#### UNDER SECRETARY OF DEFENSE 4000 DEFENSE PENTAGON WASHINGTON, D.C. 20301-4000

OCT 25 2013

The Honorable Barbara A. Mikulski Chairwoman Committee on Appropriations United States Senate Washington, DC 20510

Dear Madam Chairwoman:

The enclosed report responds to section 725 of the National Defense Authorization Act for Fiscal Year 2013 (Public Law 112-239), which requires the Secretary of Defense to provide for the translation of research on the diagnosis and treatment of mental health conditions into policy on medical practices. The report discusses the Department's research approach on mental health conditions and the Department's key translational medical practice initiatives for mental health conditions.

In response to Executive Order 13625, the Departments of Defense (DoD), Veterans Affairs, Health and Human Services, and Education developed a National Research Action Plan (NRAP) on posttraumatic stress disorder (PTSD), other mental health conditions, and traumatic brain injury (TBI) to improve the coordination of agency research into these conditions and reduce the number of affected men and women through better prevention, diagnosis, and treatment. The NRAP facilitates collaboration for multi-disciplinary scientific translational medicine research to address the complex issues of PTSD, TBI, suicide prevention, and other mental health disorders.

The DoD is committed to improving strategies that accelerate the translation of evidence-based research into medical practices. Key initiatives aim to capitalize on current research efforts and emerging scientific findings to accelerate development of user-friendly knowledge products that inform Service member and behavioral health provider training, clinical practice guidelines, standards of care, and policy development.

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

Sincerely,

Enclosure: As stated

CC:

The Honorable Richard C. Shelby Vice Chairman

### UNDER SECRETARY OF DEFENSE

4000 DEFENSE PENTAGON WASHINGTON, D.C. 20301-4000

OCT 25 2013

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

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Sincerely,

Acting

Enclosure: As stated

cc:

The Honorable James M. Inhofe Ranking Member

### UNDER SECRETARY OF DEFENSE

4000 DEFENSE PENTAGON WASHINGTON, D.C. 20301-4000

OCT 2 5 2013

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

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Sincerely,

essica L Wrigh

Acting

Enclosure: As stated

cc:

The Honorable Adam Smith Ranking Member

### UNDER SECRETARY OF DEFENSE

4000 DEFENSE PENTAGON WASHINGTON, D.C. 20301-4000

OCT 25 2013

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

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Sincerely,

assica I. Wrigh

Enclosure: As stated

cc:

The Honorable Nita M. Lowey Ranking Member

#### REPORT TO CONGRESS

## NATIONAL DEFENSE AUTHORIZATION ACT FOR FISCAL YEAR 2013, SECTION 725

# RESEARCH AND MEDICAL PRACTICE ON MENTAL HEALTH CONDITIONS



## SUBMITTED BY THE OFFICE OF THE ASSISTANT SECRETARY OF DEFENSE (HEALTH AFFAIRS)

SUPPORTED BY THE CENTERS OF EXCELLENCE FOR PSYCHOLOGICAL HEALTH AND TRAUMATIC BRAIN INJURY (DCoE) AND U.S. ARMY MEDICAL RESEARCH AND MATERIEL COMMAND

#### SEPTEMBER 2013

The estimated cost of report for the Department of Defense is approximately \$3,170 for the 2013 Fiscal Year. This includes \$500 in expenses and \$2,670 in DoD labor.

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#### **PURPOSE**

The Department of Defense (DoD) submits this report in accordance with the National Defense Authorization Act for Fiscal Year 2013, section 725, which directs the Secretary of Defense to provide for the translation of research on the diagnosis and treatment of mental health conditions into policy on medical practices.

