



Preventing ACEs and their associated harms: Moving upstream and building resilience

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Presenters



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Discussing ACEs and their Impacts

The material in this presentation may trigger uncomfortable emotions for some individuals.

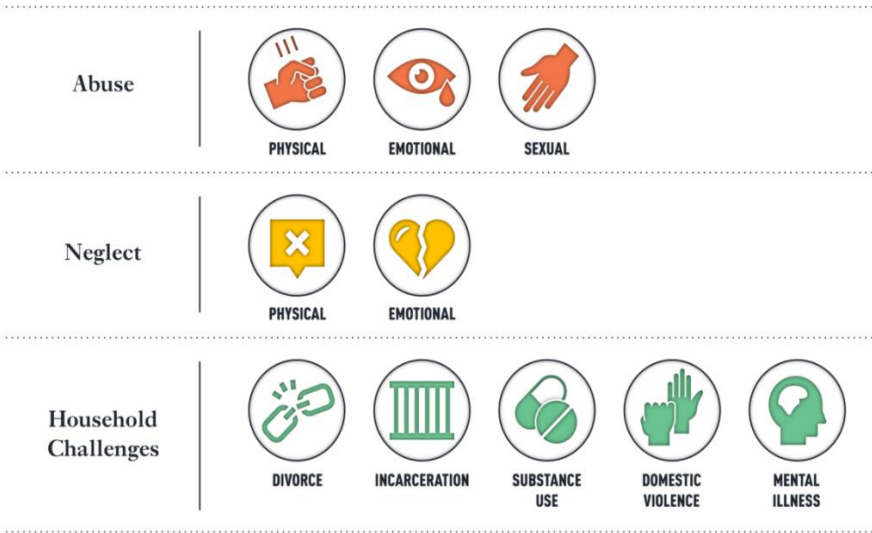
- Contents include scenes depicting acts of violence, child abuse and neglect, and related conversations.
- Please take care of yourself. Feel free to take a break by leaving or averting your eyes, and/or after debrief with us, a friend, colleague, or other support. If you need information for support services, we can provide that for you.

Let's all be respectful of others around us and create a safe space for each other.

Adverse Childhood Experiences

ACEs are disruptions to the promotion of safe, stable, and nurturing family relationships and are characterized by stressful or traumatic events that occur during an individual's first 18 years of life.

The Original 10 ACEs (Adverse Childhood Experiences)



Original ACEs focus on individual experiences

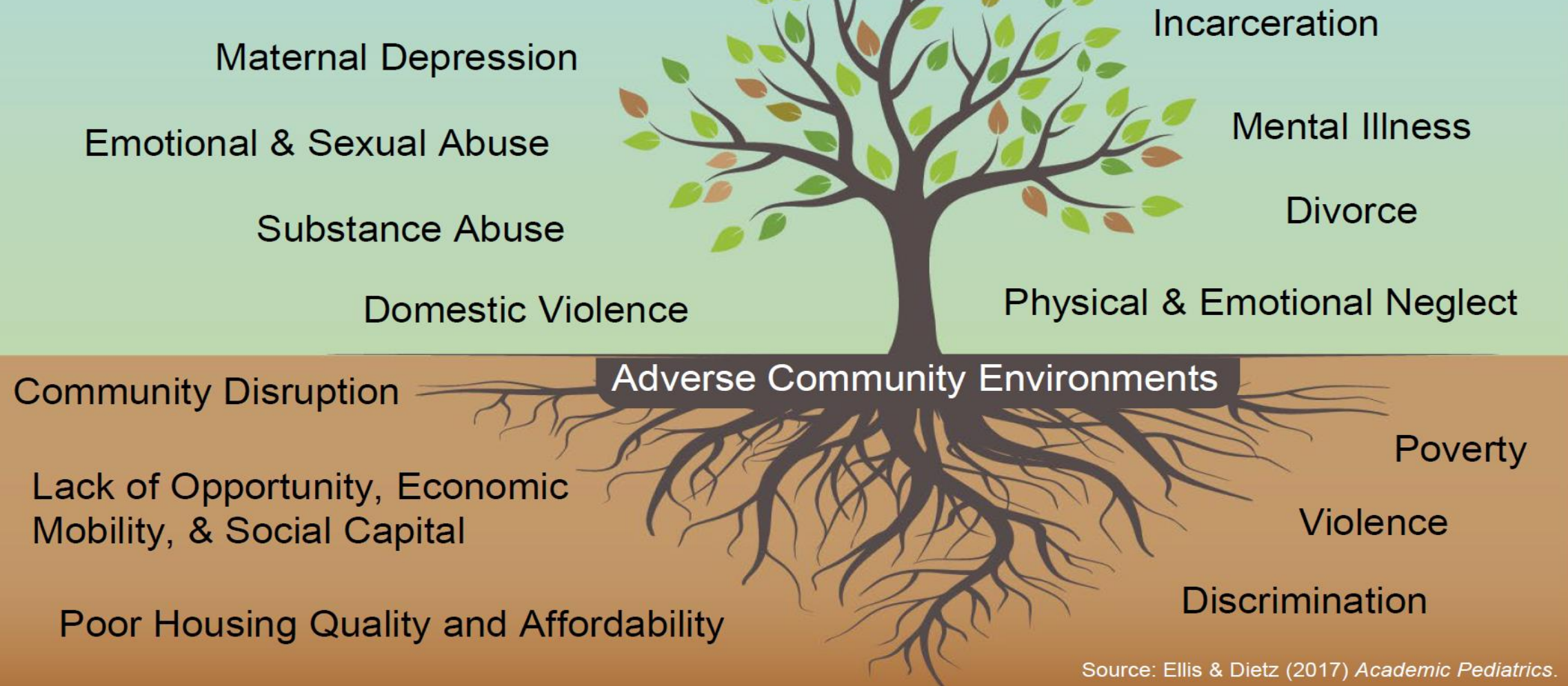
Adversity goes beyond individual experiences

Beyond the 10 ACEs



The Pair of ACEs

Adverse Childhood Experiences



Source: Ellis & Dietz (2017) *Academic Pediatrics*.

Types of Stress

1. Positive

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

2. Tolerable

Serious, temporary stress responses, buffered by supportive relationship

3. Toxic

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



1. Positive

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

POSITIVE STRESS

Normal, typical childhood experiences

Common Stressors

Child care drop off and pick up



Playground injuries



Losing a game

Buffering

No buffering support necessary



Brain & Body

Temporary, mild elevation in stress hormones



Brief increase in heart rate and blood pressure

Long-term

Increased resiliency and confidence
Coping skills development



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2. Tolerable

Serious, temporary stress responses, buffered by supportive relationship

TOLERABLE STRESS

More complicated, scary, challenging, and long-lasting

Common Stressors



Natural or manmade tragedy

Parents' divorce

Poverty

Death of a loved one



Caring adult buffers stress

Buffering

More severe, continuing cardiovascular and hormonal response



Brain & Body



Adaption and recovery likely, but potential for lasting physical or emotional damage



Long-term

3. Toxic

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

TOXIC STRESS

Severe, long-lasting, uncontrollable, and/or frequent stress

Common Stressors



Physical, sexual, or mental abuse



Neglect

Exposure to violence



Severe economic hardship

Buffering



No adult buffers child from stress

Brain & Body



Prolonged activation of stress response system
Disrupted development of brain circuits
Immune system depression



Long-term

Possible lifelong changes, such as:



Heart disease



Alcoholism

Memory, learning,

multitasking difficulties

Anxiety/depression

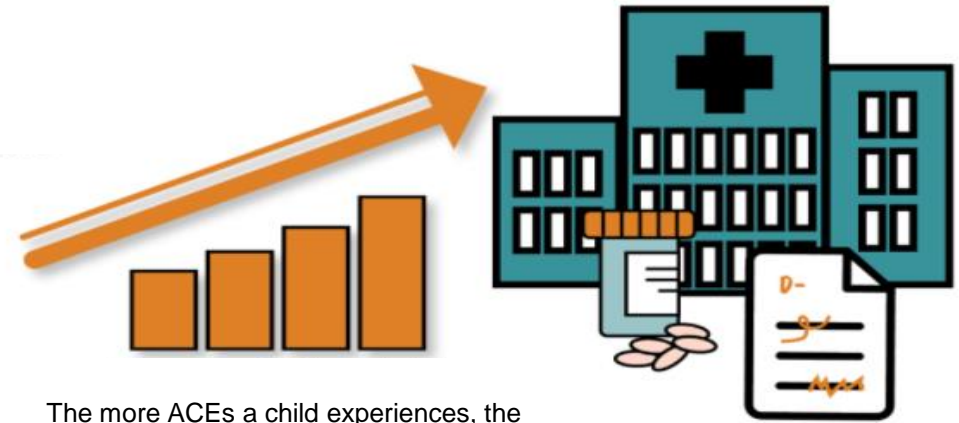
Cancer



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How do ACEs Relate to Toxic Stress?



The more ACEs a child experiences, the more likely they are to suffer from things like heart disease and diabetes, poor academic achievement, and substance misuse later in life.

