

September 2019 PLC:
Hope Conquers ACEs

September 11, 2019



Children's Bureau Updates

September 11, 2019



Presentation to Friends National Resource Center Peer Learning Network

HOPE: Healthy Outcomes from Positive Experiences

September 11, 2019 Robert Sege, MD, PhD

proud member of  **wellforce**

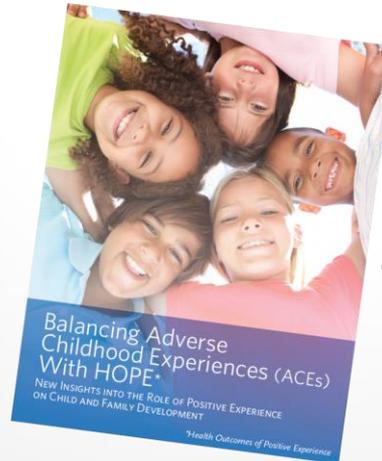
Tufts Medical Center

Floating Hospital
for Children
at **Tufts** Medical Center

Contributors to HOPE: Healthy Outcomes from Positive Experiences

Co-Investigators (alphabetical)

- Christina Bethell, PhD, MBA, MPH
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- Bart Klika, PhD
- Jeff Linkenbach, EdD
- Peter Pecora, PhD



Acknowledgements

- Funding by Casey Family Programs, The Robert Wood Johnson Foundation, and additional support from HRSA
- Data provided by: Prevent Child Abuse America, the US Centers for Disease Control and Prevention, Wisconsin Dept of Health Service
- Reviewers: Cohen (CSSP), Dreyfus (Alliance), Klevens (CDC), Langford (CSSP), Tait (AAP), Whitaker (Temple University)
- In memory of Paula Duncan, MD who inspired this work

Science of the Positive Cycle of Transformation



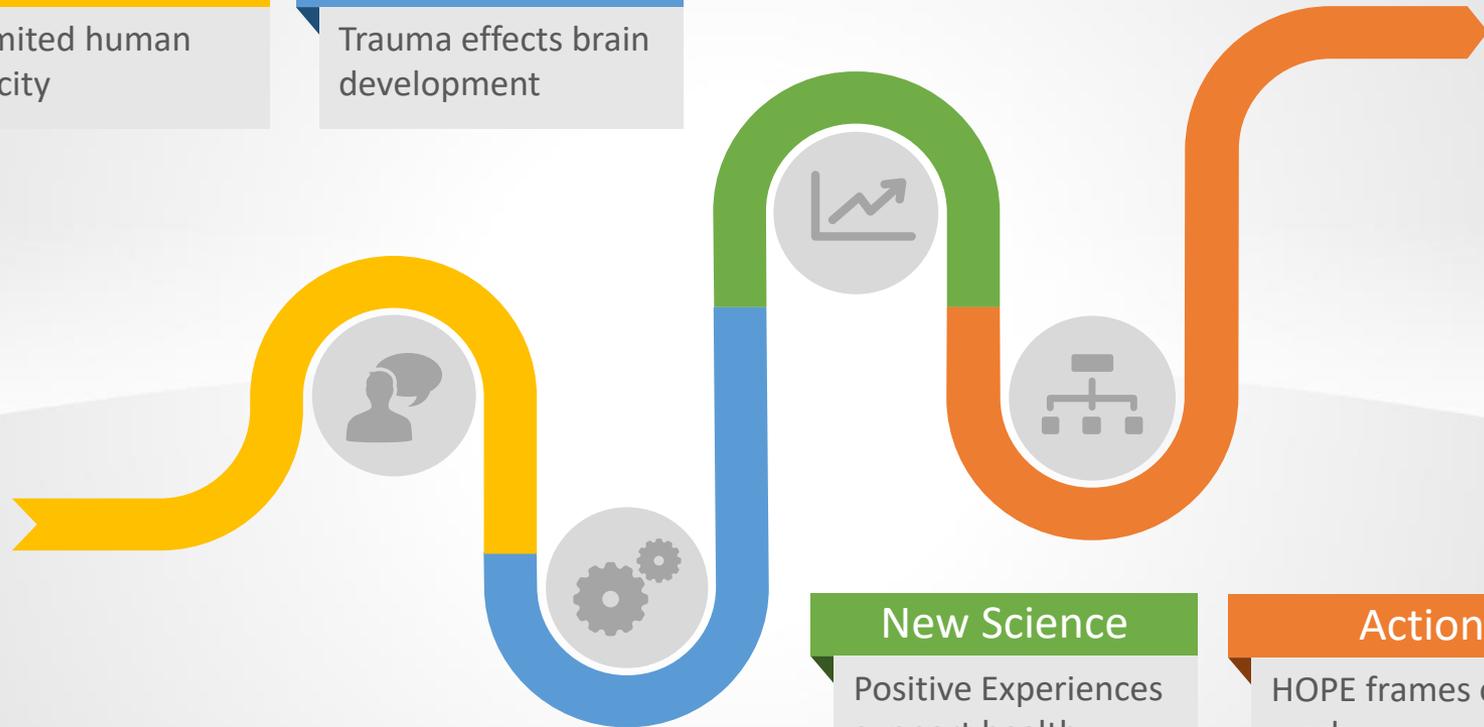
Experience Shapes Human Brain Development

Spirit

Unlimited human capacity

Old Science

Trauma effects brain development



New Science

Positive Experiences support health

Action

HOPE frames our work

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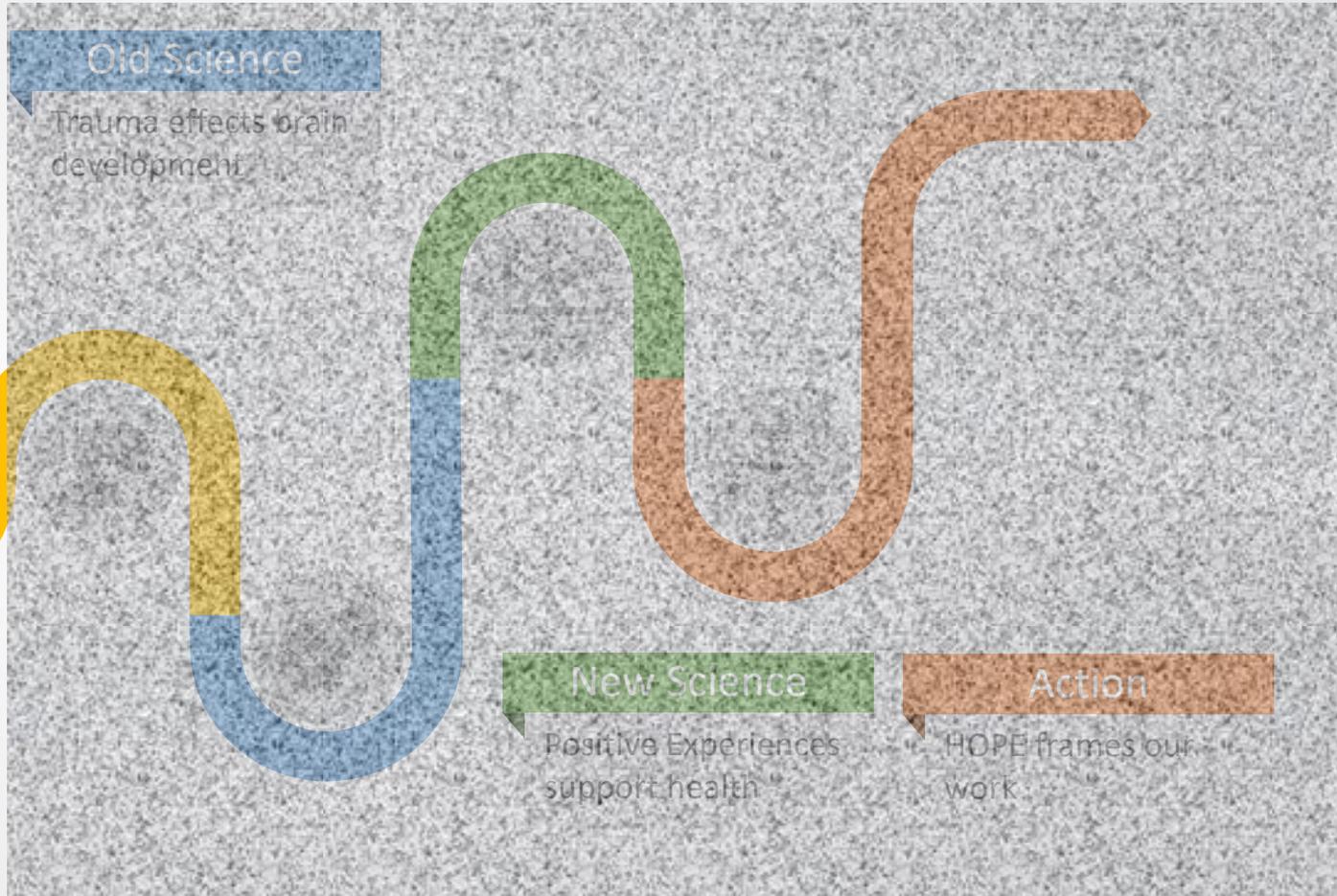
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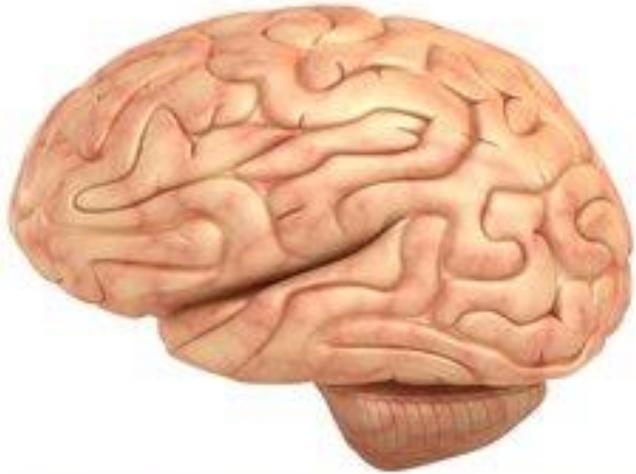
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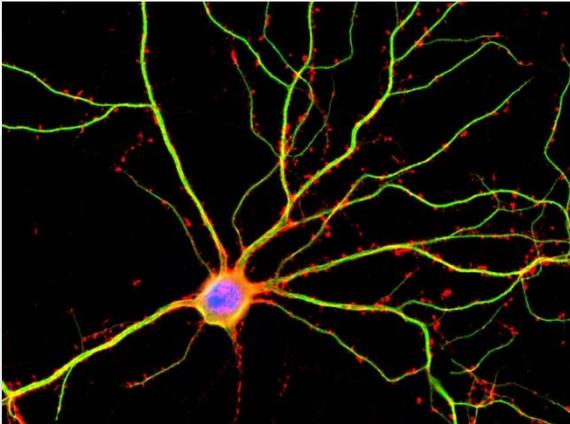


How does the brain work?

