Brain & Spinal Injury Trust Fund Commission

NEW DIRECTIONS!

2022 Annual Report

Brain & Spinal Injury
Trust Fund Commission

We Have Strong Citizen and Legislative Support

In November 1998, Georgia voters overwhelmingly approved (by 73%) a constitutional amendment to create a Trust Fund for traumatic brain and spinal injuries, paid for by a surcharge on drunk driving fines. This landmark legislation won by a margin of greater than 2-to-1. Nearly 70% of voters approved an additional fine on reckless driving convictions in 2014 that is directed solely to the Trust Fund. The last legislative initiative for the Trust Fund in 2020 was passed by the General Assembly without a single "no" vote! We thank the legislature for their confidence in our mission and thank the Governor for signing this measure to keep our revenue level.

We Are Guided by Those with Firsthand Knowledge

The idea of the Trust Fund and the advocacy efforts on behalf of the founding legislation was driven by people with traumatic brain injury and spinal cord injury and those that serve them. Because of their first-hand experiences, they knew what was most important for people with these traumatic injuries--and what was missing in the range of services and resources available. They dreamed of an agency that understood the lifelong needs of people with traumatic injuries and was committed to supporting injured individuals at different stages in their life – not just in the critical moments after the injury occurs.

More than half of the people who serve on the Commission must have a brain or spinal cord injury or be a family member of a person with an injury. Other members are specialists in the field, or work with organizations providing services to people with traumatic injuries. Their collective knowledge and experience governs our day-to-day decisions, guides our recommendations for award distributions, and informs our public policy agenda.

We Connect People to Their Communities

Georgians with traumatic brain and spinal injuries deserve lives of independence and inclusion, lives rich with vision and possibilities. Trust Fund awards assist individuals with injuries in reaching their chosen goals.

We Cast Vision

Our Vision is a Georgia where people with traumatic brain and spinal cord injuries are valued, have equal opportunity and real choices.

Trust Fund Awards Change Lives.

The Brain and Spinal Injury Trust Fund Commission is Georgia's only state agency that offers dedicated funding and support for individuals who have sustained a traumatic brain or spinal cord injury. The Commission's mission is to distribute much needed resources to eligible Georgia residents via direct grants for their post-acute care and rehabilitation.

The Commission serves through three major avenues:

The Central Registry identifies newly-injured individuals and their families and enables us to reach out to each one personally to educate them about and connect them to the resources they need to rebuild their lives. The registry allows us to efficiently gauge the needs across the state and the gaps we still need to address.

The Trust Fund provides much needed monetary resources for those who simply cannot afford necessary goods and services they need post-injury or whose insurance benefits have become depleted. Estimated lifetime costs of care for a person with a severe TBI can reach $4,000,000. Care for an individual with a severe SCI can reach upwards of $3,000,000.

Alleviating even a small portion of financial burden or resource obstacles for those working to define a new way of life and strive for rehabilitation can leave a lasting impact across their entire lives. We assure them that they are not alone. We stand with them and are encouraging them, every step of the way.

As **the Lead Agency**, we are collaborating with stakeholders across the state to make sure Georgia has a system of care that truly meets the needs of people with traumatic brain and spinal injuries. Our State Action Plan partners are a collaboration of agencies, hospitals, schools, and service providers to improve comprehensive care. Our online, direct mail,and personal outreach efforts help potential applicants with the application process and connect them to services in their local community. Our legislative efforts have impacted laws that will reduce injury and make available added resources for Georgians with traumatic injuries. With the ever-changing landscape of the economy and healthcare coverage today, services and resources for individuals with traumatic injuries continue to be more expensive and harder to find. Hence, the role of the Brain & Spinal Injury Trust Fund Commission has become more valuable than ever before. We are focused each day on making a difference across our state - through public awareness, grant administration and developing new partners.

For so many across our state, the Commission has proven to be a dependable resource they can count on to help them build lives of meaning, independence and inclusion.

Executive Director's Letter

As we prepare to vacate the 2 Peachtree Office Tower in downtown Atlanta for the upcoming move to our new offices at the Sloppy Floyd Office Building we take stock of where we have been and what new directions lie ahead.

Preparing for a move means going through old files, materials and meetings and recalling the many people whose shoulders we stand upon. We thank our past-Chairman Chase Jones for his selfless leadership to help the Commission find more funding for grants to our stakeholders. Chairman Jones was fully invested in maintaining effective and efficient operations. I have had the pleasure of working with three outstanding Chairmen, Rusty Kidd, J.D. Frazier, and Chase Jones. We now eagerly await the appointment of a new Chairman to bring forth exciting new directions for the Commission to travel.

The Trust Fund's charge is to stay abreast of the vital needs of Georgia's brain and spinal cord injury survivors and seek every new opportunity we can to serve them better. By the end of the year we will have procured a new software system that will allow us to more efficiently process grant applications, increase communications with our stakeholders, and mine data for more effective strategic planning. The Commission engaged The University of Georgia's Institute of Human Development and Disability to produce a statewide Traumatic Brain Injury Needs Assessment. The report's environmental scan of services for Georgians with TBI has provided us a keen awareness of real-time gaps, as well as present and future opportunities for strategic partnerships with a multitude of agencies and organizations across the state.

The Commission's alignment with the Brain Injury Association of Georgia to provide the TBI Resource Facilitation program with federal funding has enabled new ways for us to reach and engage with those needing TBI services. We look forward to collaborating with new partners via this program's outreach initiatives to enable an even greater impact on Georgia's underserved communities.

The Commission has undertaken an in-depth review of our grant policies to ensure, with the resources available, we can continue to fund the grants with the greatest impact. As new technology makes life more accessible to those facing physical and cognitive disabilities, we are constantly working to be responsive to new opportunities and resources afforded us.

New directions before us impact not only our stakeholders but our staff. Our dedicated team at the Trust Fund is mission-focused, highly trained, and passionate to serve those who rely on us for critical rehabilitation and post-acute care. Providing them with a new work environment, new leadership, new resources, and new partners sets them up for great success.

We look forward to working with you all to identify new directions ahead to best serve Georgia.

Sincerely,

Craig Young

The Lead Agency

The Commission is guided by a strategic State Action Plan designed to help mold the state infrastructure and aid in the development of services to improve the lives of Georgians with traumatic brain injuries and spinal cord injuries. State Action Plan activities focus on seven core areas to ensure an individual's needs are being met by our direct grants:

- **Screening and Identification**
- **Training and Awareness**
- **Rehabilitation and Wellness**
- **Service Coordination**
- **Long Term and Life Long Supports**
- **Independent and Integrated**
- **Living Community Participation**

Representatives from advocacy organizations and services providers across the state, as well as individuals with traumatic brain injury and spinal cord injuries and their family members actively serve on three strategic committees and multiple work groups. These dedicated members work tirelessly throughout the year to plan and assess the statewide service structure and recommend changes to ensure care needs are being met and supports are available to promote community integration and independence for all individuals.

The Brain and Spinal Injury Trust Fund Commission is the lead agency for traumatic brain injuries and spinal cord injuries in the state of Georgia. We collaborate with our state and community partners to ensure that the work we do has a sustainable impact on the lives of the individuals we serve.

For more details about the State Action Plan, visit https://bsitf.georgia.gov/media-room

Collaboration Creates Efficiencies & Builds Trust

The Commission is pleased to have many partners within state and federal government agencies, as well as national, state and local nonprofits and other businesses and organizations. Some collaborations are formal with intergovernmental agreements, or grantee and grantor contracts. Others are business relationships that inform our service delivery and best practices.

The Commission is pleased to continue our collaboration for our home modifications program with the Georgia Department of Community Affairs. Commission appointees from other state agencies ensure that the voices of survivors of TBI and SCI are heard and transmitted as appropriate throughout Georgia.

The Commission also does business with 400 vendors in Georgia such as AMS Vans, Mobility Works, Side by Side Clubhouse, Beyond Therapy, YMCA, and scores of medical, therapeutic and clinical providers that offer valuable goods, services and expertise for our grantees needs.

Developing effective, focused programs to address the community needs of injury survivors requires accurate data.

This was the intent of the legislation that created the Central Registry, and that's the intent of the Commission as we work with communities, local and statewide organizations, hospitals, schools, and government entities to improve opportunities for Georgians living with TBI and SCI.

We use the Central Registry data to:
- **Contact each newly-injured Georgian** with information on available resources.
- **Identify Trends** - Information on causes of injury and affected age groups is vital for needs assessment and injury prevention.
- **Educate policy-makers** and community stakeholders about the incidence of traumatic brain and spinal injuries, which ultimately illuminates the needs of injury survivors.

The Commission is committed to gathering accurate and useful information that will tangibly help the thousands of Georgians coping with new injuries each year and the agencies and service providers that support them. Our data is also used by other state agencies, hospitals, and nonprofits to support grant requests and strategic planning for the TBI and SCI populations.

Traumatic brain injuries cost Georgians over $1.5 billion annually in medical costs and lost wages. Average yearly expenses for those with spinal cord injuries top $18 million.

TRAUMATIC BRAIN & SPINAL INJURIES
Total Injuries: 24,827 (2021)

		Emergency TBI	Hospital TBI	Hospital SCI	Hospital TBI+SCI
By Age in Years	0-4	931	258	2*	2*
	5-9	768	80	0*	0*
	10-14	1296	136	4*	1*
	15-19	2112	316	17	7*
	20-24	1631	388	33	6*
	25-29	1409	352	34	7*
	30-34	1051	368	31	10
	35-39	940	305	26	8*
	40-44	849	284	35	7*
	45-49	763	316	36	6*
	50-54	732	366	35	8*
	55-59	758	525	50	9*
	60-64	633	518	59	11
	65-69	598	504	38	5*
	70-74	589	660	44	8*
	75-79	495	688	47	6*
	80-84	430	672	28	1*
	85-89	305	507	16	2*
	90-94	151	310	7*	3*
	95-99	49	96	0*	0*
	100+	6*	13	0*	0*
		16496	**7,662**	**542**	**107**
	Blank	9*	11		
		16505	**7,673**	**542**	**107**
By Sex	Female	7,835	2,960	165	23
	Male	8,653	4,703	377	84
	unknown	17	10	0*	0*
	Total	**16,505**	**7,673**	**542**	**107**
By Race	White	9,057	4,621	276	41
	Black	4921	2018		44
	American Indian/ AK native	94	8*	1*	0*
	Asian	185	125	12	1*
	Native Hawaiian/ Pac Island	18	4*	0*	0*
	other	987	463	33	14
	refused	1239	434	12	5*
	No race reported	4*	0*	0*	2*
	Invalid race	0*	0*	0*	0*
	Total	**16,505**	**7,673**	**542**	**107**

*fewer than 10

Note: some columns may not add up to correct total because we do not report fewer than 10 individuals in a group for privacy reasons.

The primary purpose of the Brain and Spinal Injury Trust Fund Commission is to fund direct grants for Georgians who have survived neurotrauma i.e. traumatic brain and spinal cord injuries. (OCGA 15-21-140).

By supporting home and community based services for the care and rehabilitation of those injured we will foster lives of meaning, independence and inclusion. Grant applicants choose the type of assistance they need to get on with their lives. The Commission has a wide range of categories of goods and services available for our applicants to apply for: home modifications, transportation, medical services and therapies, personal support and respite, vocational training and supports, durable medical equipment, health and wellness activities are just some of the areas that the Commission routinely funds.

For many of our grant recipients the Commission is the only funder available. (The Commission reviews all requests to be sure that there are no other funders or programs an applicant can take advantage of.) The Trust Fund can augment existing funding sources; insurance (either private or public), waivers from state and federal programs, and applicants' own resources. The Commission accepts applications from all Georgians who are medically eligible. The Commission's Distribution Committee is composed of individuals who have first-hand knowledge regarding costs of post-acute care and rehabilitation to ensure the most efficient, effective grant distributions.

A traumatic injury is not a one-time event like a broken arm that is treated and returns to more or less pre-injury function. Brain and Spinal Cord injury is disease causative and accelerative. Those with severe injury have recurring issues with the original injury and often, shortened life-spans. Even mild brain injury can, over time, cause cognitive and functional deficits that negatively impact the individual and their family.

