

Adverse Childhood Experiences - ACEs

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Disclosures



I have no
financial
disclosures.

How Many of You:

- Have heard of ACEs and their impact on physical and mental health?
- Are aware of ACEs' impact socially and globally?
- Have heard of resiliency?



Adverse Childhood Experiences Study - Retrospective Cohort Study with Longitudinal Arm

- Started at KP San Diego when high prevalence of childhood sexual abuse “discovered” among obese patients dropping out of weight loss program
- 10 “ACE” questions integrated into health history questionnaire
- Over 17,0000 study participants, one of largest investigations ever done
- Assessed associations between childhood maltreatment and later-life health and well-being

Felitti et al, 1998

For more information, please refer to www.cdc.gov/ace

Adverse Childhood Experiences Study - Retrospective Cohort Study with Longitudinal Arm

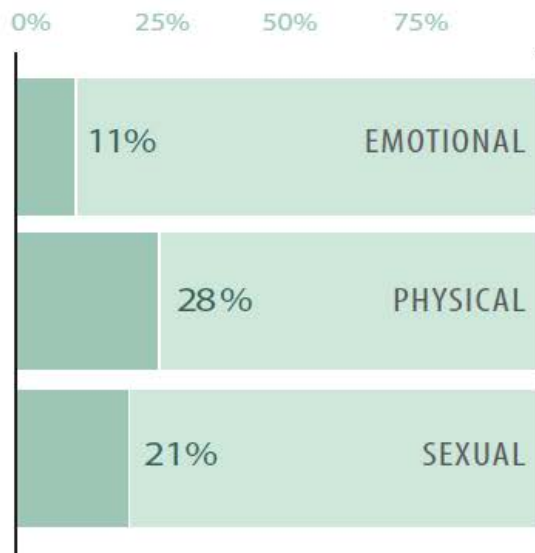
The Study revealed four main discoveries:

- ACEs are common: 67% of adults have at least one
- They correlate with adult onset of chronic disease, mental illness, violence and being a victim of violence
- They don't occur alone: if you have one, there's an 87% chance that you have two or more
- They're cumulative: the more you have, the greater your risk for sequelae

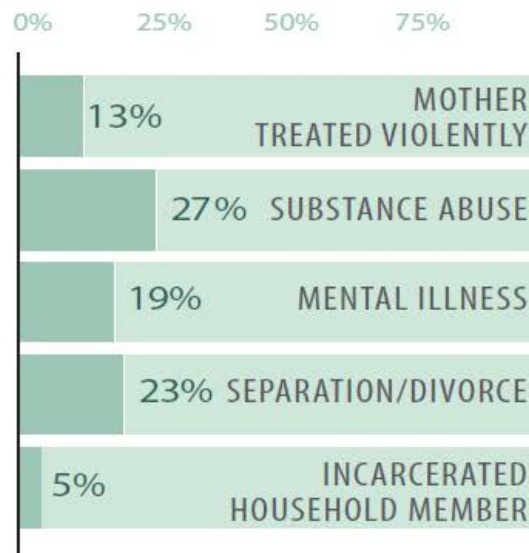
ACEs Study

The ACE study looked at three categories of adverse experience: **childhood abuse**, which included emotional, physical, and sexual abuse; **neglect**, including both physical and emotional neglect; and **household challenges**, which included growing up in a household where there was substance abuse, mental illness, violent treatment of a mother or stepmother, parental separation/divorce or had an incarcerated household member. Respondents were given an **ACE score** between 0 and 10 based on how many of the 10 types of adverse experiences they reported experiencing.

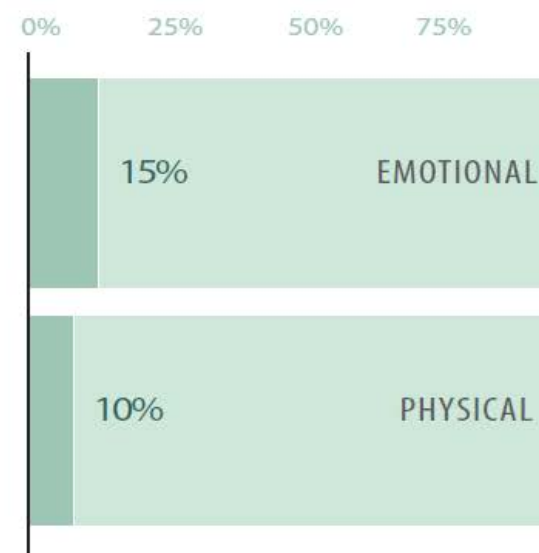
ABUSE



HOUSEHOLD CHALLENGES



NEGLECT



Graded Dose-Response: Relationship Between Number of ACE's and Health Outcomes

Increased Risk for ACEs ≥ 4	
Condition	Increased Risk
Ischemic Heart Disease	2.2
Stroke	2.4
Cancer	1.9
Diabetes	1.6
Attempted Suicide	12.2
Alcoholism	7.4

Got Your ACE Score?

There are 10 types of childhood trauma measured in the ACE Study. Five are personal — physical abuse, verbal abuse, sexual abuse, physical neglect, and emotional neglect. Five are related to other family members: a parent who's an alcoholic, a mother who's a victim of domestic violence, a family member in jail, a family member diagnosed with a mental illness, and the disappearance of a parent through divorce, death or abandonment. Each type of trauma counts as one. So a person who's been physically abused, with one alcoholic parent, and a mother who was beaten up has an ACE score of three.

The most important thing to remember is that the ACE score is meant as a guideline: If you experienced other types of toxic stress over months or years, then those would likely increase your risk of health consequences.

Got Your ACE Score?

Prior to your 18th birthday:

1. Did a parent or other adult in the household often or very often... Swear at you, insult you, put you down, or humiliate you? or Act in a way that made you afraid that you might be physically hurt? No ____ If Yes, enter 1__
2. Did a parent or other adult in the household often or very often... Push, grab, slap, or throw something at you? or Ever hit you so hard that you had marks or were injured? No ____ If Yes, enter 1__
3. Did an adult or person at least 5 years older than you ever... Touch or fondle you or have you touch their body in a sexual way? or Attempt or actually have oral, anal, or vaginal intercourse with you? No ____ If Yes, enter 1__
4. Did you often or very often feel that ... No one in your family loved you or thought you were important or special? or Your family didn't look out for each other, feel close to each other, or support each other? No ____ If Yes, enter 1__
5. Did you often or very often feel that ... You didn't have enough to eat, had to wear dirty clothes, and had no one to protect you? or Your parents were too drunk or high to take care of you or take you to the doctor if you needed it? No ____ If Yes, enter 1__
6. Were your parents ever separated or divorced? No ____ If Yes, enter 1__
7. Was your mother or stepmother: Often or very often pushed, grabbed, slapped, or had something thrown at her? or Sometimes, often, or very often kicked, bitten, hit with a fist, or hit with something hard? or Ever repeatedly hit over at least a few minutes or threatened with a gun or knife? No ____ If Yes, enter 1__
8. Did you live with anyone who was a problem drinker or alcoholic, or who used street drugs? No ____ If Yes, enter 1__
9. Was a household member depressed or mentally ill, or did a household member attempt suicide? No ____ If Yes, enter 1__
10. Did a household member go to prison? No ____ If Yes, enter 1__