#### **EXECUTIVE SUMMARY**

The report that follows discusses the Department's research approach on mental health conditions and the Department's key translational medical practice initiatives for mental health conditions. The report provides the background for the inter-agency efforts to develop a National Research Action Plan to improve the coordination of agency research into these conditions. The report describes:

- The multidisciplinary research approach for translational medicine the agencies developed a multi-disciplinary translational medicine framework for research using a model that describes the research spectrum from basic science through prevention, treatment, follow-up care, and services research.
- Research data sharing efforts, which would be collaborative and promote team science to
  rapidly and effectively improve health care and outcomes. The scientific community
  would be able to submit and access research data in a participatory manner to test new
  hypotheses, combine data sets for meta-analyses, and compare and contrast findings
  across disorders, the lifespan, and the continuum of care.
- Information transparency the DoD will move its medical research information onto the NIH shared system to promote a higher level of transparency and analysis across agencies and for the public.
- Accelerating research progress by emphasizing data sharing for funded research studies
  to facilitate an understanding of what is underway across agencies, to increase
  transparency in the public domain, and to reduce redundancy of funded research studies.
- Accelerating translation of evidence-based research the report describes key DoD
  initiatives to further knowledge translation, dissemination, and implementation of
  research findings.

#### INTRODUCTION

On August 31, 2012, President Obama issued Executive Order (EO) 13625 directing the Departments of Defense, Veterans Affairs (VA), Health and Human Services (HHS), and Education (henceforth referred to as "the agencies"), to develop a National Research Action Plan (NRAP) on posttraumatic stress disorder (PTSD), other mental health conditions, and Traumatic Brain Injury (TBI) "to improve the coordination of agency research into these conditions and reduce the number of affected men and women through better prevention, diagnosis, and treatment." The agencies called upon in Section 5 of the EO fund multidisciplinary research programs devoted to scientific discovery to advance health in civilian and/or military populations. Collectively, the agencies support multi-disciplinary research that

will lead to a better understanding, prevention, and treatment of the physical injuries and mental health and substance abuse problems related to stress and trauma experienced by Service members, Veterans, and their family members. The EO directive to establish an NRAP, provides an opportunity for the agencies to collaborate in moving the multi-disciplinary scientific translational medicine research agenda forward to address the complex issues of PTSD, TBI, suicide prevention, and related comorbidities (defined herein as "mental health disorders"), including depression; substance abuse related to alcohol, tobacco, and other drugs, including the misuse and abuse of prescription drugs; and chronic pain, each of which can complicate the prevention and treatment of PTSD, TBI, and suicidal behaviors. The NRAP is instrumental in achieving the translational medicine capabilities necessary to produce positive mental health outcomes for our Service members who suffer from TBI, PTSD, and other neurotrauma/neurological conditions.

While there is a strong evidence-base for the effectiveness of psychotherapy and pharmacotherapy for many mental health disorders, there is limited evidence of the effectiveness of both pharmacological and non-pharmacological interventions for TBI, including rehabilitation treatments, due in part to underpowered studies and the limited validated assessment tools that are sensitive enough to detect treatment effects. Research on treatment efficacy and effectiveness has been hampered by difficulties in defining the active ingredient of many experience-based treatments that are commonly used in rehabilitation. The concurrent application of multiple treatments, including pharmacological and non-pharmacological interventions, poses another challenge. Rigorous definitions of rehabilitation treatments are needed as well as research regarding the customization of therapies to an individual's injury, predisposing factors, and co-occurring conditions.

Scientific progress is incremental and takes time, but military Service members, veterans, and their family members need more effective treatments immediately. This must be balanced with a commitment to provide the highest quality evidence-based care possible. In the NRAP, the agencies plan to capitalize on current research efforts and emerging scientific findings, as well as explore and support new opportunities to increase scientific knowledge and accelerate its translation to evidence-based clinical care. These new activities will begin immediately.

