

100% FOR CHILDREN



Adverse Childhood Experiences

Refugee Behavioral Health Conference

August 4, 2016

Marcia Stanton, MSW

The Birth Lottery

“The family into which a child is born plays a powerful role in determining lifetime opportunities...Some kids win the lottery at birth, far too many don't — and most people have a hard time catching up over the rest of their lives.”



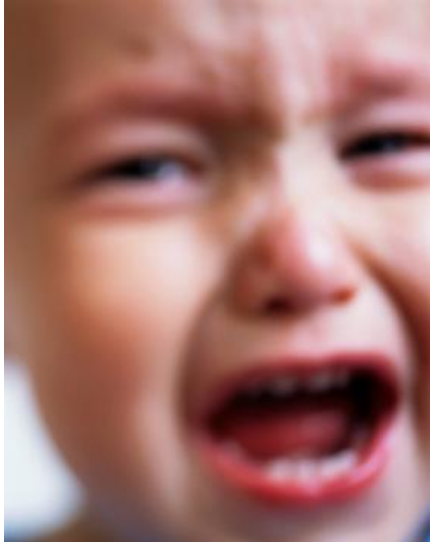
James Heckman
Nobel Laureate in Economics

Scientific Advances



- Driving a paradigm shift in understanding how child development impacts human health and disease across the lifespan

The Adverse Childhood Experiences (ACE) Study



- “Probably the most important public health study you never heard of.”
- ACEs sometimes referred to as toxic stress or childhood trauma

Science is Clear



- Toxic stress caused by ACEs can profoundly alter the otherwise healthy development of a child
- “Children’s exposure to ACEs is the **greatest unaddressed public health threat** of our time.” Dr. Robert Block, former president, American Academy of Pediatrics

Your Awareness of ACE Study?



- No Knowledge of ACE Research
- Some Knowledge
- More Than Most
- Expert

Two Categories of ACEs



1) Abuse or Neglect

- Recurrent physical abuse
- Recurrent emotional abuse
- Sexual abuse
- Emotional or physical neglect

2) Household Dysfunction

- Alcohol or drug abuser
- Incarcerated household member
- Someone chronically depressed, suicidal, institutionalized or mentally ill
- Mother being treated violently
- One or no parents

What Do ACEs Look Like?



Other Types of ACEs

- Collective Violence (war, terrorism, political or ethnic conflicts, genocide, repression, disappearance, torture, organized violent crimes, etc.)
- Homelessness
- Extreme Illness or Injury
- Growing Up in Foster Care
- Bullying



Why is This Study So Important?

ACEs are:

- Surprisingly Common
- Strong Predictors of Later Social Functioning, Well-Being, Health Risks, Disease, and Death



ACEs Revealed 5 Main Discoveries

- 1) ACEs are **common** - 64% of adults have at least 1
- 2) They contribute to chronic disease, mental illness, violence and being a victim of violence
- 3) ACEs **don't occur alone**
- 4) The **more ACEs, the greater the risk**
- 5) ACEs contribute to most major chronic health, mental health, economic health and social health issues (<http://acestoohigh.com/aces-101/>)

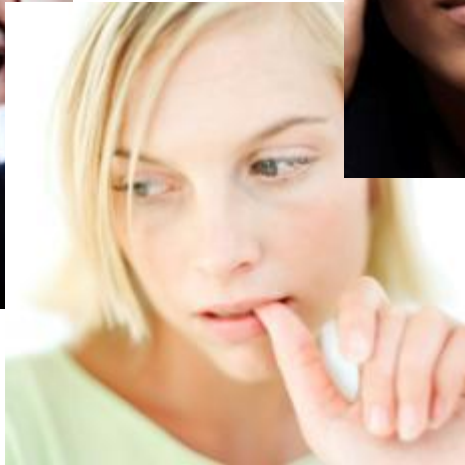


ACE Scores

- The more ACEs, the greater the risk
- People have an ACE score of 0 to 10. Each type of trauma counts as one, no matter how many times it occurs
- Think of an ACE score as a cholesterol score for childhood trauma



- **4 or more** may result in **multiple risk factors** for chronic diseases or **disease** themselves
- **6 or more** may result in a **20 year decrease** in life expectancy



ACE Score of 4

Compared with People with Zero ACEs:

- **Twice** as likely to be Smokers
- **12 times** more likely Attempt Suicide
- **Seven times** more likely Alcoholic
- **10 times** more likely Inject Street Drugs
- **240% greater** risk of Hepatitis
- **240% higher** risk Sexually-Transmitted Disease
- More likely to be **Violent**, to have more **Marriages**, more **Depression**, more **Auto-immune Diseases**, and more **Work Absences**



Physical, Mental & Behavioral Outcomes of ACEs



- Alcoholism & alcohol abuse
- Chronic obstructive pulmonary disease & ischemic heart disease
- Depression
- Fetal death
- High risk sexual activity
- Illicit drug use
- Intimate partner violence
- Liver disease
- Obesity
- Sexually transmitted disease
- Smoking
- Suicide attempts
- Unintended pregnancy

*** The higher the ACE Score, the greater the incidence of co-occurring conditions from this list.

Evidence Suggests

- Many chronic diseases in adults are determined decades earlier, by experiences in childhood
- Risk factor/ behaviors for these diseases are initiated during childhood and adolescents and continue into adult life



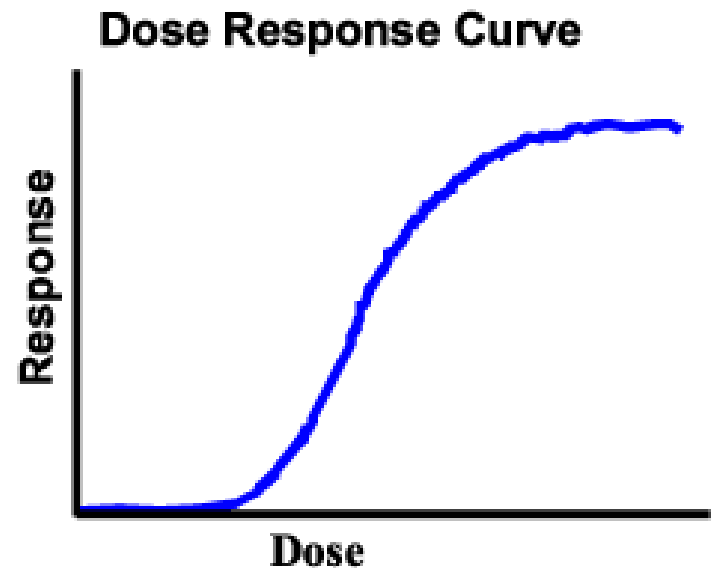
ACEs Have Cumulative Stressor Effect



It's the Number of **Different Categories**, Not Intensity or Frequency, that Determine Health Outcomes

Classic Dose Response

- ACE Study Results Show Correlation Not Causation
- There are many intervening events and variables that mediate childhood exposure and later health problems in adults.



Out of 100 people...

