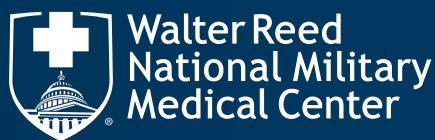




NATIONAL INTREPID CENTER OF EXCELLENCE

2021 ANNUAL REPORT



MESSAGE FROM THE DIRECTOR



Colleagues,

This year has been a busy one at the National Intrepid Center of Excellence (NICoE) and the Intrepid Spirit Centers (ISC), as you'll see in the pages that follow.

We have begun the momentous process of officially establishing the Defense Intrepid Network for TBI and Brain Health (Intrepid Network) as a Defense Health Agency (DHA) program of record. By formalizing the Intrepid Network, which comprises the NICoE and the ISCs, we will ultimately expand and standardize cutting-edge care and operations for our patients. We are currently working with the ISC directors, DHA, and TBI community partners to establish a standardized concept of operations, governance framework, and outcome metrics to make the Intrepid Network a reality.

This process was the focus of the Defense Intrepid Network for TBI and Brain Health Fall Meeting, held Sept. 14-15 at the NICoE. For the first such meeting in two years, we expanded the previous half-day format to allow time for extensive internal planning sessions and detailed updates to senior leadership from the Military Health System (MHS) and the Intrepid Fallen Heroes Fund, the organization that started it all. During the meeting, DHA Director Army Lt. Gen. Ronald Place urged Intrepid Network directors to pursue becoming a program of record, saying that now was the time to codify it as a single entity. We accepted the challenge and spent much of the meeting fine-tuning the plan to accomplish his directive. On Sept. 16, the Defense Intrepid Network Research Symposium showcased high-touch and high-tech developments in TBI care and brain health before a record crowd. This was the first time the Fall meeting was held in conjunction with the research symposium (previously called the NICoE Research Fair).

Rising to the serious challenges of providing health care in the age of COVID-19, we continued our superior, evidence-based treatments for service members affected by TBI and associated conditions.

We launched initiatives to ensure that our unique interdisciplinary treatment model is aligned with research, clinical, and educational needs of our patients.

In May, the Intrepid Network launched Translating Research into Practice (TRIP), an initiative that brings together TBI researchers, health care providers, and policymakers to address clinical gaps in TBI and brain health. They will identify cutting-edge research findings that can be translated into clinical standards of care. In addition, subject matter experts will evaluate research proposals for Intrepid Network support, allowing for the advancement of multi-site research across the network.

The new Continuum of Caring and Healing Initiative will ensure a comprehensive pathway for beneficiaries at risk for and impacted by TBI and associated conditions. The Continuum stretches from prevention (readiness and resilience) to post-reintegration/transition into civilian life and includes peer support networks and resources provided through Intrepid Network partnerships.

These programs and initiatives continue to change countless lives by caring for, and improving the well-being of, patients and families affected by TBI and associated health conditions. But it would not be possible without our exceptional team of clinicians, researchers, educators, administrators, and support staff here at the NICoE and throughout the Intrepid Network. Several have been with the NICoE since the doors opened in 2010; others joined this year; and all bring a wealth of talent that is both varied and impressive.

There's a lot of work ahead as we embark on our 12th year of helping service members heal from the invisible wounds of war. For now, though, please read on for details of how we spent 2021.

Sincerely,

Captain Carlos D. Williams
Medical Corps, United States Navy
Director of the National Intrepid Center of Excellence
Walter Reed National Military Medical Center



MISSION

We improve the lives of patients and families impacted by TBI through excellence and innovation