#### MULTIDISCIPLINARY RESEARCH TOWARD TRANSLATIONAL MEDICINE

The agencies developed a multi-disciplinary translational medicine framework for research using an "Interagency Research Continuum Approach" model that describes the research spectrum from foundational (basic) science through prevention, treatment, follow-up care, and services research. This translational framework highlights the areas in which the agencies are supporting studies, and identifies areas where more research is needed. New or planned initiatives in the form of requests for applications (RFAs) are being released, and research findings generated from funded projects will continue to be integrated into patient care when the scientific evidence supports it. Notably, coordination with and leveraging of results from the President's Brain Research through Advancing Innovative Neurotechnologies (BRAIN) initiative are expected to result in useful diagnostic and monitoring tools applicable to brain injury and mental health.

A variety of multi-disciplinary activities are under way in support of the NRAP, including funded research projects within the agencies' complementary portfolios in PTSD, TBI, and suicide prevention research that also address comorbidities, such as substance abuse. The DoD's Systems Biology Initiative and the Millennium Cohort and Family Cohort Studies, the VA's Million Veteran Program, and the National Institutes of Health's (NIH's) biomarker and mechanistic research programs all hold promise to inform advancement of prevention and treatment interventions. Notably, the DoD alone has invested more than \$100 million in TBI biomarker discovery and development since 2007. The Biomarker Assessment for Neurotrauma Diagnosis and Improved Triage System (BANDITS) program is developing a blood test for brain cell damage, which may aid in the clinical assessment of patients with TBI. BANDITS has completed pilot and feasibility studies and launched a trial which will enroll up to 2,000 patients with mild, moderate, and severe TBI. This capability has applications beyond the military and could be used to detect concussions in civilian sports environments. The DoD and the Centers for Disease Control and Prevention (CDC) are partnering with the Brain Trauma Foundation to develop a clinically meaningful classification system of mild TBI (mTBI), also known as concussion, which will enable improved clinical assessment of current status and prognosis. Suicide prevention research includes the DoD's Military Suicide Research Consortium (MSRC) and the National Institute of Mental Health and Department of the Army's Study to Assess Risk and Resilience in Servicemembers (Army STARRS) program. The agencies support research that contributes to a better understanding of the mental health needs of military and veteran families and the best ways to prevent, treat, and provide services for them.

All initiatives supported by the NRAP action plan will address comorbidities, when they exist, including substance abuse disorders, through coordination, goal setting, and common efforts. The agencies are independently and jointly funding studies focused on substance abuse research in Service members, veterans, and their family members. There have been collaborations that include joint reviews and analyses of portfolios and joint funding opportunities (e.g., 2010 NIH-VA RFA and 2013 NIH-DoD RFA). Substance abuse research funded by the agencies spans the research continuum from basic science through implementation research.

The DoD and the VA have joined efforts in the Consortium to Alleviate PTSD (CAP). The CAP is a new research effort focused on biomarker discovery and development with the aim of identifying biomarkers for subacute and chronic PTSD that can be used for therapeutic and outcome assessment. With funding from the DoD and the VA, this represents a major investment to advance knowledge related to biomarkers and clinical utility. A CAP award is expected to be finalized by the end of September 2013.

The DoD and CDC, in partnership with the Brain Trauma Foundation, have funded an effort to develop a clinically meaningful classification system of mTBI/concussion that will enable improved clinical assessment of current status and prognosis. The International TBI Common Data Elements (CDEs) project has recommended a battery of instruments to be used in TBI epidemiological and interventions research, but evidence demonstrating the utility or superiority of the recommended instruments over other measures is limited. The National Institute of Neurological Disorders and Stroke (NINDS) has funded Transforming Research and Clinical Knowledge in TBI (TRACK – TBI), a pilot project to evaluate the utility and feasibility of the CDEs; the DoD funded the data analysis component of TRACK – TBI. These three successful interagency collaborations underscore the value and need for additional research to create more

precise classifications of injury type and severity and more sensitive diagnostic tools to ultimately enable personalized medicine for TBI. There is also the opportunity for leveraging emerging imaging modalities and body fluid-derived biomarkers for improved diagnostics, but validation will be required before they are ready for clinical use.

