

30 YEARS
CDC INJURY CENTER

PROTECTION.
PREVENTION
PROGRESS.



Adverse Childhood Experiences and Substance Use Prevention

A Conversation with Drug Free Communities Coalitions

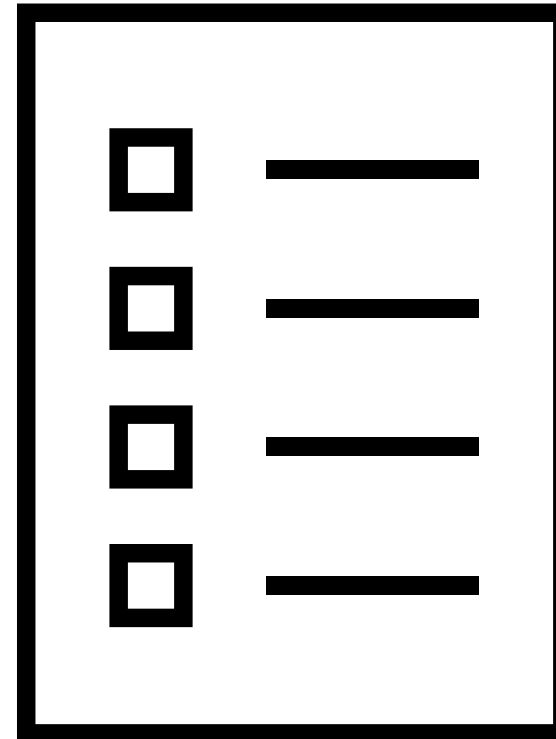
A Virtual Conference Series Presentation for Coalition for Healthy Youth
11/1/2023
Lace DePadilla, PhD



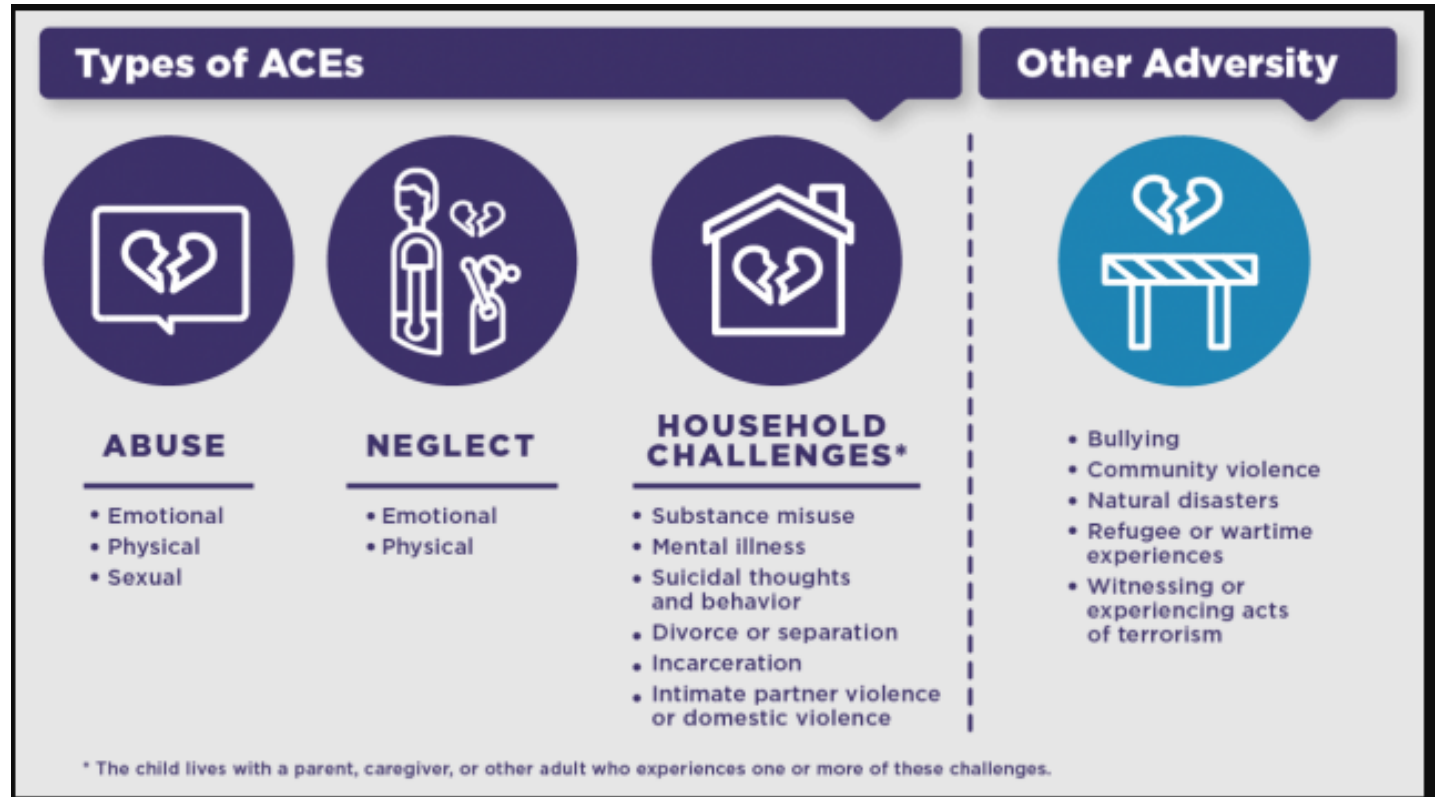
**Centers for Disease
Control and Prevention**
National Center for Injury
Prevention and Control

Objectives

- Describe Adverse Childhood Experiences (ACEs) and Adverse Community Environments.
- Describe impacts of early adversity.
- Understand the association between ACEs and substance use.
- Identify the six strategies to prevent ACEs described in the Adverse Childhood Experiences Prevention Resource for Action.