VISION

To be a global leader in TBI care, research, and education



GUIDING PRINCIPLES

Excellence, Innovation, Compassion, Honor, and Collaboration

ADVANCING CARE THROUGH

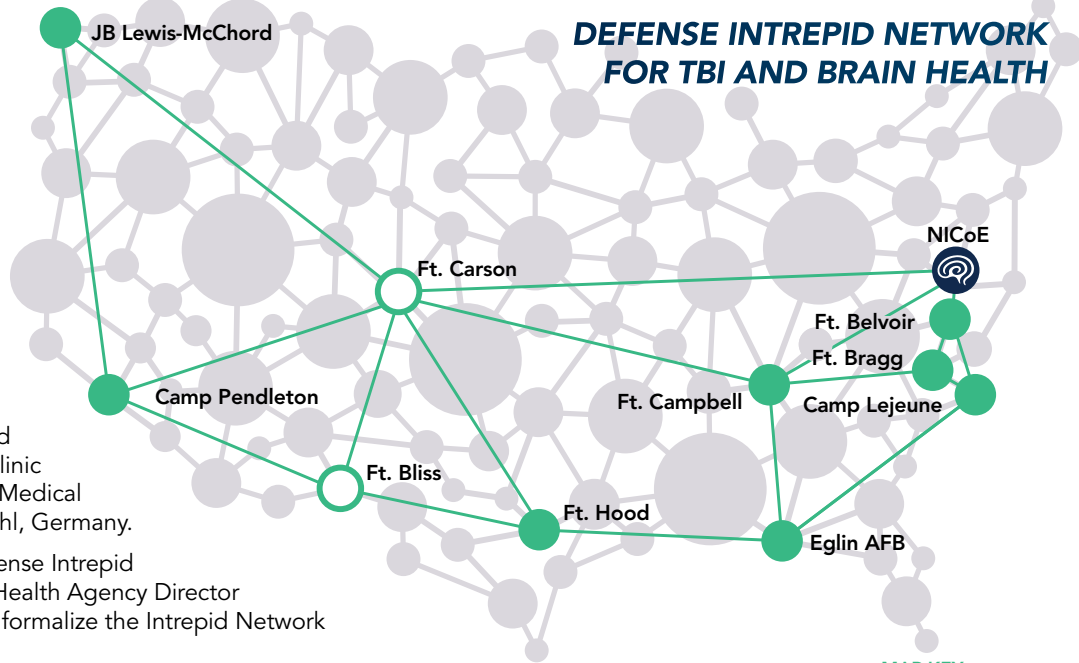
A GROUNDBREAKING YEAR FOR THE INTREPID NETWORK

It was a groundbreaking year for the Defense Intrepid Network for Traumatic Brain Injury and Brain Health (Intrepid Network). On May 13 at Fort Carson, Colorado, construction began on the ninth Intrepid Spirit Center (ISC), and planning is underway for the 10th standalone ISC at Fort Bliss, Texas. Also underway are plans to add two partner sites outside the continental United States: Joint Base Elmendorf-Richardson TBI Clinic in Anchorage, Alaska, and Landstuhl Regional Medical Center TBI and Rehabilitation Clinic in Landstuhl, Germany.

In a groundbreaking statement during the Defense Intrepid Network Fall Meeting in September, Defense Health Agency Director Army Lt. Gen. Ronald Place said it was time to formalize the Intrepid Network as a program of record. The 11 Intrepid Network site directors, who had gathered for the first time in two years, accepted the charge and spent much of the meeting determining specifics and next steps.

The Intrepid Network relies on an interdisciplinary team of researchers and clinicians who specialize in a range of rehabilitation, neurological, and behavioral health treatment methods. The interdisciplinary approach expedites diagnostic evaluation, leveraging each team member's specialty to achieve common clinical goals and develop a collaborative, individualized treatment plan.

Becoming a program of record will ensure that the unique interdisciplinary model of care is sustainable while also enabling greater collaboration and opportunities for research, education, and other initiatives. This will ultimately improve the lives of patients and family members affected by the invisible wounds of war.



44% of TBI-related encounters across the Military Health System took place within the Intrepid Network, and an additional 6.1% were completed by Intrepid Network providers at other clinics and hospitals.

MAP KEY

- NICoE
- Intrepid Spirit Center Open
- Intrepid Spirit Center Program is operational, but stand-alone building is under construction or to-be-built

“The care you gave me here saved my life.”
 – NICoE Patient

NICOE PATIENTS BY THE NUMBERS



1,725

unique patients with
25,140
 clinical encounters



80%*

show positive outcomes



99%*

feel better equipped to manage their own health



98.85%*

satisfied with care received

*Data based on NICoE patient experience surveys.

COLLABORATION >>>>>>>>

EXPANDED EDUCATIONAL OFFERINGS

Education is a core part of the NICoE mission. In FY 2021, the NICoE added two virtual products to the roster of established training events, which include a student-focused didactic lecture series and a staff-focused professional development series. In March, a series of webinars offered for Brain Injury Awareness Month proved so successful that the clinical education team began hosting monthly webinars focused on a variety of TBI-related topics. In September, Interdisciplinary TBI Grand Rounds debuted at the Defense Intrepid Network Research Symposium. This hospital-based series presents cutting-edge TBI findings followed by a discussion concerning their translation and impacts on clinical care and future research. The first one, which drew 72 attendees, explored high-tech vs. high-touch approaches to brain health.

