



The Importance of Screening for Brain Injury in Older Adults: Case Studies of Success

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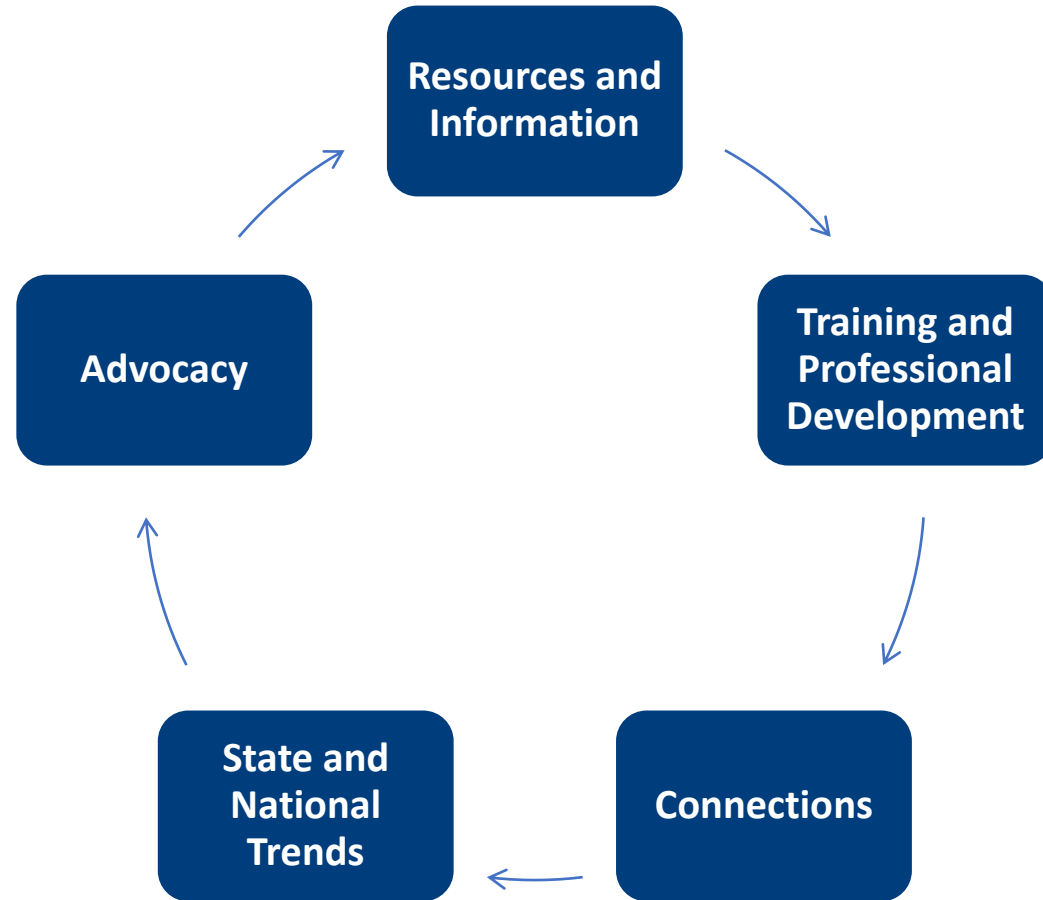


About NASHIA

National nonprofit organization created to assist State government in promoting partnerships and building systems to meet the needs of individuals with brain injury and their families.



NASHIA Provides



Leading Causes of TBI

- **Falling and hitting head – 49.1%**
- Motor vehicle Accidents- 24.5%
- Strenuous shaking of body
- Contact-sports
- Strangulation
- Being pushed against wall/solid objects
- Blasts
- Use of firearms
- Near drowning



Falls and Brain Injury

More than 1 in 4 older adults report falling each year—this results in about 36 million falls. Falls can cause serious injuries such as broken bones or a head or brain injury.



Rates of TBI-Related Hospitalizations

Rates of TBI-related hospitalizations are highest among the following groups:

- adults aged ≥ 75 years
- adults aged 65-74 years; and
- adults aged 55-64 years

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Severity of TBI

Mild

- **Most common**
- **May or may not lose consciousness**
- **Headaches**
- **Dizziness**
- **Slowed processing**
- **Forgetfulness**
- **Fatigue**
- **Sensitivity to noise and lights**
- **Altered sleep pattern**

Moderate

- Loss of consciousness from minutes to hours
- May have shearing, bleeding or fractures in skull
- May not recall event
- Confusion
- Impaired verbal memory

Severe

- Loss of consciousness for 6 or more hours
- Long-term challenges highly likely
 - Behavior
 - Social
 - Cognition

