

CDMRP



Department of Defense



Department of Defense
Congressionally Directed Medical Research Programs

Fiscal Year 2021 Traumatic Brain Injury and Psychological Health Research Program Stakeholders Meeting

U.S. Army Medical Research and Development Command



The views and opinions of the authors may not reflect the official policies or positions of the Department of the Army, Department of Defense, or the U.S. Government.

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Agenda

**US ARMY MEDICAL RESEARCH AND DEVELOPMENT COMMAND
CONGRESSIONALLY DIRECTED MEDICAL RESEARCH PROGRAMS (CDMRP)
TRAUMATIC BRAIN INJURY AND PSYCHOLOGICAL HEALTH
RESEARCH PROGRAM (TBIPHRP)
FISCAL YEAR 2021 VIRTUAL STAKEHOLDERS MEETING
27–28 APRIL 2021**

MEETING AGENDA

Meeting URL

<https://www.zoomgov.com/j/16117840825?pwd=MytEMVNYdmhlalgvcWdjQjhiRGtCQT09>

Meeting ID: 161 1784 0825

Password: TBIPHRP

Tuesday, 27 April 2021

9:30 – 10:00 a.m.	Log in and Registration	All Participants
10:00 a.m.	Welcome and Introductions	Dr. Dwayne Taliaferro, Ms. Elizabeth Guman, and Mr. Scott Wheeler
10:10 a.m.	Moment of Silence	TBD
10:15 a.m.	Meeting Overview and Objectives, Ground Rules for Discussion	Mr. Scott Wheeler
10:20 a.m.	Leidos Administrative Remarks	Dr. Geoffrey Heinzl
10:25 a.m.	Overview of CDMRP	Dr. Taliaferro
10:40 a.m.	Overview of the TBIPHRP Congressional Language and Request for Information	Dr. Taliaferro
11:00 – 11:10 a.m.	<i>Break</i>	All Participants
11:10 a.m.	Department of Defense Warfighter Brain Health Initiative	Ms. Kathy Lee
11:30 a.m.	Combat Casualty Care Research Program Traumatic Brain Injury (TBI) Portfolio	CDR Travis Polk
11:45 a.m.	Military Operational Medicine Research Program Psychological Health Portfolio	CDR Christopher Steele
12:00 p.m.	Department of Veterans Affairs (VA) TBI Portfolio	Dr. Stuart Hoffman
12:15 p.m.	VA Psychological Health (PH) Portfolio	Dr. Cendrine Robinson

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12:30 – 12:40 p.m. Break
 12:40 p.m. Psychological Health Center of Excellence Dr. Tim Hoyt
 12:55 p.m. National Intrepid Center of Excellence CAPT Carlos Williams
 1:10 p.m. One Mind for Research Dr. Mona Hicks
 1:25 p.m. Open Discussion/Q&A All Participants
 1:55 – 2:30 p.m. Break

Breakout Session 1

2:30 p.m. **TBI Topic** Etiology, Pathology, and Prevention Mr. Wheeler, Dr. David Cifu, Dr. Patrick Kochanek, SSG (Ret.) Spencer Milo, and *TBI-Focused Participants*
PH Topic Suicide Prevention Ms. Guman, MSG Tom Cruz, Dr. Tim Hoyt, Dr. Laura Neely, and *PH-Focused Participants*
 3:45 – 3:55 p.m. Break

Breakout Session 2

3:55 p.m. **TBI Topic** Screening/Prognosis/Diagnosis – Differences between Civilian and Military TBI (and Within Different Types of Military TBI) Mr. Wheeler, Mr. Charles Gatlin, Dr. Jessica Gill, Dr. Richard Shoge, and *TBI-Focused Participants*
PH Topic Prevention, Diagnosis, and Treatment of PTSD, Adjustment Disorders, Depression, and other Mental Health Disorders Ms. Guman, Dr. Ronda Renosky-Vittori, Dr. Curt West, Mr. Hector Matascastillo, and *PH-Focused Participants*
 5:10 p.m. Adjourn for the Day

Wednesday, 28 April 2021

9:30 – 10:00 a.m. Log in and Registration All Participants
 10:00 a.m. Welcome Back and Housekeeping Remarks Dr. Taliaferro and Mr. Wheeler
 10:10 a.m. Report Out from Day 1 Breakout Sessions Day 1 Breakout Session Leaders
 11:10 – 11:15 a.m. Break

Breakout Session 3

	TBI Topic	Interventions (Development) Addressing Both Acute & Chronic Care	Mr. Wheeler, Dr. Geoff Manley, Dr. Mike McCrea, Mr. Aemon Purser, and <i>TBI-Focused Participants</i>
11:15 a.m.			
	PH Topic	Sexual Assault and Harassment Prevention and Recovery	Ms. Elizabeth Guman, Dr. Lindsay Orchowski, Ms. Tanya Rogers, Dr. Andra Tharp, and <i>PH-Focused Participants</i>
12:30 – 12:40 p.m.		Break	

Breakout Session 4

	TBI Topic	Rehabilitation and Return to Duty	Mr. Wheeler, Dr. Emma Gregory, SFC (Ret.) Victor Medina, Dr. Cate Miller, Dr. Ross Zafonte, and <i>TBI-Focused Participants</i>
12:40 p.m.			
	PH Topic	Resilience Building and Family Well-Being	Ms. Guman, Ms. Brittany Boccher, Dr. Shelley MacDermid Wadsworth, Dr. Katharine Nassauer, and <i>PH-Focused Participants</i>
1:55 – 2:30 p.m.		Break	
2:30 p.m.		Report Out from Day 2 Breakout Sessions	Day 2 Breakout Session Leaders
3:30 p.m.		Concurrent Management of PH and TBI Research	Dr. Taliaferro and Mr. Wheeler
4:45 p.m.		Final Discussion and Next Steps	Dr. Taliaferro and Mr. Wheeler
5:00 p.m.		Adjourn	All Participants

Abbreviations

AFHSD	Armed Forces Health Surveillance Division
AFSP	American Foundation for Suicide Prevention
ASADRP	Alcohol and Substance Abuse Disease Research Program
B	Billion
CARE	Concussion Assessment, Research & Education
CCCRP	Combat Casualty Care Research Program
CDC	Centers for Disease Control and Prevention
CDMRP	Congressionally Directed Medical Research Programs
CPMRP	Chronic Pain Management Research Program
CRRM	Combat Readiness-Medical Research Program
CSI	Congressional Special Interest
CTE	Chronic Traumatic Encephalopathy
CVN	Cohen Veterans Network
DASD	Deputy Assistant Secretary of Defense
DHA	Defense Health Agency
DMRDP	Defense Medical Research and Development Program
DMSS	Defense Medical Surveillance System
DOD	Department of Defense
DSPO	Department of Defense Suicide Prevention Office
DVBIC	Defense and Veterans Brain Injury Center
ERP	Epilepsy Research Program
FIC	John E. Fogarty International Center
FITBIR	TBI Research Informatics System
FY	Fiscal Year
GWIRP	Gulf War Illness Research Program
HRP&O	Health Readiness Policy and Oversight (HRP&O)
HRRP	Hearing Restoration Research Program
InTBIR	International TBI Research
IOM	Institute of Medicine
JPC	Joint Program Committees
JWMRP	Joint Warfighter Medical Research Program
LIMBIC- CENC	Long-Term Impact of Military-Relevant Brain Injury Consortium-Chronic Effects of Neurotrauma Consortium
mmTBI	Mild to Moderate TBI
MOMRP	Military Operational Medicine Research Program
mTBI	Mild TBI
MTEC	Medical Technology Enterprise Consortium
NCAA	National Collegiate Athletic Association
NCATS	National Center for Advancing Translational Sciences

NCCIH	National Center for Complementary and Integrative Health
NCI	National Cancer Institute
NEI	National Eye Institute
NHLBI	National Heart, Lung, and Blood Institute
NIA	National Institute on Aging
NIAAA	National Institute on Alcohol Abuse and Alcoholism
NIAMS	National Institute of Arthritis and Musculoskeletal and Skin Diseases
NIBIB	National Institute of Biomedical Imaging and Bioengineering
NICHD	National Institute of Child Health and Human Development
NICoE	National Intrepid Center of Excellence
NIDA	National Institute on Drug Abuse
NIDCD	National Institute on Deafness and Other Communication Disorders
NIDCR	National Institute of Dental and Craniofacial Research
NIDDK	National Institute of Diabetes and Digestive and Kidney Diseases
NIDILRR	National Institute on Disability, Independent Living, and Rehabilitation Research
NIGMS	National Institute of General Medical Sciences
NIH	National Institutes of Health
NIMH	National Institute of Mental Health
NINDS	National Institute of Neurological Disorders and Stroke
NINR	National Institute of Nursing Research
NLM	National Library of Medicine
NMFA	National Military Family Association
NRAP	National Research Action Plan
OD	Office of the Director of the National Institutes of Health
ORD	Office of Research and Development
PH	Psychological Health
PH/TBIRP	Psychological Health and Traumatic Brain Injury Research Program
PHCoE	Psychological Health Center of Excellence
PI	Principal Investigator
PM&R	Department of Physical Medicine & Rehabilitation
PRARP	Peer Reviewed Alzheimer's Research Program
PRMRP	Peer Reviewed Medical Research Program
PTSD	Post-Traumatic Stress Disorder
RFI	Request for Information
RR&D	VA Rehabilitation Research & Development
SAPRO	Sexual Assault Prevention and Response Office
SBIR	Small Business Innovation Research
STTR	Small Business Technology Transfer
TBI	Traumatic Brain Injury
TBICoE	Traumatic Brain Injury Center of Excellence

TBIPHRP	Traumatic Brain Injury and Psychological Health Research Program
TED	TBI Endpoints Development
TMDS	Theater Medical Data Store
TRACK-TBI	Transforming Research and Clinical Knowledge in Traumatic Brain Injury
USAMMA	U.S. Army Medical Materiel Agency
USAMMDA	U.S. Army Medical Materiel Development Activity
USAMRAA	U.S. Army Medical Research Acquisition Activity
USAMRDC	U.S. Army Medical Research and Development Command
USU	Uniformed Services University of the Health Sciences
VA	U.S. Department of Veterans Affairs
VCU	Virginia Commonwealth University
VRP	Vision Research Program
WGRA	Workplace and Gender Relations Survey of Active-Duty Members
WRAIR	Walter Reed Army Institute of Research

Meeting Outcomes

Purpose

The Stakeholders Meeting is an opportunity to engage traumatic brain injury (TBI) and psychological health (PH) scientific, clinical, and military experts, as well as those living with these conditions, in an open-dialogue forum to identify critical issues and underfunded areas of TBI and PH research and care.

Stakeholder Participants

Representatives from TBI and PH non-profit organizations, academia, government institutions, and the public are invited to share broad perspectives on which initiatives have the greatest potential to propel the science forward, break down potential barriers in research and patient outcomes, address key knowledge or scientific gaps, and identify potential approaches for the treatment of TBI and PH.

Key Meeting Activities

- Presentations from various organizations conducting or participating in TBI and PH research and care.
- Participate in focused breakout sessions to discuss current states, desired future states, and gaps in specific areas of TBI and PH research and care.
- Identify research gaps in specific areas of TBI and PH research.
- Discuss concurrent management strategies for TBI and PH research endeavors.

Outcomes

- Prioritized gaps for TBI and PH research and care to inform programmatic direction and future funding opportunities.

Guidelines for Discussion

- Everyone participate; no one dominate
- Listen to understand
- Use “I” statements
- One speaker at a time
- Disagree without being disagreeable
- Share your unique perspective
- Stay open to new ways of doing things
- All ideas are valid
- Critique ideas, not people
- Respect each other’s thinking and value their contributions
- Treat everything you hear as an opportunity to learn and grow
- Staying on schedule is everyone’s responsibility; honor time limits
- State your “headline” first, then the supporting information as necessary
- Be brief and meaningful when voicing your opinion
- Listen with care instead of “building your story”
- Participate 100%
- Seek common ground and understanding (not problems and conflict)
- Stay out of the weeds

Tips for Teleconferences/Virtual Meetings

- Always introduce yourself prior to speaking
- Use mute when not speaking
- Utilize chat for technical support when available

Overview: CDMRP History

The Congressionally Directed Medical Research Programs (CDMRP) is a global funding organization located under the Department of Defense (DOD) U.S. Army Futures Command and within U.S. Army Medical Research and Development Command (USAMRDC). The CDMRP responsibly manages research that discovers, develops, and delivers health care solutions for Service Members, Veterans, and the American public. The CDMRP originated in fiscal year 1992 (FY92) when the U.S. Congress first appropriated funds to the DOD for breast cancer research.

Since its first appropriation in FY92, the CDMRP has grown to 37 programs in FY21 and has been responsible for managing more than \$15.94 billion (B) in appropriations. The CDMRP implements the investment of congressionally directed dollars provided to fund groundbreaking, high-impact, meritorious research that targets critical gaps in healthcare. These funds are not requested by the DOD; they are added to the DOD budget by the U.S. Congress with specific research areas and guidance as defined by the congressional language. In addition, the CDMRP provides support as requested for the management of Defense Health Program core dollars directed at both intramural and extramural military medical research portfolio areas.

Program Cycle

To ensure that each program's research portfolio reflects not only the most meritorious science, but also the most programmatically relevant research, the CDMRP developed a two-tier model based upon recommendations from a 1993 Institute of Medicine (IOM) report.¹ The IOM (now the National Academy of Medicine) recommended a two-step review procedure for research applications that was composed of a scientific peer review and a separate programmatic review (Figure 1). The scientific peer review is conducted by an external panel that is recruited specifically for each peer review session. Peer review involves the expertise of scientists, clinicians, military members, and consumers (patient advocates). Each application is judged on its own scientific and technical merit with respect to the described criteria in the funding opportunity solicitation. The second tier of review is conducted by a Programmatic Panel and includes discussions by experts in the field. These experts, which include scientists, clinicians, consumers, and members of the military, assess the applications based on the scientific peer review ratings and summaries, a balanced portfolio, programmatic intent, and scientific merit. Scientifically sound applications that best meet the program's interests and goals are recommended for funding by the Programmatic Panel. Once approval is received for the funding recommendations, awards are made and assigned to Science Officers for full-cycle support of research and outcomes.

¹ Institute of Medicine (US) Committee to Review the Department of Defense's Breast Cancer Research Program. A Review of the Department of Defense's Program for Breast Cancer Research. Washington (DC): National Academies Press (US); 1997. 1, Introduction. Available from: <https://www.ncbi.nlm.nih.gov/books/NBK233671/>

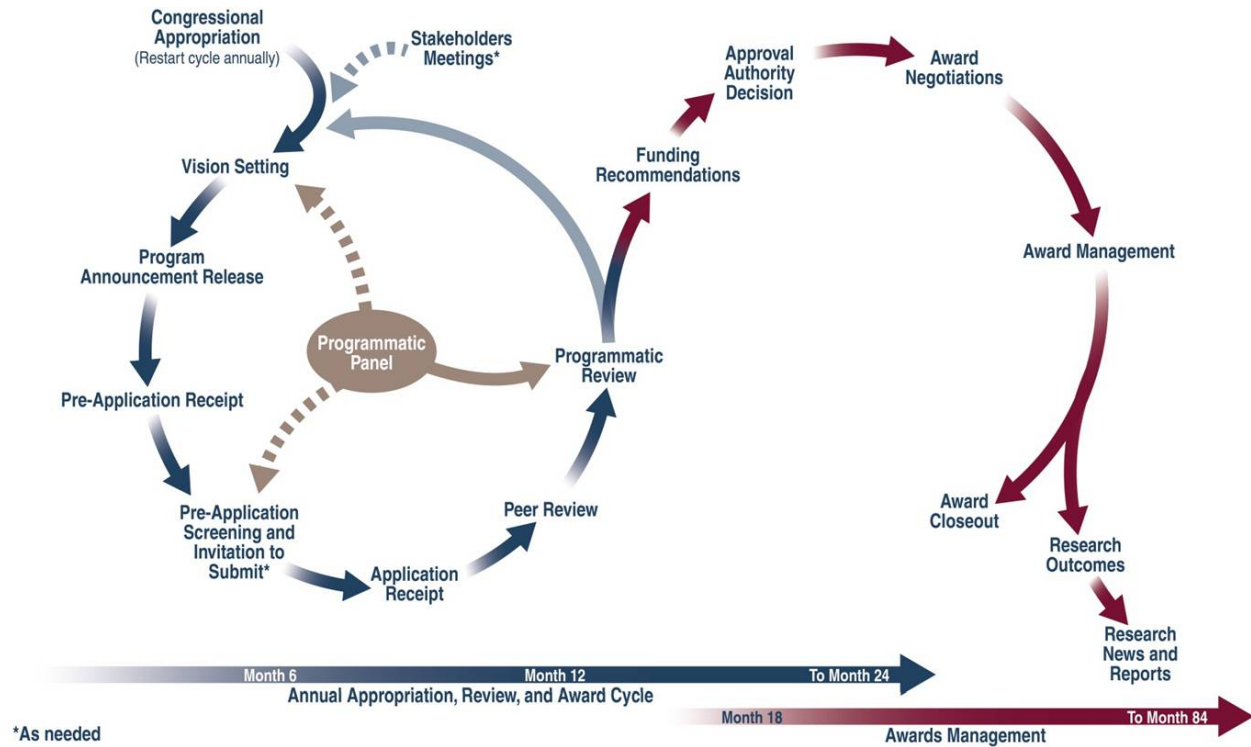


Figure 1. CDMRP Annual Program Cycle.