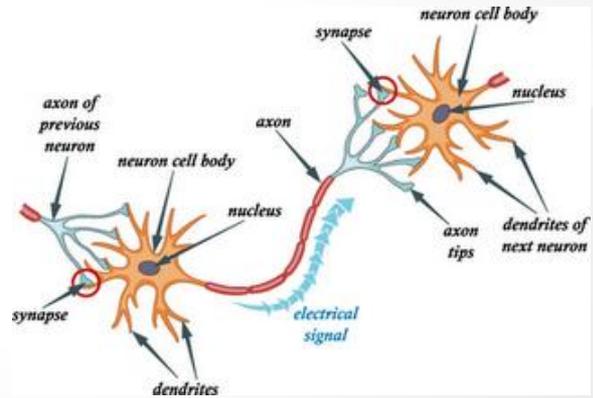


Neurons connect with each other

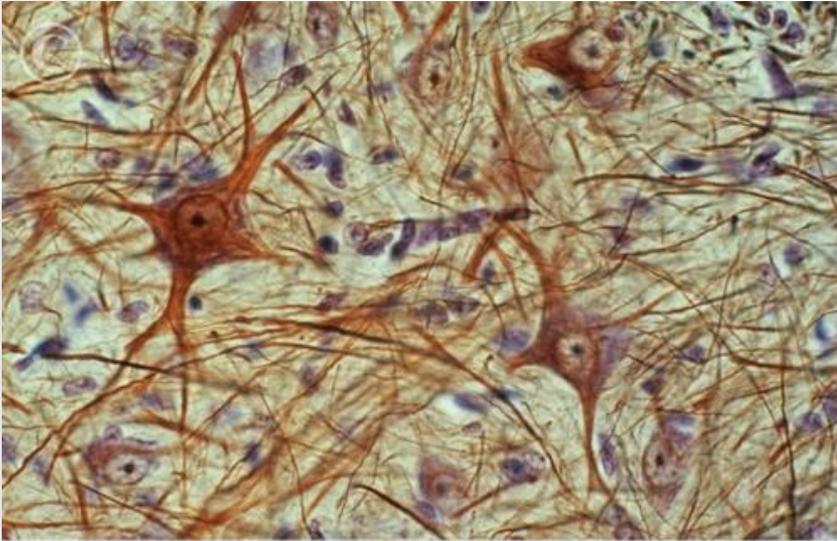
Neuron



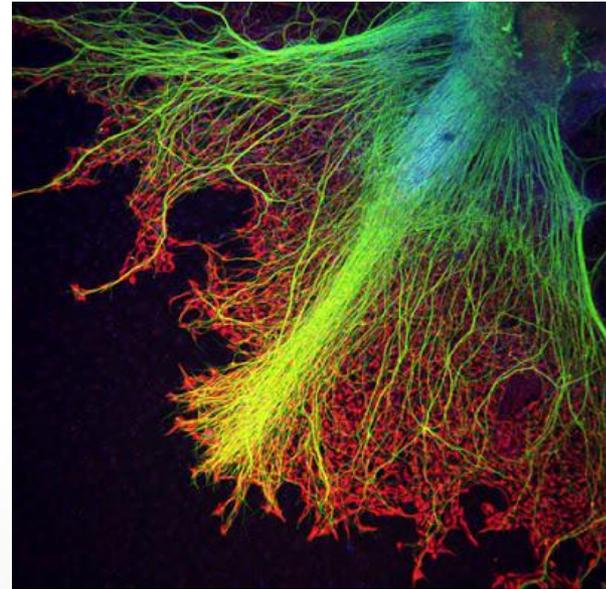
Connection (synapse)