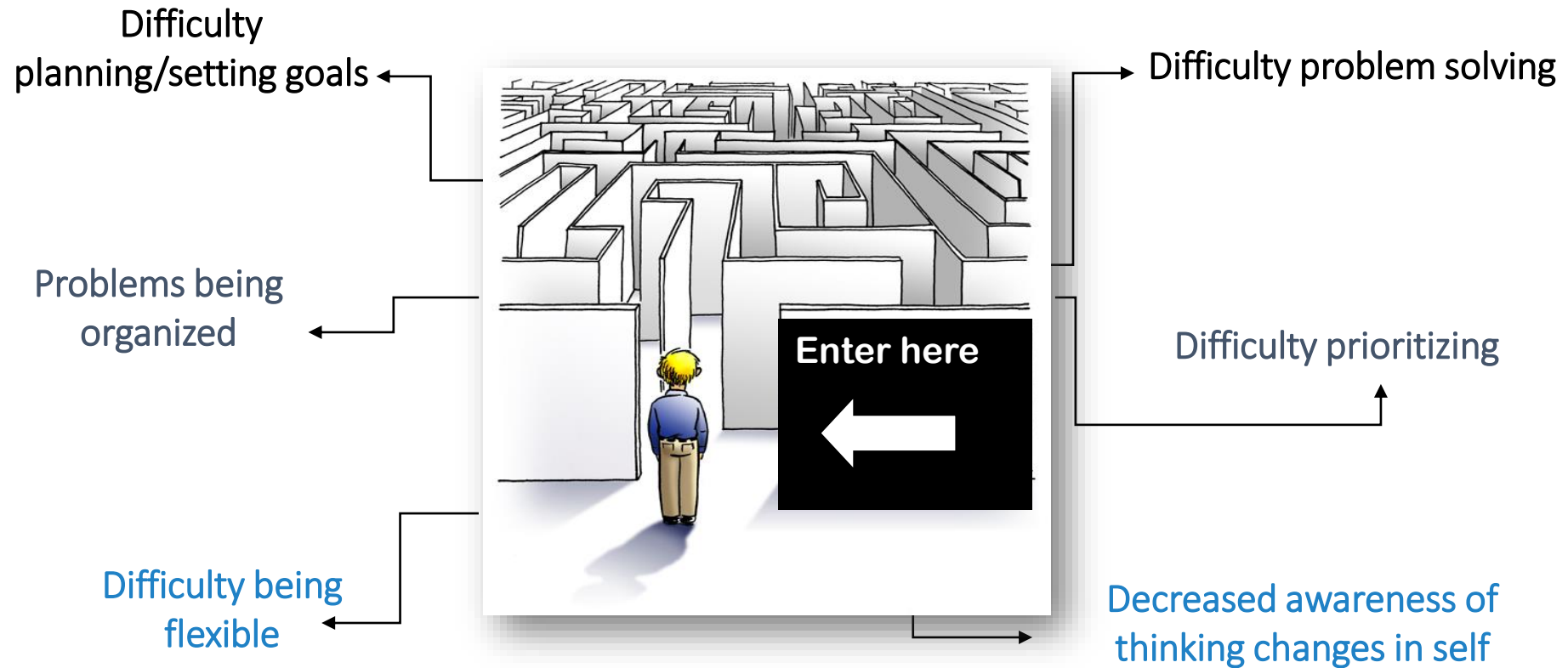


Where to TBIs Occur?

- Home – Falls, Assaults
- Car, Cycles, ATVs
- Schools
- Locker Room/Field/Track
- Treatment Centers-SA, MH
- Shelters-DV/IPV
- Work
- Military Service



Impacts to the Brain



Risk Factors for Falls and TBI

- **Structural changes** in the brain (e.g., **Atrophy**)
- **Complex medical diagnosis**
 - Vision changes
 - issue with light sensitivity.
 - Blurred vision, especially with seeing up close
 - Double vision, Decreased peripheral vision
 - Dizziness, Vertigo
 - 30-65% of people with TBI suffer from balance problems
 - Seizures disorder - develops in 1 in 10 people after injury
 - Chronic pain may occur after TBI
 - Substance Use Disorders
 - 10-20% of TBI survivors develop SUD within the first year of injury.
 - Mental health disorders
 - 50% of TBI survivors experience depression within the first year of injury.
 - Nearly two-thirds are affected for 7 years after injury
 - 71% of people with TBI are frequently irritable
 - Increase risk for suicide than general population



