



# A Colorado Model for Justice Involved Individuals

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# Walking the Path of Understanding

Testing Assumptions



# Assumptions

## Positive and Negative

1. The prevalence of brain injury in the criminal justice population would be higher than that of the general population
2. Individuals in criminal justice setting would potentially be seeking secondary gain by being identified as having TBI
3. If identified, and provided strategies, outcomes would improve with this population
4. We would identify primarily mild TBI





# WOMEN GETTING IT DONE



# WOMEN GETTING IT DONE



# Pilot Project

## Clinical Neuropsychology – CPSY 5290

- Practical experience
- A needs assessment
- Bottom line, had to be beneficial to inmates!





# Pilot Project Partners



# Pilot Project Protocol

## Clinical Neuropsychology – CPSY 5290

- Screening for lifetime history (OSU TBI-ID)
- Structured clinical interview
- Effort tests
- Neuropsychological screen (ANAM)
- Feedback to inmate and staff





# Pilot Project

## Ohio State University TBI – Protocol Identification Method

- **WORST** = One moderate or severe TBI
- **FIRST** = TBI with loss of consciousness before age 15
- **MULTIPLE** = 2 or more TBIs close together, including a period of time when they experienced multiple blows to the head
- **RECENT** = A mild TBI in the last weeks or a more severe TBI in the last months
- **OTHER SOURCES** = Any TBI combined with another way that their brain function has been impaired

# Nearly all Denver jail inmates in high-risk unit have brain trauma



A Denver sheriff's deputy walks through the Denver County Jail in 2014.

By **JENNIFER BROWN** | [jbrown@denverpost.com](mailto:jbrown@denverpost.com) | The Denver Post



**NOW PLAYING**

Don't Miss! - 10/24

**NEXT** Report: Apple I



**SIGN UP**  
AND AL



**SUBMI**  
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**MOS**

**Broncos**  
**Kelly arres**  
**entering**  
**sitting**  
**mumblin**

# Pilot Project

## Outcomes

### Clinical Neuropsychology – CPSY 5290

- 97% screened positive for history of TBI
- (49% mild – 51% moderate/severe)
- 94% screened positive for gross cognitive deficits
- 92% had extensive psychiatric histories
- 94% with extensive substance abuse histories









# WOMEN GETTING IT DONE



# WOMEN GETTING IT DONE



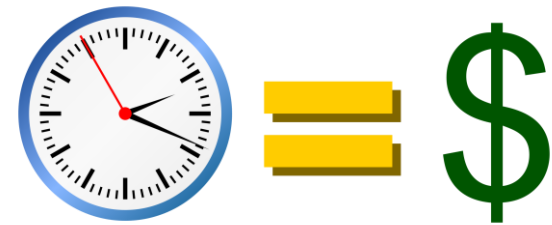
Off to the Races!



# ACL Grant RFP

## Three mandated foci

- Screen for lifetime history of brain injury
- Referral for support
- Capacity building





# Partners are EVERYTHING

## 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 Services sites

# Partners are EVERYTHING

## Target Sites

- Arapahoe County Probation
- Boulder County Jail (JBBS & JET Units)
- Denver County Jail (RISE & Transition unit)
- Larimer County Jail
- Adams County Probation (female offender, veterans, sex offenders)
- Denver Drug Court
- Denver Juvenile Probation
- Jefferson County Recovery Court





# Partners are EVERYTHING





# Partners are EVERYTHING

## Building an Evidence-Based Protocol

### 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

# Partners are EVERYTHING

## Building an Evidence-Based Protocol

Brain Injury Alliance of Colorado:

- Outreach to criminal justice sites

- Provide case management services & education consultation

- Partner in training and capacity building

CO Department of Education:

- Assist with training and professional development for youth

LM Enterprises, Dr. Laura Meyer:

- Coordinate program evaluation of the grant

# Evidenced-Based Protocol

## Screening/Identification & Referral

1. Screen for lifetime history of brain injury – (OSU TBI-ID)
2. Screen for neuropsychological impairment – (ANAM)
3. Referral for community support – (BIAC)



# Evidenced-Based Protocol

## Screening for Lifetime History

- **WORST** = One moderate or severe TBI
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# Screen for Neuropsychological Impairment

