



OFFICE OF THE UNDER SECRETARY OF DEFENSE

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

PERSONNEL AND
READINESS

The Honorable Jack Reed
Chairman
Committee on Armed Services
United States Senate
Washington, DC 20510

MAY - 1 2024

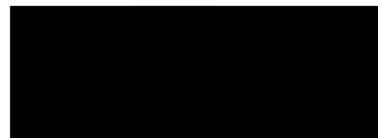
Dear Mr. Chairman:

The Department's response to section 735 of the James M. Inhofe National Defense Authorization Act for Fiscal Year 2023 (Public Law 117-263), "Brain Health Initiative of the Department of Defense," is enclosed. Section 735 requires the Secretary of Defense to establish a comprehensive initiative for brain health and submit a strategy and implementation plan.

The Department of Defense's (DoD) Warfighter Brain Health (WBH) Initiative: Strategy and Action Plan is a joint effort between the operational and medical communities. The DoD's WBH strategy and action plan addresses brain exposures, to include blast overpressure exposures, traumatic brain injury (TBI), and long term or late effects of TBI, with the goal of optimizing brain health and countering TBI. In addition, as part of the DoD's WBH Initiative, the Department has identified capabilities and requirements through a Capabilities Based Assessment, which resulted in solutions required for brain health to ensure the joint warfighter is able to successfully execute missions. This report provides an overview of the current Department's WBH Initiative to include its strategy and action or implementation plan. In addition, the report addresses the initial description of activities as part of the WBH Initiative to be annually reported beginning January 31, 2024.

Thank you for your continued strong support for the health and well-being of our Service members, veterans, and their families. I am sending a similar letter to the House Armed Services Committee.

Sincerely,



Ashish S. Vazirani
Performing the Duties of the Under Secretary of
Defense for Personnel and Readiness

Enclosure:
As stated

cc:
The Honorable Roger F. Wicker
Ranking Member





OFFICE OF THE UNDER SECRETARY OF DEFENSE

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

PERSONNEL AND
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The Honorable Mike D. Rogers
Chairman
Committee on Armed Services
U.S. House of Representatives
Washington, DC 20515

MAY - 1 2024

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Sincerely,



Ashish S. Vazirani
Performing the Duties of the Under Secretary of
Defense for Personnel and Readiness

Enclosure:
As stated

cc:
The Honorable Adam Smith
Ranking Member



Report to the Committees on Armed Services of the Senate and the House of Representatives



Brain Health Initiative of the Department of Defense

May 2024

The estimated cost of this report or study for the Department of Defense (DoD) is approximately \$3,700 for Fiscal Year 2022-2023. This includes \$1,900 in expenses and \$1,800 in DoD labor.
Generated on 24 October 2023
RefID: B-B20FA52

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INTRODUCTION

This report is in response to section 735 of the James M. Inhofe National Defense Authorization Act (NDAA) for Fiscal Year (FY) 2023 (Public Law 117–263), which requires the Secretary of Defense to establish a comprehensive initiative for brain health. The Department of Defense (DoD) remains vigilant for threats to warfighter readiness, health, and performance to minimize potential negative impacts to DoD operations and mission effectiveness. The Department is committed to protecting the health and well-being of its warfighters to maximize the ability to defend the Nation. To successfully defend the Nation, DoD will optimize physical and cognitive performance to enhance and maintain force readiness. There had been great work and many successes in brain health efforts, to include activities concerning traumatic brain injury (TBI), but these efforts lacked coordination across the Department. The Department’s senior leaders recognized the need to synchronize and prioritize efforts into a single and unifying brain health approach to produce more effective and efficient results.