2022 Grant Distributions • $1,030,435 • 133 Awards

Assistive Technology/1.22% 4 awards | $12,520.38	**Health & Wellness/3.28%** 11 awards | $33,832.00	**Recreation/Hobbies/0.76%** 3 awards | $7,790.00
Computers/0.67% 10 awards | $6,854.00	**Home Modifications/2.91%** 3 awards | $30,000.00	**Speech Services/0.36%** 1 award | $3,720.00
Day Support Services/0.59% 1 award | $6,048.00	**Medical Care/4.91%** 9 awards | $50,608.40	**Transportation/54.91%** 43 awards | $565,816.00
Dental Services/0.29% 3 awards | $3,000.00	**Neurobehavioral Programs/0.11%** 1 award | $1098.00	**Vision/Hearing Services/0.15%** 2 awards | $1,515.00
Durable Medical Equipment/4.19% 8 awards | $42,198.63	**Personal Support Services/24.51%** 28 awards | $252,606.80	**Vocational Support/0.94%** 3 awards | $9,732.01
	Psychology/Counseling/0.30% 3 awards | $3,096.08	

The Brain and Spinal Injury Trust Fund Commission (BSITFC) applied for and was awarded the Administration for Community Living's (ACL) Traumatic Brain Injury (TBI) state partnership grant. With the help of this five-year grant, the Georgia State Partnership Program along with the Brain Injury Association of Georgia (BIAG) piloted the TBI Resource Facilitation program to provide services for the state of Georgia and implement a person-centered and culturally competent training program for Resource Facilitation Specialists. BIAG oversees a critical database of resources specific to brain injury ranging from health care professionals, home and community based providers, day facilities, respite care, financial, home access modifications, ombudsman, durable medical equipment, support groups, education resources and more. They have a cultivated list of partners that understand challenges faced by families and individuals with a TBI and are equipped to support their unique needs. The Resource Facilitation team created and now maintains HubSpot, a cloud-based Resource Facilitation database, that allows us to track individuals served, services accessed, and referrals given. The program provided 381 resources to clients and received 19 referrals through the Aging & Disability Resource Connection (ADRC) /Area Agency on Aging (AAA) program. Within the first six-months of the implementation, BIAG identified and enrolled 72 individuals in the resource facilitation program. Based upon the success of the pilot, the Georgia TBI State Partnership Program was awarded an additional Public Health Grant that allowed us to forge forth in new directions by hiring a bilingual specialist who will work with health providers across the state to expand our reach and impact to our Spanish-speaking population.

BIAG oversees a critical database of resources specific to brain injury ranging from health care professionals, home and community based providers, day facilities, respite care, financial, home access modifications, ombudsman, durable medical equipment, support groups, education resources and more.

Kenisha Tait
TBI State Partnership Program Manager

The Commission's TBI Grant Program Manager benefitted from a strong collaboration with the National Center on Advancing Person-Centered Practices and Systems (NCAPPS) Technical Assistance Program. NCAPPS awarded the Commission 52 hours of support from a TBI subject matter expert who helped us craft key objectives and goals to fully implement a statewide resource facilitation program.

The Georgia TBI State Partnership Program partnered with The University of Georgia's Institute on Human Development and Disability-University Centers for Excellence in Developmental Disabilities Education (UCEDD) to complete our statewide needs assessment providing critical knowledge regarding the strengths and gaps in statewide services, the real-time needs of those living with TBI and their families, potential organizational collaborators/partners, and community-based resources availability throughout Georgia. Online surveys, focus groups and interviews were conducted with individuals with TBI, caregivers and professionals to review the extent to which Georgians with TBI are receiving sufficient services to not just survive but thrive in their home communities. The needs assessment now serves as a current, relevant roadmap that will help the Commission prioritize our work, apply resources, and enlist new partners.

Collaborating with federal and state partners such as these continues to allow the Commission to tap into a wealth of knowledge, expertise, and resources that provide more services and support to Georgia's TBI survivors, their families, and caretakers than ever before.

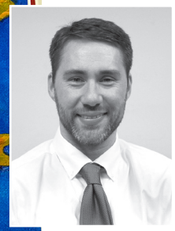
Traumatic Brain Injury (TBI) - State of Georgia Needs Assessment FY2022

The Brain and Spinal Injury Trust Fund Commission (BSITFC) contracted with the Research and Evaluation Unit (REU) at the Institute on Human Development and Disability (IHDD) at the University of Georgia (UGA) in 2021 to conduct a statewide Traumatic Brain Injury Needs Assessment for Georgia. The purpose of this assessment was to explore the needs of individuals with TBI living in Georgia, and to assess the availability of existing services and support in Georgia. Reviews of research and data were conducted to help identify gaps in TBI services across the state. Online surveys, focus groups and interviews were conducted with individuals with TBI, caregivers and professionals to review the extent to which Georgians with TBI are receiving sufficient services to support quality of life in the community.

Selected results extracted from the Needs Assessment environmental scan and data collection are presented at this end of this annual report. The full TBI Statewide Needs Assessment 2022 (including additional report sections, the appendices and footnotes) is available online at the BSITFC website: https://bsitf.georgia.gov.

2022 Outstanding Service Award

The Outstanding Service Award is a treasured framed print of artwork drawn by a Trust Fund recipient, Sarah Hatch, which provides a powerful interpretation of the fall that led to her injury. It reminds us how life can change in an instant and require us to go in new directions.



The Commission's **Outstanding Service Award** is given each year to an individual that has given significantly of their time and talents to the Commission in advancement of our mission. The Commissioners of the Brain and Spinal Injury Trust Fund have selected **Walter Chase Jones** *(pictured left)* as the Commission's recipient of the 2022 Outstanding Service Award for his devoted service to the Commission as a Governor appointed Commissioner since 2014 and as the appointed Chairman of the Commission since 2016. Chase served as the Commission Chairman until October of 2022 when he accepted a position with the Governor's Office of Planning and Budget. The Commission gratefully recognized the many contributions Chase made to the Commission in his eight years of service, but most especially for his strong leadership during the trying times of the pandemic and the Commission's transition to virtual operations. The Commission thanks Chase for being the leader needed to guide us in new directions and for his outstanding service to Georgians with traumatic brain and spinal cord injuries.

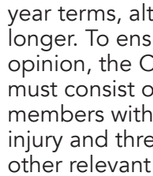
Commission Members

Commission Members are a dedicated, group of individuals from around the state. They are committed to improving the effectiveness of the Trust Fund by overseeing its operations and resources to give Georgians new opportunities.

The Governor appoints 10 members for two-year terms, although many of our members serve longer. To ensure a breadth of experience and opinion, the Commission's Governor appointees must consist of: seven individuals or family members with traumatic brain or spinal cord injury and three representatives from medical or other relevant professions. Six Commissioners are appointed by state agencies.

Bob Bauer, PhD - Buford - was appointed by the Governor in 2011. Bob is the retired chair of the Dept. of Psychology & Counseling at Valdosta State University and an EX-Peace Corps Volunteer. He has served as a: board member of Georgia Family Connection; chair of the Lowndes/Valdosta Commission for Childrenand Youth; board member of Elderhostel (now Roads Scholar), Inc. Bob has held several positions on the BSITFC Executive Committee and sub-committees, with particular interest in data evaluation and measurement.

Lisa Dawson, MPH - Atlanta - was appointed to the Commission as the representative of the Georgia Department of Public Health. Lisa is the Director of Public Health's Injury Prevention Section and is active as a member of the Governor's Office of Highway Safety - Safety Advisory Board, Emory Center for Injury Control, and SAFE KIDS Georgia.



Andrew Dennison, MD - Atlanta - is a Governor's appointee. Andrew is a physician at Atlanta's Shepherd Center. Dr. Dennison attended medical school at the University of Pennsylvania in Philadelphia and completed a residency in Physical Medicine and Rehabilitation at the Baylor College of Medicine/University of Texas-Houston. He also completed a fellowship in Traumatic Brain Injury at Carolinas Rehabilitation in Charlotte, NC. He is board certified in physical medicine and rehabilitation and is an active member in the American Academy of Physical Medicine and Rehabilitation and the American Congress of Rehabilitation Medicine.

Rebecca Dugger, MA - Atlanta - appointed by the Georgia Department of Community Health Rebecca is currently the Director of Programs and Community Support with the DCH, where she has oversight of the Home and Community Based waiver services, Behavioral Health and Long-term care programs. Rebecca earned her BA and MA in Communications from Georgia State University, and another master's in human services (MHS) from Capella University. She also holds several certifications including Six Sigma Black Belt, Medical Coding and Billing, Medicaid Certifications and Project Management. Volunteering at the High Museum of Art Rebecca developed art programs for the families with special needs by working with the Green Family Learning Center.

Ruth Engelberg, Secretary - Mansfield - is a Governor's appointee from Newton County. Ruth is currently the primary caregiver of her adult daughter, Jordyn, who is fully-dependent following a car wreck in 2016 which resulted in a severe traumatic brain injury. Ruth has previously worked at Atlanta's Shepherd Center as a Peer Support Liaison while studying the benefits of Peer Support to family caregivers in improving their self-efficacy and overall mental wellness. She currently volunteers for the Shepherd Center as a Peer Support Mentor working with family caregivers of patients undergoing brain injury rehabilitation.

Stephanie McDuffie Freeman, appointed by the Governor to the Commission, is a certified Therapeutic Recreation Specialist with Henry County working with Wheelchair Sporting Events. Stephanie sustained a traumatic brain injury as a child in 1993 and has been passionate to help others going through brain trauma. She has been a mental health and disability advocate for Georgia for the past 10 years working with a non-profit brain trauma organization, Share Your Strong helping to bring awareness and hope to individuals across Georgia. She has served as a board member for the Brain Injury Advisory Council with BIAA.

Commission Members

Chase Jones, Chairman - Carrollton - is a native of Carrollton, Georgia where he currently resides and works in real estate investment and property management. Chase has previously worked for the Georgia Department of Public Safety and Georgia House of Representatives focusing on government affairs, project management, and budget analysis. He is a proud graduate of the University of Georgia's School of Public and International Affairs, and holds additional certification from Georgia State University's Andrew Young School of Policy Studies. Chase is a spinal cord injury survivor, and advocate for the disability community. He has served as a Governor's appointee to Georgia's Brain and Spinal Injury Trust Fund Commission since 2014. In addition to currently serving as Commission Chairman, he is a member of the Commission's Executive, Public Policy, and various Ad Hoc Committees.

Susannah Kidwell - Atlanta - is a Governor's appointee from Fulton County. Susannah is Director of Rehabilitation Services at Children's Healthcare of Atlanta, where she has worked for the past 15 years. Kidwell has worked in the field of brain injury rehabilitation for more than 25 years. Kidwell received a bachelor's degree and a master's degree in Speech Language Pathology from Florida State University.

Gwen McKee, Vice Chairman - Savannah - is a Governor's appointee from Chatham County. Gwen is past board chairman of the Brain Injury Association of Georgia and also serves on numerous non-profit organization boards in the Savannah area. She is a tireless advocate for individuals with physical and mental disabilities. Gwen is a member of the Commission's Distribution committee and the Traumatic Injury Advisory committee.

Randy Owens, Treasurer - Gainesville - is a Governor's appointee from Hall County. Randy is currently employed at Gainesville Internal Medicine. He serves as a board member of Challenged Child and Red Rabbit Transit and is an advisor to Northeast Georgia Medical Center. He is co-founder of Our Neighbor Inc., a nonprofit that serves the needs of those with limitations and enables them to be active in the community. Because of Owens' permanent injury that resulted from a car accident, Challenged Child and Friends was founded. He has been an impactful advocate for young adults with disabilities.

Stephanie Stallings, Lt. Col. - Atlanta - appointed by Georgia Department of Public Safety/ Georgia State Patrol, Stephanie serves as GSP's Director of Support/ Administrative Operations to include the Capitol Police Division, Dignitary Protection Unit, the Special Services Mansion Security, Regional K-9 Task Force, Honor Guard, Governor's Task Force, and the Agency's Support Detachments. Prior to this appointment, Lieutenant Colonel Stallings served as the Director of the Public Information Office for the Georgia Department of Public Safety since March 2019. She began her career with the Georgia State Patrol in 1997 when she became a radio operator at Post 4 - Villa Rica. Lieutenant Colonel Stallings is an active member of the Department of Public Safety's Critical Incident Support Team which provides peer support to public safety personnel across the state during their time of need.

Timothy Wall - Brooklet - was appointed by the Governor in 2010. He is a Certified Therapeutic Recreation Specialist with a BS and MS in Sport Psychology. He is a wheelchair tennis enthusiast, having competed in regional championships since his spinal cord injury in 2001. Tim's brings valuable recreation/respite background to the Commission and first-hand experience working with organizations that provide recreational opportunities for individuals with disabilities. Tim serves as Chairman of the Distribution committee.

