



Board Member Spotlight: Dr. Tamara McLeod

Dr. Tamara McLeod is currently a research professor at A.T. Still University School of Osteopathic Medicine located in Mesa, Arizona. She has done extensive research in sports-related injuries, specifically concussions. Dr. McLeod has been an active participant in sports since a very young age.

She has also always been interested in the field of medicine. In choosing a career in sports medicine, she was able to combine both of her passions. While a doctoral student at the University of Virginia, she was invited to assist with a high school concussion study. The conversations she had with the medical and school personnel demonstrated to her the need for better knowledge regarding concussions for young athletes. Since then, she has continued her research in this important area of study.



Dr. Tamara McLeod

Dr. McLeod is also working hard as a United States Brain Injury Alliance (USBIA) board member to find ways to improve the care for survivors of brain injury, their caretakers, family, and friends nationally. She also serves on the Governance Committee for USBIA, which recruits new board members and committee members to

Continued on page 3

Project Spotlight: The Colorado Brain Injury Hard to Serve Study

Background

The Brain Injury Collaborative, Brain Injury Alliance of Colorado (BIAC), and MINDSOURCE – Brain Injury Network (formerly CO Brain Injury Program), began to identify what appeared to be a growing concern and need related to individuals with complex medical, and/or behavioral health needs experiencing significant challenges in accessing mental health (both long-term and acute) services. To better understand this need, MINDSOURCE funded a study conducted by Kone Consulting.

The following key questions guided this study:

1. What is the current infrastructure in place to support individuals with brain injury?
2. Which Coloradans with brain injury are experiencing difficulties accessing the services they need?
3. Where are the current gaps in services and what contributes to these barriers?
4. What best/promising practices can inform recommendations?
5. While initially it was thought that this study would be narrow in scope and focus on only long-term residential and behavioral health concerns “hard to place,” it became apparent that the issues/concerns for individuals with complex needs stretch beyond that and therefore the study shifted to focus more broadly to encompass; education, vocation, medical, and behavioral health.

Key Findings

- There is no standardized screening and identification protocol to identify brain injury,
- Brain injury is slow to capture public awareness,
- Providers need better training on the symptoms of brain injury to avoid differential diagnosis for individuals,
- Access to services is prevented by cost and health insurance,
- Divided payer and services structure creates access barriers,
- Complexity associated with treating brain injury and co-occurring conditions creates access limitations,
- Disparate systems are hard for individuals and service providers to navigate,
- Holistic care coordination generally does not exist for people with brain injury,
- Affordable housing and appropriate residential facilities remain an unmet need, and
- Long term employment services are limited for people with brain injury.

Continued on page 3

New Study on Concussion in Children

Researchers at the Centers for Disease Control and Prevention and the Children's Hospital of Philadelphia examined the causes of concussion among more than 1,500 children seen for medical evaluation at their hospital. Collision or contact activities, like football and soccer, led to 40 percent of all the diagnosed concussions in the study. Other leading causes of concussions identified in the study, included: recreation activities (playground, recess, gym); falls (such as from stairs); motor vehicle crashes; and violence or assaults. This research was published in the Journal of Pediatrics.

To read the full text of this article, [click here](#).

New Fact Sheets on Chronic Traumatic Encephalopathy (CTE)

CTE is a brain disease that results from changes in the brain. These changes can affect how a person thinks, feels, acts, and moves. Traumatic brain injuries, including concussions, and repeated hits to the head, called subconcussive head impacts, may lead to CTE.

The CDC has recently posted two CTE fact sheets online. This first factsheet (left below) provides a snapshot of what researchers currently know about chronic traumatic encephalopathy. The second factsheet discusses information based on the latest science about CTE, including clinical presentation, risk factors, diagnosis, and strategies for speaking about CTE. Click on images below to download the fact sheets.