Therefore, on October 1, 2018, the Deputy Secretary of Defense directed the development of a comprehensive strategy and plan of action focused on promoting warfighter brain health (WBH) and countering TBI.¹ WBH is defined as the physical, psychological, and cognitive status that affects a warfighter’s capacity to function adaptively in any environment and impacts readiness, operational capability, mission effectiveness, and the goal to achieve overmatch or superior lethality.² On June 8, 2022, the Department released its WBH Initiative: Strategy and Action Plan³ a joint effort between the operational and medical communities. The strategy and action plan addresses brain exposures, to include blast overpressure exposures, TBI, and long term or late effects of TBI, with the goal of optimizing brain health and countering TBI. In addition, as part of the DoD’s WBH Initiative, the Department has identified capabilities and requirements through a Capabilities Based Assessment which resulted in solutions⁴ required for brain health to ensure the joint warfighter is able to successfully execute missions. This report provides an overview of the current Department’s WBH Initiative: Strategy and Action Plan or Implementation Plan. In addition, the report addresses the initial description of activities as part of the WBH Initiative to be annually reported beginning January 31, 2024.

DEPARTMENT OF DEFENSE WARFIGHTER BRAIN HEALTH INITIATIVE: STRATEGY AND ACTION PLAN

The Department’s WBH Initiative strategy and action plan or implementation plan, creates a framework for deliberate, prioritized, and rapid development of end-to-end solutions for WBH. The strategy and action plan addresses brain health, brain exposures to include, blast overpressure exposures from weapons and munitions, TBI, and long term or late effects of repetitive brain exposures and/or TBI. The strategy and action plan consists of five Lines of

¹ Source: Deputy Secretary of Defense Memorandum, “Comprehensive Strategy and Action Plan for Warfighter Brain Health,” October 1, 2018, and National Defense Strategy, January 2018.

² Department of Defense. National Defense Strategy, 2022.

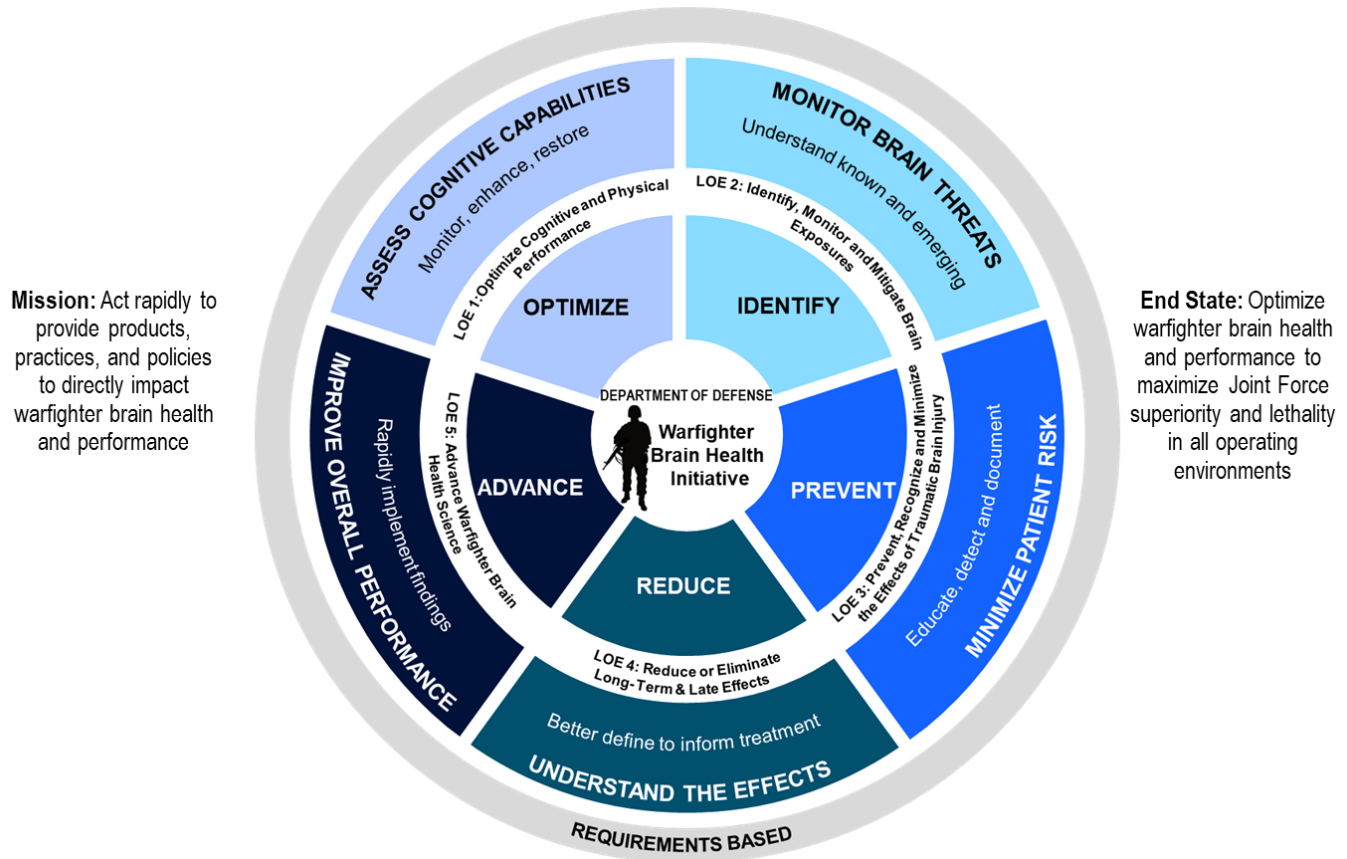
³ Department of Defense Warfighter Brain Health Initiative: Strategy and Action Plan 2022.