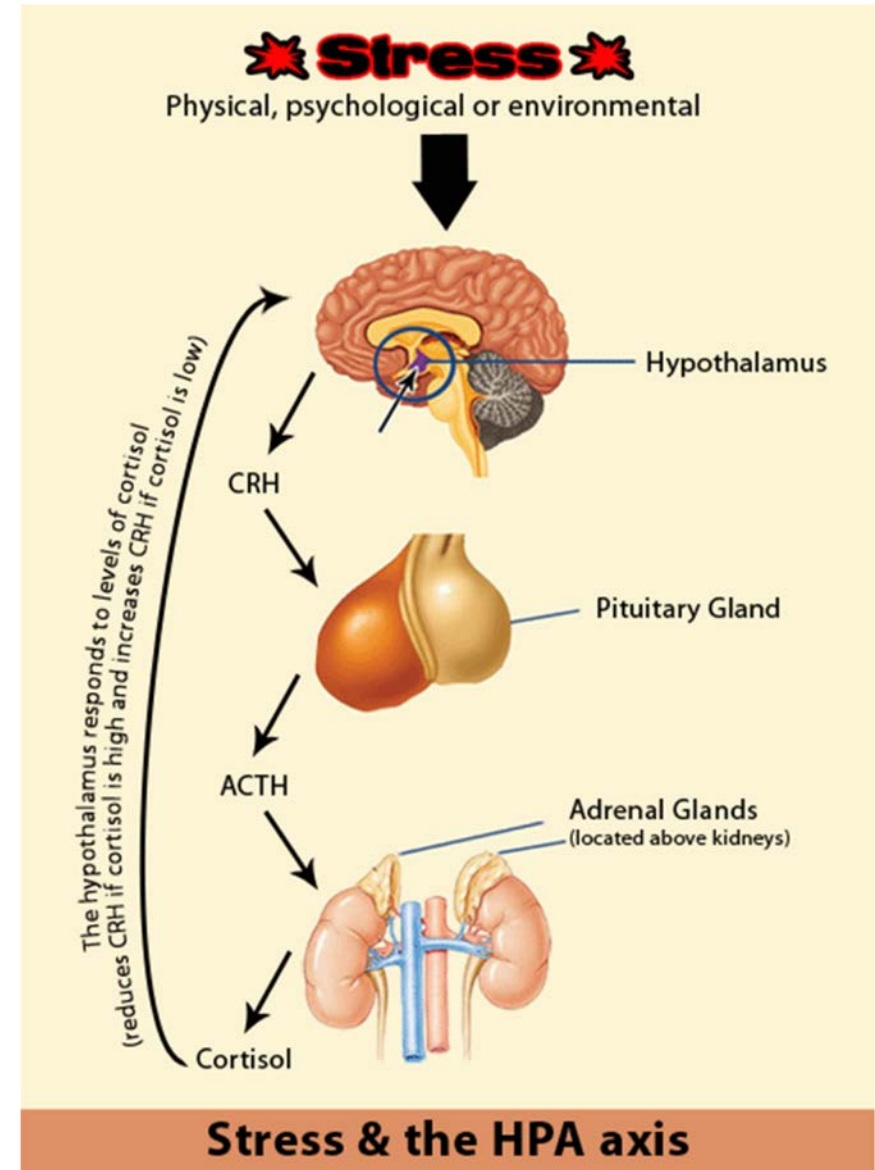
Now add up your "Yes" answers: _____ This is your ACE Score

TED Talk – Nadine Burke Harris, MD, MPH

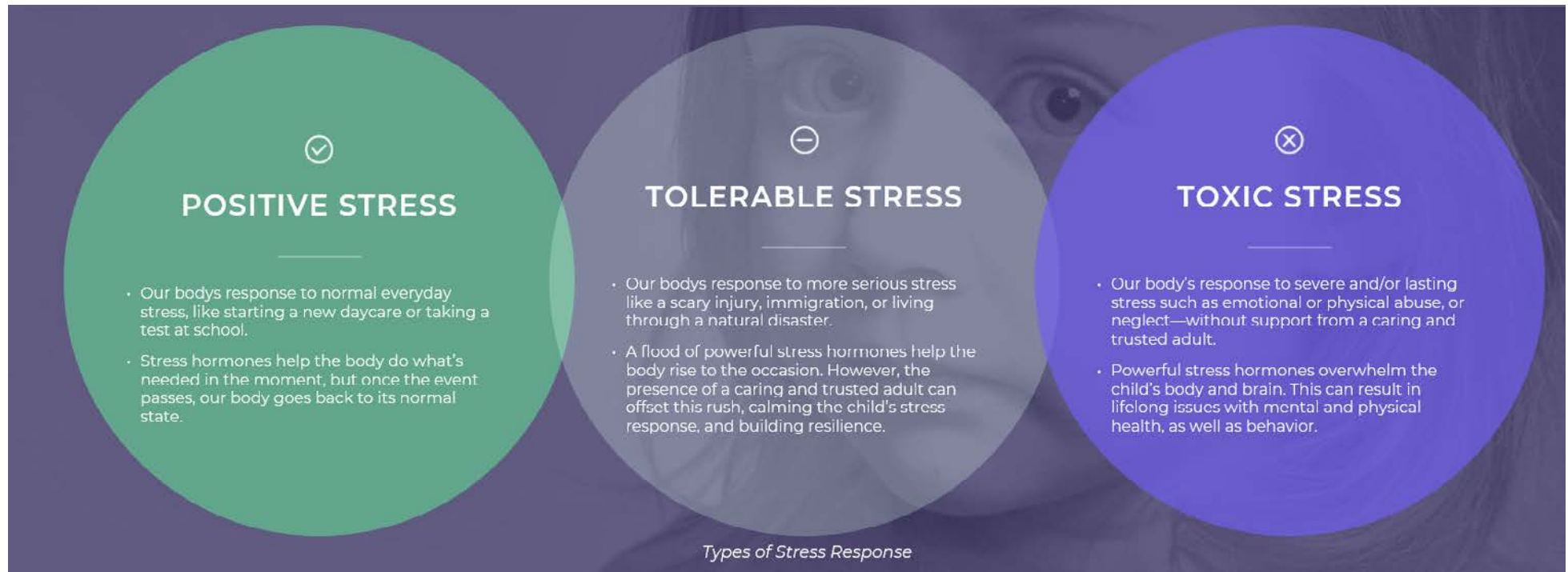
- Dr. Burke Harris was appointed Surgeon General of California in 2019
- Video Link:
https://www.ted.com/talks/nadine_burke_harris_how_childhood_trauma_affects_health_across_a_lifetime

Disrupted Neurodevelopment

- Initial adaptive response
- Chronic stress in childhood adversely effects the brain, endocrine and immune systems
- Epigenetic changes lead to adult sequela and may be passed on to future generations



Types of Stress Response



Positive Stress

- Moderate, doesn't last long
- Increases heart rate and stress hormones, but they return to normal levels quickly

Toxic Stress

- Constant and overwhelming
- The brain and body produce an overload of cortisol and adrenaline that harm the function and structure of the brain

Toxic Stress

Chronic Toxic Stress → Perpetually primed Fight/Flight response

- When you experience an additional traumatic event, your body will have trouble returning to a normal state. Over time, you will become more sensitive to trauma or stress, developing a hair-trigger response to events that other people shrug off.

