

**JOINT LEGISLATIVE OVERSIGHT COMMITTEE
ON HEALTH AND HUMAN SERVICES**



**Overview of Traumatic Brain Injury in
North Carolina DHHS**

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Traumatic Brain Injury (TBI)



TBI is defined as an alteration in brain function, or other evidence of brain pathology, caused by an external force.

(Brain Injury Association of America (BIAA) 2011)

Dr. Wayne Gordon, of Mount Sinai School of Medicine, who also serves on BIAA's board of directors stated: "The new definition incorporates the emerging evidence that signs and symptoms of the injured brain may emerge over time."

Concussions are a type of traumatic brain injury (TBI) caused by a blow or jolt to the head. The injury can range from mild to severe and can disrupt the way the brain normally works.

Source: Brain Injury Association of America (BIAA) 2011

Problems exhibited after brain injury



- **Cognitive**
 - Short- & long-term memory, slowed processing, attention, inability to initiate, reasoning, problem solving, planning, sequencing & judgment
- **Behavioral**
 - Mood swings, denial, depression/anxiety, inability to self-monitor, agitation & irritability
- **Physical**
 - Speech, vision, hearing, headache, nausea, sleep disturbance, lack of coordination & balance

Scale of the TBI incidence



- In the US in 2010, about 2.5 million TBI-associated emergency department (ED) visits, hospitalizations-or deaths
- In NC in 2012, 76,708 citizens sustained a TBI

- 1,871 died

Source: 2012 NC Death File, analysis conducted by the Injury & Violence Prevention Branch, NC Division of Public Health

- 6,249 were hospitalized

Source: NC Hospital Discharge Database, analysis conducted by the Injury & Violence Prevention Branch, NC Division of Public Health

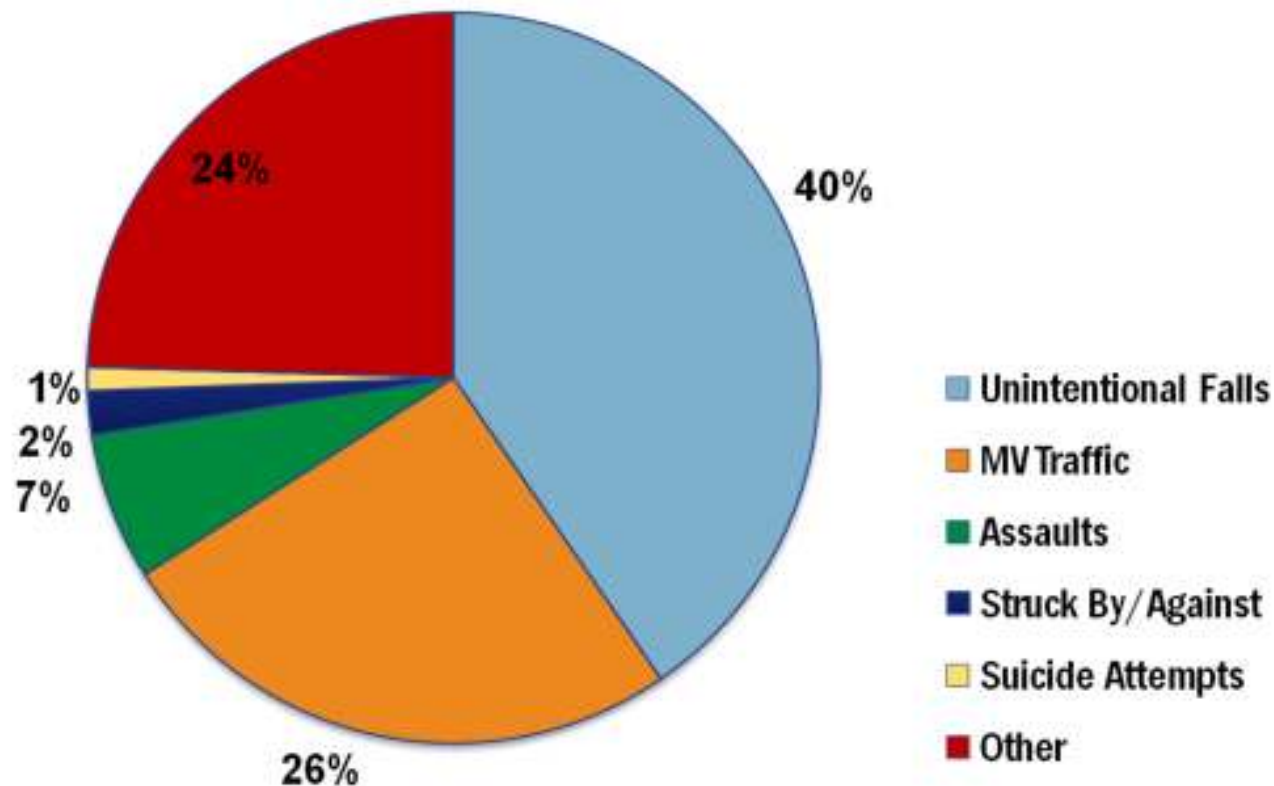
- 68,588 were treated & released from EDs