<https://media.defense.gov/2022/Aug/24/2003063181/-1/-1/0/DOD-WARFIGHTER-BRAIN-HEALTH-INITIATIVE-STRATEGY-AND-ACTION-PLAN.PDF>.

⁴ Manual for the Operation of the Joint Capabilities Integration and Development System, 31 August 2018. <https://www.acq.osd.mil/asda/jrac/docs/2018-JCIDS.pdf>.

Effort (LOEs), 18 objectives, and 53 associated activities for the deliberate, prioritized, and rapid development of end-to-end solutions for WBH. Figure 1 provides an overview of Department’s WBH strategy and action plan.

Figure 1. DoD Warfighter Brain Health Initiative Overview



LOE 1: Optimize Cognitive and Physical Performance

Cognition plays a key functional role in warfighter’s overall performance capabilities. A fundamental aspect of the Department’s current brain health strategy is the ability to monitor a Service member’s cognition and identify if there is a need to either enhance or restore it, especially if there has been a decrement through a hazardous brain exposure or a resulting injury.

Cognitive Monitoring

A priority of the Department’s WBH strategy and action plan is a unified approach to cognitive monitoring. Current DoD policy⁵ mandates that all Service members complete a neurocognitive assessment within 12 months of deployment and following a diagnosed concussion or mild TBI while deployed, in accordance with clinical practice recommendations. Additionally, Service

⁵ Department of Defense Instruction (DoDI) 6490.13, “Comprehensive Policy on Traumatic Brain Injury-Related Neurocognitive Assessments by the Military Services,” September 11, 2015, as amended.

members who respond affirmatively to TBI risk assessment questions during their Post Deployment Health Assessment may complete a neurocognitive assessment if referred for clinical evaluation.

However, to support brain health objectives, the Department is moving from a deployment-centric, TBI -driven program, to a new framework addressing WBH throughout a Service member's career. This new focus will entail each Service member undergoing a computerized neurocognitive assessment test within 1 year of accession and, at a minimum, every 5 years thereafter, with test results accessible in the electronic health record. This will establish a program to monitor cognitive brain health across the Department with the goal of detecting any need for cognitive enhancement or restoration that may result from potential brain exposure.⁶ The Department recently conducted a cost analysis plan (CAP) for conducting uniform TBI baseline testing for all new recruits using the Automated Neuropsychological Assessment Metrics computerized test. The finding from this CAP was that the DoD supports implementation of baseline testing at initial entry training locations.⁷ DoD is in the process of revising the current policy to be able to monitor and optimize cognitive performance by identifying a decrease in cognitive performance over a warfighter's career or enhancing current cognitive performance. Both restoration and enhancement strategies are being explored through industry and academic solutions.

