

# Reducing Disparities in Traumatic Brain Injury

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**MEGAN MOORE, PHD, MSW**

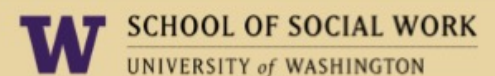
SIDNEY MILLER ENDOWED ASSOCIATE PROFESSOR  
SCHOOL OF SOCIAL WORK

CO-DIRECTOR OF RESEARCH AND OUTREACH

CO-DIRECTOR INJURY-RELATED HEALTH EQUITY ACROSS THE LIFESPAN INITIATIVE

HARBORVIEW INJURY PREVENTION AND RESEARCH CENTER

UNIVERSITY OF WASHINGTON



# Patient Voices

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## Disparate Treatment and Harm

“So [we] walked in...to the room...[we] were asking our daughter: ‘Can you please move your...leg? Lift ‘em up, move them, just to make sure...there was no problems with her legs...[I] would have liked somebody to go and apologize and explain it a little bit more. But the way...[I] see it is that **the doctors are just there to do what they’re supposed to do...they’re just there to go do the surgeries. Not for anything else...**”

*-Spanish-speaking Latinx parent of child with TBI*

Moore M, Robinson G, Mink R, et al. Developing a Family-Centered Care Model for Critical Care after Pediatric Traumatic Brain Injury. *Ped Crit Care Med.* 2015;16(8):758-65.

# Patient Voices

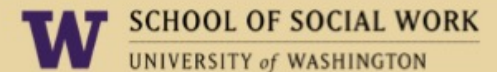
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## Disparate Treatment and Harm

**“I wouldn’t change a thing. They...communicated with me very openly, very honestly...the [doctors] comforted me, and I could feel the sympathy and the empathy from them throughout the whole experience. It was educational, as well. They didn’t just say: ‘This is...what we’re gonna do.’ They explained why; they explained the pros and cons; they explained what the outcome could be, would be or should be. They explained—they just kept me informed every step of the way.”**

*~ English-speaking white parent of child with TBI*

Moore M, Robinson G, Mink R, et al. Developing a Family-Centered Care Model for Critical Care after Pediatric Traumatic Brain Injury. *Ped Crit Care Med.* 2015;16(8):758-65.



# Patient Voices

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## Cisnormativity

“I think that...**healthcare is...a really vulnerable setting**, and...it’s a situation that I think shouldn’t be harder than it has to be...because there is so much vulnerability already involved in it. And I just feel like **it would be nice for...[the] next generation of trans people to have doctors that...were able to provide care for them in the way th[ey] needed**...I know that the discrepancies [and] assumptions about [identity]...played into some of my care, not being as useful to me as it could’ve been.”

*~Transgender participant*

Harner V, Casillas B, Chrivoli J, Moore M. Improving trauma care for transgender/non-binary persons (in preparation).

# Patient Voices

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## Discrimination and Cultural Incongruence

“The doctor made me feel like she didn’t care, maybe because [my child] wasn’t white. That’s how they treat all the Native people, because a lot of people told me similar stories.”

“The equipment isn’t really designed for anything other than going on completely paved roads or the mall. Because of that, **in therapy we are always working on her ability to use the forearm crutches over bumps and lumps, like she would be walking [on the rough terrain where family picks berries].**”

~ *Parents of American Indian children with disability*

Fuentes M, Lent K. Culture, Health, Function and Participation Among American Indian and Alaska Native Children and Youth with Disabilities: an Exploratory Qualitative Analysis. *Arch Phys Med Rehabil.* 2019;100(9):1688-1694.

# Disparities in Traumatic Brain Injury (TBI)

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- > What is known about **causes**?
- > What is known about **disparities in care and outcomes**?
- > What are **gaps and critical areas** for future research?
- > How can disparities be **reduced**?