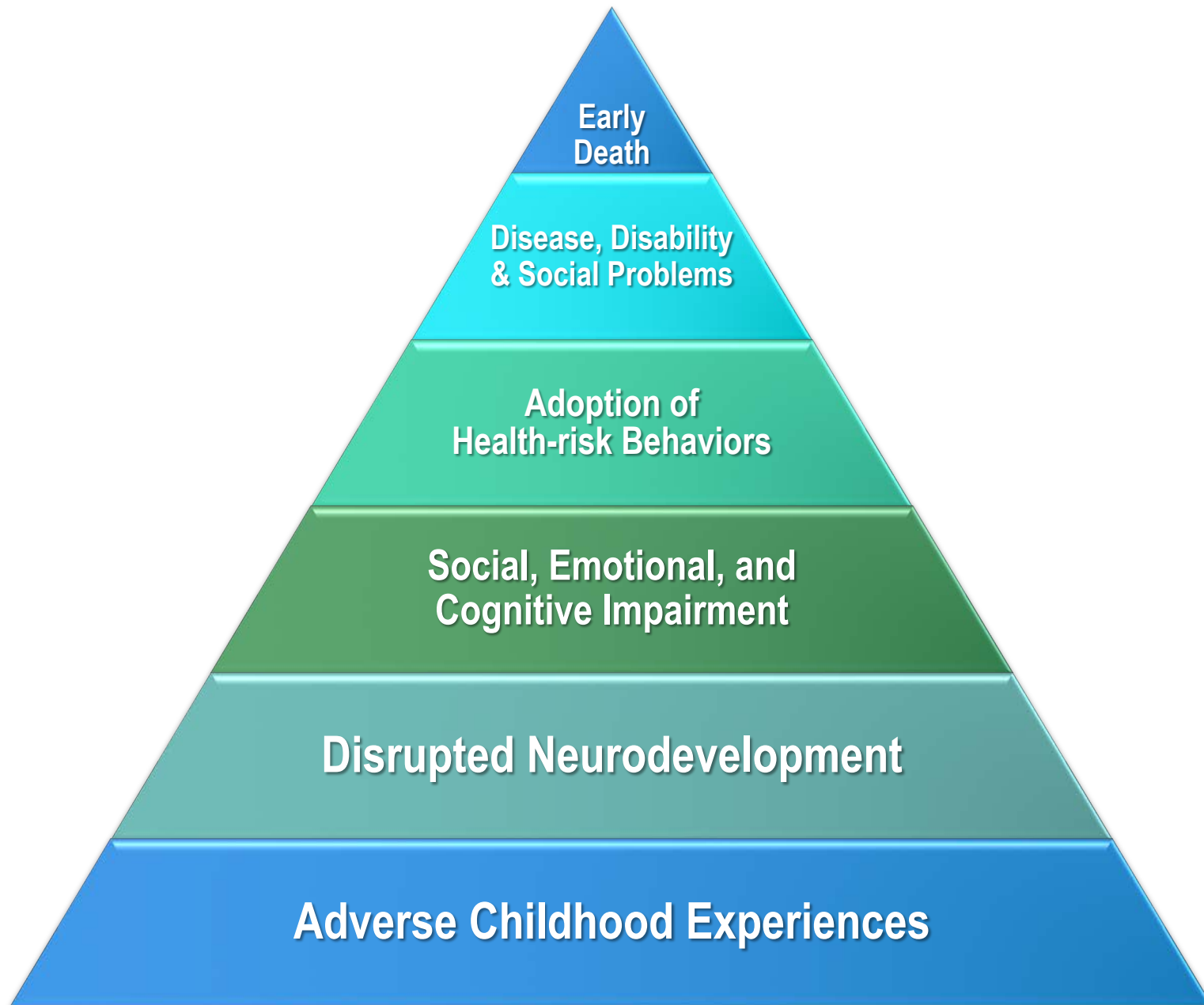
Effects of Chronic Toxic Stress

- The constant presence of adrenaline and cortisol keep blood pressure high. They also keep glucose levels high to provide enough energy for the heart and muscles to act quickly.
- Chronic activation of Inflammatory pathways.
- In the absence of protective factors, toxic stress damages children's developing brains.

Toxic Stress Video

Video: <https://www.youtube.com/watch?v=rVwFkcOZHJw>

Mechanisms by Which Adverse Childhood Experiences Influence Health and Well-being Throughout the Lifespan



The Population: Across All Racial Groups

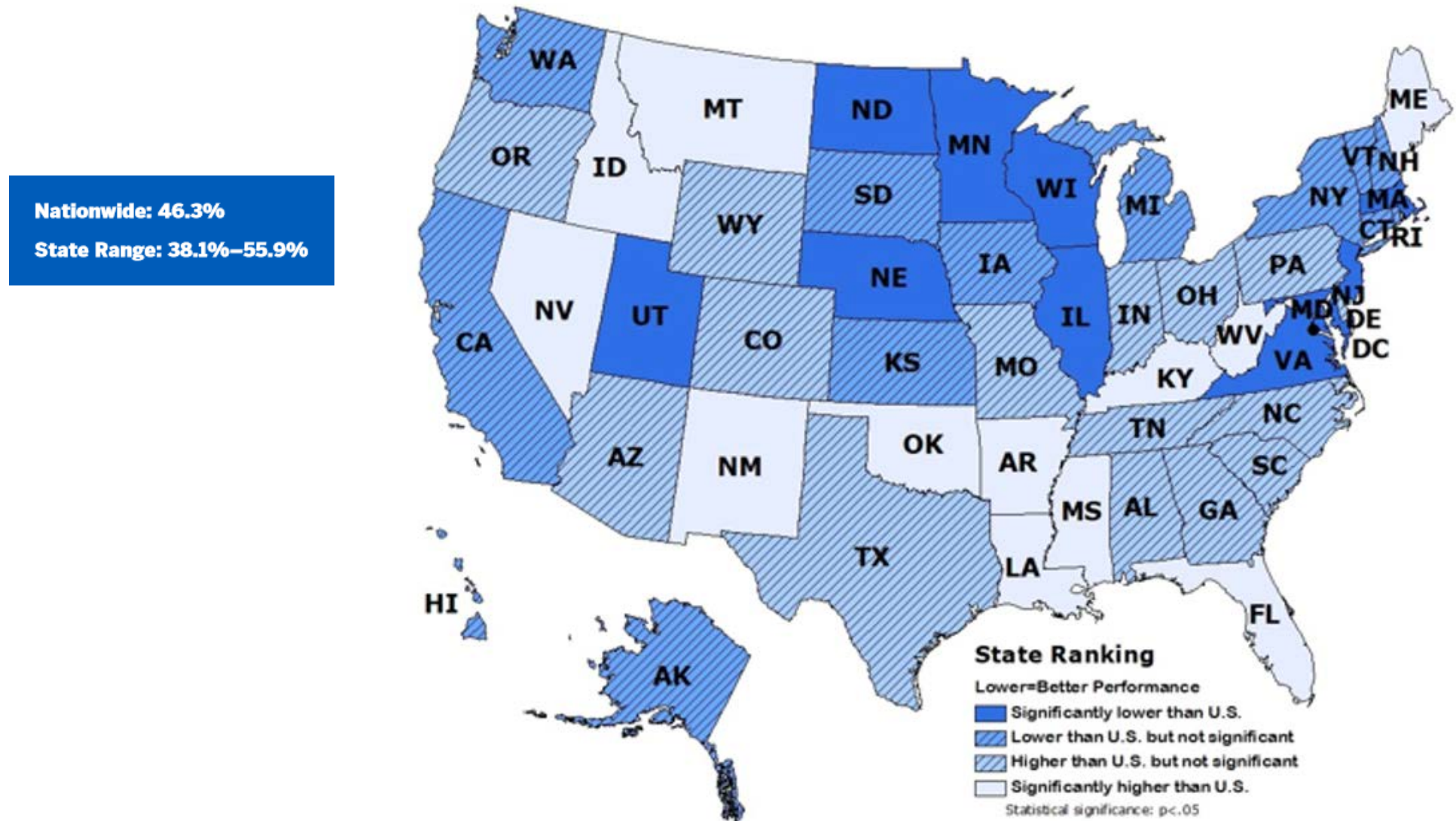
Prevalence of ACEs by Race/Ethnicity for Children Ages 0-17

	All children	White, NH*	Hispanic	Black, NH*	Asian, NH*	Other, NH*
1 + ACEs	46.3%	40.9%	51.4%	63.7%	25.0%	51.5%
2 + ACEs	21.7%	19.2%	21.9%	33.8%	6.4%	28.3%
All US children		51.9%	24.5%	12.7%	4.5%	6.3%