LOE 2: Identify, Monitor and Mitigate Brain Exposures

To optimize cognitive performance, the Department is working to obtain a comprehensive understanding of known and emerging brain threats, such as blast overpressure, blunt force or impact, ballistic projectiles, and directed energy. The WBH strategy is to protect Service members through the identification of these brain threats and the capability to monitor and mitigate them. The Department's initial efforts have been focused on blast overpressure (BOP) as a brain threat.

Blast Overpressure Exposures and Safety

To address a previous statutory requirement,⁸ the Department reviewed current safety standards concerning certain weapons and munitions and implemented mitigation strategies as appropriate. Monitoring, documentation, and safety were the three main areas of engagement. As a result, the Department established a database for Allowable Number of Rounds and Noise Hazard Contours, which will help support access to consistent and up-to-date safety guidance information. To improve communication on the potential impacts of BOP exposure, DoD developed a specific blast exposure medical diagnosis (ICD-10 code) to enable future medical surveillance for BOP exposure. The Medical Cost Avoidance Model (MCAM) was developed to

⁶ Section 735(b)(1)(A) of the NDAA for FY 2023 (Public Law 117–263): “The establishment of a program to monitor cognitive brain health across the Department of Defense, with the goal of detecting any need for cognitive enhancement or restoration resulting from potential brain exposures of members of Armed Forces, to mitigate possible evolution of injury or disease progression.”

⁷ House Report 116-453, pages 339-340, accompanying H.R. 7617, the Department of Defense Appropriations Bill, 2021.

⁸ Section 734 of the NDAA for FY 2018 (Public Law 115–91), “Longitudinal Medical Study on Blast Pressure Exposure of Members of the Armed Forces.”

support risk assessment decisions. MCAM estimates the medical-related costs, including avoidable costs (e.g., cost of treatment, lost time, disability, fatality, and recruitment/training) related to blast exposure that may lead to medical care.

With the information gained from the above efforts, the Assistant Secretary of Defense for Readiness issued a memorandum, “Interim Guidance for Managing Brain Health Risk from Blast Overpressure,” on November 4, 2022. The memorandum called on the DoD to manage risk of BOP exposures exceeding 4 pounds-force per square inch as a part of training, planning, and execution and encouraged an as low as reasonably achievable approach for commanders to use with recommended strategies for mitigation. The Department understands the importance of the continued identification and dissemination of thresholds for blast pressure safety and associated emerging scientific evidence.⁹ There are ongoing science and technology investments in this space to further evolve DoD’s ability to link exposure data to specific health and injury outcomes. These investments address standardizing blast data collection parameters and data processing methodologies. Another area to address that will further understanding of blast pressure exposure is to develop standardized research tools to estimate and capture cumulative BOP exposures.

A warfighter is exposed to various hazards depending on the environment (training or operational) though the Department does not have a full understanding of the effects these threats may have on the brain. The ability to determine hazardous exposure effects on a Service member’s brain will also assist with protection and mitigation to minimize brain injury. Therefore, the identification of individuals who perform high-risk training and occupational activities for purposes of increased monitoring of brain health indices is important.¹⁰ Additionally, the modification of high-risk training and operational activities to mitigate the negative effects of repetitive blast exposure¹¹ is also critical to maximize brain health. To begin to address this, the Department has requested the Military Services identify high-risk training and operational activities, as-well-as, high-risk individuals by occupational specialty. This information will be vital to prioritize WBH activities targeted to promote increased screening and safety measures for high- risk personnel and activities. In alignment with screening and safety measures, the documentation of Service member exposures is critical for multiple uses, to include but not limited to, tracking and monitoring, opportunities for treatments and interventions and facilitate a better understanding of the health and performance effects from known and emerging brain threats.