# Causes of Inequities & Community-Based Solutions



National Academies of Sciences, Engineering, and Medicine 2017.  
 Communities in Action: Pathways to Health Equity. Washington, DC:  
 The National Academies Press. <https://doi.org/10.17226/24624>

# **The Injury Life Course: Disparities & Critical Intervention Points**

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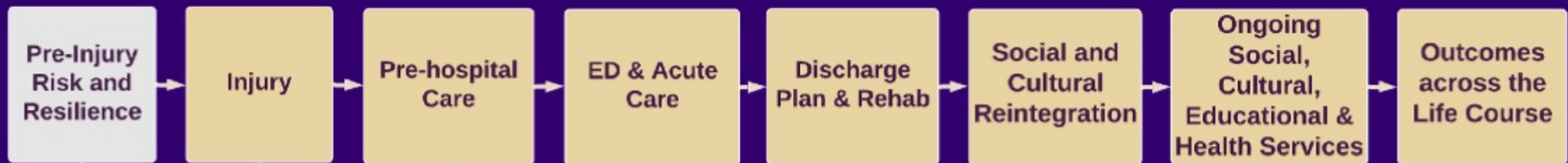
# The Injury Life Course: Disparities & Critical Intervention Points

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Structural Inequities and Biases

# The Injury Life Course: Disparities & Critical Intervention Points

Structural Inequities and Biases

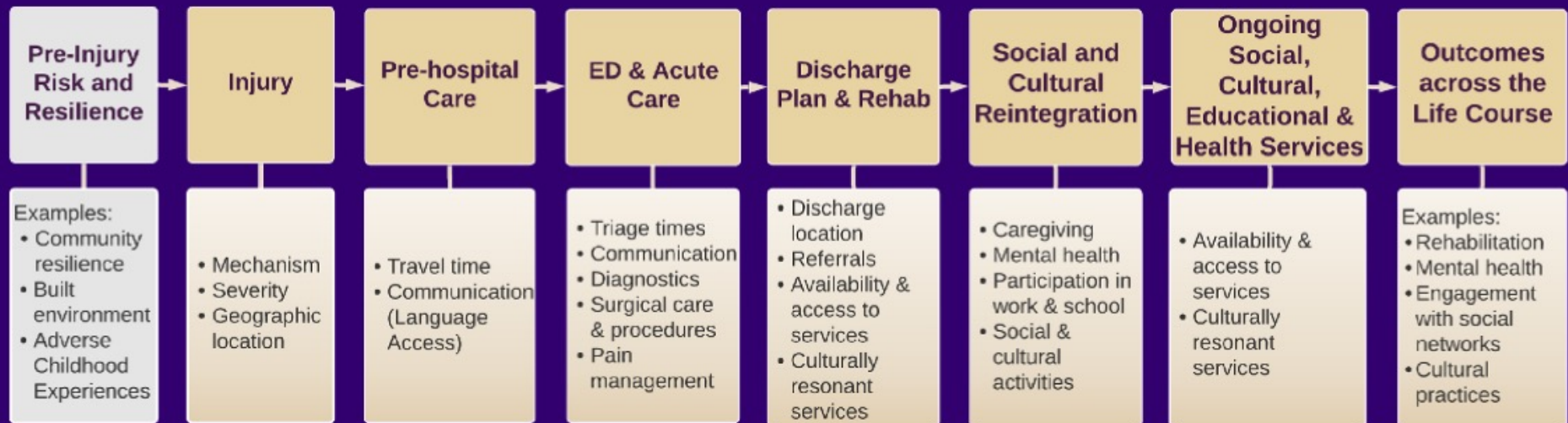


Individual Life Course

Family Life Course

# The Injury Life Course: Disparities & Critical Intervention Points

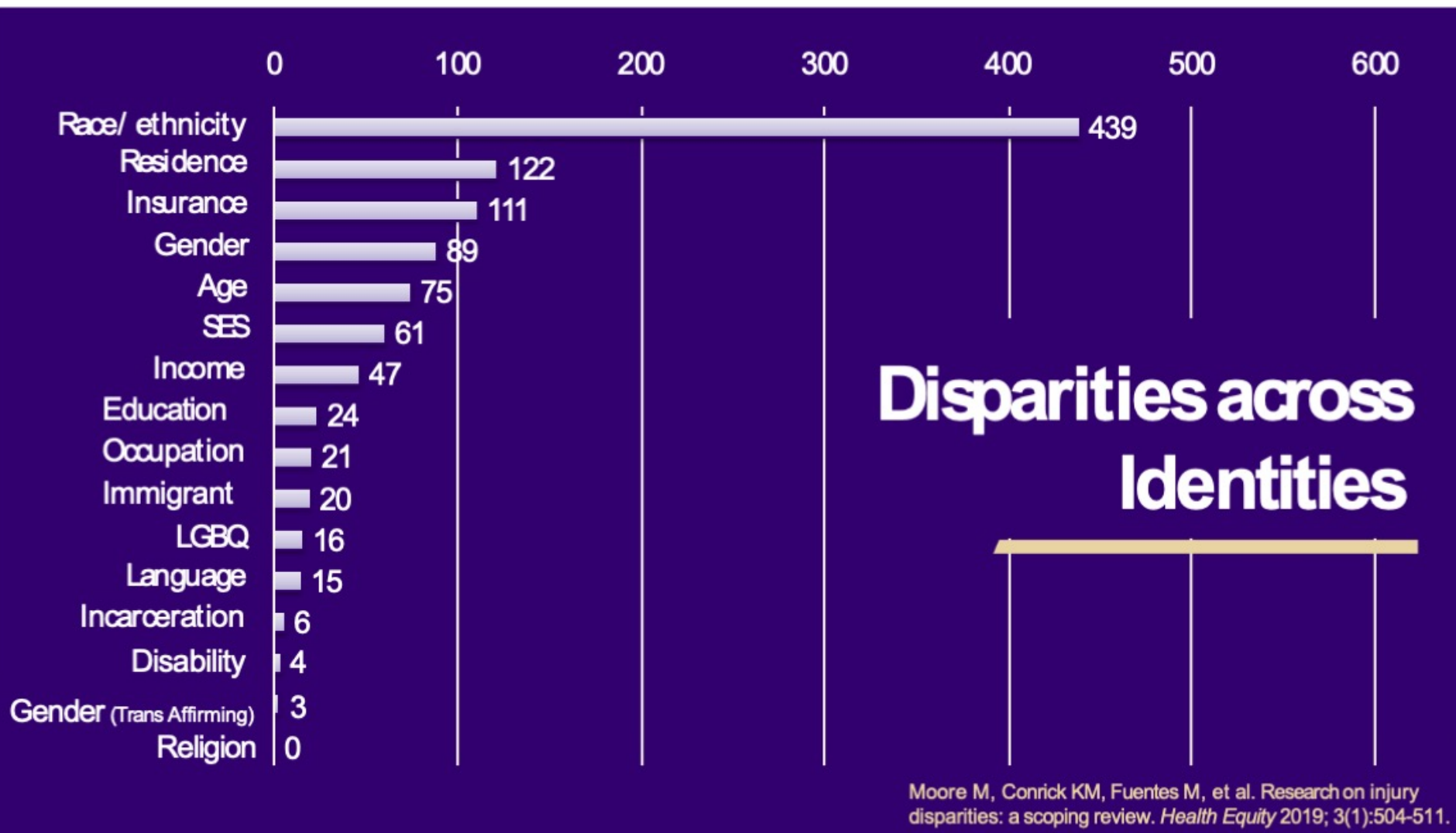
## Structural Inequities and Biases

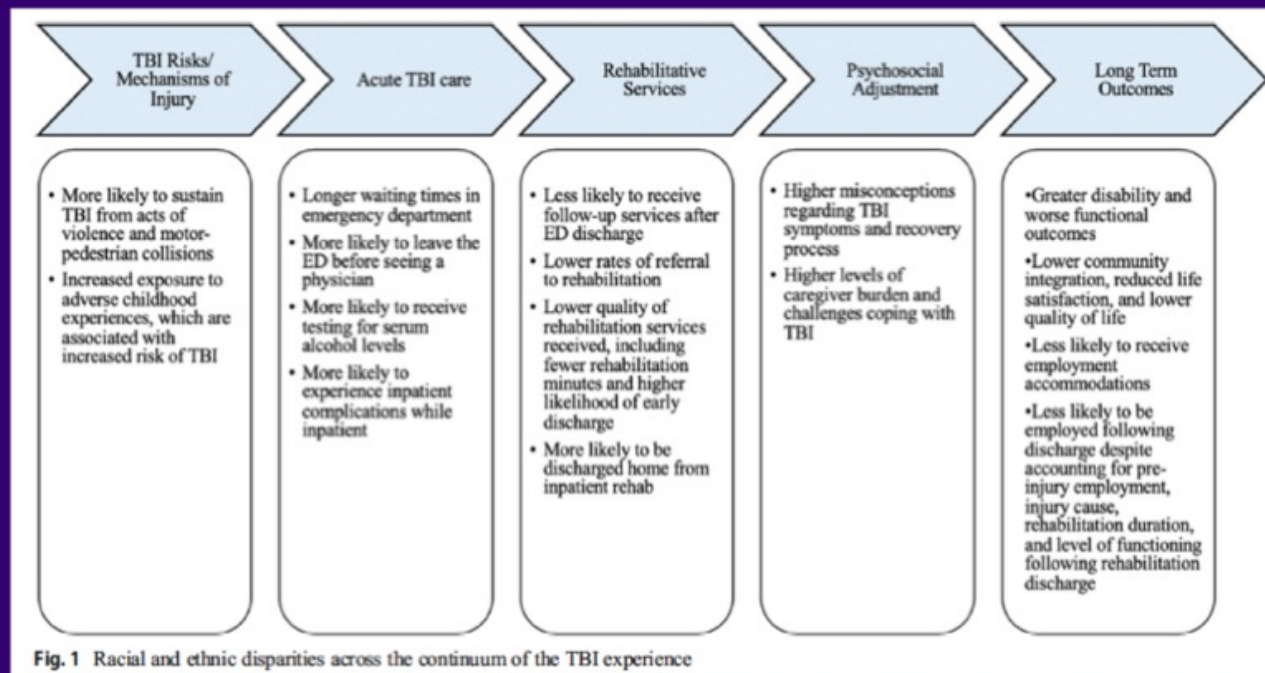