33%

Report No ACEs



With 0 ACEs

1 in 16 smokes

1 in 69 are alcoholic

1 in 480 use IV drugs

1 in 14 has heart disease

1 in 96 attempts suicide

51%

Report 1-3 ACEs



With 3 ACEs

1 in 9 smokes

1 in 9 are alcoholic

1 in 43 use IV drugs

1 in 7 has heart disease

1 in 10 attempts suicide

16%

Report 4-10 ACEs



With 7+ ACEs

1 in 6 smokes

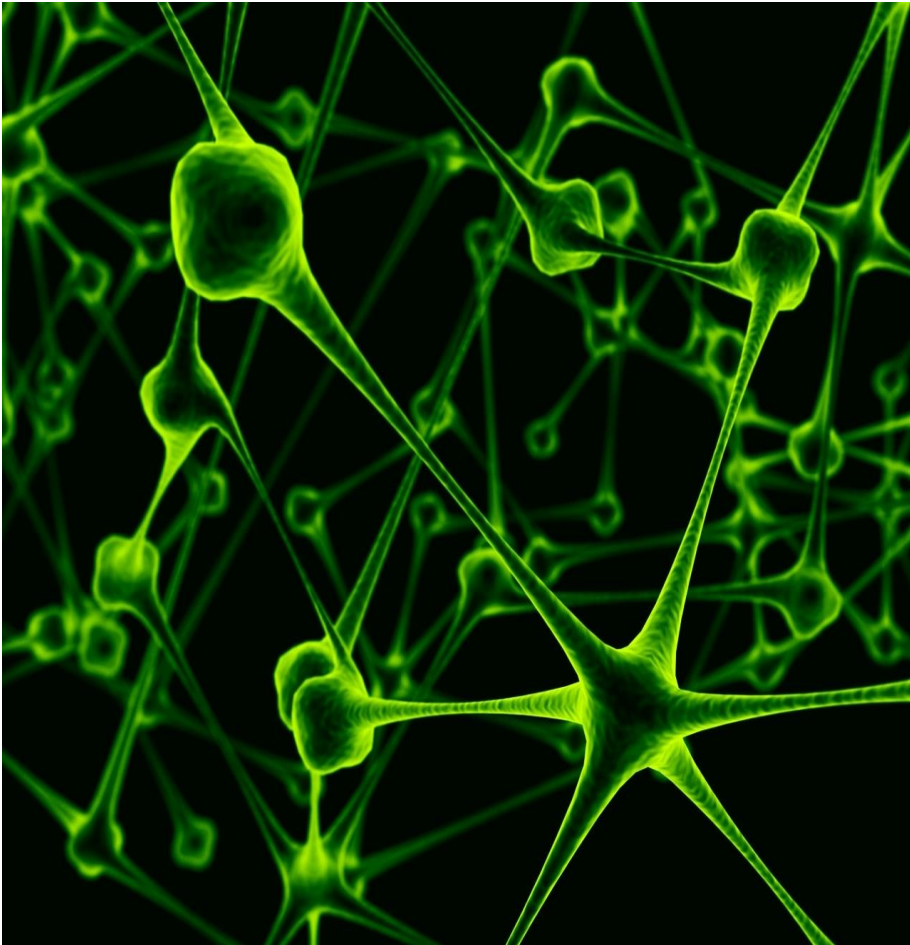
1 in 6 are alcoholic

1 in 30 use IV drugs

1 in 6 has heart disease

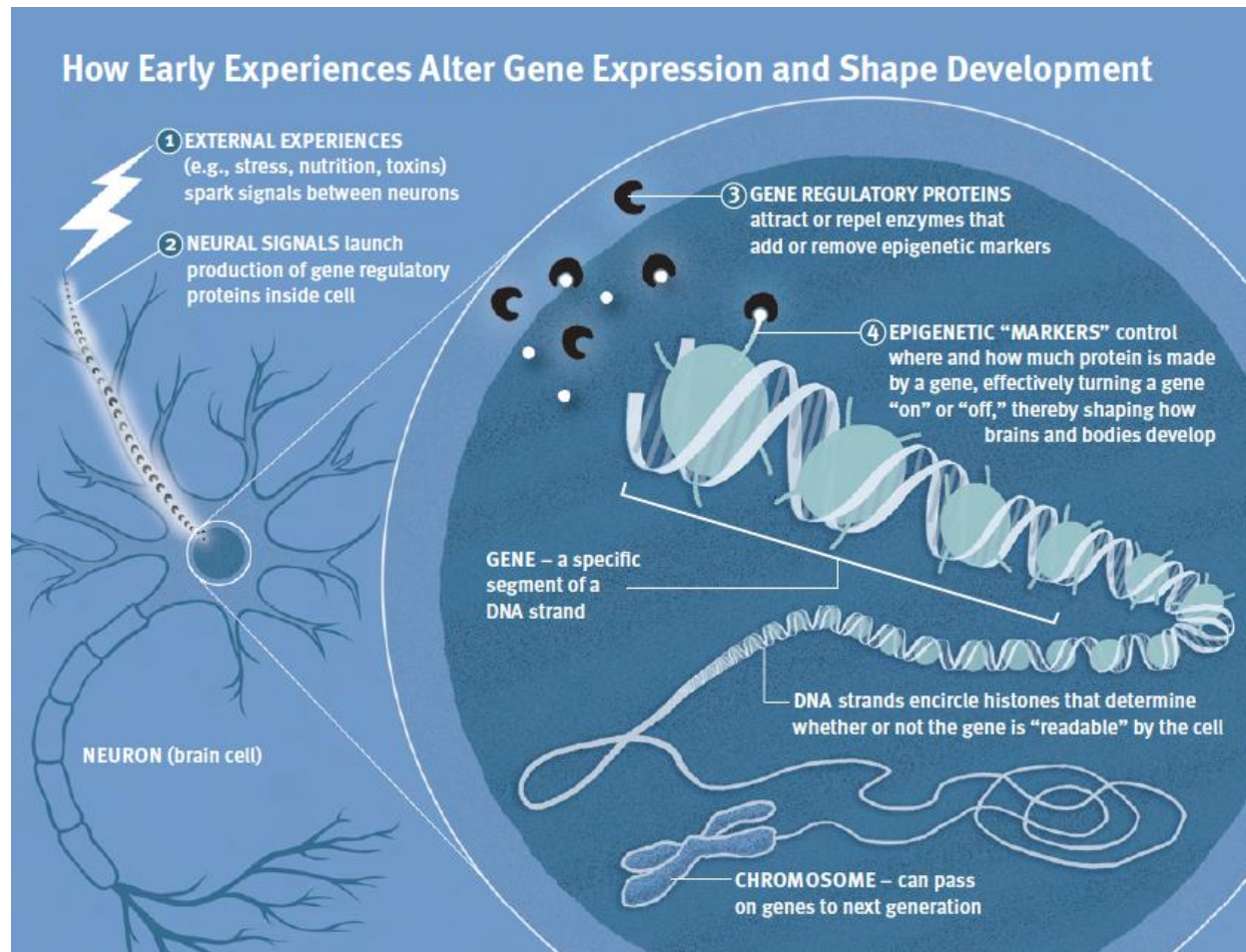
1 in 5 attempts suicide

ACEs are Interrelated and Predictive

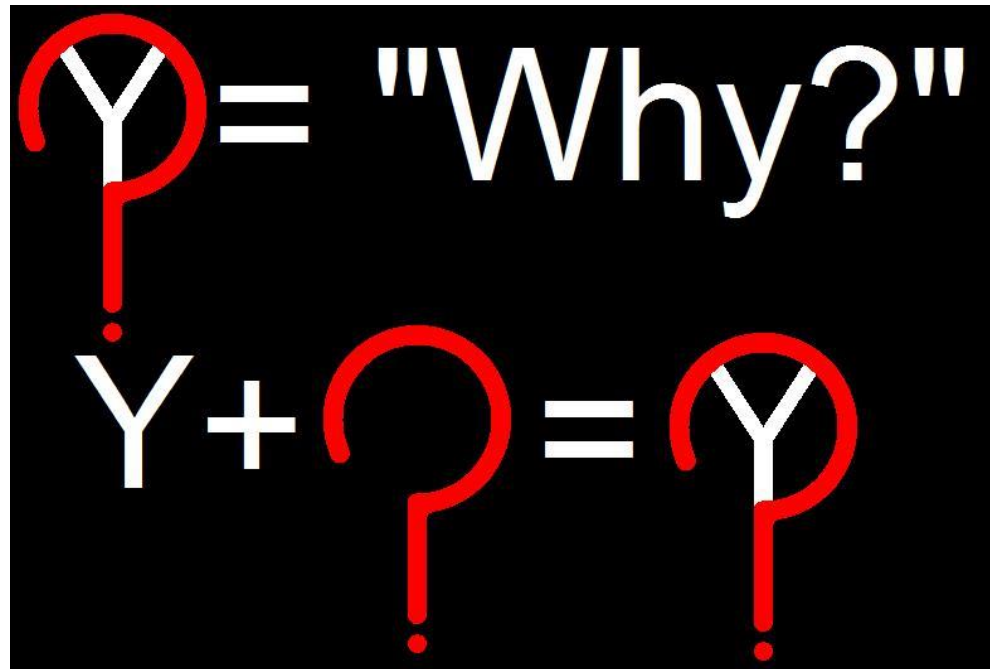


Without interruption,
ACEs escalate across
generations

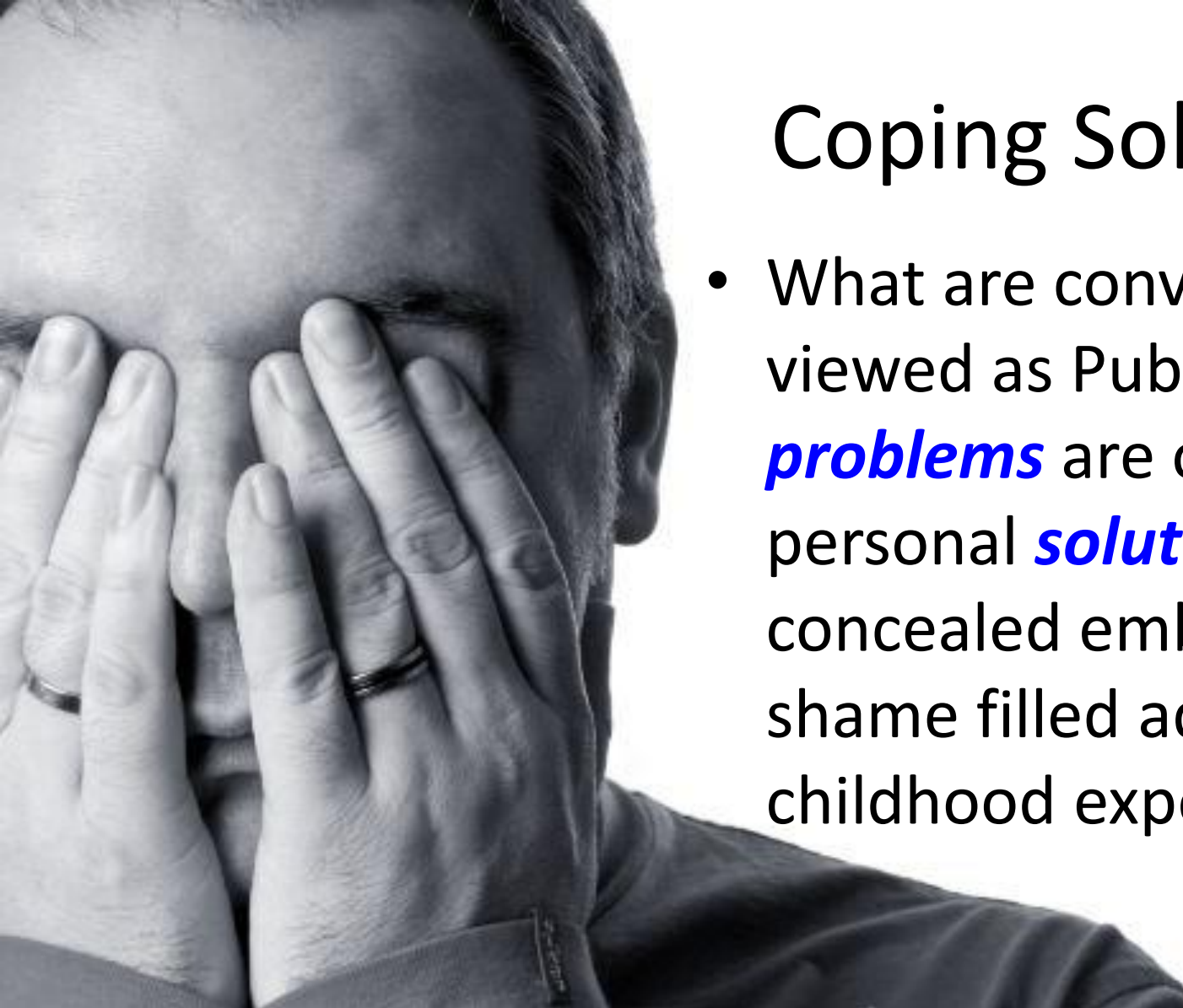
Early Experiences Can Alter Genes



ACEs Don't Explain Everything