Consumer Involvement

A unique hallmark of the CDMRP is the inclusion of consumers in our programmatic cycles. Consumers may be a patient, survivor, family member, or caregiver of people living with a disease, injury, or condition funded by a CDMRP program. Consumer Reviewers participate as full voting members in both peer review and programmatic review. Participation of consumers leads to an expanded perspective by both scientists and consumers. Consumers keep the needs of the consumer community at the forefront of scientific discussions and scientists are reminded of the human dimension of the disease. There is improved understanding of the benefits and burdens imposed upon patients participating in research studies. Consumers bring back hope for a cure, better treatment, or quality of life for those living with their disease/injury/condition generated by their participation and understanding of the focus of the research that might be funded. This results in increased awareness by consumers of the importance of research and a stronger relationship between the scientific community and the consumer community.

CDMRP Spectrum of Research

The CDMRP funds research across a wide spectrum of development, from initial concepts through clinical trials. The CDMRP also allows Principal Investigators (PIs) to be named at many stages in their careers, from trainees through established, senior researchers at a wide variety of institutions. The examples provided in Figure 2 are not prescriptive nor exhaustive. Award mechanisms may be customized for a specific research program or created for a specific intent when necessary.

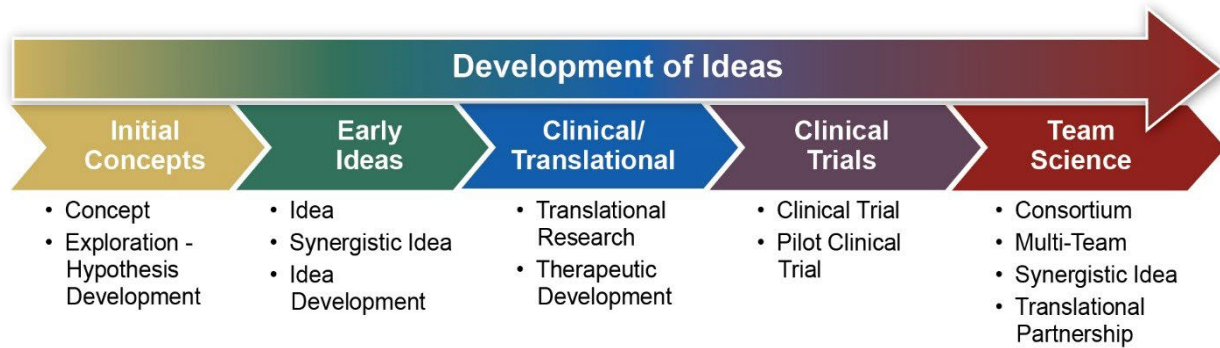


Figure 2. Examples of CDMRP Funding Opportunities and Maturity of Research.

Overview: Traumatic Brain Injury (TBI) and Psychological Health (PH) Background

History

The U.S. Congress appropriated funds for TBI and PH medical research in FY07 in response to the PH issues and TBIs sustained by U.S. Service Members in Iraq and Afghanistan. The initial FY07 appropriation was assigned to the CDMRP for management. There was no appropriation in FY08. From FY09-FY20, a modified management model was employed. Programmatic oversight was provided by the USAMRDC-based research program areas aligned with the Defense Health Agency, Research and Development Directorate's (J-9) Joint Program Committees (JPCs) for Military Operational Medicine (JPC-5), Combat Causality Care (JPC-6), and Clinical and Rehabilitative Medicine (JPC-8).

From FY07 and FY09-FY20, congressional appropriations were executed as the Psychological Health and Traumatic Brain Injury Research Program (PH/TBIRP). The CDMRP worked in partnership with the JPCs to provide operational execution management support as requested for the PH/TBIRP, including program announcement development, application solicitation and review, and award management.²

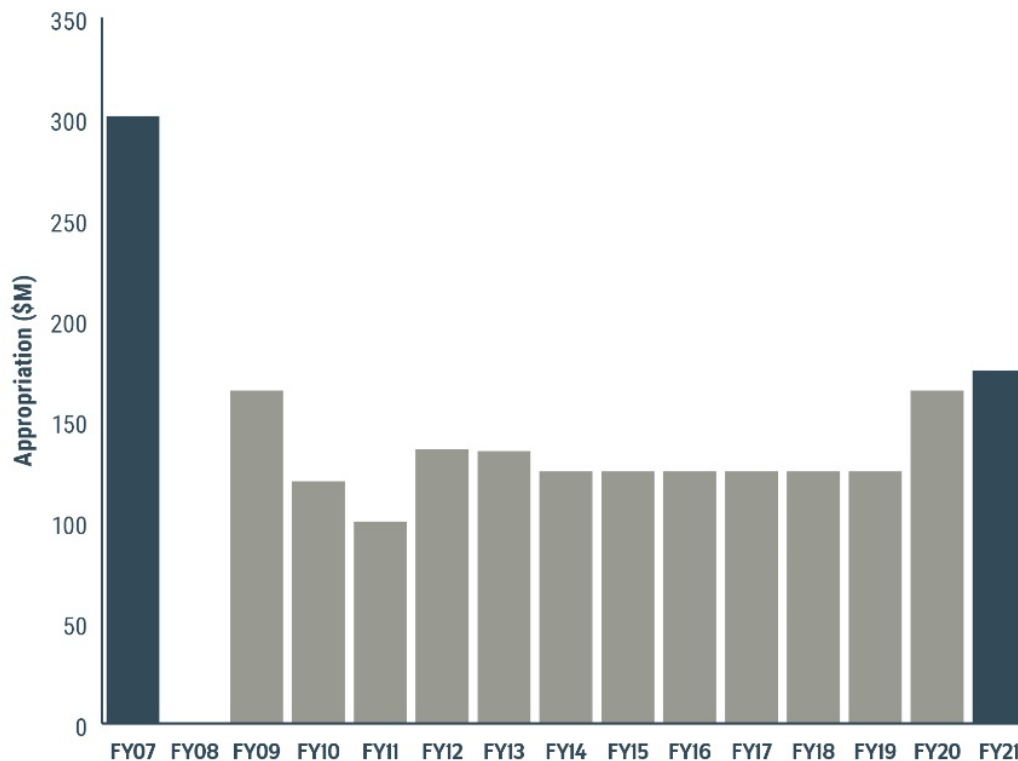


Figure 3. Congressional Appropriations for TBI and PH Research, CDMRP-Managed Appropriations in dark blue (FY07 and FY21).

² The CDMRP will continue to provide award management support for PH/TBIRP awards until their completion.

FY21 Traumatic Brain Injury and Psychological Health Research Program (TBIPHRP)

In FY21, the TBIPHRP was assigned to the CDMRP for management. The CDMRP will execute the program as the Traumatic Brain Injury and Psychological Health Research Program and provide full program cycle support, including the development of program announcements, solicitation and review of applications, management of awards, and program evaluation/planning. A two-tier model of peer and programmatic review will be utilized to ensure high quality research is funded as part of a balanced portfolio of project across the TBI and PH spectrum. Program scope includes the prevention, diagnosis, treatment, and rehabilitation of TBI and PH and spans the research spectrum to include basic, applied, and clinical research.

FY21 Congressional Language

With each appropriation, the U.S. Congress can provide guidance in the form of conference reports or explanatory statements to identify a program's scope and research areas for consideration. More detail regarding the scope of the TBIPHRP is provided below.

TBIPHRP Scope

Since the first appropriation, the program has been focused on promoting a better standard of care for psychological health and TBI in the areas of prevention, detection, diagnosis, treatment, and rehabilitation. Below are congressional language excerpts to illustrate the scope of the program.

FY09 House of Representatives Explanatory Statement for the Consolidated Security, Disaster Assistance, and Continuing Appropriations Act

Traumatic brain injury (TBI) and psychological health issues have emerged as a significant cause of death to the Warfighters in Iraq and Afghanistan. Whether mild, moderate or severe brain injury, the level of assessment and standard of care provided to the Warfighter is in need of enhancement. Diagnosis, treatment, and rehabilitation must be at a level to ensure the best possible outcome. To this end, the bill [...] address[es] all levels of brain injury and psychological health issues that Service Members and their families have experienced during the Global War on Terror.

FY21 Senate Explanatory Statement for the DOD Appropriations Bill

The Committee recommends \$70,000,000 above the fiscal year 2021 request for continued research into treatment, prevention, and detection of Traumatic Brain Injury [TBI] and improved psychological health.

TBIPHRP Research Areas for Consideration

FY21 House of Representatives Report 116-453

The Committee encourages the Assistant Secretary of Defense (Health Affairs) to collaborate with research institutions currently investigating treatment strategies for PTSD resulting from sexual trauma.

The Committee encourages the Assistant Secretary of Defense (Health Affairs) to continue to leverage partnerships with academia and the private sector to support long-term studies of traumatic brain injuries to gain a deeper understanding of concussive injuries, including how they impact the brain, how and to what extent the brain recovers, and how prevention and treatment methods may be improved.

The Committee [...] encourages the Assistant Secretary of Defense (Health Affairs) to continue to invest in research and development efforts aimed at halting the neurodegenerative processes that follow traumatic brain injury.

FY21 Senate Report 116-236

The committee therefore encourages the Secretary of Defense to support the basic research required to develop and field acute TBI diagnostic capabilities as quickly as possible, to include multi-modal research models focused on medical imaging, molecular biomarkers, and biophysical sensors, among other diagnostic capabilities.

The committee supports continuing research into mmTBI [mild to moderate TBI] treatments for the hundreds of thousands of Service Members diagnosed with this illness. Therefore, the committee encourages the Department of Defense to pursue additional clinical trials with non-implanted neurostimulation devices to treat mmTBI.

FY21 Senate Explanatory Statement for the DOD Appropriations Bill

The Committee is aware of recent medical advances in drug development for neurodegenerative diseases and encourages the Department to further its research into developing drugs that reverse, halt, or slow the neurodegenerative process associated with TBI [...]

The Committee [...] encourages the Department to continue to work with and support research at non-Department of Defense entities that have developed and proposed rotational impact test methodologies to provide enhanced protection solutions.

The Committee encourages the Department to continue research into and deployment of mTBI/concussion multi-modal diagnostic devices that have been cleared by the Food and Drug Administration.

[...] the Committee encourages the Department to support research to develop biomarkers useful in diagnosing and monitoring TBI patients with chronic migraine or post-traumatic headache.

TBI and PH Funding Snapshot

National Research Action Plan³

To address unmet needs and gaps in research and care, as well as to prevent duplication of support with federal funds, efforts previously funded by federal agencies (e.g., DOD, National Institutes of Health [NIH], U.S. Department of Veterans Affairs [VA]) were compiled to create a funding snapshot. This data includes publicly available information, sometimes in the form of estimates, and is not suitable for audit. Additionally, the Departments of Defense, Education, Health and Human Services, and Veterans Affairs developed and participate in the National Research Action Plan (NRAP), a 10-year blueprint for interagency research to enhance the diagnosis, prevention, and treatment of post-traumatic stress disorder (PTSD) and TBI, and to improve suicide prevention. Part of this plan includes a unified research continuum as a common framework to organize and track research progress within and between federal agencies. The NRAP research continuum categories include Foundational Science, Epidemiology, Etiology, Prevention and Screening, Treatment, Follow-Up Care, and Services Research.

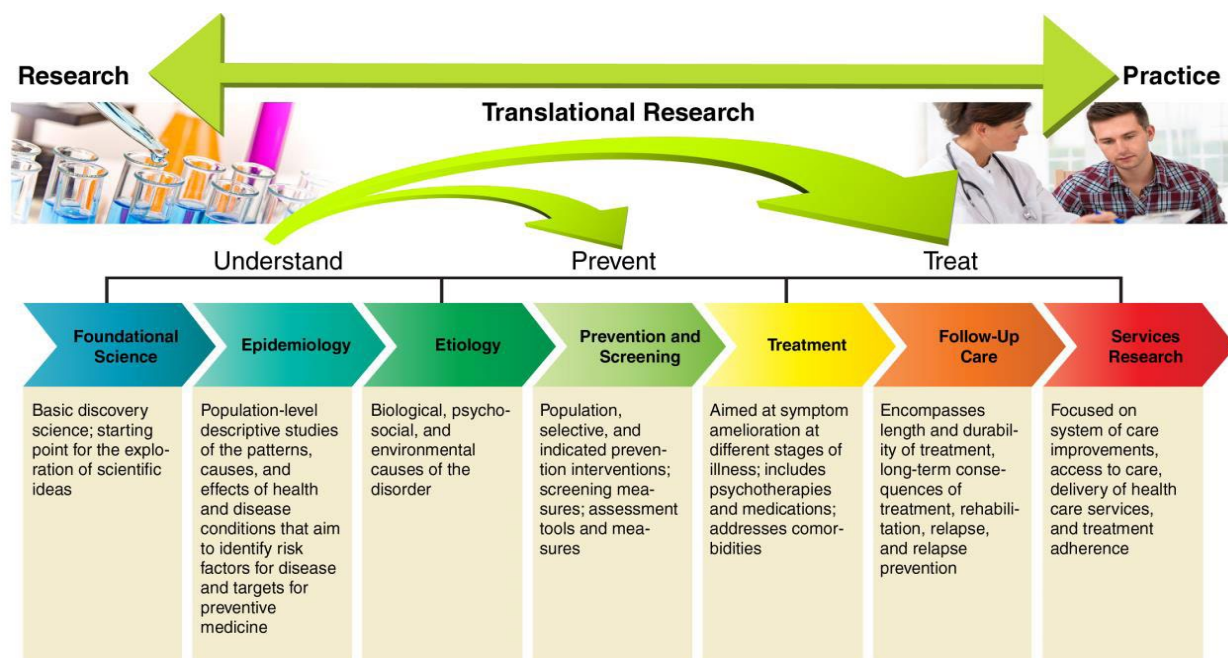


Figure 4. NRAP Research Continuum Categories.³

³ National Research Action Plan: Responding to the Executive Order *Improving Access to Mental Health Services for Veterans, Service Members, and Military Families* (August 31, 2012). https://obamawhitehouse.archives.gov/sites/default/files/uploads/nrap_for_eo_on_mental_health_august_2_013.pdf

Traumatic Brain Injury

The VA and DOD define TBI as a traumatically induced structural injury or physiological disruption of brain function as the result of an external force.⁴ TBI is currently classified according to severity: mild, moderate, severe, or penetrating.

- The TBI Center of Excellence reports that Service Members have sustained over 430,000 TBI injuries worldwide over the last 20 years.⁵ The majority of these injuries are classified as mild.
- Approximately 10%-20% of Service Members experience persistent systems (e.g., headache, fatigue, insomnia, cognitive issues) for months to years after the initial injury.
- It is unclear if single or multiple TBIs or sub-injury head impact exposures can initiate neurodegenerative processes.

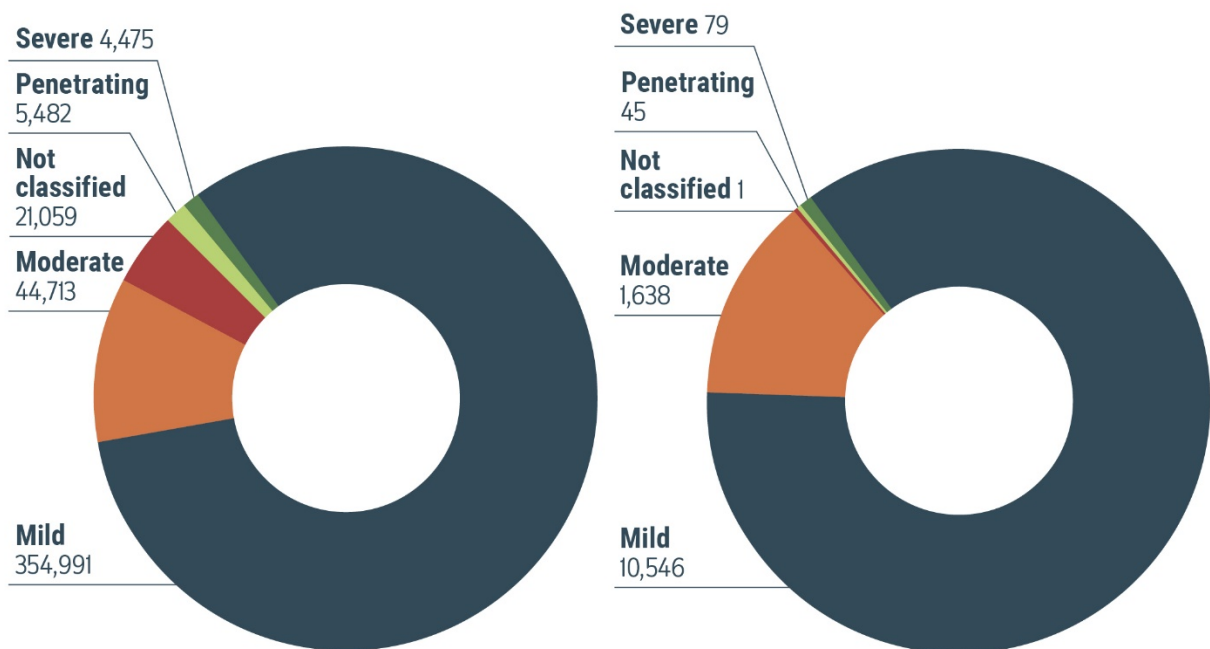


Figure 5. Total TBI Incidence Worldwide by Severity in DOD During 2000-2020 (left) and First Three Quarters of 2020 (right).⁶

⁴ Management of Concussion-Mild Traumatic Brain Injury (mTBI)
<https://www.healthquality.va.gov/guidelines/Rehab/mtbi/mTBICPGFullCPG50821816.pdf>

⁵ Year 2000 through third quarter of 2020.