Jane Warnock - Eastman - is a Governor's appointee that has been an advocate for people with disabilities since her daughter, Christy, sustained a traumatic brain injury in a car crash in 2002. Jane is the Commission's Vice Chairman and has served on the Executive committee as Secretary and Treasurer.

Brain & Spinal Injury Trust Fund Commission

TRUST FUND AWARDS CHANGE LIVES

Apply online at bsitf.georgia.gov

3 Easy Steps

STEP 1

Determine Eligibility.

You must be a U.S. citizen, a Georgia resident, and have a traumatic brain injury or spinal cord injury.

STEP 2

Identify your need.

Select an item or service that will improve your quality of life, independence and participation in the community.

STEP 3

Submit the required documents.

Complete the application and all required materials (see list below) and submit for review.

Required Documents

Injury Documentation
Medical documentation or letter on medical facility letterhead describing **nature, cause, and date** of your injury.

Affidavit of Citizenship
Present a Notary Public with a valid proof of U.S. citizenship; sign and notarize the affidavit and submit with original application.

Cost Quote
Include one cost quote or estimate from a vendor for each request.

Proof of Georgia Residency
Submit a copy of proof of Georgia residency (e.g., valid driver's license, utility bill from past 60 days, paycheck stub, etc.)

For additional support, call us toll free at 1-888-233-5760.

Brain & Spinal Injury Trust Fund Commission
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2022
Georgia Statewide Traumatic Brain Injury (TBI) Needs Assessment Report

Brain & Spinal Injury Trust Fund Commission

Research & Evaluation Unit
Institute on Human Development and Disability
UNIVERSITY OF GEORGIA

ENVIRONMENTAL SCAN

About the Needs Assessment

The Brain and Spinal Injury Trust Fund Commission (BSITFC) enlisted the assistance of the Research and Evaluation Unit (REU) at the Institute on Human Development and Disability (IHDD) at the University of Georgia (UGA) in 2021 to conduct a statewide needs assessment for Georgia. The purpose of this assessment was to explore the needs of individuals with Traumatic Brain Injuries (TBI) living in Georgia, and to assess the availability of existing services and support in Georgia. Reviews of research and data were conducted to help identify gaps in TBI services across the state. Online surveys, focus groups and interviews were conducted with individuals with TBI, caregivers and professionals to review the extent to which Georgians with TBI are receiving sufficient services to support quality of life in the community. Results from the environmental scan and data collection from key stakeholders are presented in the sections below.

Background on Brain Injuries

What is a Brain Injury?

Acquired brain injuries (ABI) are brain injuries that occur after birth and can be classified as either traumatic or non-traumatic, depending on whether the injury occurred due to external trauma or internal trauma to the brain.[1] This study focuses on traumatic brain injuries, defined as a form of acquired brain injury, which occurs when a sudden trauma causes damage to the brain. TBI can result when the head suddenly and violently hits an object, or when an object pierces the skull and enters brain tissue. Symptoms of a TBI can be mild, moderate, or severe, depending on the extent of the damage to the brain.

The CDC defines a traumatic brain injury as "a disruption in the normal function of the brain that can be caused by a bump, blow, or jolt to the head or a penetrating head injury."[2] The external trauma to the brain can cause the brain to bounce around or twist in the skull, chemical changes in the brain, or stretching and damaging of brain cells.[3] TBIs may be categorized as mild, moderate, or severe with the Glasgow Coma Scale.[4] In the U.S., approximately 58-73% of TBIs are mild, often referred to as concussions. Another 8-25% are moderate TBIs and 6-8% are severe.[5]

A TBI may result in a variety of short-term and long-term effects, and many people who sustain a TBI recover completely. However, the timeline to recovery may be days, weeks, months, or even longer. A significant portion of those who sustain a TBI have lingering symptoms and disability for the rest of their life.[6] TBI can cause a period of unconsciousness, coma, or amnesia immediately after occurrence of the injury. TBI can also cause additional health problems after the injury, including physical symptoms, cognitive and learning issues, and changes in motor skills, hearing, vision, emotions and mood, and/or behavior.[7]

Prevalence of Traumatic Brain Injuries

National Prevalence

Annually in the U.S., 1,299 people per 100,000 population will incur a TBI based on a 2019 study. With the 2021 U.S. population estimate (n=331,893,745), it is estimates that 4,311,299 people

in the U.S. incurred a TBI.[8] The CDC estimates there were 223,135 TBI-related hospitalizations and 60,611 TBI-related deaths in the United States in 2019. These estimates do not include the many traumatic brain injuries that are only treated in the emergency department, urgent care, primary care, or not at all.[9] Some CDC models estimate that 25% of all mild and moderate TBIs are medically untreated and thus, unreported.[10] The CDC estimates that 5.3 million U.S. citizens (approximately 2% of the population) live with a disability as a result of a TBI. The incidence of known TBIs is greater than all incidents of spinal cord injury, HIV/AIDS, breast cancer, and multiple sclerosis combined in the U.S.[11]

Georgia Prevalence

Using Dewan et al.'s estimate of 1,299 per 100,000 people incurring a TBI, we estimate that 140,286 Georgians incurred a TBI in 2021 (n=10,799,566).[8] The Georgia Brain and Spinal Injury Registry recorded 29,924 traumatic brain injuries including 21,026 emergency department visits and 8,081 hospital admissions in 2019.[12] Georgia has a higher rate of TBI-related deaths than the overall U.S. rate (20.3 deaths per 100,000 vs. 17.3 deaths per 100,000).[10] Based on the CDC estimate that 2% of the population in the United States live with a disability as a result of a TBI, we estimate that 215,991 (n=10,799,566) Georgians have a TBI-related disability.[11,13]

Causes of Traumatic Brain Injuries

The main causes of a TBI-related emergency department visit, hospitalization, or death include falls, struck by/against, motor vehicle related, assaults/homicides, self-inflicted/suicides.[14] Overall, falls are the leading mechanism of injury to cause a TBI-related emergency department visit, hospitalization, or death. However, motor vehicle related and self-inflicted, suicide TBIs have the highest rates of death of any mechanism of injury. Common causes of traumatic brain injuries include falls, assaults, motor vehicle accidents, sports and recreation injuries, abusive head trauma, gunshot wounds, workplace injuries, child abuse, intimate partner violence, and military related injuries.

Impact of Brain Injury

The impacts of a traumatic brain injury are dependent on what part of the brain is damaged during the injury. The brain has six distinct lobes, all with specific functions.[15] Depending on which brain lobe(s) is damaged in the injury, people with TBIs will have different short and long-term impacts.

» Frontal Lobe: Injury may impact ability to control emotions, impulses, and behavior, or may cause difficulty with memory or speaking.

» Brain Stem: Injury to the brain stem may impact the body's involuntary functions (e.g. breathing, heart rate), which can impact ability to survive.

» Temporal Lobe: Difficulty with communication or memory.

» Parietal Lobe: Difficulty with the five primary senses (sight, smell, taste, touch, hearing).

» Cerebellum: Difficulty with balance, movement, and coordination

» Occipital Lobe: Challenges with vision, depth perception.

Impacts of TBI also depend on which side of the brain is injured.[15]

» Left Side: Difficulties understanding language and/or speaking; feelings of depression and/or anxiety; impaired logic; sequencing difficulties; decreased control of right-sided body movement.

» Right Side: Visual-spatial impairment; visual memory deficits; decreased awareness of deficits; altered creativity; altered perception of music; unable to think "big picture"; decreased control of left-sided body movement.

The Traumatic Brain Injury Model Systems (TBIMS) Database looked at outcomes of persons 16 years of age and older who received inpatient rehabilitation services for a primary diagnosis of TBI, five years after injury.[16] Of all individuals with moderate to severe TBI, 22% died, 30% became worse, 22% stayed the same and 26% improved.

Costs of Care for Brain Injuries

Traumatic brain injuries have both short-term and long-term effects and costs for the individuals who have suffered the injury, their families, and society as a whole. One estimate of TBI-related costs, including direct medical costs and indirect costs, is more than $76 billion annually in the United States.[17] In 2016, the direct healthcare costs attributable to TBI was $40.6 billion.[18] Estimated lifetime costs of treatment for a TBI run anywhere from $85,000 to $3 million, which does not include the indirect costs of lost wages. The indirect costs can be seen in the unemployment rate for people with TBI, two years after diagnosis of a TBI, which sits at an alarming 60%.[19] The Brain and Spinal Injury Trust Fund Commission estimates that traumatic brain injuries cost Georgians more than $1.5 billion annually in lost wages and medical costs. With these extremely high costs of traumatic brain injuries, it is imperative to have specific, well-funded financial support for those recovering from TBI.

Neurobehavioral Issues Associated with Brain Injuries

Traumatic brain injuries can cause chronic neurobehavioral issues for survivors, which may complicate the recovery processes. These neurobehavioral issues can be classified into the following categories: changes in cognition, changes in personality, and psychiatric disorders.

Changes in Cognition

The most common complaints after TBI are changes in cognition, which are major hindrances to a return to normalcy in independent living, social adaptation, family life and vocational endeavors. Attention, short-term memory and learning, information processing, and speech and language functioning are often negatively affected by TBI.[20]

Changes in Personality

Changes in personality may occur as an exaggeration of pre-injury personality traits, or as a fundamental change in personality traits. Some key problem areas seen as a result of TBI are impulsivity, irritability, affective instability, and apathy. These key problem areas may be exacerbated by anosognosia, a lack of awareness that any personality change has occurred as a result

of injury.[20] Additional changes seen in individuals with TBI are dysphoria, disinhibition, delusions, aggression, and euphoria.[21]

Psychiatric Disorders

TBI results in an increased risk of developing various psychiatric disorders. One study found that almost half of individuals with TBI developed a new psychiatric disorder after their injury. The most common diagnoses post-TBI are major depression and anxiety disorders, including post-traumatic stress disorder, obsessive-compulsive disorder, and panic disorder.[22] There is also recent research showing a relationship between TBI and dementia and Alzheimer's disease.[20]

How Does Brain Injury Affect Specific Vulnerable Populations?

Traumatic brain injury affects people across all age groups, races, socioeconomic statuses, backgrounds, and employment types. However, there are some groups that research has found to be at a greater risk of incurring TBI, dying from a TBI, and/or developing long-term health challenges due to the injury. These groups include: culturally and linguistically diverse populations, military service members and Veterans, people who are incarcerated, people who experience homelessness, survivors of intimate partner violence, people in rural areas, people who do not have health insurance, people with low-incomes, infants, children, and youth, and aging people. Below is more information on how some of these populations are affected by TBI including service members and Veterans, racial and ethnic minority groups, infants, children, and youth, again populations, and incarcerated populations.

Service Members and Veterans

The Traumatic Brain Injury Center of Excellence, formerly referred to as the Defense and Veterans Brain Injury Center, collects and reports on prevalence data of traumatic brain injury in service members. From 2000-2021, 453,919 service members were reported as having incurred one or more TBI. Of those traumatic brain injuries, 82.3% were classified as mild, 10.8% as moderate, 1% as severe, 1.2% as penetrating, and 4.6% as not classifiable. The majority of all reported TBI occurred in the Army (58.5%), with the Navy, Air Force, and Marines each reporting approximately 13-14% of TBI incidence.[23] From 2000-2011, the overall rate of TBI among active duty service members more than doubled from 720.3 per 100,000 to 1,811.4 per 100,000.[24] A large research study found that TBIs cause short and long term effects including physical and mental health effects, health, mental health, and rehabilitation needs, type and availability of long-term rehabilitation and other care services, and effects on the family.[25] Some of these effects are described below.

Physical and Mental Health Effects

The most important health factor related to long-term outcomes is the presence of mental health symptoms, especially post-traumatic stress symptoms. As compared to service members with no injury, service members and Veterans who sustained a TBI have the greatest rates of physical health risks. Other common problems associated with TBI include chronic pain sleep disturbance, orthopedic injuries, cardiovascular disease, sexual dysfunction, and gastrointestinal disease.

Additionally, TBI has a great negative impact on cognitive health, and these cognitive problems such as memory deficits or difficulty problem-solving can persist for years.

Health, Mental Health, and Rehabilitation Needs

Hospital readmission for rehabilitation was common during the year post-TBI, especially for those with more severe injuries. Among those who received inpatient rehabilitation services for their TBI, it is common to see continued rehabilitation needs for five years or more after their injury. Common ongoing needs included cognitive health, managing physical symptoms, mental health, and service coordination needs. Black service members and Veterans report having greater unmet needs for help with managing emotions, community reintegration, employment, and at-home independence.