Many Individuals with High ACE Scores Do Not have Poor Health Outcomes



Coping Solutions

- What are conventionally viewed as Public Health *problems* are often personal *solutions* to long concealed embarrassing, shame filled adverse childhood experiences.

By Adolescence Children Seek Relief

- Drinking alcohol*
- Smoking tobacco
- Sexual promiscuity
- Using drugs*
- Overeating/eating disorders
- Delinquent behavior, violence
- High-risk sports, etc.

*Note: nicotine and methamphetamines are anti-depressants



High Risk Teen Behaviors

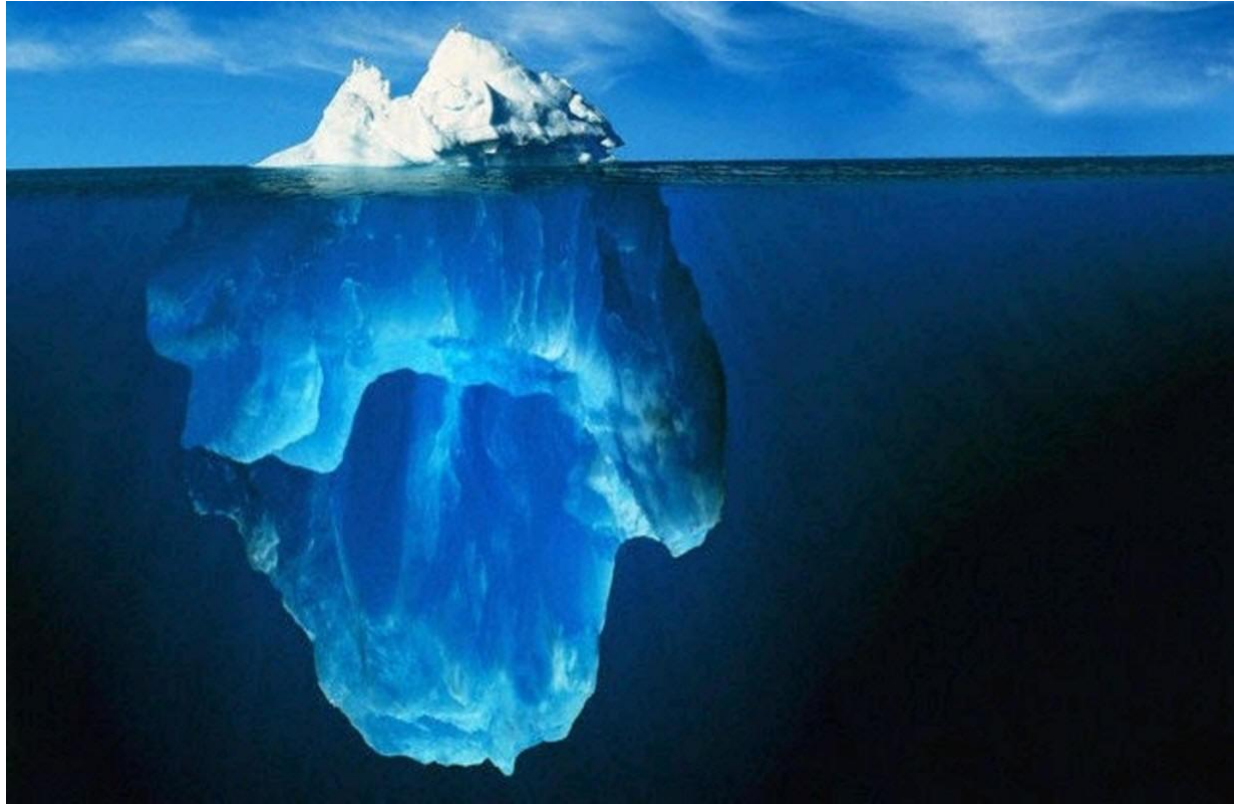
- May not be core **problem**
- They may be **coping** devices
- A way to feel safe or just feel better
- Dismissing as “bad habits” or “self destructive behavior” misses their functionality