The DoD and the VA are jointly sponsoring the Chronic Effects of Neurotrauma Consortium (CENC) award, which will fund a large consortium to: a.) establish the association of the chronic effects of mTBI and common comorbidities; b.) determine whether there is a causative effect of chronic mTBI/concussion on neurodegenerative disease and other comorbidities; c.) identify diagnostic and prognostic indicators of neurodegenerative disease and other comorbidities associated with mTBI/concussion; and d.) develop and advance methods to treat and rehabilitate chronic neurodegenerative disease and comorbid effects of mTBI/concussion.

#### RESEARCH DATA SHARING EFFORTS

Research data sharing, ideally, would be collaborative and promote team science to rapidly and effectively fill gaps in knowledge that will ultimately improve health care and outcomes. The scientific community would be able to submit and access research data in a participatory manner in order to test new hypotheses, combine data sets for meta-analyses, and compare and contrast findings across disorders, the lifespan, and the continuum of care. Research data elements would be standardized to the greatest extent possible, and also aligned with clinical data elements to enable greater integration of research and clinical practice.

The ability to leverage existing and emerging information technology will be a key factor in successfully coordinating and accelerating research under the NRAP. Transparent and accessible information about the agencies' ongoing and planned efforts will guide the agencies and researchers alike to reduce overlap, eliminate redundancies, identify gaps, and focus new research questions. Publicly accessible databases that contain information about funded grants (e.g., the NIH Research Portfolio Online Reporting Tools (RePORTER), which is used by VA and the NIH) act as repositories for government-sponsored research.

The DoD has committed to move its medical research information onto the NIH RePORTER via Electronic Research Administration Commons, thus promoting a higher level of transparency and analysis across agencies and for the public. Beyond the transparent sharing of data about funded studies, a commitment has been made to promote the standardization and sharing of study-level (raw) data. Many smaller sized studies are able to involve only a modest number of participants; therefore, the ability to share study data when appropriate will increase the power for analyses and potentially accelerate research progress. In addition, large-scale studies supported by each agency provide a platform for rich secondary data analyses when study-level data are shared. Central repositories such as the Federal Interagency TBI Research (FITBIR) Informatics System can be leveraged in these data-sharing efforts. The agencies have begun discussions relating to determining how to more efficiently share data describing funded research studies as well as study-level data; details can be found in the NRAP, along with proposed strategies and plans for utilizing electronic health records for research.

Access to study-level data for the purpose of secondary data analysis is important for research in general. Data sharing allows for an increase in the amount of data that can be combined or compared by the community of scientists. Many smaller studies involve only a modest number

of participants; therefore the ability to share data when appropriate will increase the power for analyses and potentially accelerate research progress. In addition, large-scale studies supported by each agency provide a platform for rich secondary data analyses when data are shared.

Examples of data-sharing efforts include:

- The FITBIR Informatics System has been established to provide a central repository for TBI-related clinical research data. The FITBIR was funded by the DoD, and subsequently developed and managed by the NIH. Clinical data are entered into FITBIR utilizing the TBI CDEs, which were developed to allow more precise comparisons of TBI research data. Research data from newly funded NINDS and Defense Health Program TBI clinical research projects will be entered into FITBIR. Although not required, clinical research data from previously funded projects can be entered into the FITBIR. Additionally, the TBI CDE project is developing data standards to allow expansion of the FITBIR to preclinical work, enabling advancement of preclinical knowledge and improved modeling of TBI. This data repository decreases costs to the researcher, standardizes the collection of research data, and allows access to researchers outside the original research studies to re-analyze and compare data across studies.
- The National Institute on Disability and Rehabilitation Research (NIDRR) established the Traumatic Brain Injury Model System National Database (TBIMS-NDB) to provide a data repository for clinical data from individuals with moderate and severe TBI who are within the Model Systems network of centers. This database offers decades of information on the clinical progress and outcomes of individuals with moderate to severe TBI. The NIDRR and the VA have partnered to create a VA Polytrauma Rehabilitation Centers TBI Database that includes the same data elements found in the TBIMS-NDB.
- The VA computing infrastructure allows for de-identified data to be accessible to VA
  researchers. While not limited to PTSD or TBI, this environment allows sharing of
  research data within the VA.