Microscopic view

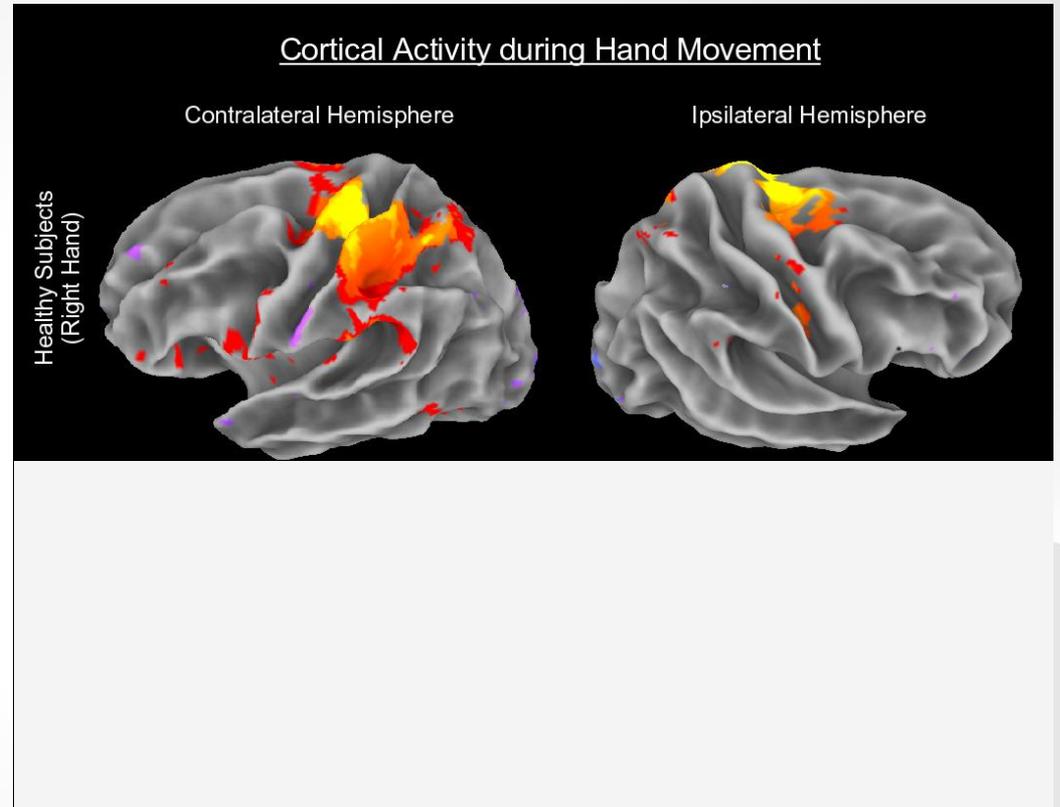


P4083 [RM] © www.visualphotos.com



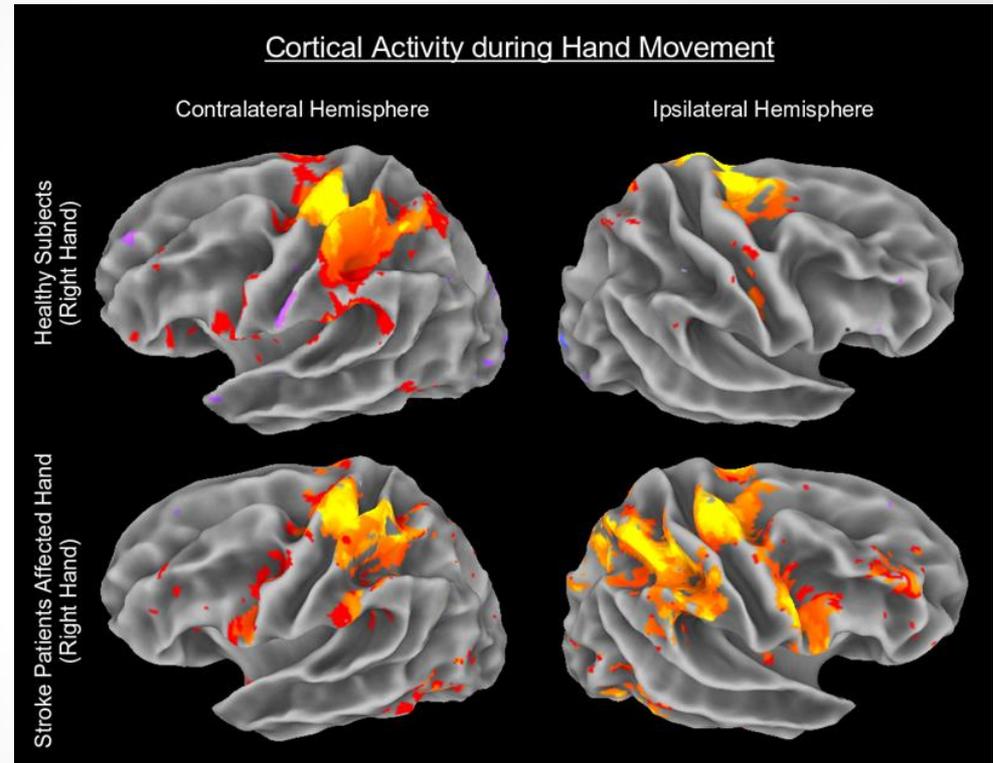
fMRI: Brain Function
now visible

Hand movement is
controlled by the
opposite side of the
brain



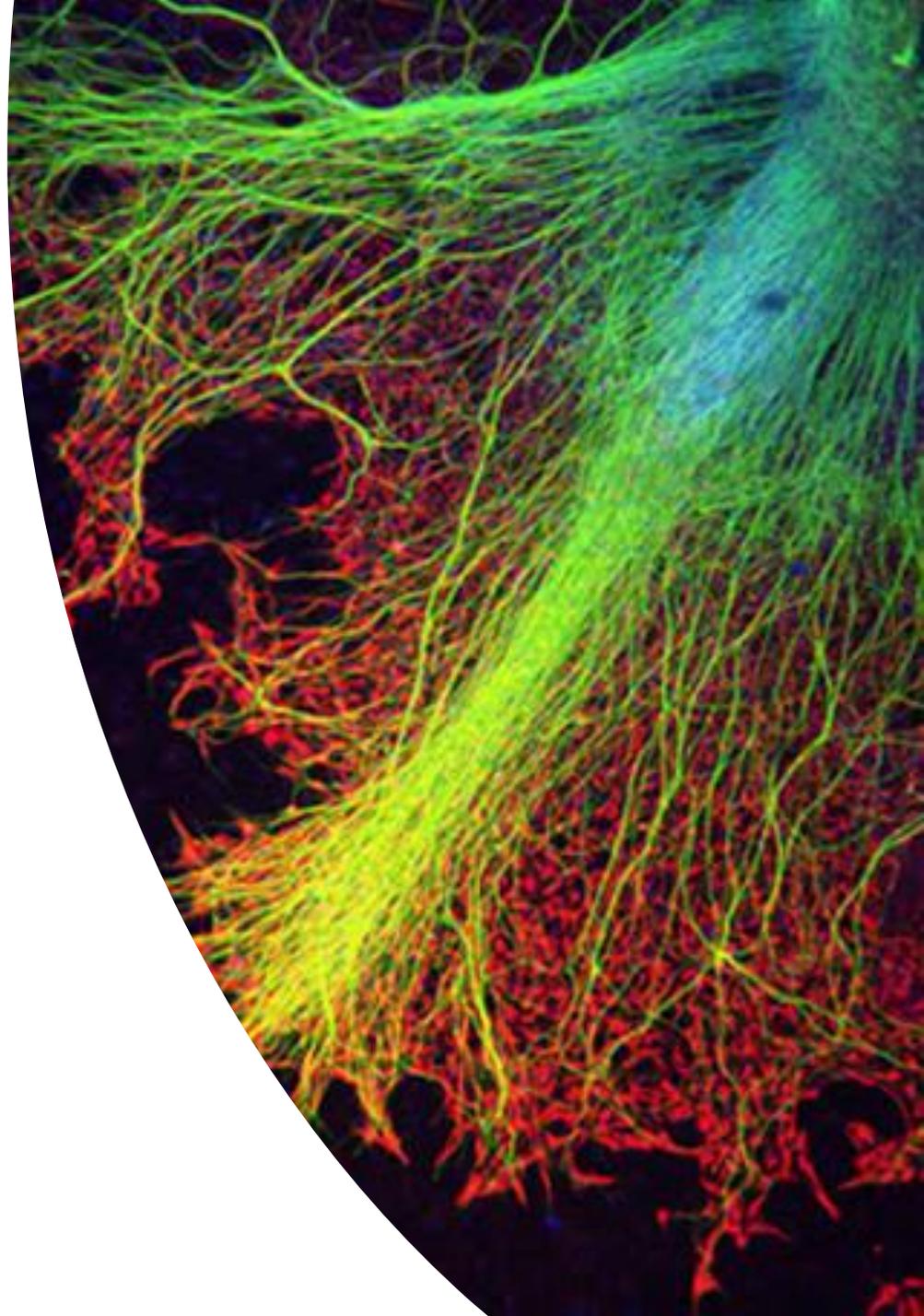
fMRI: Brain Function
now visible

After a stroke,
the healthy side
of the brain can
be trained to
take over



TAKE HOME
MESSAGE:

BRAINS CAN HEAL!!



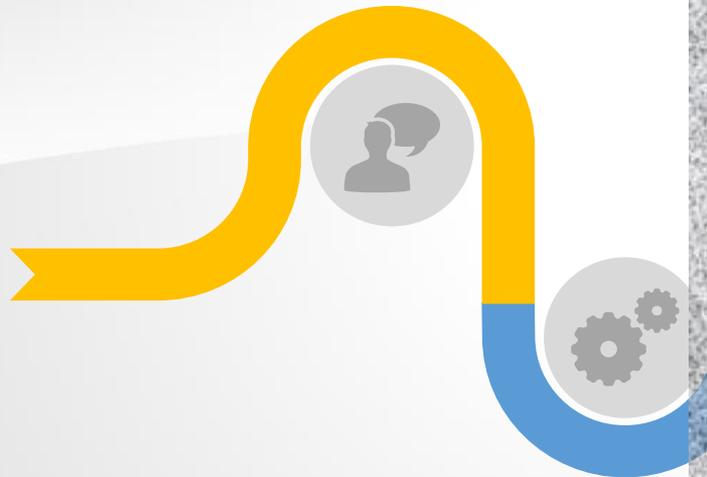
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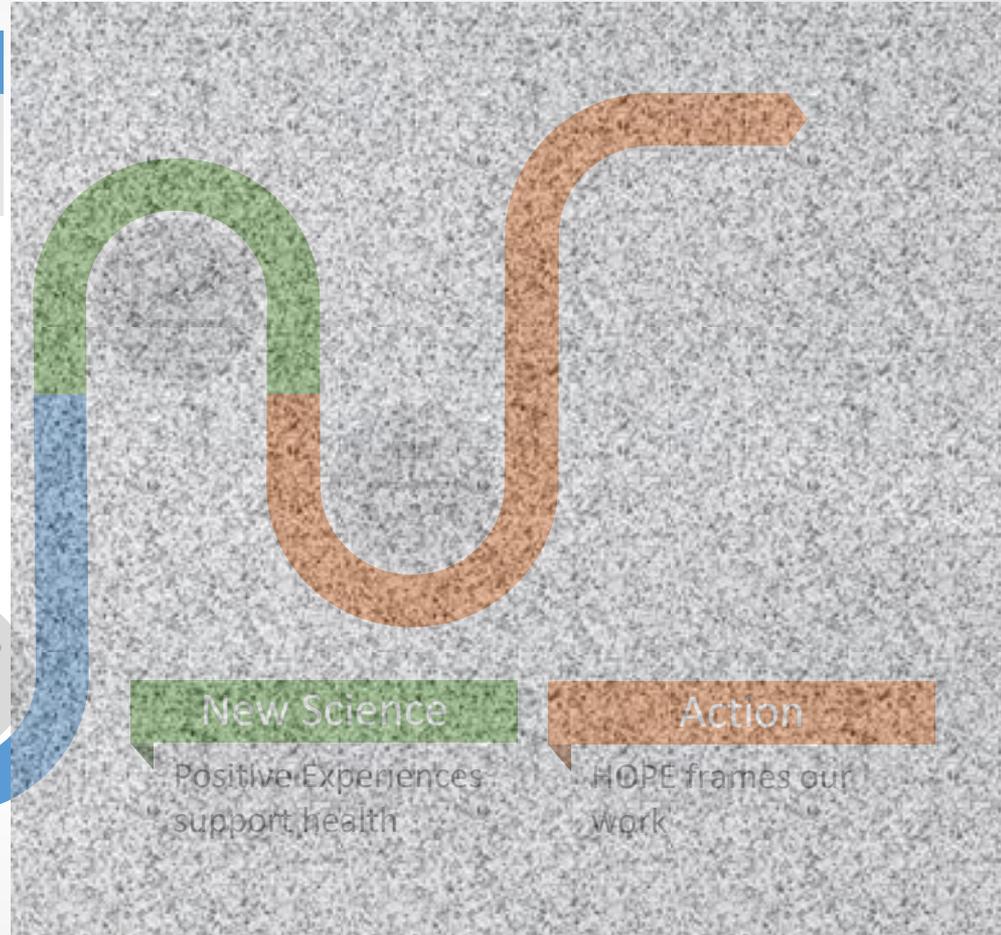


New Science

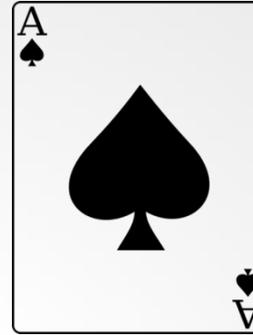
Positive Experiences support health

Action

HOPE frames our work



Review - ACES Items



Child

1. Emotional abuse
2. Physical abuse
3. Sexual abuse
4. Emotional neglect
5. Physical neglect
6. Loss of a parent

Household

7. Domestic violence
8. Alcohol or drug abuse
9. Household mental illness or suicide attempt
10. Household member imprisoned