To address a previous statutory requirement,¹² the Department demonstrated the ability to capture a Service member’s blast exposure history. DoD recognizes the importance of a standardized monitoring program that documents and analyzes blast exposures that may affect

⁹ Section 735(b)(1)(B) of the NDAA for FY 2023 (Public Law 117–263): “The identification and dissemination of thresholds for blast pressure safety and associated emerging scientific evidence.”

¹⁰ Section 735(b)(1)(D) of the NDAA for FY 2023 (Public Law 117–263): “The identification of individuals who perform high-risk training or occupational activities, for purposes of increased monitoring of the brain health of such individuals.”

¹¹ Section 735(b)(1)(C) of the NDAA for FY 2023 (Public Law 117–263): “The modification of high-risk training and operational activities to mitigate the negative effects of repetitive blast exposure.”

¹² Section 734 of the NDAA for FY 2018 (Public Law 115–91), “Longitudinal Medical Study on Blast Pressure Exposure of Members of the Armed Forces.”

the brain health of Service members.¹³ The Department’s ability to monitor, record, and analyze a Service member’s exposure to blast may be accomplished through recording shot counts, questionnaires and surveys and a military occupational specialty to be used as a proxy. The Department plans to conduct a business case analysis and review lessons learned from previous efforts to inform its way forward.

LOE 3: Prevent, Recognize, and Minimize the Effects of Traumatic Brain Injury

To provide a comprehensive approach to WBH, the strategy and action plan addresses brain exposures as well as brain injuries. Prevention and education activities are the cornerstone of minimizing the effects of brain exposures and TBIs. TBIs are less visible than other injuries to the body and a not fully understood consequence of recent conflicts.

The major objectives include reducing the risk of TBI that may negatively impact brain health, educating stakeholders regarding the signs and symptoms of TBI and a means to report it as well as reducing the effects of TBI on brain health and performance. The capabilities-based assessment, referenced earlier, provided many training and leadership and education solutions for frontline medical responders, primary care providers, and non-specialists medical providers, unit-level officers, senior non-commissioned officers (NCOs), command-level NCOs, and operational medical leaders (e.g., Command Surgeon). These solutions address best practices to integrate theater-level interventions for brain exposures and injuries from multiple approaches, including physical, psychological, and cognitive health perspectives. Other activities include identifying, developing, and deploying evidence-based assessment, diagnostic, treatment, and rehabilitation strategies for TBIs. The primary goal of these activities to include promoting early detection and documentation of suspected or actual TBIs to support effective diagnosis, treatment, and rehabilitation. One high priority area is to develop and field noninvasive, portable, point-of-care medical devices to aid in the diagnosis and treatment of TBI.¹⁴

Noninvasive Portable Point-of-Care Devices Efforts

The Department, through the Defense Health Agency, has two efforts focused on the development, U.S. Food and Drug Administration (FDA) approval, and fielding of portable, point-of-care medical devices in the operational environment: 1) Analyzer, Traumatic Brain Injury (ATBI); and 2) TBI Field Assessment Program.

The ATBI development effort will field the world’s first FDA approved blood protein biomarker assay far-forward theater assets equipped with laboratory capabilities. This portable device and assay cartridge uses a small volume of blood plasma to assess patients with suspected TBI. In conjunction with other clinical data, this tool informs evacuation decisions in the deployed environment, enabling the strategic use of potentially limited evacuation assets in theater. FDA approval was achieved in January 2021, enabling commercial availability of the device. The

¹³ Section 735(b)(1)(F) of the NDAA for FY 2023 (Public Law 117–263): “The establishment of a standardized monitoring program that documents and analyzes blast exposures that may affect the brain health of members of the Armed Forces.”

¹⁴ Section 735(b)(1)(E) of the NDAA for FY 2023 (Public Law 117–263): “The development and operational fielding of noninvasive, portable, point-of-care medical devices, to inform the diagnosis and treatment of traumatic brain injury.”

Department anticipates fielding of the capability in 2025.

