



**Building Self-Healing Communities**

**ACE Interface**

**UNDERSTANDING**  
Adverse Childhood Experiences

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**Building Self-Healing Communities**

**ACE Interface**

**Understanding**  
**N. E. A. R.**

Neuroscience  
Epigenetics  
Adverse Childhood Experiences  
Resilience

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**Objectives**

**PARTICIPANTS WILL**

- » Understand the basic biological foundation of ACES
- » Be able to explain key elements of the ACE Score (i.e. dose response, highly inter-related, etc.)
- » Be able to identify the three core protective systems
- » Identify personal action steps

ACE Interface © 2016

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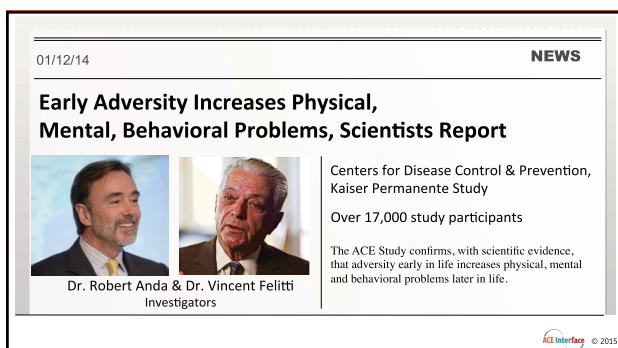
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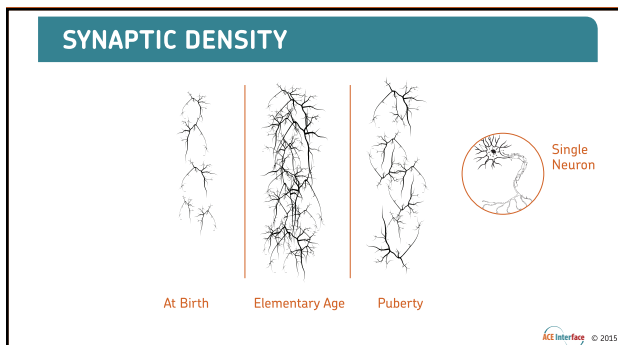
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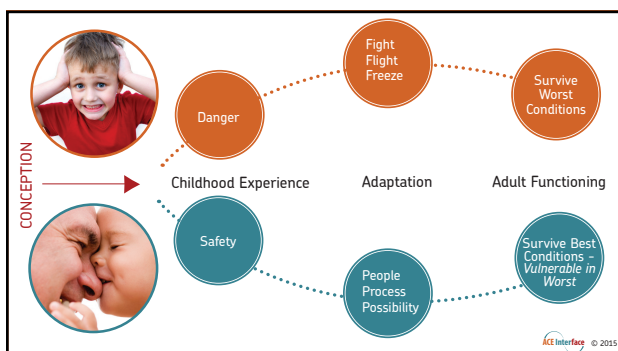
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### EFFECTS OF MALTREATMENT



type of maltreatment

**GENDER**

**A G E**

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EXPERIENCE & ADAPTATION  
sensitive periods  
**Cause-Effect**



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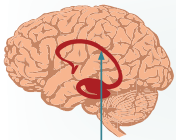
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### THE LIMBIC SYSTEM



LIMBIC SYSTEM

**FIGHT**

**or**

**FLIGHT**

vital for

LEARNING

MEMORY

REWARD

REINFORCEMENT

regulates

HORMONES

MOOD

HEARTBEAT

SEXUAL BEHAVIOR

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### THE HIPPOCAMPUS AND AMYGDALA



Amygdala      Hippocampus

Panic & Fear | Attention | Memory | Social Cues

VITAL for RELATIONSHIPS

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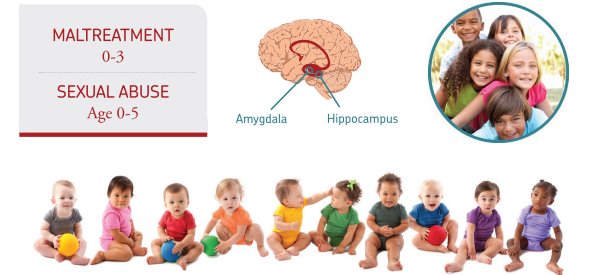
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### MALTREATMENT 0-3