Effects on the Family

Much of the caregiving responsibilities for service members or Veterans with TBI fall on family caregivers. Caregivers who experience significant caregiving burden experience poor mental health, headaches, gastrointestinal issues, obesity, hypertension, and sleep problems. The impact of a family member with a TBI is also felt by their children. These children report many co-occurring medical problems, and in families where the Service member or Veteran shows anger, anxiety, and depression, the children have significant behavioral health problems. Those with both PTSD and a co-occurring mental health issue such as depression, anger, irritability, or aggression were more likely to have a negative impact on their family stability and cohesion.

Incarcerated Populations

People who are incarcerated or in the criminal justice system in the United States have extremely high prevalence rates of TBI. In male prisons, it is estimated that 40-60% of incarcerated individuals have sustained at least one TBI, compared to general population prevalence estimates of approximately 8-15%. Prison populations also tend to include more cases of moderate or severe TBI and repeated injuries.[26] The presence of a TBI is also associated with higher rates of recidivism and violent offending.[27]

Children and Youth

Children under the age of 18 accounted for roughly 8% of all TBIs in the United States in 2016, with the majority being classified as mild.[28,29] However, given that they are less likely to seek care for mild injuries, the prevalence of TBIs in children is underestimated. Further, TBIs that occur in young children are often misdiagnosed as a behavioral or learning disorder because they do not manifest until later into adolescence, far after the injury's occurrence.[30] The leading causes of injury for youth are falls and motorized vehicle accidents.

TBI in children can be additionally complex because the injury occurs during brain development, which can cause the injury to affect both previously-learned skills and the development of future skills, and problems related to the injury can continue surfacing for years after its incurrence. In fact, over half of children with moderate-to-severe TBI and about 14% with mild TBI develop long-term disabilities that require specialized care.[31] Beyond physical impairment,

children with TBI are likely to experience social and behavioral impairments, especially in the educational system. Children who have sustained a moderate-to-severe TBI tend to have persistent lower life satisfaction, reduced adaptive functioning, and lower rates of participation in activities.

Most children with moderate to severe TBI and many with mild TBI require academic support and accommodation after injury.[32] While services including early intervention, special education, and academic support are technically legally available to children with TBI through a Section 504 plan, many patients and families experience challenges in obtaining this support.[33] It is common for teachers to hold misunderstandings about TBI and its effects on emotional, cognitive, and social development.[34] These misunderstandings lead to misdiagnosis of learning and behavioral disorders in children, causing stress and exacerbation of a child's symptoms.[35] Many patients and families find that educators lack training in how best to support children in the academic setting after injury.[36]

Aging Population

Older adults have high rates of TBI incurrence and are more likely than any other age group to be hospitalized and die as a result of a TBI.[37] For older adults, falls are the leading cause of injury death. In 2019 falls caused 34,000 deaths in U.S. adults age 65 and older. Traumatic brain injury can be made more potentially dangerous if the patient is taking certain medicines such as blood thinners, which can increase the risk of a brain bleed after a TBI.[37] People age 75 and older in the U.S. are the largest age group to be hospitalized for a TBI and to have a TBI-related death.[38] This group of aging adults makes up 32% of all TBI-related hospitalizations and 28% of TBI-related deaths, despite making up only 7.8% of the U.S. population.[38,39]

In addition to the increased risk of incurring a TBI, older adults who have a TBI experience higher morbidity and mortality, a longer recovery time, and overall worse outcomes than younger populations do.[40] Older adults also have a high rate of pre-existing medical conditions that are associated with worse outcomes in TBI recovery.[40] If an older adult is hospitalized after TBI, they are more likely to need extended hospitalization and are more likely to be severely disabled and functionally dependent upon their eventual discharge from the hospital.[40] Due to these high risk factors, high rates of TBI incurrence, and high morbidity and mortality rates, older adults are an extremely vulnerable population when it comes to traumatic brain injury.

Racial and Ethnic Disparities in TBI Outcomes & Care

Across age groups, there are disparities and inequities relating to TBI prevalence, outcomes, and access to care depending on racial and ethnic identity. Individuals of color experience some of the leading causes of TBI, such as car accidents and violent injury, more frequently than White individuals.[34] Statistics from CDC found that the emergency room admission rate for the White population was 66 per 1,000 as compared to 74 per 1,000 for populations of color.[41] Post-TBI outcomes differ by race and ethnicity. Compared to their White peers, both Black and Hispanic individuals with TBI are less likely to receive post-TBI treatment, have worse functional outcomes, experience less community re-integration, and have lower employment rates. A 2019 study found that Black and Hispanic patients were less likely to be moved to inpatient rehabilitation after

receiving acute care as compared to White patients.[34] Lack of ongoing care post-TBI may lead to worse functional and quality-of-life outcomes for patients of color because of the relationship between post-acute rehabilitation outcomes and functional status, community reintegration, and employment.[34] Children belonging to communities of color experienced differences in acute care post-TBI; a 2006 study found that Black children under 10 who experienced TBI after a car accident had significantly higher rates of death and hospitalization than their White peers.[34]

It has also been observed that access to resources for Black and Hispanic individuals and families affected by TBI are more limited than for White individuals and families. There is limited cultural competence when it comes to professional outreach efforts toward these groups, and this may contribute to the ongoing gap in representation for Black and Hispanic individuals and families within the TBI community. Language barriers play an important role in restricting access to care.[34] Increased access to services after leaving acute care may result in more positive outcomes for populations of color. Hiring racially and ethnically diverse TBI professionals, as well as increasing cultural competency training for TBI professionals may serve to increase access to and interest in TBI services for individuals and families of color.

Georgia Traumatic Brain Injury Services Landscape

To accurately describe the state of TBI in Georgia, the extent of available resources for both individuals with TBI and their family members must be examined. The summary below highlights primary service areas for individuals with TBI. Information about current available services comes from the Georgia Board of Healthcare Workforce and Department of Community Health Active Provider Directory.[42,43] Knowing the state of current services will help in future resource and services planning for individuals with TBI in Georgia.

The purpose of this summary is to create a snapshot of the current service system for individuals with TBI in the state of Georgia. This summary aims to quantify the resources available in each county. It is important to note here that the number of providers who serve people with TBI is based upon each provider's self-report about whether they have the capacity to provide such specialized services. It is not based upon licensing or certifications, which means there is no guarantee that a provider who reports that they are able to serve people with TBI really does have the training and specialized services necessary to do so effectively and appropriately. The Figures are presented at the end of this section.

Georgia Total Population

There are approximately 10.7 million people in the state of Georgia overall.[44] Roughly 79% of all people in Georgia live in non-rural counties (n = 8,482,248), which make up only 26% of all counties in Georgia (n = 41 non-rural counties). Fifty-seven percent of all Georgians live within the 29-county metro Atlanta area (n = 6,089,815). An overview of total population by county from the 2020 Census is presented in Appendix A, Figure 1.

Hospitals

As indicated in Appendix A (Figures 2 and 3), there are 258 hospitals across the state of Georgia.[43] There are 51 counties in Georgia without a hospital, and 108 with a hospital. 61 rural

counties have at least one hospital (56% all rural counties). Of those without a hospital, 94% are rural counties (n = 48). The three non-rural counties without a hospital are Columbia County, Jackson County, and Walker County.

Physicians

There are currently 27,002 full time effort (FTE) physicians in the state of Georgia.[42] 91% of FTE physicians are located in non-rural counties (n = 24,513). Of 118 rural counties, 110 have at least one FTE physician. The counties with no FTE physicians are: Chattahoochee County, Echols County, Montgomery County, Schley County, Talbot County, Taliaferro County, Treutlen County, Turner County, and Webster County. An overview of the total number of FTE physicians by county can be seen in Figure 4, while an overview of counties with no FTE physicians can be seen in Appendix A, Figure 5.

Physicians Assistants

There are currently 4,078 FTE physician assistants in the state of Georgia.[42] Roughly 89% of all FTE physician assistants are located in non-rural counties (n = 3,638). Of 118 rural counties, 84 have at least one FTE physician assistant. Five counties in Georgia have no FTE physicians and no physician assistants. Those counties include: Schley County, Talbot County, Taliaferro County, Treutlen County, and Webster County. An overview of the total number of physician assistants by county can be seen in Appendix A, Figure 6.

Nurses

There are currently 143,288 nurses in the state of Georgia.[42] Roughly 81% of all nurses are located in non-rural counties (n = 115,451). Of 118 rural counties, 115 have at least 9 nurses. Only one county has no physicians, physician assistants, or nurses (Schley County, Georgia). The counties with no nurses are Bleckley County and Glascock County. An overview of the total number of nurses by county can be seen in Appendix A, Figure 7.

Rehabilitation Facilities

Rehabilitation facilities included in this map comprise of rehabilitation hospitals (6), clinics (2), and home & community-based rehabilitation services (4).[43] The number of facilities for this map has been pulled from the Active Provider Directory from the Georgia Department of Community Health. Although the Shepherd Center is a Level I rehabilitation care facility in Georgia, it is not specifically listed as a rehabilitation hospital in this database.

There are currently 12 rehabilitation facilities in the state of Georgia.[43] Nine of those are located in non-rural counties. The three rural counties with rehabilitation facilities include Union, Meriwether, and Washington Counties. Besides the one facility in Chatham County, there are no rehabilitation facilities in southeastern Georgia. The majority of facilities are in central portions of the state. An overview of the total number of rehabilitation facilities by county can be seen in Appendix A, Figure 8.

Mental Health Professionals

There are 9,469 mental health professionals in the state of Georgia.[43] About 89% of all mental health professionals are located in non-rural counties (n = 8,436). Of 118 rural counties, 97 had at

least one mental health professional, leaving the 21 remaining rural counties with no mental health professionals. Most of these counties are in the southern part of the state. An overview of the total number of mental health professionals by county can be seen in Appendix A, Figure 9.

Speech/Language Pathologists

There are 4,359 speech and language pathologists (SLPs) in the state of Georgia.[43] There are 58 counties without a SLP, one of which is a non-rural county (Walker County). Of 118 rural counties, 61 had at least one SLP in the county. An overview of the total number of speech and language pathologists by county can be seen in Appendix A, Figure 10.

Neuro Professionals: Neurosurgery Physicians, Neurosurgery Critical Care, Neurological Surgery Physicians, and Neurology Workers

There is a definitive shortage of availability for neurology professionals, especially in the field of neurological surgery.[42] In the state of Georgia, there are only two neurosurgery physicians; however, there are 203 FTE physicians with neurological surgery listed as their specialty area. There is only one physician with neurosurgery critical care as their specialty. In the general area of neurology, there are about 529 FTE physicians who list their specialty area as neurology. The majority of these neuro professionals are located in urban areas, primarily the Metro-Atlanta counties, Richmond County, and Chatham County. An overview of the total number of neurology professionals by specialty area can be seen in Appendix A, Figures 11, 12, 13, and 14.

Child Neurology

There are 26.6 FTE child neurology physicians in the state of Georgia.[42] All of these physicians are located in non-rural counties, with the majority of them being clustered within the Metro-Atlanta region. Further, 45% of child neurology physicians are located in DeKalb County alone. An overview of child neurology physicians by county can be seen in Appendix A, Figure 15.

Transportation

There are 19 transportation services in the state of Georgia across 16 counties (11% of all counties).[43] Of those 19 services, 68% are in non-rural counties (n = 13). The rural counties with transportation services include Burke County, Coffee County, Early County, Jeff Davis County, Laurens County, and Sumter County. An overview of the total number of transportation services by county can be seen in Appendix A, Figure 16.

Brain Injury Workers

Brain injury categories include providers who selected “Brain Injury” as one of their specialty areas. This may include any type of rehabilitation service providers, such as case managers, physicians, and others and is not exclusive to medical service providers. There are 30 professionals who specialize in brain injury in the state of Georgia.[43] Of those, only one was located in a rural county (Baldwin County). The majority of brain injury specialists were concentrated in the Atlanta metro area, as well as urbanized areas such as Chatham County and Richmond County. An overview of the total number of brain injury specialists by county can be seen in Appendix A, Figure 17.

ENVIRONMENTAL SCAN

Physical Therapists

There are 3,898 physical therapists (PTs) in the state of Georgia.[43] There are 46 counties without a PT, all of which are rural counties. An overview of the total number of physical therapists by county can be seen in Appendix A, Figure 18.