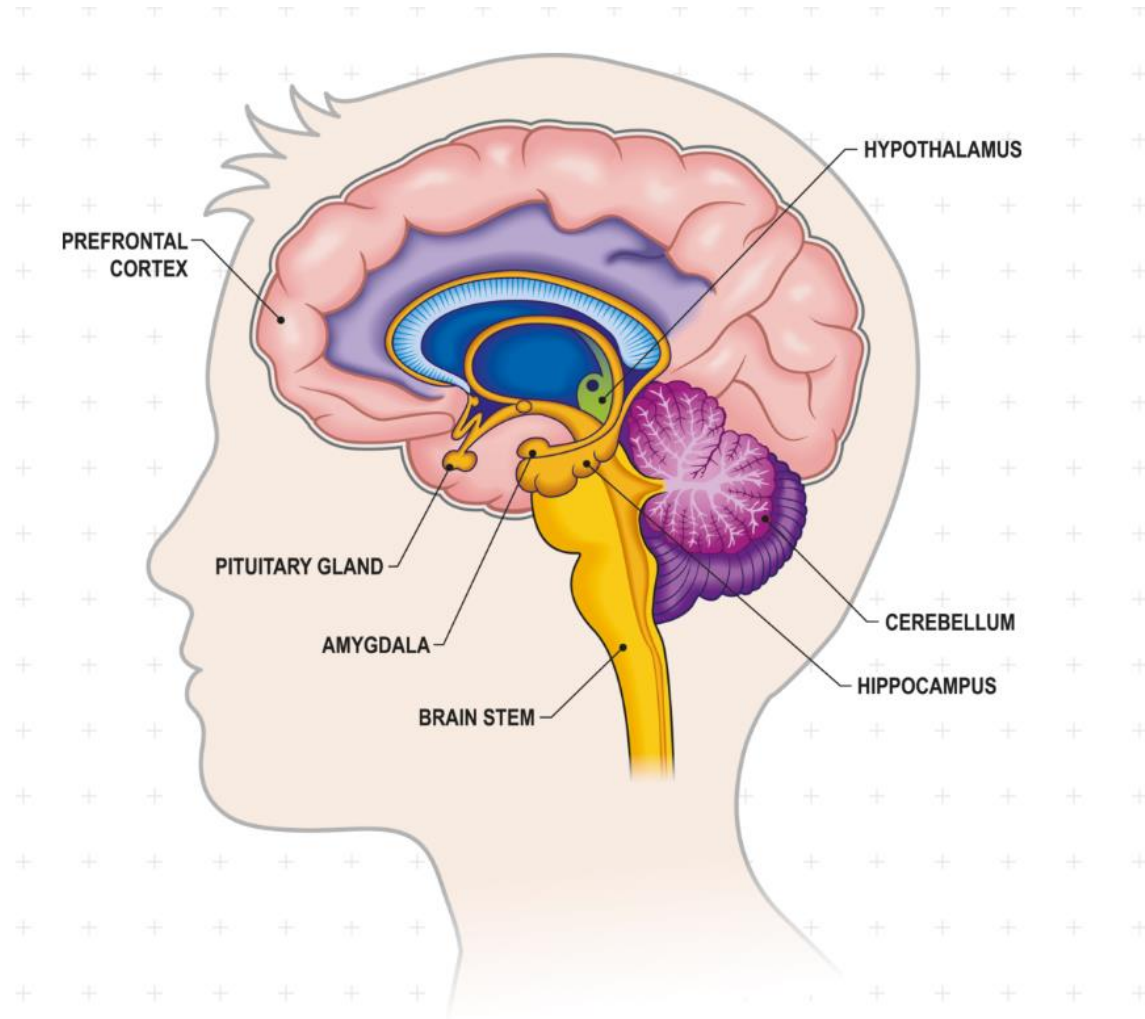
TOXIC STRESS EXPLAINS HOW ACEs "GET UNDER THE SKIN."

Experiencing many ACEs, as well as things like racism and community violence, without supportive adult can cause what's known as **toxic stress**.

This excessive activation of the stress response system can lead to long lasting wear and tear on the body and the brain.

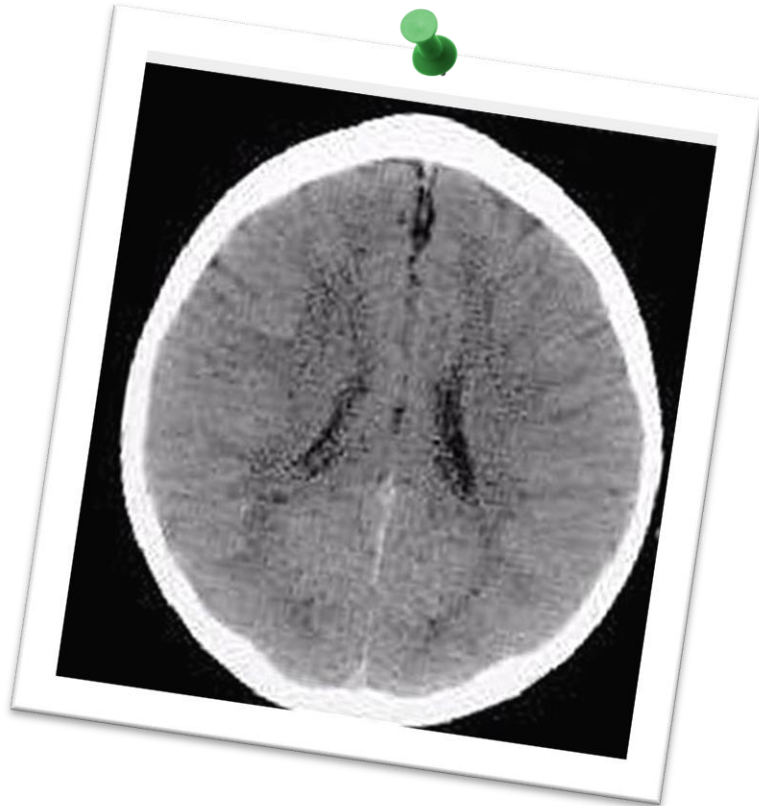


The effect would be similar to revving a car engine for days or weeks at a time.

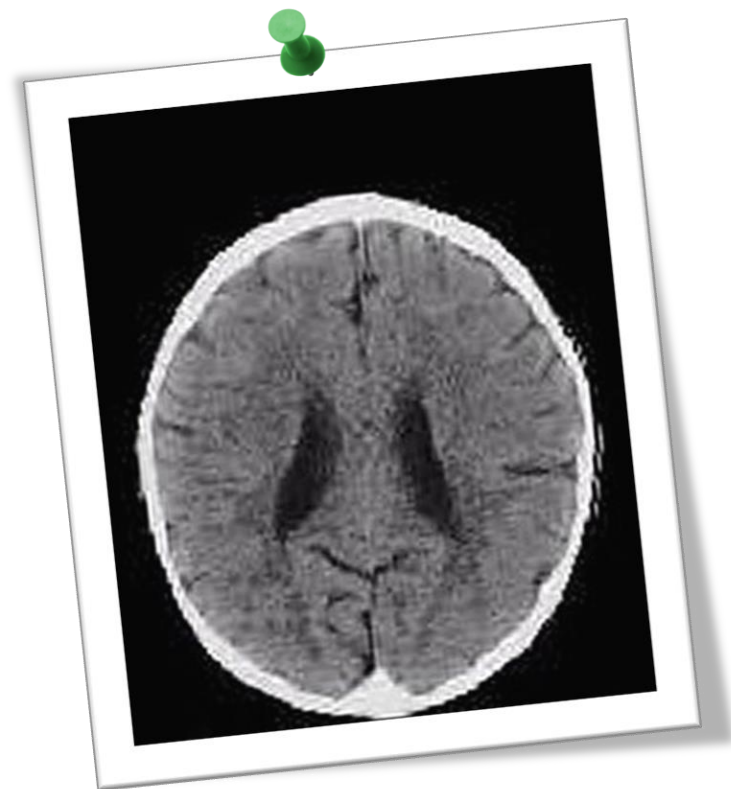


3-year-old children

Typical



Extreme Neglect



WHAT IS EPIGENETICS?

AND HOW DOES IT RELATE TO CHILD DEVELOPMENT?

“Epigenetics” is an emerging area of scientific research that shows how environmental influences—children’s experiences—actually affect the expression of their genes.



During development, the DNA that makes up our genes accumulates chemical marks that determine how much or little of the genes is expressed. This collection of chemical marks is known as the “epigenome.” The different experiences children have rearrange those chemical marks. This explains why genetically identical twins can exhibit different behaviors, skills, health, and achievement.



This means the old idea that genes are “set in stone” has been disproven. Nature vs. Nurture is no longer a debate. It’s nearly always both!



EPIGENETICS EXPLAINS HOW EARLY EXPERIENCES CAN HAVE LIFELONG IMPACTS.



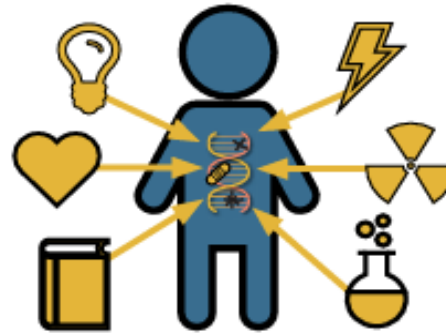
The genes children inherit from their biological parents provide information that guides their development. For example, how tall they could eventually become or the kind of temperament they could have.