ANSWERING QUESTIONS ABOUT Chronic Traumatic Encephalopathy (CTE)

This handout provides a snapshot of what researchers currently know about chronic traumatic encephalopathy or CTE. Research on CTE is growing. More studies can help answer many questions about this disease.

What is CTE?
CTE is a brain disease that results from changes in the brain. These changes can affect how a person thinks, feels, acts, and moves. Traumatic brain injuries, including concussions, and repeated hits to the head, called subconcussive head impacts, may lead to CTE.

What are Subconcussive Head Impacts?
Subconcussive head impacts are bumps, blows, or jolts to the head. Unlike concussions, which cause symptoms, subconcussive head impacts do not cause symptoms. A collision while playing sports is one way a person can get a subconcussive head impact.
CTE has been diagnosed in people who had a history of repeated subconcussive head impacts and did not have any known history of concussion.^{1,2} Researchers believe that the more years a person has repeated subconcussive head impacts or other brain injuries, the higher the chance they have of getting CTE.³

How Common is CTE?
Researchers do not know how many people in the United States have CTE. Most studies on CTE focus on former athletes who played contact sports (such as football or boxing) and military service members.

CTE Symptoms May Affect How A Person:

- THINKS** Trouble with memory and problem-solving
- FEELS** Changes in emotion (such as depression, hopelessness, or anxiety)
- ACTS** Problems with behavior (such as anger or impulsivity)
- MOVES** Problems with coordination, greater risk of falling, or tremors

cdc.gov/HEADSUP

ANSWERING QUESTIONS ABOUT Chronic Traumatic Encephalopathy (CTE) INFORMATION FOR HEALTHCARE PROVIDERS

This fact sheet discusses information based on the latest science about CTE, including clinical presentation, risk factors, diagnosis, and strategies for speaking with patients. Research on CTE is emerging, and more studies are needed to fully answer questions about the disease.

Understanding CTE
CTE is a neurodegenerative disease that is associated with changes and deficits in cognition, behavior, mood, and motor skills. It is believed to be caused in part by exposure to repetitive head impacts, including concussions as well as subconcussive trauma (i.e., head impacts that do not cause symptoms of concussions).¹
It is believed that repetitive head impacts set in motion a complex set of events in the brain. Primary among these are changes in the white matter (the brain's connecting wires) and the accumulation of an abnormal, hyperphosphorylated form of tau protein (p-tau). Scientists believe that the p-tau eventually spreads throughout much of the brain, leading to widespread neurodegeneration.²

Mechanism of Tau Protein Capture
The protein tau (green) aggregates abnormally in a brain cell (blue). Tau spills out of an injured cell and enters the bloodstream (red). Research shows that antibodies (blue) can capture tau in the blood that reflect its levels in the brain.

Timeline of Events in the Study of CTE
CTE was first described almost 90 years ago when its symptoms were observed in boxers. Although knowledge of the neuropathology of CTE has grown significantly, and media attention toward the disease has increased, the scientific understanding of CTE is still in its early stages.³
The timeline on the next page describes important moments in the study of CTE.

cdc.gov/HEADSUP

HEADS UP to School Sports

HEADS UP is a series of educational initiatives, developed by CDC, that all have a common goal: Protect kids and teens by raising awareness and informing action to improve prevention, recognition, and response to concussion and other serious brain injuries.

Initially, HEADS UP materials addressed health care professionals and their important role in diagnosing and managing concussions. More recent HEADS UP initiatives focus on sports programs and schools as key places to share concussion information with coaches, parents, and school professionals. HEADS UP has just released sports specific posters like the one below.

YOUR HEAD + HER SHOULDER DON'T MAKE A GREAT TEAM.

1 in 2 concussions from heading in girls' soccer happen when players collide.

Ask your coach for concussion safety tips.

Learn more: www.cdc.gov/HEADSUP

Source: Mazer M, McKeown N, Fields S, Comstock RD. Subconcussive head impacts among United States high school athletes in 20 sports. *Am J Sports Med*. 2016;44(4):97-105.

