



Mental Health Awareness Issue Brief:

Adverse Childhood Experiences (ACEs) and their Impact on Mental Health

National Center for Health in Public Housing



Forward:

Adverse Childhood experiences (ACEs) have a lifelong impact on the health and wellbeing of patients. The impact of ACEs on patient care is significant. By prioritizing trauma-informed/culturally competent care (TIC), social services and clinical staff can help to improve the impact of medical and behavioral health services. In this brief, we present an overview of ACEs and their impact on patient health.

What causes ACEs?

ACEs are traumatic events experienced early in life that have a lasting impact on the physical, psychological, and economic wellbeing of individuals. Child mistreatment and household trauma across 9 domains have been found to result in ACE's¹:

Child mistreatment:

- Physical abuse
- Emotional abuse
- Sexual abuse
- Emotional neglect
- Physical neglect

Household challenges:

- Parental divorce
- Domestic violence
- Household mental health challenges
- Household substance use

Some research has indicated that ACEs can also be caused by spanking, poverty, community violence, parental gambling problems, bullying and peer victimization. Patients experience diverse responses to trauma, with personality, culture medical history and other factors all having been shown to impact a patient's response to ACEs². Peer victimization and bullying, in particular, have been shown to be a common experience during childhood which are independently associated with substance use and poor behavioral and physical health outcomes³.

¹ Afifi TO, Taillieu T, Salmon S, et al. Adverse childhood experiences (ACEs), peer victimization, and substance use among adolescents. *Child Abuse Negl.* 2020;

² Lupien SJ, McEwen BS, Gunnar MR HC. Adverse childhood experiences: implications for offspring telomere length and psychopathology. *Am J Psychiatry.* 2020;177: 47–57.

³ Afifi TO, Taillieu T, Salmon S, et al. Adverse childhood experiences (ACEs), peer victimization, and substance use among adolescents. *Child Abuse Negl.* 2020;106

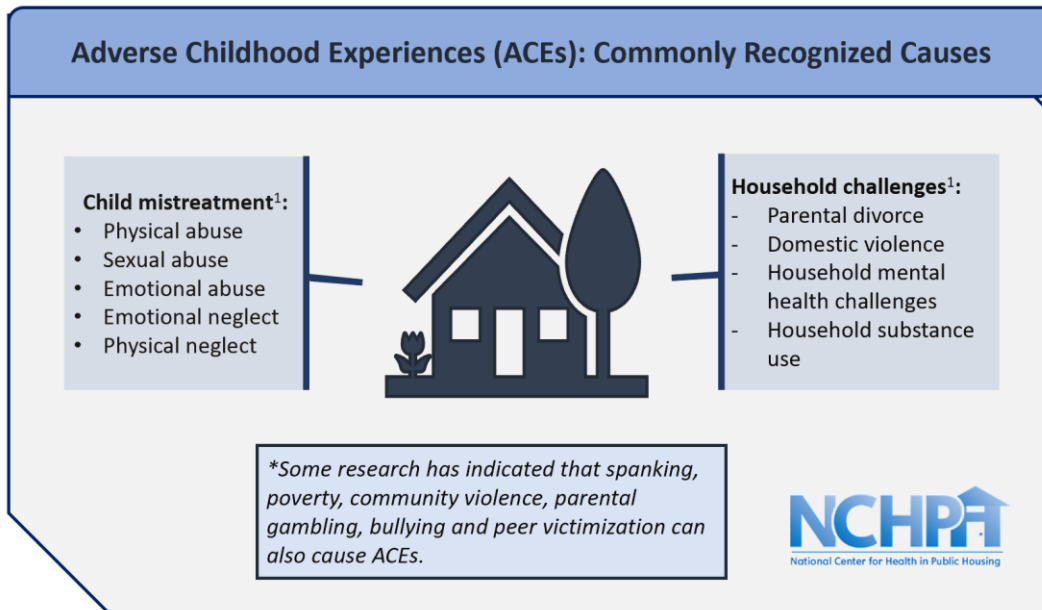


Figure 1: An overview of commonly recognized causes of ACEs including those utilized by researchers and physicians to identify ACEs.

How do ACEs affect the brain?