Occupational Therapists

There are 2,510 occupational therapists (OTs) in the state of Georgia.[43] About 86% of all OTs are located in non-rural counties (n = 2,174). Of 118 rural counties, 85 had at least one OT, leaving the 33 remaining rural counties with no OTs. Most of these counties are in the southern part of the state. An overview of the total number of occupational therapists by county can be seen in Appendix A, Figure 19.

Rural Hospitals

As of 2017, there are 37 rural hospitals and 30 critical access hospitals across all 118 rural counties in the state of Georgia.[45] Fifty-four rural Georgia counties have no hospitals in them, contributing to the healthcare availability shortage in rural areas. The majority of counties without a hospital are located in the southern and southwestern parts of the state. An overview of rural hospitals by county can be seen in Appendix A, Figure 20.

Designated Trauma Centers

As of 2022, there are 31 designated trauma centers of varying levels and types in the state of Georgia.[46] As seen in Appendix A, Figure 21, there are four levels of trauma hospitals with Level 1 hospitals being able to handle the most severe injuries and Level 4 being able to handle the least serious injuries. There are also Level 1 and 2 pediatric trauma hospitals listed. It is important to note that there are no Level 1 trauma hospitals located in any rural counties. There is a distinct string of southwestern Georgia counties where there are no designated trauma hospitals.

Rural Counties Without a Rural Health Clinic

As of 2017, there are 10 rural Georgia counties with no Rural Health Clinics (RHC).[47] In contrast to other trends where most counties with no access to a particular resource are in the southern part of the state, 50% of the counties without a RHC are located in central Georgia just southeast of the Metro-Atlanta counties. One possible explanation is that individuals in these counties drive into the surrounding Metro-Atlanta area to take care of their medical needs. An overview of the counties without a RHC can be seen in Appendix A, Figure 22.

Support Groups for Individuals With Brain Injuries and Caregivers

Support groups for individuals with a TBI and their caregivers in Georgia are offered mostly in larger cities like Atlanta, Savannah, Columbus, and Augusta. Before the COVID pandemic in 2020, most support groups were in-person, however, many of them adapted and shifted to a virtual format to support TBI survivors and their caregivers. Currently, there are 23 support groups in Georgia offering services in a virtual format (Appendix A, Table 1). It is also important to note that many support groups had to shut down in Georgia due to the pandemic. While some are continuing their services in a virtual format, others are working towards restarting the support group services in person.

ENVIRONMENTAL SCAN

Rural Healthcare Workforce Shortages (Georgia)

National data and trends show a clear pattern of disparities between rural and non-rural access to healthcare in the United States. Hospital consolidation and closure rates have grown across the country in recent decades, particularly resulting in more closures in rural areas, furthering the rural care access divide.[48] According to a recent Government Accountability Office (GAO) report, the median travel distance to a hospital increased by about 20 miles between 2012 and 2018 in areas that saw rural hospital closures.[49]

Given the county level data on the Georgia healthcare workforce previously discussed in this report, it is clear that this trend is deeply affecting rural Georgia. As seen in Figure 2, a little over half of all rural Georgia counties do have at least one hospital.[43] However, 76% of all total hospitals (n = 268) in Georgia are concentrated in non-rural counties. When considering that rural counties account for 70% of all counties in the state, there is a clear dearth of rural healthcare workers.

Neurologist Shortage: Georgia, Southeast, and Nationally

There is evidence that a neurologist shortage is pertinent, both in Georgia and across the United States. According to a paper from Merritt Hawkins (2021), demand for neurologists is expected to grow faster than the current supply, with an expected deficit of 19% by 2025.[50] This trend is clear when looking at the current number of neurologists in Georgia. According to the American Academy of Neurology, there are currently 3.22 neurologists per 1,000 people in the state of Georgia.[51] This equates to roughly 350 neurologists across the state. When compared with other southeastern states with a similar population size such as North Carolina (3.49 neurologists per 1,000 people) as well as the national average (3.52 per 1,000 people), it is clear that Georgia is already lagging behind current demands for neurology care.[51] This trend continues when looking at other specialty areas within neurology, such as neuropsychology. The shortage of neurology professionals in the United States is currently being felt and is on track to only be exacerbated.[52]

Shortage of TBI Professionals in Georgia

As discussed in relation to Figure 17, there is a clear shortage of brain injury professionals in the state of Georgia.[43] According to the Active Provider Directory put out by Georgia Department of Community Health, there are only 30 self-indicated brain injury professionals in the state of Georgia.[43] However, the number may actually be smaller given that some of these professionals may only specialize in certain kinds of brain or head injuries and not necessarily TBIs. While there are no specific numbers for TBI professionals in this directory, the membership directory for the National Academy of Neuropsychology indicates that there are 13 neuropsychologists in the state of Georgia who list traumatic brain injury as one of their areas of specialty.[53] This is out of a total 43 neuropsychologists in the Georgia membership directory. Further, none of those neuropsychologists specializing in TBI are located in rural counties.

Rehabilitative Resource Distribution (SLPs, PTs, Rehab Centers)

To evaluate the overall distribution of rehabilitative resources in Georgia, the total number of rehabilitation hospitals and clinics, speech and language pathologists (SLPs), physical therapists (PTs), and occupational therapists was collected for each Georgia county. Overall, there are 10,777

rehabilitation resources in the state of Georgia.[43] Of this, over half of all rehabilitation resources are concentrated in seven Metro-Atlanta counties (Cobb, Cherokee, DeKalb, Fulton, Forsyth, Gwinnett, and Hall County). Of the 159 counties in Georgia, 12% of them have no rehabilitative resources, all of which are rural. Most of the counties with few or no access to resources are located in the southern and central-eastern parts of the state. An overview of the distribution of rehabilitation resources in Georgia can be seen in Appendix A, Figure 23.

Georgia Agencies and Services Landscape

This section focuses on agencies, services and waivers in Georgia that are designed to serve individuals with disabilities including those with TBI.

State Agencies With Programs for Others but Include People With TBI

» Department of Community Health, Office of Medicaid

- The Department of Community Health offers a number of resources for people with disabilities, including Home and Community-based Services waivers (HCBS), the Katie Beckett Program, and the Money Follows the Person (MFP) Demonstration Program. Further detail on the HCBS Waivers and the Katie Beckett Program can be found below, in the Waivers section of this report.
- Money Follows the Person (MFP) Demonstration Program: MFP offers transition services to qualified Medicaid eligible adults. One may qualify for MFP if they have lived in an inpatient facility for at least 60 consecutive days. MFP uses home and community-based Medicaid waiver services if needed for ongoing support and one-time transition services to move from inpatient to community-based care.

» Department of Labor, Georgia Vocational Rehabilitation Agency, Vocational Rehabilitation, Roosevelt Warm Springs

- Vocational Rehabilitation services offered by GVRA include connection to a personal vocational rehabilitation counselor, obtaining assistive work technology, and referrals to additional services, including Roosevelt Warm Springs, noted above.
- Roosevelt Warm Springs is a residential campus where students receive medical and vocational rehabilitation services. Students may work towards earning professional certifications and developing life skills with the final goal being employment for all students. It is the only program that the Department of Labor has developed to meet the specific needs of people with TBI.
- The state has designated the GVRA to oversee federal funding for the Centers for Independent Living (CILs) and to work closely with the State Independent Living Council (SILC) and the nine participating CILs to execute the State Plan for Independent Living (SPIL). Georgia's Centers for Independent Living are designed and operated by people with disabilities to provide independent living services, tools, resources, and supports for people with disabilities. Their mission is to facilitate equal participation of people with disabilities within their communities. The foundation of these services is the peer-to-peer relationship,

where people with disabilities act as mentors for other people with disabilities, showing them by example how to help themselves and to live independently. Georgia has 9 CILs; 26 counties are unserved by a CIL. Georgia's CILs core services include individual and systems advocacy, peer counseling and support, information and referrals, independent living skills training, and transition services. In Georgia, CILs and their service providers can be found in the cities listed in Appendix A, Table 2.

» Brain and Spinal Injury Trust Fund Commission

- The BSITFC provides direct grants to Georgians with traumatic brain and spinal injuries to assist in creating lives of independence and inclusion. The BSITFC is the lead agency for traumatic brain injury for the State of Georgia, which advises the legislature on relevant policy. The BSITFC also partners with the Brain Injury Association of Georgia (BIAG) to provide a free Resource Facilitation Program for Georgians who have a TBI.

» Georgia's Aging & Disability Resource Connection (ADRC)

- The Aging & Disability Resource Connection links seniors and adults with disabilities to resources that promote independence. Counselors use the Empower line database to connect individuals to resources that can help them stay in their homes.
- The formation of formal and informal partnerships is an essential element in the success of the ADRC model. The Aging and Disability Resource Connection relies on the collaborative nature of multiple agencies at both the state and local level.
- State and local level partnerships include: Division of Mental Health, Developmental Disabilities and Addictive Diseases; Division of Aging Services; Department of Labor-Tools for Life; Georgia Hospital Association; Governor's Council on Developmental Disabilities; Governor's Council on Aging; Governor's Office of Planning and Budget; Department of Community Health; Walton Options; Brain and Spinal Injury Trust Fund Commission; Shepherd Spinal Center; Alzheimer's Association of Georgia; Atlanta Alliance on Developmental Disabilities; Adult Protective Services and the Division of Family and Children Services; Service Providers and Consumers.

» Department of Human Services, Office of Facilities and Support Services, Transportation Services

- The DHS Transportation Services may be utilized by consumers of Georgia Department of Behavioral Health and Developmental Disabilities (DBHDD) and Georgia Vocational Rehabilitation Agency (GVRA).

» Department of Public Health, Injury Prevention Program

- Return to Play Initiative: The Return to Play law, passed in 2013, aims to adopt and implement a concussion management and return to play policy for youth athletes in Georgia.
- Intimate Partner Violence (IPV) and TBI: The IPV and TBI project partners with the Georgia Coalition against Domestic Violence to analyze the intersection of TBI and IPV.

» Department of Education, Division for Special Education Services and Supports: TBI Rules and Regulations

- The TBI Rules and Regulations dictate the eligibility evaluation requirements for a child who has a TBI to receive appropriate placement and service delivery within the education system.

Private Providers

» Rehabilitation hospitals specializing in treating people with TBI, including Children's Healthcare of Atlanta, Emory Center for Rehabilitation (Atlanta), Shepherd Center (Atlanta), Walton Rehabilitation Center (Augusta), and Memorial Hospital (Savannah).

» The Brain Injury Association of Georgia (BIAG) is a non-profit organization which serves individuals with brain injuries, along with their support networks. BIAG provides support groups, education, advocacy, a Resource Facilitation program, and additional supports and resources to people with brain injuries.

» The Georgia Advocacy Office is a private, non-profit organization aimed to protect and advocate for people with disabilities in Georgia. The Georgia Advocacy Office hosts a number of programs, including Protection and Advocacy for Individuals with Traumatic Brain Injury (PATBI). PATBI works to protect persons with TBI in Georgia from abuse and neglect, to respond to allegations of discrimination and violations of rights, and to promote the integration and self-determination of individuals with TBI in the community.

» Side by Side Brain Injury Clubhouse is a work-oriented day program designed to support adults with brain injuries. Side by Side is a non-profit organization located in Stone Mountain, GA and is a community-based, voluntary, member-directed program. Their mission is to advance the long-term well-being of individuals with brain injury-related disabilities through social and work-related skills development, support, and advocacy.

» Collage Rehabilitation Center is a for-profit program with service centers located across the country. In Georgia, Learning Services is located in Lilburn, Roswell, and Stone Mountain, GA. Collage provides post-acute rehabilitation services such as neurobehavioral rehabilitation and supported living. Learning Services is a 38-bed long-term residential treatment center and long-term supported living program for people with neurobehavioral issues in Georgia.

» The Jimmy Simpson Foundation is a private non-profit organization dedicated to supporting people in Georgia with brain injuries.

» Safe haven is a 24-hour, life-long living TBI facility, focused on providing individualized care for each resident with health, social, and related support services. The North Georgia Support Group for people with acquired brain injuries is hosted monthly at Safe haven and provides both education and social activities for attendees.

Georgia Agencies - Services Provided

This section includes data on the number of individuals served and services provided by various agencies to individuals with traumatic brain injuries in Georgia. Due to the public health emergency (COVID-19 pandemic) and resulting lock downs and health impacts, the number of individuals

served by various state and private agencies were affected. Most state agencies experienced a drop in the number of people applying for and receiving services. Many schools were closed or switched to a virtual format for many semesters. This resulted in students dropping out of the school system or switching to virtual schools during that time. This report therefore includes counts of number of individuals served by various agencies for four years, starting from 2018 through 2022, whenever possible. This will enable us to understand the trends before, during and after the pandemic. The data presented below need to be interpreted within this context.

