

# Trends in Criminal & Juvenile Justice

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# Brain Injury in Criminal Justice

- Williams, Mewse, Tonks, Mills, Burgess, and Cordan (2010) found the incidence of TBI in correctional settings to be 65%.
- With 2 million incarcerated offenders, we have 1.2 million people living with brain injury in our prisons.
- Prevalence in the population on the whole is 4.5 % which would predict 90,000 in prisons

# Prevalence of Traumatic Brain Injury in an Offender Population: A Meta-Analysis

*Eric J. Shiroma, MS<sup>1,2</sup>; Pamela L. Ferguson, PhD<sup>1</sup>; E. Elisabeth Pickelsimer, DA<sup>1</sup>*

	Any TBI	TBI with LOC
All screening methods	60.3%	50.2%
In-depth interview	66.9%	52.3%

Based on 20 studies published between 1983-2009;  
Estimates are weighted for gender and offender type

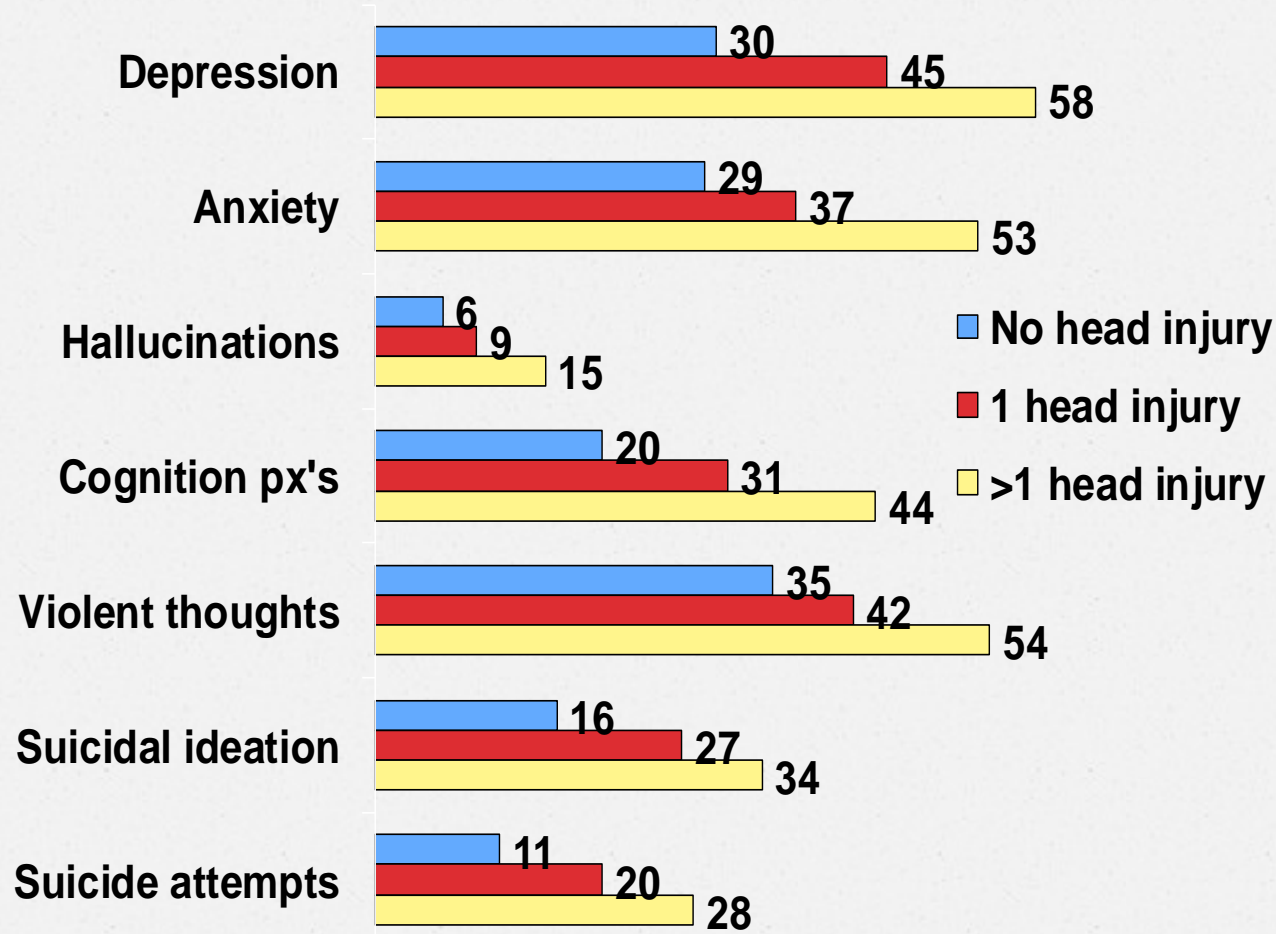
# TBI and In-Prison Behavior

## Piccolino & Solberg, 2014

Likelihood Affected by Previous TBI:	Low (no TBI)	Possible	Probable	<i>p</i>
Did not complete SUD Tx	19.5%	29.3%	37.3%	ns
Required Crisis Intervention	2.9%	5.7%	11.5%	.001
Major Disciplinary Infraction	16.4%	23.1%	22.2%	ns
Minor Disciplinary Infraction	45.6%	50.3%	55.6%	ns
Recidivism After Release	33.3%	43.3%	51.1%	.011