When **EXPERIENCES** during development rearrange the epigenetic marks that govern gene expression, they can change whether and how genes release the information they carry.

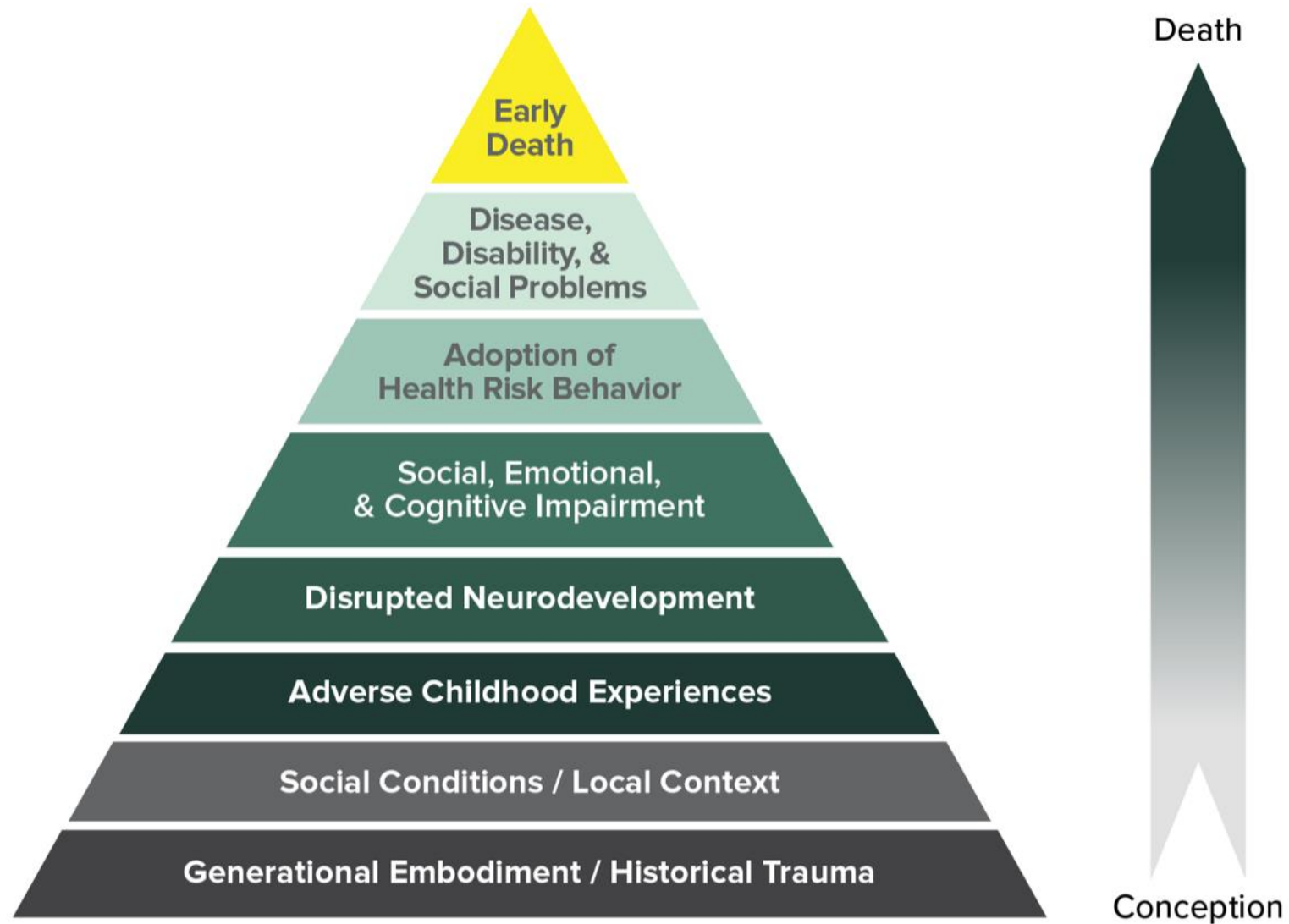


Thus, the epigenome can be affected by positive experiences, such as supportive relationships and opportunities for learning...



... or negative influences, such as environmental toxins or stressful life circumstances ...

... which leave a unique epigenetic “signature” on the genes. These signatures can be temporary or permanent and both types affect how easily the genes are switched on or off. Recent research demonstrates that there may be ways to reverse certain negative changes and restore healthy functioning. But the very best strategy is to support responsive relationships and reduce stress to build strong brains from the beginning.



Mechanism by which Adverse Childhood Experiences Influence Health and Well-being Throughout the Lifespan

Substance use is a common coping strategy

Substance Use Disorder

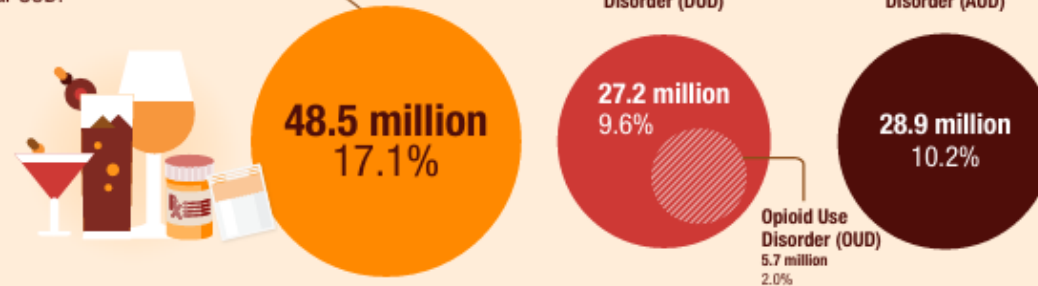
Substance Use Disorders in the Past Year

NSDUH asked respondents aged 12 or older about the effects of their drug or alcohol use on their lives in the 12 months before the interview.

Substance Use Disorder (SUD)

2023

In 2023, 17.1% of people (48.5 million) had a past year SUD.



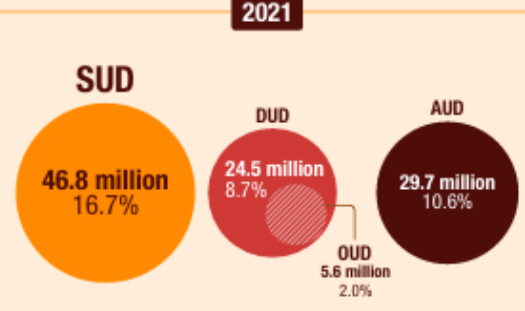
Differences across Years:

There were no significant differences across years for estimates of Substance Use Disorder, Opioid Use Disorder, and Alcohol Use Disorder.

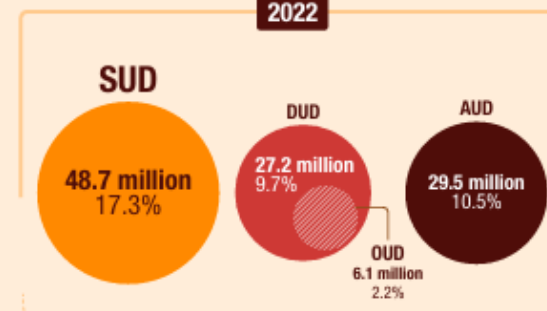
Differences across Years: Drug Use Disorder



2021



2022



Youth and Young Adults are Especially at Risk

Initiating substance use at an early age increases the probability of developing a substance use disorder¹