Beyond ACEs: Community and Societal Factors lead to Toxic Stress

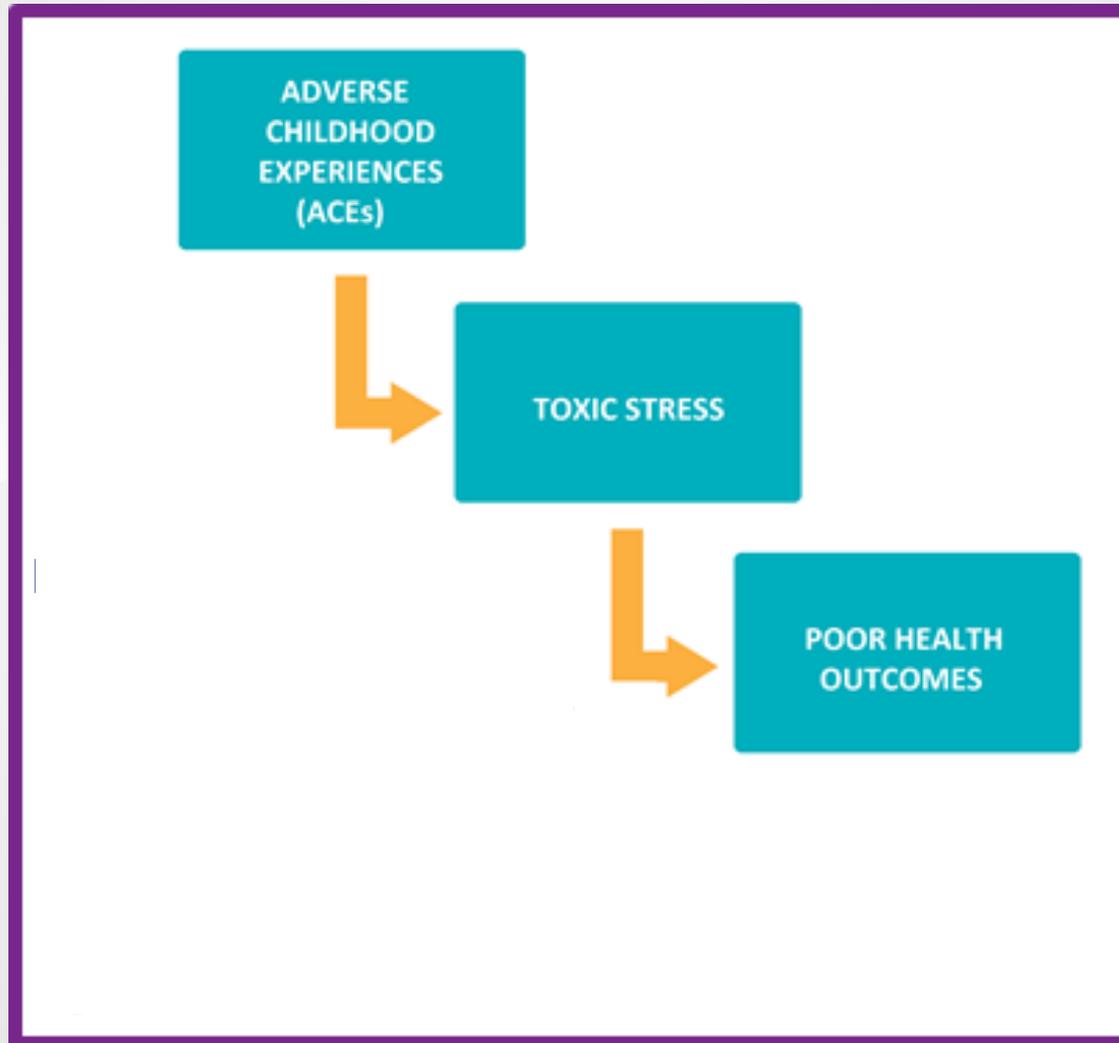
- Poverty
- Institutional racism
- Historical Trauma
- War and migration
- Neighborhood effects



Detrimental Health Effects of ACEs

- Alcoholism & alcohol abuse
- Chronic obstructive pulmonary disease (COPD)
- Depression
- Fetal death
- Health-related quality of life
- Illicit drug use
- Ischemic heart disease (IHD)
- Liver disease
- Risk for intimate partner violence
- Sexually transmitted diseases (STDs)
- Smoking
- Suicide attempts
- Unintended pregnancies
- Adolescent pregnancy

Summary: The Old Science of Toxic Stress



Old Science: Understanding Risk

Current state

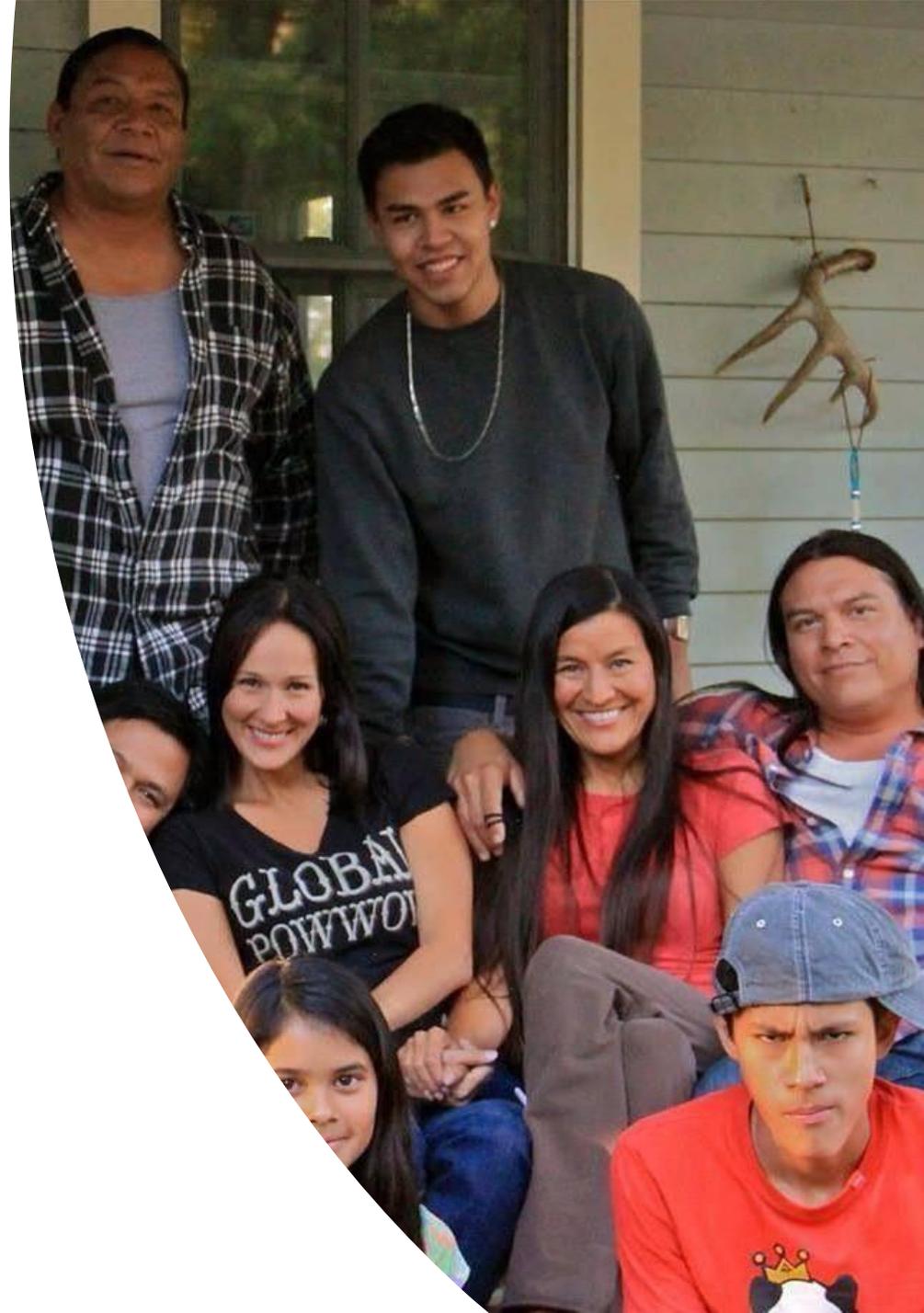
- Unmitigated exposure to childhood adversity is associated with child and adult health problems
- Beginning to screen for adversity

However:

snapshot



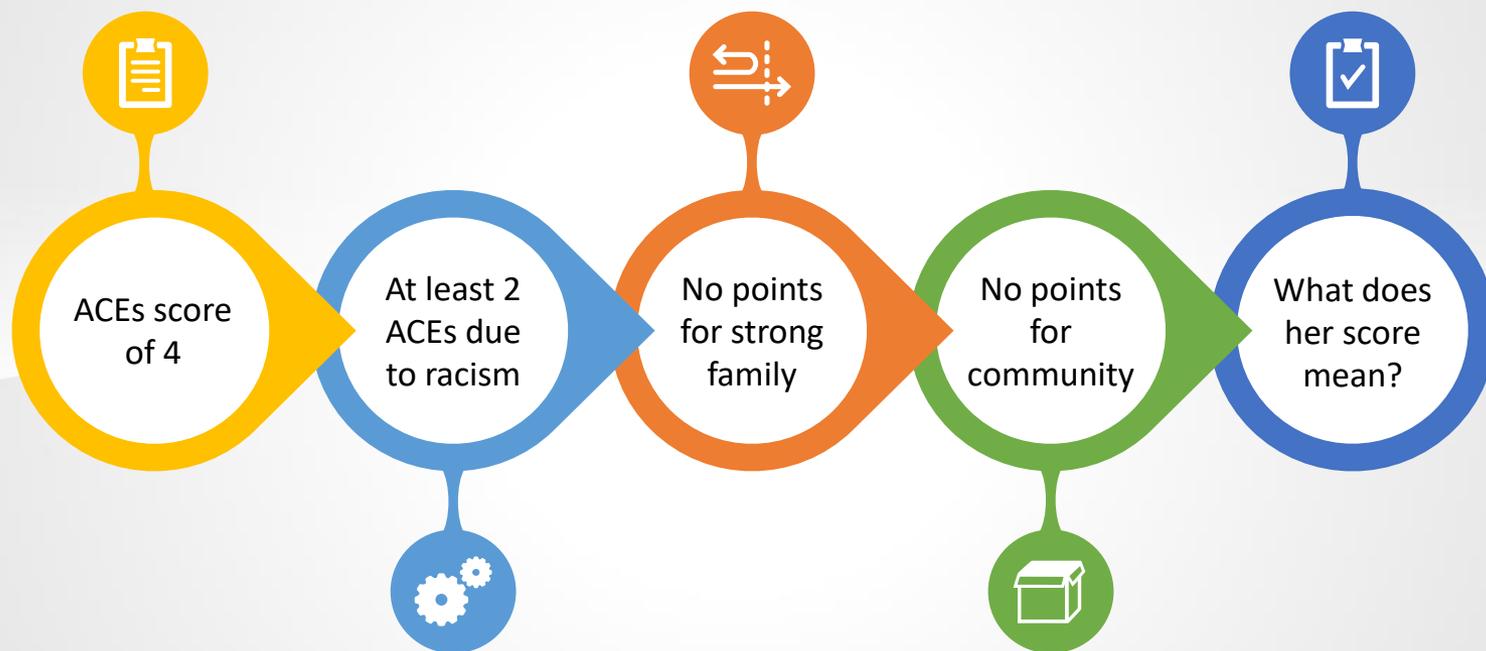
Family Connections



Cultural Connection



ACEs Score is Incomplete





ACEs are only part of the picture

- Many people with 4+ ACEs are OK
- Other experiences affect the brain
- Do positive experiences affect outcomes?

