

## **ACEs**

- 1998 study of employed people in the Pacific Northwest
- Patients answered questions about their childhood
- Correlated with mental and physical health

## **PCEs**

- 2015 population study in Wisconsin
- Part of the BRFSS
- Asked about ACEs
- Asked about
  Positive Childhood
  experiences
- Correlated with mental health





#### Positive Childhood Experiences (PCEs) questions asked how often respondent:

- ${f 1.}$  Felt able to talk to their family about feelings
- 2. Felt their family stood by them during difficult times
- 3. Enjoyed participating in community traditions
- 4. Felt a sense of belonging in high school
- 5. Felt supported by friends
- 6. Had at least two non-parent adults who took genuine interest in them
- 7. Felt safe and protected by an adult in their home
  - Internal consistency reliability: 0.77
  - Principal components factor analysis: single factor with an Eigenvalue > 1 (2.95).
  - Factor loadings ranged from 0.57 ("felt safe/home") to 0.72 ("family stood by/difficult times")









Research

JAMA Pediatrics | Original Investigation

# Positive Childhood Experiences and Adult Mental and Relational Health in a Statewide Sample

#### Associations Across Adverse Childhood Experiences Levels

Christina Bethell, PhD, MBA, MPH; Jennifer Jones, MSW; Narangerel Gombojav, MD, PhD; Jeff Linkenbach, EdD; Robert Sege, MD, PhD

**IMPORTANCE** Associations between adverse childhood experiences (ACEs) and risks for adult depression, poor mental health, and insufficient social and emotional support have been documented. Less is known about how positive childhood experiences (PCEs) co-occur with and may modulate the effect of ACEs on adult mental and relational health.

**OBJECTIVE** To evaluate associations between adult-reported PCEs and (1) adult depression and/or poor mental health (D/PMH) and (2) adult-reported social and emotional support (ARSES) across ACEs exposure levels.

DESIGN, SETTING, AND PARTICIPANTS Data were from the cross-sectional 2015 Wisconsin Behavioral Risk Factor Survey, a random digit-dial telephone survey of noninstitutionalized Wisconsin adults 18 years and older (n = 6188). Data were weighted to be representative of the entire population of Wisconsin adults in 2015. Data were analyzed between September 2016 and January 2019.

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Supplemental content



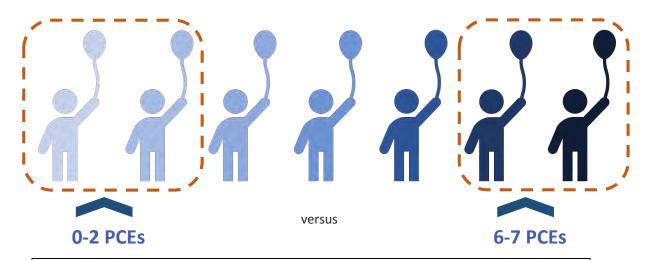


## **Positive Childhood Experiences (PCEs) Protect Adult Mental Health**



**6-7 vs. 0-2 PCES:** Adults reporting 6-7 PCEs **have 72% lower odds** of having depression or poor mental health compared to those reporting 0-2 PCEs.

48% v. 12.6%, OR 0.28; 95% CI 0.21-0.39. 3.8x higher rate for 0-2 vs. 6-7 PCEs.