Additional Risk Factors

- **Medicine Management Challenges**
 - Issues with follow through or refusal
 - Side effects
 - Sedation (e.g., increases fatigue and/or balance impairments)
 - Blood thinners (e.g., Coumadin) increased bleeding w/ falls
- **Environmental hazards (Hoarding)**
- **Vulnerability for abuse and exploitation**
- **History of previous brain injuries (ABI/TBI)**



Importance of Screening

- Brain Injuries are a silent epidemic.
- People may “appear” normal.
- The effects of a Traumatic Brain Injury (TBI) vary for each person.
- Symptoms of TBIs often go undiagnosed, misdiagnosed or mistreated.
- An undiagnosed brain injury can mask other illness or conditions.
- Individuals may not know they have been exposed to a brain injury or understand their limitations as a results of the brain injury.
- Individuals are not always connected to brain injury services.
- Consider screening for a brain injury when you have a suspicion!
- The HELPS Brain Injury Screening Tool
- The OSU TBI – ID Method

Diagnosis: TBI?

Conditions that may mimic symptoms of a TBI include:

- Poor Nutrition
- Bipolar Disorders
- Depression
- Substance Use Disorders
- Poor Nutrition
- Sleep Disturbances
- Headaches / Migraines
- Learning Disabilities
- ADHD/ADD

Older Americans Act of 2020

Recognizing that older adults are at high risk for suffering a traumatic brain injury (TBI) due to a fall, Congress included provisions relating to screening, coordination of treatment, rehabilitation and related services, and referral services due to fall-related injuries.

Older Americans Act of 2020

SEC.110. SCREENING FOR FALL-RELATED TRAUMATIC BRAIN INJURY; ADDRESSING PUBLIC HEALTH EMERGENCIES AND EMERGING HEALTH THREATS; NEGATIVE HEALTH EFFECTS ASSOCIATED WITH SOCIAL ISOLATION.

Adds new section with regard to disease prevention and health promotion services: (1) screenings, coordination of treatment, rehabilitation and related services, and referral services for fall-related injuries, including traumatic brain injury; (2) services that are responses to public health emergencies and emerging health threats; and (3) screening and coordination of services and health care to prevent and address negative health effects associated with social isolation.

SEC. 113. TRAUMATIC BRAIN INJURY.

Defines traumatic brain injury in keeping with Section 393B(d) of the Public Health Services Act (42 U.S.C. 280b-1c(d), which is the definition in the CDC sections of the TBI Act.

SEC.213. SCREENING FOR NEGATIVE HEALTH EFFECTS ASSOCIATED WITH SOCIAL ISOLATION AND TRAUMATIC BRAIN INJURY.

Adds screening for negative health effects associated with social isolation and traumatic brain injury screening to the supportive services section designed to provide health screening, which already included mental and behavioral health screening and falls prevention services screening, to detect or prevent (or both) illnesses and injuries that occur most frequently in older individuals.

SEC.302. PUBLIC AWARENESS OF TRAUMATIC BRAIN INJURY.

Allows funding to support projects that address traumatic brain injury among older adults to be included in authorized grant programs, along with other activities that are authorized for use of funds under this title.



NASHIA

Training Events

NASHIA 2021 Webinar & Podcast Series-variety of topics each year

State of the States in Brain Injury: Annual Conference Fall 2021

NASHIA Training U:  **YouTube**



Leading Practices Academies: Criminal & Juvenile Justice

NASHIA Training Workshops:

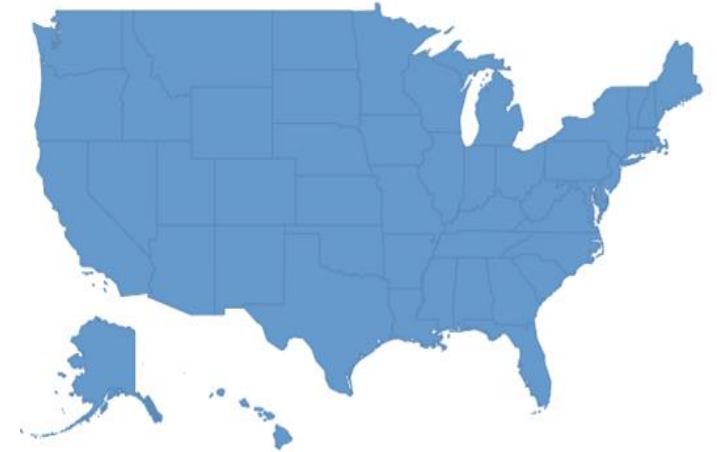
- Concussion Management: REAP package
- Brain Injury and Behavioral Health: OSU Package



Where Are Brain Injury Programs?

