

#### **Special Populations & Law Enforcement Response**

#### **Traumatic Brain Injury**

#### 1st Annual Maryland Crisis Team Intervention Conference

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& MENTAL HYGIENE

#### **TBI-Defined**

#### **ABI-Defined**

Traumatic Brain Injury is an insult to the brain caused by an external physical force, for example; fall, MVA, assault, sport-related, IED exposure

Acquired Brain Injury is an insult to the brain that has occurred after birth, for example; TBI, stroke, near suffocation, infections in the brain, anoxia

Both Mechanisms of Injury can result in chronic disability that may get worse with age.



# How many Americans sustain a TBI annually?

- •231,840
- •1.7 million
- •1.2 million



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## At what age on average does the adult brain mature?

18

•21

•25



# What is the last part of the brain to mature?

- Frontal lobe
- Temporal lobe
- Parietal lobe



#### True or False.....

The impact of childhood TBI may not become apparent until years later



#### The Filter is Damaged= Poor Decisions

- The "finger print" of TBI is damage to the frontal lobes and temporal tips- the parts of our brain that helps us make good decisions regarding how we act and interact with others and our environment.
- The resulting erratic behavior translates to behavior and is very hard to understand unless it is viewed through a brain injury informed lens...for example a young man with a history of 3 TBI's meant his ability to understand what an officer was saying to him was poor, however his stance and facial expressions appeared hostile and aggressive and were interpreted as such by the officer.

#### Individuals with a History of Brain Injury are Found Among:

- The Incarcerated
- The Homeless
- Among those living with a mental illness
- Among those who have served in the military
- Among those who misuse substances or are exposed to those who do
- Those who are prone to violence or are exposed to those who are
- Among victims AND perpetrators of domestic violence



#### What it Feels Like....

#### Writing and processing exercise





#### The Frontal Lobe

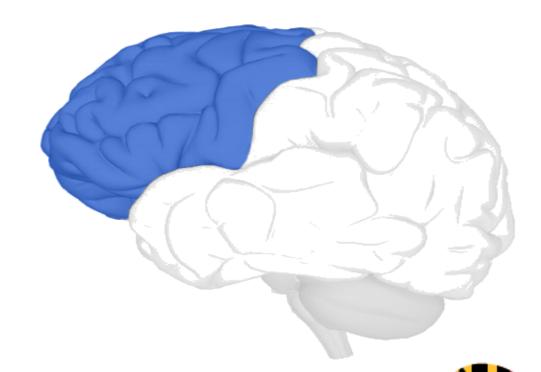
The frontal lobe is the area of the brain responsible for our "executive skills" - higher cognitive functions.

#### These include:

- Problem solving
- Spontaneity
- Memory
- Language
- Motivation
- Judgment
- Impulse control
- Social and sexual

behavior.

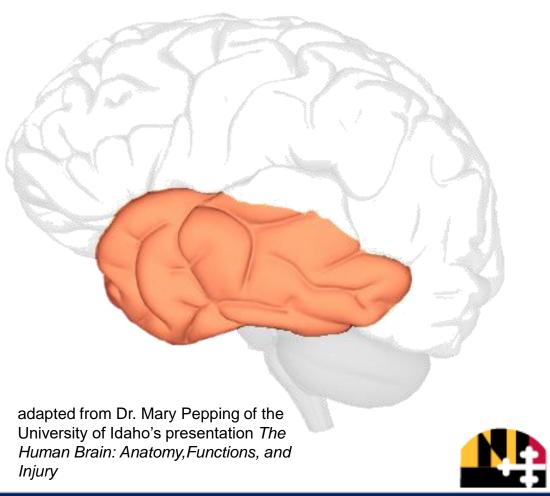
adapted from Dr. Mary Pepping of the University of Idaho's presentation *The Human Brain: Anatomy, Functions, and Injury* 



#### **Temporal Lobe**

The temporal lobe plays a role in emotions, and is also responsible for smelling, tasting, perception, memory, understanding music, aggressiveness, and sexual behavior.

The temporal lobe also contains the <u>language</u> area of the



#### **Possible Physical Changes**

Injury related problem	How it may affect a person functionally
Coordination	Unsteady gait, poor eye-hand coordination, slow or slurred speech, tremors, paralysis
Visual Deficits	Staring or poor eye contact, blurred or double vision, inability to follow an object with their eyes
Additional Physical Challenges:	Seizures, deaf or hard of hearing, fatigue

### Possible Changes in Thinking, aka Cognitive Skills

Injury related problem	How it may affect a person functionally
Memory	Trouble following directions, providing requested information, making appointments
Processing (receptive)	Understanding what being said, reading
Processing (expressive)	Trouble putting thoughts into words, tip of the tongue syndrome
Problem solving (related to frontal lobe & temporal tip Injury)	Impulsive, easily frustrated, sexually disinhibited, verbally/physically combative, interpersonally inflexible, poorly organized



#### **Possible Changes in Personality & Behavior**

Injury related problem	How it may affect a person functionally
Depression	Flat affect, lack of initiation, sadness, irritability
Unawareness	Unable to take social cues from others
Confabulation	"making up stories"
Perservation	Gets "stuck" on a topic of conversation or physical action
Anxiety	Can exacerbate other cognitive/behavioral problems



#### Impulsivity!!!!

The tendency to speak and act without considering consequences is a hallmark of TBI and is VERY easily misinterpreted and can really get people living with TBI into trouble at home, work and in the community.