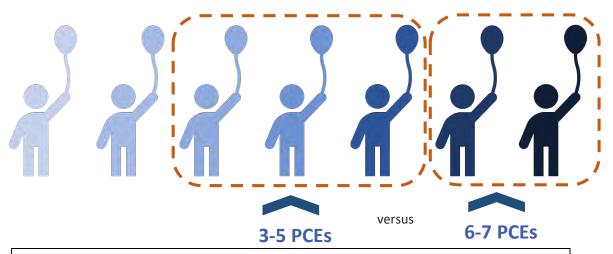




#### **Positive Childhood Experiences (PCEs) Protect Adult Mental Health**



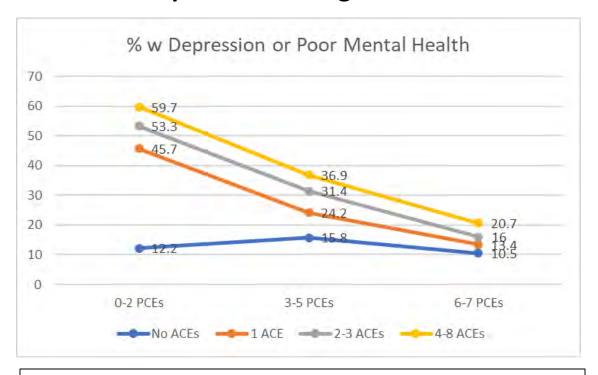
**6-7 vs 3-5 PCES:** Adults with 6-7 PCEs have **50% lower odds of** adult depression or poor mental health compared to those with 3-5 PCEs. 25% v. 12.6%, OR 0.50; 95% CI 0.36-0.69. 1.98x higher rate for 3-5 vs. 6-7 PCEs.







### **Positive Childhood Experiences Mitigate ACEs Effects**







## Biological mechanisms of action

Toxic stress model built on observed changes in brain architecture from adversity

Growing evidence of broader brain plasticity

Stroke recovery

Brain changes observed with positive experiences

Post-traumatic brain growth

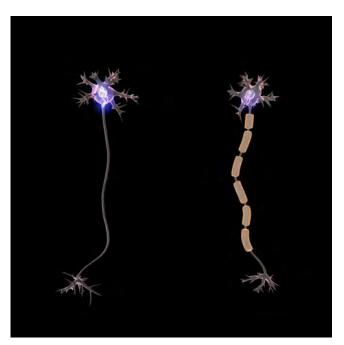
Role of oligodendrocytes in recovery





# Superhighways in the brain





https://upload.wikimedia.org/wikipedia/commons/4/48/S altatory\_Conduction.gif



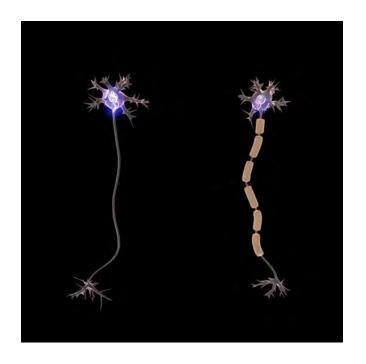
# Experiences build brain super highways

Experiences that **promote** oligodendrocyte development:

- exercise,
- social interactions,
- environmental stimulation.

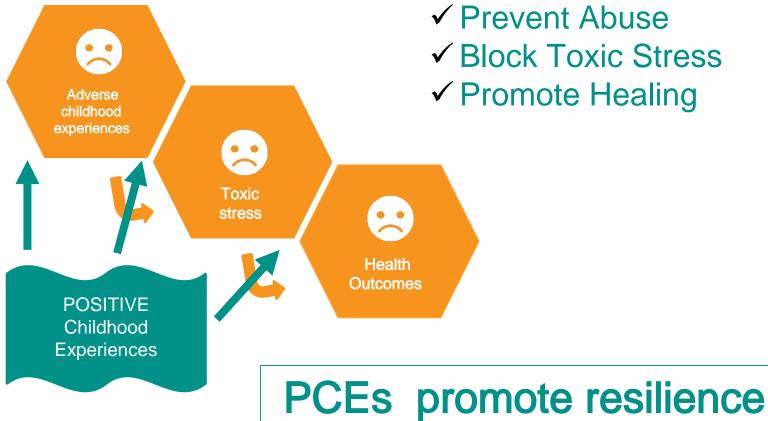
Experiences that **suppress** oligodendrocyte development:

- sedentary lifestyle,
- social isolation
- environmental deprivation.