⁶ TBICoE sources: Defense Medical Surveillance System (DMSS). Theater Medical Data Store (TMDS) provided by the Armed Forces Health Surveillance Division (AFHSD).

TBI Research Managed by CDMRP

TBI research has been funded by the DOD Defense Health Program Core and Congressional Special Interest (CSI) Medical Research Programs and managed by the CDMRP as part of multiple research programs. The CDMRP does not manage all awards funded through DMRDP, JWMP, MTEC, PHTBIRP, or SBIR.

- Alcohol and Substance Abuse Disease Research Program (ASADRP)
- Chronic Pain Management Research Program (CPMRP)
- Combat Readiness-Medical Research Program (CRRP)
- Defense Medical Research and Development Program (DMRDP)
- Epilepsy Research Program (ERP)
- Hearing Restoration Research Program (HRRP)
- Joint Warfighter Medical Research Program (JWMP)
- Medical Technology Enterprise Consortium (MTEC)
- Peer Reviewed Alzheimer’s Research Program (PRARP)
- Peer Reviewed Medical Research Program (PRMRP)
- Psychological Health and Traumatic Brain Injury Research Program (PHTBIRP)
- Small Business Innovation Research (SBIR) Program
- Vision Research Program (VRP)

From FY14-FY19, the CDMRP managed 299 TBI-focused awards totaling \$470M. Investment by the NRAP research continuum category, research program, TBI type, and type of research are illustrated below. *It should be noted that the data presented may not be a complete representation of the CDMRP’s traumatic brain injury portfolio and may not be used for audit purposes.*

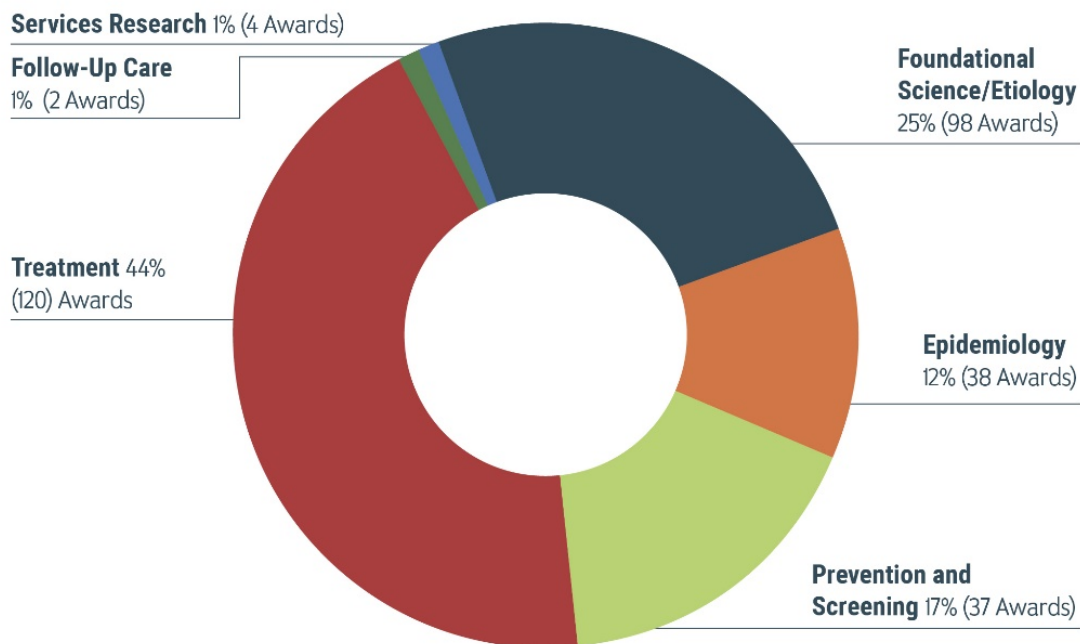


Figure 6. CDMRP-Managed TBI Awards: Funding per NRAP Research Continuum Category (by Percent Investment, Number of Awards).

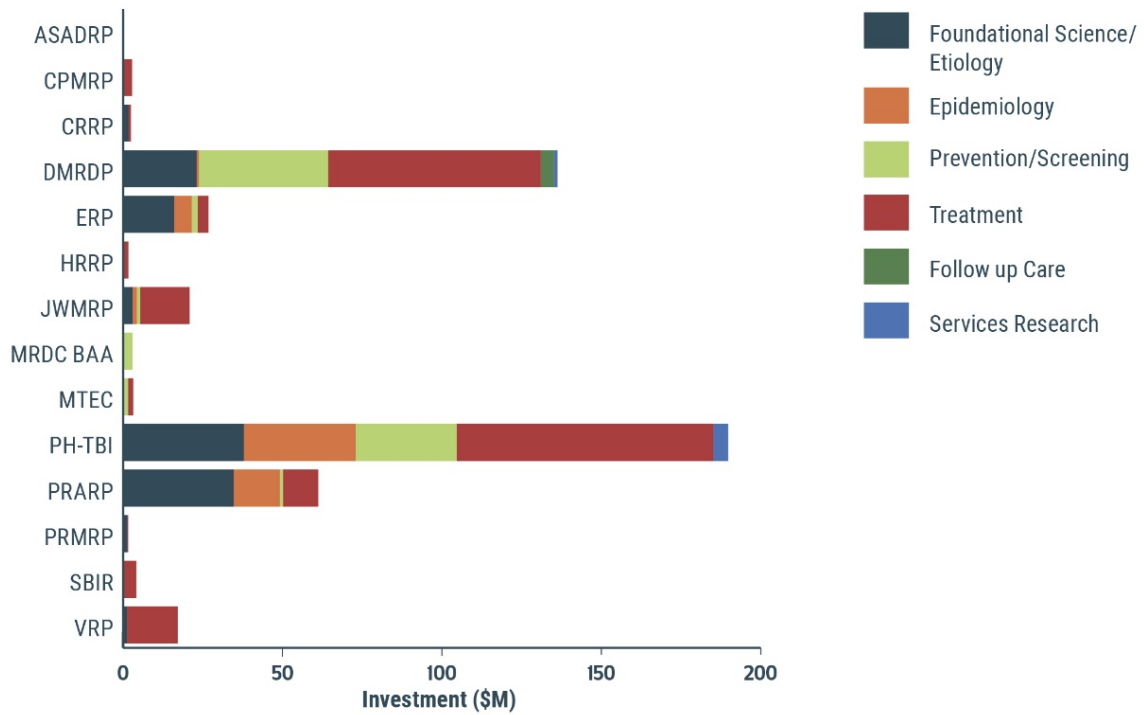


Figure 7. CDMRP-Managed TBI Awards: Funding per NRAP Research Continuum Category by Research Program.

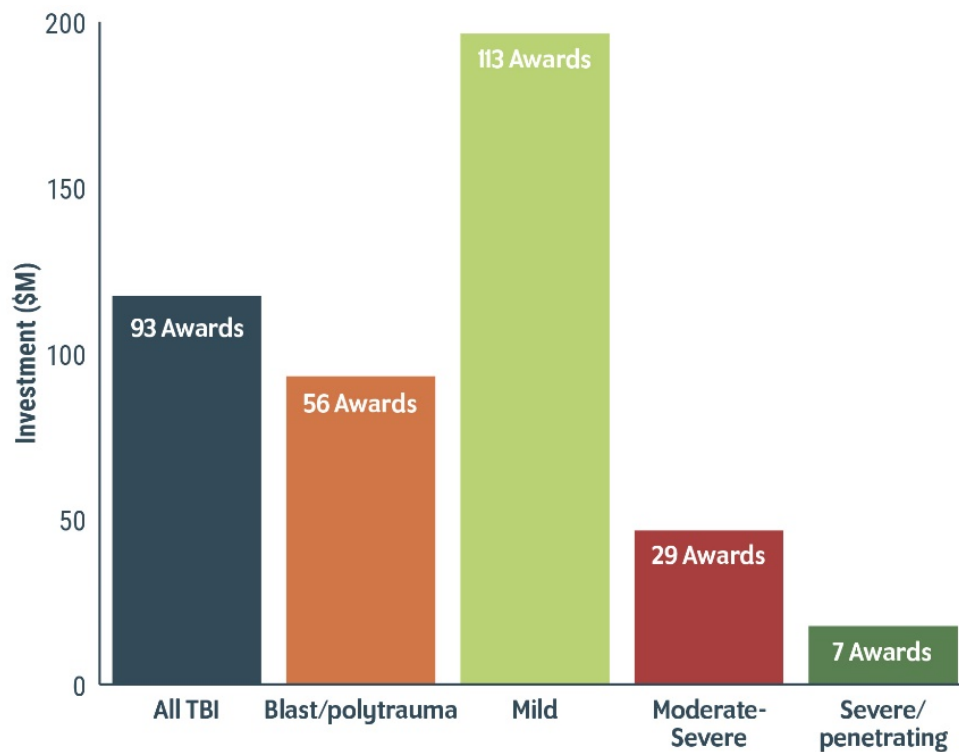


Figure 8. CDMRP-Managed TBI Awards: Funding per TBI Type.

The CDMRP manages awards in a variety of TBI research areas as shown in Figure 9. These areas include the following specific topics.

- Acute TBI Management
 - Emergency/point-of-injury care
 - Hemodynamics
- Blast, Trauma, and Injury Modeling
 - Modeling, blast modeling, or other TBI-related modeling studies
- Brain Health/Function
 - Functionality, structure, mechanism, systems, and physiological consequences of brain tissue after TBI
 - Measure/evaluate, facilitate, and/or rehabilitate cognitive function after TBI
- Other
 - Quality of life
 - Locomotion/movement
 - Pain
 - Other studies (clinical resources, unable to classify)
- Psychological Health (PH)
 - PTSD, depression, anxiety, adjustment disorder, etc., either occurring with a TBI or impacting military Service
- Sensory
 - Auditory, visual, vestibular, or combination

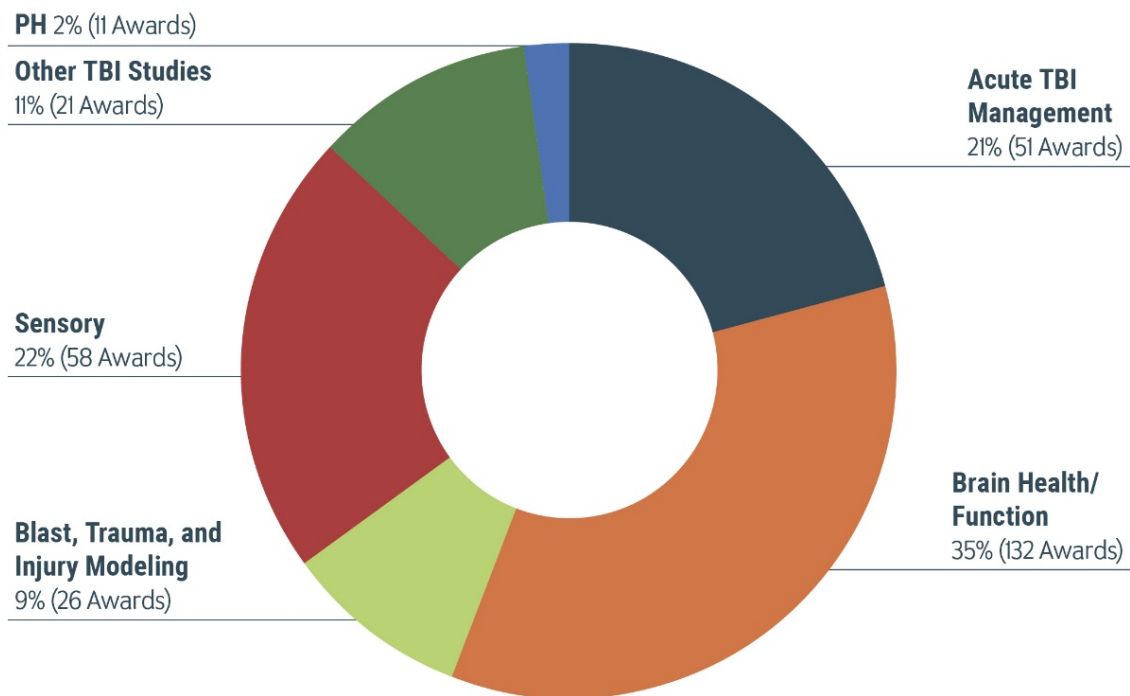


Figure 9. CDMRP-Managed TBI Awards: Funding per TBI Research Area (by Percent Investment, Number of Awards).

TBI Research Managed by NIH

The National Institute of Neurological Diseases and Stroke (NINDS) provided data on the TBI portfolio at NIH. The FY14-FY19 NIH TBI investment totaled \$668M and 1,689 awards. The award distribution by NRAP research continuum category, NIH institute, and TBI severity are below. *It should be noted that the data presented below is approximate and may not be an accurate representation of the NIH's traumatic brain injury portfolio and may not be used for audit purposes.*

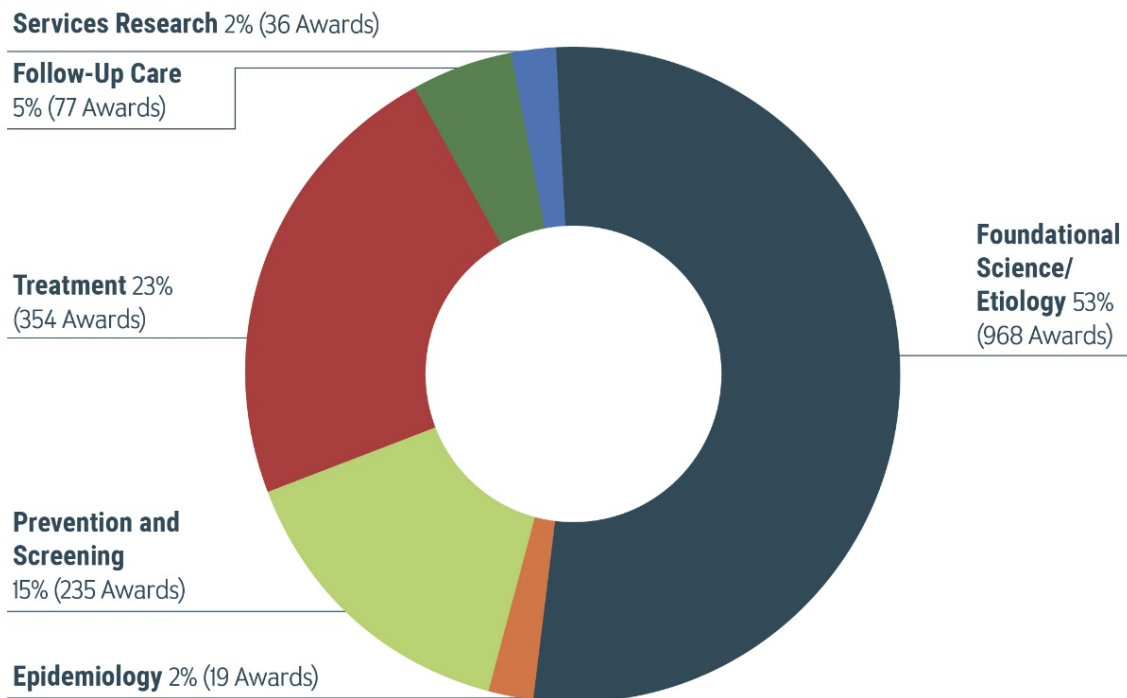


Figure 10. NIH-Managed TBI Awards: Funding per NRAP Research Continuum Category (by Percent Investment, Number of Awards).

