In 2012, T2 will:

- Review user feedback and enhance and update many features of the DoDSER;
- Provide the 2011 annual DoDSER report;
- Provide consultation to the Services and the DoD regarding suicide surveillance; and

- Work with the Centers for Disease Control and Prevention and VA to link the DoDSER to their databases. This will substantially extend reach and usefulness of all databases due to more complete information on many cases involving veterans.

3.6 Leadership and Advocacy

3.6.1 Executive Summary

A priority of the DoD is to strengthen and maintain a culture of leadership and advocacy, creating a supportive environment, free of stigma, for Service members and veterans in need of clinical care for TBI and PTSD, or other mental health concerns. Taking care of people is a leadership responsibility, and the program encompasses this responsibility at every level of leadership, with special emphasis on families and the community environment. Leadership and advocacy accomplishments include those that provide opportunities for an improved awareness, understanding, and engagement by military and civilian providers in the identification, treatment, and prevention of TBI and PTSD conditions.

Leadership initiatives include hosting regular community events to increase awareness for TBI and PH effects and services. Regular speaking engagements and conferences provide forums for discussing TBI, PTSD, and other mental health issues for DoD leadership. Strategic communication programs in the Services help to build public awareness and promote discussion about deployment-related health concerns including PTSD, TBI , and medically-unexplained physical symptoms; they educate military Service members and the broader community about available clinical and educational programs.

3.6.2 Description of Outcomes for Leadership and Advocacy

AIR FORCE:

- The AF TBI Clinic at JBER regularly hosts community leaders to advocate increased community awareness of TBI effects and services. The Clinic has received positive reviews from base leadership, organizations, and the community.
- The AF tracked variety of behavioral metrics including substance abuse, domestic violence and criminal activity in order to measure the effects of leadership's efforts to create a culture of responsible choices. These metrics were pushed quarterly to senior leaders at all AF installations and Major Commands for their awareness and response to problem behaviors in AF communities.

DCoE:

- Developed in 2010, at the request of the DoD/VA Senior Oversight Committee, the DoD/VA IMHS, overseen by the Health Executive Council, contains 28 strategic actions. The DoD and VA continue to address the growing population of Service members and veterans with MH needs. The IMHS centers on a coordinated public health model to improve the access, quality, effectiveness, and efficiency of MH services for all active duty Service members, National Guard and Reserve Component members, veterans, and their families. A highlight of some of the 2011 IMHS accomplishments are:

- Held a joint DoD/VA conference titled, "Behavioral Health/Mental Health Services Roll Out in the Medical Home: Clinical, Administrative and Implementation Priorities and Best Practices," to advance the integration of MH services into primary care and share information and lessons learned; and
- Through the IMHS strategic action #18, established partnerships with 16 community organizations (e.g., American Psychiatric Association) and over 20 federal organizations (e.g., National Institutes of Health).
- DCoE conducted 40 speaking engagements during 2011, provided talking points on PTSD, suicide, TBI, and other PH issues to DoD leadership for speeches and congressional testimony, and created communications plans and collateral communications products to highlight products, services, and available resources for suicide prevention month, brain injury awareness month, and MH month.
- DCoE negotiated the distribution of 95,000 Handbooks for Family and Friends of Service Members from Vulcan Productions. The free handbooks help Service members understand what to expect from deployment, build the skills to strengthen or repair relationships, and gain the tools to keep family and personal communities strong throughout the duration of their separation.
- DCoE provided subject matter expertise for content and tone of public service announcements for TBI produced by Defense Media Activity. Provided media relations support for five official conferences, 44 interviews and 74 media queries.
- DCoE created and shared talking points, public service announcements, and social media campaign materials for suicide prevention awareness month with the military Services, VA, and DoD leaders. Authored and posted 148 news articles and 93 blogs. Provided public affairs support for the launch of Sesame Workshop's new mobile application and military families Web site. The Real Warriors Campaign produced 8 public service announcements, completed 6 game day events, added 46 campaign partners, wrote 32 Web site articles, and garnered more than 443.5 million media impressions during 2011.
- DCoE disseminated 661,683 materials, with the Real Warriors Campaign accounting for 402,116 of these, and the DCoE Outreach Center accounting for 44,873.
- DCoE completed an online measure repository, which identified 155 measures related to PH, including a wide array of measures of depression, PTSD, and anxiety, as well as several measures related to exposure to traumatic events (e.g., stress and coping, resiliency, suicidal thoughts). This repository of measures will be a valuable tool to implement and evaluate outcome metrics in DoD PH programs.
- Supported military families and children with combat-vicarious PTSD by coordinating a Webinar for military children in school settings; analyzed gaps in PH and TBI resources for military children, and developed a poster on neurotrauma in military children for presentation at the Society for Neuroscience Conference. Additionally, a resource guide was developed highlighting available resources covering community, deployment, homecoming, mental/emotional health and moving for providers and families.