### SEXUAL ABUSE Age 0-5



Amygdala      Hippocampus

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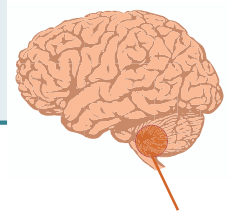
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### POSITIVE FEELINGS

Perception

### Attention



### Cerebellar Vermis

### ADDICTION

Attention Problems

### Mental Illness

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**Cerebellar Vermis**  
**BIOLOGICAL CONNECTIONS**  
 between trauma-induced adaptations in the Vermis  
 — and —  
 serious and persistent  
**MENTAL ILLNESS**

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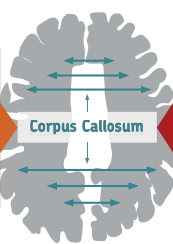
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**The Corpus Callosum**



**LEFT HEMISPHERE**

Spatial Patterns  
 Math Calculation & Fact Retrieval  
 Grammar & Vocabulary  
 Processing Routine Situations

**RIGHT HEMISPHERE**

Visual & Auditory Processing  
 Prosodic Language  
 Facial Perception  
 Processing Novel Situations

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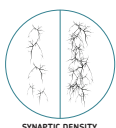
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♂ **NEGLECT**  
in  
Infancy


♀ **SEXUAL ABUSE**  
Age 9-10

At Birth



Elementary Age

SYNAPTIC DENSITY



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ACE Interflec © 2015

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### Bullying

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### Trauma-Informed School Discipline