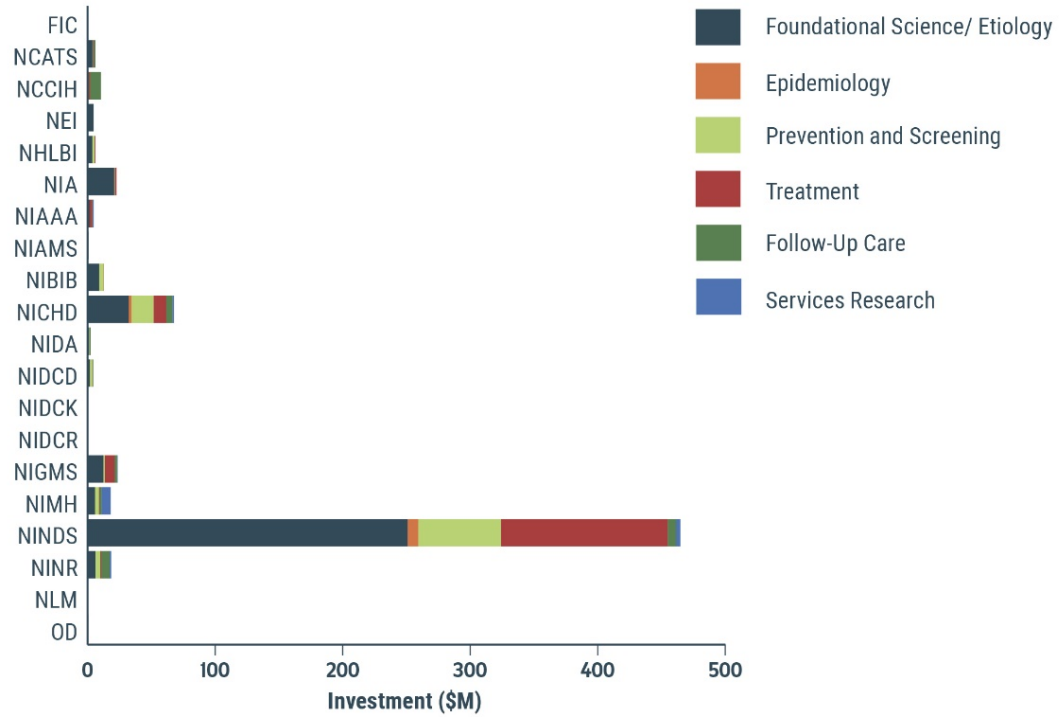


Figure 11. NIH-Managed TBI Awards: Funding per NRAP Research Continuum Category by NIH Institute.

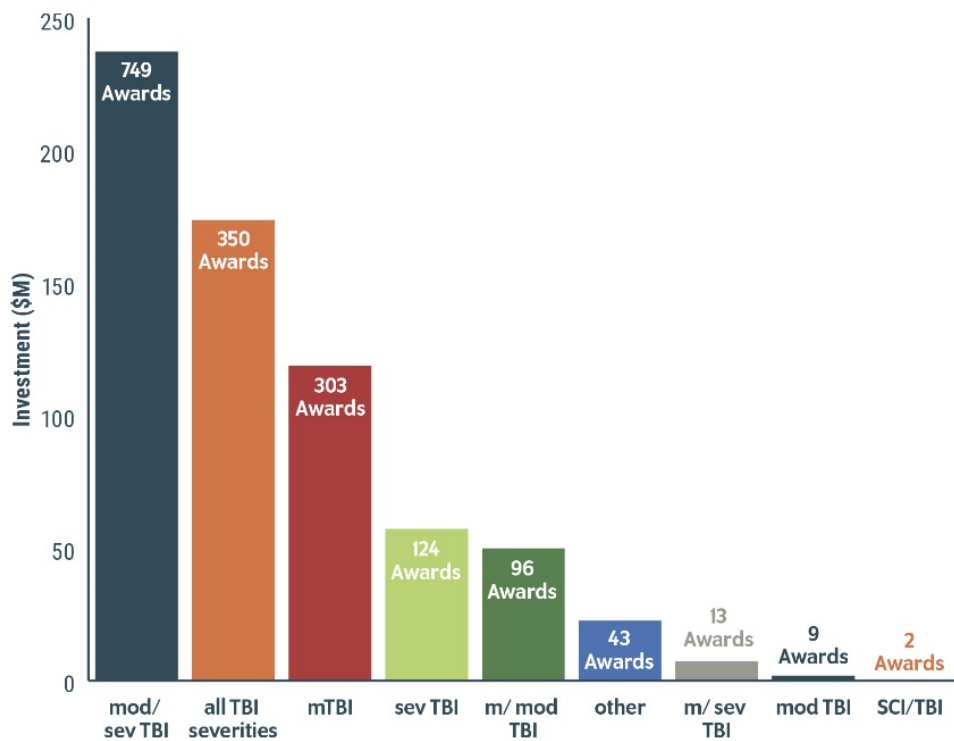


Figure 12. NIH-Managed TBI Awards: Funding per TBI Type.

Psychological Health

Psychological or mental health implies the absence of psychological dysfunction and the ability to positively manage stressors. The Military Health System (MHS) states that psychological health⁷ “encompasses the well-being of mind, body and spirit and contributes to overall health and resilience.” Accordingly, psychological health research and care focus on a multitude of experiences, symptoms, and conditions that inhibit healthy mental functioning and behaviors.

Mental Health Disorders

The most recent data available from the Psychological Health Center of Excellence (PHCoE) on the prevalence of mental health disorders is from 2017.⁸ Across all Services, the prevalence of any mental health condition was 203,040 or 13.8%. The prevalence among specific mental health conditions is illustrated in the graph below.

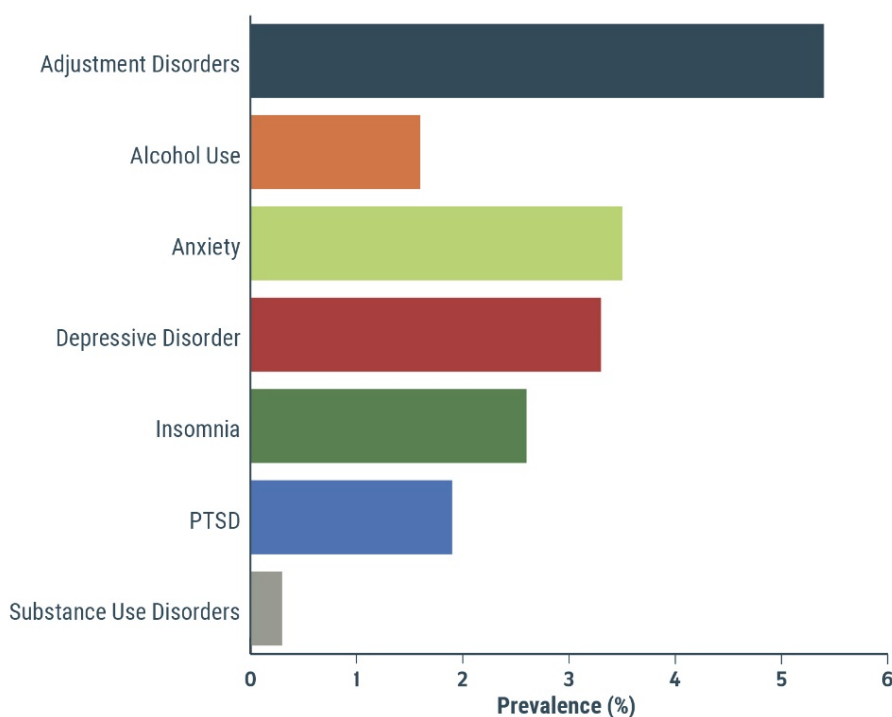


Figure 13. Relative Prevalence of Diagnosed Mental Health Disorders
Among Active-Duty Service Members.

The PHCoE presented data on follow-up care of in-patient discharges among active-duty Service Members across the entire MHS in FY15. Of the discharges eligible for follow-up

⁷ <https://health.mil/Military-Health-Topics/Conditions-and-Treatments/Mental-Health?type=Policies>

⁸ Psychological Health Center of Excellence. 2019. Psychological Health by the Numbers: Mental Health Disorder Prevalence and Incidence among Active Duty Service Members, 2005–2017. Available at: <https://www.pdhealth.mil/research-analytics/psychological-health-numbers/mental-health-disorder-prevalence-and-incidence>.

care within 7 days, 84% received proper follow-up care. Of the discharges eligible for follow-up between 8-30 days, 50% received proper follow-up care.

Multiple reports suggest that TBI is a risk factor for psychological health conditions. A 2020 analysis⁹ of electronic health record data from 40,000 active-duty Service Members found that 17% were diagnosed with a psychological health condition (e.g., PTSD, depression, or substance abuse) within one year of sustaining a mild TBI.

Table 1. Adjusted Odds Ratios for Mental Health Outcome-Associated Categories, TBI vs. No TBI.¹⁰

	Adjusted Odds Ratio	95% CI	p
PTSD	1.35	1.18–1.54	< 0.001
Adjustment	1.39	1.21–1.58	< 0.001
Anxiety	1.27	1.11–1.45	0.001
Cognitive	3.24	2.78–3.77	< 0.001
Mood	1.40	1.22–1.66	< 0.001
Schizophrenia/Psychotic	1.07	0.71–1.61	0.74

Suicide

Suicide is the tenth leading cause of death in the United States¹¹. Suicide is defined by the National Institute of Mental Health (NIMH)¹² as “death caused by self-directed injurious behavior with intent to die as a result of the behavior” and a suicide attempt is defined as a “nonfatal, self-directed, potentially injurious behavior with intent to die as a result of the behavior.” According to the 2018 Department of Defense Suicide Event Report¹³, there were 325 deaths by suicide identified among active-duty Service Members. The suicide mortality rate among active-duty Service Members was 24.8 deaths per 100,000 population. The rate was 3.7 times higher in males (22.8 per 100,000) than females (6.2 per 100,000). After adjusting for age and sex differences between the military and general adult populations, the suicide mortality rate among active-duty Service Members in 2018 was similar to the U.S. national rate. The same held true for Reservists, but suicide mortality rates for National Guardsmen were higher than the U.S. national rate even after these adjustments. Across the Services, only the Marine Corps showed a significant increase in 2018 compared to rates during 2015-2017.

⁹ Kasuske LM, Hoover P, Wu T, et al. 2021. Burden of behavioral health comorbidities on outpatient health care utilization by active duty Service Members with a first documented mTBI. *Mil Med* 186(Suppl 1):567-571. doi: 10.1093/milmed/usaa320. PMID: 33499506.

¹⁰ Chin DL and Zeber JE. 2020. Mental health outcomes among military Service Members after severe injury in combat and TBI. *Military Medicine* 185(5-6):e711-e718.

¹¹ <https://www.cdc.gov/suicide/index.html>

¹² <https://www.nimh.nih.gov/health/statistics/suicide.shtml>

¹³ Tucker J, Smolenski DJ, and Kennedy CH. 2018. *The Calendar Year 2018 DoDSER Annual Report*. Available at: <https://www.pdhealth.mil/research-analytics/departement-defense-suicide-event-report-dodser>

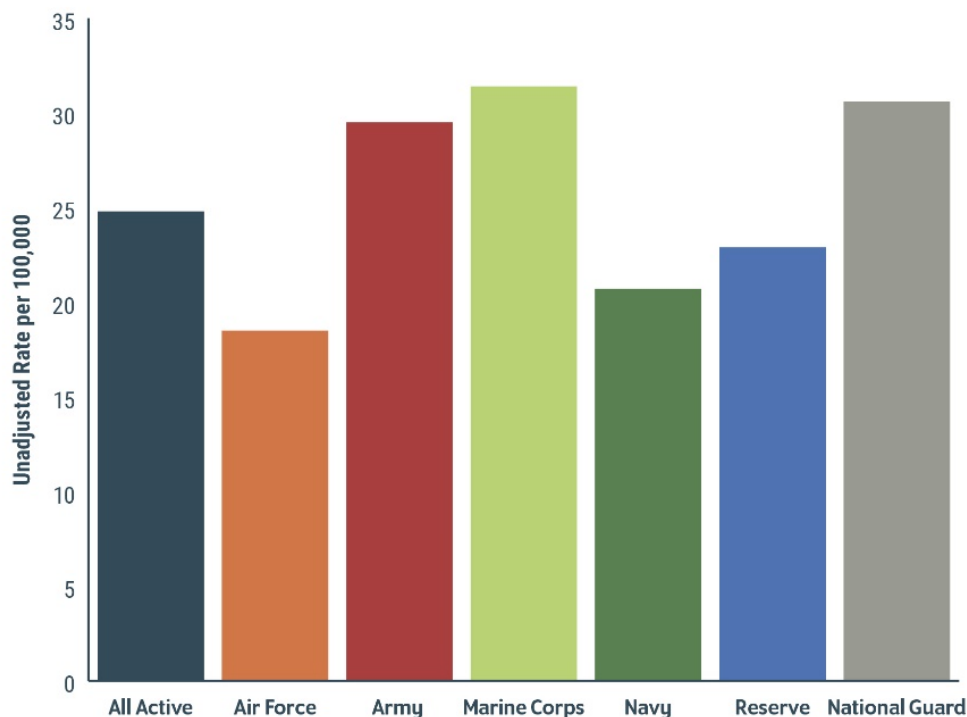


Figure 14. 2018 Suicide Mortality Rates per Service and Component (values per 100,000 individuals).

Sexual Assault and Harassment

As defined by DOD Directive 6495.01, sexual assault is intentional sexual contact characterized by use of force, threats, intimidation, or abuse of authority or when the victim does not or cannot consent. DOD Instruction 1020.04 defines sexual harassment as unlawful discriminatory harassment that is based on conduct of a sexual nature. It involves unwelcome sexual advances, requests for sexual favors, or other verbal or physical conduct of a sexual nature. The DOD proactively strives to create and maintain a culture of trust, respect, and inclusion within the force, and to encourage greater reporting, and stop sexual assault before it occurs.

The *Workplace and Gender Relations Survey of Active-Duty Members (WGRA)* is administered in even-numbered fiscal years (e.g., FY16, FY18).¹⁴ Estimated sexual harassment and other forms of misconduct increased for both active-duty women (24.2%) and men (6.3%) in FY18 compared to FY16 (21.4% and 5.7%, respectively).

In FY19, the military services received 7,825 reports of sexual assault involving Service Members as either victims or subjects, an increase of 3% from FY18.¹⁴

¹⁴ Department of Defense Fiscal Year 2019 Annual Report on Sexual Assault in the Military.

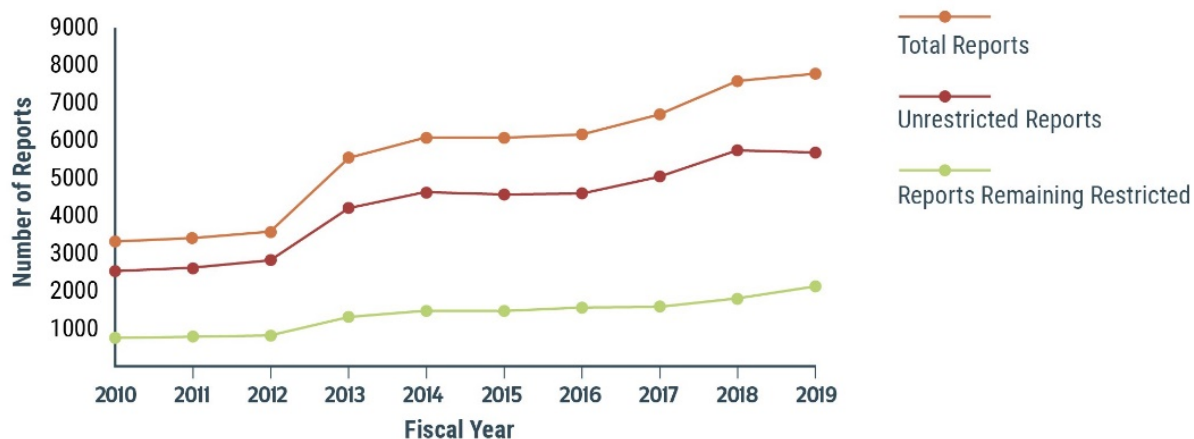


Figure 15. Reports of Sexual Assault to Military Services, FY10-FY19.¹⁴

Table 2. Sexual Assault Reports by Victim and Military Status, FY19.¹⁴

	Unrestricted Reports	Restricted Reports	Total Reports
Total Reports of Sexual Assault	5,699	2,126	7,825
Reports Made by Service Members	4,814	2,074	6,888
Reports Made by Non-Service Members	872	50	922
DOD Civilian	44	5	49
DOD Contractor	9	0	9
Other U.S. Civilian	763	45	808
Foreign National/Military	56	0	56
Data Not Available	13	2	15
Service Member Reports for Incidents that Occurred <i>Prior</i> to Military Service	299	353	652
Service Member Reports for Incidents that Occurred <i>During</i> Military Service	4,515	1,721	6,236

Psychological Resilience and Family Well-Being

Joint Chiefs of Staff Instruction 3405.01 defines resilience as the ability to withstand, recover, grow and adapt under challenging circumstances. Without resilience, Service Members and their families are at greater risk for psychological stress. The Air Force defines family resilience as a sense of community among families along with an awareness of community resources, feeling prepared/supported during all stages of deployment, and

an increased sense of unit, family, and child/youth support.¹⁵ Because the well-being of Service Members and their families are interrelated, building a resilient Service Member and family contributes to a more ready force.