# Behavioral Health Symptoms in Kentucky Prisoners

Walker, Hiller, Staton, & Leukefeld, 2003





**Why Screen for TBI  
Among Justice-Involved  
Individuals?**

# Federal Recommendations

- o The *Commission on Safety and Abuse in America's Prisons* was established in 2005 to identify and recommend solutions to the most serious challenges facing America's jails and prisons.
- o 2006 report (<http://www.ojp.usdoj.gov/bjs/mhppji.htm> and <http://vera.org/project/commission-safety-and-abuse-americas-prisons>) recommend increased health screening, evaluation, and treatment for inmates as well as
  - o Routine screening for TBI
  - o Screening individuals with TBI for substance abuse and co-occurring mental health diagnoses
  - o Education for personnel about how to manage and support individuals with TBI (see also [http://www.cdc.gov/traumaticbraininjury/pdf/Prisoner\\_TBI\\_Prof-a.pdf](http://www.cdc.gov/traumaticbraininjury/pdf/Prisoner_TBI_Prof-a.pdf) )

o **TBI can affect the delivery of correctional health services and offender management (Piccolino & Solberg, 2014)**

- o Increased utilization of services while incarcerated (health and psychological)
- o Lower treatment completion rates and higher rates of disciplinary incidents
- o Lower ability to maintain rule-abiding behavior during incarceration
- o More prior incarcerations
- o Higher rates of recidivism (17% higher than a “low TBI” group)
  - o See also Williams, Mewse, Tonks, Mills, Burgess & Cordan, 2010
- o Higher levels of alcohol and drug use preceding their current incarceration

o **These justice-involved individuals report a greater incidence of:**

- o Severe depression and anxiety
- o Substance use disorders
- o Problematic anger
- o Suicidal ideation and/or attempts



# Treatment

- o Treat the Deficit **not** the BRAIN INJURY
- o Psychotherapies can be adapted for neurocognitive deficits.
- o Minimize environmental distractions.
- o Written material/handouts where possible.
- o Repetition of key points.
- o Non-electronic devices might include checklists, pictures or icons, photograph cues, post-it-notes, calendars, planners, and journals.
- o Therapies should be introduced with a simple rationale.



# ACL Grant

- o Provide training for DYS system and community JJ stakeholders: GALs, JPOs, diversion program staff, judges
- o Provide JJ/CJ training for all TBI staff
- o Screen for history of brain injury – OSU TBI-ID
- o Collect records and conduct interview by phone
- o Abbreviated intake/summary/recommendations by neuropsychologist
- o Refer to TBI system staff: NP, counselor, AHIF
- o Community Reentry Services and Supports

# ACL Grant Partners/Roles

AL Department of Rehabilitation Services, CRS/Title V:

- o Lead Agency For TBI/Coordinate activities
- o Conduct interview/intakes
- o Community Reentry/Resources
- o Provide Training

University of Alabama at Birmingham & NP partners:

- o Assist with project guidance
- o Conduct assessments

AL Department of Youth Services, AOC and JJ County Pilot Sites:

- o Conduct Screening and Referral
- o Assist with training

# ACL Grant Partners/Roles

## Alabama Head Injury Foundation

- o Assist with Community Reentry/Resources
- o Assist with training, outreach

## Alabama Disabilities Advocacy Program

- o Identify stakeholders
- o Assist with training, outreach
- o Screen for TBI in associated facilities

## Mt. Sinai TBI Model System/JJ El Paso Project

- o Provide YSTEP Training and Consult

## Center for Essential Management Services

- o Project Evaluation

# Screening

Sites: Total = 253	
Jefferson	5%
Calhoun	95%

OSU TBI ID	
Positive - Lifetime hx	14%
Negative- Lifetime hx	87%

Gender	
Male	73%
Female	27%

Age	
11	3
12	5
13	14
14	32
15	56
16	66
17	54
18	5

Race	
Black	35%
White	65%
American Indian/ Alaska Native	0%
Asian	0%
Native Hawaiian/Other Pacific Islander	0%
Ethnicity:	
Hispanic/Latino/Spanish	
Yes	3%
No	97%