What We See



What We Don't See



We need to ask “*What happened first?*”

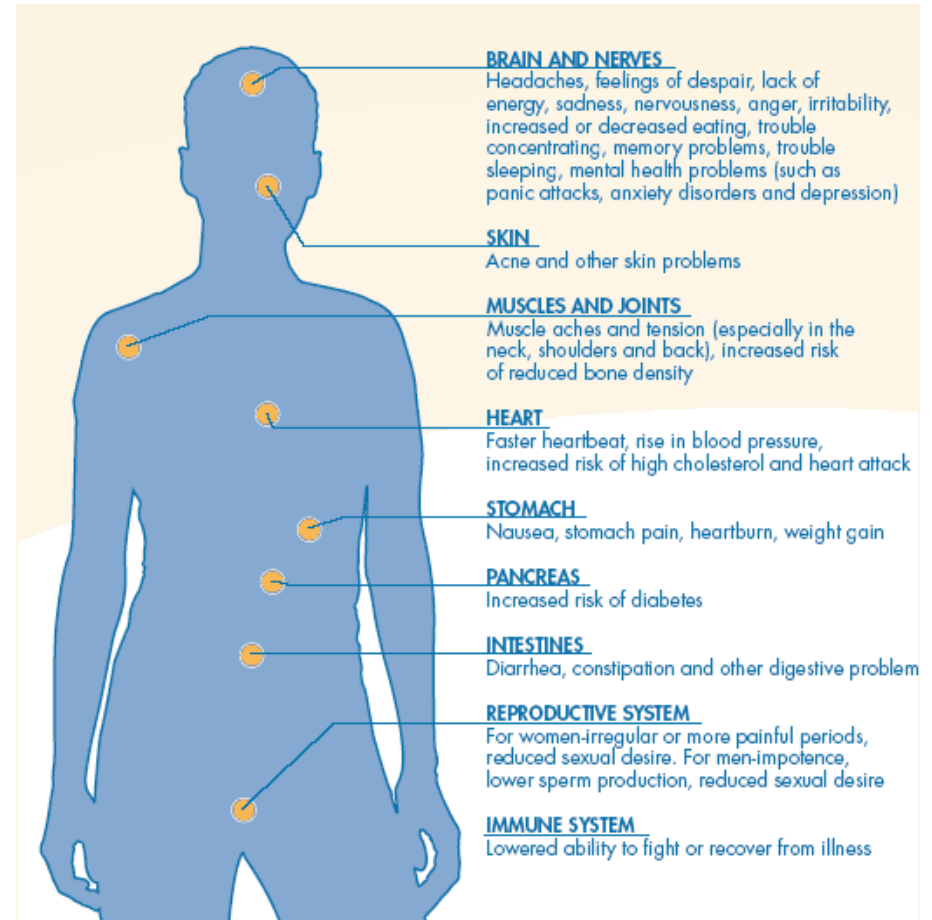
It's Not **All** About High Risk Coping Measures

- Even if individuals with high ACE Scores **do not** adopt high risk behaviors, they are still **much more likely** to have negative health consequences

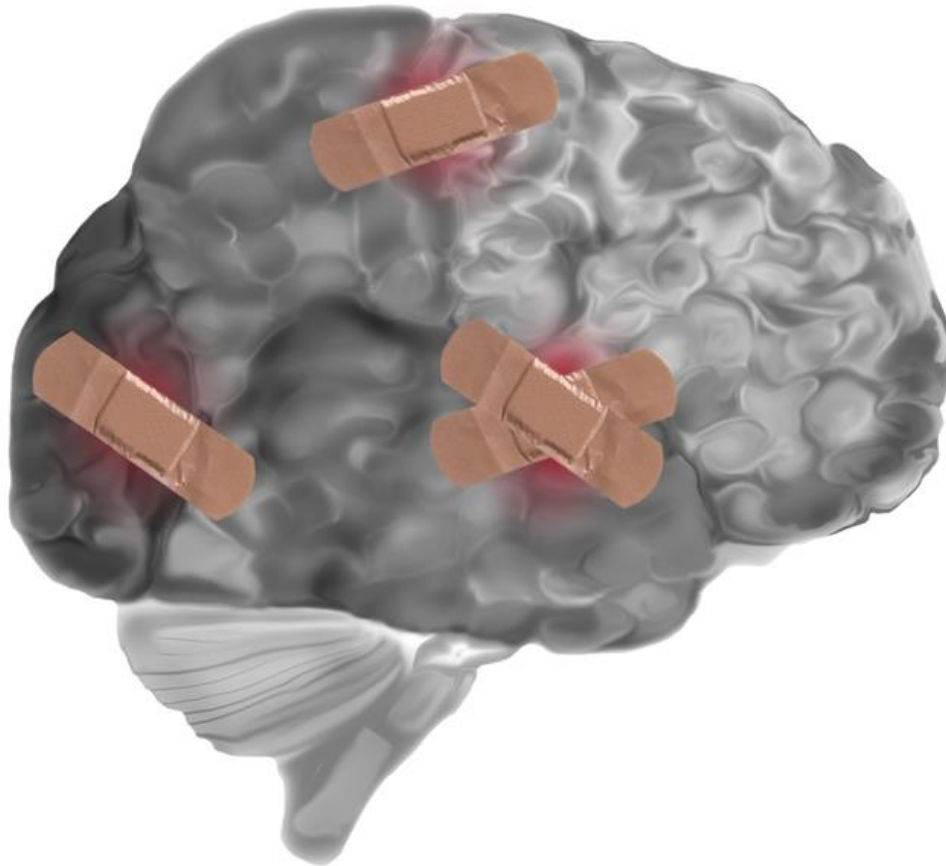


Stress Response System

- Trauma Results in Over Activation of Stress Response System
- “Pathological” Behaviors are Often an Adaptive Reaction to this Over Utilized System