The National Institutes of Health and the Centers for Disease Control are working to better understand CTE, its causes, and how to diagnose it. Learn more about NIH research efforts on CTE by [clicking here](#).

All materials developed by CDC for the HEADS UP initiative are available for public use and distribution free of charge. For more information, [click here](#).

diversify the board's skill set. Dr. McLeod believes it is important for sports medicine professionals to be active parts of the organization at the state and national level because they have access to current and reliable information regarding brain injury. For example, athletic trainers are often on the frontlines of concussion diagnosis and management. Also, as an educator and researcher, Dr. McLeod is able to provide input for grant writing and educational initiatives.

She is currently working on numerous ongoing projects that evaluate quality-of-life after a sports-related concussion, as well as potential academic consequences. "We are in the middle of a large study assessing the knowledge, attitudes, and beliefs of healthcare providers and school personnel regarding concussion and academic adjustments," explained Dr. McLeod. Their end goal is to develop an evidence-driven protocol that increases communication and services between medical providers and school personnel to improve outcomes for adolescents with concussions. "We will be starting a prospective study to determine if vision training can decrease concussion risk in high school soccer and football athletes," said Dr. McLeod.

Through her work, Dr. McLeod has learned much about how brain injury can affect everything from activities of daily living, to school sports and social activities. "These scenarios often drive my research, which will help us learn more about what we can do to help," explained Dr. McLeod. "It's also why we offer free baseline (pre-injury) testing services to local youth and high school athletes as part of our outreach."

This article was written by Erica Balderas as part of her USBIA Public Policy Internship.

Key Recommendations

1. Develop, implement, evaluate, and disseminate a best practice protocol for screening, identification, and assessment of brain injury statewide.
2. Increase public education and awareness about brain injury.
3. Support providers and educators by increasing the availability of brain injury specialist to consult and train across systems.
4. Continue efforts toward integrated care to assure individuals with complex needs are getting services.
5. Remove remaining barriers to accessing behavioral health services.
6. Increase efforts to coordinate care over time and across continuum of needs.
7. Continue advancements toward person-centered, patient driven care.
8. Prioritize need for additional affordable housing and appropriate residential facilities.
9. Increase access to crisis stabilization services, specifically crisis stabilization units.
10. Integrate peer support into the brain injury and employment services.
11. Improve system coordination for children and youth with brain injury as they transition through school and into adult hood by building on the BrainSTEPS initiative.
12. Expand supported employment for people with brain injury.



Next Steps

MINDSOURCE will partner with BIAC to develop a strategic plan based on the findings and recommendations. Recommendations will be prioritized based upon high impact, high feasibility. This plan will be finalized with input from stakeholders such as the Collaborative. Opportunities have begun to emerge already such as:

- Expanding supported employment across waivers,
- Increasing collaboration with the Division of Vocational Rehabilitation,
- Expanding BrainSTEPS,
- Implementing screening and identification protocols in high risk settings, and
- Training and education across behavioral health settings.

USBIA State News

Brain Injury Alliance of Colorado



Gavin Attwood, Chief Executive Officer of Brain Injury Alliance of Colorado travelled to New Mexico to meet with the BIA NM board to help develop a strategic plan for the organization. This was an opportunity for one state alliance chapter to help another state alliance chapter -- working hand-in-hand together DOES make a difference!

Minnesota Brain Injury Alliance



The Minnesota Brain Injury Alliance had an incredibly successful 2017. With an average of 3,164 open cases each month, our Resource Facilitators made 25,162 individual contacts in 2017. We saw a nearly forty-one percent increase in the number of new referrals to our Resource Facilitation program with a final total of 1,020 new referrals.

Our Education and Community Outreach department continued making an impact across all channels of contact. ECO served 13,810 individuals, and held 246 community meetings.