Like other forms of trauma, individuals who experience exposure to ACEs have been shown to undergo a cascade of neurophysiological changes which disrupt functional brain development through chronic activation of inflammatory pathways, shortening telomere length and de-myelination of brain pathways. These changes, which become stronger with each ACE experienced can lead to lifelong deficits in everyday functioning, depression, suicidality, and a range of other deficits in emotional functioning. For Individuals who have been exposed to ACEs, these deficits often result in poor social outcomes including unemployment, homelessness and victimization.⁴

⁴ Navalta CP, McGee L, Underwood J. Adverse Childhood Experiences, Brain Development, and Mental Health: A Call for Neurocounseling. *J Ment Heal Couns.* 2018;40(3)

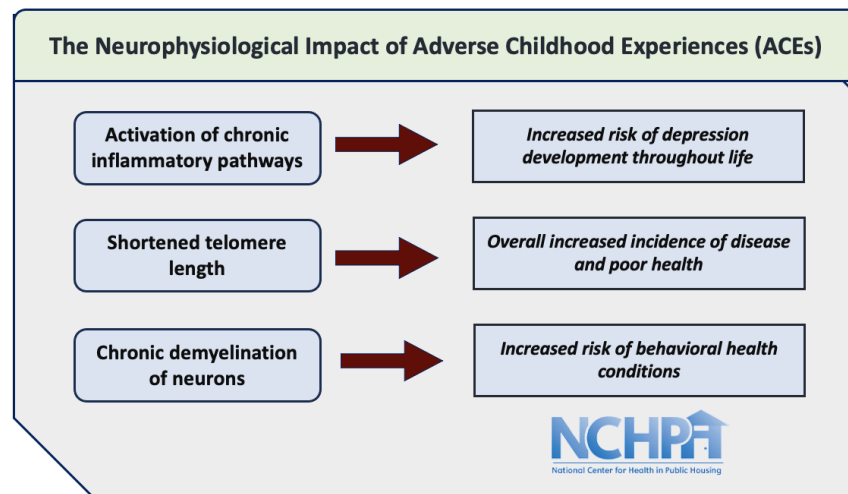


Figure 2: Descriptions of the pathways of neurophysiological damage associated with ACE exposure.

How are ACEs related to health and social outcomes?

Individuals respond to trauma differently, but the more ACEs one experiences, the greater the risk of experiencing a range of negative health outcomes as well as poor functioning throughout life.⁵

A strong and graduated correlation has been associated between ACEs and a range of poor behavioral health outcomes including depression and suicidality.⁶ Individuals who have experienced ACEs also have a significantly higher risk of alcoholism, substance use and of exhibiting depressed affect during clinical interactions.⁷ Other studies have found associations between ACE exposure and increased likelihood of smoking, vaping, alcohol use, binge drinking and cannabis use. This association was found to be particularly strong for individuals who had experienced ACEs and peer victimization concurrently.⁸

Adults that have been exposed to ACEs during childhood are 3-9 times more likely to attempt suicide. A strong relationship exists between ACEs and suicide, with the same study indicating that adults that experienced seven or more ACEs were over 17 times more likely to attempt suicide throughout their life.⁹ Other studies have indicated that the lifetime prevalence of

⁵ Liu M, Luong L, Lachaud J, Edalati H, Reeves A, Hwang SW. Adverse childhood experiences and related outcomes among adults experiencing homelessness: a systematic review and meta-analysis. *Lancet Public Heal.* 2021;6(11):e836-e847. doi:10.1016/S2468-2667(21)00189-4

⁶ S R Dube , R F Anda, V J Felitti, D P Chapman, D F Williamson WHG. Childhood abuse, household dysfunction, and the risk of attempted suicide throughout the life span: findings from the Adverse Childhood Experiences Study. *JAMA.* 2001.

⁷ Liu M, Luong L, Lachaud J, Edalati H, Reeves A, Hwang SW. Adverse childhood experiences and related outcomes among adults experiencing homelessness: a systematic review and meta-analysis. *Lancet Public Heal.* 2021;6(11)

⁸ Afifi TO, Taillieu T, Salmon S, et al. Adverse childhood experiences (ACEs), peer victimization, and substance use among adolescents. *Child Abuse Negl.* 2020;106

⁹ S R Dube , R F Anda, V J Felitti, D P Chapman, D F Williamson WHG. Childhood abuse, household dysfunction, and the risk of attempted suicide throughout the life span: findings from the Adverse Childhood Experiences Study. *JAMA.* 2001.

having at least one suicide attempt for adults experiencing homelessness was 1.1%, while for those who had experienced at least one ACE had a lifetime suicide attempt prevalence of 3.8% and those who had experienced greater than 7 ACE's had a lifetime suicide attempt prevalence of over 30%.¹⁰