#### RESEARCH DATA SHARING FOLLOW-UP PLAN

The overall goal for the NRAP related to data sharing is centered on accelerating research progress. The major emphasis is on sharing data describing funded research studies to facilitate an understanding of what is being supported across agencies, increase transparency in the public domain, and reduce redundancy should any be identified. Planned compilation of funded research studies and common coding of categories of research across the spectrum from basic to implementation research will allow researchers to search for various topics across agencies to identify ongoing work (e.g., all studies that examine PTSD and suicide attempts) and facilitate the next generation of research questions. The DoD will pursue utilization of the Electronic Research Administration (eRA) Commons, Information for Management, Planning, Analysis and Coordination (IMPAC) II and related systems for such research study portfolio management.

The agencies have begun discussions related to determining how to enhance research datasharing efforts. The first required follow-up action is identification of potential needed changes to ensure that authority to share data is in place, followed by a needs assessment to facilitate identified changes. Data-sharing efforts will require close and continued collaboration between federal agencies dedicated to addressing challenges specific to research, to meet the overall goal to increase access to study level data. The agencies will leverage government plans to increase access to the results of scientific research as they emerge.

The action plan for data sharing represents an integrated effort to address the major objectives of sharing funded research information and enhancing research data sharing, with continued communication among partners. Some examples of the type of activities that will meet the requirements of the EO include:

- Continue to convene the joint DoD/VA/HHS/ED strategic portfolio reviews in the areas
  of TBI, PTSD, suicide prevention, and substance abuse research.
- Explore expansion of the Psychiatric Genomics Consortium (https://pgc.unc.edu/index.php) to include PTSD cohorts. Research funded by federal agencies may deposit de-identified genotypic and phenotypic data to facilitate metaanalyses, replication, and extension of early findings.
- Improve the delivery of health care services in the private sector by sharing research
  findings and data through agencies and policymakers (e.g., Agency for Healthcare
  Research and Quality), consensus development conferences (e.g., NIH Consensus
  Development Program), and practice-based research.
- Advise DoD and VA policy makers when DoD/VA Clinical Practice Guidelines should be updated to incorporate newly proven treatments for psychological health (PH) and TBI conditions.
- Develop a minimum set of defined demographic CDEs by surveying the demographic elements used across topics and efforts (FITBIR, MSRC, VA information technology environment, etc.) and proposing adoption or expansion of these elements.
- Expand the FITBIR to include preclinical research data. CDEs for preclinical models
  will be developed. Methods will be developed to enable researchers with existing or
  even completed research to more easily align their data with the CDEs, which may be
  expanded to relevant psychological health elements. Entry of data into the FITBIR will
  be a requirement for all DoD TBI clinical research projects.
- Facilitate the collaboration of the FITBIR with TBIMS-NDB, the International TBI Research Initiative, and other related/relevant data repositories that can be leveraged for research, as permissible.
- Encourage use of the National Addiction and HIV Data Archive Program (NADHAP)
   (http://www.icpsr.umich.edu/icpsrweb/NAHDAP/) for the purpose of archiving data.
   Researchers can use the NADHAP to upload data sets relevant to substance abuse and military and veteran populations, and use data from the NADHAP for the purpose of secondary data analysis.
- Encourage use of NIH Funding Opportunity Announcement (FOA) PAR-13-080,
   "Accelerating the Pace of Drug Abuse Research Using Existing Data." The purpose of this FOA is to invite applications proposing the innovative analysis of existing social science, behavioral, administrative, and neuroimaging data to study the etiology and epidemiology of drug-using behaviors (defined as alcohol, tobacco, prescription, and

other drugs) and related disorders, associated HIV risk behaviors, prevention of drug use and HIV, and health service utilization.