* Non Hispanic

http://www.cahmi.org/wp-content/uploads/2017/10/aces_fact_sheet.pdf

Percent of Children Age 0-17 with One or More Adverse Childhood Experiences in the US



Citation: Bethell, CD, Davis, MB, Gombojav, N, Stumbo, S, Powers, K. Issue Brief: A national and across state profile on adverse childhood experiences among children and possibilities to heal and thrive. Johns Hopkins Bloomberg School of Public Health, October 2017 <http://www.cahmi.org/projects/adverse-childhood-experiences-aces/>

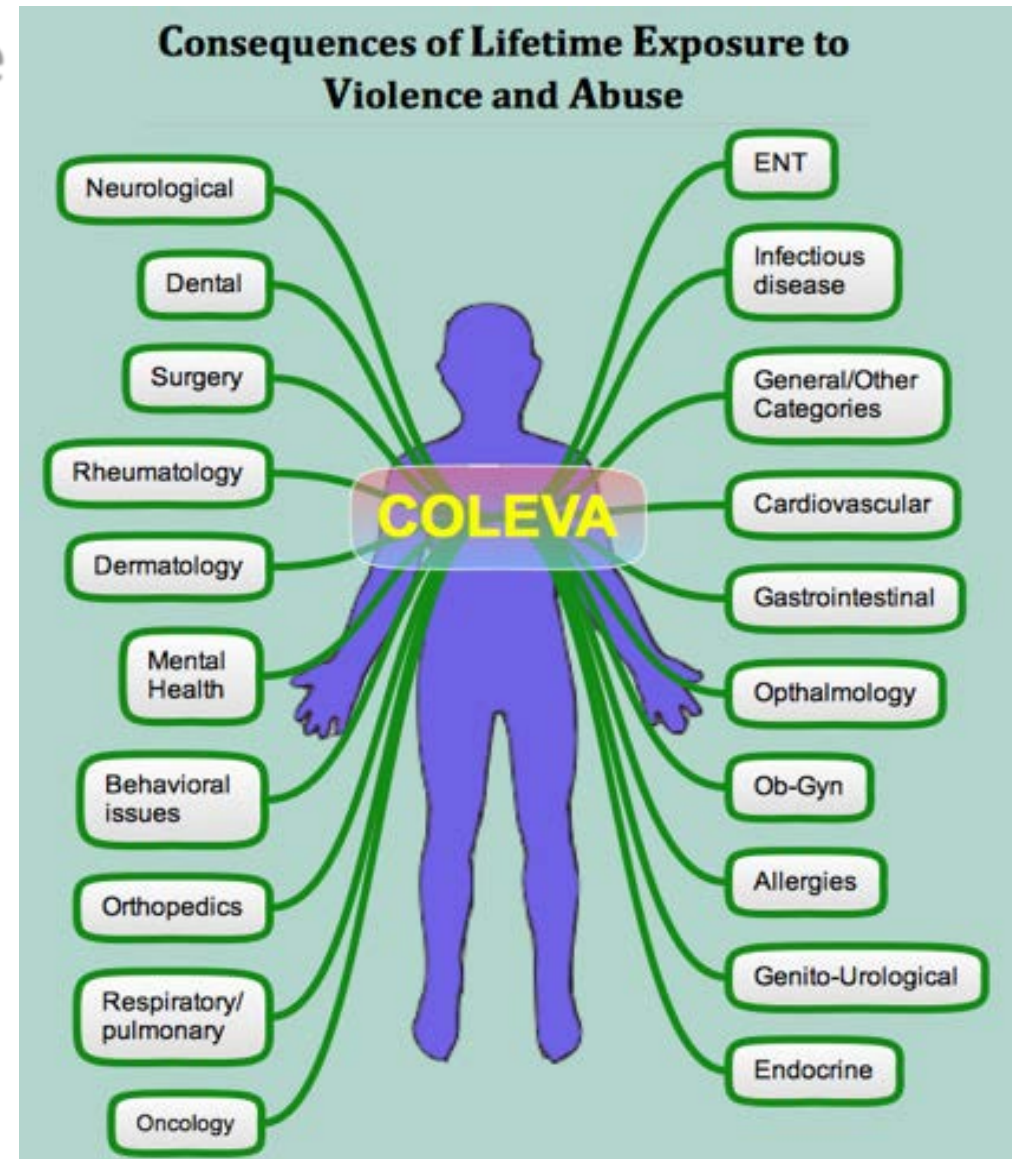
Consequences of Lifetime Exposure to Violence and Abuse

Social, Emotional and Cognitive Impairment

■ The 5 A's

- Anxiety
- Anger
- Anhedonia
- Alienation
- Avoidance

Adoption of Health Risk Behaviors



The Impact of ACE Start Early

ACEs increase the risk of:

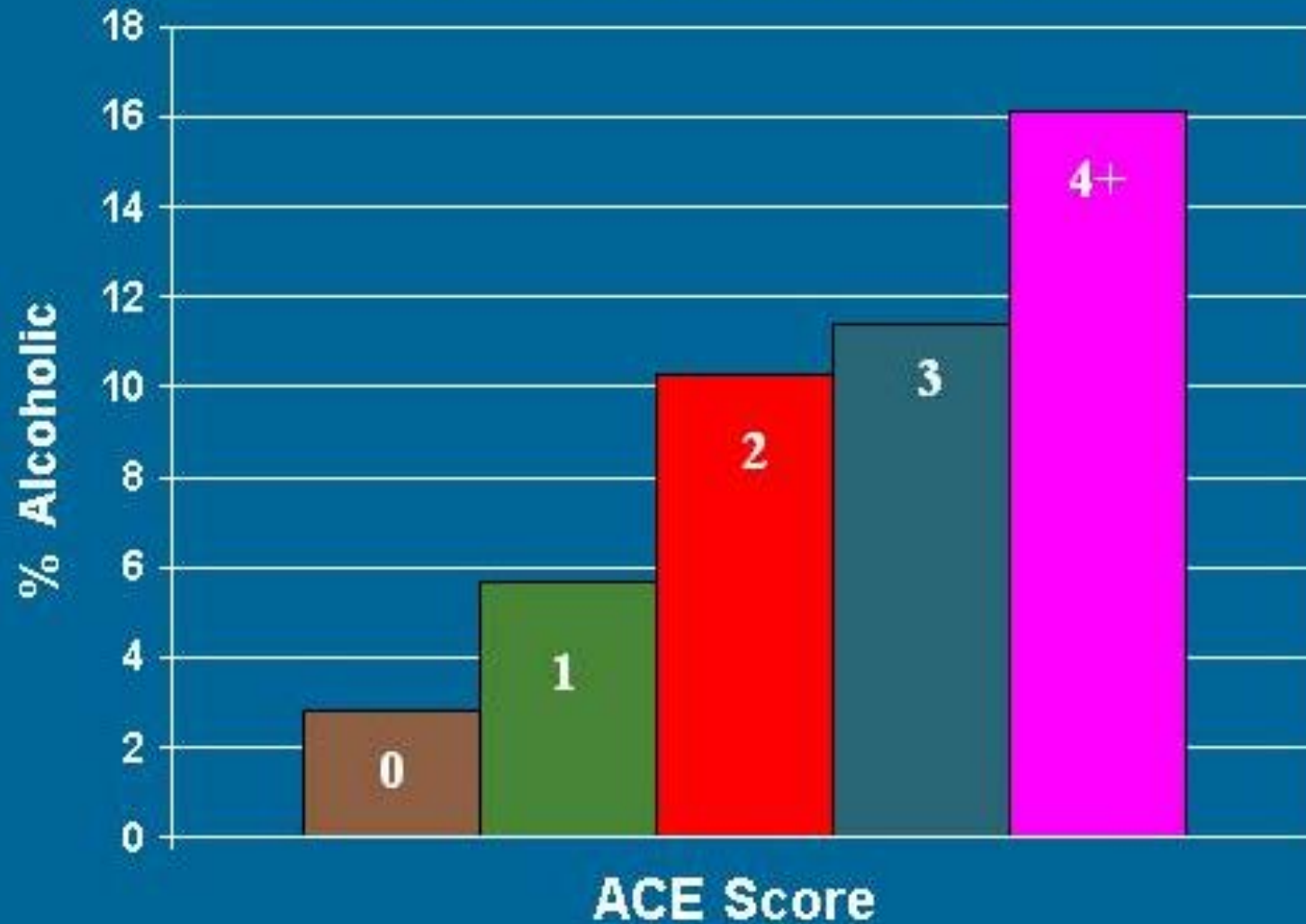
- Childhood obesity
- Early age at first intercourse
- Teen pregnancy
- Bullying
- Dating violence
- Fighting and carrying a weapon at school
- Early initiation of tobacco use
- Early initiation of drug use
- Early initiation of alcohol use
- Self-mutilation and suicide