Individual Life Course

Family Life Course

See Moore M, Conrick KM, Fuentes M, et al. Research on injury disparities: a scoping review. *Health Equity* 2019; 3(1):504-511.

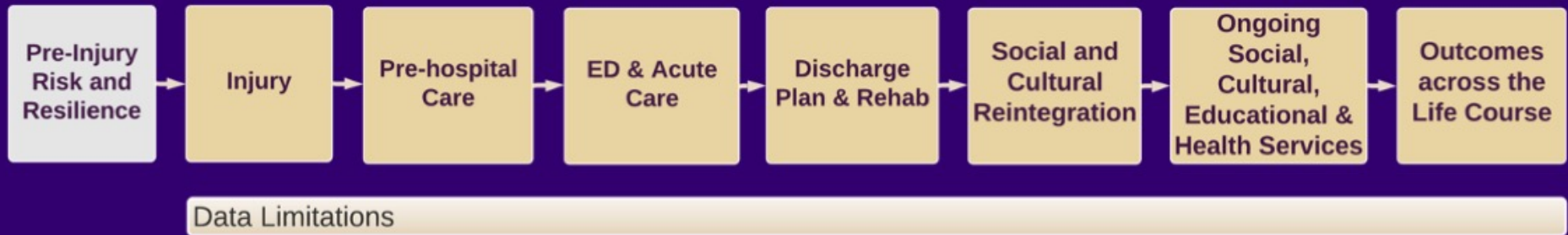




Saadi, A., Bannon, S., Watson, E. *et al.* Racial and Ethnic Disparities Associated with Traumatic Brain Injury Across the Continuum of Care: a Narrative Review and Directions for Future Research. *J. Racial and Ethnic Health Disparities* (2021)