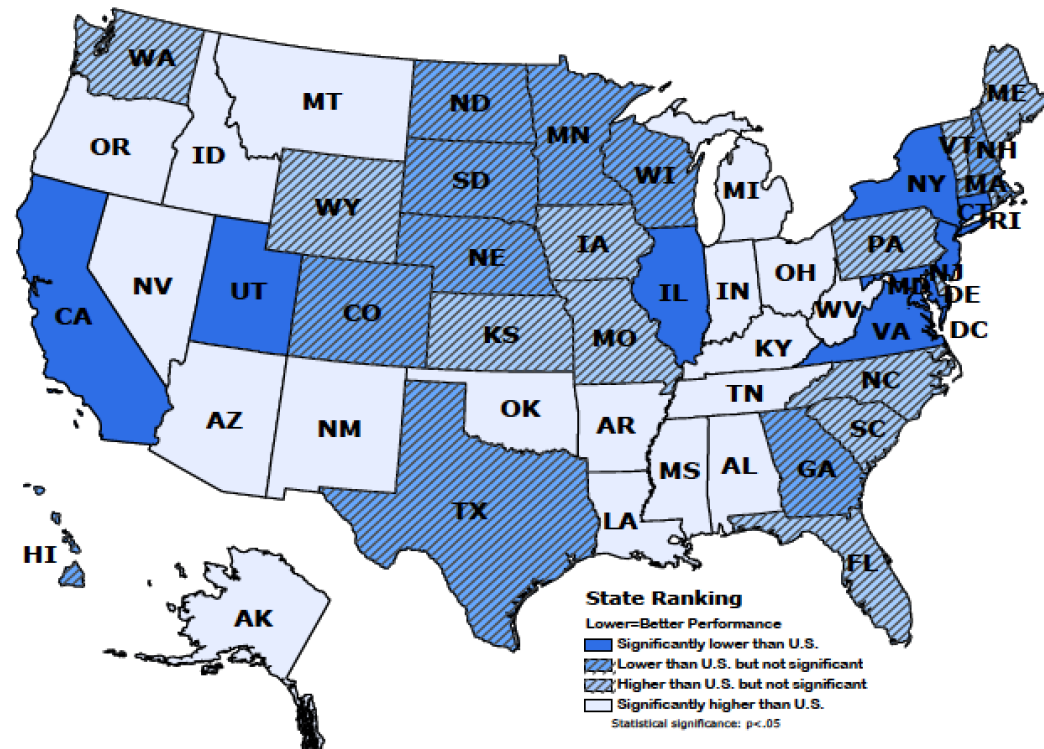
Trauma as Mental Injury



National Survey of Children's Health

- Telephone survey
- Tracks parent report of their
- children's ACEs (**does not** include child maltreatment or neglect)
- 2011/12 data
- <http://www.childhealthdata.org>

Figure 3. Exploring Disparities between States:
State Ranking Map of the Proportion of Children with ≥ 2 ACEs



Arizona Children

- Ethnic minority children have disproportionately higher share of **6+** ACEs
- Estimated 69,213 have **5+** ACEs



Arizona Children, 0 – 17

(2011/2012 National Survey of Children's Health)

- No ACEs - 42 %
- One ACE - 26 %
- Two + ACEs - **31 %**



(Natl. average: **22 %**)

Arizona Children ages 12 – 17

(2011/2012 National Survey of Children's Health)

- **44%** have experienced **two or more** ACEs
(Natl. average **30%**)