Domestic Violence and ACE

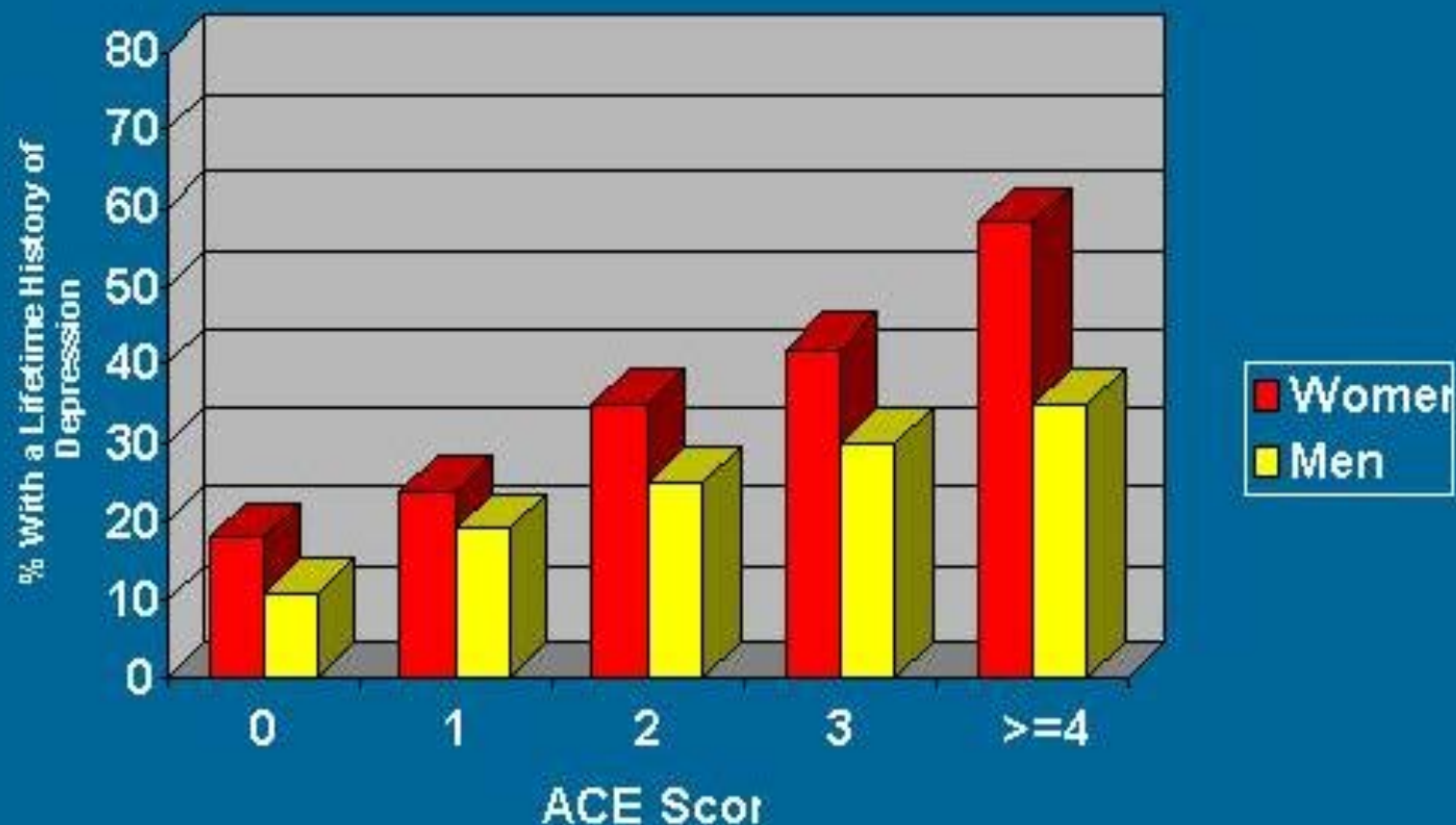
- 95% probability that a child growing up with DV will be exposed to at least one other ACE
- More than one-third (36%) of children exposed to DV have 4 or more ACEs

Dube et al, 2002

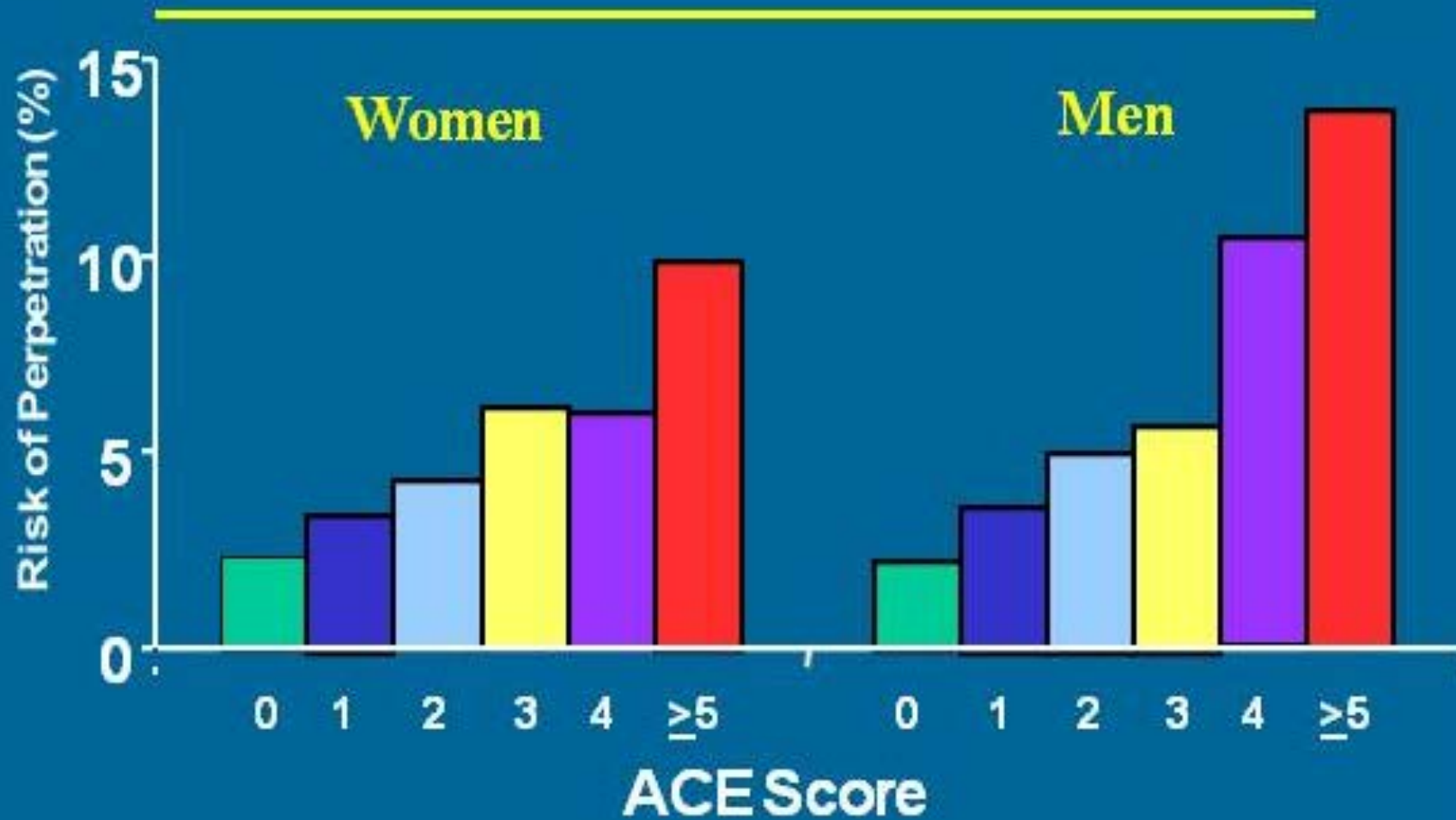
Childhood Experiences vs. Adult Alcoholism