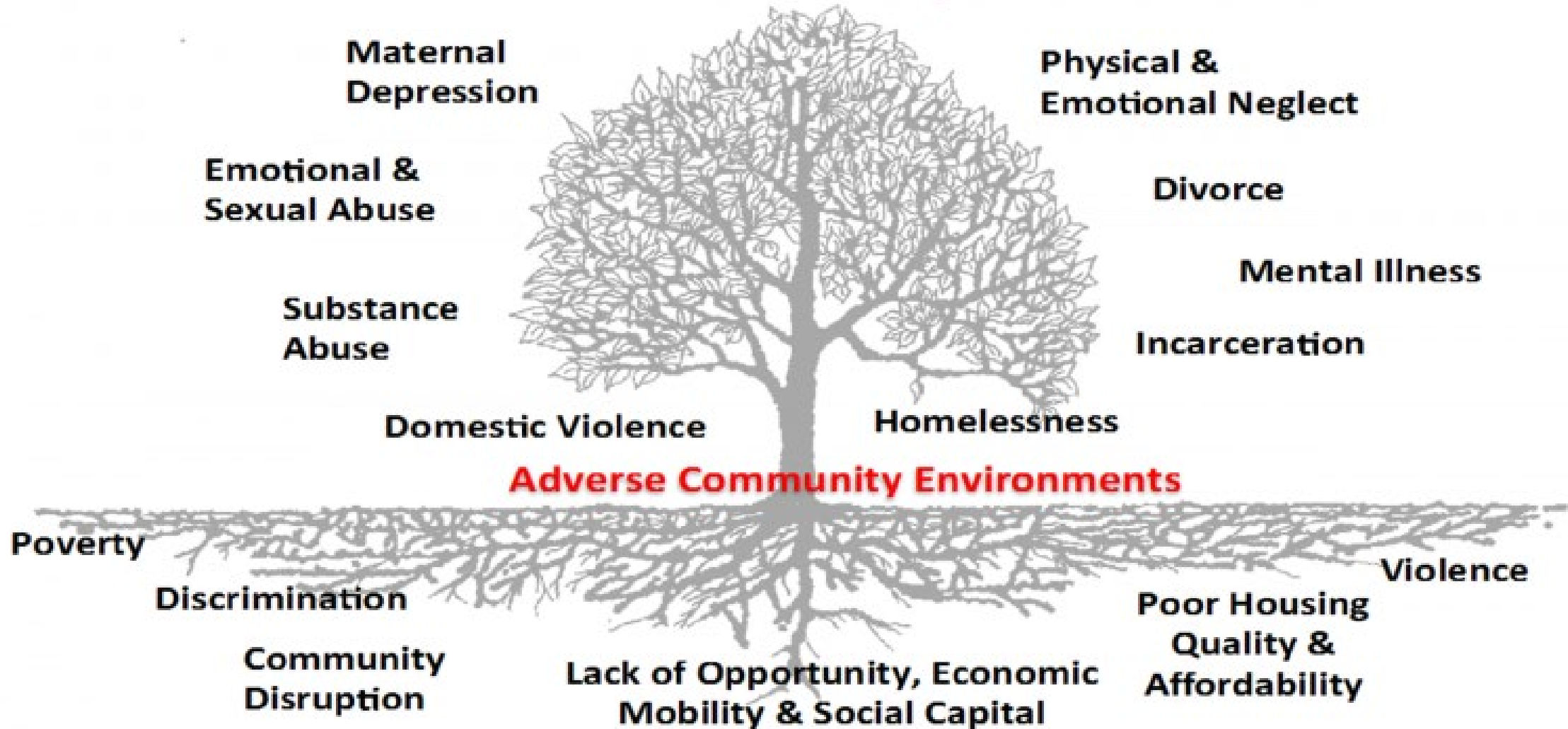


Adverse Childhood Experiences (ACEs)



The Pair of ACEs

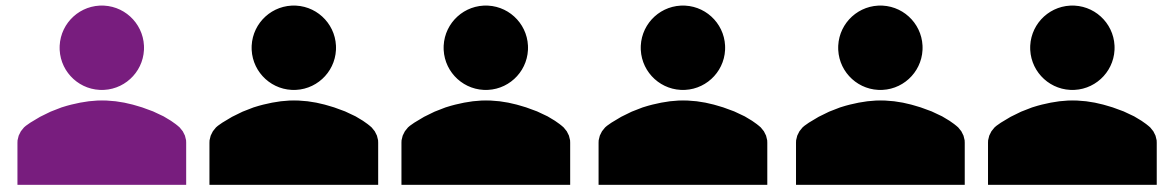
Adverse Childhood Experiences



ACEs are common

62%

of surveyed adults reported experiencing **at least one ACE**



1 in 6 people
reported experiencing **4+ ACEs**

Females, LGBTQ+ individuals, and **most racial/ethnic minority** groups are at **higher** risk of experiencing 4+ ACEs

ACEs Can Accumulate and Their Effects Last Beyond Childhood

The effects of ACEs can add up over time and affect a person throughout their life.

Children who repeatedly and chronically experience adversity can suffer from **TOXIC STRESS**.

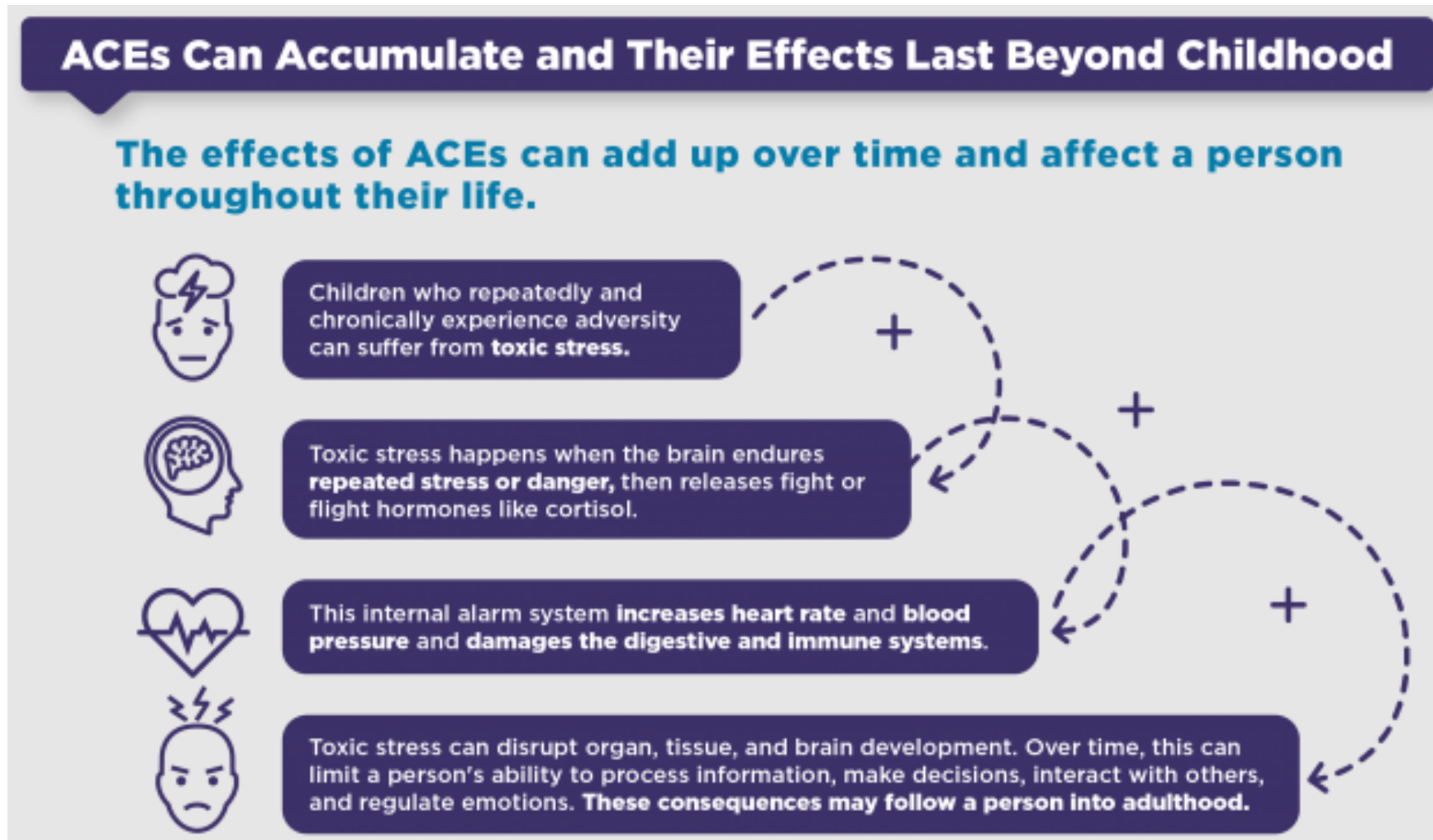


Toxic stress happens when the brain endures repeated stress or danger, then releases **FIGHT-OR-FLIGHT HORMONES** like cortisol.



<https://vetoviolence.cdc.gov/apps/aces-infographic/home>

Early Adversity has Lasting Impacts



Source: Hughes, Karen et al. "The effect of multiple adverse childhood experiences on health: a systematic review and meta-analysis." *The Lancet. Public health* vol. 2,8 (2017): e356-e366. doi:10.1016/S2468-2667(17)30118-4
https://www.cdc.gov/violenceprevention/aces/resources.html#anchor_1626996630

ACEs are associated with substance use in adulthood

- ACEs and overdose are linked in a cycle that can affect individuals, communities, and generations.
- Prescription opioid misuse
- Cannabis use
- Stimulant use and use disorder
- Substance use disorder

ACEs Can Echo Across Generations

The consequences of ACEs can be passed down from one generation to the next if children don't have protective buffers like positive childhood experiences or a caring adult in their lives.

Also, when families experience historical and systemic racism or living in poverty for generations, the effects of ACEs can add up over time.