219 staff & colleagues attended lectures

19 didactic lectures held



TBI SPECIALTY WORKGROUPS FOSTER COMMUNITIES ACROSS THE NETWORK

The TBI Specialty Workgroups, communities of practice that began meeting virtually during the pandemic, continued to thrive in 2021. The workgroups bring together TBI practitioners and community partners who share common areas of interest to standardize treatment, outcome measures and data collection notes to improve high quality, interdisciplinary care for beneficiaries. The first to launch, in May 2020, was the Physical Therapy workgroup. By the end of 2021, there were 12 TBI Specialty Workgroups, which had conducted nearly 100 meetings. The workgroups' momentum quickly expanded to encompass different clinical communities outside the Intrepid Network. Now, the 200+ members represent practitioners and researchers across the DHA and the VA.

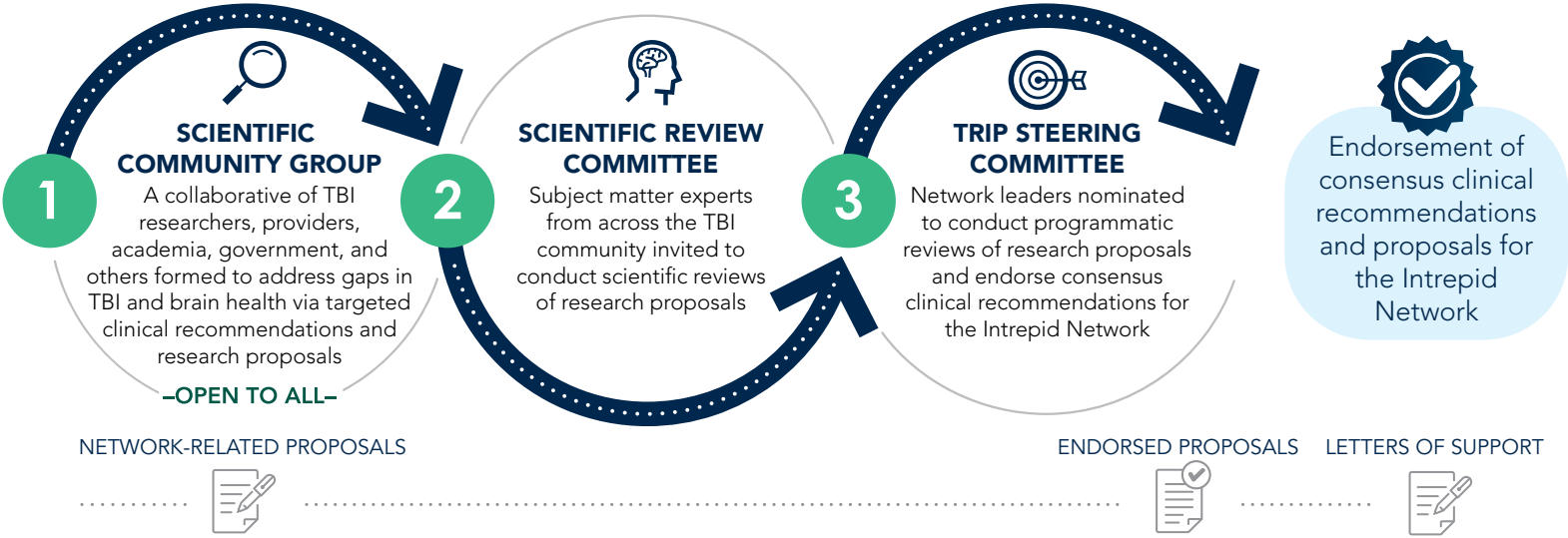
To further exemplify the value these groups bring, in April 2021, a DHA procedural instruction established the clinical tools and procedures for acute concussion care at military treatment facilities (MTF). In response, the NICoE informatics team developed a dashboard to track compliance metrics for each MTF, allowing site leadership the option to receive recurrent daily Executive Summary reports. The Acute Concussion Care workgroup helped MTFs improve compliance through member discussions of strategies implemented at other facilities.

As the Intrepid Network moves toward formalization in FY 2022, so will the workgroups. A charter is under development that would standardize the meeting cadence and length. For more information about the workgroups please email: dha.bethesda.j-11.mbx.tbi-specialty-workgroup@mail.mil.