Georgia Department of Education

Georgia Students with TBI

The Georgia Department of Education (DOE) does yearly tracking of the number of students with disabilities in each school district.[54] Each district has been placed into their respective county for this data summarization. The total number of Georgia students reported to have a TBI in 2022 were 387, down 11% from 436 in 2018. However, the number of Georgia students with TBI differ in school districts across the state. More urban counties have students who have identified as having a TBI, compared to rural counties. DeKalb County, after combining the DeKalb County School District with Atlanta Public Schools and City of Decatur Schools (located in DeKalb), reported the highest number of students with TBI with 34 students. By contrast, many rural districts report few to no students with TBI. Sixty-six school districts in Georgia, all rural, reported zero students with TBI in 2022.

Georgia Students with TBI by Year: Fiscal Years 2018-2022

Table 1 below reflects the number of Georgia students identified as having a TBI according to the Georgia Department of Education (DOE) between fiscal years 2018-2022.[54] Due to the public health emergency (COVID-19 pandemic), most schools have switched to a virtual format for many semesters and many students had dropped out of the school system or switch to virtual schools during that time. This report therefore includes counts of number of students for four years, starting from 2018 through 2022, whenever possible. This will enable us to understand the trends before, during and after the pandemic. As shown, the recorded number of students with TBI has lowered yearly during this time period, particularly during the years 2020 and 2021 due to the pandemic.

Table 1. Number of Georgia Students with TBI: 2018-2022

Year	Number of Students with TBI
2018	436
2019	418
2020	406
2021	394
2022	387

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Georgia Students with TBI by School District: Fiscal Year 2022

Figure 24 in Appendix A reflects the distribution of Georgia students with TBI by county in fiscal year 2022.[54] As pictured, urban and Metro Atlanta counties report having more students with TBI. DeKalb County has the highest number of students with TBI in the state with 34 students.

Georgia TBI Students With 504 Plans

The Georgia Department of Education also does yearly tracking of the number of students with a 504 plan each year, categorized by disability.[54] A 504 plan is a specialized program that is developed to provide students who are identified as disabled under the law with accommodations to promote increased access to academic success.[55] Though there were 387 Georgia students reported to have a TBI in 2022, only 137 Georgia students with TBI were reported to have a 504 plan. 35% of Georgia students identified as having a TBI had a 504 plan in 2022. Additionally, students with 504 plans are primarily located in the Metro-Atlanta area. Figure 25 in Appendix A maps the distribution of Georgia TBI students by county.

Racial and Gender Representation of Georgia Students With TBI: 2018-2022

The racial representation of Georgia students identified as having a TBI changed between fiscal years 2018-2022, as shown in Table 2 and Table 3 below.[54] The total student count of Georgia students with TBI decreased by 11% from 436 in 2018 to 387 in 2022. Reductions in enrollment have been observed in all recorded racial categories. The number of Asian students decreased by 25%, the number of White students with TBI decreased by 17% from 2018-2022, the number of Hispanic students decreased by nearly 13%, and the number of Black students decreased by 11%. Significant reductions in enrollment are also present for male students; the number of male students with TBI decreased by almost 14%. This trend could be attributed partly to the pandemic and the shift to virtual schooling.

Table 2. Race Demographics of Georgia Students with TBI: 2018-2022

Fiscal Year	Total Student Count	Ethnicity: Hispanic	Race: American Indian	Race: Asian	Race: Black	Race: Pacific Islander	Race: White	Race: Two or More Races
2018	436	56	0	12	177	0	180	11
2019	418	46	0	13	178	0	170	11
2020	406	49	2	11	176	0	158	10
2021	394	45	2	9	171	0	153	14
2022	387	49	3	9	158	0	149	19

Table 3. Gender of Georgia Students with TBI: 2018-2022

Fiscal Year	Total Student Count	Female	Male
2018	436	167	269
2019	418	160	258
2020	406	150	256
2021	394	144	250
2022	387	154	233

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School Providers in Georgia

Students with TBI in Georgia may access services from a variety of providers within schools, including special education teachers, school counselors, school psychologists, and Georgia Network for Educational and Therapeutic Support (GNETS) psychologists.[54] The numbers of special education teachers (Table 4), school counselors (Table 5), and school psychologists (Table 6) have all risen steadily between the years of 2018-2022; the number of special education teachers increased by 6%, the number of school counselors increased by 9%, and the number of school psychologists increased by 6%. The number of GNETS psychologists declined by 60% from 15 to 6 between the years of 2018-2022.

Table 4. Number of Special Education Teachers in Georgia: 2018-2022

Year	Number of Special Education Teachers
2018	18466
2019	19548
2020	19731
2021	19920
2022	19586

Table 5. Number of School Counselors in Georgia: 2018-2022

Year	Number of School Counselors
2018	3905
2019	3992
2020	4127
2021	4169
2022	4275

Table 6. Number of School Psychologists in Georgia: 2018-2022

Year	Number of School Psychologists	Number of GNETS Psychologists
2018	737	15
2019	743	14
2020	755	11
2021	768	9
2022	783	6

Distribution of School Providers in Georgia by County: 2022

As of 2022, the number and distribution of special education teachers, counselors, and psychologists in Georgia schools closely aligns with the number and distribution of Georgia students identified as having a TBI or having a 504 plan in place for TBI.[54] More providers are seen in urban and Metro-Atlanta schools, in alignment with a higher number of students with TBI being distributed in these areas. Rural counties see both lower numbers of students with TBI and lower numbers of providers in schools. Figures 26, 27, 28, and 29 in Appendix A map the distribution of school providers by county.

State Charter Schools

There were 387 students with TBI attending Georgia schools in 2022, including 10 at State Charter Schools (not pictured on maps).[54] Mountain Education Charter High School and the Georgia Cyber Academy both had the most enrolled students with TBI, each reporting three students with TBI. Both the Georgia Connections Academy & the Coweta Charter Academy reported two students with TBI. Out of the 40 total state charter schools in Georgia, 36 state charter schools reported zero students with TBI. However, the total numbers of special education teachers (229), school counselors (198), and school psychologists (6) in state charter schools align closely with those of mid-sized Georgia counties.

Georgia Vocational Rehabilitation Agency (GVRA)

GVRA Service Count of Individuals With TBI

Table 7 below reflects the number of individuals with TBI served by GVRA each year from 2018 through 2022.[56] These were non-distinct case counts, as some individuals may have been included in the count for multiple years. The GVRA served the most individuals in 2018, with a count of 369 individuals; this number has decreased by 44% to 207 as of 2021. The GVRA has served 154 individuals thus far in 2022. This trend could be attributed partly to the COVID pandemic, where most state agencies experienced a drop in the number of people applying for and receiving services.

Table 7. Number of Individuals with TBI served by GVRA by District: 2018-2022

District	2018	2019	2020	2021	2022
District 1	49	47	33	26	19
District 2	89	82	66	61	41
District 3	74	70	53	38	27
District 4	49	45	30	25	20
District 5	26	27	23	15	10
District 6	37	44	25	23	21
District 7	30	24	15	9	9
District 8	15	10	13	10	7
Total*	**369**	**349**	**258**	**207**	**154**

*Note: The yearly count of individuals served is not distinct. The yearly count includes individuals who may have been served by the GVRA for multiple years.

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The GVRA recorded 544 distinct individuals with TBI whose cases were closed between 2018-2022.[56] This number includes both sucessful as well as unsuccessful closures. Demographic data from these cases were used to observe potential trends regarding the gender, age, and race of individuals served during this time (Tables 8 & 9). GVRA typically closes a case if an individual has reached their work goal, if an individual cannot be contacted or locates, the individual no longer wants or needs services due to a variety of reasons.

With respect to age, the majority (26%) of case closures were from the 20-29 age group (144 out of 544 closures).[56] The 30-39 and 40-49 age groups each consisted of 18% of case closures. Majority of individuals with TBI whose cases were closed, were White (61%), followed by African American (38%). Hispanic individuals made up 6% of cases closed (Table 9). More cases were closed for men (69%, n=377) compared to women (31%, n=167).

Table 8. VR Case Closures by Age: 2018-2022

Age at VR Application	Number of Case Closures
14-19	121
20-29	144
30-39	97
40-49	99
50-59	69
60-69	12
70+	2
Total	**544**

Table 9. VR Case Closures by Race: 2018-2022

Ethnic Group Description	Distinct Count Case Closures 2018-current
White	331
Black or African American	205
Hispanic or Latino	31
Asian	9
American Indian or Alaskan Native	4
Native Hawaiian or Other Pacific Islander	2
Do not wish to self-identify	1
Total	**544**

Successful GVRA Case Closures

The GVRA currently marks cases as closed sucessfully once VR participants have obtained and maintained employment for 90 days. Between 2018-present, the GVRA marked the cases of 68 clients with TBI as complete (Table 10).[56] The majority of successful closures during this time for

individuals with TBI were located in Metro-Atlanta counties. Figure 30 in Appendix A shows the county distribution of successful GVRA closures between 2018-2022.

Table 10. Successful GVRA Closures for TBI: 2018-2022

Closure Date	Number of Successful Closures
2018	13
2019	22
2020	12
2021	12
2022	9
Total	**68**

Brain and Spinal Trust Fund Commission (BSITFC)

The Brain and Spinal Injury Trust Fund Commission (BSITFC) was created by state legislation in 1998 to fill the financial gaps in the system for individuals with brain and spinal injuries. The BSITFC provides direct grants to Georgians with traumatic brain and spinal injuries to assist in creating lives of independence and inclusion. The BSITFC is the lead agency for traumatic brain injury for the State of Georgia, which makes the Commission responsible for advising the legislature on relevant policy. The BSITFC also partners with the Brain Injury Association of Georgia (BIAG) to provide a free Resource Facilitation Program for Georgians who have a TBI.

Georgia Central Registry Program

The Brain and Spinal Injury Trust Fund Commission (BSITFC) hosts the Georgia Central Registry program, which collects data and contact information for individuals with newly diagnosed traumatic brain and spinal injuries in Georgia, in order to support these individuals, identify trends in injury, and educate policy-makers and community stakeholders about the needs and incidence of those with TBI. The Commission leverages the Central Registry to reach out to those who have suffered a TBI or SCI with information about resources that may be available to assist them in their recovery. The Commission also utilizes the data collected to monitor the incidence rate of traumatic injuries in Georgia, both overall and within specific demographics.

The Central Registry was created in response to a need for public support for those with TBI and SCI to receive life-saving services. Each person in Georgia identified as having sustained a TBI or SCI receives a resource packet that provides information about resources and funding available to individuals with traumatic brain and spinal cord injuries. This includes information about waivers, grant funding through the BSITFC, and service providers.

Georgia is one of only fourteen states in the United States that have a Central Registry for TBI and SCI. In November 2021, eight organizations came together to form a National TBI Registry Coalition, which aims to work with the federal government to build a National TBI Registry. With so few state registries, there is a geographic inequity in the information shared about resources and support for those with TBI. The move towards a centralized, national registry indicates Georgia's

ability to be at the forefront of the movement to support all individuals with traumatic brain injuries. With 40 years of experience operating a central TBI registry, Georgia is a leader in data collection and information distribution for those with TBI or SCI.

In 2021, the Trust Fund distributed 153 grants, totaling more than $1 million. The majority of the grant funding went towards transportation services, followed by personal support services and durable medical equipment.[12] Individuals may apply for a grant through the Trust Fund, with a lifetime maximum distribution of $10,000 per applicant except for certain vehicle modifications which may be funded up to $15,000. These grants may be utilized to fund many services and goods, including housing, health care, personal assistance, assistive technology, transportation, respite, recreation, and rehabilitation. The number of Georgians who received trust fund services from the BSITFC declined slightly from 2018-2022, as presented in Table 11 below.[12,57,58,59] This trend could be attributed, in part, to the COVID pandemic, where most state agencies experienced a drop in the number of people applying for and receiving services.