UNPACKING

THE RELATIONSHIP

The relationship between ACEs and substance use is layered, can be bidirectional within one lifespan, and can also be intergenerational

SUBSTANCE USE IN THE
HOME
IS ITSELF AN ACE



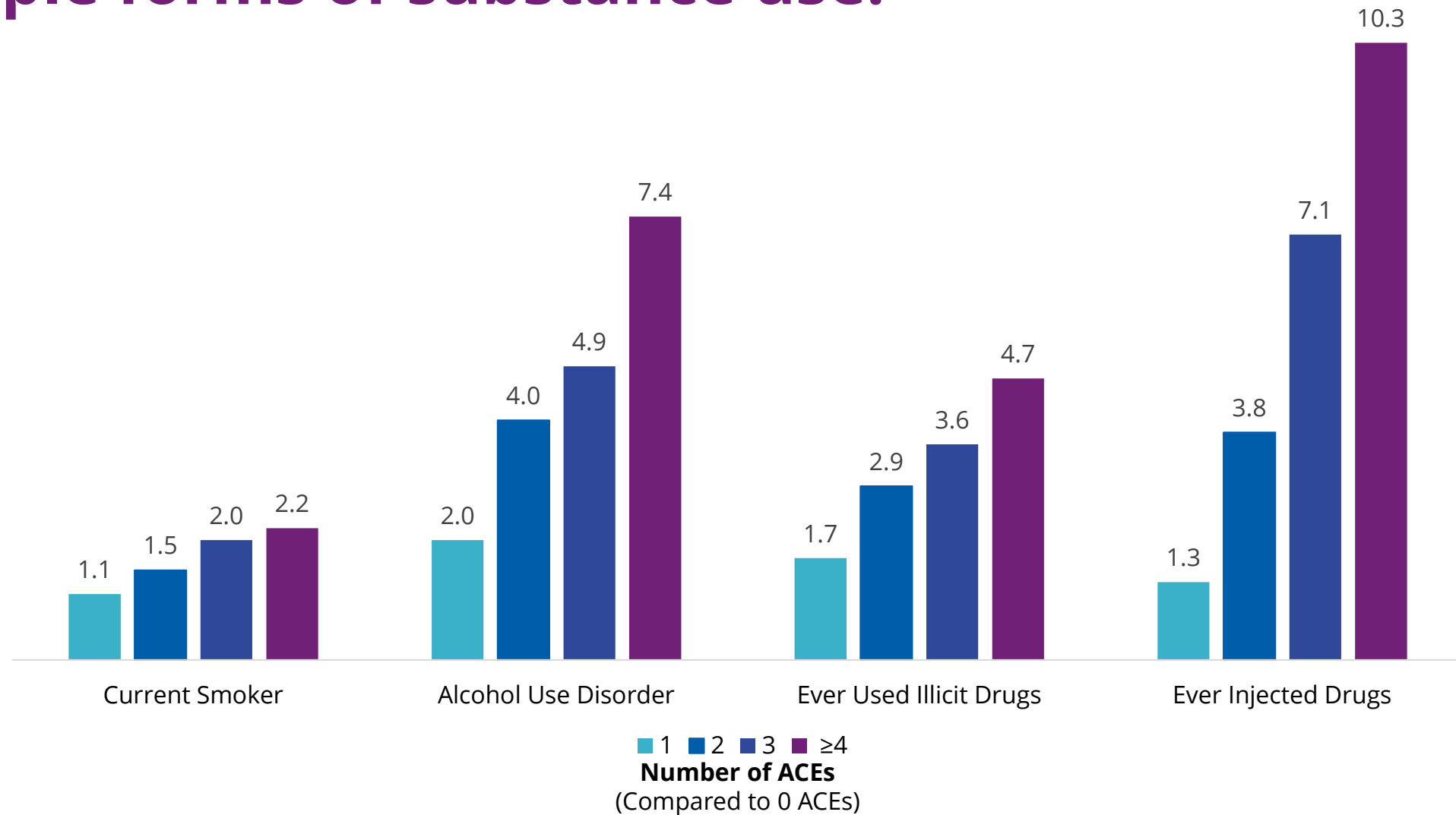
Parental substance use increases the risk for detrimental effects on child well-being

Kuppens, Sofie, Simon C. Moore, Vanessa Gross, Emily Lowthian, and Andy P. Siddaway. "The enduring effects of parental alcohol, tobacco, and drug use on child well-being: A multilevel meta-analysis." *Development and psychopathology* 32, no. 2 (2020): 765-778.

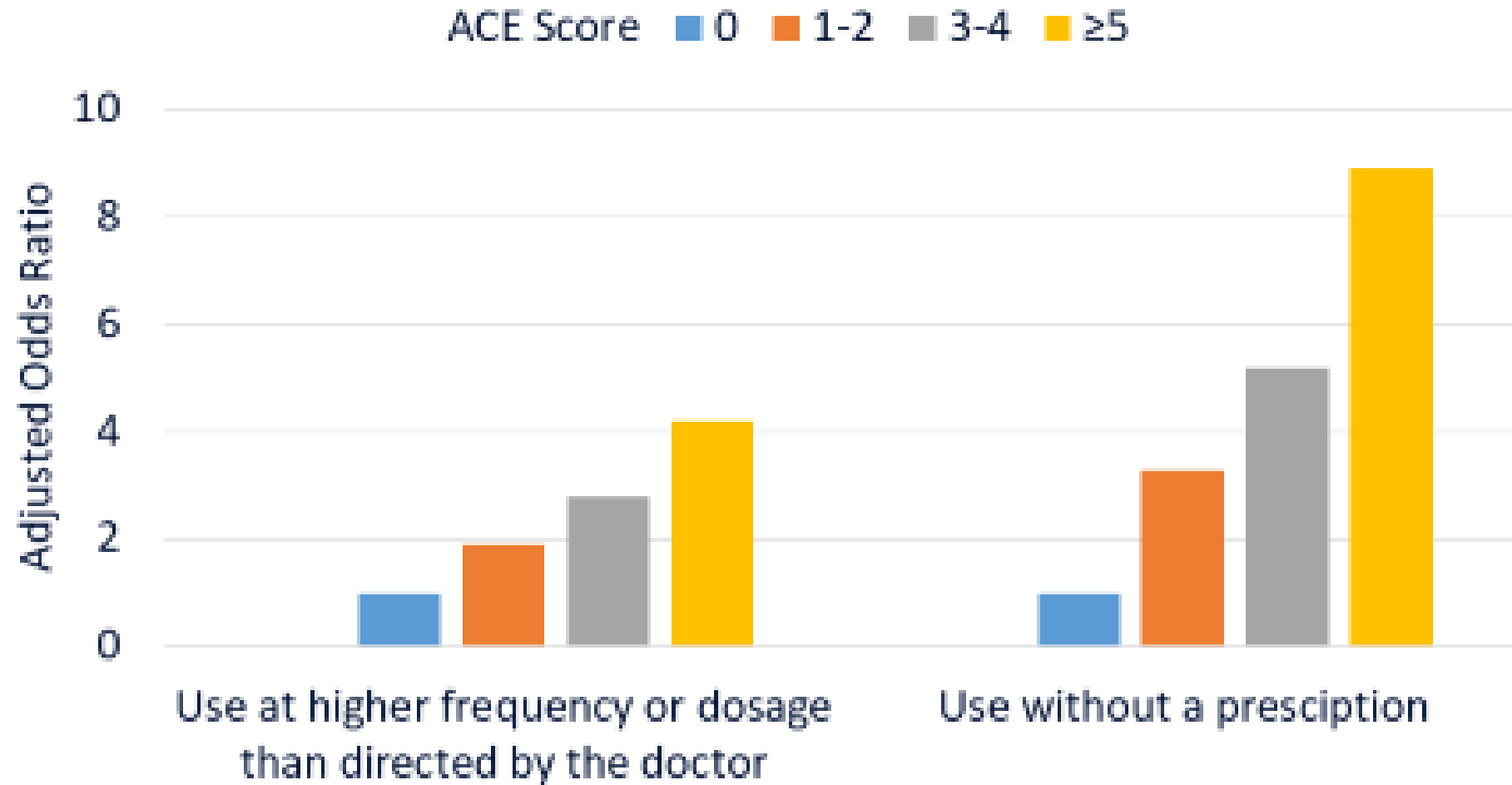
SUBSTANCE USE IN THE
HOME
IS ITSELF AN ACE