- DCoE produced a leadership toolkit comprised of a series of fact sheets in various delivery methods (hard copy, ePUB, pocket card) including, "What Unit Leaders Need to Know," and "Dispelling the Myths related to PTSD," "Depression," "mTBI," "Military Sexual Trauma," "Sleep," etc. DCoE coordinated opportunities for this content to be incorporated into the DoD APEX Senior Executive Service Orientation and the Joint Graduate Medical Education Faculty Development Workshop.
- DCoE provided consultation to DoD Senior Leadership for training and policy development in the area of resilience and prevention. Collaborated with Service Line Resilience Leadership on the latest resilience and prevention best practices to prevent, enhance, and sustain the mission readiness and well-being of the Joint Force.
- In 2011, DCoE co-hosted the third annual VA/DoD Suicide Prevention Conference, "All the Way Home: Preventing Suicide among Service Members and Veterans," from 13-17 March, 2012. The purpose of the conference was to disseminate practical tools and innovative research in the area of suicidology, while educating representatives from across the DoD and VA on current practices and studies related to suicide prevention. The Conference was attended by 922 participants, the majority (95%) of whom expressed satisfaction, noting that they developed new skills and knowledge as a result of their participation.

DHCC:

- DHCC's strategic communications program builds public awareness and promotes discussion about deployment-related health concerns including PTSD, TBI, and medically unexplained physical symptoms, as well as to educate military Service members and the wider community about DHCC clinical and education programs to increase enrollment demand and to help those who can benefit take advantage of these programs. DHCC strategic communications activities include answering media requests by facilitating interviews with DHCC staff and placing articles in mass media, as well as scientific publications.
    - In June 2011, the DHCC Director was interviewed on the *CBS Evening News,* followed by an appearance on NPR's *OnPoint with Tom Ashbrook* to discuss the issues faced by and resources provided to military spouses.
    - Redesigned in 2011, DHCC's Web site, www.PDHealth.mil, offers comprehensive deployment health clinical and patient education material in a multi-media format. It provides information on emerging deployment health concerns, clinical practice guidelines, deployment health news and training opportunities, and military healthcare policies and procedures. It is the Health Affairs-selected site for forms and training for deployment cycle health assessments. The redesigned site is currently undergoing DIACAP certification.

T2:

- Co-chaired two working groups for the Health Executive Committee and Joint Executive Committee on telehealth and suicide risk reduction.

3.6.3 Description of Actions Planned for Leadership and Advocacy

AIR FORCE:

- In 2012, the JBER TBI Clinic will continue advocacy for treatment and care of Service members and families who are impacted by TBI. These metrics will be fine-tuned to ensure the most accurate and relevant data are used by commanders as a tool to assess the impacts of resilience-enhancing programs.