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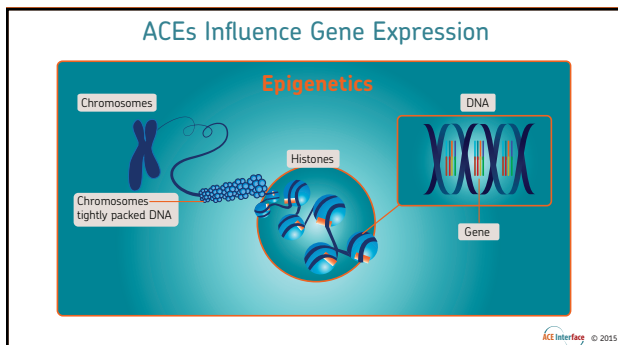
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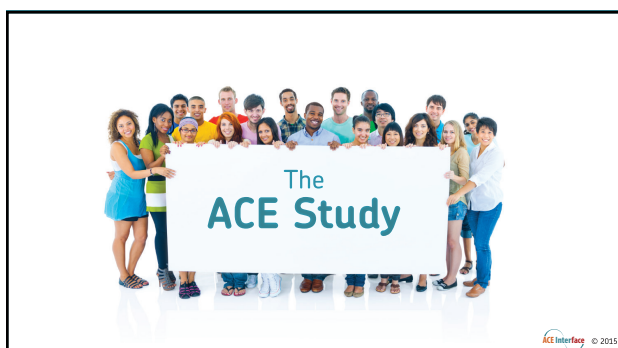
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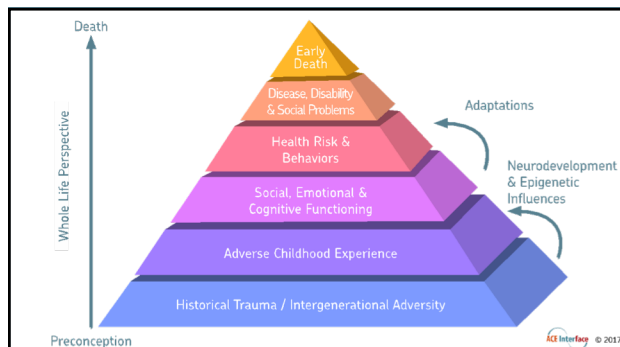
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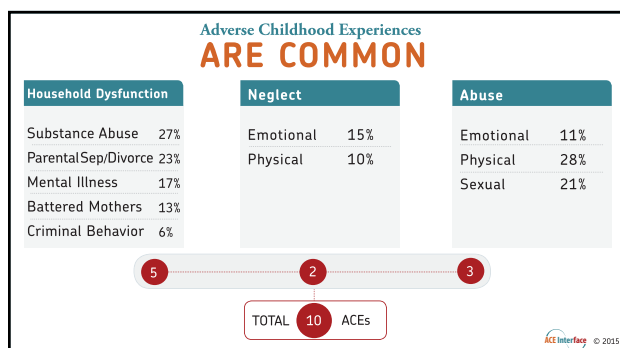
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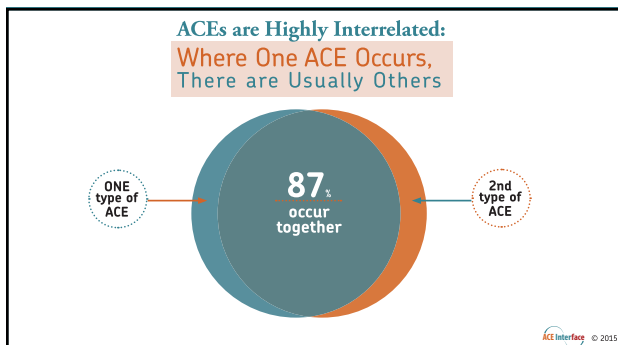
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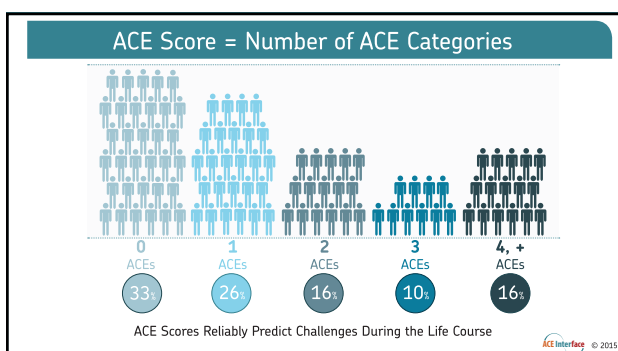
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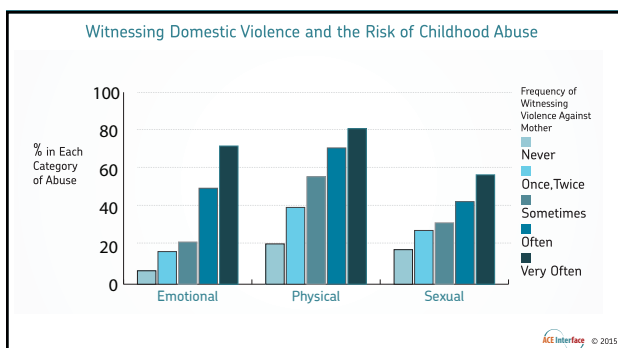
