



Childhood adversity screenings are just one part of an effective policy response to childhood trauma

David Murphey and Jessica Dym Bartlett

Executive summary

Exposure to adversity in childhood is widespread and can pose a serious threat to individual health and well-being over the life course. By age 18, nearly half (45 percent) of children in the United States have had at least one adverse experience; among young children and other vulnerable subgroups, the prevalence is much higher.^{1,2,3,4} Childhood adversity is defined as one or more stressful events or conditions that can threaten a child's sense of safety and negatively affect the child's developing brain, physical and mental health, and behavior.⁵ Examples of common childhood adversities include abuse and neglect, living with a parent with mental illness or a substance abuse disorder, or witnessing violence.

Amid increasing public awareness and concern about the harmful consequences of early adversity, policymakers in a number of states are calling for routine screening of individual children—in pediatric care, home visiting programs, early care and education, schools, and other child and family service settings—using the short list of adversities included in the original Adverse Childhood Experiences (ACEs) study.⁶ As this movement gains traction, it is essential for policymakers to understand the limitations of this approach, as well as its potential for unintended consequences. These include:

- The potential for re-traumatizing children and families
- Contributing to stigma and a deficits focus
- The lack of age- and culture-sensitive screening tools
- A misleadingly narrow conception of adversity



Policy recommendations

Given the limitations of a screening-only approach, we recommend that policymakers instead adopt the following strategies for addressing childhood adversity:

- **Train service providers across child and family service systems in trauma-informed care (TIC).**⁷ TIC includes a wide range of approaches to identifying and addressing childhood adversity and lays a critical foundation for comprehensive screening and follow-up. Training in TIC has been shown to increase trauma knowledge and skills among service providers, family members, and foster parents, and to promote positive behaviors and mental health outcomes among children with symptoms of posttraumatic stress (e.g., problem behaviors, problems forming healthy attachments).^{8,9,10,11}
- **Promote adversity screening only as one component of a comprehensive, trauma-informed, strengths-based approach to addressing childhood adversity.** Essential elements of this approach include the following:
 - Service providers who are trained to sensitively conduct screening for adversity, without traumatizing or re-traumatizing the child and family, and without drawing faulty assumptions about a child's future prospects
 - High-quality screening tools shown to be valid for the child's age and culture, and which account for social inequities (e.g., poverty, homelessness, discrimination, community violence, adversity related to immigration)
 - Screening that assesses not only a child's *exposure* to adversity (i.e., the types of adversity a child has experienced), but also a child's *reactions* (i.e., trauma symptoms and related behaviors), which vary widely and require different types of intervention—or no intervention at all

1 Childhood adversity screenings are just one part of an effective policy response to childhood trauma

- Service systems that can facilitate a family’s access to evidence-based treatment and supports, when needed
 - Screening that is accompanied by comprehensive assessment across multiple domains of development (e.g., social-emotional, cognitive, language, physical development); such assessments can identify delays and other potential barriers to children’s healthy development, as well as promotive and protective factors in the household and community that can prevent or mitigate the harmful effects of early adversity
- **Support research to develop more sensitive tools for assessing adversity exposure in young children.** Children’s reactions to adversity vary widely. Personal characteristics such as age and developmental stage, along with family and environmental stressors and supports, shape each child’s adjustment following exposure. Few screening tools are appropriate for infants and toddlers, despite the fact that their risk of exposure to many types of adversity (e.g., child abuse and neglect, domestic violence, unintentional injuries) is greater than for older children, and that they are especially vulnerable to the negative effects of trauma.^{12,13,14}
 - **Increase the availability and accessibility of evidence-based therapies.** There are a number of effective treatments for childhood trauma following adversity (e.g., Child-Parent Psychotherapy,¹⁵ Parent-Child Interaction Therapy,¹⁶ Trauma-Focused Cognitive Behavioral Therapy¹⁷). Yet current demand far exceeds capacity, and children—particularly infants and toddlers—often face lengthy waits before they can access treatment because few trained providers are available in their community. Increasing the number of professionals trained to deliver evidence-based treatment—in addition to increasing families’ access to such professionals—is essential for children whose well-being may be compromised in the absence of such support.
 - **Implement preventive strategies that reduce the likelihood of early adversity and its harmful effects on children and promote resilience in development.** Prevention and early intervention are the most effective strategies for avoiding the negative effects of childhood adversity on children, families, and society. Making economic opportunity more inclusive, particularly for population groups who experience multiple disadvantages, should be part of this agenda; it is especially important to reduce poverty among children. Reducing children’s exposure to violence; and supporting safe, stable, nurturing relationships in families, schools, and other settings also represent essential overarching strategies.