AZ Kids with **5+** ACES Would Fill University of Phoenix Stadium



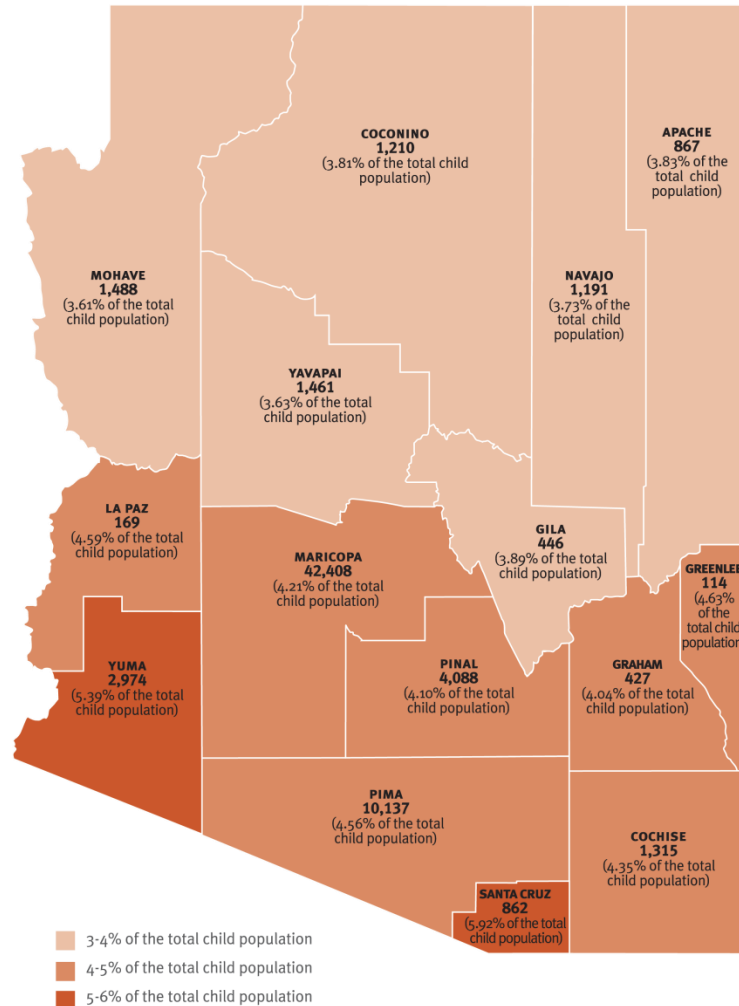
100% FOR CHILDREN

Or, Equal Population of Flagstaff



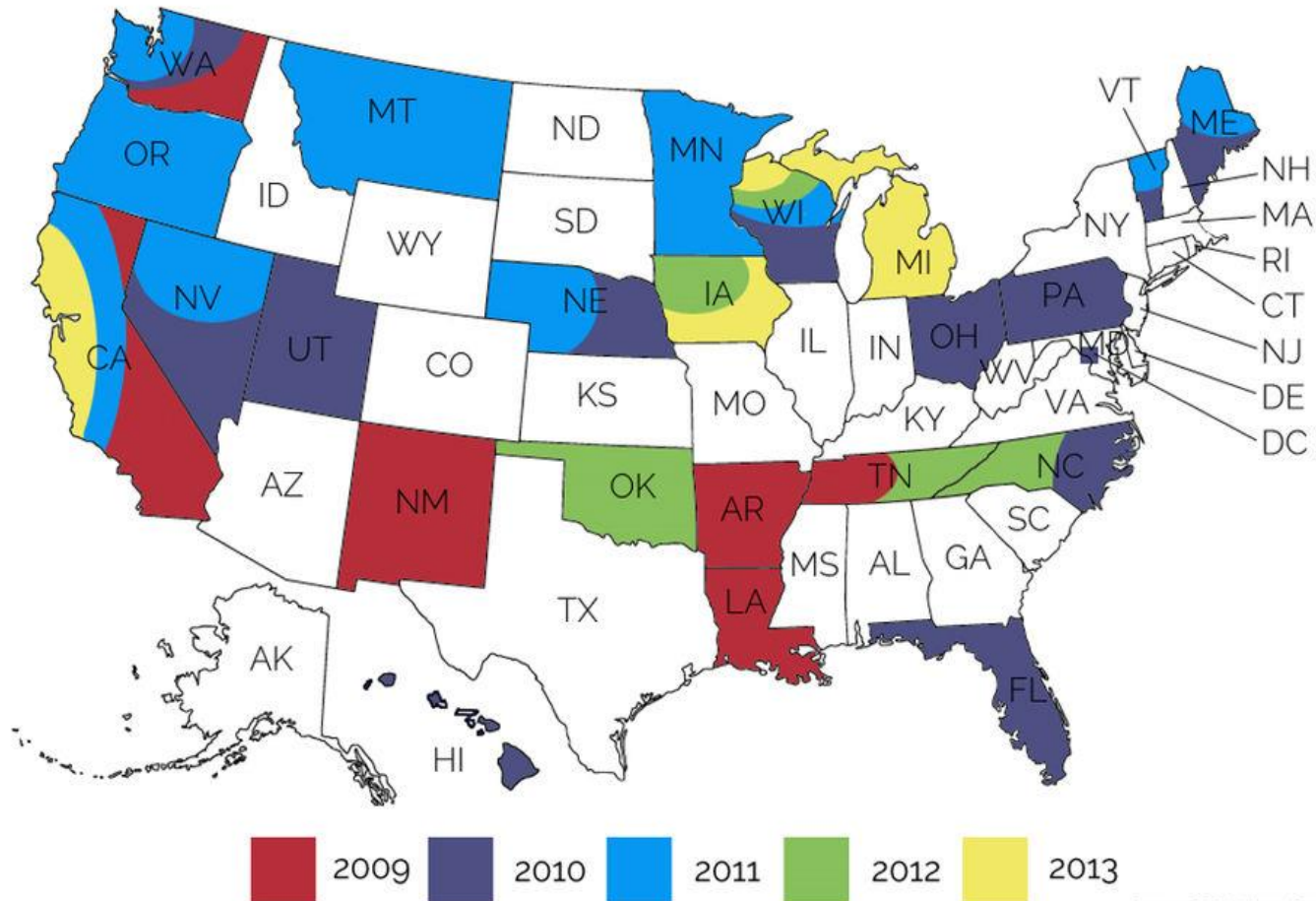
ACEs in AZ Kids

Estimated
AZ kids
with **5** or
more ACEs





States Collecting ACEs Data 2009 - 2013



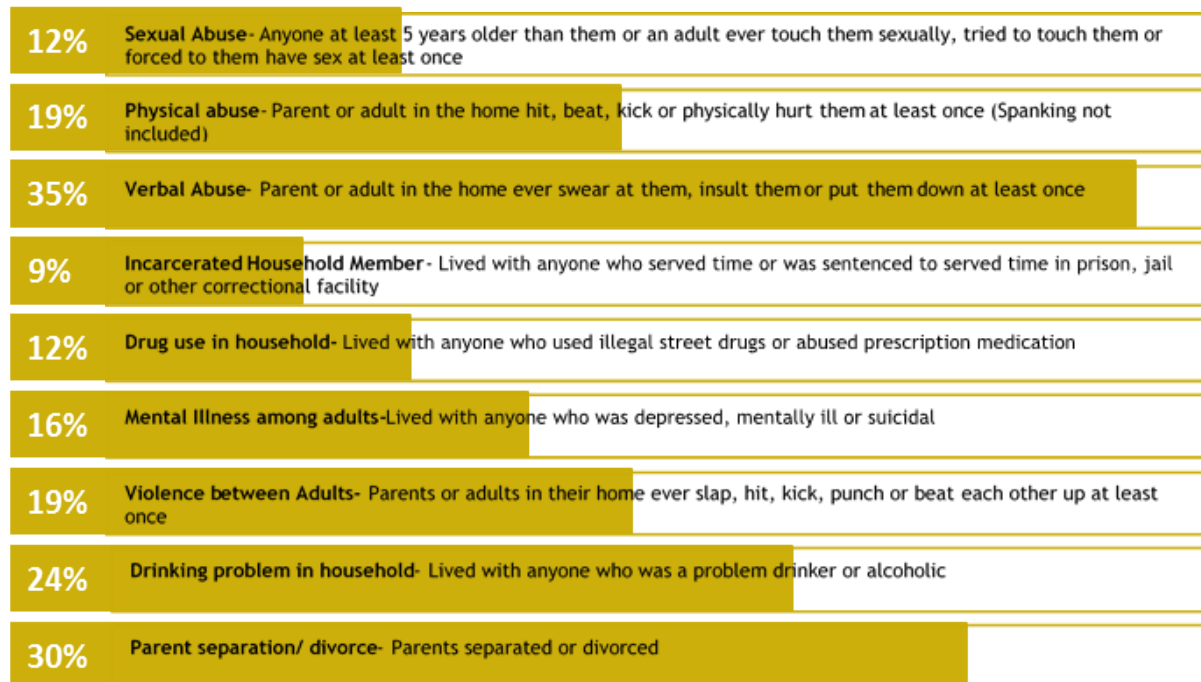
Source: CDC National Center for Injury Prevention & Control.



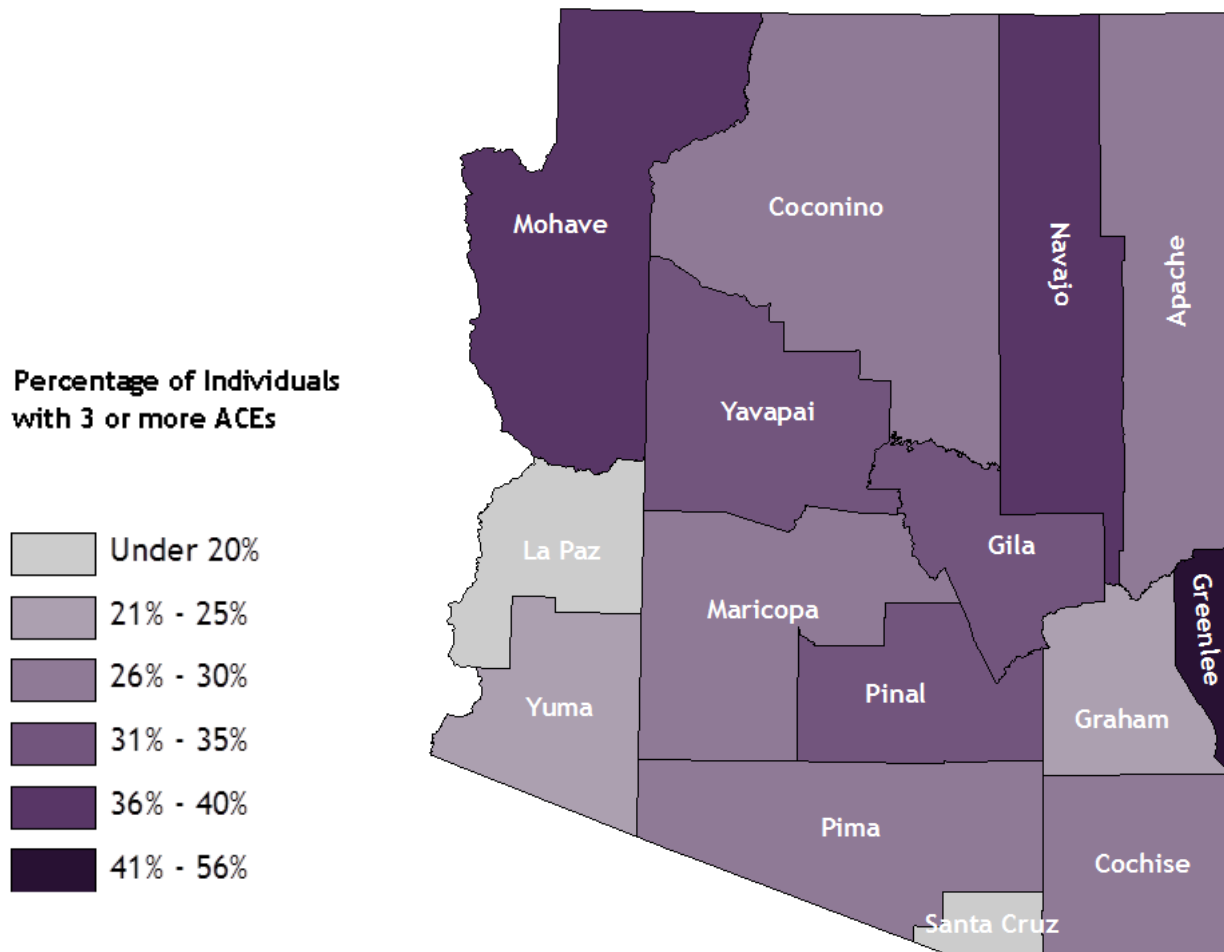
100% FOR CHILDREN

ACEs in AZ Adults (BRFSS) 2014

- Behavioral Risk Factor Surveillance System



AZ ACEs by County



Toxic Stress

- “Extreme, frequent or extended activation of the body’s stress response, **without** the buffering presence of a supportive adult.”

Positive

Brief increases in heart rate, mild elevations in stress hormone levels.