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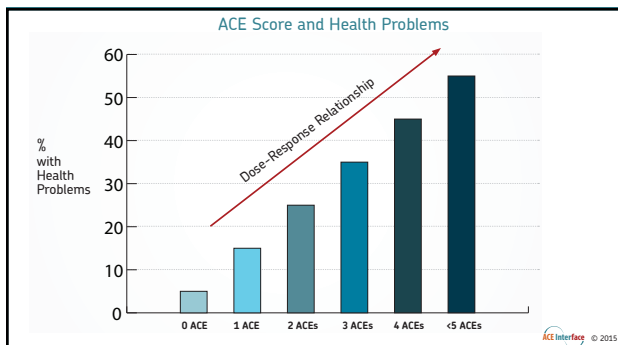
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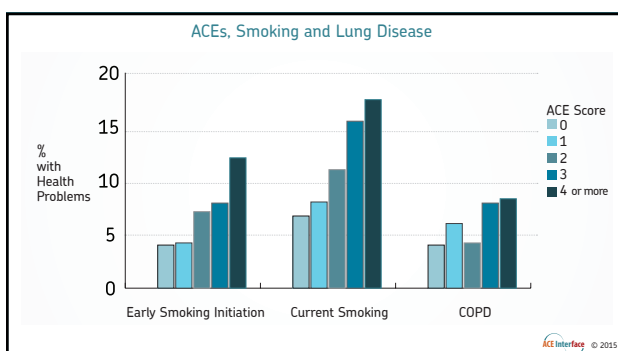
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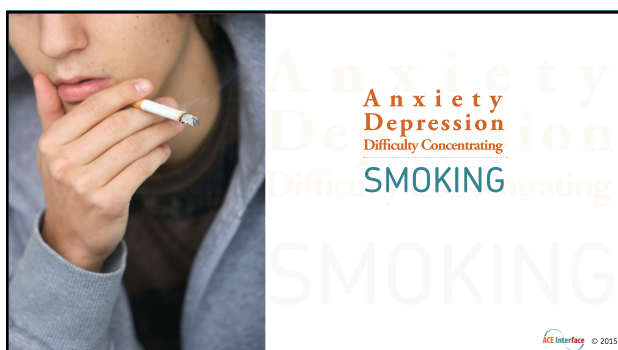
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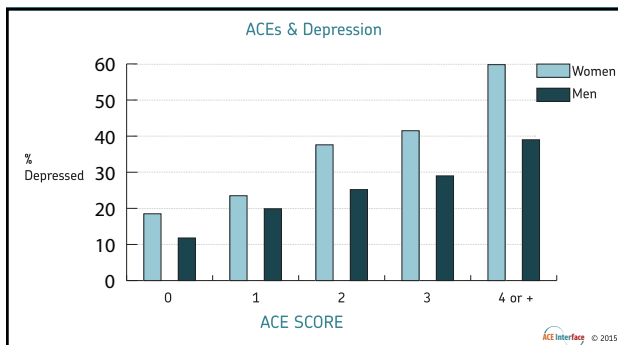
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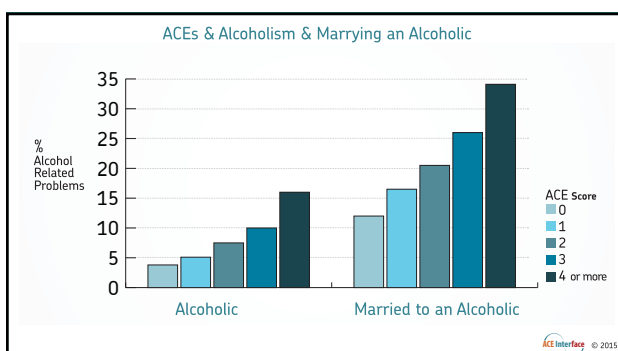
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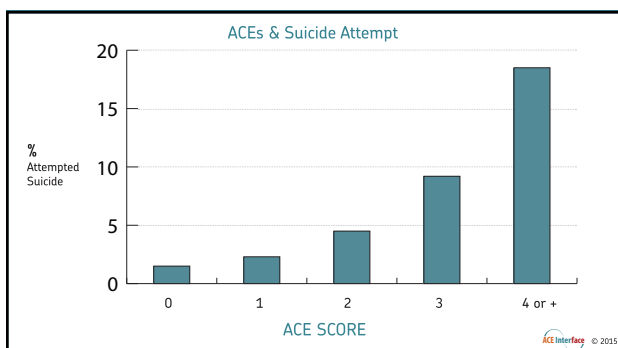
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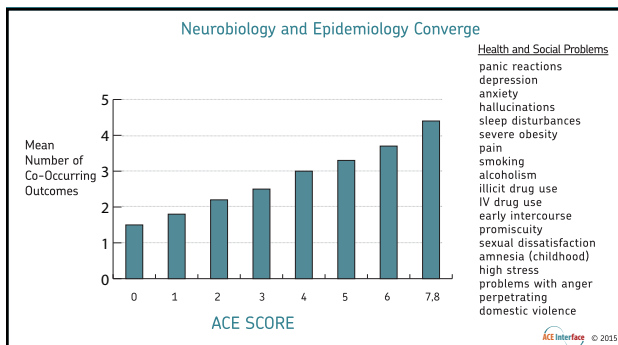
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EXAMPLES OF ACE-ATTRIBUTABLE PROBLEMS