DCoE:

- The DoD and VA will continue working to implement the 28 DoD/VA IMHS Strategic Actions. With DCoE serving as the DoD lead for 18 of these actions, some planned activities for 2012 include:
  - A demonstration project in early 2012 to test the implementation of BH providers into primary care clinics at two Army sites. This demonstration project will inform more effective and efficient means of incorporating specially trained BH professionals into primary care clinics.
  - RCS plans to put into service an additional 20 Mobile Vet Centers (MVCs), and the Secretary of Veterans Affairs has approved their placement. The new MVCs have been reconfigured to include four wheel drive capability and a streamlined size to effectively navigate colder environments, where winter weather affects the usability of large vehicles.
  - VA and DoD family educators are collaboratively developing appropriate dissemination plans to direct family educators to make "helping family members to identify mental health needs in Service members and veterans" a specific task associated with their health promotion, wellness, readiness and/or resiliency programs.
- In 2012, DCoE, as directed by the Office of Cost Assessment and Program Evaluation (CAPE), and in conjunction with the Under Secretary of Defense for Personnel and Readiness and the Assistant Secretary of Defense for Health Affairs (ASD (HA)), will develop a plan to conduct effectiveness studies and trials to determine the impact of family support and psychological health programs across the DoD to encourage the use of evidence-based programs. The task from CAPE requires the plan to outline rigorous studies, and rely on objective outcome measures rather than survey responses to the greatest extent possible.
- In 2012, DCoE and the National Guard Bureau, as directed by CAPE, and in coordination with the Services and the ASD(HA), will evaluate the cost effectiveness of the PH support models used by the Guard and Reserve components, including the Joint Directors of Psychological Health and the California National Guard Bureau embedded counselor pilot. The evaluation will provide study results, along with options for expansion of the most cost-effective approach.
- DCoE will support VA and the DoD in developing a Standardized Suicide Nomenclature to reduce inconsistencies in the reporting of suicides, suicide attempts, and suicide risk factors across the Services and VA.

- DCoE will develop a Screening & Assessment Tools Reference Guide with an inventory of 77 suicide prevention tools, 43 of which will be clinical and 34 will be non-clinical. A number of these tools aim to assess suicidal ideation and suicidal behavior, support suicide prevention, increase resilience, and help address the aftermath of suicide. The reference guide will provide primary care providers in the DoD and VA with information on clinical and non-clinical tools available to assess suicide intent and behavior and supports their suicide prevention, resilience promotion, and postvention efforts.
- DCoE will develop a Family Outreach and Resources Guide for Suicide Prevention to (1) inventory and evaluate current suicide prevention communications to families; (2) highlight key programs that are effective in providing information to families; and (3) suggest a variety of approaches for the DoD, the Services, and VA to optimize communication to the families of Service members and veterans about the warning signs of suicidal behavior and available resources. The guides will provide program managers and leaders in the military and VA with tools and mechanisms to help them empower family members to play a more significant role in the DoD/VA suicide prevention efforts.

DHCC:

- When fully deployed in 2012, DHCC's redesigned www.PDHealth.mil Web site will feature rich content such as images, videos, and custom surveys, as well as a more robust content management system.

T2:

- T2 will provide a review of DoD use of telehealth for PH and TBI care. This will lead to a set of recommendations and a proposed strategic plan. T2 will pursue execution of the strategic plan when approved.
- In 2012, T2, as directed by CAPE, and in conjunction with the Services and ASD(HA), will create a DoD Telemental Health Strategic Plan, including methods to: better understand geographic needs and resources; better capture workloads across Services; improve standards and achieve cross-service resource leveraging of resources; better utilize VA resources; and assure that technical standards appropriately reflect current evidence.

3.7 Research and Development

3.7.1 Executive Summary

The DoD is committed to providing a research program to prevent, mitigate, and treat the detrimental effects of traumatic stress and TBI on psychological and physical functioning, wellness, and overall quality of life for Service members, as well as for their caregivers and families. The DoD is focused on advancing the state of medical science in areas of the most pressing needs.

The PH/TBI research portfolio aligns with a continuum of care approach, driven by requirements that directly benefit Service members. This process and strategy is creating unparalleled momentum that will revolutionize care for TBI and PH.