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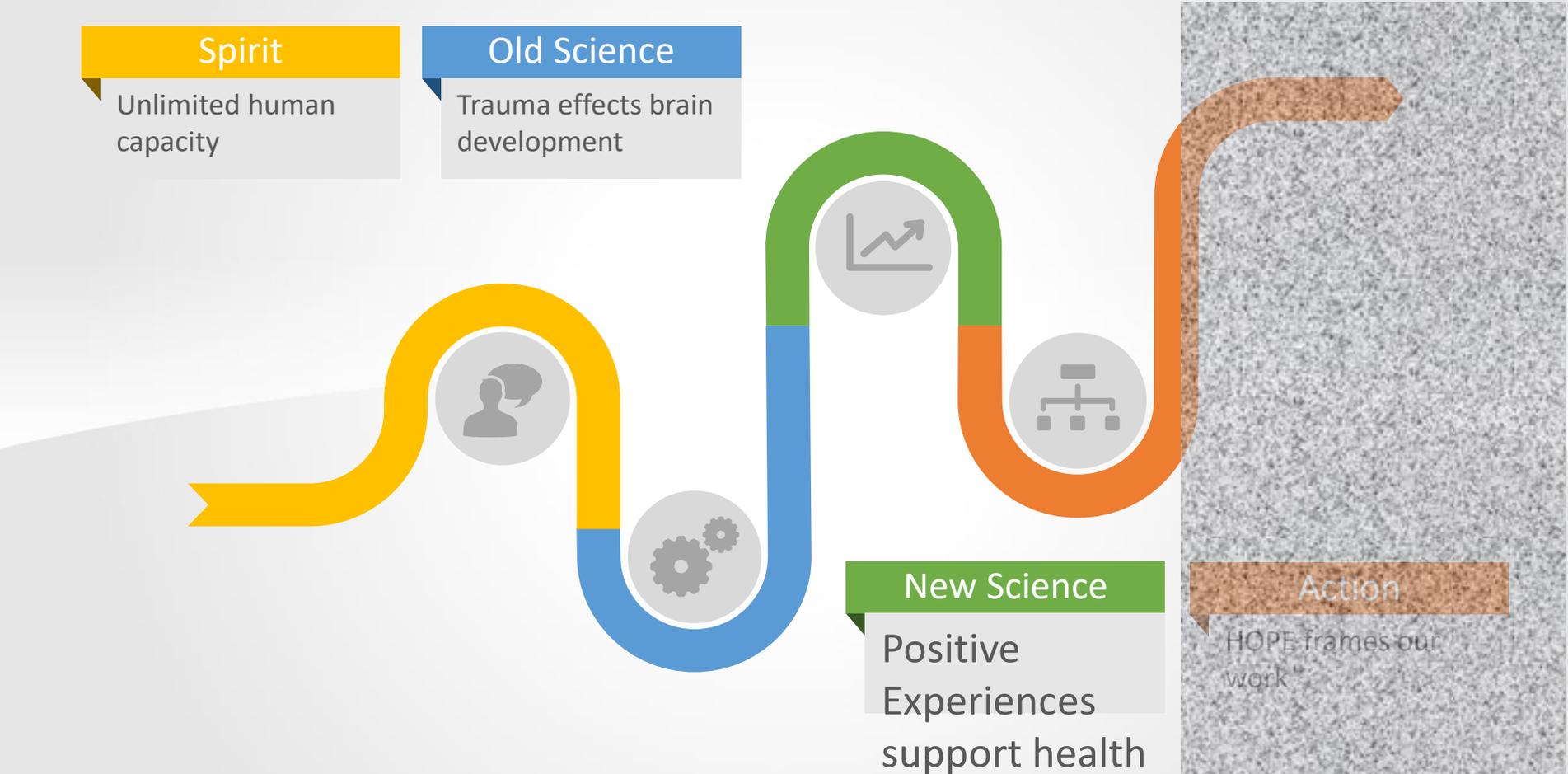
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We studied PCEs just like ACEs



NEW

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



ACEs are only part of the picture

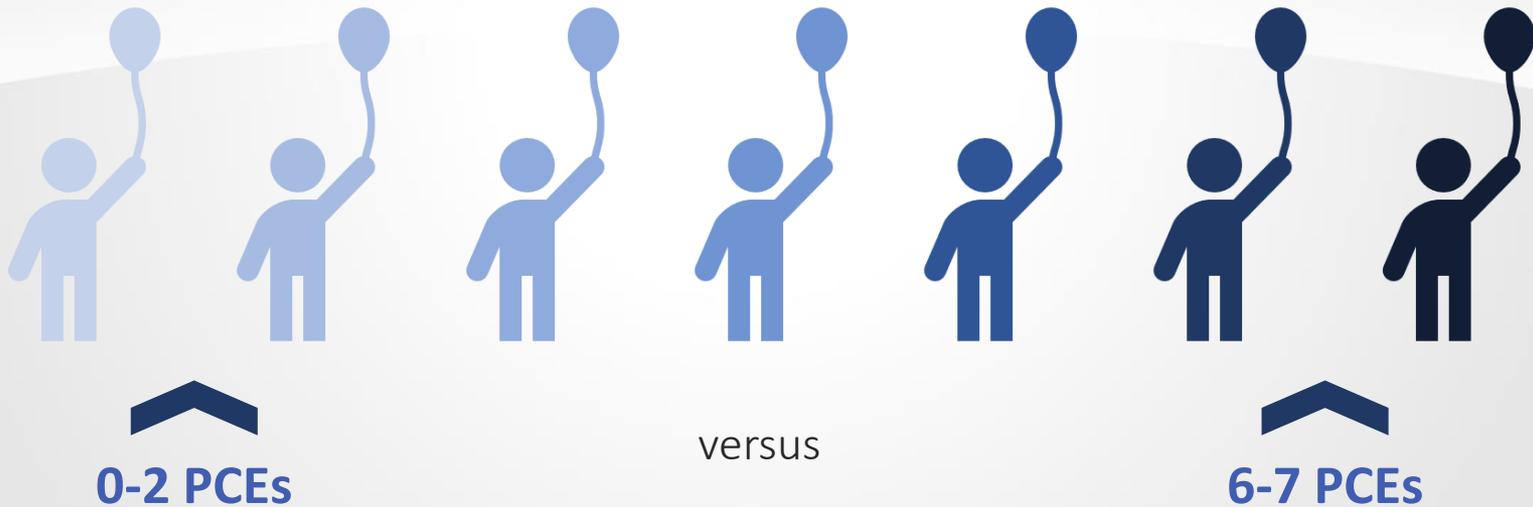
- Many people with 4+ ACEs are OK
- Other experiences affect the brain
- Do positive experiences affect outcomes?

Positive Childhood Experiences (PCEs) Protect Adult Mental Health



72% less adult depression or poor mental health

48% v. 12.6%, OR 0.28; 95% CI 0.21-0.39



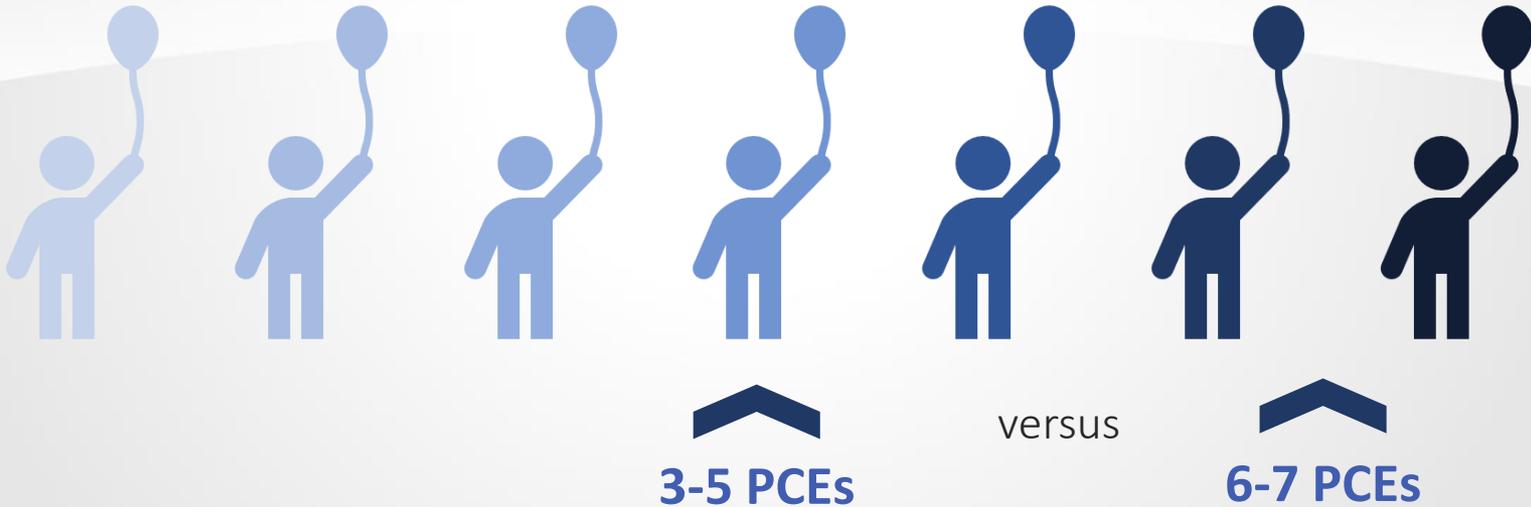
Bethell , Jones, Gombojav Linkenbach and Sege. *Positive Childhood Experiences* . . . JAMA Pediatrics 2019