Alcoholism & Alcohol Abuse	Liver Disease
Chronic Obstructive Pulmonary Disease	Mental Health Problems
Coronary Heart Disease	Obesity
Depression	Sexual Behavior Problems
Drug Abuse & Illicit Drug Use	Smoking
Fetal Death	Unintended Pregnancy
Intimate Partner Violence	Violence
	Workplace Problems

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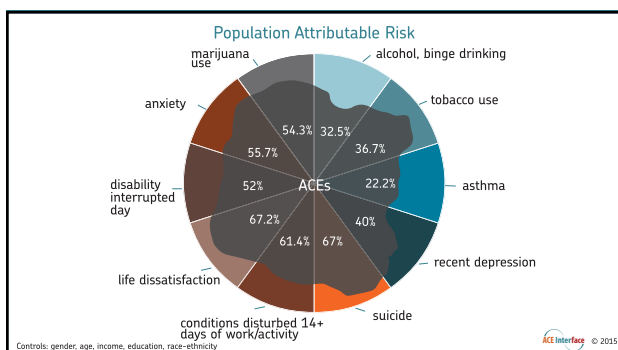
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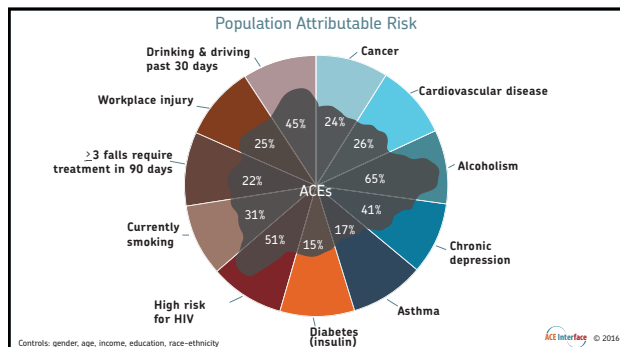
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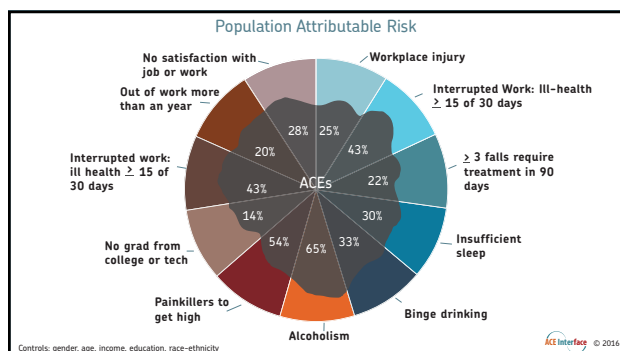
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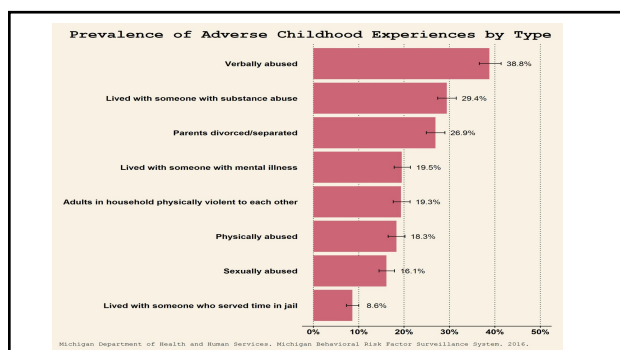
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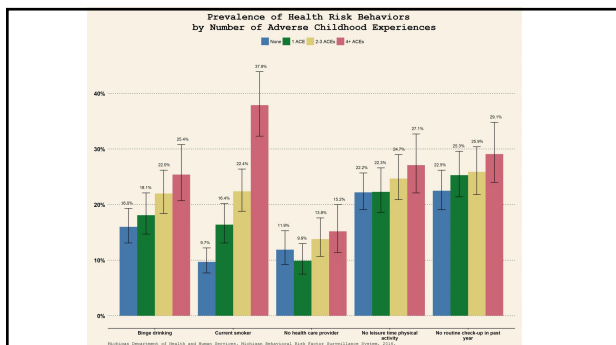
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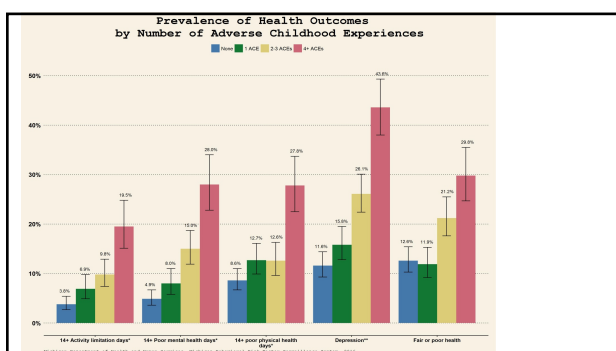
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How are you feeling about information shared related to the ACE study?