State Programs:

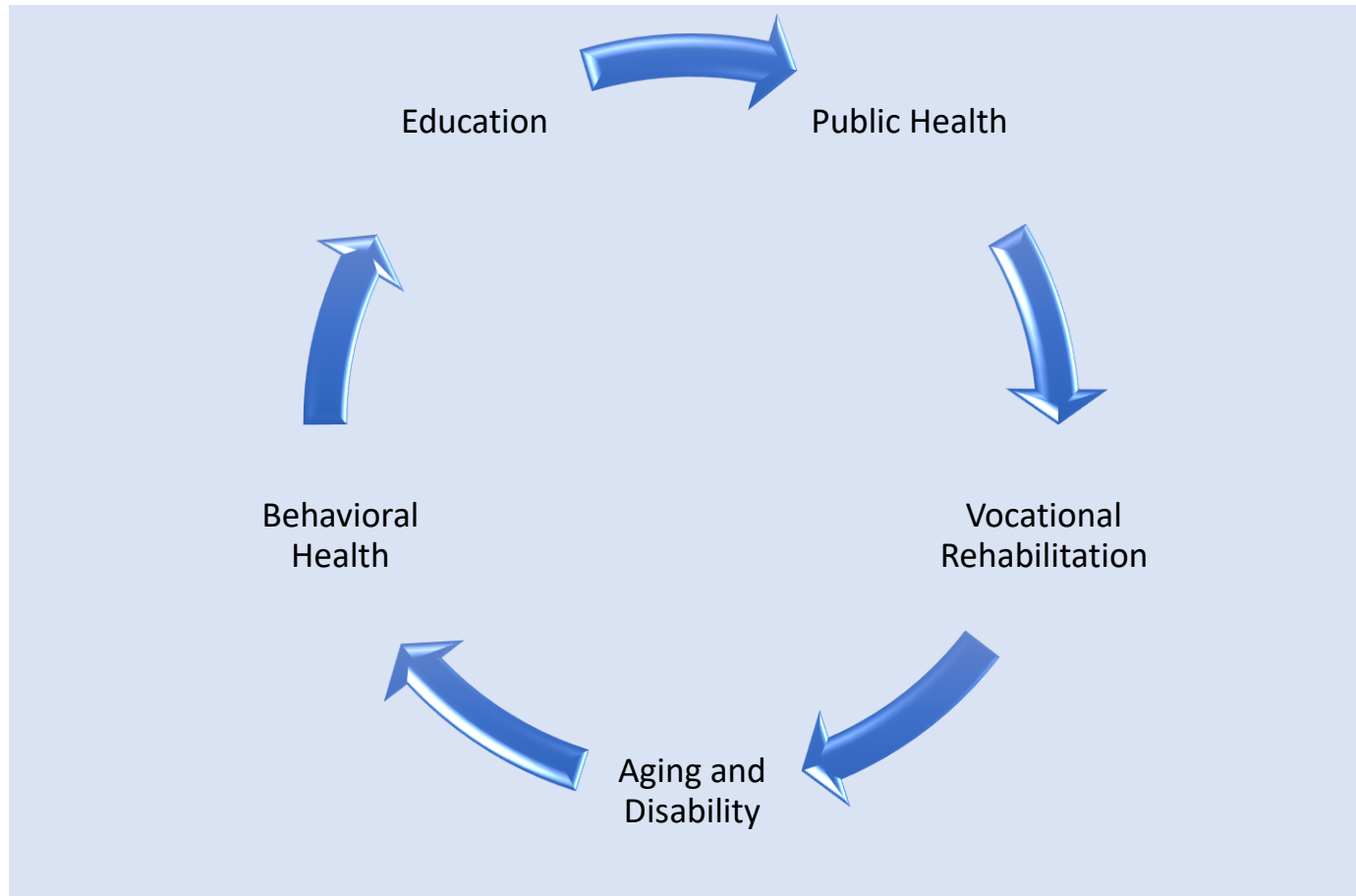
www.nashia.org/state-program-directory



Key Partners:

www.nashia.org/key-partners-directory

State TBI Programs





Ohio Brain Injury Program

Monica Lichi, MS, MBA, CCRP



- Brain Injury Program at OSU (2013)
- Strategic Plan
 - Updated in 2020
 - 5 main goals:
 - Data for planning & evaluation
 - Workforce preparation
 - Systems change & best practices
 - Public & policy-maker awareness
 - Infrastructure to support the plan