# The Injury Life Course: Critical Gaps

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# The Injury Life Course: Critical Gaps

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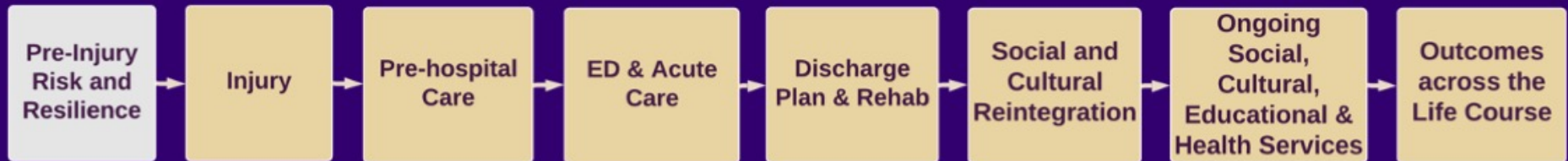


Data Limitations

Uncoordinated systems of care

# The Injury Life Course: Critical Gaps

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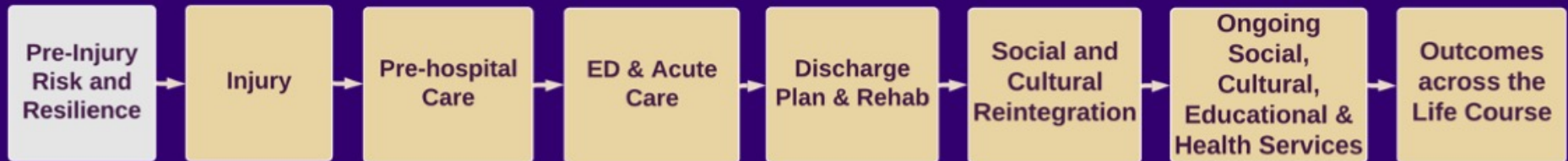
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Uncoordinated systems of care

Policies and payment structures misaligned with life course service needs



# The Injury Life Course: Critical Gaps



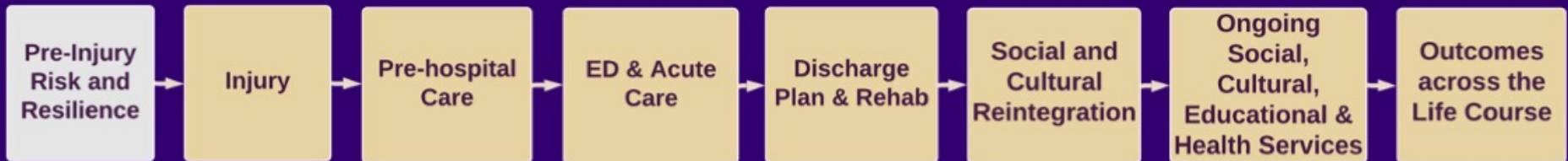
Data Limitations

Uncoordinated systems of care

Policies and payment structures misaligned with life course service needs

Limited systematic, evidence-based, culturally resonant, and patient-centered interventions

# The Injury Life Course: Critical Gaps



Data Limitations

Uncoordinated systems of care

Policies and payment structures misaligned with life course service needs

Limited systematic, evidence-based, culturally resonant, and patient-centered interventions

Limited system-level and effective provider training

# The Injury Life Course: Critical Gaps



Data Limitations

Uncoordinated systems of care

Policies and payment structures misaligned with life course service needs

Limited systematic, evidence-based, culturally resonant, and patient-centered interventions