The return on investment from Congressional funding for TBI and PH has only just begun. This return includes greatly accelerated capability development and improved care for wounded, ill, and injured Service members, veterans, and their families. Working groups help guide the translation of research findings to clinical use, and we explore new treatment options for Service members, including new methods of care for those who do not respond to, or are reluctant to engage in, other established therapies. The DoD and VA continue to increase collaborative efforts for mutually beneficial clinical practices and health services. The following sections provide more details on our research accomplishments last year, such as the creation of a multi-institutional research consortium from PTSD treatment programs.

3.7.2 Description of Outcomes for Research and Development

- While research takes time and the return on investment has only just begun, the significant investment in TBI and PH research is already improving the health and well-being of Service members and their families. This is notable because the average time to translate research into clinical practice is more than 16 years from bench to bedside.
- There are promising breakthroughs occurring for Service members and their families as a result of the investments made in TBI and PH research. One notable breakthrough includes research outcomes from "The Impact of Supported Employment Versus Standard Vocational Rehabilitation in Veterans with PTSD," at the VA Medical Center in Tuscaloosa, Alabama. Supported Employment is a recovery-based model that incorporates rapid job search and placement in competitive employment, with follow-along support services and integrated PTSD treatment team care.
    - The primary aim of this study was to determine if Supported Employment yields a better outcome than the Vocational Rehabilitation Program (VRP), which is the usual return-to-work route taken by PTSD patients obtaining assistance from VA.
    - Results indicate that those participating in Supported Employment were 2.6 times more likely to gain competitive employment (76 percent vs. 28 percent), and, on average, earned more than twice the wages of those enrolled in VRP. Similarly, positive results from other funded research like this are being evaluated for promulgation across the DoD and VA.
- The Veterans Affairs Pacific Islands Health Care System examined, "Telemental Health and Cognitive Processing Therapy (CPT) for Rural Combat Veterans with PTSD." The study is ongoing and although outcome analyses are not complete, preliminary data support feasibility of delivering CPT to groups via video teleconference. This research was expanded to examine telemental health delivery of PTSD treatment in female Service members. These promising results may increase the access-to-care to rural Service members suffering from PTSD.
- The $35 million STRONG STAR PTSD Research Consortium is a multidisciplinary, multi-institutional research consortium under the leadership of the University of Texas Health Science Center at San Antonio. With 85 investigators at more than 20 partnering military, VA, and civilian institutions, the STRONG STAR Consortium

has assembled an unprecedented collaboration of researchers and clinicians. This network unifies talented experts to make significant advances that will allow the DoD and VA to deliver PTSD treatment programs that are relevant, effective, and feasible.

- A milestone in PTSD treatment has been the adoption into clinical practice of the drug prazosin, shown to ease trauma nightmares. Studies funded by VA, the DoD and the National Institute of Mental Health, include prazosin as part of treatment guidelines for PTSD and TBI. Additionally, VA's Cooperative Studies Program is testing the drug at 13 VA medical centers, and the trial is likely to yield definitive evidence about the drug's risks and benefits.
- The VA Eastern Colorado Health Care System is part of a consortium set up in 2011 by the Army, and sponsored by the DHP, to mesh military and civilian research on suicide prevention. Some recent work has focused on suicide among those with TBI. The consortium is critical to ensuring that a clear scientific base exists to support suicide risk screening and prevention efforts.
- The DHP is sponsoring the University of Miami to examine Mindfulness-Based Mind Fitness Training (MMFT). The MMFT technique builds mindfulness skills to help users cope with stress and trauma. Early findings of the study show beneficial effects on working memory, attention, and mood. The study is investigating not only whether mindfulness techniques can enhance resilience in Service members, but also how the technique works.
- Other promising breakthroughs from the investment in TBI and PH include improved spouse well-being and successful reintegration of Service members into their families and shortened clinically-effective virtual reality-based treatments for post-concussion syndrome, resulting in full return-to-duty. Additionally, the first objective TBI diagnostic technology (blood biomarker) will be submitted for Food and Drug Administration approval in Fiscal Year 2013; this is a major achievement.
- The return on investment from Congressional funding for PH and TBI has only just begun, and this return includes greatly accelerated capability development and improved care for wounded, ill, and injured Service members and veterans. This investment will continue to produce results in the next 2 to 3 years in accordance with the DHP research strategy.