Training Series

- Prevalence & Effect on Executive Functions: TBI, Aging & Disability Webcast
- Recognizing & Accommodating Executive Functions: Accommodating the Effects of TBI Webcast

Traumatic Brain Injury Identification Method

A Tool for Health Care and Social Service Professionals



Wexner Medical Center

Ohio Valley Center for Brain Injury Prevention and Rehabilitation
Department of Physical Medicine and Rehabilitation
The Ohio State University



Presentation produced in partnership with BrainLine, a project of WETA

Accommodating the Symptoms of TBI

Presented by:

Ohio Valley Center for Brain Injury
Prevention and Rehabilitation

With contributions from Minnesota Department of Human
Services State Operated Services

Developed in part with support of a grant from the US Department of Health and Human Services, Health Resources and Services Administration (HRSA) to Ohio Rehabilitation Services Commission and The Ohio State University

Ohio State University TBI Identification Method — Interview Form

Step 1

Ask questions 1-5 below. Record the cause of each reported injury and any details provided spontaneously in the chart at the bottom of this page. You do not need to ask further about loss of consciousness or other injury details during this step.

I am going to ask you about injuries to your head or neck that you may have had anytime in your life.

1. In your lifetime, have you ever been hospitalized or treated in an emergency room following an injury to your head or neck? Think about any childhood injuries you remember or were told about.

☐ No ☐ Yes—Record cause in chart

2. In your lifetime, have you ever injured your head or neck in a car accident or from crashing some other moving vehicle like a bicycle, motorcycle or ATV?

☐ No ☐ Yes—Record cause in chart

3. In your lifetime, have you ever injured your head or neck in a fall or from being hit by something (for example, falling from a bike or horse, rollerblading, falling on ice, being hit by a rock)? Have you ever injured your head or neck playing sports or on the playground?

☐ No ☐ Yes—Record cause in chart

4. In your lifetime, have you ever injured your head or neck in a fight, from being hit by someone, or from being shaken violently? Have you ever been shot in the head?

☐ No ☐ Yes—Record cause in chart

5. In your lifetime, have you ever been nearby when an explosion or a blast occurred? If you served in the military, think about any combat- or training-related incidents.

☐ No ☐ Yes—Record cause in chart

Interviewer Instruction:

If the answers to any of the above questions are "yes," go to Step 2. If the answers to all of the above questions are "no," then proceed to Step 3.

Step 2

Interviewer instruction: If the answer is "yes" to any of the questions in Step 1 ask the following additional questions about each reported injury and add details to the chart below.

Were you knocked out or did you lose consciousness (LOC)?

If yes, how long?

If no, were you dazed or did you have a gap in your memory from the injury?

How old were you?

Step 3

Interviewer instruction: Ask the following questions to help identify a history that may include multiple mild TBIs and complete the chart below.

Have you ever had a period of time in which you experienced multiple, repeated impacts to your head (e.g. history of abuse, contact sports, military duty)?

If yes, what was the typical or usual effect—were you knocked out (Loss of Consciousness - LOC)?

If no, were you dazed or did you have a gap in your memory from the injury?

What was the most severe effect from one of the times you had an impact to the head?

How old were you when these repeated injuries began? Ended?

Step 1

| Cause |
|-------|
| |
| |
| |
| |
| |
| |
| |

Step 2

| Loss of consciousness (LOC)/knocked out | | | | Dazed/Mem Gap | | Age |
|---|----------|---------------|----------|---------------|----|-----|
| No LOC | < 30 min | 30 min-24 hrs | > 24 hrs | Yes | No | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |

If more Injuries with LOC: How many? _____ Longest knocked out? _____ How many ≥ 30 mins.? _____ Youngest age? _____

Step 3

| Cause of repeated Injury | Typical Effect | | Most Severe Effect | | | | Age | |
|--------------------------|---------------------------------|-----|---------------------------------|-----------------|----------------------------|------------------|-------|-------|
| | Dazed/ memory gap, no LOC | LOC | Dazed/ memory gap, no LOC | LOC < 30 min | LOC 30 min - 24 hrs. | LOC > 24 hrs. | Began | Ended |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |

Problematic History of TBI

Person may have difficulty:

- accessing services
- remaining engaged in services
- knowing what supports are needed
- consistently using supports

due to barriers created by cognitive and/or behavioral weaknesses that result from damage to the frontal lobes of the brain.



Summary

- By knowing about a lifetime history of TBI, service providers will better understand the people they serve.
- Increased understanding can help in your interactions with persons served.
- Adapting services does not need to be expensive, and can improve overall effectiveness.
- Some adaptations will be useful for persons with other disabilities.