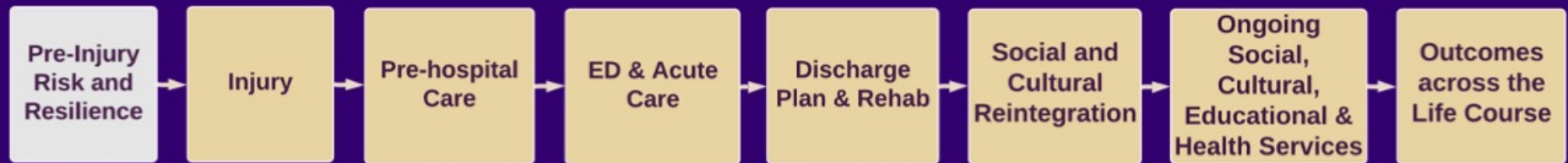
Limited system-level and effective provider training

Lack of available TBI-informed services and providers

# Patient and Community-driven System-level Solutions



# Patient and Community-driven System-level Solutions



Data Limitations

**Achieving Health Equity in the National Trauma Healthcare System**  
(NIMHD R21MD013486; MPI Moore & Rowhani-Rahbar)

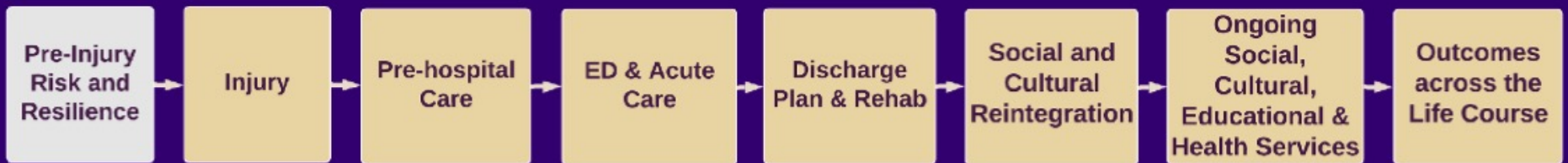
Uncoordinated systems of care

**Policies that incentivize coordination**

Policies and payment structures misaligned with life course service needs

**Policies and payment structures that recognize life course service needs**

# Patient and Community-driven System-level Solutions



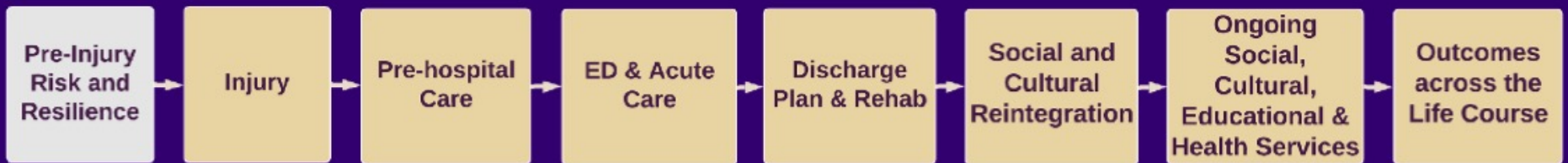
Limited systematic, evidence-based, culturally resonant and patient-centered interventions

**BRITE: Brain Injury Rehabilitation: Improving the Transition Experience**  
(PCORI PCS 1604-35-115; MPI Hoffman & Fann)

**SWIFT: Social Work Intervention for TBI** (Moore, Winkelman, Kwong, et al., 2014)

**Early Psychosocial Interventions after Pediatric Severe TBI: Implementation Framework**  
(Erlick, Vavilala, Jaffe, Blayney, Moore, 2021)

# Patient and Community-driven System-level Solutions



Limited systematic, evidence-based, culturally resonant and patient-centered interventions