With increased focus on preparing for future conflict with near-peer adversaries in large scale combat operations (LSCO), the Department initiated a working group (WG) in June 2022 to define detailed operational needs and performance specifications for a far forward TBI assessment capability. The WG determined that an effective TBI assessment capability for LSCO calls for far-forward, rapid, highly sensitive and specific, portable, point-of-care capability to inform the diagnosis, treatment, and management of TBI casualties by identifying the size and location of hemorrhage anywhere in the cranial cavity and identification of brain swelling. Accordingly, this capability will be consistent with the priorities documented in the Army Medical Modernization Strategy¹⁵ such as rapid and efficient clearing of the battlefield, optimized evacuation, and return to duty. In addition, the detailed performance criteria developed by the WG enabled analysis of all known technology candidates against the defined performance needs. An Integrated Product Team (IPT) has been established and is now preparing documents for authorization to begin source selection and development of the technology candidate that is best suited to Government needs. Pending authorization (anticipated mid- calendar year 2024), the IPT will begin development of a technology candidate toward the defined need. The development activities are anticipated to include: ruggedization of the hardware, refinement of final design, software integration, and clinical trials. In parallel, the WG will continue to work with the joint force to develop operational needs for non-invasive field monitoring and treatment devices for TBI in support of brain health.

LOE 4: Reduce or Eliminate Long-term and Late Effects

The Department continues to work to reduce or eliminate long-term and late effects from multiple brain exposures and injuries that have a negative impact on brain health. To accomplish this, the strategy and action plan includes a focus on better understanding of the characteristics and long-term consequences of known and emerging brain exposures and TBIs. The contributions of co-occurring conditions such as pain and post-traumatic stress disorder that influence functional outcomes is also critical to a better understanding of how to reduce chronic effects. The WBH strategy and action plan calls for models that could forecast the long-term and late effects of brain exposures and TBI to elucidate opportunities for intervention and mitigation.

Collaboration with the Department of Veteran Affairs (VA) and other Government agencies is essential to provide a seamless transition of care for those with long-term and late effects following brain exposures and injuries. Continued partnerships, to include research into the long term and late effects that prevent warfighters from returning to optimal brain health, are expected to yield findings that can be integrated into clinical care and support. The Department has research investments addressing this area such as the decade long collaboration with the VA called the Long-Term Impact of Military-Relevant Brain Injury Consortium. The Department also has a long-standing partnership with the National Collegiate Athletic Association to study sports related concussion. Currently this collaborative research consortium is focused on the chronic and long-term effects of both sports related head impact exposures and injuries. Finally, the Department has been conducting a 15- year TBI longitudinal study of military Service

¹⁵ Army Medical Modernization Strategy, May 2022.
https://www.army.mil/e2/downloads/rv7/about/2022_Army_Medical_Modernization_Strategy.pdf.

members and their families and caregivers.¹⁶ The DoD’s Brain Tissue Repository continues to further our understanding of the etiology and mechanisms of the late effects of brain exposures and TBIs. These research investments are producing important information to further our understanding of the chronic, long term, and late effects following brain exposures and injuries which will have a direct impact on goals to maximize brain health and performance in the Armed Forces.

LOE 5: Advance Warfighter Brain Health Science

The WBH strategy and action plan activities are supported by the continued advancement of warfighter brain health science, through a unity of effort, by developing a brain health research strategy based on warfighter operational requirements. Advancement in brain health science is maximized through partnerships with other government agencies, industry, and academia. Multiple collaborative activities facilitate these partnerships such as the recently established National Academies of Science, Engineering, and Medicine (NASEM) Forum on TBI.