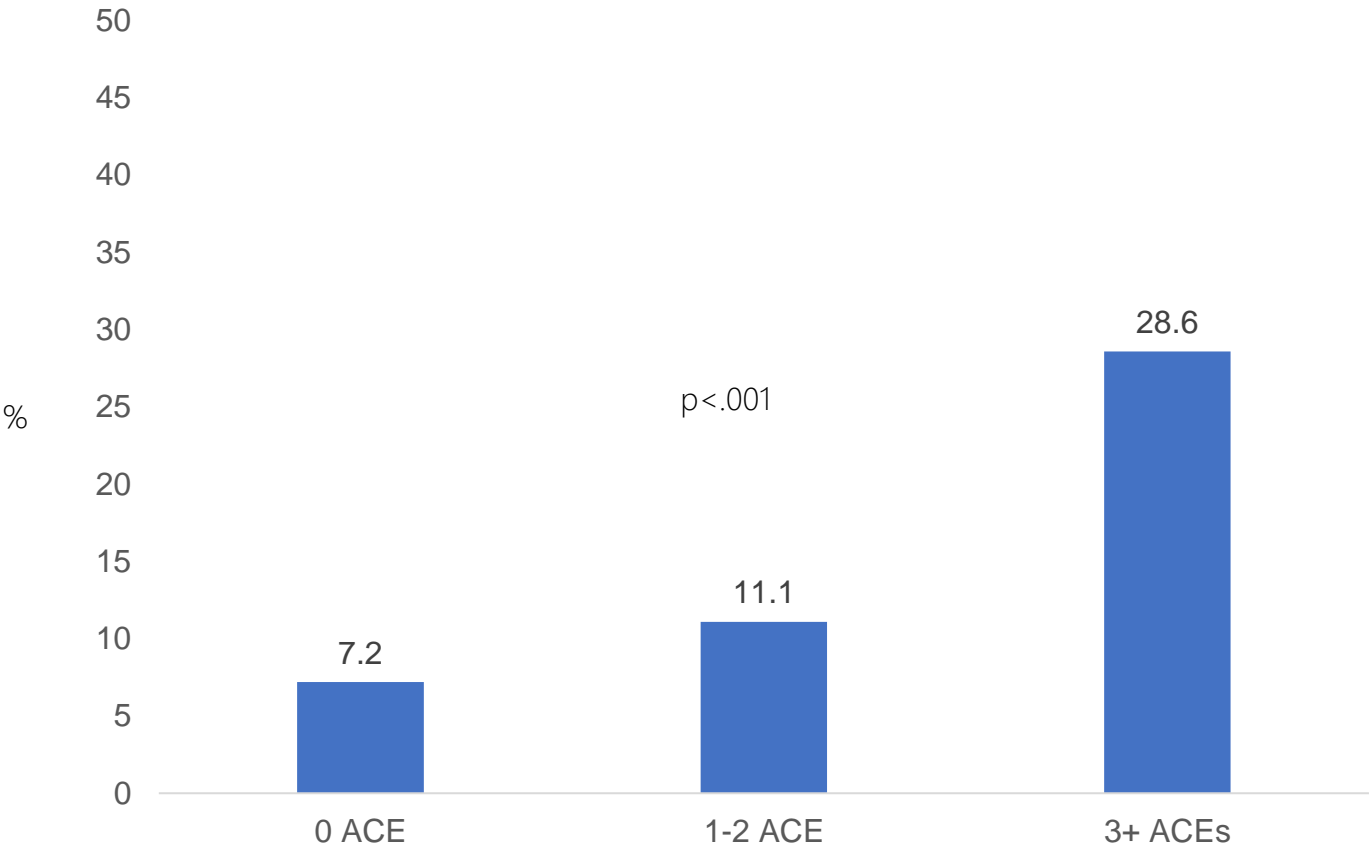
Using substances during adolescence and young may affect brain development which is not complete until about a person's mid-twenties²

About three quarters (74%) of 18- to 30-year-olds admitted to substance use disorder treatment programs began using substances at the age of 17 or younger³

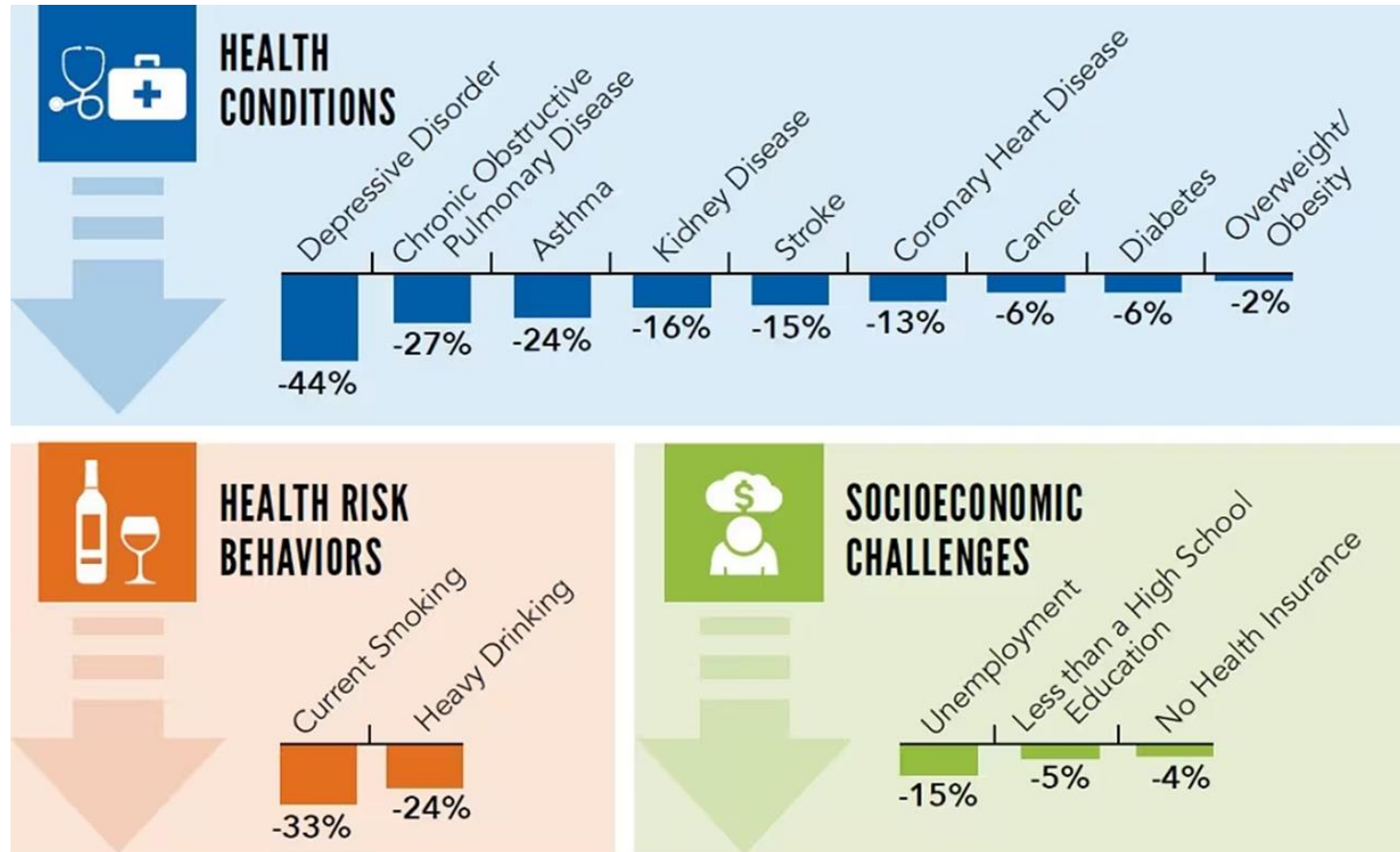
How Prevalent are ACEs among Adults?

- About 64% of adults in the US have experienced at least one type of ACE
- Nearly one in six (17.3%) have experienced four or more ACEs
- ACEs are highest among women, persons aged 25–34 years,, adults with less than a high school education, and adults who were unemployed or unable to work.

Percent of adults who ever used prescription pain medication in a way not directed by a doctor, by ACE score – Nevada 2020 BRFSS



Preventing ACEs: Potential Reduction of Negative Outcomes in Adulthood



How Prevalent are ACEs among Children and Youth?

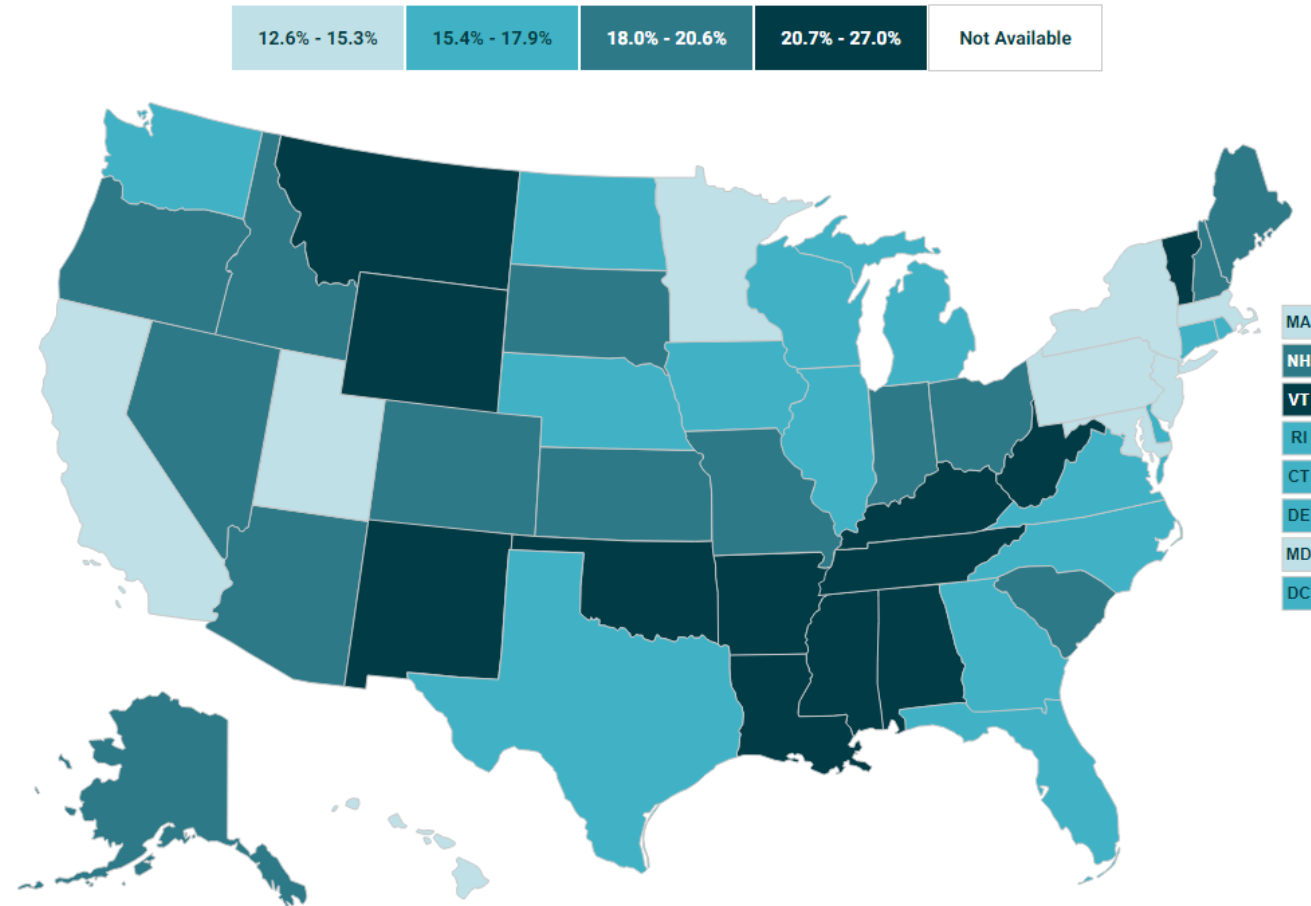
National Survey of Children's Health (NSCH)