DCoE:

- Provided SME support to the U.S. Army Medical Research and Materiel Command joint planning committees to review current and proposed research efforts on topics such as psychological well-being, suicide prevention, and family resilience as well as TBI.
- Served a vital role in centralized identification of knowledge gaps, integration of evidence-based and actionable information, and acceleration of transfer of knowledge and integration across the DoD system of care.
- Systematically developed white papers on key resilience and prevention topics provide leadership, program managers, and providers with an integrated summary of empirical literature, range of current programs and resources, and inputs from key

stakeholders. White paper reviews are especially important resources for resilience and prevention areas in which there is generally less empirical evidence and centralized evidence-based guidance, such as clinical practice guidelines. Topics include Peer Support Programs, Mind-Body Skills for Regulating the Autonomic Nervous System (ANS), Measures of ANS Functioning, Wellness and Worksite Health Promotion, Leveraging Technology for Psychological Health and Traumatic Brain Injury, and Well-Being in the Context of Suicide Prevention and Resilience.

- DCoE supported the RAND National Defense Research Institute in their review of current evidence detailing suicide epidemiology in the military; best practices suicide prevention programs; description and catalog of suicide prevention activities in the DoD and across each Service; and recommendations for how to ensure that the activities in the DoD and across each Service reflect best practices. The results were compiled in a 2011 monograph titled, "The War Within: Preventing Suicide in the U.S. Military."

DVBIC

- Developed and conducted clinical investigations that fit into DoD-identified research gaps: Treatment and Clinical; Management Epidemiology of TBI; Screening and Diagnosis of TBI; and TBI Rehabilitation and Reintegration.
- Developed and initiated recruitment for TBI research studies mandated by Congress or that have garnered high Congressional interest:
    - The Study of Cognitive Rehabilitation Effectiveness for Mild Traumatic Brain Injury. This study will evaluate the effectiveness of cognitive rehabilitation in Operation Iraqi Freedom (OIF) and Operation Enduring Freedom (OEF) Service members with a history of mTBI and persistent cognitive complaints.
    - A 15-year longitudinal study, "Traumatic Brain Injury Incurred by Service Members of the Armed Forces in OEF and OIF," is identifying long-term health, medical, and supportive care needs of OEF/OIF Service members and veterans with TBI, and the effects of TBI on family members and caregivers.
    - A Psychometric Comparison of Brief Computerized Neuropsychological Assessment Batteries. This study will measure the test-retest reliability of computerized neuropsychological test batteries, and evaluate the sensitivity and specificity of the batteries to detect cognitive impairment after TBI.
- Disseminated evidence-based findings through publications and presentations to inform of best practices or TBI incidence:
    - DVBIC investigators published over two dozen manuscripts in peer reviewed journals annually, providing evidence-based practices and/or epidemiology of TBI to inform care.
- Requested research funding to conduct TBI research studies that fall within DoD-identified TBI research gaps.
- Shared the DVBIC research portfolio with the DoD and academic partners to share progress and developments in TBI research.