Our Case Management department's volume increased 12 percent over 2016. Case Management served 1,122 and received 199 new referrals. The Speakers Bureau program had 61 presentations to over 2,000 attendees. The Consumer and Family Conference increased attendance over last year with 125 participants. And the Annual Conference for Professionals in Brain Injury held strong with over 670 attendees. Topics this year included "Concussion Management: Are Your Schools Prepared for Return to Learn as they are Prepared

for Return to Play," "Vision! How its Processing Changes after Mild Traumatic Brain Injury," and "Hmong, Latino and Somali Cultures and their Perspective of Brain Injury." Keynote speakers and plenary speakers covered topics from "How Neurological Insult or Injury can Derail Learning, Executive Functioning and Behavior" to the "Benefits of Drum Circles for People with Disabilities Including Brain Injury."

The award winning "Unmasking," Jed Schlegelmilch's documentary about the Minnesota Brain Injury Alliance's year-long Unmasking Brain Injury in Minnesota project, will have a free showing at Minneapolis's celebrated Guthrie Theater. In partnership with UCare, the film will be shown in the Guthrie's McGuire Proscenium arena. Over 200 masks will be on display in the theater's Endless Bridge observation deck.

Finally, the Minnesota Brain Injury Alliance and the USBIA Communications Committee has put together an exciting new campaign the aim of which is to increase the public's understanding of brain injury during Brain Injury Awareness Month. It will accomplish this by using social media outlets to share the personal stories of individuals living with the effects of brain injury.

The theme of the 2018 campaign is "See Me. Understand My Brain Injury." Help others see. Help others understand. The aim of the stories is to emphasize the capabilities of people living with brain injury while also acknowledging that their lives have been changed by it as well. Stories will highlight those singular moments that make you go, "This is it. This is brain injury."

We're hoping to see many stories from across the United States as we all help raise brain injury awareness.

Brain Injury Alliance of Nebraska



Brain Injury Alliance of Nebraska (BIA-NE) continues to get requests from around the U.S. for the DVD which highlights the devastating stories of four children after being shaken as babies in a documentary, "Forever Shaken". This powerful 30-minute educational tool is being used by childcare advocates, schools, hospitals, and others to show the lifelong challenges that face children of Abusive Head Trauma. It can also be found on the BIA-NE website at www.biane.org.

BIA-NE finished up the first year of its multi media campaign, "When in Doubt, Sit 'Em Out" where 60 second video clips were created to promote the message specifically for girls soccer, basketball, volleyball and boys football, hockey, and wrestling. To view the clips please go to <http://biane.org/concussion/concussion-awareness/>. These clips were aired regionally on TV, radio, and promoted via social media.

In Oct. 2017 BIA-NE was awarded a grant to continue its work in the area of domestic violence. BIA-NE had continued trainings for domestic violence programs and has begun to reach out to professionals in the legal system to better prepare them for the unique needs of those with brain injury due to domestic violence.

In part, due to the advocacy efforts of the BIA-NE, Nebraska continues to maintain its motorcycle helmet law. Every year this is a hot topic at the Nebraska state capitol. BIA-NE is thankful for one more year of required helmet use in Nebraska.

Brain Injury Alliance of New Jersey



As of January 1, 2018, Steven Benvenisti, Esq., stepped into

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the role of Board President of the Brain Injury Alliance of New Jersey after serving on the Board of Trustees for over eleven years. Mr. Benvenisti was a 21 year-old senior at The College of New Jersey when he was walking and struck by a car being driven by a drunk driver. Instead of graduating college with his friends, he was in a coma for nearly two weeks and spent months in the hospital undergoing surgeries and intense rehabilitation. Neither he nor his family were prepared for how long it would take to recover from a brain injury. Today, he is grateful to be fully recovered and fulfilling his dream of becoming an attorney. He has dedicated his career as a personal injury attorney representing clients who have sustained traumatic brain injuries. "It is my privilege to serve as Board President for BIANJ. Drawing on my personal and professional experience, I look forward to leading this wonderful organization, which continues to successfully reduce preventable brain injuries and support those who are living with brain injury," Mr. Benvenisti said. Wallace McD. Kyle, past Chairperson for BIANJ, will continue to support BIANJ and remain on the Board of Trustees.