Higher ACE exposure is associated with **increased odds of multiple forms of substance use.**

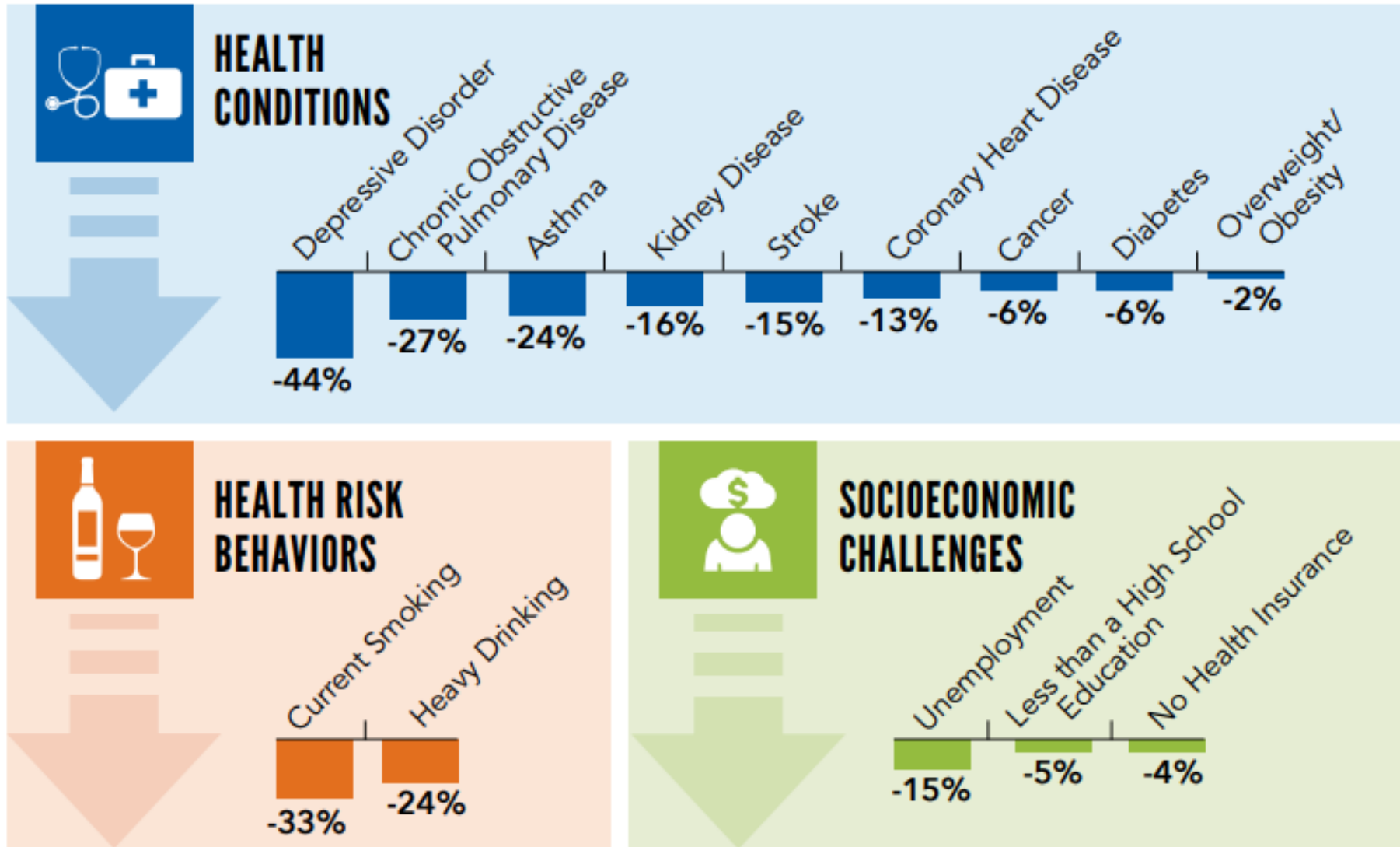


Prescription Opioid Misuse



Merrick, M. T., Ford, D. C., Haegerich, T. M., & Simon, T. (2020). Adverse childhood experiences increase risk for prescription opioid misuse. *The Journal of Primary Prevention*, 1-14.

Preventing ACEs can help reduce negative outcomes in adulthood



SOURCE: BRFSS 2015-2017, 25 states, CDC Vital Signs, November 2019.

Preventing ACEs could reduce a large number of health conditions.



UP TO

21 MILLION
CASES OF
DEPRESSION



UP TO

1.9 MILLION
CASES OF
HEART DISEASE



UP TO

2.5 MILLION
CASES OF
OVERWEIGHT/OBESITY

SOURCE: National Estimates based on 2017 BRFSS; Vital Signs, MMWR November 2019.