TRANSLATING RESEARCH INTO PRACTICE

This year, the NICoE, in conjunction with its Intrepid Network partners, launched the Translating Research Into Practice (TRIP) initiative. The TRIP effort relies on cross-sector collaboratives of clinicians, researchers, academia, government, non-government organizations and industry partners to help identify research findings that can inform clinical standards of care. These groups, expected to launch by early 2022, will assess and endorse Intrepid Network-related research proposals and clinical recommendations. Researchers whose proposals are endorsed will then have the opportunity to partner with the Intrepid Network on their projects, receiving a letter of support and the possibility of conducting multi-site research.

THE TRIP PROCESS



INNOVATIVE RESEARCH INFORMS CLINICAL OUTCOMES

NICoE research is carried out by researchers from diverse clinical and scientific backgrounds. Our collaborative environment produces significant and relevant research, improvements to clinical care, and advances in education. There is also power in numbers when driving TBI evaluation and treatment forward. Because of this, the NICoE collaborates with federal, academic, and private and nonprofit organizations, using technical and clinical resources.

The following select publications from NICoE researchers highlight the breadth of experience within the portfolio and emphasize how critical science is publicly accelerated through collaborative efforts:

33

ACTIVE STUDIES, INCLUDING 9 MULTI-SITE COLLABORATIONS WITH MTFs AND VA SITES



15

observational studies



11

treatment studies



6

retrospective studies



1

other protocols

DEPARTMENT OF DEFENSE, VETERANS AFFAIRS, AND INDUSTRY COLLABORATING TO ADVANCE EVIDENCE-BASED MEDICINE

Study: A Randomized Clinical Trial of Plasticity-Based Cognitive Training in Mild Traumatic Brain Injury

The BRAVE study was a randomized controlled trial—considered the “gold standard” in clinical research—involving five VA and military sites, including the NICoE. This study demonstrated that service members (SM) and veterans with a history of mild TBI using a computerized brain-training program in their homes for 12 weeks, with remote coaching from clinical staff, significantly improved cognitive performance. These benefits were sustained for at least three months without further training. These data provide preliminary evidence that in-home, self-paced use of this computer program can supplement the standard mild TBI cognitive rehabilitation protocol, offering flexible, remote rehabilitation options without sacrificing efficacy.

Reference: *Brain*, 144(7), 1994-2008. doi:10.1093/brain/awab202

THE INTREPID NETWORK MODEL OF CARE IMPROVES SYMPTOMS FOR PATIENTS WITH TBI AND BEHAVIORAL HEALTH CONDITIONS

Study: Efficacy of an Interdisciplinary Intensive Outpatient Program in Treating Combat-Related Traumatic Brain Injury and Psychological Health Conditions

A study performed at the NICoE demonstrates that the four-week interdisciplinary intensive outpatient program (IOP) combining conventional rehabilitation therapies with integrative medicine significantly improved symptoms in SMs with combat-related mild TBI and behavioral health conditions. The results confirm the value of this holistic disease-based model of care, demonstrating significant improvement across the clinical domains to include neurological symptoms, PTSD, anxiety, depression, sleep disturbance, headache and quality of life at four weeks and sustaining to six months. This study is impactful as previously many SMs have not responded to conventional treatment and were forced to disengage from full active duty status or prematurely medically retire, thus reducing military readiness. Future goals include leveraging the skills-based training in the IOP earlier in service member’s careers to build resilience in the training environment and enhance performance.

Reference: *Frontiers in Neurology*, 11(1741), 580182. doi:10.3389/fneur.2020.580182

109

PUBLICATIONS & PRESENTATIONS



Abstracts & Posters

44

Journal Articles

40

Invited Presentations

23

Book Chapters

2



I am extremely proud and humbled to be part of such a great organization. The work that NICoE providers, researchers and administrative staff accomplish on a daily basis to help heal our patients is remarkable. I am extremely fortunate to be able to contribute to this success.”

– NICoE Staff Member



A PLACE TO
HEAL THE INVISIBLE
WOUNDS OF WAR



The National Intrepid Center of Excellence

NICoE is a member of the Defense Intrepid Network for TBI and Brain Health

4860 South Palmer Road | Bethesda, MD 20889

For more information on the NICoE, please visit our website:

<https://walterreed.tricare.mil/NICoE>

We value your opinion; contact us here:

dha.bethesda.wrnmmc.mbx.nicoe@mail.mil



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