Source: NC Disease Event Tracking & Epidemiologic Collection Tool (NC DETECT), analysis conducted by the Injury & Violence Prevention Branch, NC Division of Public Health

Causes of TBI in NC



Hospitalizations



Data Source: NC Hospital Discharge Database, State Center for Health Statistics; data analysis conducted by the Injury & Violence Prevention Branch of the NC Division of Public Health

Services in North Carolina



Data from 2010 showed:

- At least 23,000 known persons with active TBI diagnoses used Medicaid services
 - Of those, 5,898 received behavioral health services
- Another 112 were served with designated State TBI funds
- Persons with TBI have access to other State single stream funds
 - These services are not designed for TBI and therefore not tracked in that manner

Source: Medicaid Claims Data

Scale of the TBI demographics



Demographics Of Those Served Through DMH/DD/SAS TBI Program	
Demographic	Statistics
AVERAGE AGE	40 years of age* *5% are under the age of 18; 92% are 18-58; and remaining 3% not reported
SEX	74% Male 26% Female
EMPLOYMENT	91% Unemployed 9% Part Time Employment
INCOME	90% Report Less Than \$25,000 9% Report No Income <1% Report \$25,000-\$49,999

Source: DMH-TBI Quarterly Reports

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Existing services



Medicaid State Plan Services	Medicaid NC Innovations Waiver	Medicaid 1915(b)(3) Services
<ul style="list-style-type: none">• Occupational therapy• Speech and language therapy• Personal care services• Inpatient hospitalization• Acute rehabilitation• Durable medical equipment• Pharmacy benefits	<ul style="list-style-type: none">• Assistive technology• Community guide• Crisis services• Day supports• Home modifications• In-home skill building• Personal care services• Residential supports• Respite services	<ul style="list-style-type: none">• Respite services• Community transition• Supported employment• Physician consult

Existing services



Medicaid Community Alternatives Program for Disabled Adults (CAP-DA) Waiver

- Adult day health
- Personal care aide
- Home accessibility and adaptation
- Meal preparation and delivery
- Institutional respite services
- Respite
- Personal Emergency Response Services
- Specialized medical equipment and supplies

Medicaid Community Alternatives Program for Children (CAP-C) Waiver

- In-home nurse or nurse aide care
- Home modifications and vehicle modifications to enhance the child's safety and independence
- Palliative care
- Adaptive tricycle
- Caregiver training and education
- Respite services
- Reusable diapers and liners