Six Strategies to Prevent ACEs



Strengthen Economic Supports for Families



Promote Social Norms that Protect Against Violence and Adversity



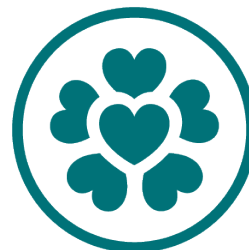
Ensure a Strong Start for Children



Teach Skills

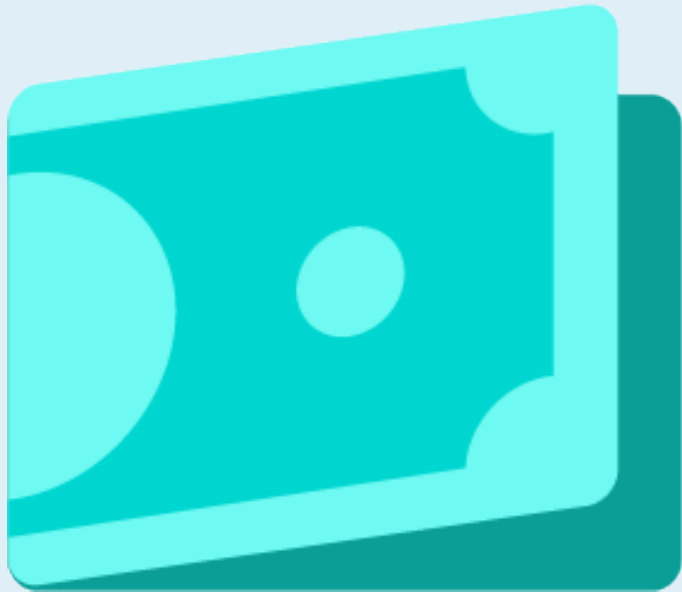


Connect Youth to Caring Adults and Activities



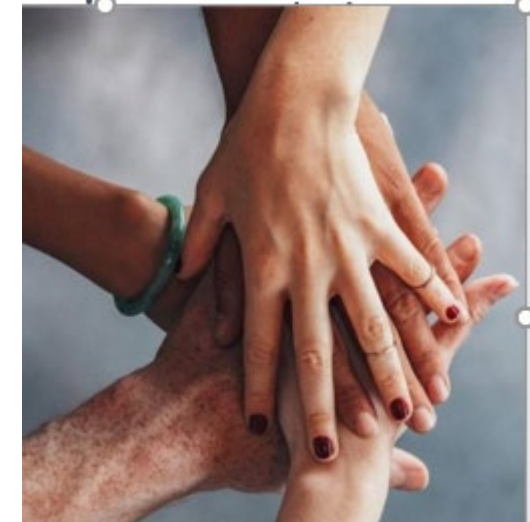
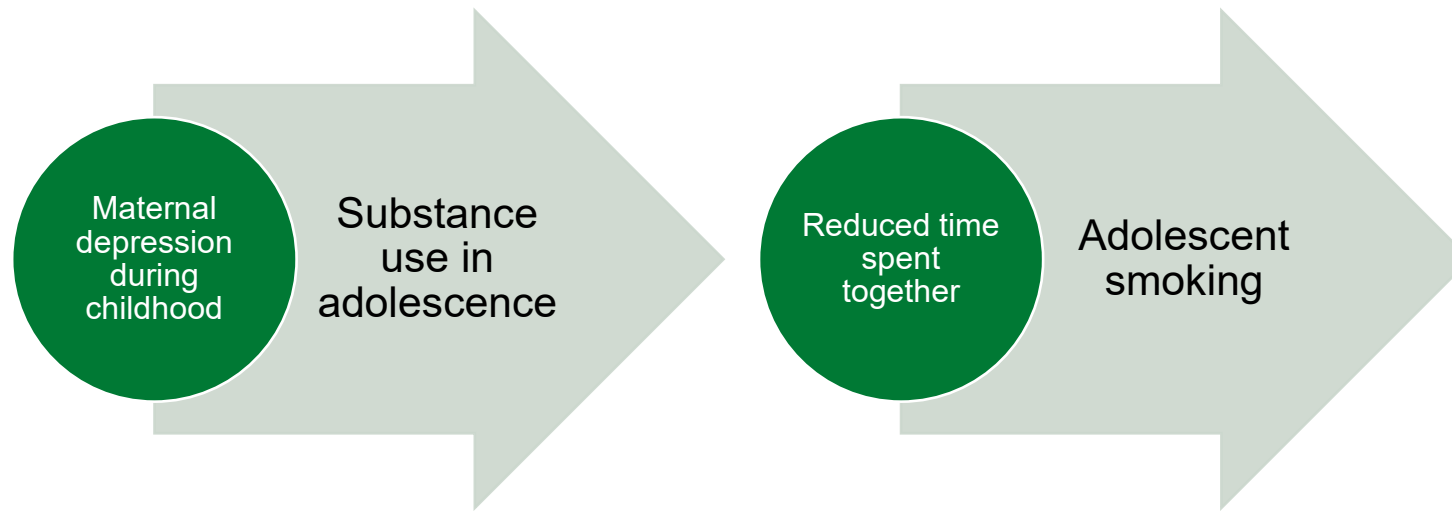
Intervene to Lessen Immediate and Long-term Harms

Strengthen Economic Supports for Families



- Earned income tax credits
- Childcare subsidies
- Paid time off
- Flexible and consistent work schedules

Examples of how strengthening economic supports to families can help to prevent youth substance use:

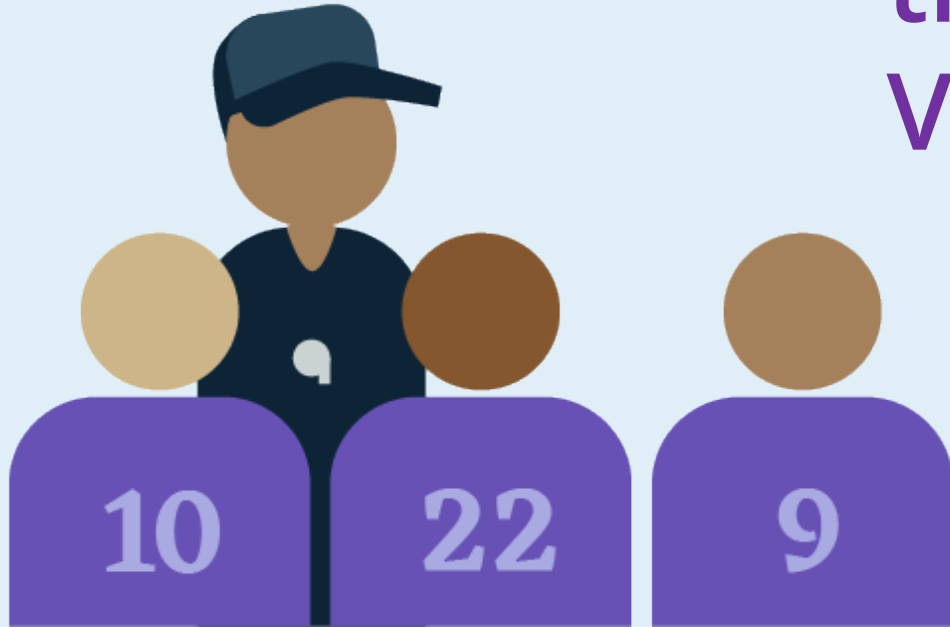


Maternal factors that can be mitigated through strengthening economic support to families are related to youth substance use.

¹Maeve E. Wickham, Ambikaipakan Senthilselvan, T. Cameron Wild, Wendy L.G. Hoglund, Ian Colman; Maternal Depressive Symptoms During Childhood and Risky Adolescent Health Behaviors. *Pediatrics* January 2015; 135 (1): 59–67. 10.1542/peds.2014-0628

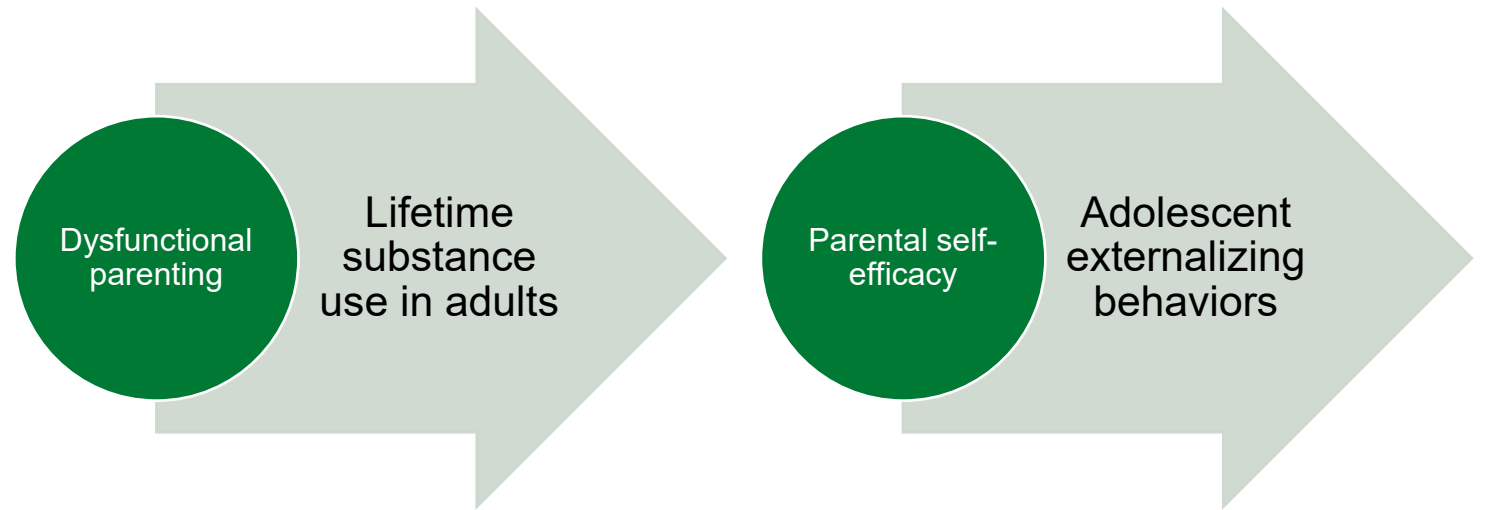
²Han WJ, Miller DP, Waldfogel J. Parental work schedules and adolescent risky behaviors. *Dev Psychol.* 2010 Sep;46(5):1245-67. doi: 10.1037/a0020178.