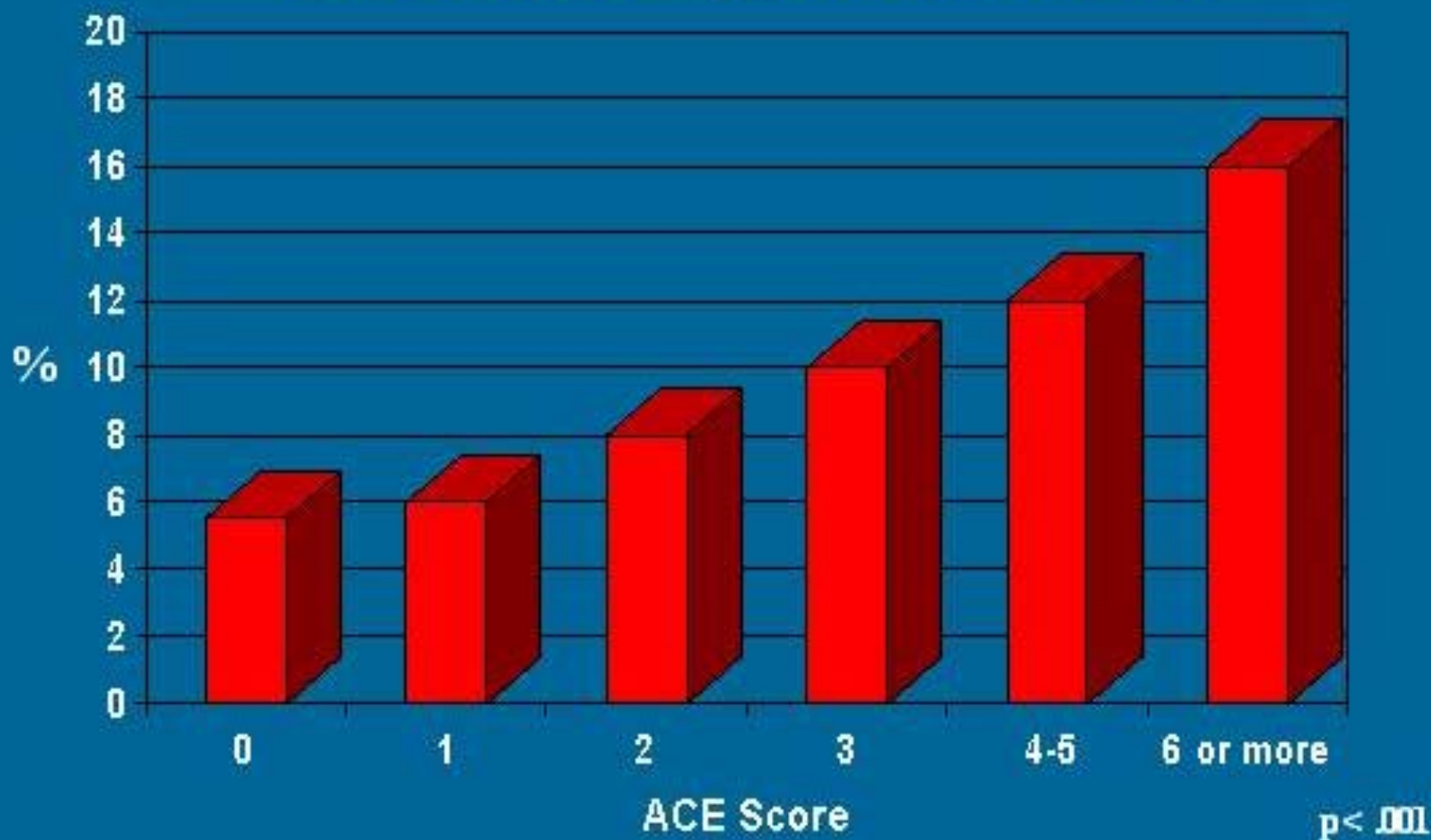
Childhood Experiences Underlie Chronic Depression



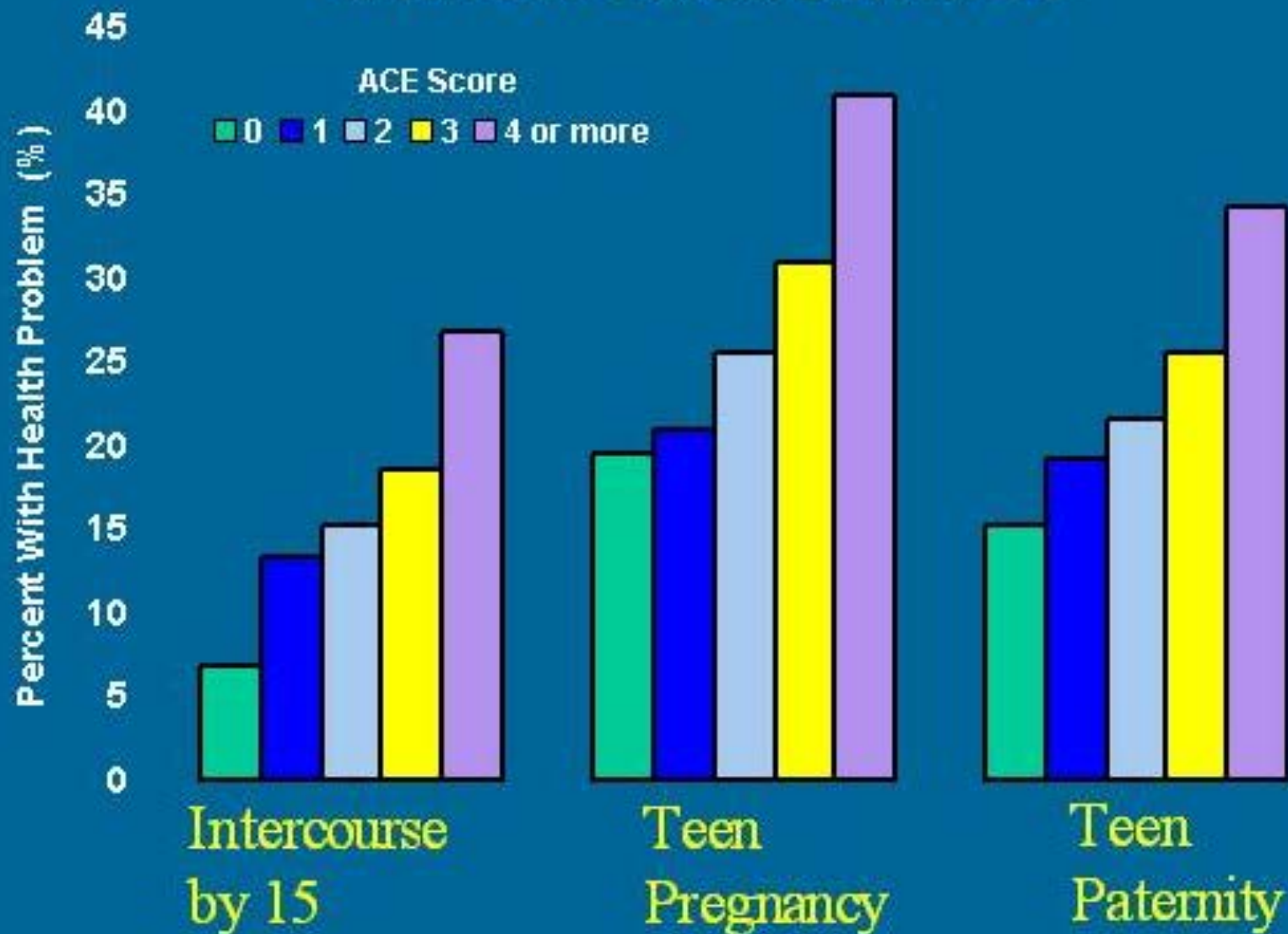
ACE Score and the Risk of *Perpetrating* Domestic Violence