## KEY TRANSLATIONAL MEDICAL PRACTICE INITIATIVES FOR MENTAL HEALTH CONDITIONS

The DoD is committed to furthering strategies that accelerate translation of evidence-based research on the prevention, diagnosis and treatment of PH conditions into policy on medical practices. Key initiatives underway in the Department aim to capitalize on current research efforts and emerging scientific findings to accelerate development of user-friendly knowledge products that inform Service member and behavioral health provider training, clinical practice guidelines, standards of care, and policy development. These knowledge products are disseminated to specific target populations and technical or training support is provided to the end-user to facilitate implementation, as dissemination alone is not sufficient to affect change or adoption. These products are evaluated in the field for iterative improvement to increase impact on the quality of care and related policies in the Department. As part of the Military Health System (MHS) 2012 Stakeholder's Report and Quadruple Aim, the MHS developed strategic initiatives that inform development and execution of policies that further knowledge translation, including implementation of evidence-based practices across the MHS to improve quality and safety. Key DoD initiatives that further knowledge translation, dissemination, and implementation with respect to PH include:

- Clinical Practice Guidelines (CPGs) and Clinical Support Tools (CST):
  - O CPGs: The DoD and VA jointly translate research findings into clinical guidance for mental health professionals by developing CPGs to advance implementation of evidence-based treatments. The DoD and VA develop and regularly updated CPGs to reflect current evidence and improve the behavioral health care for PTSD, depression, and other behavioral health conditions in primary care settings.
  - O CSTs: The DoD develops clinical support tools that synthesize technical CPGs into easily accessible formats to help providers, patients, families, and military leaders understand and implement the technical content of the CPGs. The CSTs aim to help providers reinforce patient education, and provide a quick reference for military leaders to support the mental health of their troops.
  - CPGs and CSTs inform military regulations and policy related to PH screening and treatment in behavioral health and primary care to enhance consistency of research-based practice in military health care settings.
- Integrated Mental Health Strategy (IMHS): In pursuit of augmenting integration and coordination between the DoD and VA, the Departments developed 28 Strategic Actions to improve access, quality, effectiveness, and efficiency of mental health treatment for Service members and veterans.
  - IMHS Strategic Action 26 addresses the need for systematic translation and implementation of evidence-based research into innovative clinical actions, programs and policies for returning Service members, veterans and their families.