- Supported the U.S. Army Medical Research and Materiel Command's effort in preparing presentations for the DoD/VA TBI research portfolio review and analysis.
- Initiated discussion of utilizing the Congressionally Directed Medical Research Program's Electronic Grant Management System to track progress and documentation for DVBIC research studies.
- Integrated the Center for Neuroscience and Regenerative Medicine Natural History Study with the DVBIC Natural History Study for a five year study period to form the "Comprehensive Pathway of the Natural History Study: A multidisciplinary, prospective longitudinal research project at Walter Reed National Military Medical Center," designed to monitor patient recovery from TBI for 15 years among two cohorts of returning Service members and veterans (TBI and non-brain injured trauma controls).
- Developed a "Brief Pathway of the Natural History Study: A nation-wide, prospective, 15-year longitudinal project that will examine outcomes from TBI using clinical interviews and neurobehavioral measures among three cohorts of returning Service members and veterans," (TBI, non-brain injured trauma controls, and non-injured healthy controls, with injuries/deployments dating back to the start OEF/OIF in 2001).
- Developed a Caregiver Study that will examine the long-term effects of caring for a Service member with TBI on the family caregiver and other family members, and developed a reliable and valid assessment measure of health-related quality of life (*TBI-CareQOL*) for caregivers of persons with TBI, for use in research and clinical evaluations. Established relationships with University of Michigan experts to collaborate on the development of the *TBI-CareQOL* measure based on the Patient-Reported Outcomes Measurement Information System (PROMIS). PROMIS, funded by the National Institutes of Health, is a system of highly reliable, valid, flexible, precise, and responsive assessment tools that measure patient-reported health status.
- Conducted preliminary analysis of the Defense Manpower Data Center and Armed Forces Health Surveillance Center databases to examine mortality rates of Service members who sustained a TBI from October 2001 to April 2011.

CSTS:

Established in 1987, The Center for the Study of Traumatic Stress (CSTS) provides leadership in trauma research, education, training and consultation to improve PH and resilience of individuals, groups, and communities exposed to war, disasters, terrorism and public health threats. Part of the Department of Psychiatry in the School of Medicine of the Uniformed Services University (USUHS), the Center brings scholarly and research oriented problem solving to the mental and behavioral health problems of the DoD and the nation. In 2011, CSTS:

- Worked with U.S. Army Studies to Assess Risk and Resilience in Service Members (STARRS) programs to complete the groundbreaking task of obtaining, assembling, integrating, and documenting more than 1.1 billion data records on demographic, socio-economic, health care, and Service member experiences from nearly forty different DoD and Army databases. STARRS is a 5-year study funded

by the Army and the National Institute of Mental Health, and the largest study to address suicide in the Army;

- Received funding to conduct the National Military Family Bereavement Study, the first major study to systematically examine the impact of U.S. Service member deaths on surviving family members; and
- Conducted promising research to find biomarkers for PTSD and to test intervention and prevention programs.

3.7.3 Description of Actions Planned for Research and Development

- The JPC structure is an effort to develop and maintain ongoing strategic management and oversight. The membership of the JPCs provides a level of coordination through a broad membership across the Services and government agencies involved in TBI/PH research. This provides the programs with visibility of the work being conducted within other parts of the DoD and other government agencies outside DoD programs. This visibility helps the program to understand that work and how the current efforts fit into the overall picture.
- Currently, the DoD is reassessing how projects are selected and integrated into the program's strategies. At this point, the gaps in the program are more clearly defined, and the program needs to re-focus on efforts to more directly address the defined operational capability needs and requirements of the military.
- To maximize return on investment, the DoD needs to prioritize the research gaps on those areas where the greatest impact to the Service member can be obtained. With the current programs, the DoD has identified technologies that need to be pushed and that can be done more effectively through the acquisition and contracting processes. The programs have also started to push specific projects through increasing funding to contracts and grants that have made good progress in high priority research. Several clinical trials have received extra funding to add additional arms to the studies or to increase the statistical power of studies to obtain more definitive results than originally proposed. Having more robust trials will allow earlier and more sound future decisions on these technologies.
- The Office of the Assistant Secretary of Defense for Force Health Protection and Readiness held a PH and TBI research program review in December 2011, with the VA Office of Research and Development. Both agencies shared current research and development efforts, discussing areas where they may leverage investments to eventually maximize clinical practice and health services. While not the first collaboration effort, it was the initial forum of this kind where both DoD and VA science managers presented their funded research efforts in PH and TBI.