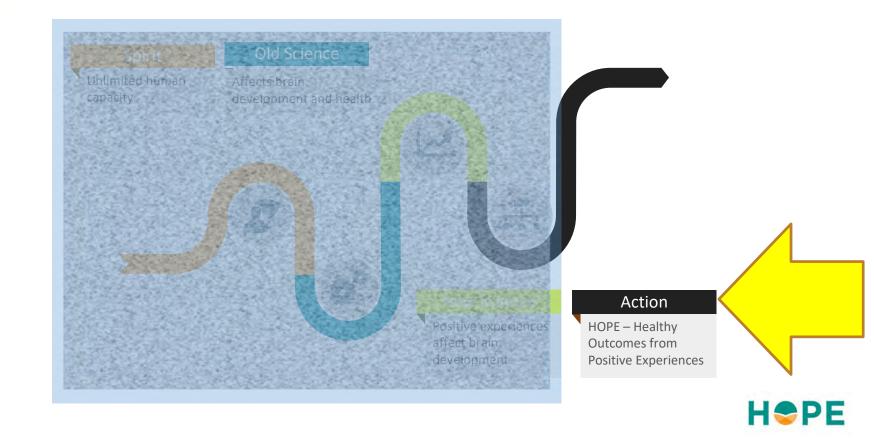
# Temperature Check

- 1. I am good with this I can begin to see how this fits with my work
- 2. Sounds good I am looking forward to figuring out how this fits in my work
- 3. I have lots of questions
- 4. All of the above!





## **Experience Shapes Human Development**





















# Building Blocks of **HOPE**



## Relationships

- ...with other children
- ...with other adults
- ...through interactive activities



#### **Environment**

- Safe, equitable, & stable
- · Living, playing, & learning
- Positive school & home environments



#### Engagement

- Develop a sense of connectedness
- Social/civic activities



#### **Opportunities**

for Social Emotional Development

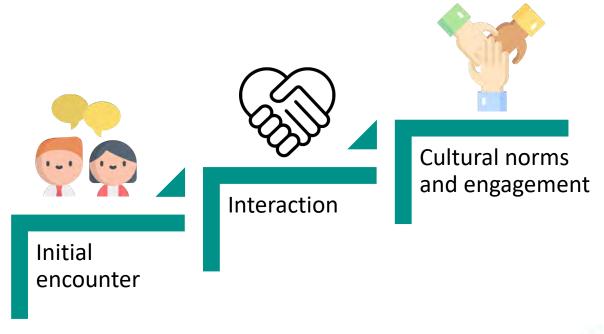
- Playing with peers
- Learning selfreflection
- Collaboration in art, sports, drama, & music

Sege and Browne. Responding to ACEs with HOPE: Health Outcomes from Positive Experiences. Academic Pediatrics 2017; 17:S79-S85