- IMHS Strategic Action 26 is piloting a framework to identify, review, and prioritize innovative research findings and practices for translation into clinical practice in DoD and VA treatment facilities and programs.
- o IMHS Strategic Action 9 has been designing and implementing interagency training in effective evidence-based treatments for PTSD and other PH conditions across the Departments. To date, 8,903 providers in both the DoD and VA have been trained in Evidence-Based Psychotherapies under this initiative.
- Real-World Effectiveness Trials: The DoD health services research portfolio includes
  effectiveness trials and other health services research performed in real-world settings.
  For example, Stepped Enhancements of PTSD Services Using Primary care (STEPS UP)
  aims to compare a telephonic care management intervention to usual primary care for
  military personnel with PTSD and/or depression. These real-world effectiveness trials
  are designed to improve the system of care and enable rapid translation, dissemination,
  and implementation across the spectrum of military health care facilities.
- Joint Incentive Fund (JIF): The JIF is an integrated effort between the DoD and VA that aims to facilitate the mutually beneficial coordination, use, and exchange of health care resources with the goal of improving access to, as well as quality and cost-effectiveness of, the health care provided to beneficiaries of both Departments. The DoD and VA promote ongoing dissemination, implementation, and evaluation of products, practices, and policies to improve PH care delivery to Service members through a series of JIF research initiatives. Taken together, these innovative sharing initiatives bring together clinicians across DoD and VA clinical settings to facilitate translation and evaluation of best practices into routine care and contribute to the evidence base that informs policy development. JIF research projects related to PH knowledge translation include:
  - O Establishment of a Practice-Based Implementation Network in Mental Health brings together clinicians across DoD and VA clinical settings to facilitate translation, dissemination, implementation, and evaluation of best practices into routine care. This project promotes the integration of these efforts in DoD and VA mental health programs through shared information technology resources for ongoing iterative implementation of PH best practices.
  - O Improving Patient Centered Care via Integration of Chaplains with Mental Health Care brings together a collaborative network of chaplains and mental health representatives to harness the evidence base to develop and implement tools, provide training, and share knowledge informed by best practices to enhance patient care and integration across the DoD and VA.
  - o Implementation of Problem Solving Training in Primary Care aims to train DoD and VA mental health providers to implement a skills-based intervention in primary care settings that has been empirically shown to facilitate access to mental health services within primary care settings, and promote consistent standards of care across the DoD and VA.
  - "Decentralized Evidence-Based Psychotherapies (EBPs) Mental Health Provider Training and Consultation to Improve Quality and Access to Care." This proposal seeks to broaden dissemination and promote sustainability of EBPs

trough the establishment of decentralized training and consultation capacity in DoD, as well as VA. It will establish local EBP "Champion-Consultants" strategically at DoD installations as well as enhance the VA's decentralized consultation infrastructure.

- Websites and mobile applications: The DoD conducts research to develop and demonstrate effectiveness of mobile and technology-assisted interventions to enhance delivery of care and services. Mobile applications and technology-assisted interventions channel targeted information to health care professionals, providers, and Service members that encourage the translation of research knowledge into clinical practice and policy through dissemination of current evidence-based practices, including up-to-date information on treatment options for PH conditions, PH-related information and resources (e.g., CPGs and CSTs), continuing education opportunities, conferences, webinars, and other resources.
- The DoD has demonstrated its commitment to furthering knowledge translation as it relates to PH through multiple policy efforts, including:
  - Memorandum: Military Treatment Facility Mental Health Clinical Outcomes Guidance (September 9, 2013) provides guidance regarding measurements and documentation of clinical outcomes in mental health treatment in military medical treatment facilities;
  - DoDI 6490.07 "Deployment Limiting Medical Conditions" offers guidance to providers to ensure deployed and deploying Service members are medically able to accomplish their duties in deployed environments;
  - DoDI 6490.05 "Maintenance of Psychological Health in Military Operations"
    was developed to mitigate the adverse physical and psychological consequences
    of exposure to severe stress.

#### CONCLUSION

The DoD, VA, HHS, and Department of Education collaborated to develop the NRAP on PTSD and other mental health conditions to improve coordination of research, prevention, diagnosis, and treatment. These agencies are collaborating to move the scientific research agenda forward, capitalizing on current research efforts and emerging scientific findings, as well as exploring and supporting new opportunities to increase scientific knowledge and accelerate its translation to evidence-based clinical care and policy.

The vision for the Department's research approach on mental health conditions and the Department's key translational medical practice initiatives for mental health conditions described herein will be achieved through close, continued collaborations across the Department, federal agencies and throughout the scientific community. Agency collaborations will occur formally through joint portfolio review and analyses of efforts. These efforts will support the goals of preventing suicide; reducing the number of individuals affected by PTSD, TBI, and substance-related and other comorbidities; and improving the quality of life of those who do experience these conditions through better coordinated and synchronized efforts to accelerate

progress in prevention, diagnosis, and treatment. New large collaborations (e.g., Consortium to Alleviate PTSD and Chronic Effects of Neurotrauma Consortium) will directly contribute to our goal to advance effective prevention, diagnosis, and treatment interventions.