© 2014

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**Four Resilience Factors that Make a Difference**  
*They are even more powerful when we Layer Up...*

1. Feeling social/emotional support and hope
2. Having 2 or More People Who Help (two or more people who give concrete help when needed)
3. Community reciprocity in watching out for children, intervening when they are in trouble, doing favors for one another
4. Social Bridging - People reach outside their social circle to get help for their family and friends

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Support

FEELING

socially & emotionally

SUPPORTED

&

HOPEFUL

... Always or Usually

(vs Rarely or Never)

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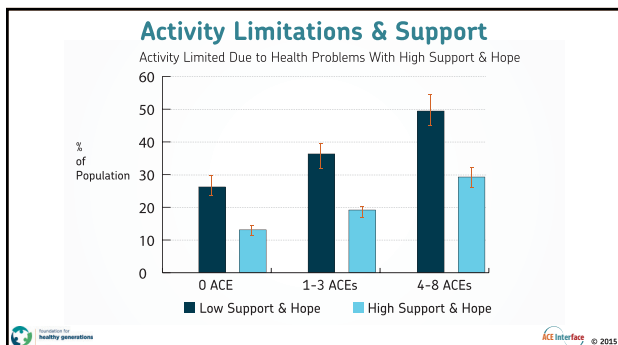
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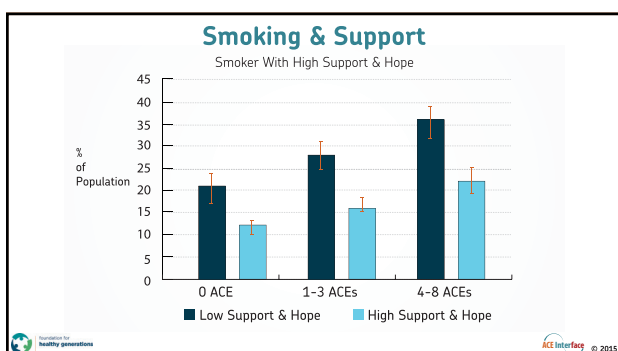
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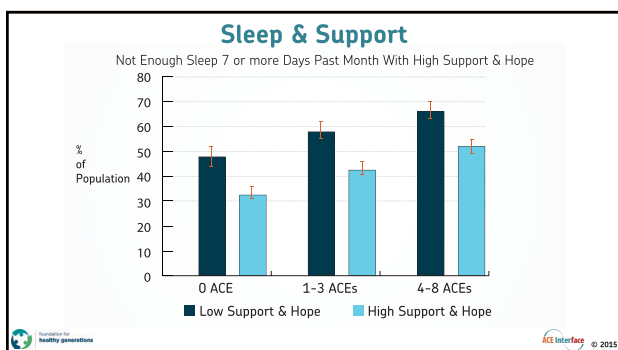
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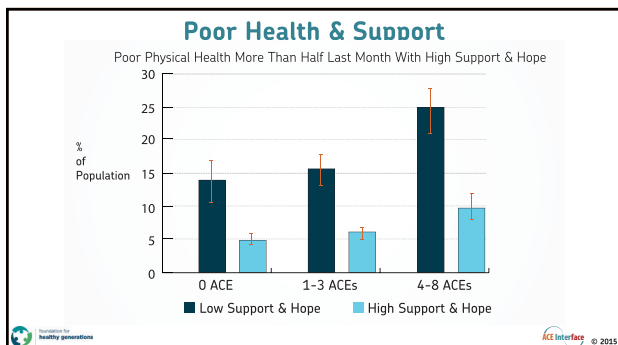
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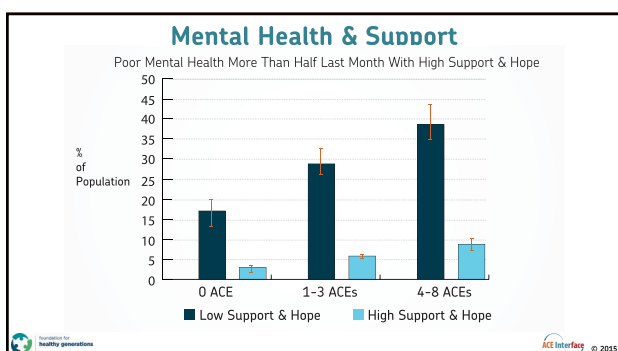
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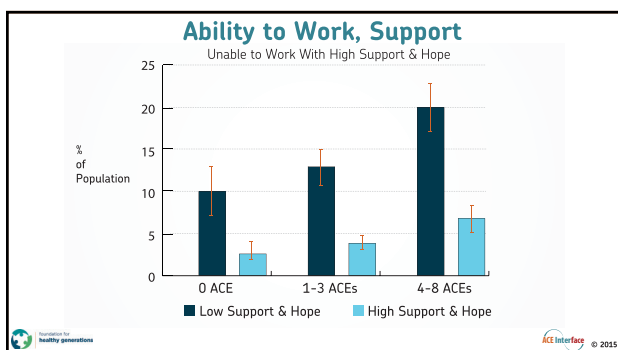
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### HELP