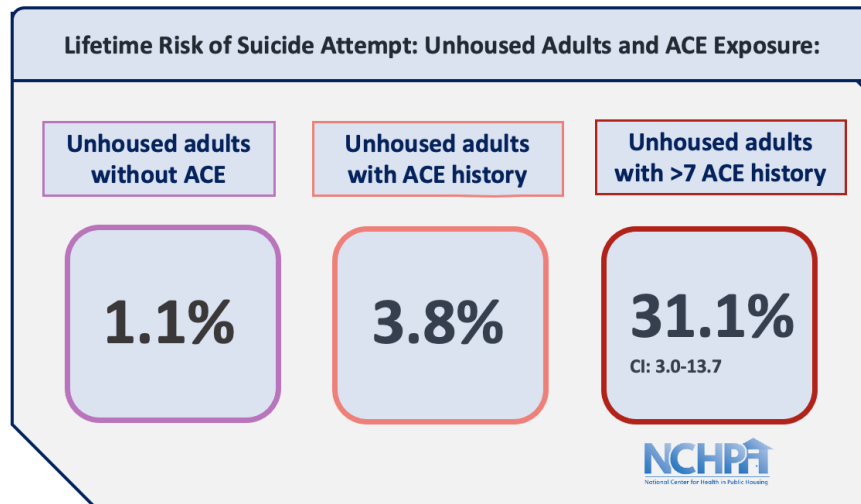


Figure 3: ACE exposure has been linked to increased risk of suicide and suicidal intent in unhoused idea. These data indicate the magnitude of this relationship.

For adults experiencing homelessness, past ACEs have been shown to be associated with increased major depressive disorder, substance use, risk of suicidality, past suicide attempts, and victimization. Adults experiencing homelessness who have a history of ACEs have been found to be at an increased risk of poor behavioral health outcomes when compared to unhoused individuals who have not experienced an ACE.¹¹

ACEs exposure is nearly universal amongst unhoused adults and accounts for a substantial part of the US population currently experiencing homelessness.¹² Nine in ten unhoused adults have been exposed to at least one early traumatic experience and more than half of all unhoused adults in the US have been exposed to four or more ACEs.¹³

¹⁰ Liu M, Luong L, Lachaud J, Edalati H, Reeves A, Hwang SW. Adverse childhood experiences and related outcomes among adults experiencing homelessness: a systematic review and meta-analysis. *Lancet Public Heal.* 2021;6(11)

¹¹ Liu M, Mejia-Lancheros C, Lachaud J, Nisenbaum R, Stergiopoulos V, Hwang SW. Resilience and Adverse Childhood Experiences: Associations With Poor Mental Health Among Homeless Adults. *Am J Prev Med.* 2020;58(6)

¹² Roos LE, Mota N, Afifi TO, Katz LY, Distasio J SJ. Relationship between adverse childhood experiences and homelessness and the impact of axis I and II disorders. *Am J Public Health.* 2013;103

¹³ Liu M, Luong L, Lachaud J, Edalati H, Reeves A, Hwang SW. Adverse childhood experiences and related outcomes among adults experiencing homelessness: a systematic review and meta-analysis. *Lancet Public Heal.* 2021;6(11)

Addressing ACEs through patient care:

Front-line service providers, social services staff and clinical personnel working with individuals who have experienced ACEs, or with populations that have higher risks of ACE exposure should be trained in the provision of trauma-informed care. This includes an understanding of how a history of ACEs affect health, reducing practices that may inadvertently result in re-traumatization. Training of these personnel should focus on common triggers for ACE survivors, how to promote and ensure physical and emotional safety during patient or client interactions and how to foster trusting and collaborative relationships. Additionally, it is important to ensure that all health, housing, and support staff understand the importance of the social determinants of health to patient care and social services provision.

ACEs have a powerful graded relationship with alcoholism, substance use and attempted suicide throughout an individual’s life. Clinicians can help reduce patient risk by providing addiction and substance use counseling when appropriate.¹⁴