Adverse Childhood Experiences vs. Smoking as an Adult



ACE Score and Teen Sexual Behaviors



Is It All Doom and Gloom?



Most Powerful Protective Factor: Supportive, Attentive Caregivers

Resilience

- Parent's ability to parent under stressful circumstances buffers effects of family violence on child adjustment

Davies et al 2004, Margolin et al 2004

- Attachment promoting behaviors can change a child's developing brain

Resilience

- The brain is continually changing in response to the environment. If the toxic stress stops and is replaced by practices that build resilience, the brain can slowly undo many of the stress-induced changes.
- There is well documented research on how individuals' brains and bodies become healthier through mindfulness practices, exercise, good nutrition, adequate sleep, and healthy social interactions.

Resilience and Parenting

- Research on families shows that interventions can improve the lives of parents and children. Evidence-based parenting practices increase the health of parents and children. Research on communities and systems is emerging, but early data, especially from schools and juvenile detention centers, is showing promise.

What *can* Be Done About ACEs?

These wide-ranging health and social consequences underscore the importance of preventing ACEs before they happen. **Safe, stable, and nurturing relationships and environments** (SSNREs) can have a positive impact on a broad range of health problems and on the development of skills that will help children reach their full potential. Strategies that address the needs of children and their families include:

Voluntary home visiting programs can help families by strengthening maternal parenting practices, the quality of the child's home environment, and children's development.
Example: Nurse-Family Partnership



Home visiting to pregnant women and families with newborns



Parenting training programs



Intimate partner violence prevention



Social support for parents



Parent support programs for teens and teen pregnancy prevention programs



Mental illness and substance abuse treatment



High quality child care



Sufficient income support for lower income families

Opportunities to Incorporate ACE Learnings

Reduce impact of current ACEs on children and parents

- Ensure coordinated care from maternity through pediatrics for high risk mothers and their children (IPV, peripartum depression, substance use, parenting teens)
- Child Abuse Services

Prevent ACEs

- Parenting support (perinatal and parenting classes)
- Community Benefit initiatives
- Home outreach programs
- Mindfulness and resilience training

Where Do Healthcare Providers Fit Into All Of This?

Right at the forefront!

- We can screen and intervene
- We can partner with families and communities
- We can teach
- We can impact policy

What is a Helpful Primary Care Response to Patients with a History of ACE?

- Simple: “Asking, listening, and accepting are a powerful form of doing that appears to provide great relief to patients”
 - Associated w/ 35% decrease in health care utilization
- BH tools: Mindfulness based meditation
- Community-based recovery resources

Universal Education with Parents and Families

- Many parents don't recognize how their own early trauma can affect their parenting and their children
- Increasing parents' awareness about effects of ACEs can help them to understand their own lives and make healthier choices to protect their own children from ACEs



We Can Prevent ACEs - Video

<https://www.youtube.com/watch?v=8gm-INpzU4g>

Where Does Kaiser Permanente Fit Into All Of This?

- For SCMPG, we piloted the use of the ACEs questionnaires for 3 and 5 year old well child visits at 5 different sites last year
 - Antelope Valley is one of the site
- NCAL has implemented routine screening for all age groups for the past three years
- We refer all ACE scores of ≥ 4 to our behavioral health department for further evaluation, long-term therapy and community referrals as needed
- We support community programs through the Kaiser Permanente Community Benefits, i.e. Antelope Valley Partners for Health, Children's Center of Antelope Valley, Mental Health America, Boys and Girls Club, YMCA, etc.

THANK YOU!

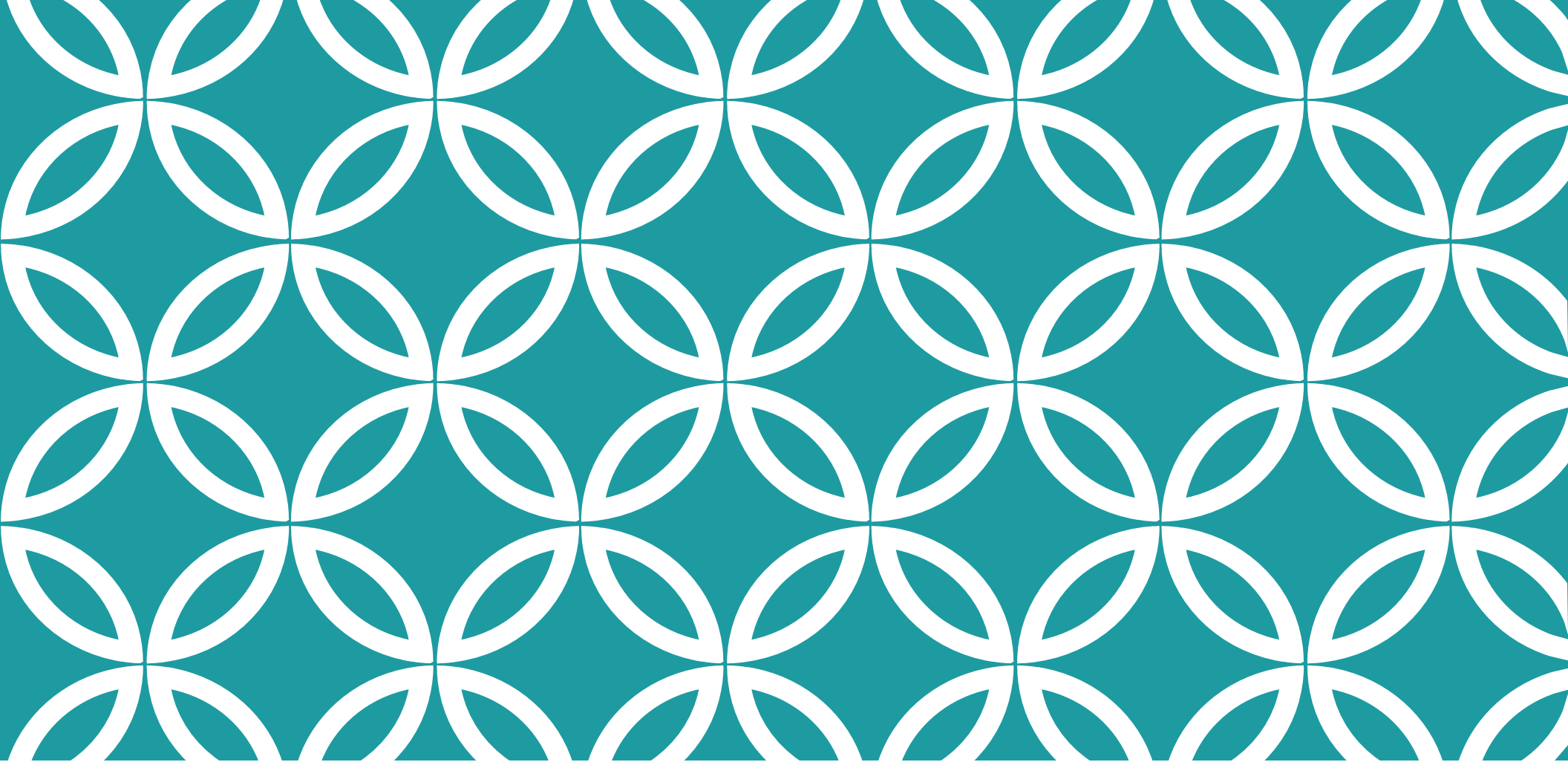
- Questions? Comments?