Table 11. Number of Trust Fund Grants Distributed by BSITFC

Year	Number of Trust Fund Grants Distributed
2018	161
2019	155
2020	143
2021	153

Central Registry and Department of Education Comparisons

One example of the effect of the pandemic is illustrated by a comparison between Central Registry and Department of Education (DOE) data. In 2019, the Central Registry identified a total of 10,433 youths between ages 0 and 24 who were either hospitalized or treated and released from emergency departments for TBI (Table 12). In the same year the DOE reported that only 418 children between ages 2 and 23 had been identified by the school systems as having a TBI.[12]

Table 12. Central Registry Youth TBI Data (2019)

Age in Years	Emergency TBI	Hospital TBI	Total
0-4	1115	281	1396
5-9	1045	107	1152
10-14	2175	121	2296
15-19	2912	321	3233
20-24	1981	375	2356
Total	**9228**	**1205**	**10433**

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Brain Injury Association of Georgia (BIAG)

BIAG Service Information: 2018-2021

BIAG served a total of 580 individuals with TBI between 2018-2021. The organization received 478 total requests for resources within the same time period.[60]

Resources Provided by BIAG: 2018-2021

BIAG provides resources exclusively to individuals with brain injury in Georgia. Between 2018-2021, BIAG provided resources to clients in the areas of medical, financial, housing/assisted living, transportation, employment, and homecare assistance (Table 13).[60] During this time, a total of 755 resources were provided to Georgians with brain injury. Medical resources were provided to clients most often with 236 resources given (31%). Financial resources accounted for 24% of resources provided; 182 were given during this time. Homecare assistance resources, which include various home-based services, represented 18% of resources provided with 133 resources given.

Table 13. Number of Resources Provided by BIAG

Resources Provided	Number of Resources Provided
Medical	236
Financial	182
Housing/Assisted Living*	102
Transportation	46
Employment	56
Other - Homecare Assistance	133
Total	**755**

*Note: 6 of the housing/assisted living resources provided were homeless shelters.

BIAG Referrals to Outside Agencies: 2018-2021

When resource requests by individuals with brain injury cannot be fulfilled by BIAG, they provide referrals to outside agencies. Between 2018-2021, BIAG provided 1323 referrals to outside agencies (Table 14).[60] Referrals to Social Security, Medicaid, and Medicare were most common at 58% of total referrals. It must be noted that the reported total of 764 referrals is higher because some individuals seeking resources were referred to multiple agencies within this group. Twenty-six percent of referrals were made to BSITFC (344 referrals); 206 individuals were referred to BIAG, representing 16% of total referrals.

Table 14. Number of Referrals provided by BIAG

Referred to Outside Agencies	Number of Referrals
Social Security/Medicaid/Medicare*	764
BSITFC	344
ADRC	206
Crisis Line - DPHH	9
Total	**1323**

*Note: This total is higher because some callers were referred to multiple agencies.

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Georgia's Aging and Disability Resource Connection

ADRCs serve as entry points to long-term care supports and services. ADRC's are free, one-stop shops for information about services and programs for older adults and people with disabilities. Every county in GA (as well as the US) is covered by an ADRC. ADRCs provide information and referral counseling, intake and screening for Medicaid and non-Medicaid home and community-based services, Options Counseling, caregiver programs, and more. Georgia's ADRC is branded empowerline. Empowerline connects older people, adults with disabilities, and their caregivers with the support they need including meals, financial assistance, community programs and other things. Empowerline received 198 calls in 2019, 136 in 2020, 152 in 2021 and about 36 calls in 2022.

Protection and Advocacy for Individuals with Traumatic Brain Injury (PATBI) at Georgia Advocacy Office (GAO)

Key Issues Identified by PATBI Consumers

Key issues identified by consumers of the PATBI program included housing concerns, issues regarding payment for guardianships and representatives, and availability of TBI services and supports.[61] Additionally, the PATBI program received calls about handling criminal issues, which is outside the PATBI program's scope of service.

Information and Referral Requests to the PATBI Program: 2018-2021

The Georgia Advocacy Office's PATBI program received 112 total information and referral requests between fiscal years 2018-2021 (Table 15).[61] The number of requests doubled from 22 in 2018 to 44 in 2019, but lowered by almost 30% in 2020 to 31 requests. The PATBI program received the lowest number of requests in 2021 with a count of 15, a decrease of nearly 52% from 2020. This trend could be attributed, in part, to the COVID pandemic, where most state agencies experienced a drop in the number of people applying for and receiving services.

Table 15. Number of Information and Referral Requests received by PATBI: 2018-2021

Fiscal Year	Number of Information & Referral Requests
2018	22
2019	44
2020	31
2021	15
Total	**112**

PATBI Information & Referral Requests by County: 2018-2021

Figure 31 in Appendix A shows counties where information and referral requests came in between 2018-2021. Requests to the PATBI program came from counties across the state, but the majority were from counties in North Georgia and the metro-Atlanta area, with additional requests coming from urban locations in South Georgia such as Chatham & Lowndes counties.[61]

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Shepherd Center

The Shepherd Center does yearly tracking of their inpatient and outpatient client populations. This includes demographic tracking. The numbers of admitted inpatient clients and served outpatient clients are recorded (Table 16).[62] The number of inpatient clients admitted to the Shepherd Center varied over the past few years; there was an overall increase of 9% in clients admitted between 2017-2021. Similar numbers of clients were seen in years 2017 (100 clients) and 2018 (104 clients), though it must be noted that roughly 10% of recorded clients during these years were referred to Shepherd from a facility outside of Georgia (see note in the chart below). There was a reported 35% drop in inpatient clients in 2019 to 68 inpatient clients (see note in the chart below). The number of inpatient clients rebounded the next year; numbers rose by 32% to 90 clients in 2020, and rose again in 2021 to 109 clients.

Table 16. Number of Inpatient TBI Clients admitted to the Shepherd Center: 2017-2021

	CY2017	CY2018	CY2019	CY2020	CY2021
TBI inpatients admitted*	100	104	68	90	109

*Note: CY2019 is understated because of challenges due to EHR conversion during the year. EHR data conversion, or data migration, is the process of taking data from an old health record system and transferring it into a new system. Also, CY2017-2018 are likely understated because this calculation uses the state of the referring facility, not necessarily the home state of the patient, and ~10% of patients are referred from a facility outside their home state. CY2020-2021 use the home state of the patient.

The number of Georgia-based outpatient clients served by the Shepherd Center has fluctuated between 2020-2022 (Table 17).[62] While the number of clients served rose overall by 14% during this time, there was a decline in clients served between 2021-2022. In 2020, 158 clients were served in. In 2021, the number of outpatient clients served increased by 28% to 202 clients. However, the number of outpatient clients served in 2022 decreased by 10% to 181 clients.

Table 17. Number of Outpatient TBI Clients Served by Shepherd Center: 2020-2022

	FY2020	FY2021	FY2022
TBI outpatients served from GA	158	202	181

Department of Community Health (DCH)

Medicaid Members Diagnosed With TBI:

According to the Department of Community Health, the number of Medicaid members diagnosed with a TBI has been maintained at just over 8,000 members a year from 2018-2021, with slight declines in 2020 and 2021 (Table 18).[63]

Table 18. Number of Medicaid Members with a TBI Diagnosis: 2018-2021

Year	2018	2019	2020	2021
TBI Patient Count	8,301	8,360	8,210	8,138

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Georgia Medicaid Waivers

Under Georgia's Medicaid waiver programs, some waivers are potentially available to people with traumatic brain injuries. Brief descriptions of each of the waivers and the number of clients with TBI in the waiver program are described below.

While each waiver program provides different specific services to distinct populations, all waiver programs provide the following core services:

» Service coordination: assistance managing care needs and services

» Personal support: assistance with daily living activities

» Home health services: nursing, home health aide, outpatient therapies

» Emergency response systems

» Respite care for primary caregivers

ICWP (Independent Care Waiver Program)

Eligibility: Must be 21-64 years of age at time of application and when services begin; person must have a severe physical impairment and/or TBI that limits one or more activities of daily living and requires the assistance of another individual. Must not have a primary diagnosis of a mental disorder and must be medically stable but at risk of institutional placement if community-based support services are not available. Must currently be safely placed in a home or community setting. Must be Medicaid eligible.

Goal(s): ICWP aims to help individuals who are considering institutional care to obtain home- and community-based services as an alternative. Participants in ICWP work with their families, case managers, and providers to establish a plan of care individually tailored to their specific needs.

Levels of Services: ICWP provides two levels of services to those eligible. The nursing facility level has an annual waiver cap of $62,000. Key informants in this needs assessment noted that this level of support is generally regarded as insufficient to enable individuals with TBI to live successfully in their homes and communities. Due to the high cost of medical care, supplies, and equipment, this budget does not leave much left over for personal care services. The hospital level of care has an annual cap of $100,000. Key informants also noted this budget to not be sufficient in providing individuals with TBI the funding they need to successfully live in their homes and communities with the appropriate services they need.

Number of TBI Clients: The ICWP has seen a TBI client increase of 24% and a TBI-based service claim increase of 54% between 2018-2021. Client count and service claims have risen from 286 clients and 28,839 claims in 2018 to 354 clients and 44,389 claims in 2021 (Table 19 below).[63]

NOW (New Options Waiver)

Eligibility: Someone with an intellectual or developmental disability (I/DD) or closely related condition, currently receiving the level of care provided in an intermediate care facility for people with intellectual disabilities (ICF-ID), for whom home- and community-based services are an appropriate alternative. Must be Medicaid eligible.

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Goal(s): NOW offers services and supports to individuals to enable them to be able to remain living in their own or family home and participate or live independently in their community. Goals for NOW program participants include increasing independence and quality of life, increasing flexibility of service planning and delivery to meet exact individual needs, provide an opportunity for participants to direct their services to the extent they choose, and ensure their health, safety, and welfare.

Number of TBI Clients: The NOW program has seen small changes in TBI client counts and an overall decrease in TBI-based service claims between 2018-2021.[63] Client counts increased by 13% between 2018 (46 clients) and 2019 (52 clients), but remained nearly the same in 2020 (51 clients) and declined by 11% in 2021 (45 clients). There was an overall decrease of 27% in claims between 2018-2021. The number of claims made stayed relatively similar from 2018 (3,736) to 2019 (3823). However, there was a decrease of 23% in claims made from 2019 to 2020 (2,934), as well as a decrease of 7% in claims made from 2020 to 2021 (2,716) (Table 19 below).

COMP (Comprehensive Supports Waiver Program)

Eligibility: Someone with an I/DD or closely related condition, currently receiving the level of care provided in an intermediate care facility for people with intellectual disabilities (ICF-ID), for whom home- and community-based services are an appropriate alternative. Must be Medicaid eligible. COMP primarily provides services to individuals with more intensive needs than those in the NOW program.

Goal(s): The COMP program primarily provides residential care for individuals with I/DD by offering comprehensive and extensive waiver services to enable individuals with urgent and intense needs to avoid institutional placement. The COMP program's goals for participants are to increase independence and quality of life, to offer opportunities for participant direction, and to facilitate the transition of institutionalized individuals to community living while ensuring health, safety, and welfare.

Number of TBI Clients: COMP grew in TBI client count and TBI-based claim count yearly from 2018-2020, with a slight decline in client count in 2021.[63] While the client count increased by 21% from 2018 (175 clients) to 2020 (212 clients), it decreased slightly (by 5%) to 201 clients in 2021. The number of claims made increased overall from 2018-2021; there was an increase by 12% from 2018 (26,867) to 2019 (30,116), a 1% decrease in 2020 (29,813) and a slight increase (less than 1%) in 2021 (29,925) (Table 19 below).

CCSP (Community Care Services Program)

Eligibility: Someone who has a functional impairment caused by physical limitations who has approval by a physician of the need for an intermediate level of nursing home care and the development of a care plan. The client must choose to receive services in the home and community instead of a nursing home. Must be Medicaid eligible and can only participate in one waiver program at a time.

Goal(s): The CCSP aims to provide a home and community-based waiver services program that provides community-based social, health, and support services as an alternative to placement

in a nursing home. Each participant receives a care coordinator who will create a consumer-focused comprehensive plan of care in collaboration with the participant's physician.

Number of TBI Clients: TBI client count and TBI-based service claims made in the CCSP waiver program have increased yearly between 2018-2021.[63] Numbers increased from 269 patients who made 22,601 claims in 2018 to 367 patients who made 39,739 claims in 2021, which is a client increase of 36% and claim increase of 76% (Table 19 below).

SOURCE (Service Options Using Resources in a Community Environment)

Eligibility: Someone who is eligible for full Medicaid and meets nursing home level of care requirements. Eligibility is determined through a comprehensive assessment.