- Survey with parents/caregivers of children 0-17 years
- National survey, but state-level estimates available
- No questions about abuse or neglect

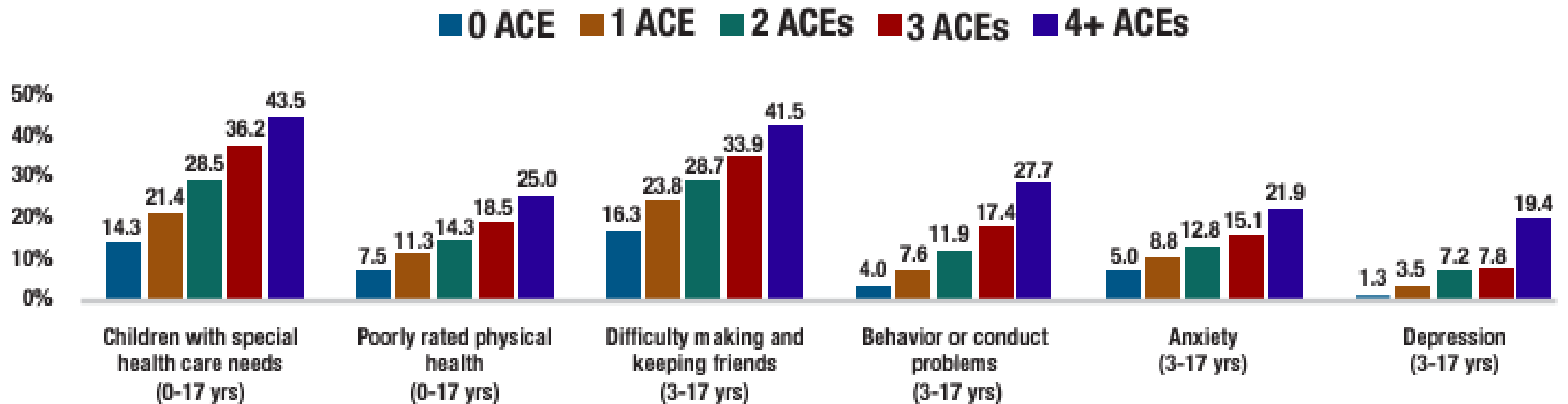
Youth Risk Behavior Survey (YRBS)

- Some states have monitored ACEs for many years
- An increasing number of states and jurisdictions are adopting a standardized ACE module (financial incentive)

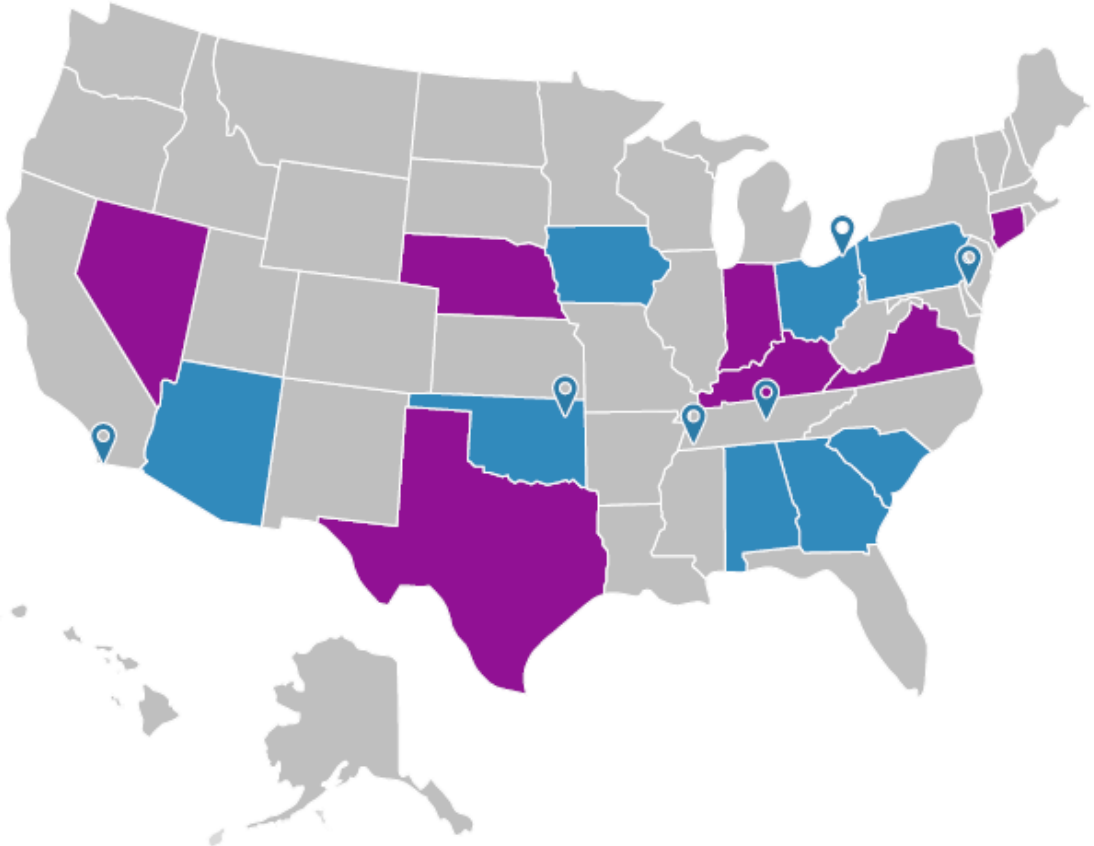
NSCH: Percent of Children with 2+ ACEs (2020-2021)



NSCH: ACES and Poor Health Outcomes



YRBS ACE Surveillance



Included 8 CDC-developed ACEs questions on their YRBS questionnaire in 2021

Included 16 CDC-developed ACE/PCEs questions on their YRBS questionnaire in 2021



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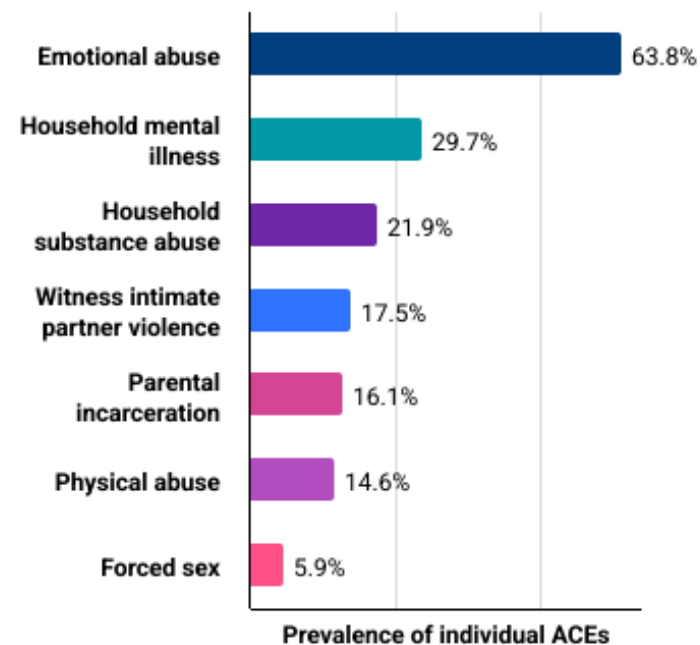
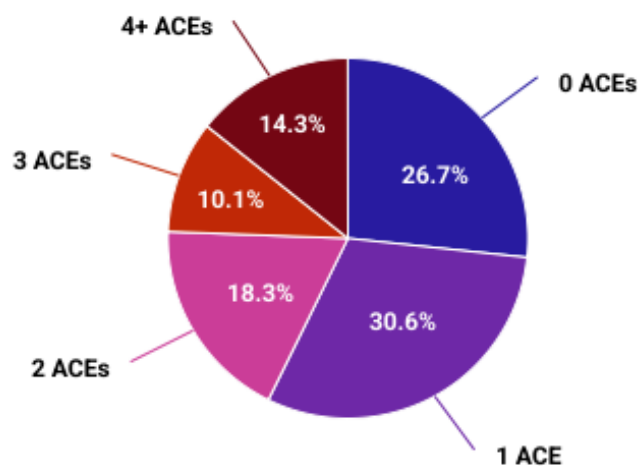