Tolerable

Serious, temporary stress responses, buffered by supportive relationships.

Toxic

Prolonged activation of stress response systems in the absence of protective relationships.

Sara B. Johnson, et al., The science of early life toxic stress for pediatric practice and advocacy, 131 PEDIATRICS 319 (2013), available at

<http://pediatrics.aappublications.org/content/131/2/319.full>

Toxic Stress Early in Development

- Affects functioning of 3 highly integrated systems:
 - the **immune** system
 - the **neuroendocrine** system
 - the **central nervous** system

(Danese & McEwen, 2012)



Children and Stress



- Biologically predisposed to more physiologic stress
- Brain structures that modulate this stress mature later
- Young children need **safe, stable, and nurturing relationships** to assist them in regulating their stress

Toxic Stress Derails Healthy Development

- <http://developingchild.harvard.edu/resources/toxic-stress-derails-healthy-development/>



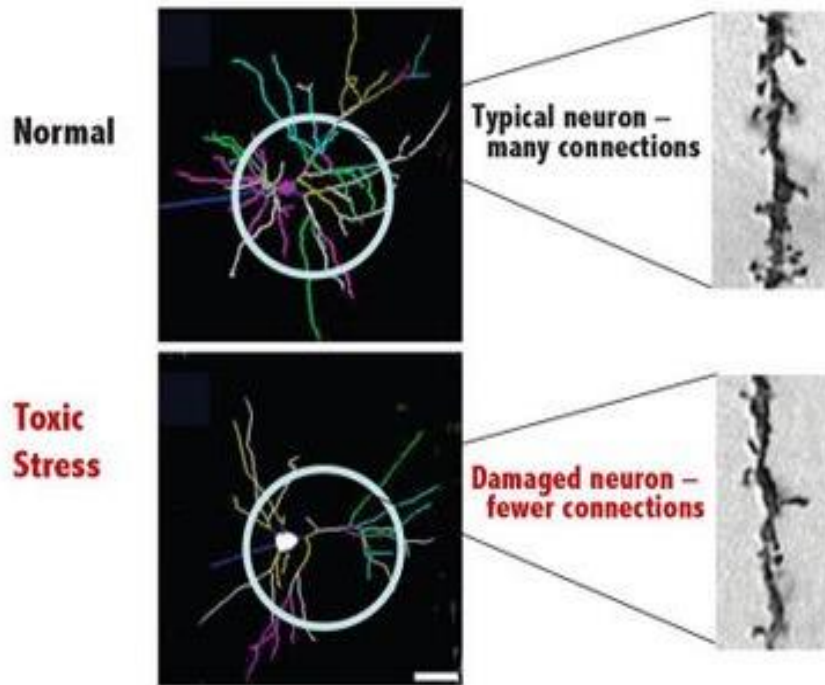
Center on the Developing Child
HARVARD UNIVERSITY



100% FOR CHILDREN

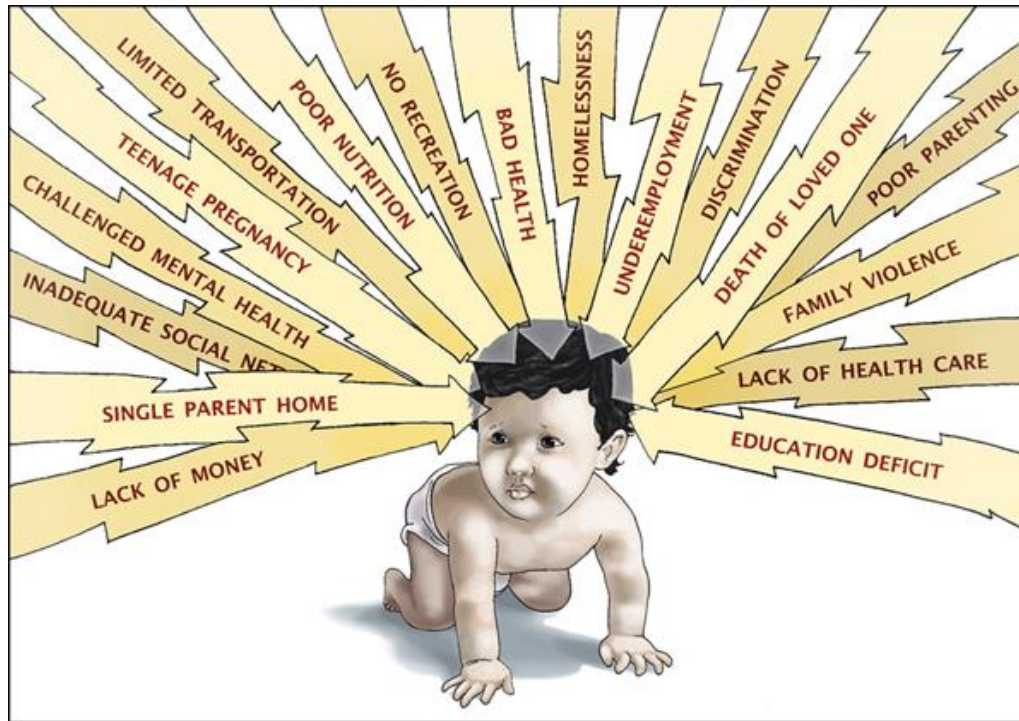
Experiences Build Brain Architecture

Persistent Stress Changes Brain Architecture



Toxic Stress Derails Healthy Development

“Genes Load the Gun, but Environment Pulls the Trigger”



Trauma

- Activation of threat response systems shove entire body into reactive adaptation
- Activation does not require actual trauma; just the repeated **perception** of threat is adequate



“The 4th Vital Sign”



1) Respiration 2) Heart Rate 3) Blood pressure

4) Relationships

To heal from toxic stress, children need recognition and understanding from their caregivers

Brain Architecture

- Built in a **cumulative, bottom-up manner**
- Solid foundation required for future skills
- Interaction between genes and experience shapes the architecture of the developing brain



Getting It Right the First Time

- Creating the right conditions in early childhood is **more effective** and **far less costly** than addressing a multitude of problems later on



Consequences of Not Getting It Right



Impact of Stress on Children

- Flight, fight or fright (freeze) response
- Short attention span
- Struggle learning; fall behind in school
- Respond to world as constant danger
- Distrustful of adults
- Unable to develop healthy peer relationships
- Feel failure, despair



“Dropouts Cost AZ \$7.6 Billion”

The Arizona Republic, June 26, 2014

- AZ Dept. of Education:
22 percent of Arizona
9th graders will **not**
finish high school
- By 2018, more than **60**
percent of jobs in AZ
will require some post-
secondary education



ACEs are a Pipeline to Prison



Childhood and Adult Trauma Experiences of Incarcerated Persons and Their Relationship to Adult Behavioral Health Problems and Treatment) Intl. Journal of Environ Res Public Health. 2012 May; 9(5): 1908–1926. Published online 2012 May 18. [*Healing Invisible Wounds: Why Investing in Trauma-Informed Care for Children Makes Sense.*](#)

ACEs and Addiction

Findings suggest:

- A **major** factor, if not the **main** factor, underlying addiction is **ACEs that have not healed and are concealed from awareness by shame, secrecy, and social taboo.**

“It’s hard to get enough of something that almost works.” Vincent Felitti, MD



ACEs in Foster Care

- **More than half** of kids reported for CM experienced **4 or more** ACEs by time of contact with child welfare
- **More than 90%** referred to child welfare have experienced **multiple ACEs**



(Nat'l Survey Child and Adolescent Well-Being (NSCAW), No. 20: Adverse Child Experiences in NSCAW, 2013)



- Children with **four** or more ACEs are **three times as likely to take ADHD medication** when compared with children with less than four ACEs (Ruiz ["How Childhood Trauma Could Be Mistaken for ADHD"](#), *The Atlantic*, 7 July 2014)