Goal(s): SOURCE links primary medical care and case management with long-term health services in a person's home or community. Each participant will have an individual care path designed based on their specific needs, with family members, other caregivers, and staff from support agencies included in development of the care path.

Number of TBI Clients: The SOURCE waiver program contained the highest number of TBI clients and TBI-based service claims out of all programs detailed.[63] There was an overall increase of 6% for clients and 34% for claims between 2018-2021. The number of clients and service claims increased from 575 clients and 54,031 claims in 2018 to 607 clients and 72,373 claims in 2021. While this program has seen overall increases in TBI client count and service claims between 2018-2021, there were slight decreases to both client counts and service claims in 2020 (Table 19 below).

GAPP (Georgia Pediatric Program)

Eligibility: Those under age 21 determined to be medically fragile with multiple systems diagnoses who meet the same level of care necessary for institutional admission. Families must be Medicaid eligible.

Goal(s): GAPP is a fee-for-service program aimed at providing at-home nursing care and personal care to medically fragile children. It may provide assistance with daily living activities, monitoring vital signs, assistance with ambulation, IV therapies, wound care, and tube feedings, among other services and support.

Number of TBI Clients: The GAPP fee-for-service program saw general growth between 2018-2021.[63] During this period there was a 24% growth in number of TBI clients and a 37% increase in number of claims made by TBI clients. The numbers of TBI clients and service claims increased the most from 2018 (120 clients made 8,367 claims) to 2019 (141 clients made 10,906 requests); there was an 18% rise in clients and a 30% rise in claims. The numbers of TBI clients and claims made remained similar in 2020 and 2021, with a slight decrease in claims in 2020 and a small increase in clients in 2021 (Table 19 below).

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Katie Beckett Program (Deeming Waiver)

Eligibility: Someone age 18 years or younger who meets federal criteria for disability, is financially ineligible for SSI benefits, requires an institutional level of care and can be appropriately cared for at home, and whose estimated cost of care outside of an institution will not exceed estimated cost of care within an institution. Prior to the child's 18th birthday, the family should re-apply for SSI as the young adult will no longer be ineligible due to family income level.

Goal(s): The Katie Beckett Program waives standard Medicaid eligibility criteria to permit the state to only evaluate the child's income for provision of services when a child with disability meets an institutional level requirement of care.

Number of TBI Clients: The Katie Beckett waiver program holds the smallest number of TBI clients, as it is limited to youths under age 18 who require institutional levels of care.[63] Overall, both the number of TBI clients and the number of TBI-based claims saw general increases between 2018-2021; clients increased by 11% (37 in 2018 to 41 in 2021) and claims increased by 20% (5,922 in 2018 to 7106 in 2021) (Table 19 below).

Early and Periodic Screening Diagnosis and Treatment (EPSDT)

Eligibility: All children who are Medicaid eligible. Individuals may receive benefits from both EPSDT and the Katie Beckett Program (Deeming Waiver) to gain access to additional support and services.

Goal(s): EPSDT is a federally mandated program, which all states must provide regardless of whether they have expanded Medicaid. Thus, Georgia provides EPSDT. The purpose of EPSDT is "to ensure that all Medicaid eligible children receive comprehensive and preventive health care to the maximum extent that Medicaid allows." The overarching goal of EPSDT is to prevent impeded growth and development of children through early identification and treatment of health conditions.

Services Provided: EPSDT provides services based on the child's needs "as determined by their doctor and not by predetermined limits or caps established in the state's plan or Medicaid policy." These services may include: inpatient and outpatient services, rural clinic services, laboratory and x-ray services, family planning services and supplies, dental services, vision services, physical therapy, occupational therapy, speech therapy, and other related services, prescribed drugs, other diagnostic, screening, preventive, and rehabilitative services, ICF-MR, inpatient psychiatric hospital services, hospice care, case-management services, respiratory care services, personal care services, and any other medical care or remedial care recognized under state law. EPSDT also provides TB-related services. There is no waiting list for EPSDT services, nor is there a monetary cap, hours of services provided limit, or limit on the number of visits to providers under EPSDT. Prior authorization may be required for many EPSDT services.

Number of TBI Clients: The EPSDT program has seen pronounced growth in TBI client counts and TBI-based service claims made from 2018 (429 clients with 782 claims made) to 2021 (759 clients with 1,466 claims made).[63] The number of clients within this program increased 77%

ENVIRONMENTAL SCAN

Table 20. Summarization of Services Provided by Georgia Medicaid Waiver programs

	NOW	COMP	ICWP	CCSP	SOURCE	EPSDT
Services Offered						
Service coordination	X	X	X	X	X	X
Personal support services	X	X	X	X	X	X
Home health services (nursing, home health aide, OT, PT, Speech Therapy)	X	X	X	X	X	X
Emergency response systems	X	X	X	X	X	
Respite care	X		X	X	X	
Dental services	X	X				X
Vision & hearing services						X
Additional staffing services	X	X				
Behavioral supports	X	X				X
Community access	X	X				
Community guide	X	X				
Community living support	X	X				X
Environmental accessibility adaptation	X	X				
Financial support services	X	X				
Individual directed goods and services	X	X				X
Interpreter	X					X
Natural support training	X	X				
Pre-vocational services	X	X				
Specialized medical equipment services	X	X	X			X
Supported employment	X	X				
Transportation	X	X				X
Vehicle adaptation	X	X				
Community residential alternative services		X				
Adult day health			X	X	X	
Home modification			X			
Alternative living services			X	X	X	X
Home-delivered meals				X	X	
Additional support to family caregivers living with participant. Based on eligibility				X		

ENVIRONMENTAL SCAN

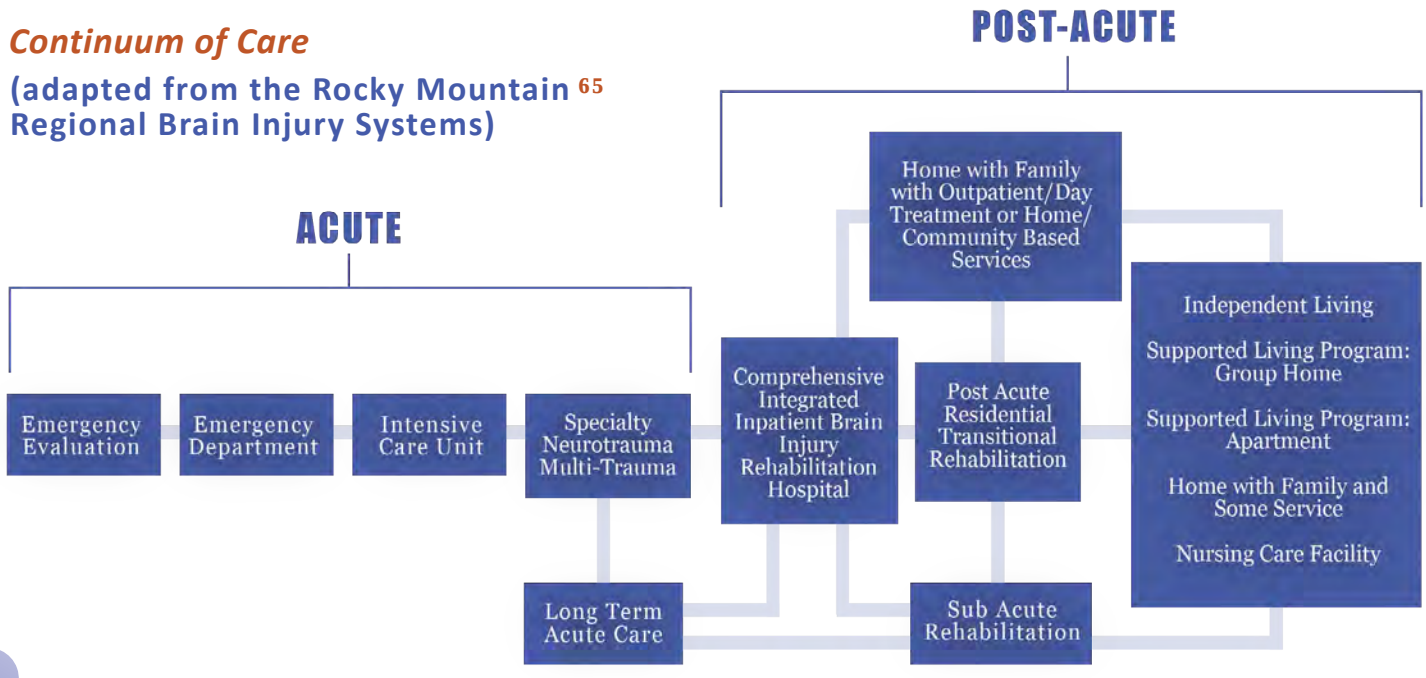
Continuum of Care

Traumatic brain injuries require a complex continuum of care, which if followed correctly can insure maximal recovery from the TBI. The continuum of care flows from acute to post-acute care, with many potential steps and care settings within that flow. It is imperative to keep in mind that healing is not linear, and this continuum of care is not a one-size-fits all plan of care. Many individuals with TBI move backwards and forwards along the continuum during their journey of healing and recovery, and may only access points on the continuum that maximize their chance of full recovery. Movement through the continuum should be guided by the functional level and needs of the individual with TBI.[64]

Acute care is where diagnosis, stabilization, and the beginnings of analysis of prognostic indicators occur. In some cases, rehabilitation and therapies occur during acute care, but the goal is to prevent further complications while reaching medical stabilization. Sub-acute care begins when the patient is considered sufficiently stable but still in need of rehabilitative services and physiological monitoring. Sub-acute care may occur in a number of settings, including nursing homes or other institutions, in the home and community, or a rehabilitation center. Patients appropriate for post-acute or transitional facilities are generally higher functioning and require supervision. This is provided in a variety of settings including group homes, day programs, outpatient care and at home in community-based settings. Long-term care support can be provided by trained individuals who assist the patient with monitoring of ongoing issues of daily living. Case managers, personal managers or family members can monitor progress. A qualified physician should be available to assist with the long-term care issues as they might arise. They may be competitively employed but may have problems with money management and transportation. They may need assistance with proper nutrition, etc. Supported living can be anywhere from a group home to home and community-based settings including living with their loved ones in individual apartments or homes.

Continuum of Care

(adapted from the Rocky Mountain Regional Brain Injury Systems) [65]



ENVIRONMENTAL SCAN

Resource Facilitation

Resource Facilitation has been defined as "a partnership that helps individuals and communities choose, get and keep information, services and supports to make informed choices and meet their goals."[66] Resource Facilitation most closely resembles care coordination and case management services. Resource Facilitation operates on seven key principles: it is individualized, accessible, holistic, effective and valued, participant directed, creative and flexible, and builds community partnerships. At its most ideal, Resource Facilitation has ten key operations, outlined below:

- **Assessment** of the current status, needs, and resources of the participant and their personal support system.
- **Planning** out the goals and service and support needs of both the participant and their personal support system with specifically stated areas of responsibility and anticipated timelines.
- **Identify** the services and supports outlined in the agreed upon plan, evaluate effectiveness for the individual, and seek out additional resources to fill any gaps.
- **Negotiate** access to services, supports and resources through providing referrals and securing providers.
- **Monitor** the quality and appropriateness of services and supports used proactively.
- **Reassess** each component of the process, including the partnership itself, on at least a quarterly basis for all active participants.
- **Outreach** in the community to find new services, supports, resources, and program participants.
- **Educate and train** people in the participants' personal support systems and community at large about brain injuries.
- **Emotionally support** participants by supportively and proactively listening to their needs. This flows through and is a key part of all components of Resource Facilitation.
- **Advocate** by helping participants assert their rights and needs on their own. This flows through and is a key part of all components of Resource Facilitation.

The goals of Resource Facilitation include supporting participants to make informed choices, providing helpful, personalized information to participants, providing education to the participants, their personal support systems, and their communities, increasing personal satisfaction of participants, and increasing community capacity to serve and support people with brain injuries. Resource Facilitation aims to improve return-to-work outcomes through facilitated, personalized connections with community agencies, funding resources, and other trainings and services.[67]

Since Resource Facilitation first got its start in the field of brain injury in 1984, the efficacy of this type of programming has been shown in several randomized controlled studies, and the need for RF has grown exceedingly apparent. In one study, participants who received Resource Facilitation services returned-to-work at a rate of 87.5% within a 15-month treatment period, as compared to those who did not receive the services at the rate of 50%. Overall, Resource Facilitation participants were found to have 7x higher odds of returning to participation in a productive community based-work environment (e.g. school, volunteering, paid employment) than those who did not receive services.[68]