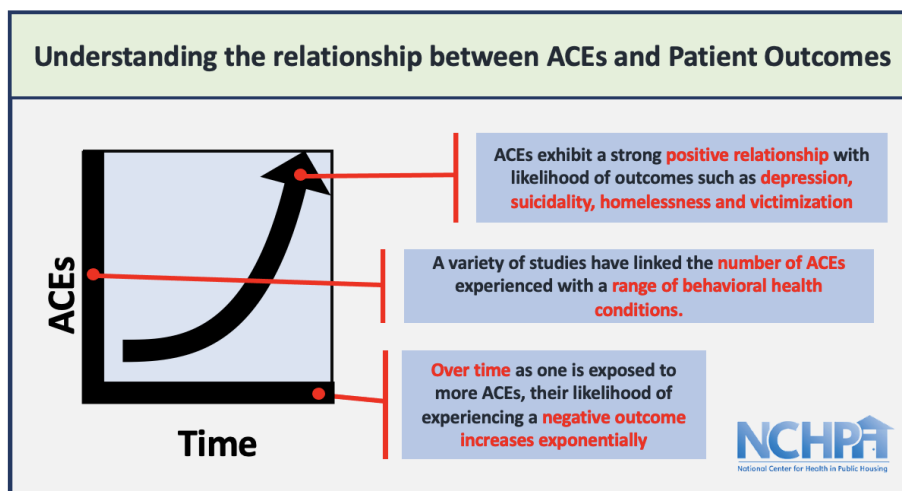


Figure 4: ACEs have been shown to exhibit strong positive relationships with a variety of negative social and behavioral outcomes. This figure describes these relationships visually.

¹⁴ Liu M, Mejia-Lancheros C, Lachaud J, Nisenbaum R, Stergiopoulos V, Hwang SW. Resilience and Adverse Childhood Experiences: Associations With Poor Mental Health Among Homeless Adults. *Am J Prev Med.* 2020;

Promising Practices in Patient Care:

1. **Prioritize referrals to behavioral health specialists:** Housing organizations and health centers can support their patients by ensuring that the behavioral health facilities they refer patients to perform ACEs/SDOH screening a health center should also integrate these tools into other on-site and telemedicine services. Housing organizations should also examine their current operations to ensure that clients are screened for behavioral health conditions that are common to the ACE exposed patients such as depression and post-traumatic stress disorder (PTSD).¹⁵
2. **Screen often:** The ACEs Questionnaire is a screening and evaluation tool that has been evaluated in its 8 and 10 question forms to evaluate ACE risk and exposure⁹. It is typically performed in the patient initial intake or assessment and can help identify what may influence their current wellbeing.¹⁶ Organizations can examine their patient flow and information needs to determine the most appropriate time for patient screening at their facility. Primary care, emergency services and behavioral health facilities can also examine integration of the 10-question ACE or 8-question ACE-Short Form questionnaires into their existing SDOH screening procedures.¹⁷

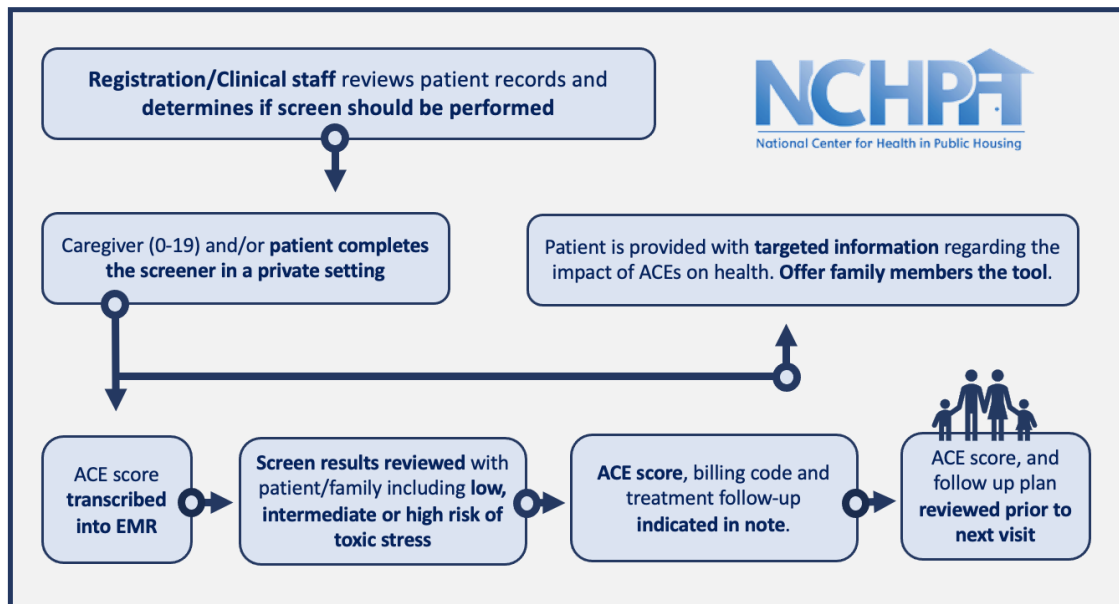


Figure 5: Process of screening for ACEs in clinical settings.