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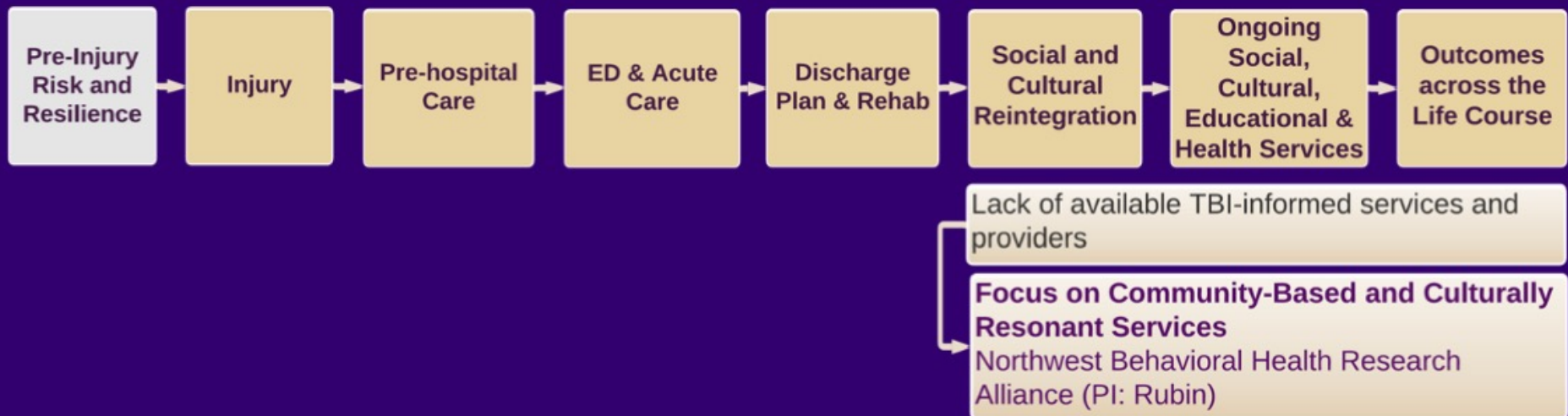
**SWIFT: Social Work Intervention for TBI** (Moore, Winkelman, Kwong, et al., 2014)

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Limited system-level and provider training

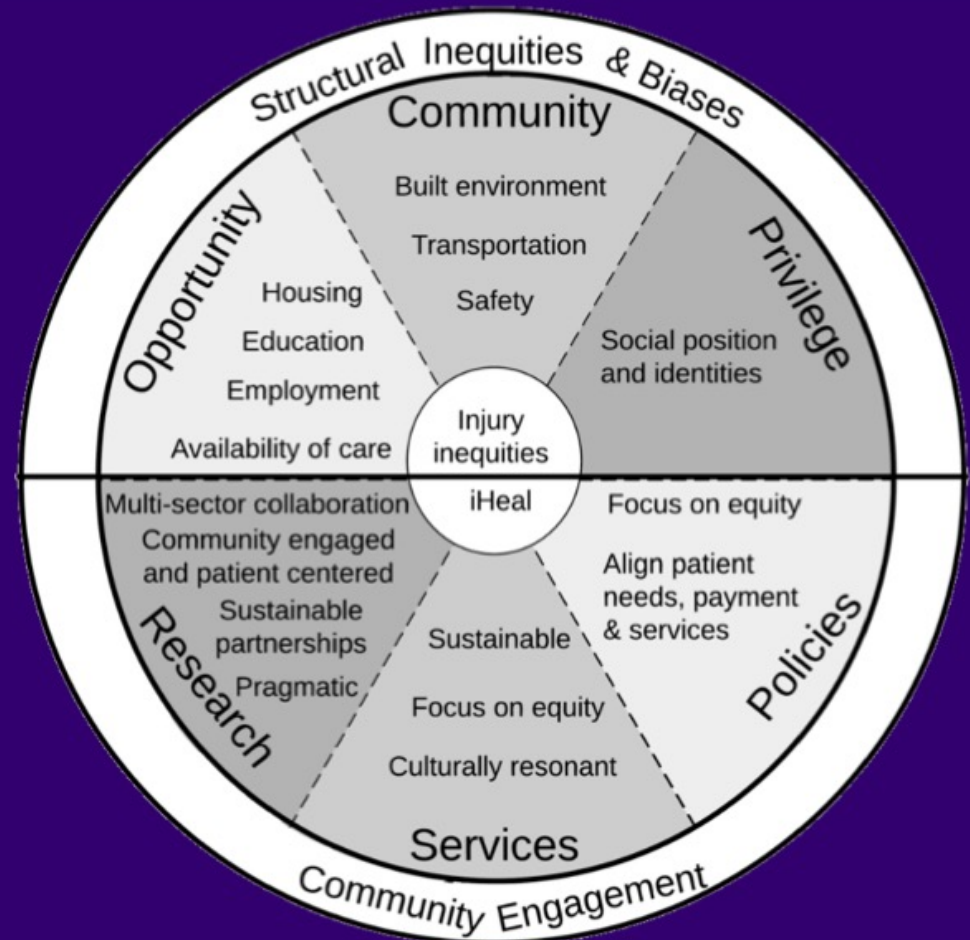
**Improving Trauma Care for Transgender/Non-Binary Persons** (MPI: Harner and Moore)