Existing services



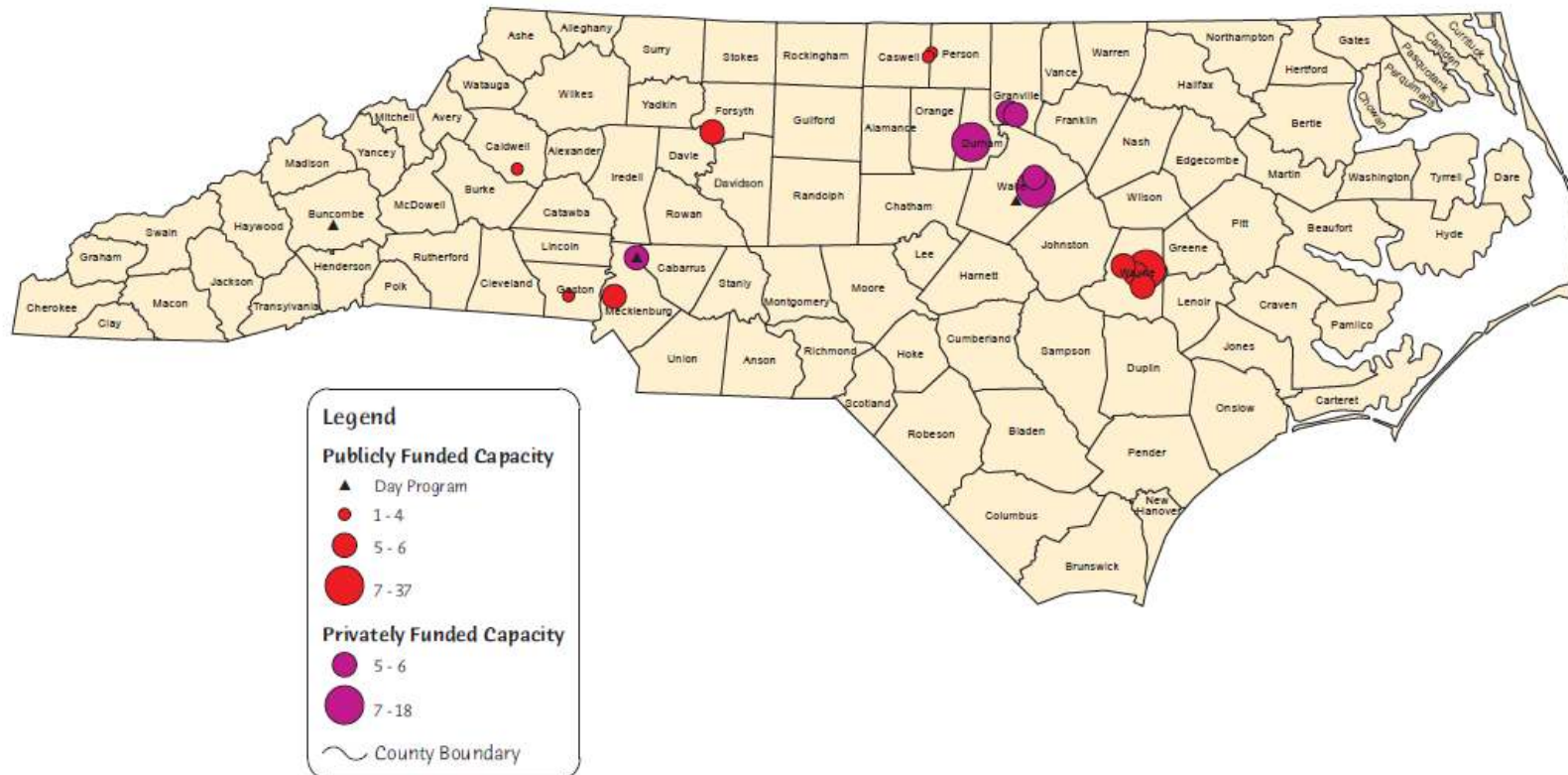
Division of Vocational Rehabilitation

State Single Stream Funds

(not designated by age or disability)

- | | | |
|--|--|---|
| <ul style="list-style-type: none">• Employment services<ul style="list-style-type: none">– Guidance & counseling– Supported employment– Brain injury services in select areas (Greenville, Raleigh, W-S, Charlotte)– Job seeking skills training• Assistive technology<ul style="list-style-type: none">– Technical Assistance in devices– Loaner program for try-out | <ul style="list-style-type: none">• Independent living services<ul style="list-style-type: none">– Personal assistance– Home/vehicle modifications– Independent living skills training– Assistance in researching other resources• Client assistance program<ul style="list-style-type: none">– Service dispute resolution– Help with appeals– Assistance in researching other resources | <ul style="list-style-type: none">• Medication management• Mobile crisis management• Personal assistance• Respite services• Family living-high, low• Group living-high, mod, low• Supervised living• Supported employment• Day activity |
|--|--|---|