Promote Social Norms that Protect Against Violence and Adversity



- Public education campaigns
- Legislative approaches to corporal punishment
- Bystander approaches
- Prevention efforts involving men and boys

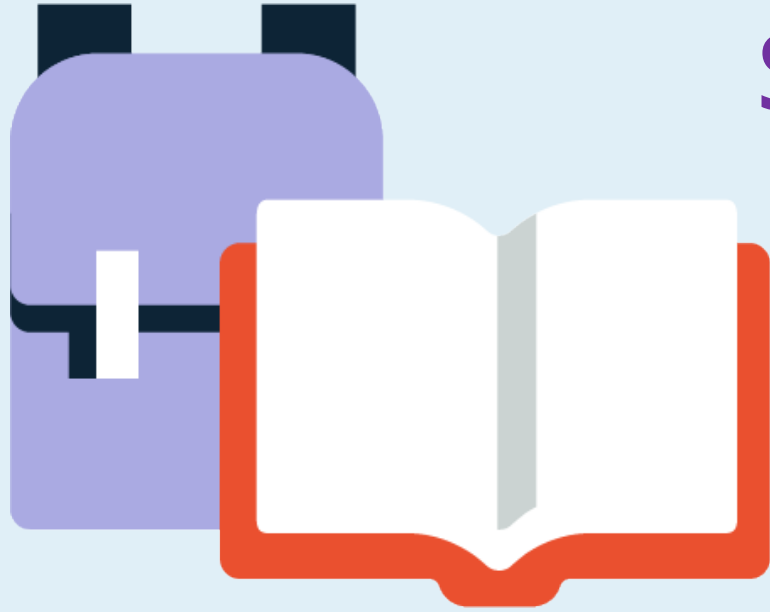
Examples of how promoting social norms can help to prevent youth substance use:



Parenting practices that can be improved through promoting social norms are associated with youth behaviors, including substance use.

¹Icick, R., Lauer, S., Romo, L., Dupuy, G., Lépine, J. P., & Vorspan, F. (2013). Dysfunctional parental styles perceived during childhood in outpatients with substance use disorders. *Psychiatry Research*, 210(2), 522-528.

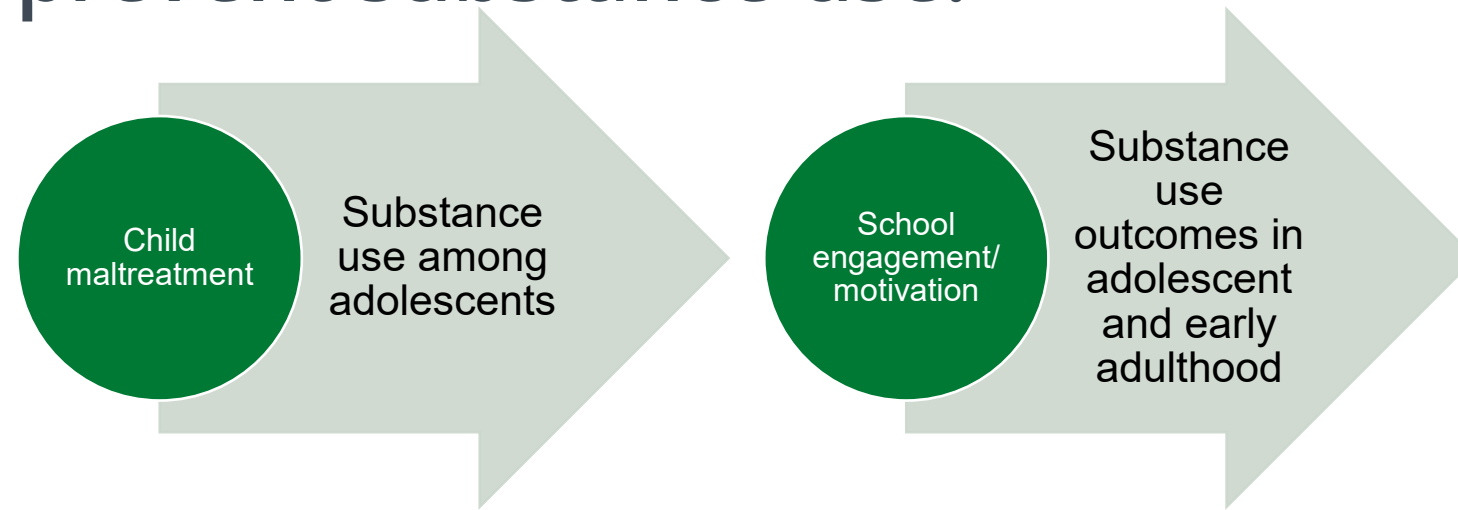
²Glatz, T., & Buchanan, C. M. (2015). Over-time associations among parental self-efficacy, promotive parenting practices, and adolescents' externalizing behaviors. *Journal of Family Psychology*, 29(3), 427.



Ensure a Strong Start for Children

- Early learning programs
- Affordable preschool and childcare programs that engage families

Examples of how ensuring a strong start for children can prevent substance use:



Child maltreatment and a child's academic experiences, both of which can be positively impacted by strategies to improve care for children at school and home, relate to youth substance use.

¹Tonmyr, L., Thornton, T., Draca, J., & Wekerle, C. (2010). A review of childhood maltreatment and adolescent substance use relationship. *Current Psychiatry Reviews*, 6(3), 223-234.

²Henry, K. L., Knight, K. E., & Thornberry, T. P. (2012). School disengagement as a predictor of dropout, delinquency, and problem substance use during adolescence and early adulthood. *Journal of youth and adolescence*, 41(2), 156-166.

³Bryant, A. L. & Zimmerman, M. A. (2002). Examining the Effects of Academic Beliefs and Behaviors on Changes in Substance Use Among Urban Adolescents. *Journal of Educational Psychology*, 94 (3), 621-637

⁴Li, Y., & Lerner, R. M. (2011). Trajectories of school engagement during adolescence: implications for grades, depression, delinquency, and substance use. *Developmental psychology*, 47(1), 233.

Teach Skills



- Skills programs for children
 - How to handle conflict
 - Negative feeling management
 - Pressure from peers
 - Healthy non-violent dating relationships
- Parenting and family skills programs

Teaching skills can help prevent substance use:



Programs that aim to teach skills to both parents and children can reduce risk for youth substance use.

¹<https://strengtheningfamiliesprogram.org/>

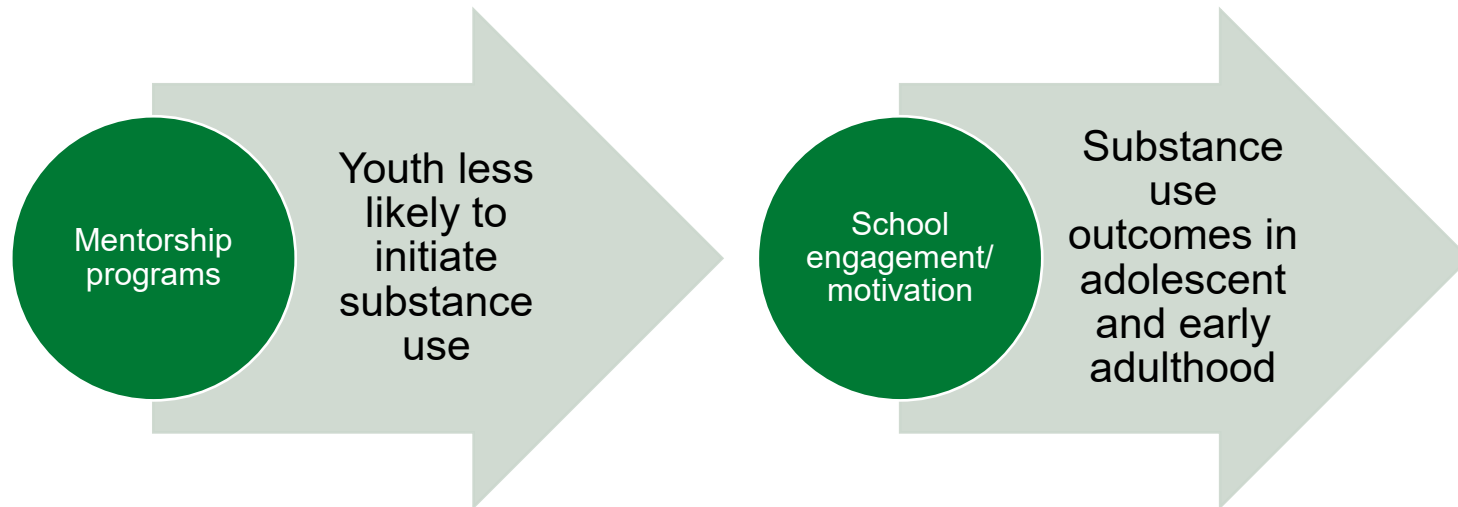
²Centers for Disease Control and Prevention (2019). *Preventing Adverse Childhood Experiences: Leveraging the Best Available Evidence*. Atlanta, GA: National Center for Injury Prevention and Control, Centers for Disease Control and Prevention.