BIANJ is excited to announce its newest program, CARES (Connections, Assistance, Resources, Education and Support). Launched in July 2017, this program offers case management services to individuals and families impacted by brain injury. The program focuses on assessing needs, identifying resources and developing a plan to improve quality of life. In just the few short months since its inception, the program has grown rapidly and is now working with almost 50 participants. BIANJ CARES is funded by the Musicant Family Brain Trust.

The 36th Annual Seminar for Professionals, 'Exploring Diverse Issues in Brain Injury' will be hosted at iPlay America in Freehold, NJ, on May 17th, 2018. Keynote

speaker, Chris Nowinski, PhD, will present Concussion and CTE: Fact, Fiction and the Future of Sports. Mr. Nowinski is the Founder and Executive Director of the Concussion Legacy Foundation. This year's seminar will feature a 'concussion track,' for those interested in the subject. A sampling of workshops include: Trauma Informed Care; Concussion Symptoms in Pediatric Populations; Domestic Violence and Brain Injury; Agitation after Traumatic Brain Injury; Concussion Research Topics; and Voice Activated Assistive Technology.

Our 12th Annual Gala was held on March 15, 2018 at the Crystal Plaza in Livingston, NJ. This year's Gala focused on the accomplishments of women leaders in New Jersey with honorees Cathleen D. Bennett, President and Chief Executive Officer of the New Jersey Hospital Association; Carol Ann Giardelli, Director of Safe Kids New Jersey and Central Jersey Family Health Consortium; and Christine O'Brien, President of the Insurance Council of New Jersey. Becky Quick, Co-Anchor of Squawk Box, and Anchor of On The Money, served as Mistress of Ceremonies.

The Brain Injury Alliance of New Jersey will host two, day-long trainings for health and human service professionals in April. This year's topic is Substance Abuse and Brain Injury, and will feature speakers from the New Jersey Department of Health, ReMed, and the New Jersey Department of Human Services. A speakers panel will include personal insights from individuals and family members who have dealt with brain injury and substance abuse issues.

Brain Injury Alliance of Utah



We significantly expanded outreach and promotion of the Alliance and the State TBI Fund. We are aggressively working toward an organizational goal of doubling our number of outreach

presentations from prior years (increasing from approximately 50 in each of the state's fiscal years 2015 - 2017 to over 100 presentations in fiscal year 2018). Efforts have been increased in both the local Salt Lake City market and in statewide outreach to many rural communities. New and expanded audiences include law enforcement/first responders, veterans' representatives, rural school districts, and organizations representing the homeless population and Native Americans.

Our Board of Directors has transitioned from a monthly to a quarterly meeting schedule, in conjunction with the implementation of a long-desired formal committee structure. Our committees, Development/Fundraising, Marketing/Public Relations, Policy/Advocacy and Education/Community Outreach are meeting regularly to advance mission objectives.

Over 300 survivors of brain injury and their family care partners and professionals attended our annual Family & Professionals Conference in October 2017. Planning is underway for our 29th annual conference, to be held October 12, 2018. New initiatives include the securing of multiple keynote speakers to better serve the wide range of attendees.

Planning is underway for the 24th annual "Run, Walk & Roll" 5K, which will be held May 19, 2018.

The BIAU has established a new partnership with Wasatch Adaptive Sports, whereby brain injury survivors have the opportunity to participate in adaptive skiing, skiing, snowshoeing and other activities at Snowbird Resort. Participation is free and will continue this season through April 2018.

We continue to cultivate our ongoing relationships with state representatives via meetings of the Utah Brain Injury Council (UBIC) and the TBI Fund Advisory Committee.