Having two or more people who give concrete help when needed

Foundation for healthy generations ACE InterStep © 2015

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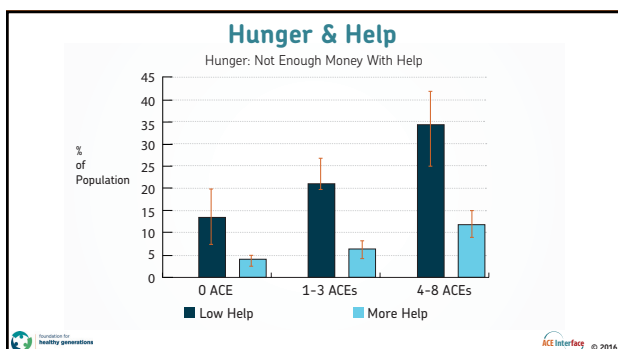
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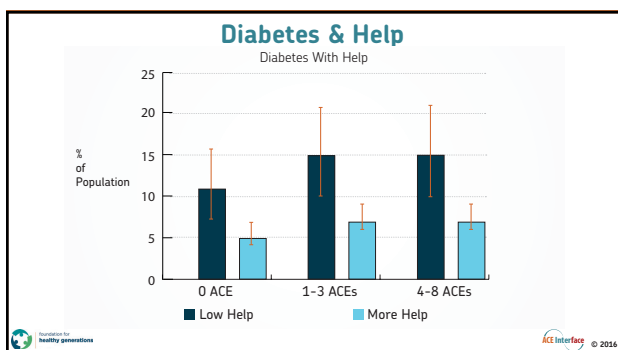
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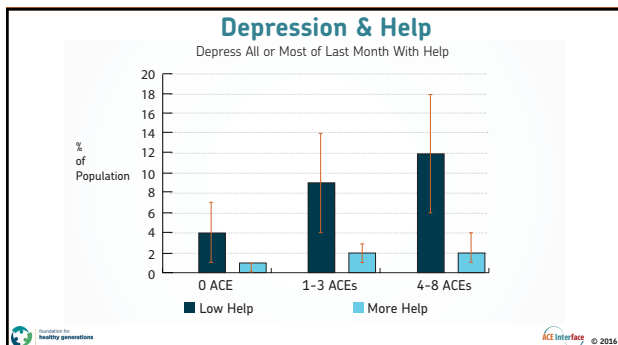
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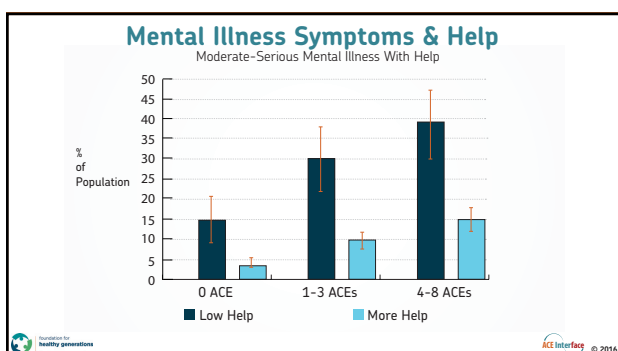
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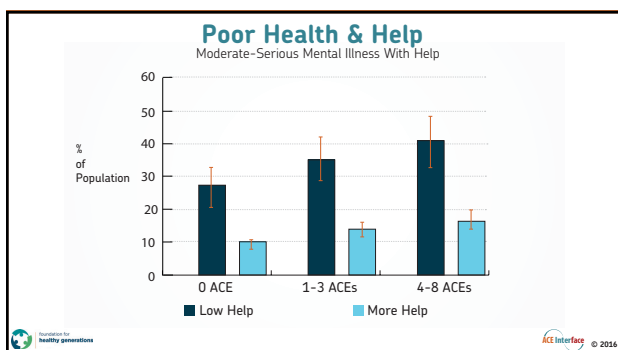
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### Community Resilience

**Community Reciprocity**

watching out for children, intervening when they are in trouble, and doing favors for one another



**Social Bridging**

reaching outside one's immediate circle of friends to recruit help for someone inside that circle.