# Patient and Community-driven System-level Solutions





# Injury-related Health Equity across the Lifespan (iHeal)



Moore M, Conrick KM, Graves JM, Fuenes M, Vavilala, MS. Injury and Health equity: Building community, research, and advocacy partnerships to address the national research and policy agenda. Presented at: Annual Conference of the Society for the Advancement of Violence and Injury Research; 2017; Ann Arbor, MI.

# Thank you

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Megan Moore, PhD, MSW

[mm99@uw.edu](mailto:mm99@uw.edu)



HARBORVIEW  
INJURY PREVENTION  
& RESEARCH CENTER



# References

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## Patient Voices

1. Fuentes M, Lent K. Culture, Health, Function and Participation Among American Indian and Alaska Native Children and Youth with Disabilities: an Exploratory Qualitative Analysis. *Arch Phys Med Rehabil.* 2019;100(9):1688-1694.
2. Moore M, Robinson G, Mink R, et al. Developing a Family-Centered Care Model for Critical Care after Pediatric Traumatic Brain Injury. *Ped Crit Care Med.* 2015;16(8):758-65.
3. Harner V, Casillas B, Chrivoli J, Moore M. Improving trauma care of individuals who identify as transgender and non-binary (in preparation).

## Causes of Inequities and Community Based Solutions

1. National Academies of Sciences, Engineering, and Medicine 2017. *Communities in Action: Pathways to Health Equity.* Washington, DC: The National Academies Press. <https://doi.org/10.17226/24624>.

Injury Life Course and Disparities in Injury: See scoping review below for hundreds of citations reviewed

1. Moore M, Conrick KM, Fuentes M, et al. Research on injury disparities: a scoping review. *Health Equity* 2019; 3(1):504-511. See appendix for all references included in scoping review that informed this talk.

# References

Patient and Community Driven Solutions: Examples drawn from these studies

1. Fann JR, Hart T, Ciol MA, et al., Improving transition from inpatient rehabilitation following traumatic brain injury: Protocol for the BRITE pragmatic comparative effectiveness trial, *Contemporary Clinical Trials* (2021), <https://doi.org/10.1016/j.cct.2021.106332>
2. Moore, M., Winkelman, A., Kwong, S., Segal, S. P., Manley, G.T., & Shumway, M. (2014). The Emergency Department Social Work Intervention for Mild Traumatic Brain Injury (SWIFT-Acute): A Pilot Study. *Brain Injury*, 28, 448-455.
3. Erlick, M.R. Vavilala, M.S., Jaffe, K.M., Blayney, C.B., Moore, M. (2021). Provider Perspectives on Early Psychosocial Interventions after Pediatric Severe Traumatic Brain Injury: an Implementation Framework. *Journal of Neurotrauma*, 38(4): 513-518.
4. Hamer V, Casillas B, Chrivoli J, Moore M. Improving trauma care of individuals who identify as transgender and non-binary (in preparation).

## IHeal

1. Moore M, Conrick KM, Graves JM, Fuenes M, Vavilala, MS. Injury and Health equity: Building community, research, and advocacy partnerships to address the national research and policy agenda. Presented at: Annual Conference of the Society for the Advancement of Violence and Injury Research; 2017; Ann Arbor, MI.