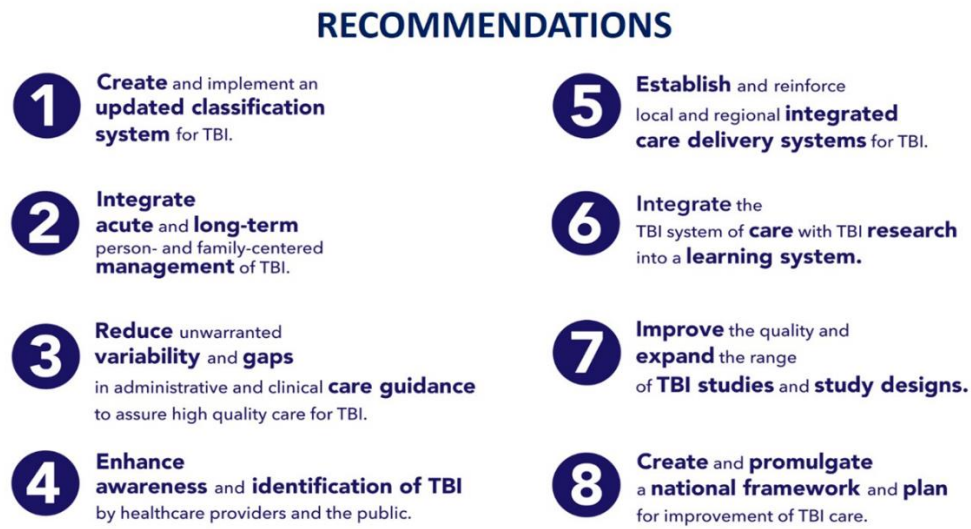
National Academies of Science, Engineering, and Medicine

The Department funded and commissioned the NASEM to develop a roadmap for TBI with the goals to: 1) explore and assess the public and military health burden of TBI; 2) examine the current landscape of TBI research and identify opportunities for acceleration; and 3) improve TBI systems of clinical care from acute care through rehabilitation. The NASEM TBI report, released in February 2022, provides a roadmap for advancing both research and clinical care over the next decade, identifies major barriers and knowledge gaps that are impeding progress in the field, and highlights opportunities for collaborative action (both inter-governmental and public-private) that could accelerate progress in TBI research and care.¹⁷ Figure 2 contains the key recommendations from the report.

¹⁶ Section 721 of the John Warner National Defense Authorization Act for FY 2007 (Public Law 109–364).

¹⁷ Section 735(b)(1)(G) of NDAA FY 2023 (Public Law 117–263): “The consideration of the findings and recommendations of the report of the National Academies of Science, Engineering, and Medicine titled “Traumatic Brain Injury: A Roadmap for Accelerating Progress” and published in 2022 (relating to the acceleration of progress in traumatic brain injury research and care), or any successor report, in relation to the activities of the Department relating to brain health, as applicable.”

Figure 2. Traumatic Brain Injury: A Roadmap for Accelerating Progress (NASEM Report, February 2022)



In April 2022, NASEM established a Forum on TBI to foster discussion on and help advance implementation of these recommendations. Forums provide a neutral and communal setting in which multiple stakeholders can gather regularly to work toward shared understanding of possible solutions and opportunities for action. Current Forum interest areas include the following: innovation pipelines for new TBI treatments; building on such advances as biomarker developments; improving systematic follow-up care for TBI; updating the TBI classification systems; and encouraging progress towards an integrated, learning care systems for this complex condition. The Department has been a very active participant and leader in the Forum by contributing to the key priority areas, to include an Action Collaborative on post-acute TBI care and follow up. Additionally, the Forum on TBI convenes stakeholders from other Government agencies such as the Department of Health and Human Services (HHS), VA, and the Department of Transportation. Federal agencies are uniquely positioned to lead and support Recommendation 8 listed above to “Create and Promulgate a National Framework and Plan for improvements in TBI care” through the creation of a National Traumatic Brain Injury Task Force. The Federal sector of the Forum on TBI held an initial convening in October 2023, led by the HHS Office of the Assistant Secretary for Health, with the goal to identify opportunities for cross-agency collaboration and alignment and discuss the role of a unified Federal group to transform TBI care in response to Recommendation 8.

A key activity to advance warfighter brain health science is to translate research findings into knowledge and materiel products, practice, and policies to maintain and optimize WBH. With the multitude of research investments yielding actionable results, it is critical to ensure that key organizations within the brain health community establish knowledge translation activities for the betterment of warfighters. The mission of the Department’s warfighter brain health strategy and action plan is to act rapidly to provide products, practices, and policies to directly impact WBH and performance.