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### Reciprocity & Bridging

Better Rates:



Obesity

Mental Illness Symptoms

Alcohol Consumption among Women

Physical Activity

Happiness

Worry about Money for Rent

Having A Primary Care Physician

Experiencing Housing Instability

Being Hungry Because of No Money




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### Core Protective Systems



Capabilities

Attachment & Belonging

Community Culture Spirituality

“Nurturing the healthy development of these protective systems affords the most important preparation or ‘inoculation’ for overcoming potential threats and adversities in human development. Similarly, damage or destruction of these systems has dire consequences for the positive adaptive capacity of individuals.”

*Ann Masten, 2009*

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Attachment & Belonging

RELATIONSHIPS  
with caring and competent  
**people are**  
—VITAL—  
contributors to  
resilience & recovery




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Individual Capabilities



**Positive**  
view lets me know I am  
important and valuable

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Self-Efficacy



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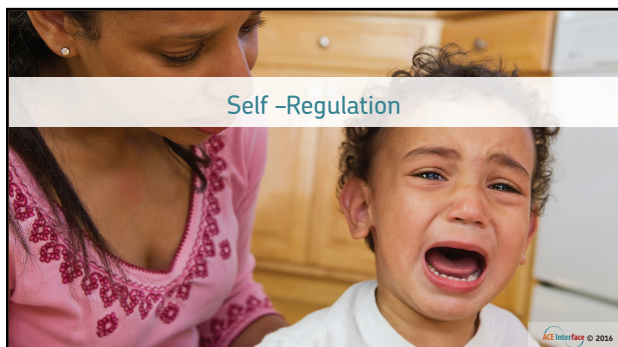
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**Psychological Safety & Self-regulation**

**Activate Social Engagement:**

1. Healing Power of Community Expressed in Music, Rhythm, Theatre
2. Exercise & Play
3. Practicing Connection

**Calm Physical Tensions in Body:**

1. Belly Breathing, Laughter
2. Massage, Movement, Yoga
3. Mindfulness, Reflection
4. Tapping Acupressure Points
5. Biofeedback, Neurofeedback
6. EMDR

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Community, Faith & Cultural Processes

**WE**

**foster thriving communities**

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Community Capacity Development





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Leadership Expansion

Where will **YOU** lead us




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Leadership Expansion:  
Children's Resilience Initiative



<http://resiliencetrumpsaces.org/>

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Coming Together

coming together around issues that matter





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Coming Together:  
Sanctuary Model



[www.sanctuaryweb.com](http://www.sanctuaryweb.com)

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Shared Learning



give & receive

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Shared Learning:  
Public Health Process



[www.jeffersoncountypublichealth.org/index.php?family-health-services](http://www.jeffersoncountypublichealth.org/index.php?family-health-services)

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Decision Making

WE ARE DECIDING  
to build on past successes  
and engage more people  
to help our communities  
to  
THRIVE



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Results Oriented Decision Making: Data



Not Safe at Home      Not Welcome at School

Among Adjudicated Youth with High ACE Scores, 85% were first suspended from school in second grade

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### Cultural Respect and Continuity is Vital

Reclaiming cultural ways after a time of loss is a powerful driver of well-being. "One of the first things that has to be done is to ask the community what is important to the community."

*Duran & Duran, 1995*



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*lifting* all beings

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## CHANGE is up to US



It is shaped by our thoughts, our conversations, the way we relate with one another in relationships, in families, and in communities.

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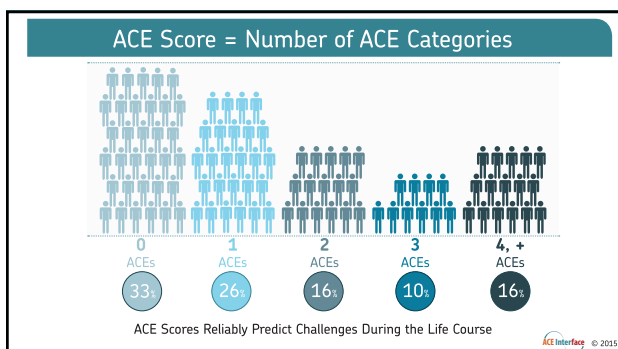
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### REVIEW

- » Brain Research
- » ACE Study
- » Resilience (core protective systems)
- » Next steps

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Building Self-Healing Communities

**Thank YOU!**

[www.aceinterface.com](http://www.aceinterface.com)

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