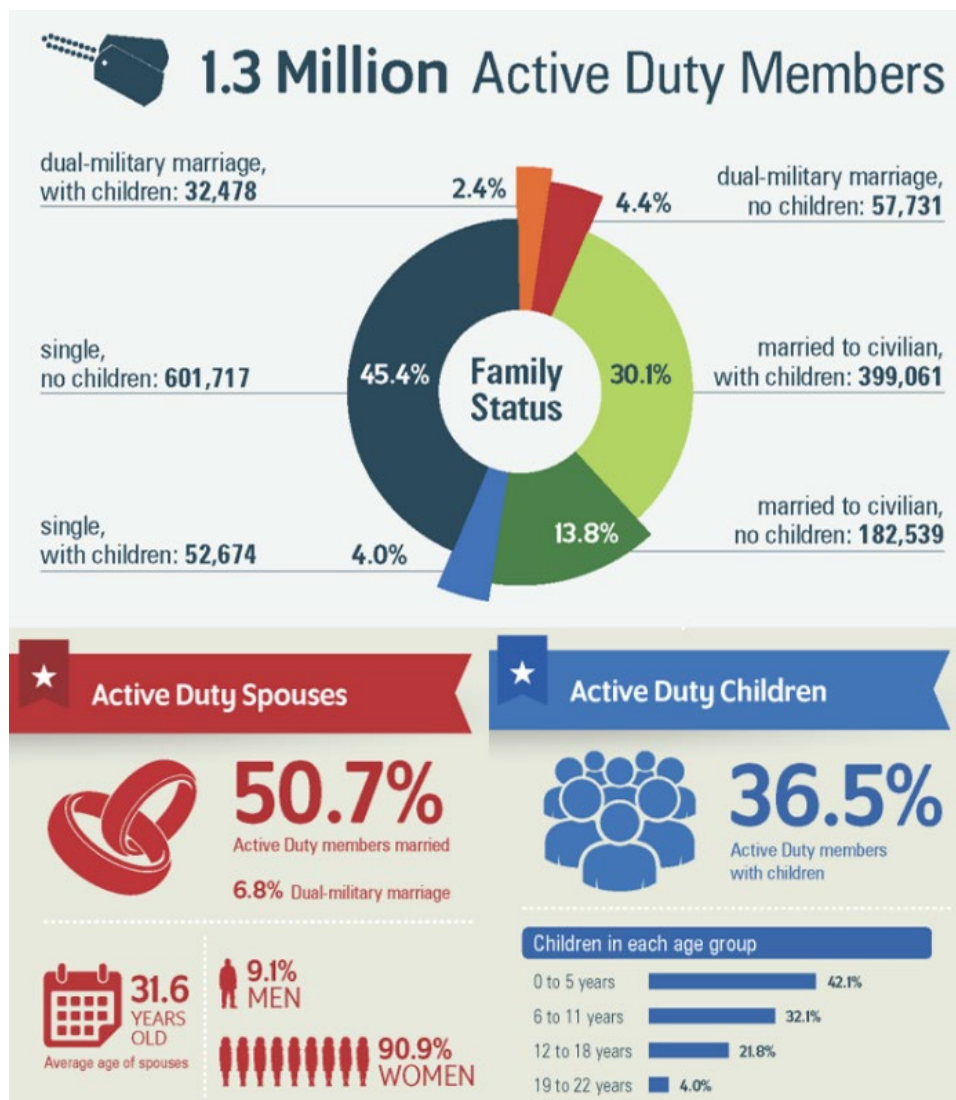


Figure 16. Demographic Profile of Active-Duty Families (above), Including Spouses (lower left) and Children (lower right).¹⁶

¹⁵ Jones DD. 2021. "Hearing to Examine Current Status of Suicide Prevention," testimony submitted for the Subcommittee on Military Personnel, Committee on Armed Services.

¹⁶ 2019 Demographics Profile of the Military Community (Department of Defense). <https://www.militaryonesource.mil/data-research-and-statistics/military-community-demographics/2019-demographics-profile/>

Psychological Health Research Managed by CDMRP

PH research has been funded by the DOD Defense Health Program Core and Congressional Special Interest (CSI) Medical Research Programs and managed by the CDMRP as part of several research programs¹⁷:

- Alcohol and Substance Abuse Disease Research Program (ASADRP)
- Defense Medical Research and Development Program (DMRDP)
- Gulf War Illness Research Program (GWIRP)
- Joint Warfighter Medical Research Program (JWMRP)
- Medical Enterprise Technology Consortium (MTEC)
- Peer Reviewed Medical Research Program (PRMRP)
- Psychological Health and Traumatic Brain Injury Research Program (PH/TBIRP)
- Small Business Innovation Research (SBIR) and Small Business Technology Transfer (STTR) Programs

From FY14-FY19, the CDMRP managed 153 PH-focused awards totaling \$295M. Investment by the NRAP research continuum category, research program, and type of research are illustrated below. *It should be noted that the data presented may not be a complete representation of the CDMRP's psychological health portfolio and may not be used for audit purposes.*

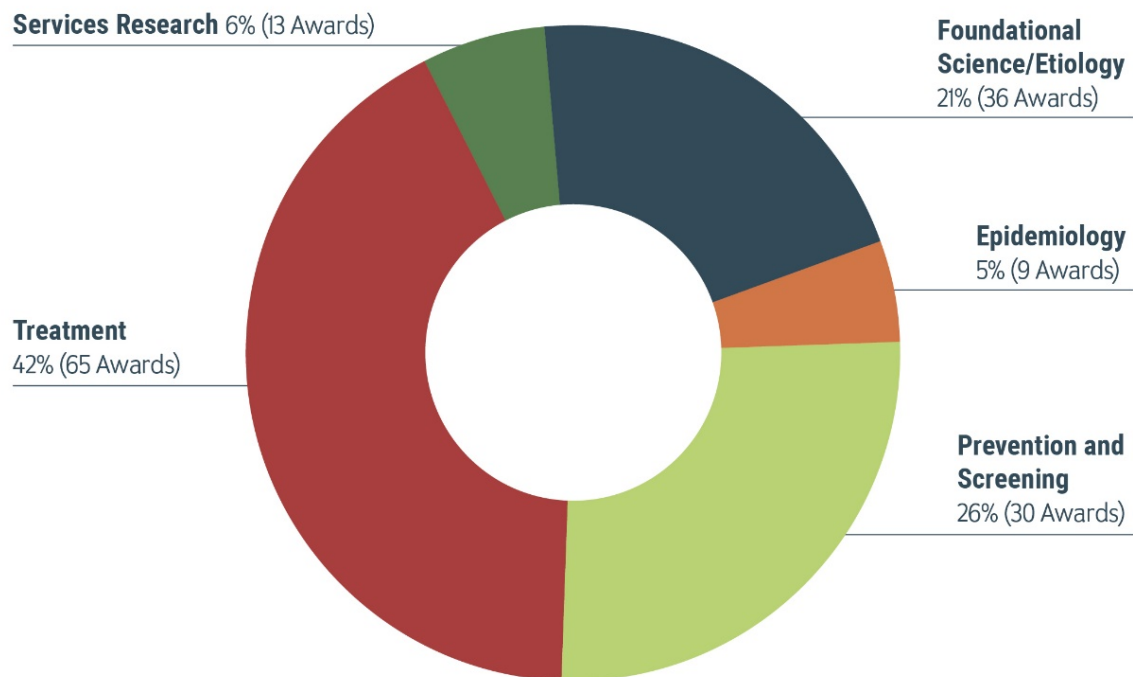


Figure 17. CDMRP-Managed PH Awards: Funding per NRAP Research Continuum Category (by Percent Investment, Number of Awards).

¹⁷ The CDMRP does not manage all awards funded through DMRDP, JWMRP, MTEC, PHTBIRP, or SBIR.

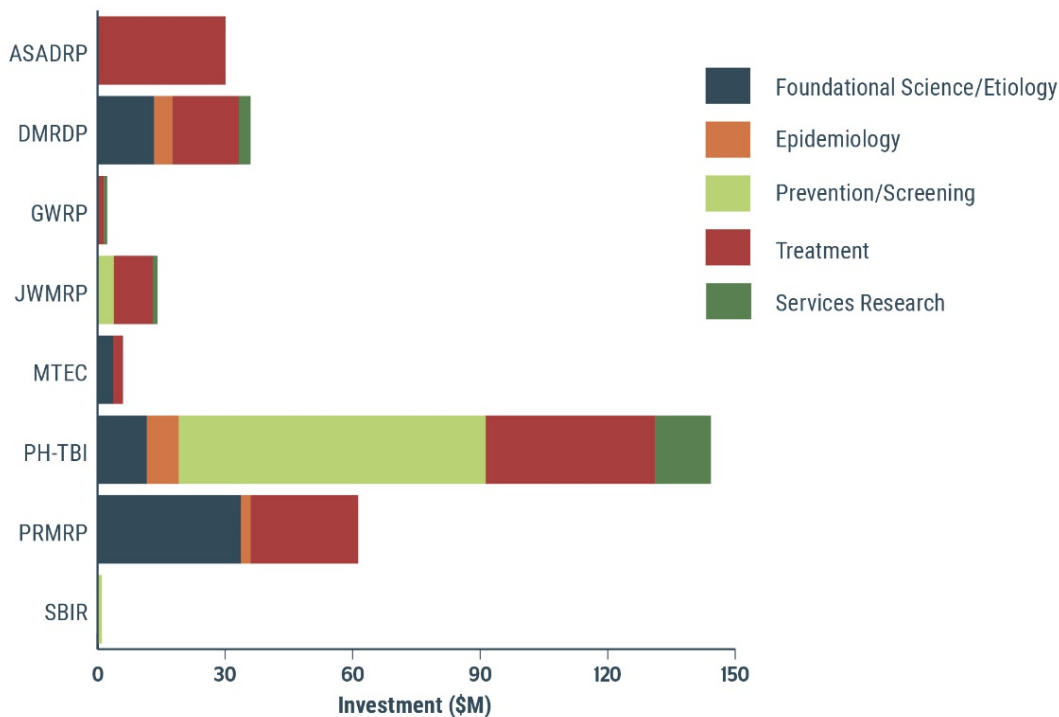


Figure 18. CDMRP-Managed PH Awards: Funding per NRAP Research Continuum Category by Research Program.

The CDMRP manages awards in a variety of PH research areas as shown in Figure 19. These areas include the following specific topics.

- Clinical Disorders
 - Mental health disorders including PTSD, depression, anxiety, adjustment disorders, etc., either occurring as a result of military Service or impacting mission readiness/return to duty
- Military Family Well-Being
 - Impact of military Service on families, addressing sequelae of military Service, and promoting family resilience
- Psychological Resilience
 - Risk/protective factors for negative mental health outcomes (including those impacting minority populations such as LGBT individuals) and enhancing individuals' abilities to cope and bounce back in the face of adversity
- Quality of Life
 - Addressing the biopsychosocial impacts of various diseases, illnesses, or conditions
- Substance Misuse and Abuse
 - Understanding and preventing the misuse of alcohol and other substances and those aimed at treating alcohol and substance use disorders
- Suicide Prevention
 - Suicidality as well as those addressing postvention (e.g., promoting healing or mitigating negative outcomes following a suicide death)
- Violence Prevention
 - Sexual assault, sexual harassment, workplace violence, intimate partner violence, hazing/bullying, etc.

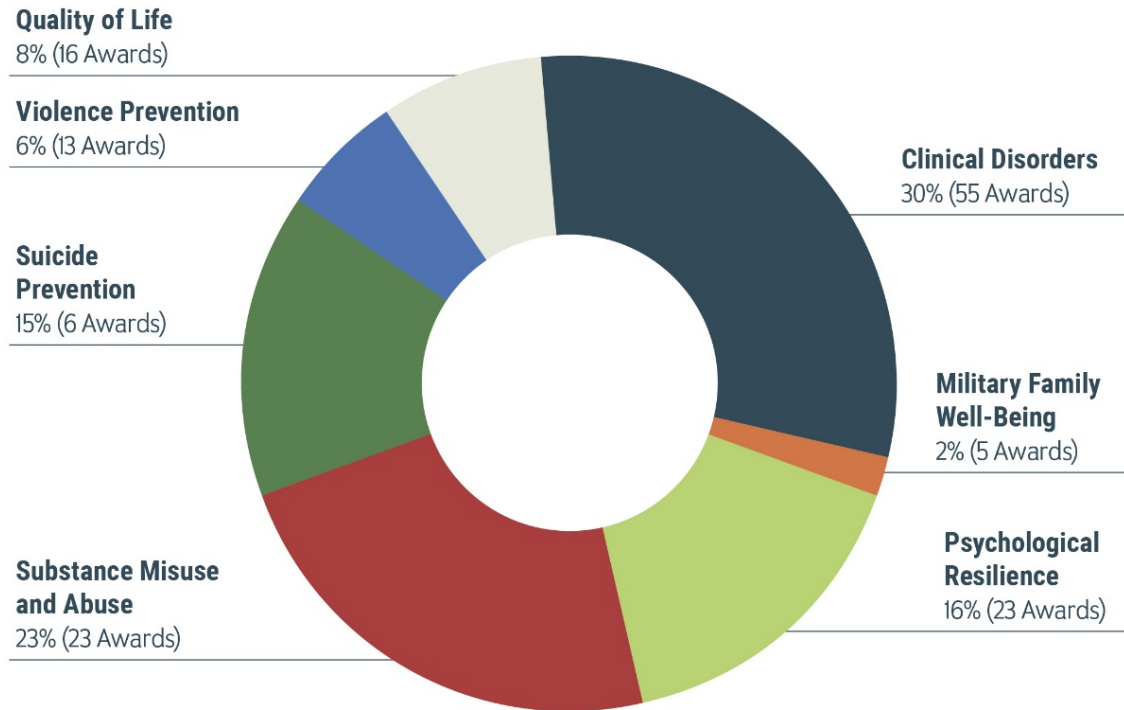


Figure 19. CDMRP-Managed PH Awards: Funding per PH Research Area (by Percent Investment, Number of Awards).

Psychological Health Research Managed by NIH

Federal Reporter¹⁸ was searched for FY14-FY19 psychological health research awards. During these years, 47,189 awards totaling \$19.5B were identified. Of these, 947 (2%) awards totaling \$398M (2%) were identified using military- or Veteran-related keywords. *It should be noted that the data presented below may not be a complete representation of the entirety of the NIH's psychological health portfolio.*

¹⁸ <https://federalreporter.nih.gov/>

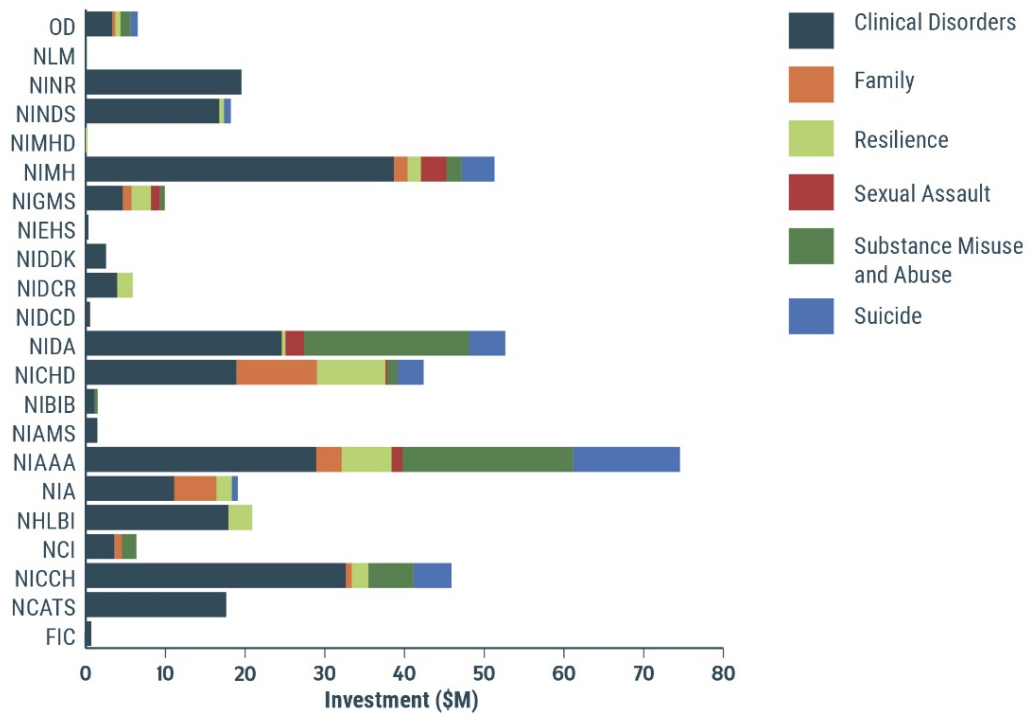


Figure 20. NIH-Managed PH Awards: Military-Relevant PH Funding by NIH Institute

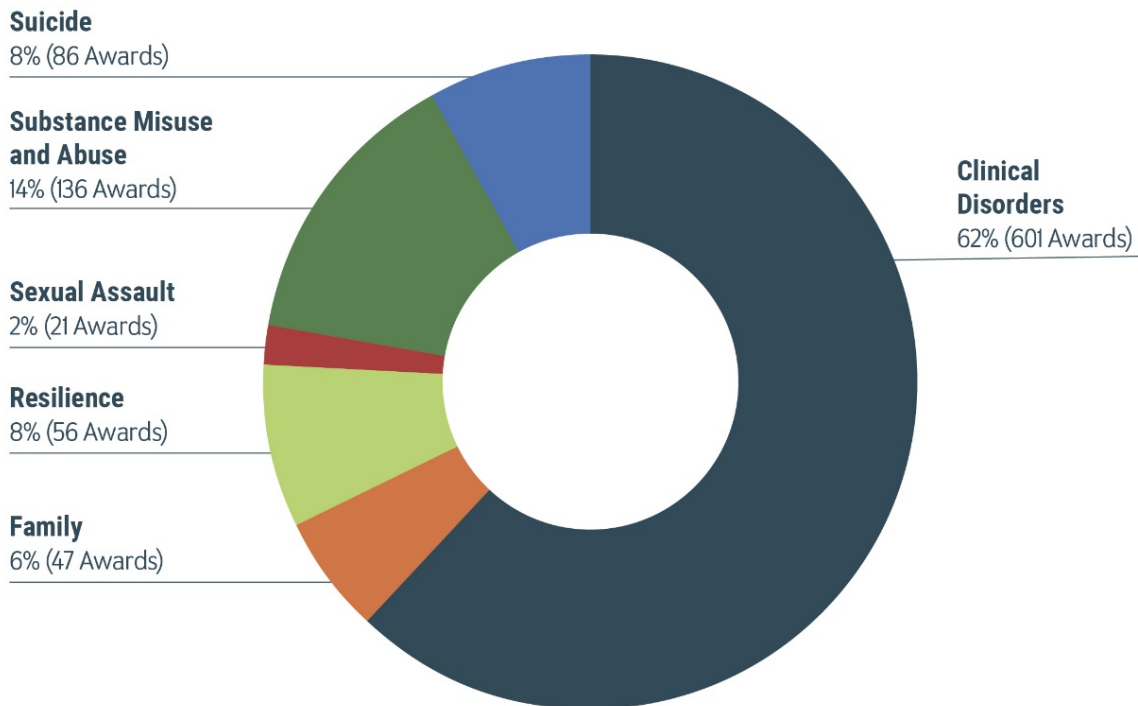


Figure 21. NIH-Managed PH Awards: Military-Relevant PH Funding by Research Area.