Massachusetts



Gabriela Lawrence-Soto
Learning and Development Coordinator
Massachusetts Rehabilitation Commission



The Work



Cross -Training
Brain Injury Screening
Accommodation Strategies
Resource Facilitation
Integration

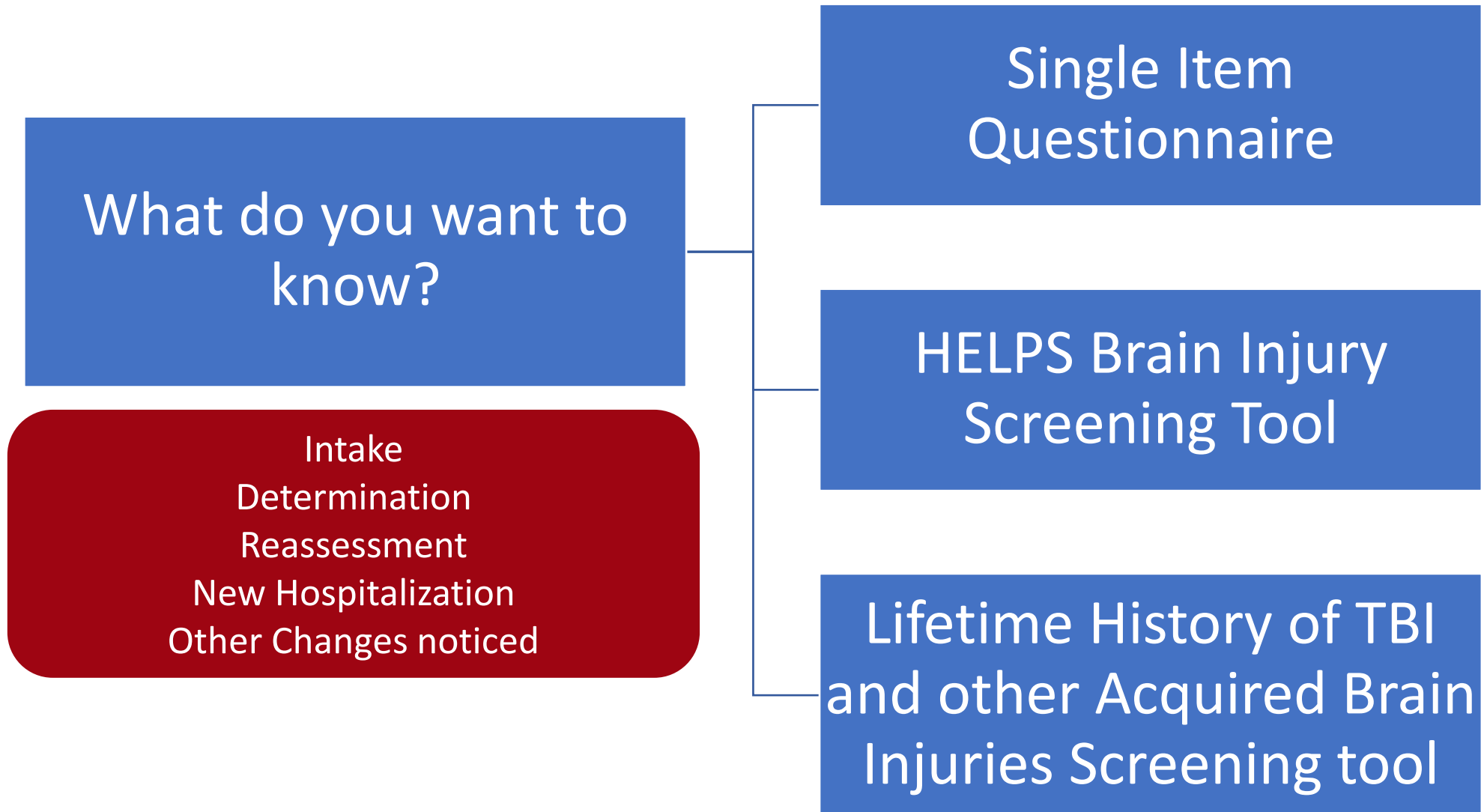
ADRC



Questions to Consider Before Picking a Tool

- How will information gathered from help us serve our population?
- How will we communicate our screening policy?
- How long does it take to administer?
- How will it fit into our workflow?
- At what point(s) in our care continuum will screening be most effective?
- What method of screening is most appropriate?
- What position(s) will conduct screening?
- How will screening results be documented and communicated?
- How can we ensure sustainability?