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

# Benefits of Neuropsychological Screen

*“Having something like this is another key to that puzzle. It can be reassuring to say that there is practical reasons why some of these things may arise and that can do a lot to give somebody hope. The brain is resilient and it will be impacted greatly by these things, and there is plenty of room for us to do some work to help with that change...” --  
Boulder County Jail staff*



<b>Criminal Justice Entity</b>	<b>Total OSU Screened</b>	<b>Positive Screens</b>	<b>Percent Positive</b>
Arapahoe County Probation	51	28	54.9%
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>

# HISTORY

60% of individuals reported being a victim of childhood violence

10% General population (Safe Horizons, 2014)

62% reported victimization in adulthood

2% General population (Bureau of Justice Statistics, 2014)

39% reported at least one suicide attempt

4% thoughts, 1% suicide plan in the general population (Emory University, 2014)



# HISTORY

54% reported school suspension

26% of young men, 15% of young women (National Center for Education Statistics, 2015)

93% reported a history of substance abuse/misuse

7% general population (National Institute on Drug Abuse, 2013)

75% of individuals reported at least one mental health diagnosis

19% general population (NAMI, 2013)

# WOMEN GETTING IT DONE



# Evidenced-Based Protocol

## Division of Youth Services

1. Screen for lifetime history: use tool developed by DYS “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

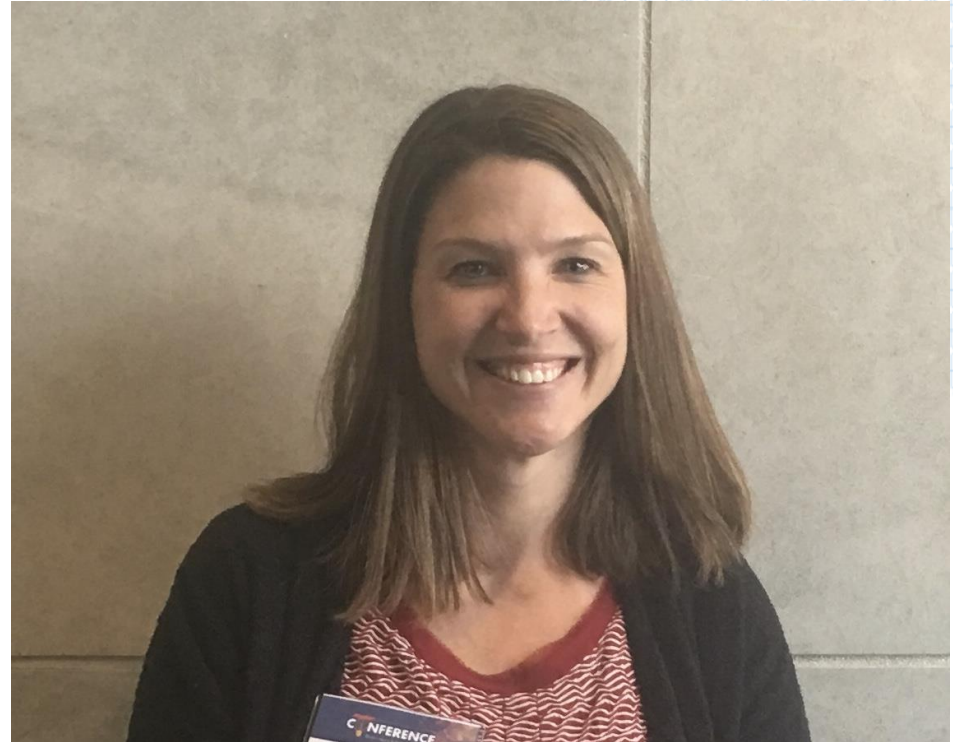


# DATA

## Division of Youth Services

- 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

# WOMEN GETTING IT DONE



# SUPPORTS

## Brain Injury Alliance of Colorado

- Case management services
- Education Consultation
- 399 individuals referred (39 youth)
- 197 individuals engaged (12 youth)



# Benefits of Case Management, Client Perspective

*“Before BIAC, I didn’t think anyone cared about me” - Drug Court Client*

*“I used to just think I was a screw up [before knowing about my brain injury]. Now I’m excited*

*about learning things that can change my life” – Boulder County Jail Client*

*“You have been the steady thing in my life these past couple of years.*

*I’ve slept on the floor of*

*this office, I’ve taken classes here, I’ve called from jail, and I’ve come here to find peace when I*