Positive Childhood Experiences Protect Adult Mental Health



50% less adult depression or poor mental health

25% v. 13%, OR 0.50; 95% CI 0.36-0.69





Differences in reported adult depression or poor mental health were **similar in magnitude** regardless of the number of reported ACEs



Adults reporting more PCEs were more likely to report *always* receiving social and emotional support

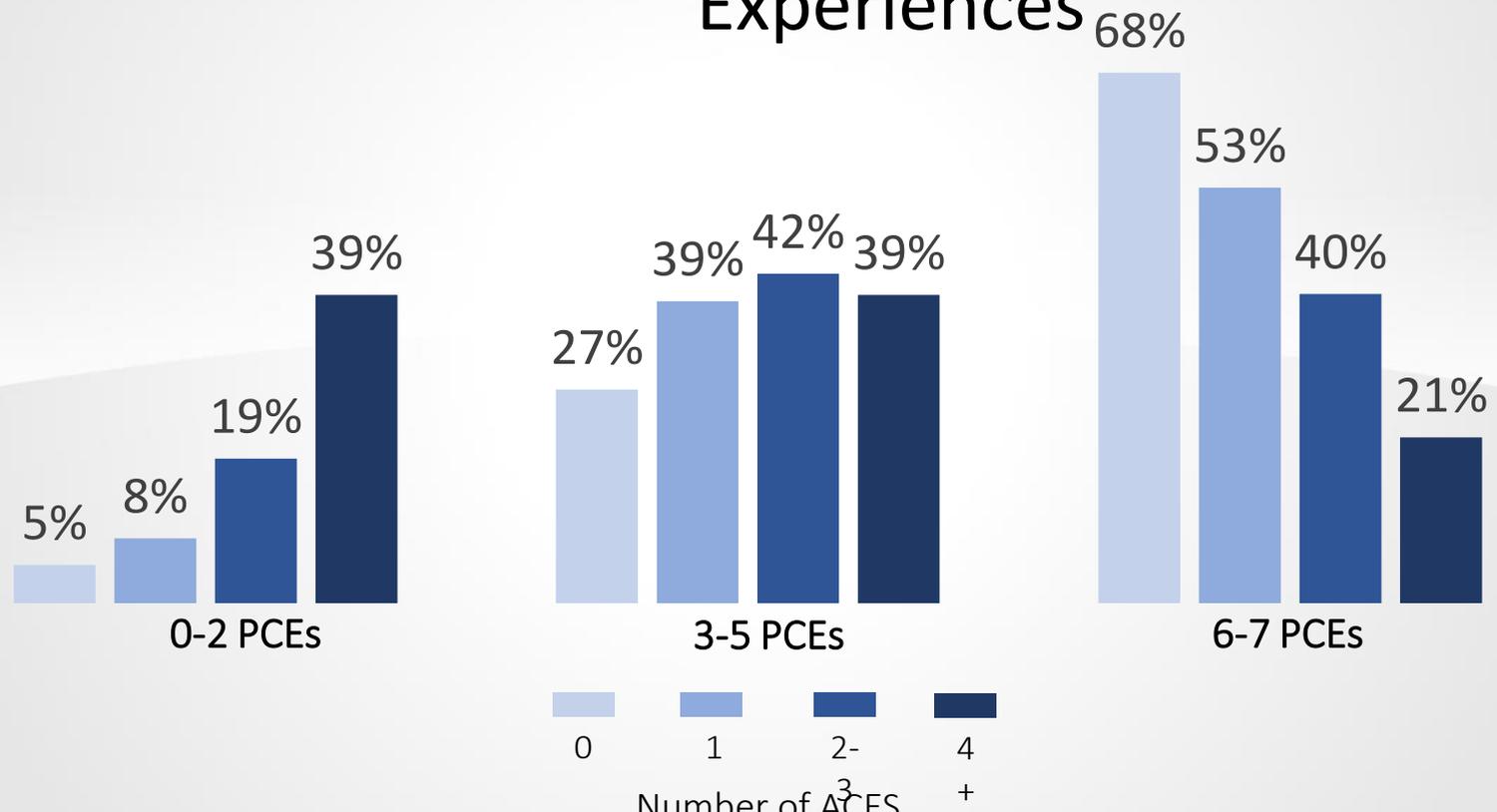
aOR 3.53; 95% CI 2.60-4.80



How do PCEs and ACEs interact?

- Can people have both positive and adverse childhood experiences?
- Can PCEs mitigate the effects of ACEs?

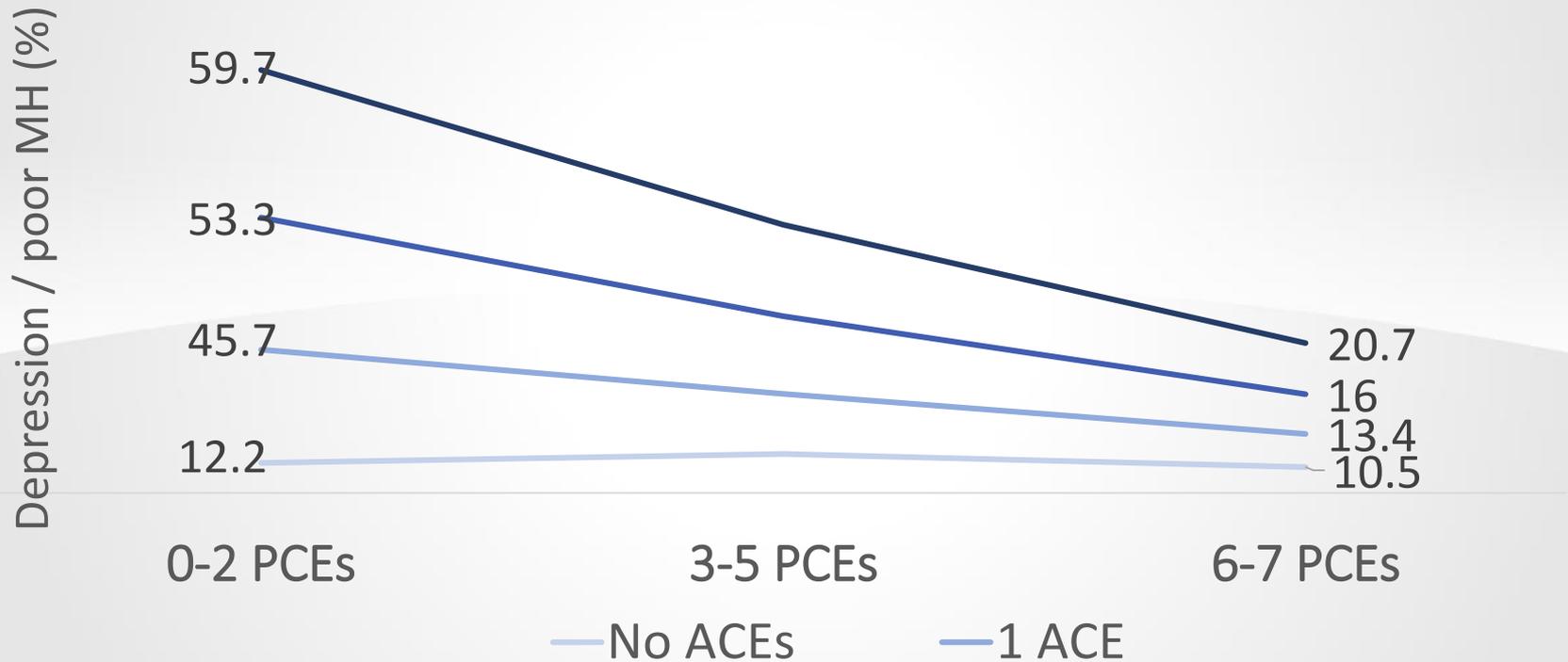
Recall of *both* Positive and Adverse Childhood Experiences