Screening Options



Single Item Brain Injury Brief Screen

1. Thinking about injuries in your lifetime, have you ever injured your head or neck from a fall, car/motorcycle accident, fight/assault, playing sports or explosion/blast?
2. Have you ever been knocked out or lost consciousness? If yes, was this due to drug overdose, being choked or strangled?

Positive screen = 1+ events

HELPS Brain Injury Screening Tool

Name: _____ Date of Screen: _____ Screener: _____

H Have you ever **Hit** your **Head** or been **Hit** on the **Head**? Yes No

Note: Prompt client to think about all incidents that may have occurred at any age, even those that did not seem serious: vehicle accidents, falls, assault, abuse, sports, etc. Screen for domestic violence and child abuse, and also for service-related injuries. A TBI can also occur from violent shaking of the head, such as being shaken as a baby or child.

E Were you ever seen in the **Emergency** room, hospital, or by a doctor because of an injury to your head? Yes No

Note: Many people are seen for treatment. However, there are those who cannot afford treatment, or who do not think they require medical attention.

L Did you ever **Lose** consciousness or experience a period of being dazed and confused because of an injury to your head? Yes No

Note: People with TBI may not lose consciousness but experience an "alteration of consciousness." This may include feeling dazed, confused, or disoriented at the time of the injury, or being unable to remember the events surrounding the injury.

P Do you experience any of these **Problems** in your daily life since you hit your head? Yes No

Note: Ask your client if s/he experiences any of the following problems and ask when the problem presented. You are looking for a combination of two or more problems that were not present prior to the injury.

Mark all that apply:

- | | |
|---|--|
| <input type="checkbox"/> Headaches | <input type="checkbox"/> Difficulty remembering |
| <input type="checkbox"/> Dizziness | <input type="checkbox"/> Difficulty reading, writing, calculating |
| <input type="checkbox"/> Anxiety | <input type="checkbox"/> Poor problem solving |
| <input type="checkbox"/> Depression | <input type="checkbox"/> Difficulty performing your job/schoolwork/daily tasks |
| <input type="checkbox"/> Difficulty concentrating | <input type="checkbox"/> Change in relationships with others |
| <input type="checkbox"/> Poor judgment (fired from job, suspended/expelled from school or day program, arrests, fights) | |

S Any significant **Sicknesses**? Yes No

Note: Traumatic brain injury implies a physical blow to the head but acquired brain injury may also be caused by medical conditions, such as: brain tumor, meningitis, West Nile virus, stroke, seizures. Also screen for instances of oxygen deprivation such as following a heart attack, carbon monoxide poisoning, near drowning, near suffocation/choking/strangulation, failed suicide attempts, unhealthy substance use and overdose history.

A HELPS screening is considered positive for a possible TBI when the following 3 items are identified:

1. An event that could have caused a brain injury (Yes to **H**, **E** or **S**), **AND**
2. A period of loss of consciousness or altered consciousness after the injury or another indication that the injury was severe (yes to **L** or **E**), **AND**
3. The presence of two or more chronic problems listed under **P** that were not present before the injury

The HELPS Brain Injury Screening Tool



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Scoring

Listed below are examples of a positive test score.

YES to ANY of the **following combinations.**

1. Hit Head + Emergency Visit
2. Hit Head + Sickness
3. Loss of consciousness + Two (2) Problems
4. Emergency visit + Two (2) Problems



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Name: _____ Current Age: _____ Interviewer Initials: _____ Date: _____

Lifetime History of Traumatic Brain Injury (from the OSU TBI-ID) and other Acquired Brain Injuries

1. Please think about injuries you have had during your entire lifetime, especially those that affected your head or neck. It might help to remember times you went to the hospital or emergency department. Think about injuries you may have received from a car or motorcycle wreck, bicycle crash, being hit by something, falling down, being hit by someone, playing sports or an injury during military service.

a. Thinking about any injuries you have had in your lifetime, were you ever knocked out or did you lose consciousness?

- ☐ Yes
☐ No (IF NO, GO TO QUESTION 2)

b. What was the longest time you were knocked out or unconscious? (Choose just one; if you are not sure please make your best guess.)

- ☐ knocked out or lost consciousness for less than 30 minutes
☐ knocked out or lost consciousness between 30 minutes and 24 hours
☐ knocked out or lost consciousness for 24 hours or longer

c. How old were you the first time you were knocked out or lost consciousness?
_____ years old

2. Have you ever had a period of time in which you experienced multiple, repeated impacts to your head (e.g., history of abuse, contact sports, military duty)?