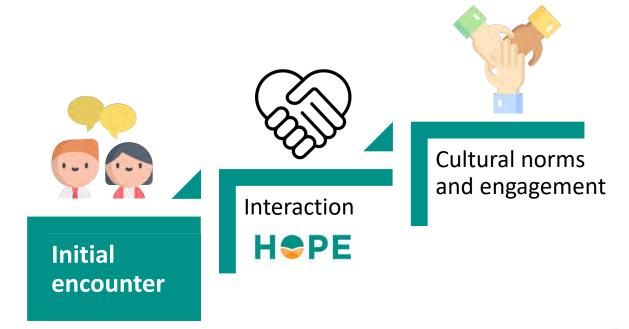
# Integrating HOPE into our work







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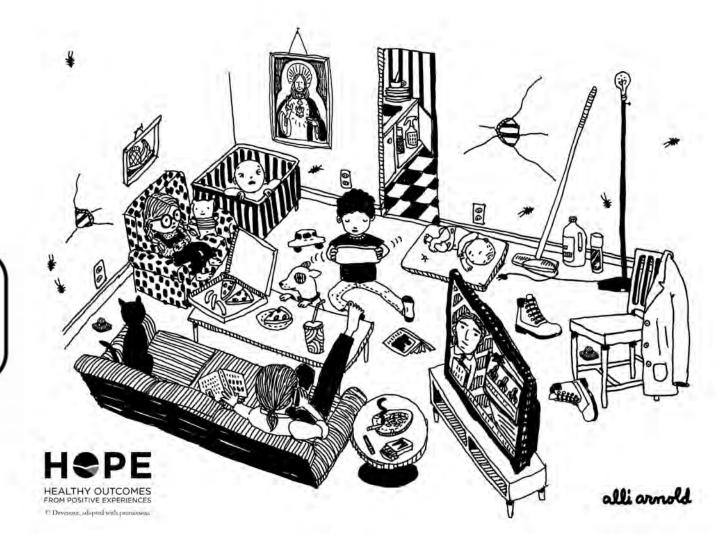
# Change in Mindset Exercise





W hat RISK factors do you see?

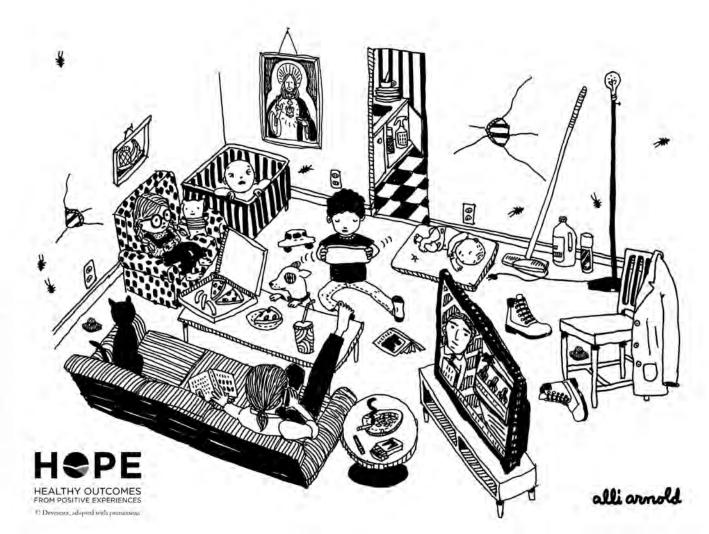
Share in Chat Box





W hat PROTECTIVE factors do you see?

Share in Chat Box





Which was easier to see-RISK or PROTECTIVE factors?

Zoom
Poll





#### Type 1 vs. Type 2 thinking

#### Type 1 thinking

- ✓ Fast, intuitive, unconscious thought
- ✓ Everyday activities
- ✓ Effortless
- ✓ Training and experience



#### Type 2 thinking

- ✓ Slow, calculating, conscious thought
- ✓ Solving a problem
- ✓ Takes more effort!
- ✓ Something novel







**Bringing HOPE into our work** 

Changing our own professional norms

From:

Screen and refer

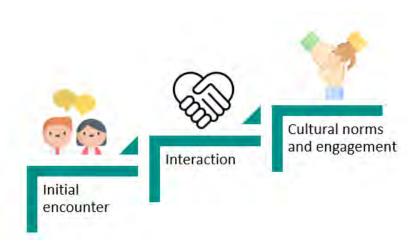
To:

Understand and support



## Two Sessions after Break:

 Providers: Bringing HOPE into Direct Service



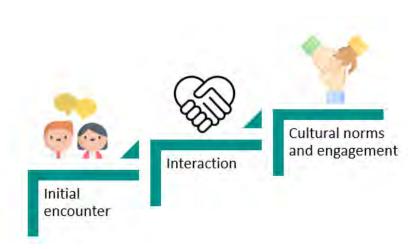
2. Policy -makers: Organizational transformation with HOPE





## Poll: Which do you plan to attend?

1. Providers: Bringing HOPE into Direct Service



2. Policy -makers: Organizational transformation with HOPE





**Stretch Break** 

Return at 10:45:

Providers: Bringing HOPE into Direct Service

Policy-makers:
Organizational Change
to Support HOPE