The influence of adverse childhood experiences (ACEs) and positive childhood experiences (PCEs) on substance use

Findings from the 2023 Nevada Middle School YRBS (n = 6,915)

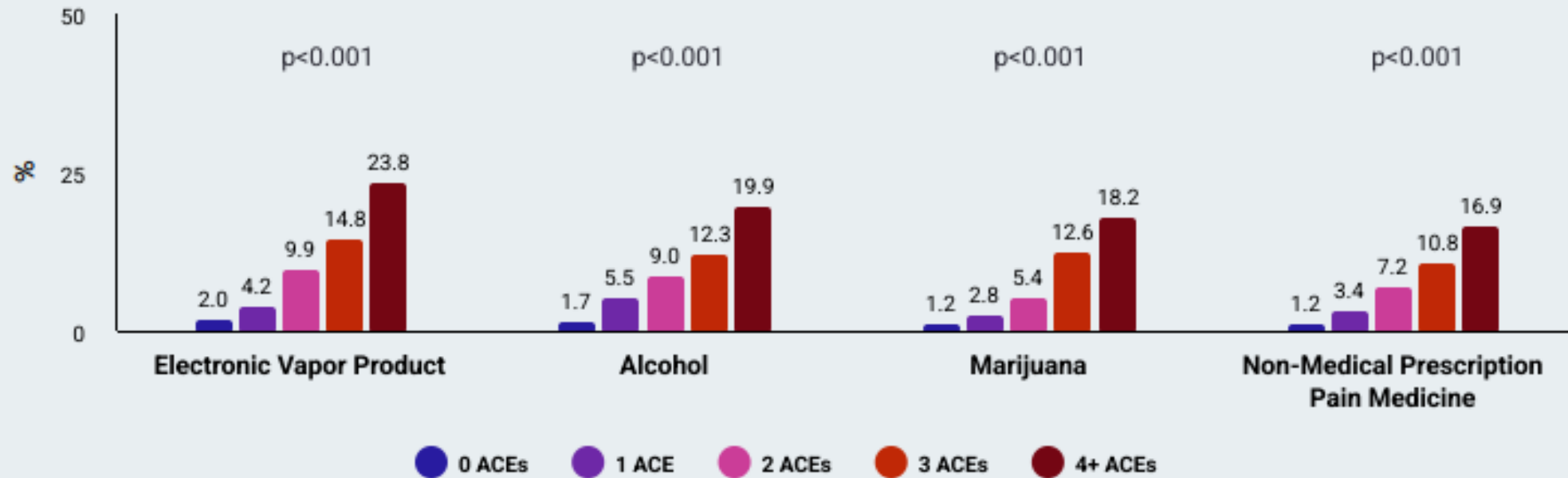
ACEs are potentially traumatic events that occur before the age of 18 years. ACEs include abuse, neglect, and household challenges. Middle school youth who have more ACEs often have more negative health outcomes, including substance use.

Prevalence of ACEs among Nevada middle school students



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Prevalence of Past 30-day Substance Use Outcomes by ACE Score



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Adolescent Opioid Misuse Attributable to Adverse Childhood Experiences

Elizabeth A. Swedo, MD^{1,2}, Steven A. Sumner, MD², Sietske de Fijter, MS³, Luke Werhan, MPA³, Kirkland Norris, MPH⁴, Jennifer L. Beauregard, PhD^{1,5,6}, Martha P. Montgomery, MD^{1,3,7}, Erica B. Rose, PhD^{1,8,9}, Susan D. Hillis, PhD^{2,10}, Greta M. Massetti, PhD²

- Significant graded relationship between the number of ACEs and recent opioid misuse among adolescents.
- More than 70% of recent opioid misuse was attributable to ACEs



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What Can We Do to Prevent ACEs?



ACE Screening & Referral

- Screening for ACEs can help primary care clinicians assess risk for toxic stress and guide effective responses.
 - Sensitive and effective screening can be integrated into a routine clinical appointment in approximately 10 minutes
 - Parents report that ACEs screening is acceptable and helpful to their children's care,
 - Addressing ACEs in standard pediatric care affords an opportunity to improve health outcomes for children .
- To receive payment for conducting ACE screenings, clinical team members sometimes must use specific screening tools
- Tools are DIFFERENT for:
 - children,
 - adolescents,
 - and adults.

Limitations of Population-Level ACE Data



“All traumas are not created equal”

ACEs are weighted equally;

ACE score assumes that ACEs are equally traumatic

Differential experience of trauma;
wide variation in stress response

Much of the existing data is cross-sectional

More longitudinal studies needed

Conventional ACE questionnaire does not capture community contexts and social injustices/stressors, i.e. racism



STRONG
CHILDREN WELLNESS



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ACE Screening: Important Considerations

- Screening can have benefits when we have interventions that mitigate potential harmful outcomes
 - Wide range of potential interventions needed for specific ACE types; costs and skill of workforce in some settings may be prohibitive/limited
 - While referral of 'high ACE scorers' to behavioral health providers may have benefit, evidence is limited
- ACEs questions may be seen as intrusive, and carry stigma
- Risk for overtreatment
- Mandatory child abuse reporting may contribute to underreporting of ACEs, and/or inquiries about ACEs (even ACE score) may provoke suspicion of abuse
- Usefulness of a screening tool depends on its accuracy (sensitivity and specificity) and potential to inform clinical decision-making, enhance receipt of care, and promote health

ACE Screening: Important Knowledge Gaps

- Provider perspectives about ACEs screening have not been fully elucidated
- Measuring the accuracy (sensitivity, specificity, predictive value) of tools
- Further research examining benefits of universal ACEs screening in pediatric primary care is needed
- How best to screen in ways that minimize stigma and underreporting
 - Explain the rationale for the questionnaire and limits of confidentiality
 - Discuss the results
 - Collaborate on treatment planning
 - Also screen for Positive Childhood Experiences

Promote Positive Childhood Experiences (PCEs)

PCEs stem from safe, stable, nurturing relationships and environments, and have the power to prevent or protect children from ACEs



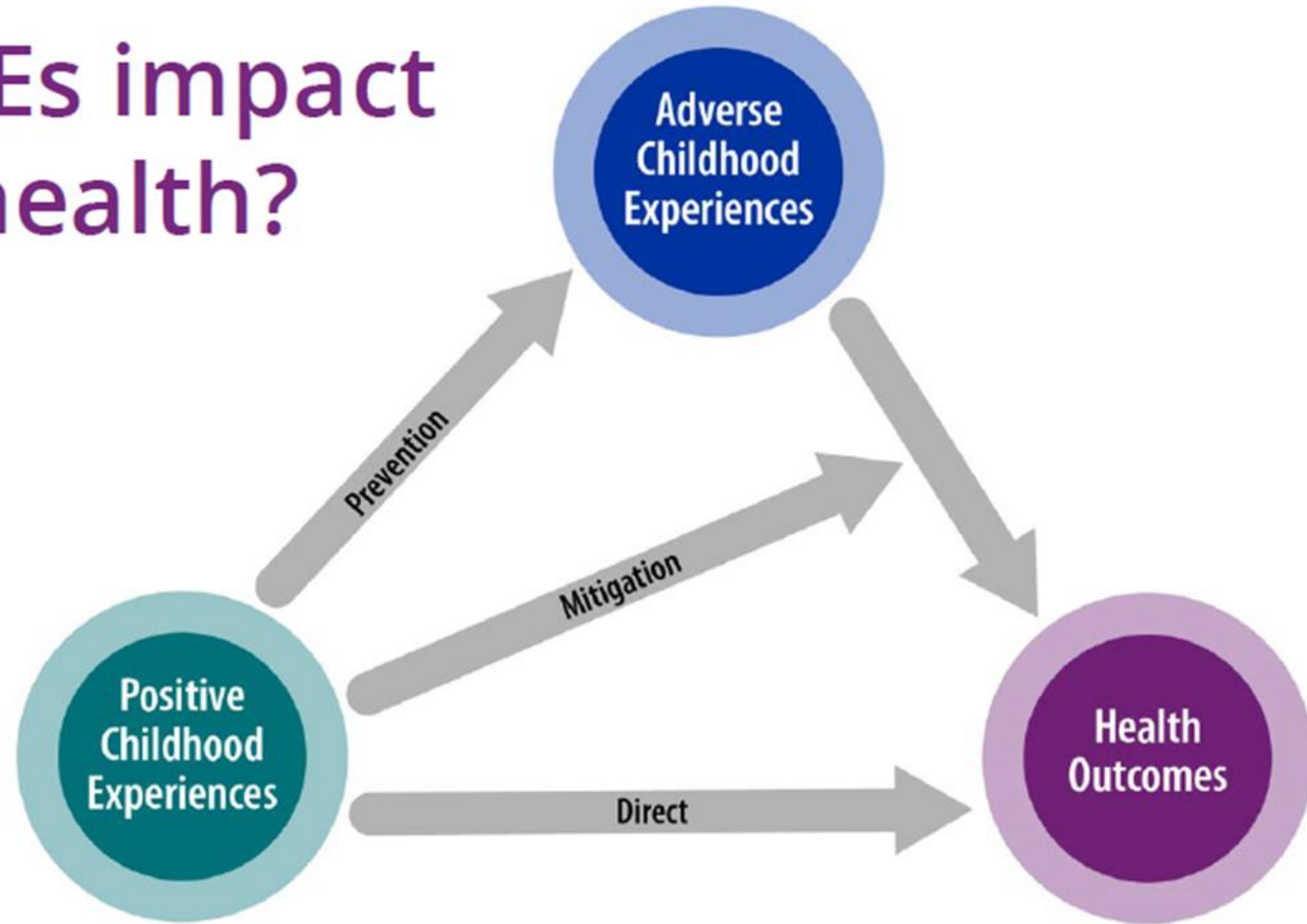
What are **Positive Childhood Experiences (PCEs)**?