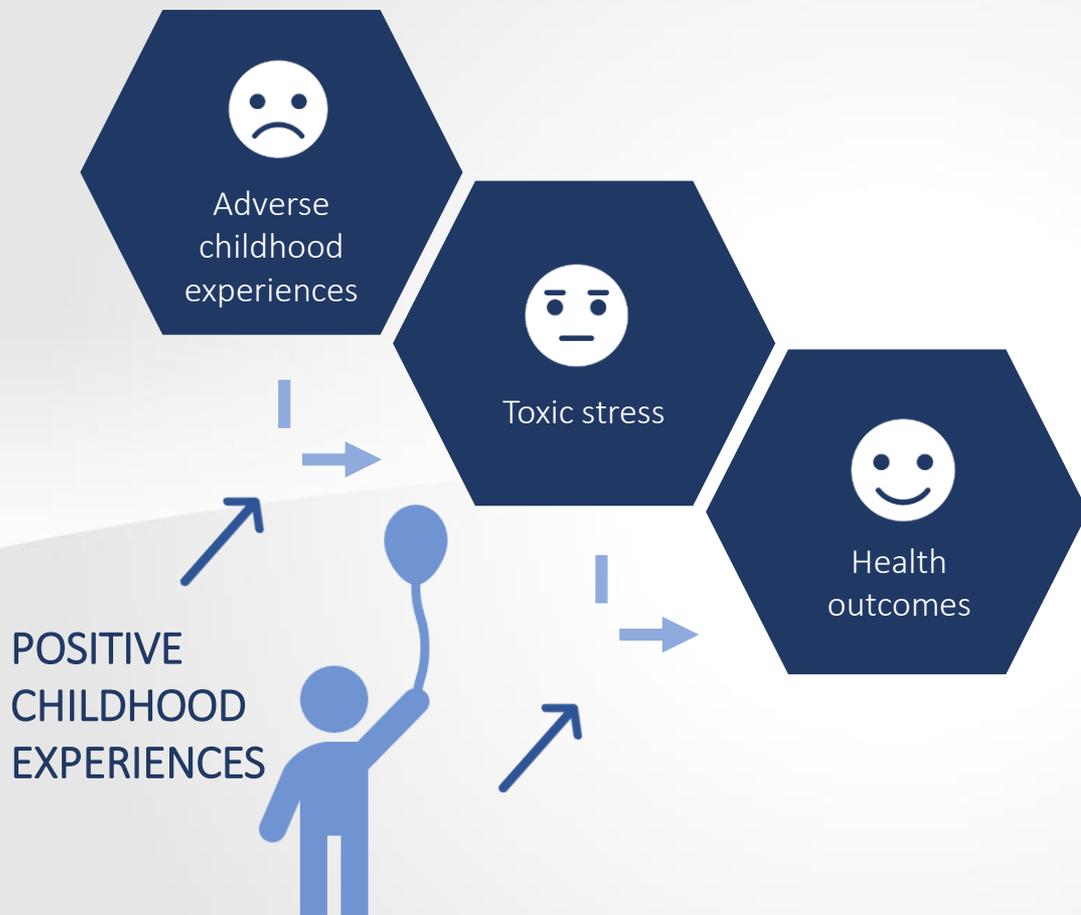


Bethell , Jones, Gombojav Linkenbach and Sege. *Positive Childhood Experiences . . .* JAMA Pediatrics 2019



Positive Childhood Experiences Mitigate ACEs Effects



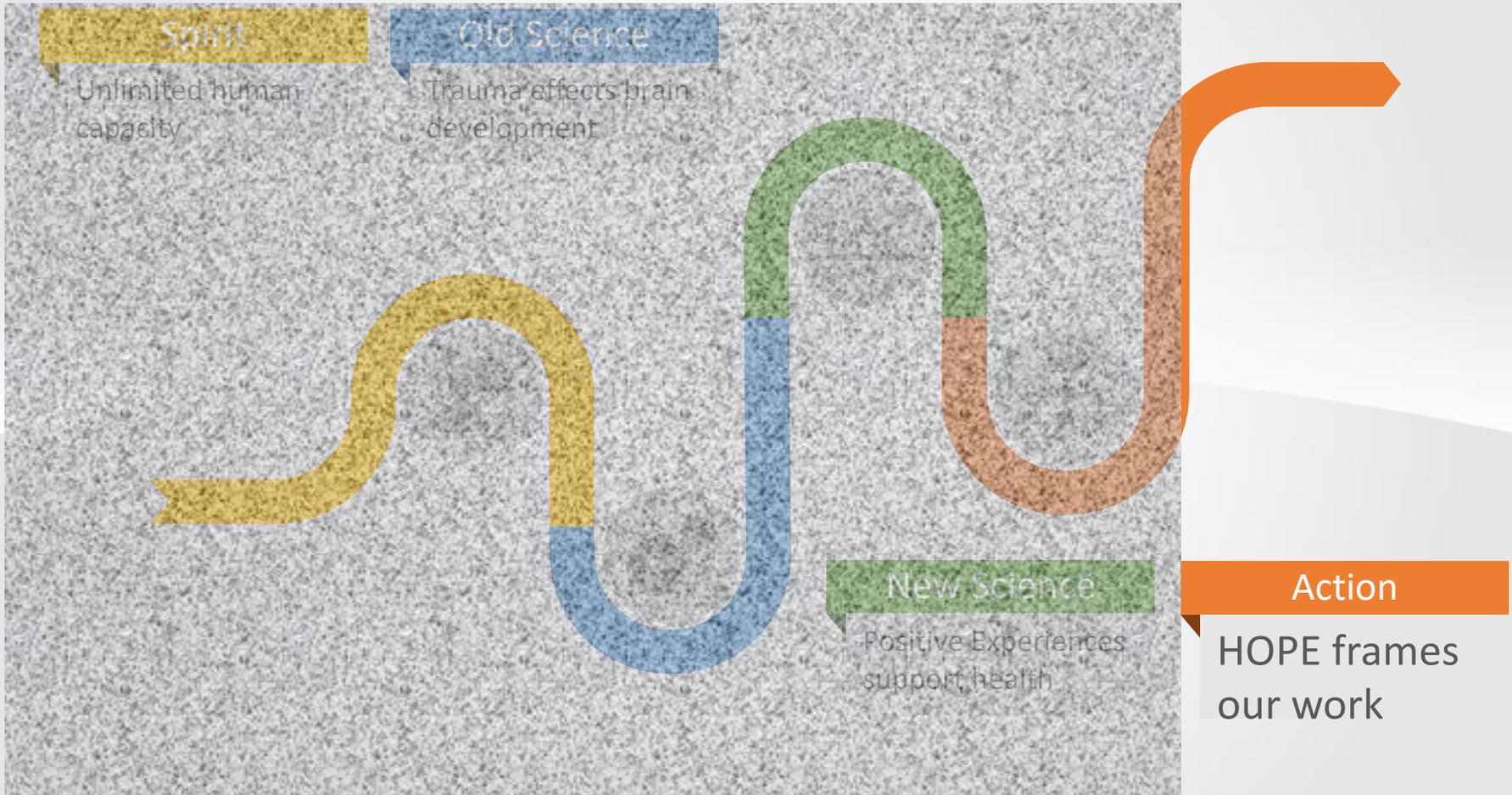


Bethell , Jones, Gombojav Linkenbach and Sege. *Positive Childhood Experiences* . . . JAMA Pediatrics 2019

Summary: PCEs protect adult mental health

- Positive childhood experience mitigate the effects of ACEs and prevent toxic stress
- Positive childhood experiences promote healing and recovery

Experience Shapes Human Brain Development



Four Pillars of HOPE

Relationship



Environment



Engagement



Social Emotional Learning



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

The four pillars of HOPE

1. **Being** in nurturing supportive relationships



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

Pillars of HOPE – BEING in supportive relationships

BEING in supportive relationships

Infants learn about love – parents *create memories of supportive relationships*

Adolescents learn about friendship, group dynamics, and love / romance / sex

Adults who care about teens can make a difference

- **Resources:**

- [Healthychildren.org](https://www.healthychildren.org)
- <https://www.cdc.gov/parents/essentials/>

The four pillars of HOPE

1. **Being** in nurturing supportive relationships
2. **Living, playing, and learning** in safe, stable, protective and equitable environments



- **Parks, rec centers, and other safe spaces for play**
- **Equitable support for high quality education**
- **Positive school environments**

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The four pillars of HOPE

1. **Being** in nurturing supportive relationships
2. **Living, playing, and learning** in safe, stable, protective and equitable environments
3. **Engaging** in constructive social / civic activities that develop a sense of connectedness
4. **Developing** social and emotional competencies

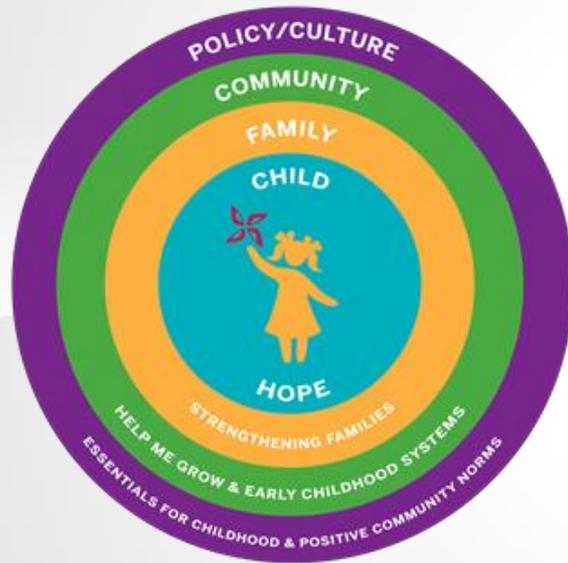


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Summary: The 4 pillars of HOPE

- **Being** in nurturing supportive relationships
- **Living, playing, and learning** in safe, stable, protective and equitable environments
- **Engaging** in constructive social / civic activities that develop a sense of connectedness
- **Developing** social and emotional competencies