*was living on the streets.” – Drug Court Client*

# Benefits of Case Management, Staff Perspective

*“If we can get our clients into BIAC, that’s the reward for us and that’s the reward for the client for going through this process” -- Larimer County Jail staff.*

*“The clients feel more supported, they feel more important, they feel valued, because it’s specifically working and helping them get independence. It’s a really good resource”– Denver Drug Court staff*

*“That helps them know there’s a point of contact on the outside. And for a lot of them, just knowing that is good because they might not have a lot of support and so having that support and knowing that it’s available is very reassuring for them” -- Denver County Jail staff*

# Capacity Building

- Training for criminal justice staff, including mandatory training for DYS staff
- Toolkit, criminal justice and brain injury
- Training for case managers
- Psycho-educational group

# Psycho-Educational Group Modules

7 discreet modules

1. Understanding TBI
2. Memory Skills and Goal Setting
3. Emotional Regulation
4. Communication Mastery
5. TBI and Anger
6. TBI and Impulsivity
7. TBI and Grieving

[https://www.dropbox.com/sh/5zd3e7h7zjm6eer/AAAGGkhQ7TFrVdRMFqaXf-39a?dl=0&preview=TBI Intro FINAL.mp4](https://www.dropbox.com/sh/5zd3e7h7zjm6eer/AAAGGkhQ7TFrVdRMFqaXf-39a?dl=0&preview=TBI%20Intro%20FINAL.mp4)



# NEWSWEEK MAGAZINE

## Teaching Prison Inmates About Their Own Brain Trauma Could Help Them Rehabilitate

BY ERIKA HAYASAKI ON 6/29/16 AT 6:10 AM





**Traumatic Brain Injury and Incarceration: Ending a Vicious Cycle**

A Denver-based study suggests the strong connection between traumatic brain injury and incarceration.

JUNE 16, 2018

# UNCOMMON

Tickets at [TEDxMileHigh.com](https://www.tedxmilehigh.com)

**TED<sup>x</sup>MileHigh**  
x = independently organized TED event



**KIM  
GORGENS**  
*Brain Scientist*



# Lessons Learned

## Four Key Things

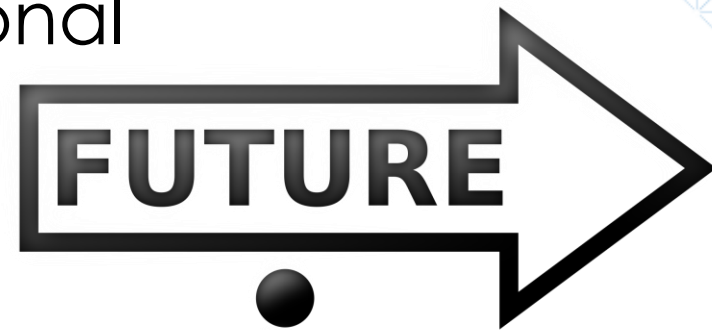
1. One time training on OSU is not adequate
2. Not everyone needs a neuropsychological Screen/nor can it be sustained
3. All case managers need to be trained on unique needs of justice involved individuals
4. Probation staff should be first line of support



# Into the Future

## Commitment to sustaining and expanding

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



# Sustainability

## Protocol Moving Forward

1. Sites administer OSU TBI-ID
2. If positive, then administer a symptom questionnaire
3. If positive, refer to psycho-educational group and provide necessary accommodations
4. If not succeeding in probation after accommodations, then consider neuropsychological screen

# WOMEN GETTING IT DONE



	<b>MEMORY CONCERNS</b>	<b>I do not experience this problem at all</b>	<b>I I experience this problem but it does not bother me</b>	<b>I am mildly bothered by this problem</b>	<b>I am moderately bothered by this problem</b>	<b>I am extremely bothered by this problem</b>
1.	Losing or misplacing important items (e.g., keys, wallet, papers)					
2.	Forgetting what people tell me					
3.	Forgetting what I've read					
4.	Losing track of time					
5.	Forgetting what I did yesterday					
6.	Forgetting things I've just learned					
7.	Forgetting meetings/ appointments					
8.	Forgetting to turn off appliances (e.g., iron, stove)					



# Sustainability

## Evidenced-Based Protocol

- On-line neuropsychological screening training
- Develop network of providers
- Develop Brain Injury Specialist/Teams within probation

<https://www.youtube.com/watch?v=j78G4Pr6C1o>

JUNE 16, 2018

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