Medicaid Recipient?	
Yes	64%
No	36%

# Community Resources

- o Referral to ADRS: TBI Pediatric, Adult, Independent Living
- o Referral to AHIF: Respite, Recreation, Support Groups
- o **YSTEP**: All diversion program youth in Calhoun county
- o **WIOA/Pre-Employment Transition Services**: All diversion program youth in Calhoun county

# Training

- o General TBI Training: AOC, JPOs, GAL, Judges, DYS Programs Statewide
- o Targeted Training: Pilot Sites and TBI Staff
  - o Screening
  - o Mental Health/Substance Use
  - o Suicide Prevention
  - o YSTEP
  - o Return to Think/Get Schooled on Concussion



# Next Steps

- o Sustainability:
  - o Continued Referrals to ADRS and AHIF Programs
  - o YSTEP for pilot sites for ALL youth
  - o PreETS services through VR
  - o Screening for other programs: DHR, MH

# Products/Publications

- o [Alabamatbi.org](http://Alabamatbi.org): Online Learning
- o YSTEP Training Manual
- o Get Schooled on Concussion Educators Manual
- o Reports from both TBI and JJ/CJ Summits hosted by Alabama

# Colorado's Program



# ACL Grant

- o Screen for lifetime history of brain injury – modified OSU TBI-ID
- o Screen for neuropsychological impairment
- o Refer to community based case management services
- o Ensure a well trained criminal justice workforce
- o Provide psycho-educational training for inmate/probationer

# ACL Grant Partners/Roles

## University of Denver:

- Coordinate and supervise student clinicians
- Conduct secondary screens
- Assist with psycho-social curriculum development

## University of Colorado:

- Modify web based toolkit best practices for screening, assessment, intervention support

## CO Department of Judicial:

- Assist with training and professional development

# ACL Grant Partners/Roles

## Brain Injury Alliance of Colorado:

- o Outreach to criminal justice sites
- o Provide case management services & education consultation
- o Partner in training and capacity building

## CO Department of Education:

- o Assist with training and professional development for youth

## LM Enterprises, Dr. Laura Meyer:

- o Coordinate program evaluation of the grant

# Screening & Identification Protocol

1. Screen for lifetime history of brain injury
2. Screen for neuropsychological impairment
3. Refer for community based case management support

# Target Sites

1. County Jail settings
2. Problem Solving Courts  
(Drug/Veteran)
3. Probation settings (adult sex offender, adult female population, adult persistent mental illness, and juvenile probation)
4. State operated Division of Youth Corrections sites



# Screen for Lifetime History

- o Ohio State University Traumatic Brain injury Identification Method (OSU TBI-ID) *modified*
- o Sites administered
- o MINDSOURCE and BIAC train to administer

# Screen for Lifetime History

Determined positive if one or more of the following criteria are met:

- Worst = experienced unconsciousness for greater than 30 minutes (moderate/severe)
- First = first TBI with loss of consciousness before the age of 15
- Multiple = 3 or more with altered mental status or 2 injuries within a 3 month period

# Screen for Neuropsychological Impairment

- o Student Clinicians supervised by Clinical Psychologist
- o Three effort tests, structured interview
- o Automated Neuropsychological Assessment Measure (ANAM) Core Battery
- o Positive screen when scores are more than 2 standard deviations below the mean (“Clearly Below Average”)
- o Report and feedback

# Division of Youth Services

1. Screen for lifetime history: use tool they developed  
“Colorado Brain Injury Screening Questionnaire”
2. If screen positive, refer for neuropsych screen:  
WAIS/WISC, RBANS, SCT
3. If positive and complicated, refer for a full  
neuropsychological evaluation
4. Referred to BIAC when positive for lifetime history  
and when positive for deficits

<b>Criminal Justice Entity</b>	<b>Total OSU Screened</b>	<b>Positive Screens</b>	<b>Percent Positive</b>
Arapahoe County Probation	51	28	544.9%
Boulder County Jail (JBBS & JET Units)	369	215	58.2%
Denver County Jail (RISE unit)	1352	360	26.6%
Denver County Jail (Transition Unit)	732	449	61.3%
Larimer County Jail	480	287	59.7%
Adams County Probation (female offender)	31	30	96.7%
Adams County Probation (Veterans)	111	47	42.3%
Adams County Probation (sex offenders)	69	28	40.5%
Denver Drug Court	686	299	43.5%
Denver Juvenile Probation	445	82	18.4%
Jefferson County Recovery Court	81	49	60.4%
<b>Total</b>	<b>4,407</b>	<b>1,854</b>	<b>42%</b>