ANNUAL BUDGET JUSTIFICATION

The President’s Budget FY 2025 Defense Health Program submission includes \$12 million in Operations and Maintenance funding for the WBH framework which supports maximizing the strength, resilience, and readiness of our Forces to meet and exceed the objectives of protecting the homeland and maximizing combat effectiveness. The funding for WBH is embedded with Budget Activity Group 1 – In House Care in the FY 2025 President’s Budget Defense Health Program Justification Book. The following table provides details on the funding:

Brain Health Initiative - FY25 Request							Dollars in Thousands
BAG	PE	PE Title	OP-32	OP-32 Title	Object Class	OCC Title	FY 2025
1	0807700	MEDCENs, Hospitals & Clinics (CONUS)	955	Other Costs (Medical Care)	25610	Medical Care	\$ 10,000
1	0807700	MEDCENs, Hospitals & Clinics (CONUS)	987.1	Other Intra-Government Purchases	25310	Other Goods and Services from Federal Sources	\$ 250
1	0807700	MEDCENs, Hospitals & Clinics (CONUS)	990	IT Contracts Support Services	25710	Operation and Maintenance of Equipment	\$ 1,500
1	0807700	MEDCENs, Hospitals & Clinics (CONUS)	101	Executive, General and Spec. Schedules	11110	Full-time Permanent	\$ 250

BLAST PILOT PROGRAM

As required by law,¹⁸ the Department conducted efforts, including a blast overpressure surveillance pilot study, to evaluate if it could monitor, record, and analyze blast pressure exposure in training and garrison environments as well as to evaluate the ability to put this information into a DoD record for later retrieval by operational and medical personnel.

The DoD was able to demonstrate that it is feasible to capture blast information from our weapon systems, store that information safely and generate exposure reports for individuals and units in a training environment. It is also possible to collect data from wearable sensors both on an individual or nearby in the training environments. DoD was not able to demonstrate the feasibility of doing this in an operational environment. In addition to wearable sensors, there may be opportunities to capture a Service member’s exposure to blast such as shot counts, questionnaires and surveys and a military occupational specialty to be used as a proxy.

To evaluate a DoD blast monitoring effort, the Department will have to analyze costs and outcomes. The Department plans to conduct a business case analysis and review lessons learned from its previous efforts¹⁹ to inform the way forward for a monitoring program that documents and analyzes blast exposures that may affect the brain health of Service members.²⁰

CONCLUSION

The Department remains attentive to threats to our warfighters’ readiness, health, and performance to maintain operations and mission effectiveness. A priority of the Department’s WBH strategy and action plan is a unified approach to cognitive monitoring with the Department

¹⁸ Section 734 of the NDAA for FY 2018 (Public Law 115–91), “Longitudinal Medical Study on Blast Pressure Exposure of Members of the Armed Forces.”

¹⁹ Section 734 of the NDAA for FY 2018 (Public Law 115–91), “Longitudinal Medical Study on Blast Pressure Exposure of Members of the Armed Forces.”

²⁰ Section 735(b)(1)(F) of the NDAA for FY 2023 (Public Law 117–263): “The establishment of a standardized monitoring program that documents and analyzes blast exposures that may affect the brain health of members of the Armed Forces.”

moving from a deployment-centric, TBI -driven program, to a new framework addressing WBH throughout a Service member's career. Our understanding of deleterious brain exposures (both known and unknown) is a crucial piece in taking care of warfighters' brain health. Traumatic brain injuries are the signature injuries from recent combat operations. These injuries can have short-term or delayed effects on warfighter physical and cognitive performance and health that can lead to degraded readiness, loss of operational capability, lost duty days, and decrease in quality of life. With the implementation of the Department's WBH strategy and action plan, the Department continues to better address the brain health needs of our warfighters, their families, line leaders/commanders and their communities at large.