Can't (skill)

Won't (will) Heather Hotchkiss and Karen McAvoy of Colorado's description of the functional burden of TBI.



## Other clues an individual maybe living with brain injury

- You may observe scars on an individual's forehead, neck, face
- The individual is using a cane, walker or wheelchair
- The individual has a limp or appears to drag one foot behind when walking



#### **Simple Strategies For Officers**

- Make and maintain eye contact during interactions
- Speak in short, simple sentences
- Speak in a neutral tone
- Ask the person to paraphrase what you have said frequently
- Give the individual time to process what is being said
- When possible, give the person a "heads up" regarding what to expect during your interaction

#### **Simple Behavioral Strategies**

- Behavior Specific Praise
  - Reinforce the positive behaviors you see
     "I like how you are sitting here talking to me"
- Redirection
- Choose Your Battles... Only focus on what matters
- Non-verbal cues (including tone of voice) will be interpreted first



#### Simple Behavioral Strategies

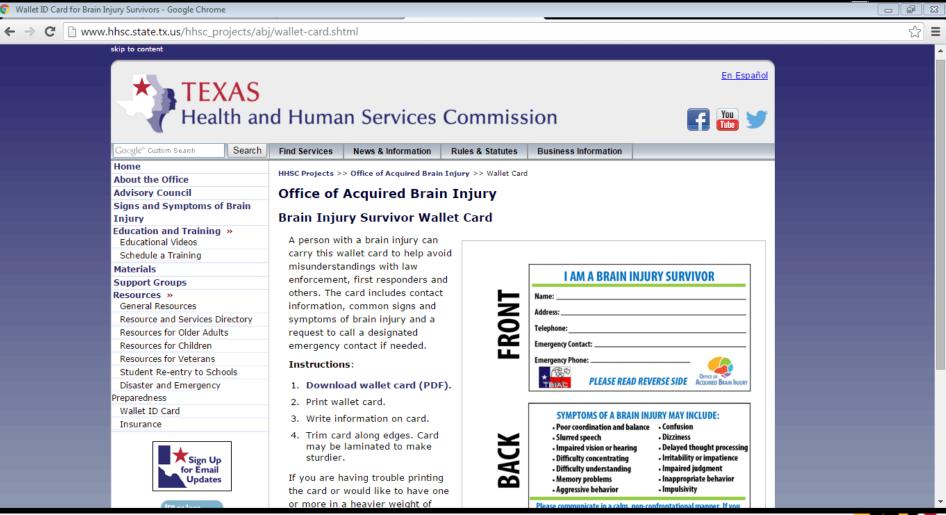
- Positive Prompting
  - Don't give attention to the negative behavior and don't sound authoritative
  - Examples:
    - Person becoming distracted- "We are almost finished here, thank you for sitting here talking to me"
    - Person is yelling at you or someone else- "Lower your voice please"
    - Person hitting fists on car/wall- "Let's walk over here"
    - Person has something in their hands they could hurt you or themselves with- "Please put the bat over here"
    - Person grabs your arm- "Please keep your hands to yourself"



#### What can Individuals Living with Brain Injury and Their Families do Proactively?

- Wear a Medical Alert bracelet or necklace that is visible
- Review importance of what is considered personal space boundaries
- When in a car, keep an information card in the visor
- Keep a card with words and phases that can be used to describe disability in wallet







#### **RESOURCES**

- Brain Injury Association of Maryland: 410-448-2924, www.biamd.org. Contact BIAMD for resources around the state
- Centers for Disease Control & Prevention (CDC)
   <a href="https://www.cdc.gov/traumaticbraininjury/">www.cdc.gov/traumaticbraininjury/</a> CDC has fact sheets and other information on TBI and Concussion
- MD Division of Rehabilitation Services:
   <a href="http://dors.maryland.gov/consumers/specialized/Pages/ABI.aspx">http://dors.maryland.gov/consumers/specialized/Pages/ABI.aspx</a> Contact DORS if you are in need of services after a brain injury and are interested in seeking employment
- Ohio Valley Center for Brain Injury Prevention and Rehabilitation, 614-293-3802, <u>www.ohiovalley.org</u>. Ohio Valley provides information on how to screen and support those with brain injury as well valuable information on the link between brain injury and addiction
- Brainline, <u>www.brainline.org</u> Brainline has a wealth of information on all aspects of civilian and military related brain injury
- Colorado Kids Brain Injury Resource Network <a href="http://cokidswithbraininjury.com/">http://cokidswithbraininjury.com/</a>
   Information for teachers and parents of children living with brain injury

## The 2007 movie *The Lookout* starring Joseph Gordon Levitt, is a realistic depiction of the subtle but life altering consequences of traumatic brain injury. Available on Netflix!





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Thank you!