Locations of TBI-specific facilities



Source: State Center for Health Statistics

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TBI-specific facilities



Publicly Funded			
Organization	Licensed to	Location	Capacity
ReNu Life Extended	ReNu Life	Goldsboro	24
Taylor Home	ReNu Life	Goldsboro	6
Pineview Home	ReNu Life	Goldsboro	6
Lakeview Home	ReNu Life	Goldsboro	5
Lippard Lodge	Luther Family Services of the Carolinas	Clemmons	6
TBI, Program #3	Person Co. Group Homes	Caswell Co	2
TBI, Program #1	Person Co. Group Homes	Caswell Co.	3
Gaston Residential Services	Gaston Residential Services	Gastonia	4
VOCA-Elm	VOCA-Elm	Hudson	3
Gail B. Hanks Home	Gail B. Hanks Home	Charlotte	6

TBI-specific facilities



Privately Funded			
Organization	Licensed to	Location	Capacity
Learning Services Neurobehavioral Institute	Private	Creedmoor	6
Learning Services Neurobehavioral Institute 2	Private	Creedmoor	6
Learning Services-River Ridge	Private	Raleigh	12
Hind's Feet Farm – Puddin's Place	Private	Huntersville	6
Carolina – Morehead Hill Program (Learning Services)	Private	Durham	18
NeuroRestorative – Windermere	Private	Raleigh	6

Existing Service Definitions and Issues



Source	Description
<ul style="list-style-type: none">• Federal TBI Block Grants• Federal TBI Grant	<ul style="list-style-type: none">• There is no Federal Block Grant which provides TBI services• North Carolina is currently receiving a competitive federal grant from the Health Resources and Services Administration (HRSA) to support the TBI population that cannot be used to pay for services• Funding is to assist in building infrastructure and is prohibited from being used for direct care

Existing Service Definitions and Issues



Source	Description
Designated State TBI Funds: <ul style="list-style-type: none">• No specific service definitions• Money is Non-Unit Cost Reimbursement	<ul style="list-style-type: none">• DMH/DD/SAS manages \$2,373,086 to support individuals with TBI throughout the State• In SFY 2015, the 9 Local Management Entities/Managed Care Organizations (LME/MCOs) requested a total amount of \$3,392,739, which is 143% of allocated funds

Existing Service Definitions and Issues



Source	Description
State Single Stream Funds (not designated by age or disability)	<ul style="list-style-type: none">• Issue: State Service Definitions may be used for individuals with TBI; however, these definitions are not designed for TBI rehabilitation and many service providers do not have adequate training or experience with TBI• Issue: State-funded services are limited to funds appropriated per year

Existing Service Definitions and Issues



Source	Description
Medicaid State Plan Personal Care	<ul style="list-style-type: none">• Commonly used service to support the TBI Population that has varying levels of success• Issue: Individuals may need only cueing and not hands-on assistance, which may not qualify them for Personal Care services

Existing Service Definitions and Issues



Source	Description
NC Innovations	<ul style="list-style-type: none">• May effectively support individuals with TBI who are not in the initial phase of injury and do not have behavioral issues• MCOs have ability to set rates for individuals who cannot be supported with the usual reimbursement rate• Issue: Innovations is a habilitative waiver and not designed for rehabilitation as needed in TBI population• Issue: To be served under this waiver, a person must have a TBI that occurred before age 22

Existing Service Definitions and Issues



Source	Description
Veterans Affairs	<ul style="list-style-type: none">• Defense & Veterans Brain Injury Center (DVBIC) has a TBI Recovery Support Program which is a nationwide program for those with TBI• Department of Veterans Affairs has numerous services and supports for veterans who were discharged under other than dishonorable conditions

Existing Service Definitions and Issues



Source	Description
Veterans Affairs (cont.)	<ul style="list-style-type: none">• Issue: Some Veterans with TBI are not able to access VA Services because of dishonorable discharges• Issue: Veterans with TBI who have been dishonorably discharged may visit LME/MCO for services• Issue: It is believed that many veterans with TBI may have been dishonorably discharged because of behaviors due to their TBI

Accessibility for TBI service provision



- Some persons with TBI do not qualify for Medicaid because of their Social Security Disability Insurance (SSDI)
- Services in our system have been designed for other disability populations
- Individuals with TBI can only access Medicaid IDD services if they are injured prior to age 22

Accessibility for TBI service provision



- TBI-specific group homes are currently full and therefore cannot accept new residents
- Those served for mental illness and/or substance use disorders are not screened for TBI
- LME/MCOs are tasked with outreach for TBI, a challenge given limited funding available for TBI