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APPENDIX

ACEs Flyer

STRESS & EARLY BRAIN GROWTH Understanding Adverse Childhood Experiences (ACEs)

What are ACEs?

ACEs are serious childhood traumas -- a list is shown below -- that result in toxic stress that can harm a child's brain. This toxic stress may prevent a child from learning, from playing in a healthy way with other children, and can result in long-term health problems.

Adverse Childhood Experiences can include:

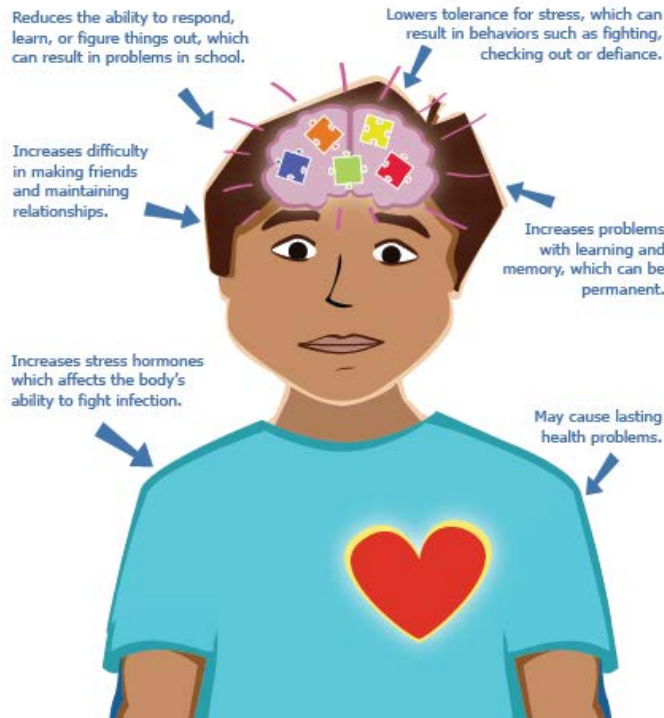
1. Emotional abuse
2. Physical abuse
3. Sexual abuse
4. Emotional neglect
5. Physical neglect
6. Mother treated violently
7. Household substance abuse
8. Household mental illness
9. Parental separation or divorce
10. Incarcerated household member
11. Bullying (by another child or adult)
12. Witnessing violence outside the home
13. Witness a brother or sister being abused
14. Racism, sexism, or any other form of discrimination
15. Being homeless
16. Natural disasters and war

Exposure to childhood ACEs can increase the risk of:

- Adolescent pregnancy
- Alcoholism and alcohol abuse
- Depression
- Illicit drug use
- Heart disease
- Liver disease
- Multiple sexual partners
- Intimate partner violence
- Sexually transmitted diseases (STDs)
- Smoking
- Suicide attempts
- Unintended pregnancies

How do ACEs affect health?

Through stress. Frequent or prolonged exposure to ACEs can create toxic stress which can damage the developing brain of a child and affect overall health.



A Survival Mode Response to toxic stress increases a child's heart rate, blood pressure, breathing and muscle tension. Their thinking brain is knocked off-line. Self-protection is their priority. In other words:
"I can't hear you! I can't respond to you! I am just trying to be safe!"

The good news is resilience can bring back health and hope!

What is Resilience?

Resilience is the ability to return to being healthy and hopeful after bad things happen. Research shows that if parents provide a safe environment for their children and teach them how to be resilient, that helps reduce the effects of ACEs.

Resilience trumps ACEs!

Parents, teachers and caregivers can help children by:

- Gaining an understanding of ACEs
- Helping children identify feelings and manage emotions
- Creating safe physical and emotional environments at home, in school, and in neighborhoods

What does resilience look like?

1. Having resilient parents

Parents who know how to solve problems, who have healthy relationships with other adults, and who build healthy relationships with their children.

2. Building attachment and nurturing relationships

Adults who listen and respond patiently to a child in a supportive way, and pay attention to a child's physical and emotional needs.

3. Building social connections

Having family, friends and/or neighbors who support, help and listen to children.

4. Meeting basic needs

Providing children with safe housing, nutritious food, appropriate clothing, and access to health care and good education.

5. Learning about parenting and how children grow

Understanding how parents can help their children grow in a healthy way, and what to expect from children as they grow.

6. Building social and emotional skills

Helping children interact in a healthy way with others, manage their emotions and communicate their feelings and needs.

Resources:

ACES 101

<http://acestoohigh.com/aces-101/>

Triple-P Parenting

www.triplep-parenting.net/glo-en/home/

Resilience Trumps ACEs

www.resiliencetrumpsACEs.org

CDC-Kaiser Adverse Childhood Experiences Study

www.cdc.gov/violenceprevention/acestudy/

Zero to Three Guides for Parents

<http://www.zerotothree.org/about-us/areas-of-expertise/free-parent-brochures-and-guides/>

Thanks to the people in the Community & Family Services Division at the Spokane (WA) Regional Health District for developing this handout for parents in Washington State, and sharing it with others around the world.

Resources for You to Learn More

- **National Pediatric Practice Community on ACEs:**
<https://nppcaces.org/>
- **Center For Youth Wellness:**
<https://centerforyouthwellness.org/>
- **TED Talk**
https://www.ted.com/talks/nadine_burke_harris_how_childhood_trauma_affects_health_across_a_lifetime
- **Resource for Toxic Stress:** www.stress-health.org
- **ACES Information:** <http://acestoohigh.com/aces-101/>
- **Futures without Violence:** www.FuturesWithoutViolence.org
- **Connected Kids Video**
<https://www.youtube.com/watch?v=JOmj5VVYyF0&t=173s>

Resources for You to Learn More

- **Triple-P Parenting:** www.triplep-parenting.net/glo-en/home/
- **Resilience Trumps ACEs:** www.resiliencetrumpsACEs.org
- **CDC-Kaiser Adverse Childhood Experiences Study:**
www.cdc.gov/violenceprevention/acestudy/
- **Zero to Three Guides for Parents:**
<https://www.zerotothree.org/parenting>
- **Childhelp:** 1800-4ACHILD
- **Treatment Referral for Substance Abuse:** 1-800-662 HELP
- **National Fatherhood Institute:** www.fatherhood.org
- **Kaiser Permanente:** www.kp.org