Here's the Hope

- Better Understanding of Mechanism
- ACEs are **Not** Destiny
- Helps us Develop Better Responses
- Reduces Judgment
- Multiple Evidence-Based Approaches to Healing

Positive Factors That Counterbalance Adversity



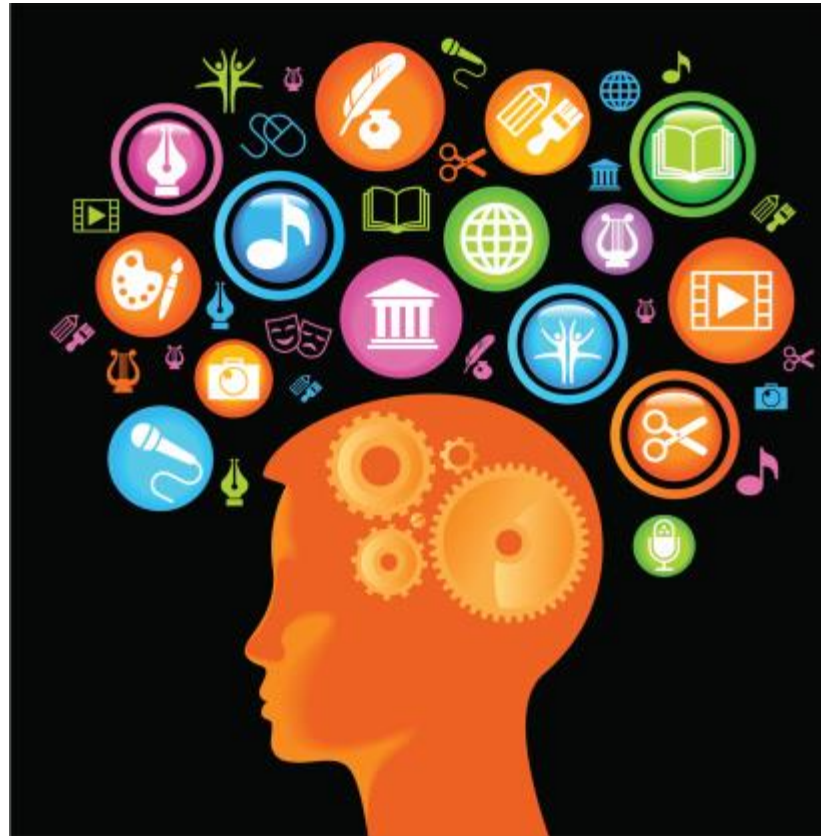
At Least 1 Stable, Caring and Supportive Relationship



Building Sense of Mastery over Their Life Circumstances



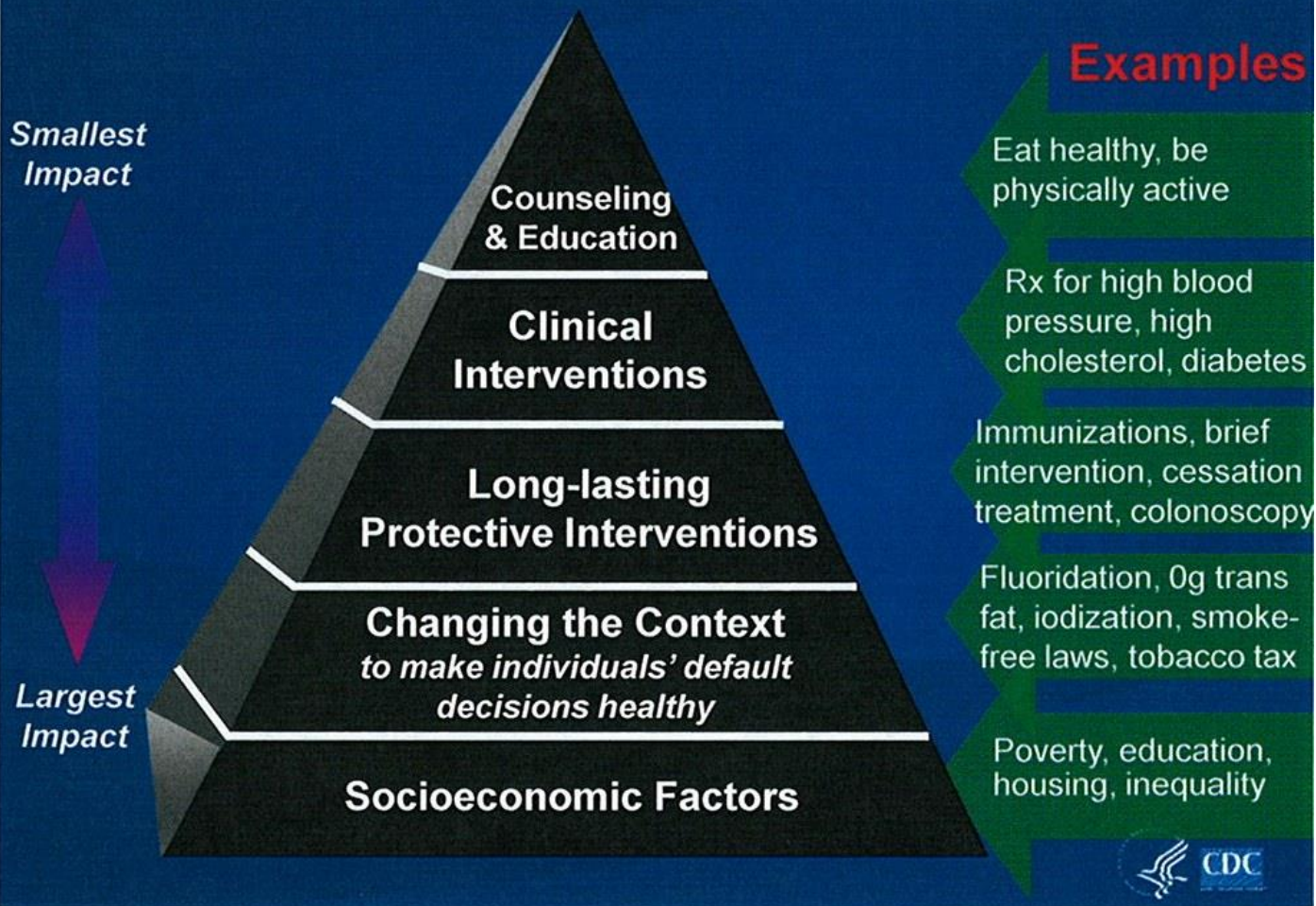
Strong Executive Function and Self-Regulation Skills



Affirming Faith or Cultural Traditions



Factors that Affect Health



Caring for Clients with High ACE Scores



- Trauma Informed Care is Essential
- ACE Screening? – World Health Organization – ACE International Questionnaire (ACE-IQ)

http://www.who.int/violence_injury_prevention/violence/activities/adverse_childhood_experiences/en/

Resources



Harvard Program in Refugee Trauma

world peace.... global health and mental health.... science and culture

- <http://hprt-cambridge.org/>

- Refugee Trauma Webpage:



<http://www.nctsn.org/trauma-types/refugee-trauma>

ACEs Connection Network

Join the movement to prevent ACEs, heal trauma, build resilience.



- ACEs Too High/ACEs Connection:

<http://www.acesconnection.com/>



100% FOR CHILDREN

A Better World

- Eliminating toxic stress among children would have a **profound** impact on the health and well-being of individuals and entire populations.



ACEs Often Last a Lifetime . . .

But They Don't **Have To**

- Healing can occur
- Cycle can be broken
- Safe, stable, nurturing relationships heal parent and child



In Summary

“It is easier to build strong children than to repair broken men”

~ Frederick Douglass (1817-1895)



Marcia Stanton, MSW, mstanto@phoenixchildrens.com



100% FOR CHILDREN