Research shows that when PCEs are **actively promoted** during early childhood, adult mental health risks are significantly **reduced!**



How do PCEs impact children's health?





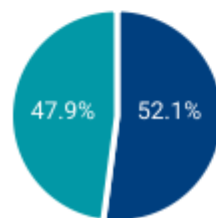
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PCEs

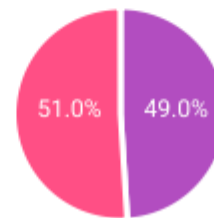
PCEs are positive experiences during childhood, including having safe, stable, nurturing relationships and environments. In the 2023 YRBS, youth were asked six questions covering family communication and school connectedness. An average family communication and school connectedness score was calculated and youth with scores higher than the average score were categorized as having high PCE exposure.

Prevalence of Family Communication and School Connectedness Among All Middle School Students



Family Communication

- High Family Communication
- Low Family Communication



School Connectedness

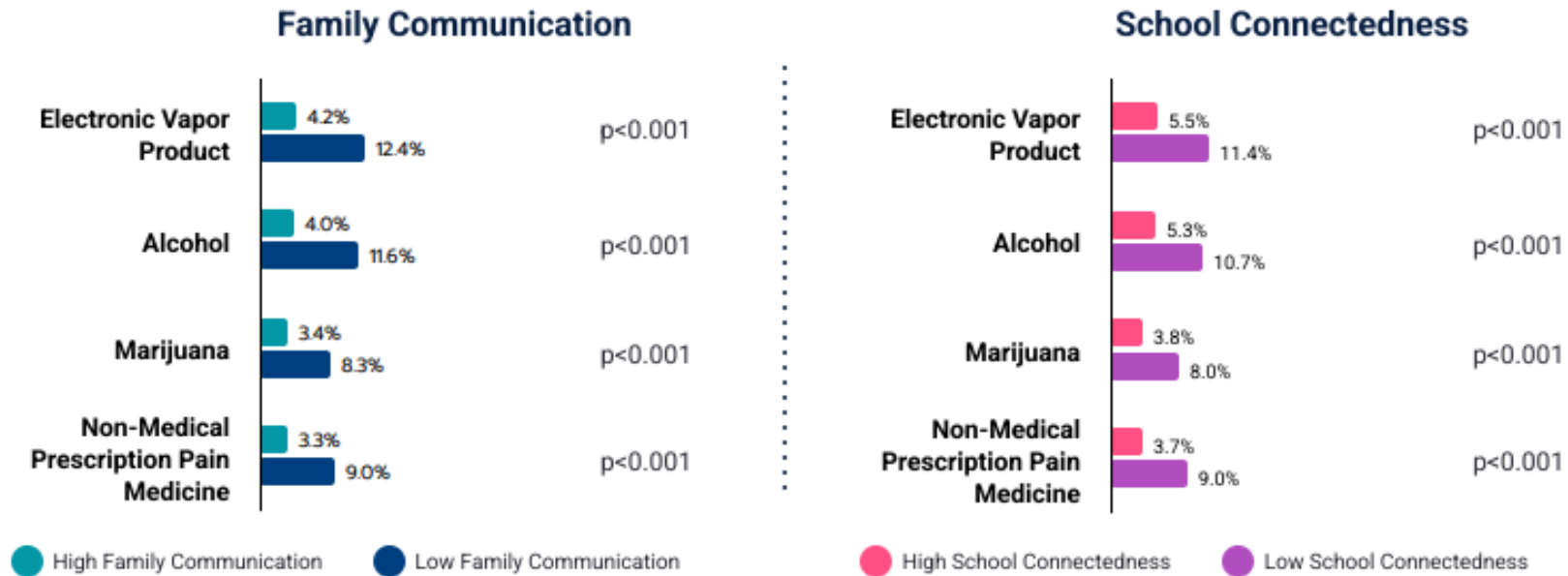
- High School Connectedness
- Low School Connectedness



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Prevalence of Past 30-day Substance Use Outcomes by PCEs Among All Middle School Students



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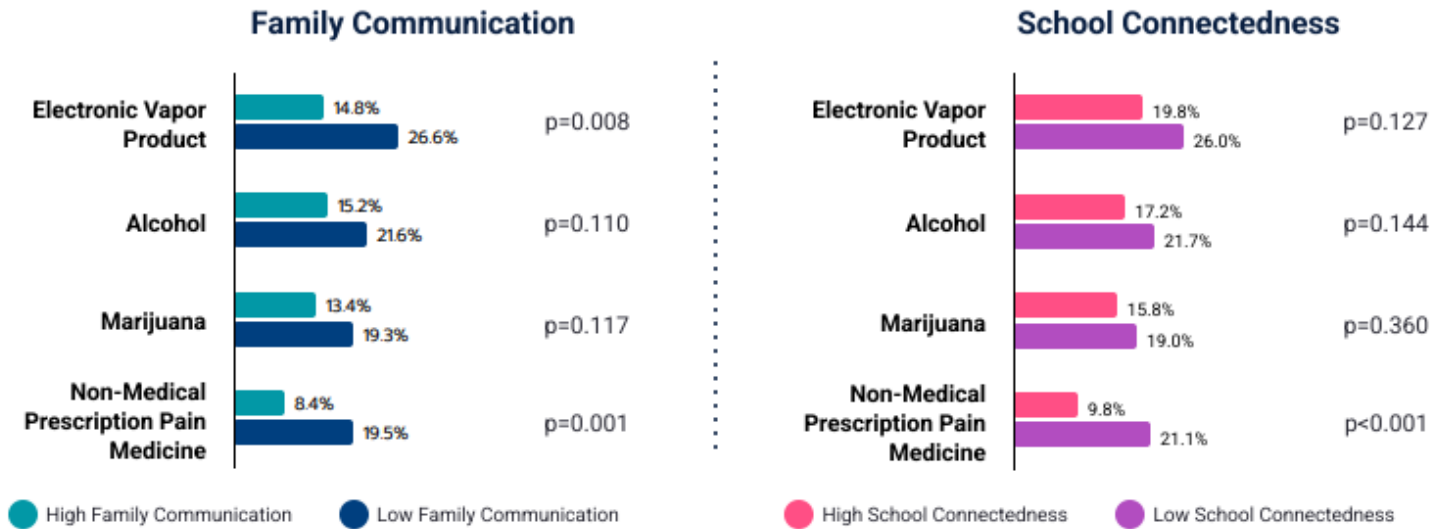
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Prevalence of Past 30-day Substance Use Outcomes by PCEs Among Middle School Students with 4+ ACEs

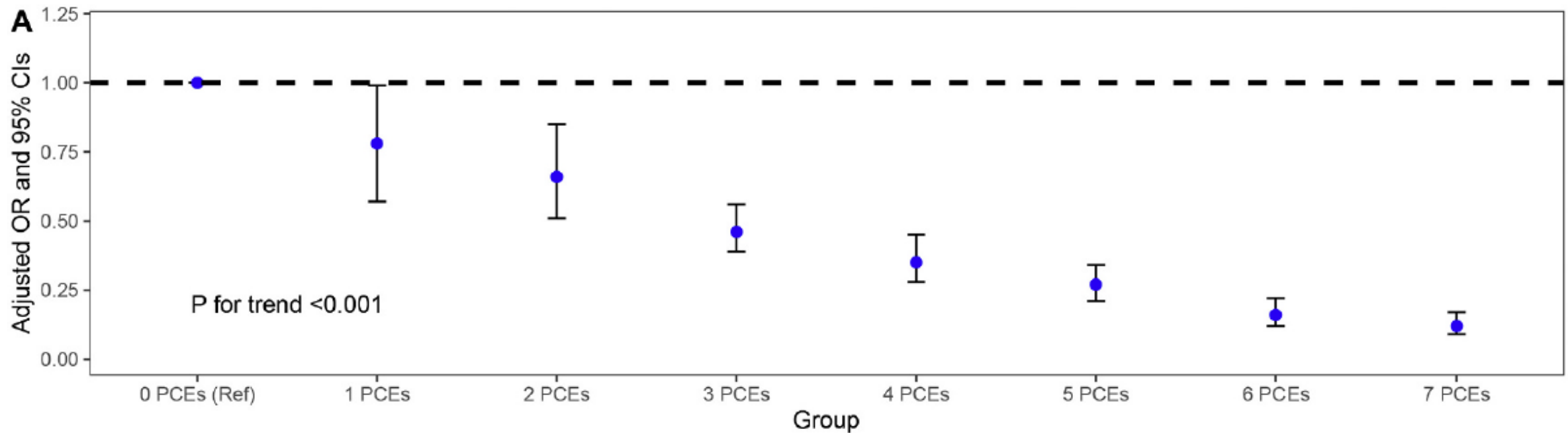


Even among middle school youth with a high number of ACEs, PCEs offer protection against some current substance use