FY21 Request for Information

In preparation for the FY21 Stakeholder Meeting, the TBIPHRP released a Request for Information (RFI) through SAM.gov and collected responses from 10 February-10 March 2021. The RFI included eight research-based questions as well as two demographic-based questions. A total of 248 responses were received. When possible, responses were asked to be framed and subsequently analyzed in the context of the NRAP research continuum.

Traumatic Brain Injury-Specific Questions

1. In your opinion, which of the following research categories will have the most impact on TBI research (chose a maximum of three):
 - Foundational Science
 - Epidemiology
 - Etiology
 - Prevention and Screening
 - Treatment
 - Follow-Up Care
 - Health Services/Implementation Research

The distribution of responses is presented below. Treatment (28%) was the most commonly selected research category, followed by Prevention/Screening, Foundational Science, Follow-Up Care, and Etiology. Epidemiology (6%) was the least selected category.

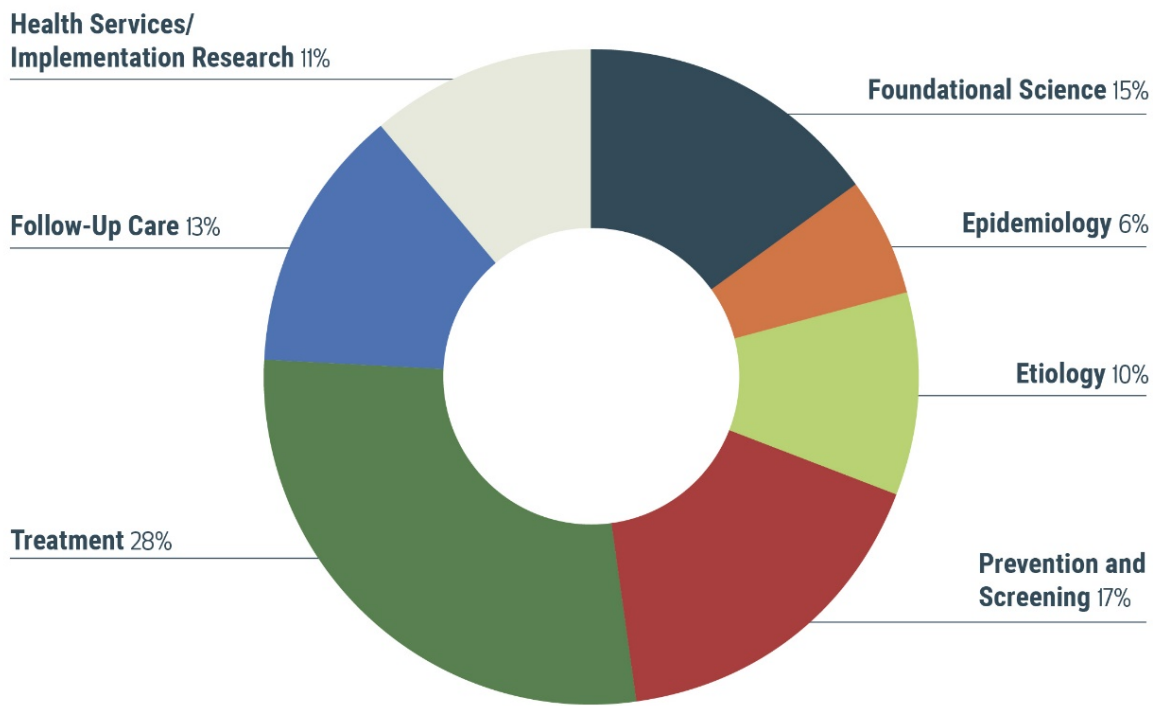


Figure 22. NRAP Research Continuum Categories Deemed Most Impactful for TBI Research.

2. Based on your response above and the format below, what are the top three specific research area, knowledge, or clinical capabilities that are currently missing or not well-funded and, if funded, could make a significant impact on the state of the science and clinical outcomes?
- Please provide a bulleted list that starts with an NRAP category (e.g., Treatment: Comparative effectiveness studies to evaluate current management standards of TBI).

The distribution of the responses is presented below. Interestingly, the distribution of responses to did not track well with the responses to Question 1 (above). Question 2's most frequent responses were Foundational Science (29%) and Prevention/Screening (25%).

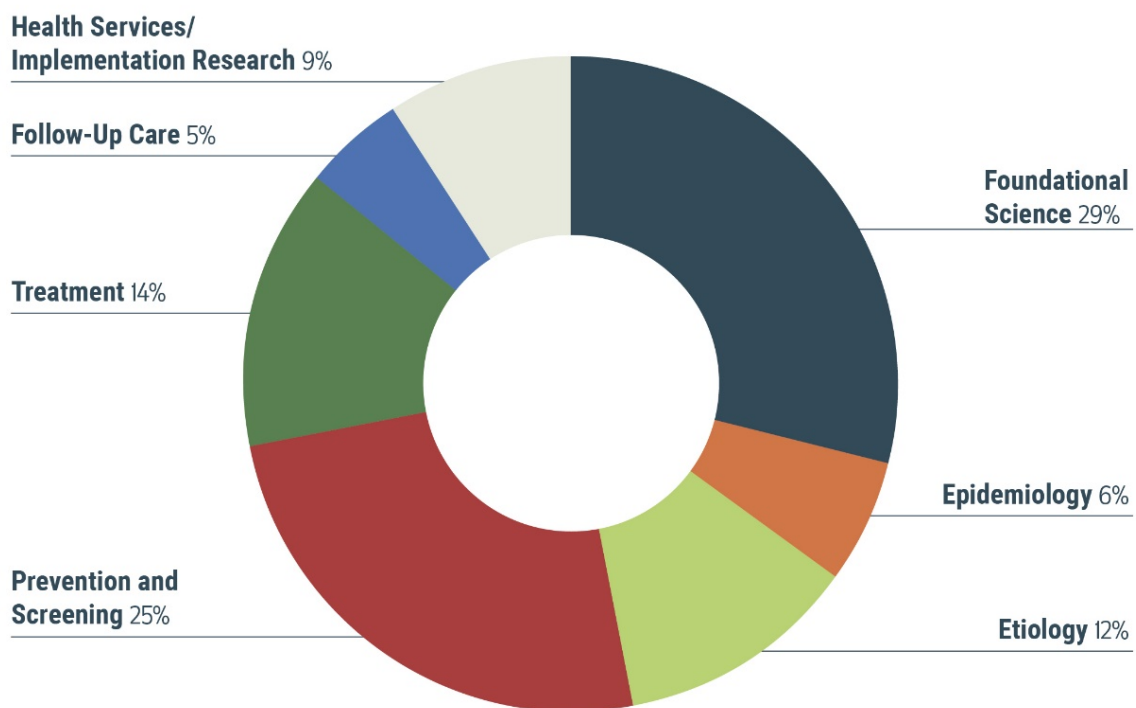


Figure 23. NRAP Research Continuum Categories of Specific Research Areas, Knowledge, or Clinical Capabilities Needed in TBI Research and Care.

The specific research areas, knowledge, and capabilities provided by the respondents (Figure 12) suggested a need to improve “before the boom” knowledge and tools as well as better point-of-injury diagnosis.

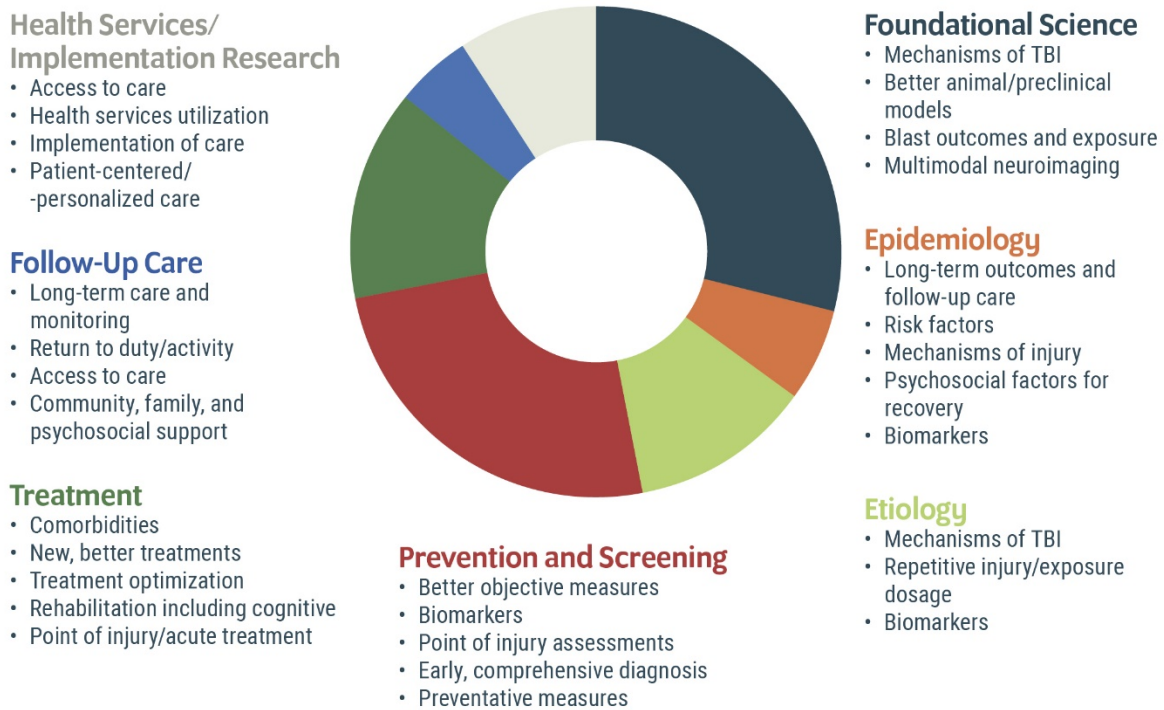


Figure 24. Specific Research Areas, Knowledge, or Clinical Capabilities Needed in TBI Research and Care per NRAP Research Continuum Category.

3. What elements from the patient or care provider perspective (e.g., quality of life) require additional research or emphasis?

Responses were reviewed, categorized, and aggregated. The respondents recommended that long-term outcomes, follow-up care, and comorbidities require additional research and emphasis. The other recommendations from the respondents received nearly equal frequency (14-17%).

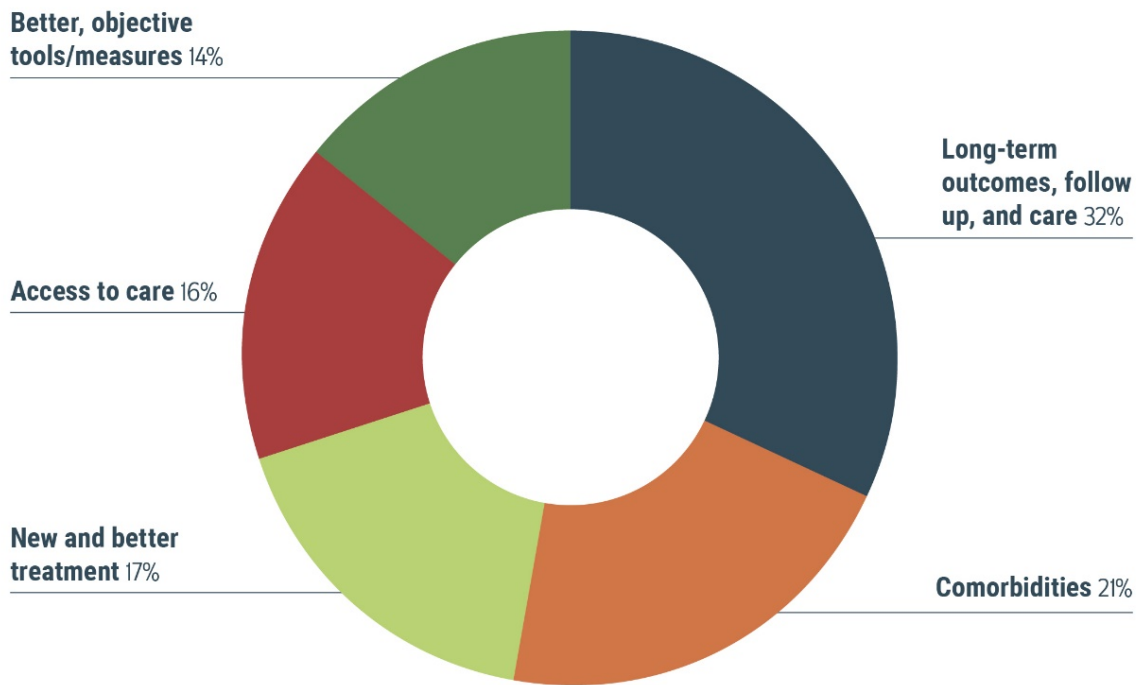


Figure 25. Specific Patient Care or Provider Perspective Areas Needed in TBI Research and Care.

Psychological Health-Specific Questions

4. In your opinion, which of the following research categories will have the most impact psychological health research (chose a maximum of three):

- Foundational Science
- Epidemiology
- Etiology
- Prevention and Screening
- Treatment
- Follow-Up Care
- Health Services/Implementation Research

The distribution of responses is presented below. Treatment (23%) and Prevention and Screening (20%) were the most frequent selections, followed by Follow-Up Care, Health Services/Implementation Research, Foundational Science, and Etiology. Similar to the TBI responses, Epidemiology (6%) was the least frequent selection.

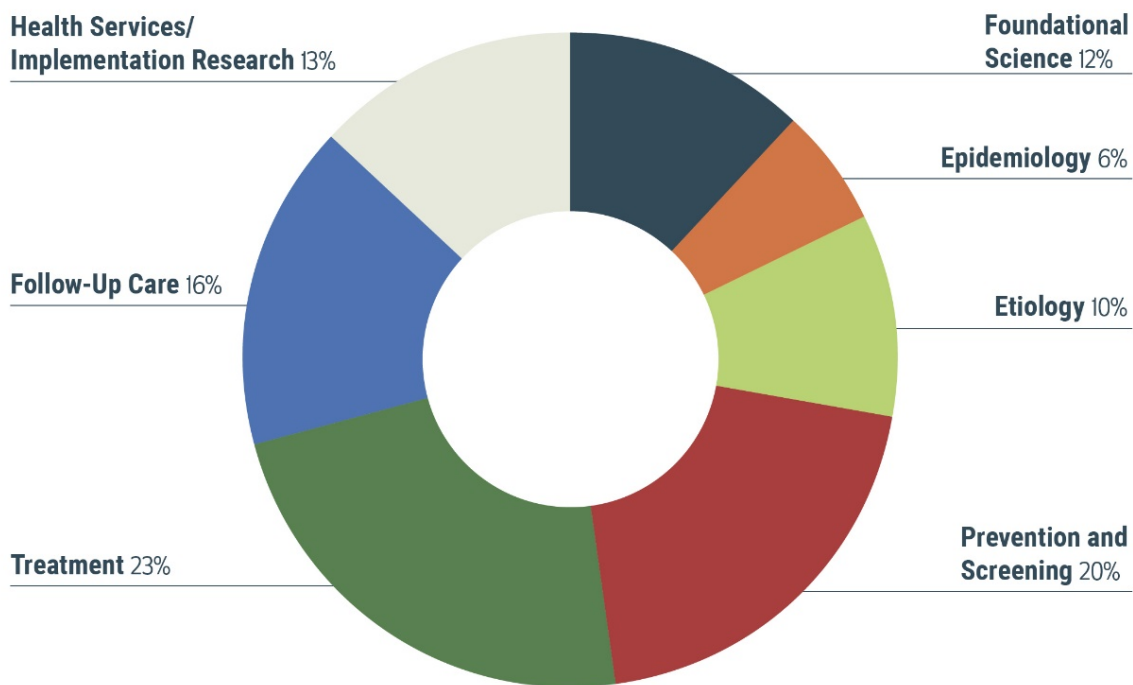


Figure 26. NRAP Research Continuum Categories Deemed Most Impactful for PH Research.