Connect Youth to Caring Adults and Activities



- School or community mentoring programs
- After school activities

Examples of how connecting youth to caring adults and activities can prevent substance use:



Programs connecting youth to caring adults can reduce substance use initiation among youth and improve substance use outcomes.

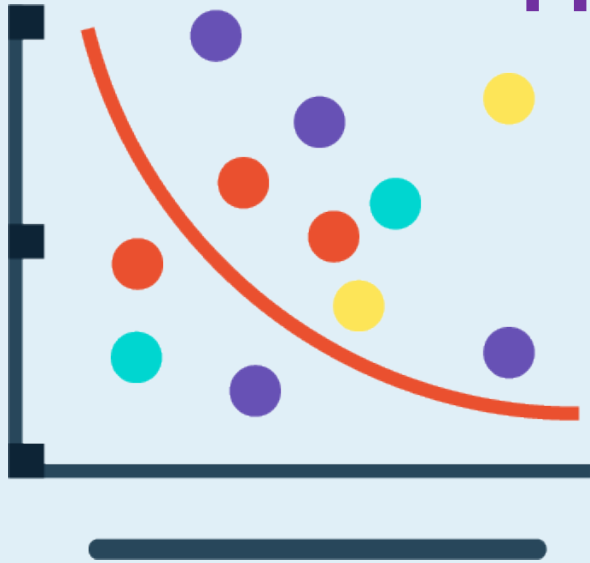
¹Centers for Disease Control and Prevention (2019). *Preventing Adverse Childhood Experiences: Leveraging the Best Available Evidence*. Atlanta, GA: National Center for Injury Prevention and Control, Centers for Disease Control and Prevention.

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³Bryant, A. L. & Zimmerman, M. A. (2002). Examining the Effects of Academic Beliefs and Behaviors on Changes in Substance Use Among Urban Adolescents. *Journal of Educational Psychology*, 94 (3), 621-637

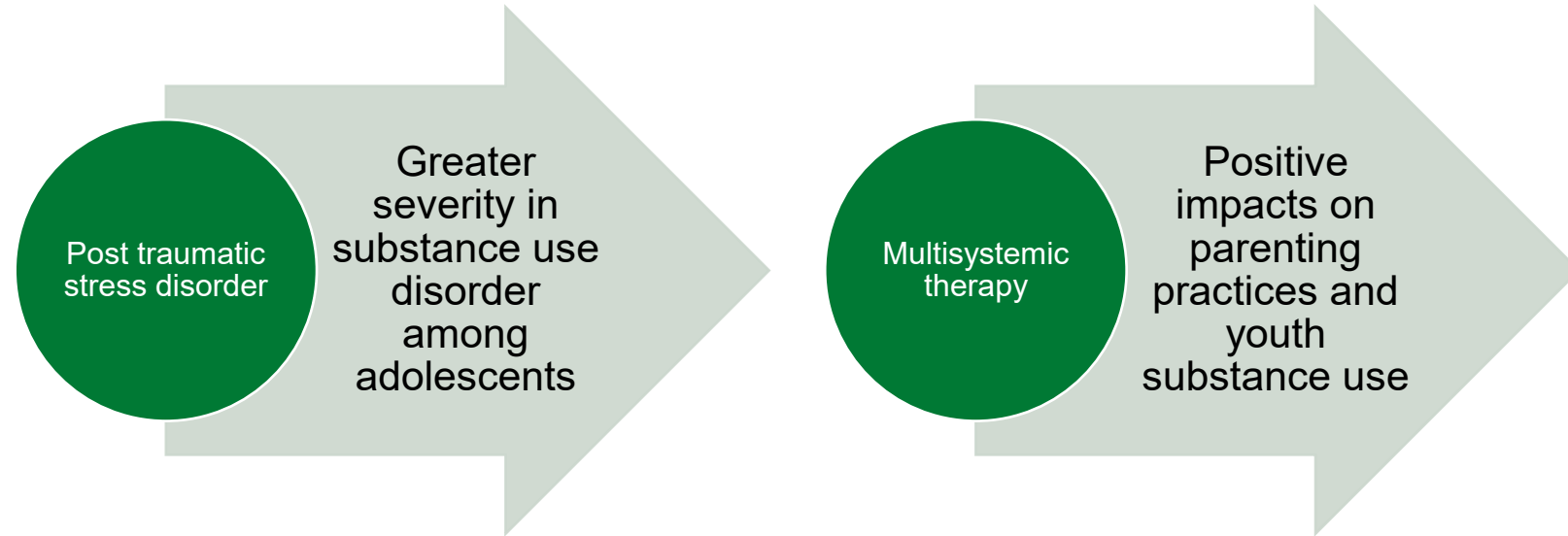
⁴Li, Y., & Lerner, R. M. (2011). Trajectories of school engagement during adolescence: implications for grades, depression, delinquency, and substance use. *Developmental psychology*, 47(1), 233.

Intervene to Lessen Immediate and Long-term Harms



- Primary care settings
- Victim centered services for IPV survivors
- Treatment for kids exposed to ACEs
- Family-centered substance use treatment

Examples of how intervening to lessen immediate and long-term harms can prevent substance use:



Interventions to lessen harms can positively impact youth substance use.

¹Cary, C. E., & McMillen, J. C. (2012). The data behind the dissemination: A systematic review of trauma-focused cognitive behavioral therapy for use with children and youth. *Children and youth services review, 34*(4), 748-757.

²Basedow, L. A., Kuitunen-Paul, S., Roessner, V., & Golub, Y. (2020). Traumatic events and substance use disorders in adolescents. *Frontiers in Psychiatry, 11*, 559.

³Centers for Disease Control and Prevention (2019). *Preventing Adverse Childhood Experiences: Leveraging the Best Available Evidence*. Atlanta, GA: National Center for Injury Prevention and Control, Centers for Disease Control and Prevention.

⁴Rutherford, H. J. V., Barry, D., T., & Mayes, L. C. (2018). Family-focused approaches to opioid addiction improve the effectiveness of treatment. Society for Research in Child Development, Child Evidence Brief, No. 2 (June). Retrieved from <https://www.srcd.org/policy-media/child-evidence-briefs/opioid-addiction>



We Can also Create **Positive Childhood Experiences**

The science of ACEs also reveals opportunities to improve the lives of all children and adults.



Positive childhood experiences (PCEs) are experiences in childhood that relate to children's ability to have safe, stable, nurturing, and equitable relationships and environments. PCEs can help children develop a sense of belonging, connectedness, and build resilience.

Positive Childhood Experiences (PCEs)

Relationships

- Consistent, stable parental monitoring and supervision
- Unconditional love and support from a parent or caregiver
- Being securely attached to a parent or caregiver
- Having a parent or caregiver with whom the child feels safe and close
- Having a parent or caregiver who has positive health and wellbeing, with sufficient social support
- Having support from an adult outside of the family, such as a mentor
- Having strong, supportive friendship(s) and prosocial peers

Environment

- Living in a clean home with sufficient and nutritious food
- Having access to and living in affordable, safe housing
- Having access to quality and affordable childcare, pre-school, elementary and secondary education
- Having access to educational resources and opportunities to learn
- Living in a safe and supportive neighborhood or community
- Having opportunities to try new things and have fun, including opportunities to have hobbies
- Having opportunities to engage in regular physical activity and get enough sleep
- Availability and access to culturally appropriate, effective medical, dental, and behavioral health care