HOPE in context



Individual - HOPE

Family - The Strengthening Families Approach

Community - Education, childcare, home visiting

Norms and Policies - Essentials for Childhood, paid family leave,



Bringing HOPE into our work

1. Intake / assessment
2. Creating positive experiences
3. Bringing out the positive
4. Evaluation



Reflections of HOPE – Healthy Outcomes from Positive Experiences



HOPE Conquers ACES

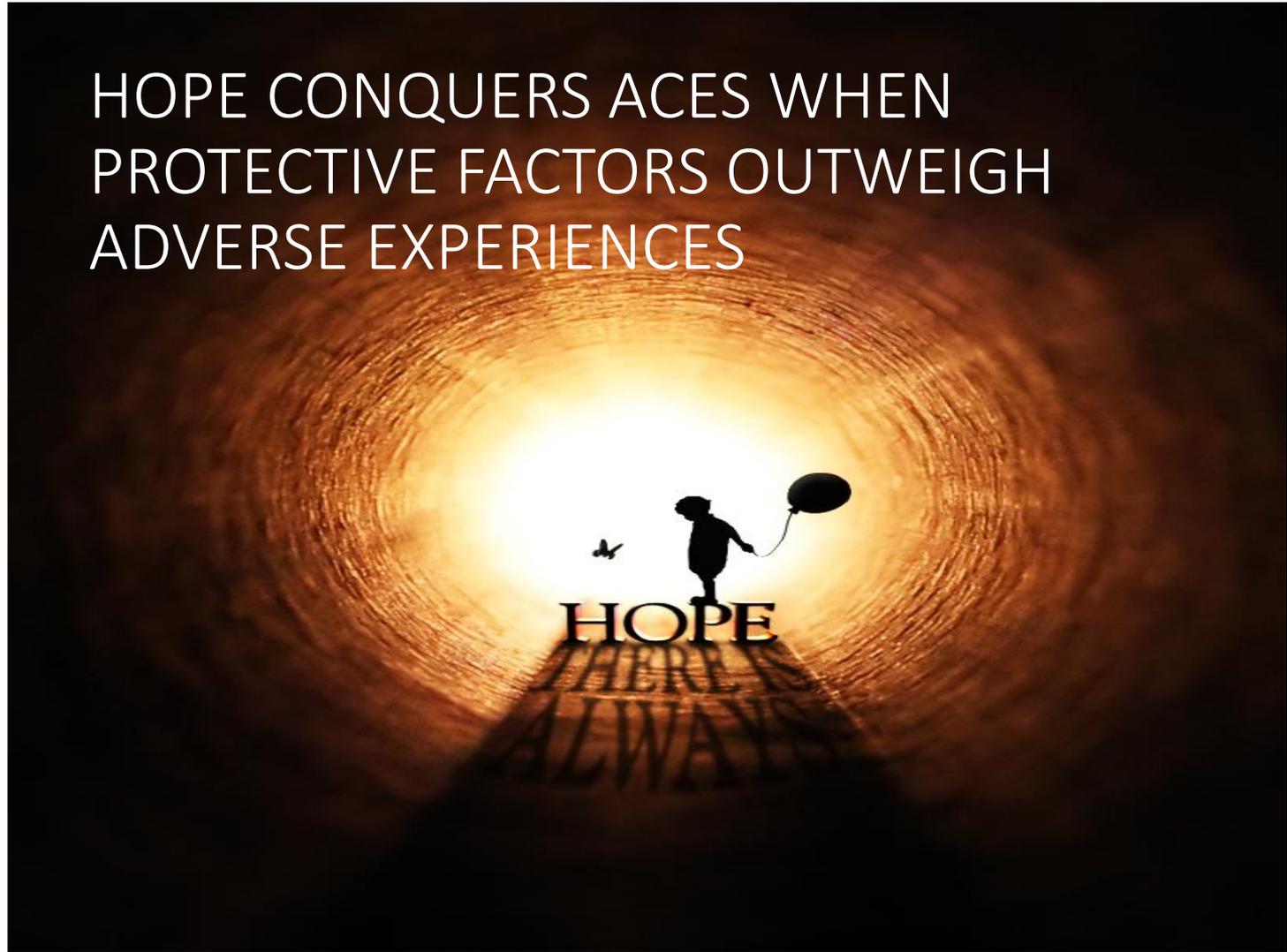
Explore the interplay of Adverse Childhood Experiences, human development and the power of positive relationships.

HOPE=

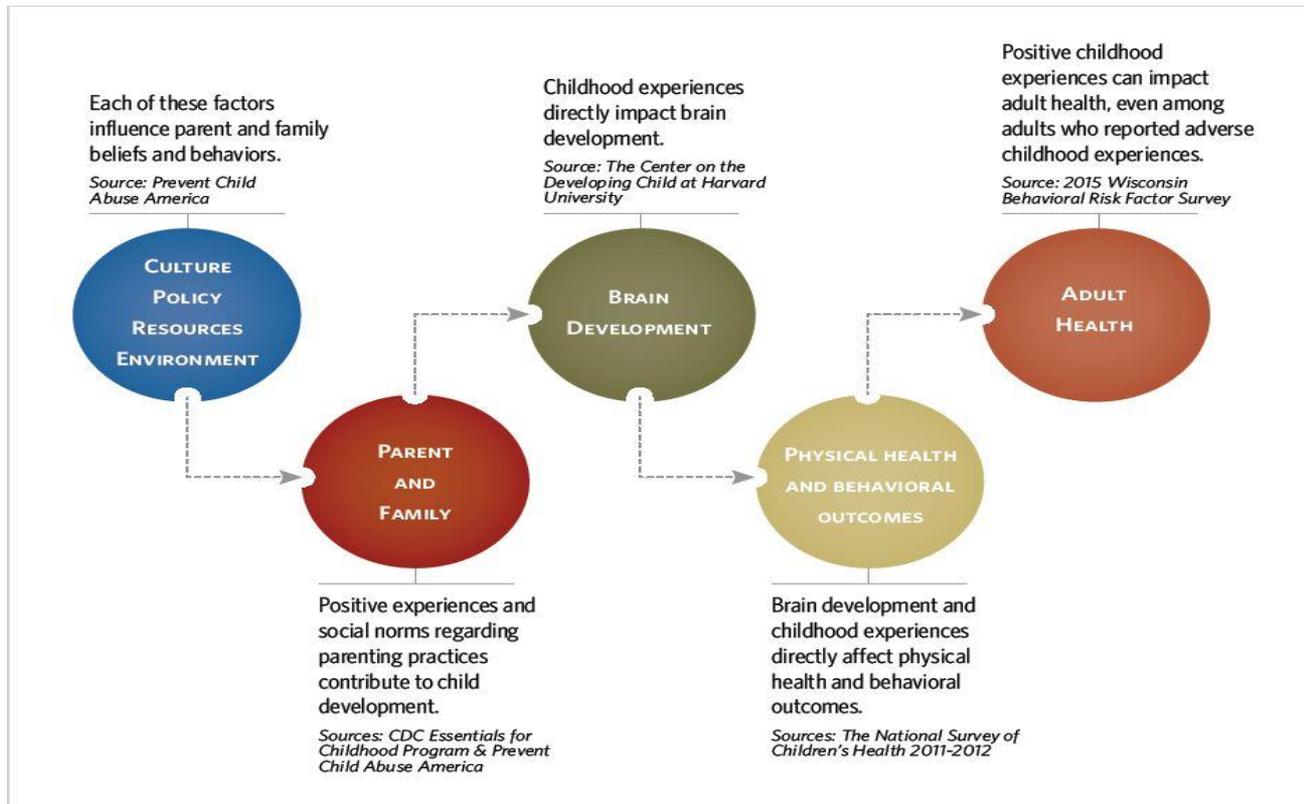


Health
Outcomes from
Positive
Experiences

HOPE CONQUERS ACES WHEN
PROTECTIVE FACTORS OUTWEIGH
ADVERSE EXPERIENCES



Positive experiences can help moderate the effects of ACES



Positive Childhood Experiences in HOPE Framework

Being in
nurturing,
supportive
relationships*



*

Protective Factors: Parental resilience and social connections, knowledge of parenting and child development

Positive Childhood Experiences in HOPE Framework



**Living, developing,
playing, and
learning in safe,
stable, protective,
and equitable
environments***

*** Protective factor: Concrete supports**

Positive Childhood Experiences in HOPE Framework

Having opportunities for constructive social engagement and to develop a sense of connectedness*



*Protective Factor: Social connections

Positive Childhood Experiences in HOPE Framework

Learning social
and emotional
competencies*



*Protective Factor: Social and emotional competence

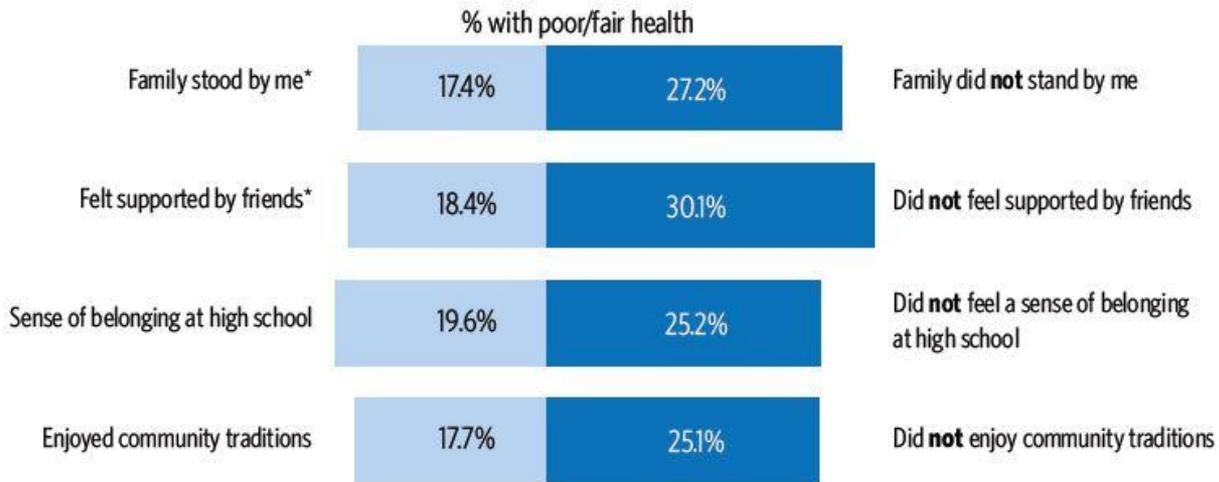


Positive experiences that greatly impact the outcomes for individuals with 4+ ACES

- **Feeling that your family stood by you in hard times**
- **Having someone to talk with about difficult feelings**

Factors That Moderate the Effects of More Than 3 ACEs on Adult Health

Adults with >3 ACEs AND selected positive childhood experiences had **lower** rates of **poor/fair health**. (*=p<0.05)



Additional Factors that Moderate ACES

- Excellent physical and mental health of the mother
- Protective home environments
- Having neighborhoods that are protective and safe



Family norms related to sharing meals, spending time together and parents participating in child's activities, limiting television and household exposure to smoke, etc.

Share H.O.P.E.

Be The Change

- *Ask* students if they feel nurtured and supported at school
- *Ask* students if they feel connected
- *Ask* students if they feel like they belong
- *Be* someone to talk with about difficult feelings; ask for help if you don't know how

Carry the Conversation

- *Evaluate* your school through this lens:
*Safe /Stable /Protective/
Equitable*
- *Capitalize* on existing avenues for constructive social engagement
- *Create* expectations for each other
- *Offer* professional development
- *Share* results