- ☐ Yes
☐ No (IF NO, GO TO QUESTION 3)

a. How old were you when these repeated injuries began?
_____ years old

b. How old were you when these repeated injuries ended?
_____ years old

3. Have you ever lost consciousness from a drug overdose or being choked or strangled?

- ☐ Yes
☐ No (IF NO, GO TO QUESTION 4)

a. How many times from a drug overdose?
_____ overdose(s)

b. How many times from being choked?
_____ choked or strangled

c. What was the longest time you have been unconsciousness from an overdose, or incident of being choked or strangled? (If you are not sure please make your best guess.)
_____ minutes

4. Have you EVER been told by a doctor or other health professional that you had any of the following?

- ☐ Epilepsy or seizures
☐ A stroke, cerebral vascular disease or a transient ischemic attack
☐ A tumor of the brain
☐ Swelling of the brain (edema)
☐ Toxic effects or poisoning by substances – like from lead poisoning, alcohol, prescription medications or recreational drugs
☐ Infection like meningitis or encephalitis
☐ A brain bleed or hemorrhage
☐ Child or adult maltreatment syndrome
☐ Loss of oxygen to the brain - like from a time when you stopped breathing, had a near drowning or experienced a strangulation
☐ Encephalopathy due to endocrine, nutritional, renal, or liver disorders

Interpreting Findings

The validity of this tool is not based on elicitation of a perfect accounting for a person's lifetime history of brain injury. Instead, it provides a means to estimate the likelihood that consequences have resulted from one's lifetime exposure.

A person may be more likely to have ongoing problems if they have any of the following:

- WORST:** one moderate or severe TBI
- FIRST:** TBI with loss of consciousness before age 20
- ANOXIC:** a single incident of prolonged loss of consciousness from an overdose or being choked or strangled.
- MULTIPLE:** multiple instances of blows to the head or multiple overdoses or incidents of being choked or strangled.
- OTHER SOURCES:** any ABI combined with another way their brain function has been impaired or any brain injury diagnosed by a doctor or other health professional.

Complete this screening to determine if a person may have had a brain injury. It is important to note that this screening does not result in a diagnosis, is not intended to be used for eligibility determination and DOES NOT replace a face-to-face evaluation and assessment with a trained professional. This information should be treated as Protected Health Information. Deidentified data may be analyzed for program evaluation.



The Lifetime Brain Injury Screening Tool



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Scoring

A person may be more likely to have ongoing problems if they have any of the following:

WORST:

- One moderate or severe TBI
- (Question 1 b)
- **Moderate** = Lost consciousness between 30 minutes to 24 hours
- **Severe** = lost consciousness for 24 hours or longer

FIRST:

- TBI with any loss of consciousness before age 20
- (Question 1 c)

ANOXIC

- A single incident of prolonged loss of consciousness from an overdose or being choked or strangled.
- (Question 3 c)

MULTIPLE:

- Multiple instances of blows to the head
- OR
- Multiple overdoses, or multiple incidents of being choked or strangled.
- (Question 2)

OTHER SOURCES:

- Any ABI combined with another way their brain function has been impaired
- OR
- Any brain injury diagnosed by a doctor or other health professional.
- (Question 2-4)



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Follow Up

If history of brain injury, consider the following:

- Talk about the findings
- Reporting to the team/supervisor, if applicable
- Documenting reasons, if appropriate
- Seek further medical evaluation
- Adjust service plan or goals
- Watch for medication interactions
- Refer to the brain injury services
- **Implementing simple accommodations/compensatory strategies!**

Additional steps may be recommended by your organization for further assessments or medical record requests.

Accommodations

Ask about difficulties with...

- ☐ Attention and Concentration
- ☐ Slow processing
- ☐ Memory

- ☐ Executive Functioning such as
 - Inhibition/impulse control
 - Organizational problems

- ☐ Emotional Behavioral
- ☐ Communication
- ☐ Language (receptive, expressive, and social pragmatics)
- ☐ Physical and Sensorimotor
- ☐ Sleep





Info & Referrals

- 617-204-3665
- [MRC Connect](#)
- Disability benefits determination
- Transitioning out of facilities
- Supports living in the community
- Employment/Education
- Specialized brain injury services
- Brain Injury Training



No Wrong Door

Executive Office of Elder Affairs



Info & Referrals

- 1-844-422-6277
- www.MassOptions.org

Aging and Disability Resource Consortia's

- Independent Living Centers
- Aging Agencies
 - Options and Benefits Counseling
 - Access to Statewide LTSS

- Info & Referrals
 - 1-844-839-7154
 - www.biama.org
- Support Groups
- Advocacy
- Educational opportunities



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Questions?

Thank you!

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