5. Based on your response above and the format below, what are the top three specific research area, knowledge, or clinical capabilities that are currently missing or not well-funded and, if funded, could make a significant impact on the state of the science and clinical outcomes?
- Please provide a bulleted list that starts with an NRAP category (e.g., Health Services/Implementation Research: Development of implementation interventions to increase uptake and consistent practice of evidence-based clinical practice guidelines within treatment facilities).

The distribution of the responses is presented below. In contrast to the TBI responses (Questions 1 and 2), these responses tracked closely with the responses to Question 4 and suggest the need to improve prevention, screening, and treatment of psychological health conditions.

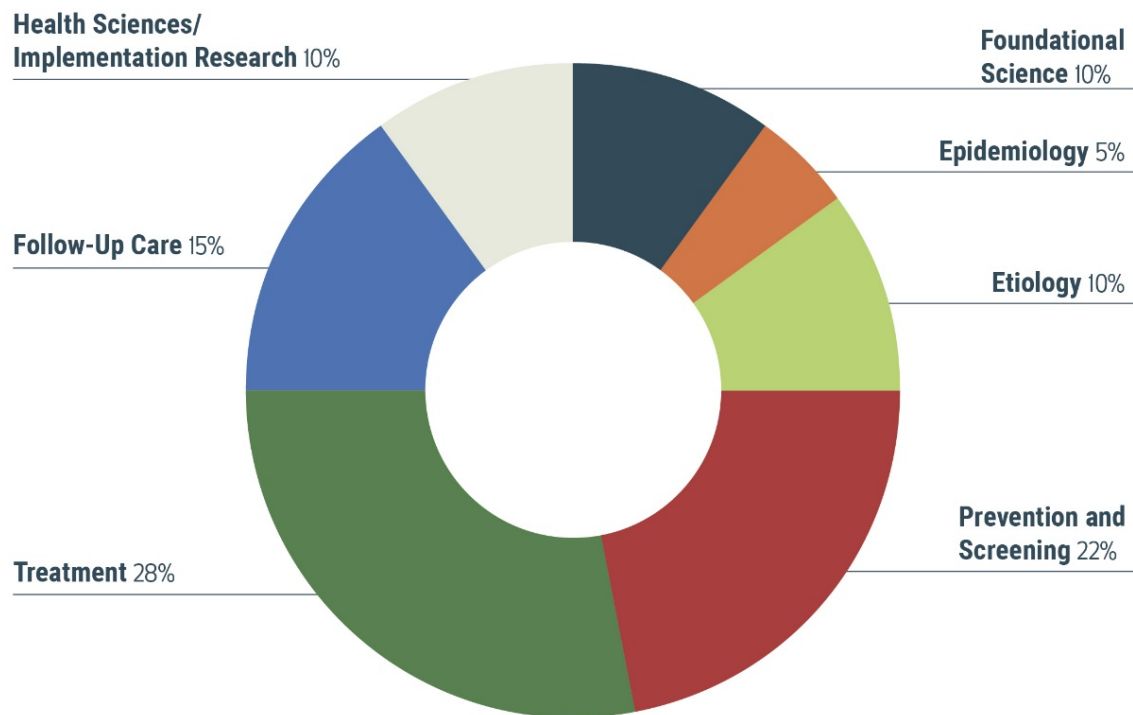


Figure 27. NRAP Research Continuum Categories of Specific Research Areas, Knowledge, or Clinical Capabilities Needed in PH Research and Care.

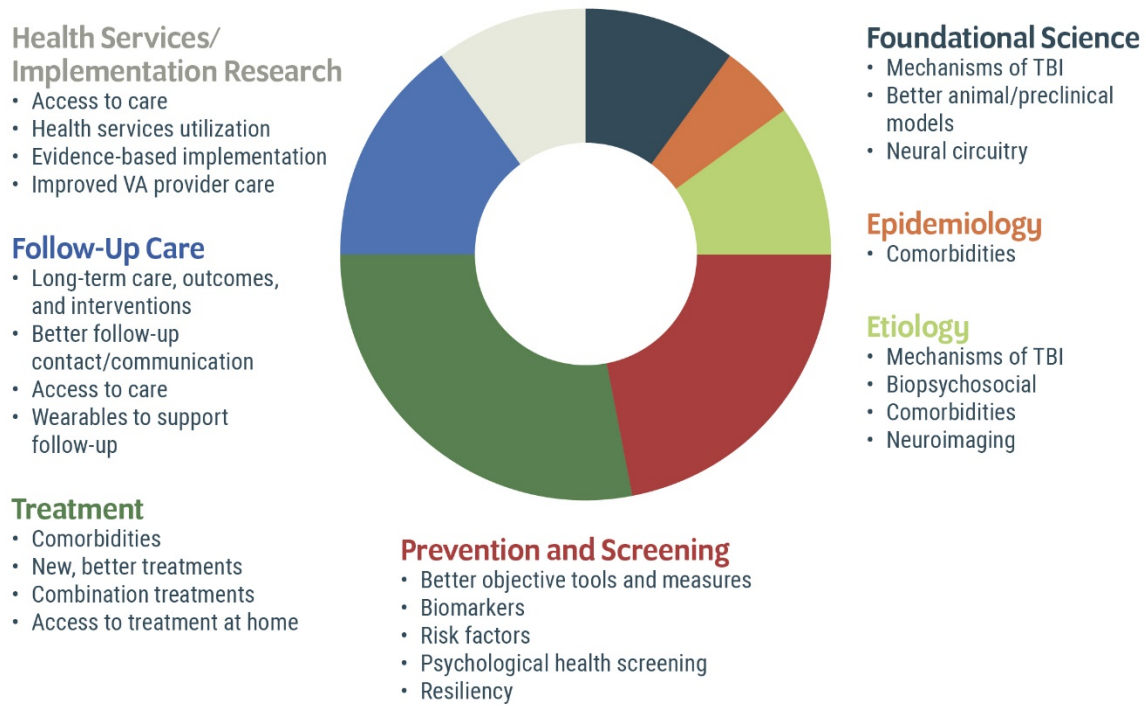


Figure 28. Specific Research Areas, Knowledge, or Clinical Capabilities Needed in PH Research and Care per NRAP Research Continuum Category.

6. What elements from the patient or care provider perspective (e.g., quality of life) require additional research or emphasis?

Responses were reviewed, categorized, and aggregated. In four of the five responses, treatment or access to care were identified as items that required additional research or emphasis.

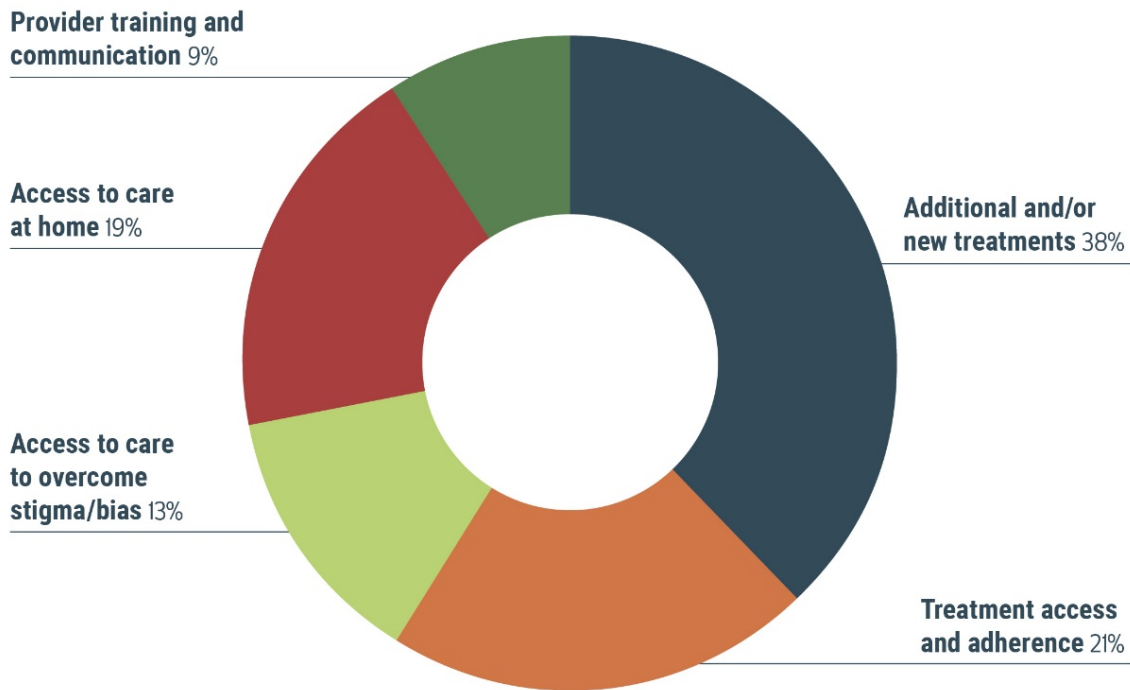


Figure 29. Specific Patient Care or Provider Perspective Areas Needed in PH Research and Care.

Traumatic Brain Injury and Psychological Health Research Program

7. What are the barriers (e.g., administrative, financial, collaborative) to translating findings to clinical practice and how can they be addressed by the TBIPHRP?

Responses were used to generate the word cloud below. The top responses were Collaboration/Team Science, Preclinical to Clinical, Knowledge Gap, and Administrative.



Figure 30. Word Cloud of Barriers to Translating Findings to Clinical Practice for Consideration by the TBIPHRP.

8. What types of funding opportunities could the TBIPHRP release that uniquely respond to the current research gaps and obstacles to clinical impact?

- Early Ideas-Preclinical Research
- Clinical/Translational Research
- Implementation Studies
- Team Science
- Clinical Trials
- Other (please specify)

Responses were relatively evenly distributed, but Clinical/Translational Research (27%) was the top response. Team Science, Implementation Studies, Preclinical Research, and Clinical Trials received between 16-18% of the responses.

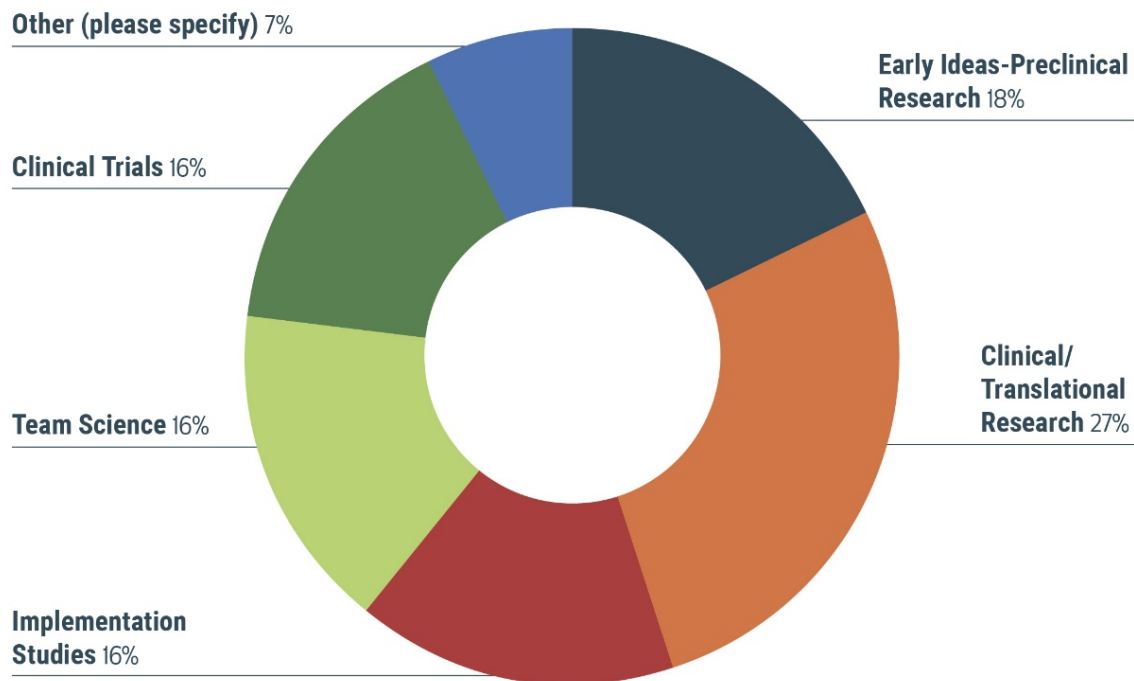


Figure 31. Types of Funding Opportunities to Respond to Current Research Gaps and Obstacles to Clinical Impact for Consideration by the TBIPHRP.

Demographics and Contact Info

9. Which of the following best describes your role in the TBI and psychological health community? (Select all that apply.)

- Traumatic Brain Injury Interest
- Psychological Health Interest
- Academia
- Industry
- Clinician
- Patient/Caregiver/Advocate
- Foundation/Governmental Program Administrator
- Other (please specify)

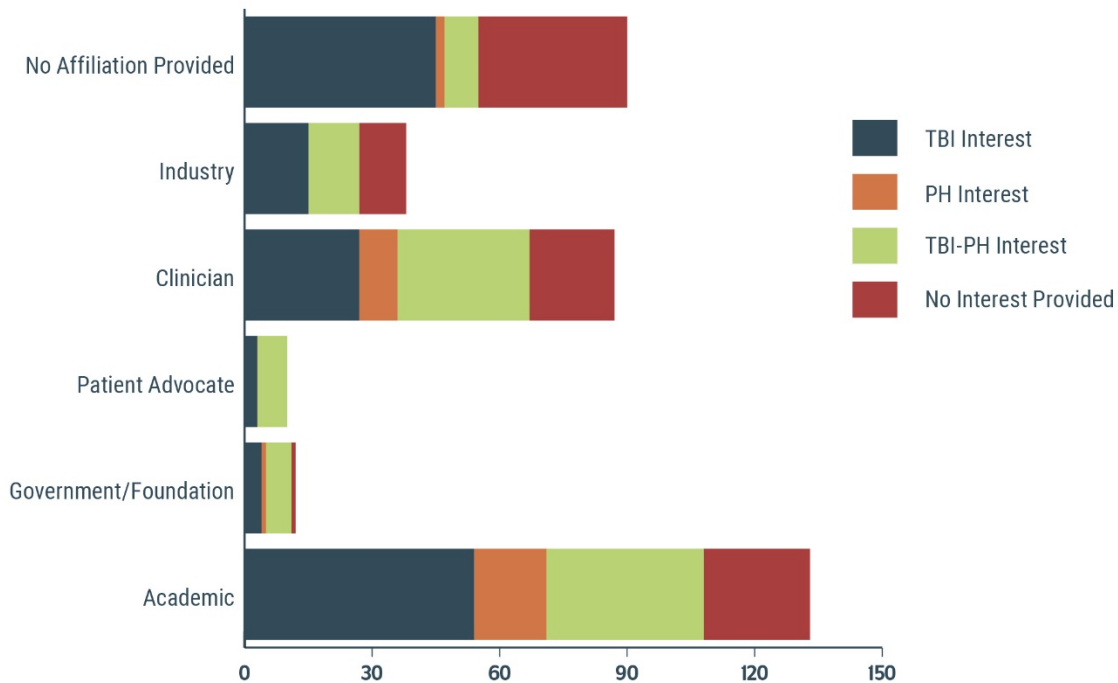


Figure 32. Demographic Profile of RFI Respondents per Affiliation and Interest.

10. If you would like to be contacted regarding attendance at the upcoming FY21 TBIPHRP Stakeholders meeting (tentatively planned for April 2021), please provide your name, organization, email, and phone number.

Resources

- CDMRP: <https://cdmrp.army.mil/>
- Defense Health Agency (DHA) JPCs: <https://health.mil/About-MHS/OASDHA/Defense-Health-Agency/Research-and-Development/Joint-Program-Committees>
- DHA Research and Development (J9): <https://www.health.mil/About-MHS/OASDHA/Defense-Health-Agency/Research-and-Development>
- eBRAP: <https://ebrap.org/eBRAP/public/index.htm>
- Grants.gov: <https://www.grants.gov/>
- TBIPHRP: <https://cdmrp.army.mil/tbiphrp/default>
- U.S. Army Medical Materiel Agency (USAMMA): <https://www.amlc.army.mil/USAMMA/>
- U.S. Army Medical Materiel Development Activity (USAMMDA): <https://www.usammda.army.mil/>
- U.S. Army Medical Research Acquisition Activity (USAMRAA): <https://www.usamraa.army.mil/Pages/Main01.aspx>
- U.S. Army Medical Research and Development Command (USAMRDC): <https://mrdc.amedd.army.mil/>

Presenters and Breakout Session Leaders

Ms. Brittany Boccher
Consumer
PH – Resilience Building and
Family Well-Being

Ms. Boccher is an advocate, philanthropist, community leader, and community engagement consultant. She was the 2017 Armed Forces Insurance Military Spouse of the Year and used that year to aid other military spouses who were struggling to define their own identity and purpose. She also founded Discovering Your Spark in 2018 and serves as a military family advocate and military community engagement consultant.