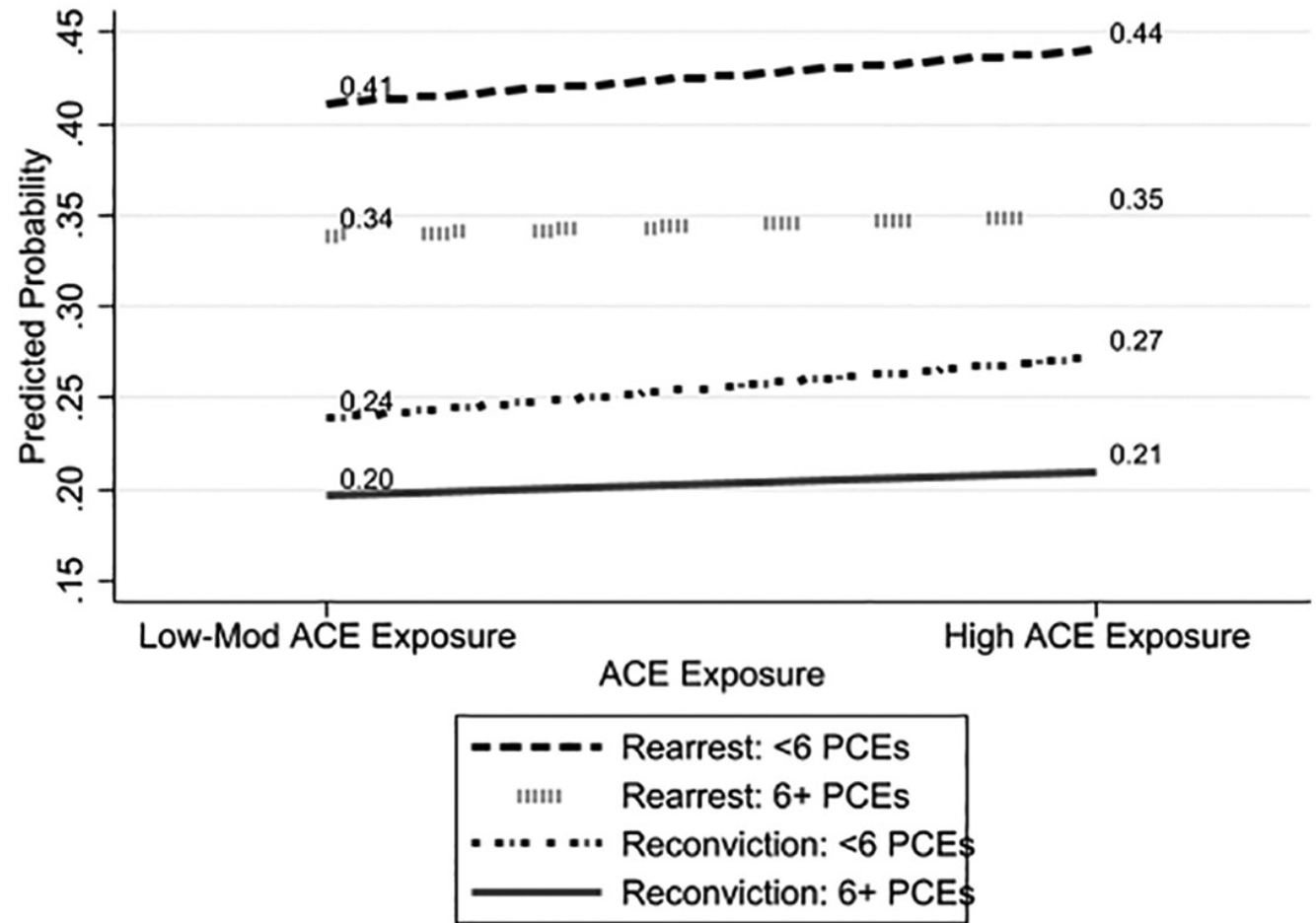


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Association Between Cumulative PCE Exposure and Adolescent Depression



PCEs Buffer Relationship Between ACE Exposure & Youth Rearrest/Reconviction



Sources of PCE Data

- Behavioral Risk Factor Surveillance System (BRFSS)
 - Some states have added a 7-item PCE module
- National Survey of Children's Health (NSCH)
 - After school activities, community volunteer, guiding mentor, connected caregiver, safe neighborhood, resilient family
- Youth Risk Behavior Survey (YRBS)
 - Supportive adult, supportive friends, sense of belonging at school
 - States add other PCEs as well (e.g., participation in after school activities, feeling safe and protected, feeling safe and secure in the neighborhood, having at least one adult at school you can talk to)
- Local School Climate Surveys

Promote Positive Experiences

Healthy and happy childhoods start now. Learn how you can help! Children and families thrive when they have access to safe, stable, nurturing relationships and environments. These relationships and environments are essential to creating positive childhood experiences and preventing adverse childhood experiences.

**At work...
At home....
In your neighborhood...**

Think...

How can we work together to create positive experiences for each other?

...then make it happen!



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Preventing ACEs

Strategy	Approach
Strengthen economic supports to families	<ul style="list-style-type: none"> • Strengthening household financial security • Family-friendly work policies
Promote social norms that protect against violence and adversity	<ul style="list-style-type: none"> • Public education campaigns • Legislative approaches to reduce corporal punishment • Bystander approaches • Men and boys as allies in prevention
Ensure a strong start for children	<ul style="list-style-type: none"> • Early childhood home visitation • High-quality child care • Preschool enrichment with family engagement
Teach skills	<ul style="list-style-type: none"> • Social-emotional learning • Safe dating and healthy relationship skill programs • Parenting skills and family relationship approaches
Connect youth to caring adults and activities	<ul style="list-style-type: none"> • Mentoring programs • After-school programs
Intervene to lessen immediate and long-term harms	<ul style="list-style-type: none"> • Enhanced primary care • Victim-centered services • Treatment to lessen the harms of ACEs • Treatment to prevent problem behavior and future involvement in violence • Family-centered treatment for substance use disorders

Example 1: Expand Family Friendly Workplace Policies



POLICY 1

**Company-paid
Health Care
Coverage**



POLICY 2

**Paid Time
Off**



POLICY 3

**Parental
Leave**



POLICY 4

**Nursing
Benefits**



POLICY 5

**"Best Place"
Designation**



POLICY 6

**Onsite Child
Care**



POLICY 7

**Child Care
Assistance**



POLICY 8

**Backup Child
Care**



POLICY 9

**Flexible
Hours**



POLICY 10

**Working
Remotely**



Employer Support Program

Contact the Children's Cabinet:

<https://www.childrenscabinet.org/businesses/>

[775-856-6200](tel:775-856-6200)



Do you want to support your employee's family obligations but are not sure where to start?

Click [here](#) and someone will connect with you within 1 business day to set up a FREE Consultation!

Being Family-Friendly is Business-Friendly



Replacing an employee costs a business **6-9 months** of that



Reduce absenteeism by **30%**.



Decrease turnover by **60%**.



LEVEL UP
YOUR PARENTING GAME!

Get winning ideas to level up your parenting from:
www.GreenvilleParents.com

Example 2: Public Education Campaign

Children and Mental Health

Is this just
a stage?

**Know when to seek
help for your child.**



Example 2: Public Education Campaign

REACH OUT
Together we are stronger.




REACH OUT
Together we are stronger.



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Example 3: Parenting Classes

Local Parenting Resources

 English

 Español



CLASSES MAY BE OFFERED VIRTUAL OR IN-PERSON

Boys Town

Focuses on skills for toddlers, preschoolers and children ages 6-16.

[More information](#) 



Cappalappa Family Resource Center

Emphasize skills for children ages 1-18.



"What happens in childhood does not stay in childhood."

*Adverse experiences in childhood are **NOT** destiny, but for many children, significant adversity bends life-course trajectories for the worse.*

Work towards progress!

- Recovery is a slow process.*
- About 40% to 60% of people with a drug addiction experience at least one relapse after an initial recovery.*
- Relapse rate is similar to other chronic diseases, such as high blood pressure and asthma, where 50% to 70% of people each year experience a recurrence of symptoms significant enough to require medical intervention.*
- Recovery plans vary based on the nature of the addiction, but all treatments are aimed at helping people adopt healthier coping strategies.*

An aerial photograph of a vast mountain range during the golden hour. The peaks are illuminated with a warm, orange-gold light, while the valleys and lower slopes are in deep shadow, creating a dramatic play of light and shadow. The sky is filled with soft, wispy clouds, some catching the low sun. The overall mood is serene and majestic. In the center of the image, the words "Thank you!" are written in a large, bold, black sans-serif font.

Thank you!