DCoE:

- DCoE will coordinate with up to nine Service-specific resilience-building focused programs to examine program fidelity, processes, and clinical and readiness outcomes (where appropriate). Additional program evaluation capabilities are under development.
- DCoE will complete retrospective analyses of existing datasets in partnership with the Defense Manpower and Data Center, Military Community and Family Policy, the Armed Forces Health Surveillance Center, and others to examine risk and resilience factors associated with PH and TBI outcomes.
- DCoE will coordinate with RAND to identify and summarize existing resilience programs for families of Service members and create a toolkit to help support evaluation of DoD-sponsored suicide prevention programs. The suicide prevention toolkit will be based on approaches and measures that have been used in scientific literature to evaluate suicide prevention programs, particularly those useful in a military context. It will help determine whether these programs are producing beneficial effects.

T2: In 2012, T2 will continue an extensive program of research with the following:

- Identifying Military Risk Factors in DoDSER: A Pilot Solution: Existing military suicide surveillance systems help describe suicidal behaviors and circumstances surrounding the events. However, in order to statistically determine risk factors, information about the broader population is needed. For example, in order to examine gender as a risk factor, information is needed about gender among suicides and gender in the population. Therefore, estimates of the rate of each DoDSER item (e.g., divorce, owning a firearm, Article 15 disciplinary action) are needed for the broader population. In 2011, T2 completed an initial feasibility study for collecting this data. Lessons learned were used to launch an improved methodology.
- Epidemiological Grant Addressing Key Suicide Knowledge Gaps: Systematic reviews of the status of military and veteran suicide research have identified the remaining gaps. T2 was awarded a grant to provide a definitive answer to the question of whether serving in Operations Iraqi Freedom or Operations Enduring Freedom is associated with an increased risk of suicide. The study will also examine suicide rates for important military subgroups such as reservists and inactive Guard. In 2011, this study completed all regulatory requirements and an initial database was constructed.
- The Effect of Remote Counseling for Warriors with PTSD and Mild TBI: Recent combat operations significantly increased the number of Service members with symptoms of TBI. The Concussion Treatment After Combat Trauma study, also known as CONTACT, is a joint activity of T2 and the University of Washington (UW). It is part of the PTSD/TBI Clinical Consortium, known as INTRuST, at the University of California, San Diego. The study will evaluate the efficacy of the Individualized Scheduled Telephone Counseling process over 12 telephone sessions within six months.

- Building on UW's success with ISTS in civilians, the T2/UW team is recruiting soldiers with mTBI to try to reduce associated anxiety and depression. The study will be the first large-scale test of the benefits of mTBI-related education, training in problem solving, and behavioral strategies delivered by telephone in a military population.
- Identifying Technological Tools to Target: Assessing the Military's Personal Technology Use. The Personal Technology study identified the platforms, devices, and online resources that exhibit the highest levels of acceptance, utility, and anticipated longevity among warriors. With that information, the DoD can more effectively and efficiently pursue personal technology development efforts. This study examined respondents' use of computers, the internet, cell phones, smartphones, gaming devices, and other portable technologies. T2 completed data collection and produced a manuscript describing the results that has been accepted for publication in 2012.
- Testing Virtual Reality Exposure Therapy: Effective treatment of PTSD requires patients to activate the memory of their trauma during treatment. Following combat deployments, many soldiers are emotionally detached and have difficulty with this aspect of the treatment. Virtual Reality Exposure Therapy (VRET) facilitates emotional engagement by enhancing the patient's ability to revisit the trauma memory with a sensory-rich environment that includes computer-generated sights, sounds, vibrations, smells, and naturalistic navigation devices to give users a sense of participating in an alternative environment, relative to their actual physical location.
- The VRET study, a four-year clinical trial started in 2009, continues to evaluate the effectiveness of traditional prolonged exposure therapy and VRET for combat-related PTSD. This research trial, conducted in collaboration with the Department of Psychology at Madigan Army Medical Center, and the Institute for Creative Technologies at the University of Southern California, will provide valuable information about the efficacy of VRET for Service members with combat-related traumatic stress. Results may provide new treatment options for all Service members, but would also be an option for those who do not respond to, or are reluctant to engage in, other established therapies. In 2012, data collection will be extended to Womack Army Medical Center at Fort Bragg, North Carolina.