Dr. David Cifu
Virginia Commonwealth
University
TBI – Etiology, Pathology,
and Prevention

Dr. Cifu is a Senior TBI Specialist with the VA and the Associate Dean for Innovation and Systems Integration at the Virginia Commonwealth University (VCU) School of Medicine. Dr. Cifu has been the project director and PI of the VA and DOD Long-Term Impact of Military-Relevant Brain Injury Consortium-Chronic Effects of Neurotrauma Consortium (LIMBIC-CENC) since its inception, which has completed 10 research studies resulting in over 200 publications.

MSG Tom Cruz
Consumer
PH – Suicide Prevention

MSG Cruz is Master Resilience Trained Level One, an Applied Suicide Intervention Skills Training Instructor, and an Army Suicide Intervention Trainer. MSG Cruz is an advisor to Animal Rescue and Veteran Support Services, a panel member of the Center of Innovation on Disability and Rehabilitation Research with University of South Florida, and a subject matter expert with the White House and U.S. Army Office of the Surgeon General. He also received the Substance Abuse and Mental Health Services Administration (SAMHSA) 2017 Voice Award Consumer/Peer/Family Leadership Award for his work to ensure America's military and Veteran communities have access to the mental health and substance use treatment and suicide prevention services.

**CPT (U.S. Army, Ret.)
Charles (Char) Gatlin**
Consumer
TBI – Screening, Prognosis,
and Diagnosis

CPT Char Gatlin co-chairs the Consumer Advisory Board for the Chronic Effects of Neurotrauma Consortium and serves as the consumer for the Center for Neuroscience and Regenerative Medicine. He was a sitting member of the 114th U.S. Congress Montana Veterans Advisory Committee and currently serves as a Trustee for the Foundation for Community Health. He is currently pursuing a Ph.D. in Public Health at the University of Montana.

Dr. Jessica Gill
National Institute of Nursing
Research (NINR)
TBI – Screening, Prognosis,
and Diagnosis

Dr. Gill is the Acting Scientific Director of the NINR. She is a Lasker Research Scholar and Deputy Director of the Center for Neuroscience and Regenerative Medicine and advises in the design and implementation of biomarker studies that aim to improve care of individuals with concussions and TBIs. She has also conducted research on the biological mechanisms of PTSD and depression as well as central and peripheral alterations of the immune and endocrine systems.

Dr. Emma Gregory
TBI Center of Excellence
TBI – Rehabilitation and
Return to Duty

Dr. Gregory is the Research Branch Chief at the TBI Center of Excellence (TBICoE). She has conducted studies focused on real-world applications of cognition in education as well as experiments on learning and memory process changes caused by disruption from brain damage or normal aging.

Dr. Mona Hicks
One Mind

Dr. Hicks is the Director of Science and Technology at One Mind, a nonprofit organization dedicated to the acceleration and implementation of research to promote brain health, and an Affiliate Professor in the Department of Neurological Surgery at the University of Washington. Prior to joining One Mind, she held faculty appointments at the University of Kentucky and the University of Washington, where she studied mechanisms of recovery following TBI. Dr. Hicks also served as a Program Director at the National Institute of Neurological Disorders and Stroke (NINDS), where she managed the TBI research portfolio and led numerous interagency and international research initiatives to enable open science and collaboration.

Dr. Stuart Hoffman
VA ORD

Dr. Hoffman is the Senior Health Science Officer for TBI for the VA ORD. In this newly established position, Dr. Hoffman is responsible for supporting NRAP activities; serving as VA lead for the joint VA and DOD LIMBIC; providing overall direction, program planning, development and implementation for ORD TBI research; simultaneously coordinating with ORD leads and federal partners in other high priority nationwide efforts in PTSD and suicide; promoting data sharing among all federal agencies in TBI research; providing unity of action in the pursuit of common goals, ensuring consistency with all federal agency's strategies; and expanding the clinical trials network nationally to ensure availability of treatments and diagnostics to all Veterans who need brain injury care.

Dr. Tim Hoyt
PHCoE
PH – Suicide Prevention

Dr. Hoyt is the acting deputy division chief for PHCoE. Dr. Hoyt has held numerous leadership positions within military medicine, including serving as a brigade surgeon,

chief psychology resident, embedded behavioral health clinic chief, Director of the Pinnacle Intensive Outpatient Program for PTSD, and Director of the National Center for Telehealth and Technology. Dr. Hoyt is a recipient of the Bronze Star for his service in Afghanistan, as well as the Peter J.N. Linnerooth National Service Award from the American Psychological Association.

Dr. Patrick Kochanek
University of Pittsburgh
TBI – Etiology, Pathology,
and Prevention

Dr. Kochanek is the Director of the Safar Center for Resuscitation Research and is a Distinguished Professor of Critical Care Medicine at the University of Pittsburgh School of Medicine. Dr. Kochanek is the PI of the DOD-funded Operation Brain Trauma Therapy, a multi-center preclinical consortium for drug discovery and development. He received the distinguished Investigator Award from the American College of Critical Care Medicine in 2007, was named one of the inaugural Masters of Critical Care Medicine, and received the Lifetime Achievement Award from the Society of Critical Care Medicine in 2017.

Ms. Kathy Lee
Office of the Deputy
Assistant Secretary of
Defense (DASD) for Health
Readiness Policy and
Oversight (HRP&O)

Ms. Lee currently serves as a Senior Policy Analyst supporting the Deputy Assistant Secretary of Defense for Health Readiness Policy and Oversight in DOD Health Affairs. She is the DOD's lead for the Warfighter Brain Health Initiative. Ms. Lee has served in a variety of leadership, advisory, and operational roles in the U.S. Department of the Army and DOD for over 15 years, including Assistant Chief of the Defense and Veterans Brain Injury Center (DVBIC) as well as Deputy Director for the Defense Centers of Excellence for Psychological Health and Traumatic Brain Injury.

**Dr. Shelly MacDermid
Wadsworth**
Purdue University
PH – Resilience Building and
Family Well-Being

Dr. MacDermid Wadsworth is the Director of the Military Family Research Institute and the Center for Families at Purdue University and a distinguished professor in the Department of Human Development and Family Studies. Her research focuses on the relationship between job conditions and family life, with emphases on military families and organizational policies, programs, and practices. In 2012, she received the Morrill Award, Purdue's highest faculty honor, for her outstanding career achievements that have impacted society.

Dr. Geoffrey Manley
University of California, San
Francisco
TBI – Interventions

Dr. Manley is the Chief of Neurosurgery at Zuckerberg San Francisco General Hospital, Professor and Vice Chairman of the Department of Neurosurgery at University of California, San Francisco, and Co-Director of the Brain and Spinal Injury

Center. He is the PI for the NINDS-funded Transforming Research and Clinical Knowledge in Traumatic Brain Injury (TRACK-TBI) research project, the DOD TBI Endpoints Development (TED) initiative, and the recently awarded TRACK-TBI Network. His research interests span from the bench to the bedside and focuses on developing translational models and data repositories to improve the diagnosis, prognosis, and treatment of mild to severe brain injuries as well as the molecular aspects and clinical care of TBI.

1SG (U.S. Army, Ret.)

Hector Matascastillo

Consumer
PH – Mental Health
Disorders

Mr. Matascastillo is a Licensed Independent Clinical Social Worker and advocate for those suffering from PTSD. He previously served in conflict and combat operations as a member of the Special Operations Forces and conventional forces in the U.S. Army for 18 years. He has also served on several boards, including the Minnesota State Rehabilitation Council, Mental Health Consumer Survivor Network, the Veterans Action Center, Veterans Defense Project, and Breakthrough Ministry.

Dr. Michael McCrea

Medical College of Wisconsin
TBI – Interventions

Dr. McCrea is Co-Director of the Center for Neurotrauma Research and Vice Chair of Research for the Department of Neurosurgery at the Medical College of Wisconsin. He was previously the president of the American Academy of Clinical Neuropsychology and is co-PI on the NCAA-DoD Concussion Assessment, Research & Education (CARE) Consortium. His research focuses on the acute clinical and neurophysiological effects of TBI in civilians, athletes, and military personnel.

SFC (Ret.) Victor Medina

Consumer
TBI – Rehabilitation and
Return to Duty

SFC Medina is President and Founder of the TBI Warrior Foundation. He is a certified rehabilitation counselor and has been actively involved with national leaders to improve the identification, diagnosis, and treatment of TBI. A Purple Heart recipient, he is also a public speaker and serves as an advisor to organizations advocating for Veterans and their Families.

Dr. A. Cate Miller

National Institute on
Disability, Independent
Living, and Rehabilitation
Research (NIDILRR)
TBI – Rehabilitation and
Return to Duty

Dr. Miller is a Rehabilitation Program Specialist at NIDILRR. She is the Program Manager of the TBI Model System Centers Program, which includes a network of 16 multidisciplinary centers across the nation that provide rehabilitation care. She has also assisted in the creation of interagency TBI research initiatives between NIDILRR's TBI Model System Centers Program and other federal agencies including the VA, DOD, NIH, and Centers for Disease Control and Prevention (CDC).

**SSG (U.S. Army, Ret.)
Spencer Milo**
Consumer
TBI – Etiology, Pathology,
and Prevention

SSG (Ret.) Milo is the Director of Veteran Programs, Communications, and Strategic Development at the University of Colorado, Anschutz Medical Campus. He is a U.S. Army combat Veteran, Purple Heart recipient, and served as an Airborne Infantryman. He serves on the Board of Trustees for the Intrepid Fallen Heroes Fund as an Honorary Co-Chair and works with Veteran service organizations such as the George W. Bush Institute's Military Service Initiative, Warrior Canine Connection, Parker's Platoon, and Team Red, White, and Blue.

Dr. Katharine Nassauer
Military Operational
Medicine Research Program
(MOMRP)
PH – Resilience Building and
Family Well-Being

Dr. Nassauer is the program area manager for the psychological health and resilience research portfolio for the MOMRP located at Fort Detrick in Maryland. In this role, she assists the Director in strategically guiding and managing a broad, integrated portfolio of U.S. Army- and DOD-sponsored research aimed at delivering evidence-based capabilities and solutions to support Warfighter and family psychological health and resilience. Dr. Nassauer holds a doctorate in psychology with specialized training in clinical neuropsychology from the Graduate School of the City University of New York and worked in the field of psychiatry research before joining the USAMRDC in 2008.

Dr. Laura Neely
Department of Defense
Suicide Prevention Office
(DSPO)
PH – Suicide Prevention

Dr. Neely is the Assistant Director for Research and Program Evaluation at the Defense Suicide Prevention Office. She manages a research portfolio and supports an integrated public health, community-based approach to suicide prevention. Prior to joining the DSPO, she was the Associate Director of Dr. Marjan Holloway's laboratory at the Uniformed Services University of the Health Sciences (USU), managing clinical research activities focused on suicide prevention for military personnel.

Dr. Lindsay Orchowski
Brown University
PH – Sexual Assault

Dr. Orchowski is an Associate Professor of Psychiatry and Human Behavior at Brown University and a Staff Psychologist for the Lifespan Physicians Group. Her research focuses on the design and evaluation of theory-driven sexual assault prevention programs and has been supported by the NIH, CDC, DOD, and Department of Education. She is also an editor of multiple publications, including *Sexual Assault Risk Reduction and Resistance: Theory, Research, and Practice*.

CDR Travis Polk
Combat Casualty Care
Research Program (CCCRP)

CDR Polk became the first Navy medical officer to direct the DOD's CCCRP based in Fort Detrick, Maryland, and is Chair of the Joint Program Committee 6 (JPC-6) in 2020. CDR Polk is

the Navy State Chair for the American College of Surgeons Committee on Trauma, Chair of the Navy Trauma Clinical Community, and represents the Navy on the Defense Committee on Surgical Combat Casualty Care. From 2017-2020 he served as Director of the Navy Trauma Training Center at Los Angeles County and University of Southern California Medical Center, where he trained U.S. Navy surgical teams for deployment.

Mr. Aemon Purser
Consumer
TBI – Interventions

Mr. Purser is a Veteran, having served in the 160th Special Operations Aviation Regiment until receiving a medical discharge in 2011 for injuries sustained during training. He then participated in the Targeted Evaluation, Action, and Monitoring of Traumatic Brain Injury (TEAM TBI) study at the University of Pittsburgh. Mr. Purser passionately pursues opportunities to help fellow Veterans receive the necessary information and care for their needs.

Dr. Ronda Renosky-Vittori
MOMRP
PH – Mental Health
Disorders

Dr. Renosky-Vittori is the MOMRP Psychiatry and Clinical Psychology Disorders Portfolio Manager. She previously worked as a therapist for the Inova Health System where she provided evidence-based psychotherapies for a broad range of mental health issues and trauma recovery. Her training includes neuro-rehabilitation for neurological injuries and long-term complications of diabetes and cardiovascular disease.

Dr. Cendrine Robinson
VA Rehabilitation Research
& Development (RR&D)

Dr. Robinson is the Scientific Program Manager for Behavioral Health and Reintegration in the VA's RR&D, which is located in the ORD. Her work at RR&D focuses on stimulating research on interventions that enable Veterans with physical or psychological disabling conditions to function more fully in society, embrace social situations, return to school, and find and maintain gainful employment.

Ms. Tanya Rogers
Sexual Assault Prevention
and Response Office
(SAPRO)
PH – Sexual Assault

Ms. Rogers is the Senior Victim Assistance Advisor at the DOD SAPRO and an adjunct professor at Saint Leo's University. She is a Licensed Clinical Social Worker, Doctor of Social Work candidate, and subject matter expert on sexual assault victim care and advocacy in the military. During 2008-2020 she worked for the U.S. Navy Sexual Assault Prevention and Response to standardize the program's advocacy, prevention, and response initiatives.

Dr. Richard Shoge
MOMRP
TBI – Screening, Prognosis,
and Diagnosis

Dr. Shoge is the MOMRP Injury Prevention and Reduction Portfolio Manager. After achieving his Ph.D. in biomedical engineering from University of North Carolina at Chapel Hill, he completed a postdoctoral fellowship at the Walter Reed

Army Institute of Research in the Traumatic Brain Injury/Blast Induced Neurotrauma Branch, Division of Neuroscience and Psychiatry.

CDR Christopher Steele
MOMRP

CDR Steele is a Navy Research Physiologist and is the Director of the MOMRP and Chair of the Joint Program Committee 5 (JPC-5) based in Fort Detrick, Maryland. CDR Steele leads Joint and Army medical research funding to protect the health, support readiness and sustain/enhance the performance of Warfighters faced with blast, physical injuries, and acute and chronic psychological stress, among other health and environmental concerns. CDR Steele is the current Specialty Leader for the Navy's Medical Service Corps Research Physiology community.

Dr. Andra Tharp
DOD Office of Force
Resiliency
PH – Sexual Assault

Dr. Tharp is a Highly Qualified Expert and the Senior Prevention Advisor for the US Department of Defense Office of Force Resiliency and SAPRO. She has over 75 publications in the areas of trauma and violence, has made numerous presentations at international, national, state or local conferences or meetings, and has received many awards for her work in violence prevention. Dr. Tharp is a licensed clinical psychologist and Clinical Assistant Professor at Baylor College of Medicine.

**CPT (U.S. Navy, Ret.) James
(Curt) West**
USU
PH – Mental Health
Disorders

CPT West is an Associate Professor in the Department of Psychiatry at USU. His research focuses on clinical trials of medications and psychotherapy for PTSD, assessment methods in psychiatry education, and understanding risk assessment and communication about personal firearms and military Service Members. He is the leader of the combat and operational stress control curriculum at USU and leads Operation Bushmaster, an annual medical field exercise.

CAPT Carlos Williams
National Intrepid Center of
Excellence (NICoE)

CAPT Williams has been the director of NICoE at Walter Reed National Military Medical Center in Bethesda, Maryland, since October 2020. He was previously special advisor and director of the Office of Global Health Engagement for the Navy, and he is the immediate past regional health affairs attaché to the Pacific Islands. CAPT Williams also holds appointments as assistant professor at USU and adjunct professor at Morehouse.

Dr. Ross Zafonte
Harvard Medical School
TBI – Rehabilitation and
Return to Duty

Dr. Zafonte is the Earle P. and Ida S. Charlton Professor and Chairman of the Department of Physical Medicine and Rehabilitation at Harvard Medical School and the Chief of Physical Medicine and Rehabilitation at Massachusetts General Hospital and Brigham and Women's Hospital, as

well as the Senior Vice President of Medical Affairs, Research and Education at Spaulding Rehabilitation Network. He served on the founding editorial board of the journal *PM&R* and is currently on the editorial boards of the *Journal of Neurotrauma* and *Journal of NeuroEngineering and Rehabilitation*. In 2012, he received the William Fields Caveness award from the Brain Injury Association of America and in 2014 he received the Robert L. Moody Prize for Distinguished Initiatives in Brain Injury Research and Rehabilitation.

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