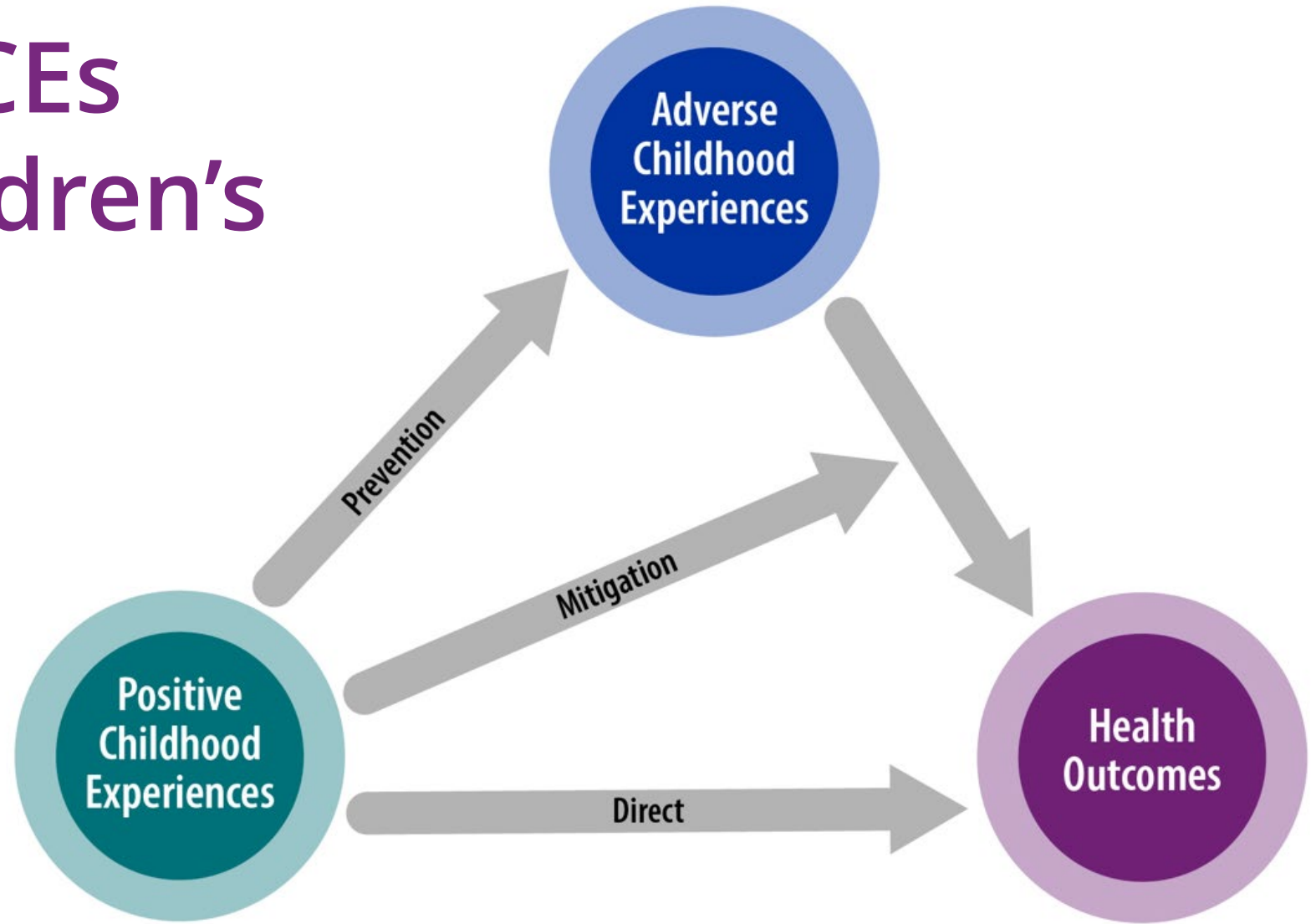
Engage

- Having opportunity to engage with school or in the community events, including cultural practices
- Opportunity to develop goals and academic motivation
- Having a sense of belongingness, including at school, in community, or with deeper culture & history
- Having opportunity to have beliefs that can provide sense of comfort

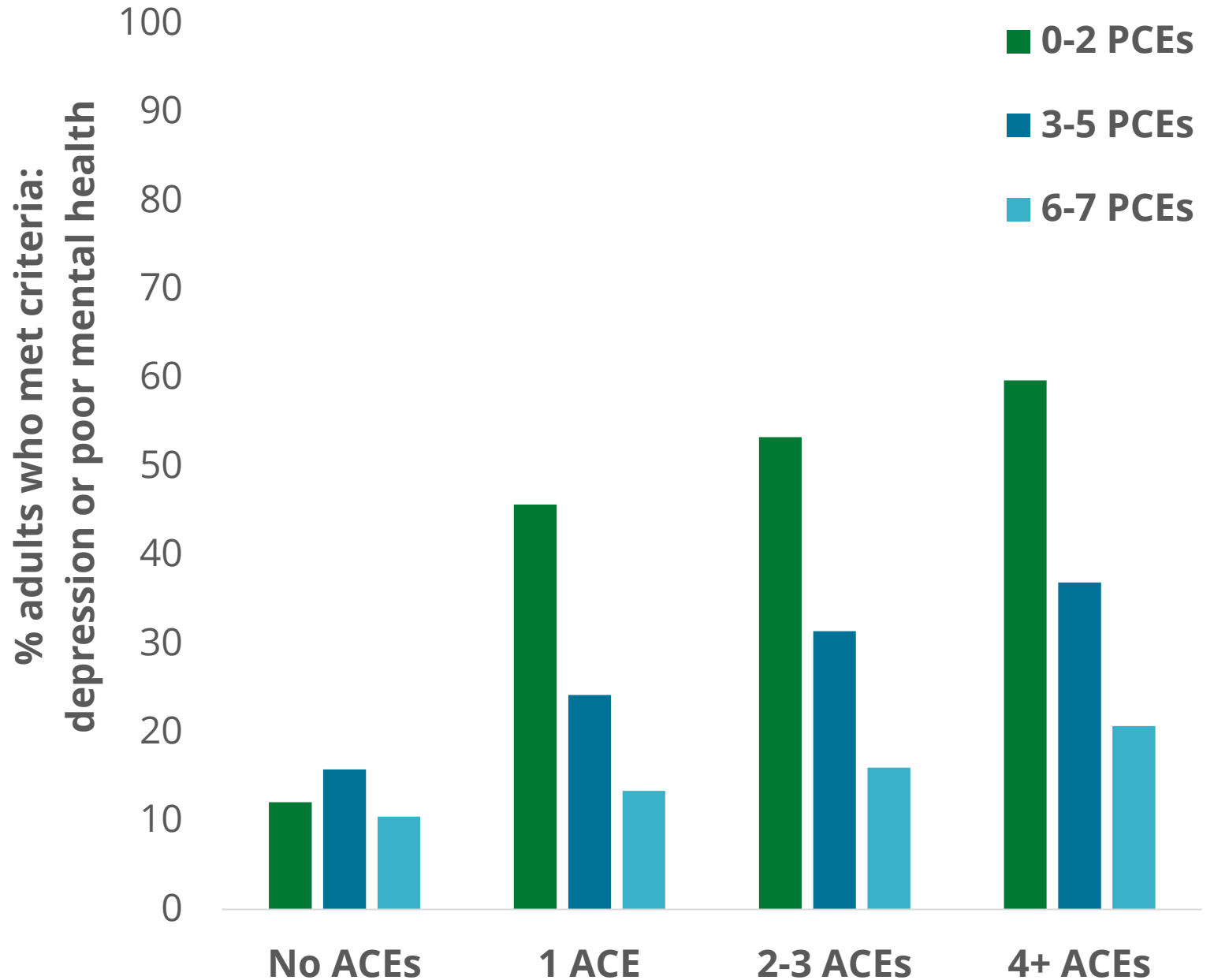
Emotion

- Opportunity to live in an environment that promotes positive self-esteem and self-concept
- Opportunity to learn skills or strategies that can promote emotional regulation
- Ability to engage in help-seeking behaviors when needed
- Opportunities to develop positive coping strategies

How can PCEs impact children's health?



Example of Mitigating Effect of PCEs: ACEs and Adults with Depression



VetoViolence helps communities use the best-available evidence to prevent violence



<https://vetoviolence.cdc.gov/apps/main/home>



DISCUSSION



The findings and conclusions in this presentation are those of the authors and do not necessarily represent the official position of the Centers for Disease Control and Prevention.