<b>Criminal Justice Entity</b>	<b>Total Neuropsych Screens</b>	<b>Positive Screens</b>	<b>Percent Positive</b>
Arapahoe County Probation	47	37	78.7%
Boulder County Jail	107	89	83.2%
Denver County Jail (RISE unit)	191	133	69.6%
Denver County Jail (Transition Unit)	208	153	73.6%
Larimer County Jail	95	58	61.1%
Adams County Probation (female offender)	13	9	69.2%
Adams County Probation (Veterans)	62	46	74.2%
Adams County Probation (sex offenders)	17	14	82.4%
Denver Drug Court	104	78	75%
Denver Juvenile Probation	16	8	50%
Jefferson County Juvenile Probation	3	2	66.7%
Jefferson County Recovery Court	28	21	75%
<b>Total</b>	<b>891</b>	<b>648</b>	<b>72.7%</b>

# DYS Data

- On average 53% of youth screened were positive for risk factors of brain injury
- Of those positive, approximately 25% are referred for secondary neuropsychological screen
- Of those positive on the secondary screen, approximately 36% were referred for a full neuropsychological evaluation

# History

- o 60% of individuals reported being a victim of childhood violence
  - o 10% General population (Safe Horizons, 2014)
- o 62% reported victimization in adulthood
  - o 2% General population (Bureau of Justice Statistics, 2014)
- o 39% reported at least one suicide attempt
  - o 4% thoughts, 1% suicide plan in the general population (Emory University, 2014)
- o 54% reported school suspension
  - o 26% of young men, 15% of young women (National Center for Education Statistics, 2015)
- o 93% reported a history of substance abuse/misuse
  - o 7% general population (National Institute on Drug Abuse, 2013)



- o 75% of individuals reported at least one mental health diagnosis
  - o 19% general population (NAMI, 2013)
    - o 73% Mood Disorders
      - o 7% general population (NAMI, 2013)
    - o 44% Anxiety Disorders
      - o 18% general population (NAMI, 2013)
    - o 17% Psychotic Disorders
      - o 1% general population (NAMI, 2013)
- o 54% take psychiatric medication
  - o 26% of women, 15% of men (America's State of Mind, 2010)
  - o 15% of Colorado residents (America's State of Mind, 2010)
    - o 54% antidepressants
      - o 23% of women, 16% of men (America's State of Mind, 2010)
    - o 22% antipsychotics
    - o 13% taking antidepressant AND antipsychotic drug

# Colorado's Next Steps

- o Leveraged ACL results for additional funding
- o State general fund pilot
- o Justice Assistance Grant
- o Next ACL grant

# Products

- o AHEAD psycho-educational curriculum
- o Toolkit for criminal justice personnel:  
[https://www.mirecc.va.gov/visn19/tbi\\_toolkit/justice/index.asp](https://www.mirecc.va.gov/visn19/tbi_toolkit/justice/index.asp)
- o Brain Injury Videos:  
<https://biacolorado.org/education-for-professionals/>

# Publications

Glover, N., Gorgens, K., Meyer, L., Dettmer, J. & Lehto, M. (2018). Sensitivity and Specificity of the Ohio State University Traumatic Brain Injury Identification Method (OSU-TBI-ID) to Neuropsychological Impairment. *Criminal Justice and Behavior*, 46 (6).

Gorgens, K., Nagele, D., Dettmer, J. & Hooper, S. (2017). The Under-identification of Brain Injuries and the Relationship with Juvenile (and Eventually Adult) Criminal Justice Involvement. *Brain Injury Professional*, 14 (3), p. 24-26.

Wall, K. C., Gorgens, K., Dettmer, J., Davis, T. M., & Gafford, J. (In press). Violence related traumatic brain injury in justice-involved women. *Journal of Interpersonal Violence*.

# Media

- o US News and World Report:

<https://www.usnews.com/news/best-states/articles/2018-08-22/denver-based-project-exposes-link-between-brain-injury-and-incarceration>

<https://www.usnews.com/news/best-states/articles/2018-08-22/how-a-colorado-jail-is-helping-inmates-who-have-suffered-traumatic-brain-injuries>

- o TED Talk: <https://www.youtube.com/watch?v=j78G4Pr6C1o>

- o Newsweek: <https://www.newsweek.com/2016/07/08/prison-inmate-traumatic-brain-injury-research-475615.html>

# National Initiatives

- o Alabama Criminal & Juvenile Justice Summits
  - Summary of recommendations
  - Common data elements project
- o National Association of State Head Injury Administrators
  - Forging partnerships with DOJ
  - IPV and Criminal Justice legislation
- o Center for Disease Control and Injury Prevention
- o National Collaborative on Children's Brain Injury
- o ACL Mentor/Partnership Initiative