¹⁵ Liu M, Luong L, Lachaud J, Edalati H, Reeves A, Hwang SW. Adverse childhood experiences and related outcomes among adults experiencing homelessness: a systematic review and meta-analysis. *Lancet Public Heal.* 2021

¹⁶ Watson P. How to screen for ACEs in an efficient, sensitive, and effective manner. *Paediatr Child Health.* 2019;24(1)

¹⁷ Laforge K, Gold R, Cottrell E, et al. How 6 Organizations Developed Tools and Processes for Social Determinants of Health Screening in Primary Care: An Overview

3. **Focus on Residents of Public Housing:** Residents of public housing are at increased risk of a variety of social and economic hardships which have been shown to lead to ACEs. Organizations can support residents by integrating screening for ACEs and directing patients, their families or community members to access program resources. Health centers, housing organizations and allied organizations who serve residents of public housing should consider investing in programs that address these issues to support ACE survivors and prevent ACE development in their communities through programs which promote individual and community resilience, on-site mental health support and trauma-informed therapy.¹⁸
4. **Focus on the unhoused:** Given the significant evidence and body of scholarship that indicates that ACEs are common risk factors for homelessness, organizations should focus on improving access to trauma-informed mental health services and supporting SDOH service access for the unhoused.¹⁹

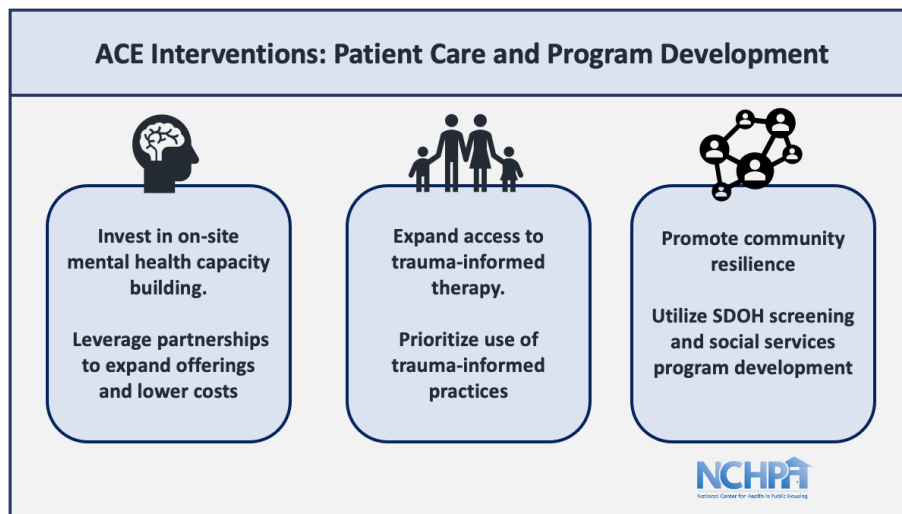


Figure 6: Patient care and program development components for ACE interventions.

Tools and Resources:

ACE and ACE-SF Questionnaires:

- **[Adverse Childhood Experience Questionnaire for Adults \(ACES Aware\):](#)** The Aces Aware is a 10-question screener for use in the clinical and social services settings and meets the criteria for Medi-Cal reimbursement.
- **[Pediatric ACEs and Related Life Events Screener \(PEARLS\):](#)** This tool is designed to be utilized in the clinical and social services contexts to screen children and adolescents up to age 19 for ACEs. The PEARLS screener was developed by the *Bay Area research consortium on Toxic Stress and Health (BARC)*

and is available in identified and de-identified versions for children and teens in English and Spanish.

- **ACEs and Toxic Stress Risk Assessment:** Integrating ACE screening into clinical care involves assessing for manifestations of toxic stress and protective factors to determine if a patient is at medium, intermediate, or elevated risk of experiencing the physiological effects of toxic stress, common in ACE survivors.

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¹⁸ Liu M, Luong L, Lachaud J, Edalati H, Reeves A, Hwang SW. Adverse childhood experiences and related outcomes among adults experiencing homelessness: a systematic review and meta-analysis. *Lancet Public Health*.

¹⁹ Watson P. How to screen for ACEs in an efficient, sensitive, and effective manner. *Pediatric Child Health*. 2019