Conclusions

We view growing public recognition of the importance of childhood adversity as a monumental development in the promotion of child well-being. However, it is also critical to guide policymakers toward the most effective, evidence-based strategies. Policymakers should not presume that screening as a standalone strategy is an adequate response to addressing the needs of children and their families. Thus, we join a number of experts^{18,19} cautioning against oversimplified adversity screening strategies, particularly those that employ tools such as the ACEs study index.²⁰ Rather, we need more comprehensive, trauma-informed²¹ approaches that account for social-structural adversity and are aligned with current science on recognizing, understanding, responding effectively to—and preventing—childhood adversity.

Glossary

Adverse childhood experience (ACE) – A term introduced by the Adverse Childhood Experiences (ACE) study (Centers for Disease Control and Prevention, and Kaiser Permanente, 1995-1997) to refer to the specific types of household challenges assessed in that study, occurring prior to an individual's reaching age 18.

ACE study index – The measure used in the ACE study to assess childhood exposure to the following adversities: physical, emotional, and sexual abuse; parental mental illness; substance abuse in the household; incarceration of a household member; and witnessing violence against a mother. Two additional adversities—child neglect (emotional or physical) and parental separation or divorce—were added to the study in follow-up investigations.

Childhood adversity – One or more events or circumstances (including, but not limited to, those used in the ACE study) that can be harmful to a child's short- and long-term physical and psychological health.

Trauma – An individual's experience of one or more events or circumstances as psychologically and/or physically harmful or life-threatening.

Toxic stress – An over-activation of the body's stress response system, accompanying trauma, which can lead to lasting impairments in physical and mental health, brain development, and genetic structure.

Trauma-informed care – A service system, program, or intervention in which all participations, practices, and policies reflect an understanding of the far-reaching impact of trauma, identify its signs and symptoms in individuals, provide pathways for recovery, and avoid re-traumatizing the individuals affected.



Introduction

Policymakers, practitioners, and the public have shown an exceptional level of interest in research findings on childhood adversity. A greater understanding of how widespread these experiences are—and how harmful their long-term effects can be—has already fundamentally changed conversations about adversity’s risks to early development, the intersection of physical and mental health, and the ways in which trauma can be transmitted across generations. The existing research has also prompted new policy responses to the threats that adversity experienced in childhood poses to well-being over the lifespan.

We are concerned about the singular use of screening to address the negative effects of childhood adversity.

As with any breakthrough in knowledge, an overly hasty response can have downsides. This brief addresses the implications—both promising and troubling—of integrating adversity screening into child and family service settings that are not exclusively focused on mental health, such as pediatric care, early care and education settings and schools, child welfare agencies, and home visiting programs. We briefly summarize how the research has both informed work with vulnerable children and families, and inadvertently provided a rationale for a strategy that could do harm. Specifically, we are concerned about the singular use of screening to address the negative effects of childhood adversity. We recommend steps to minimize the unintended consequences of screening and provide a more comprehensive, holistic response to children who have experienced adversity.

Changing the frame from adverse childhood experiences (ACEs) to childhood adversity

Childhood adversity should be defined broadly enough to represent the range of potentially harmful exposures that children and families may experience. Here, we define childhood adversity as one or more stressful or traumatic events or conditions that can threaten a child’s sense of safety and disrupt their developing brain, physical and mental health, and behavior.²² (See Glossary for further definition of childhood adversity, ACEs, trauma, and toxic stress).

The Adverse Childhood Experiences (ACEs) Study, a seminal investigation conducted from 1995 to 1997,²³ operationalized early adversity as a relatively short list of experiences that may occur within a household. The study found a consistent relationship between the cumulative number of reported ACEs and poor outcomes in adulthood—that is, a greater number of ACEs was associated with more negative outcomes, including poor academic and work performance, and risky health behaviors (e.g., smoking, financial stress, heart disease, cancer, and mental illness).^{24,25,26} For additional information, see Box 1. The study’s findings likely represent an underestimate of the prevalence of adversity, given the limited number of adversities included. And since the study’s participants were mostly middle-class, white, and well-educated—and generally had health insurance coverage—the sample was not nationally representative.

Given the growing trend among policymakers and practitioners to conflate the experiences included in the original ACEs study with all forms of early adversity, we recommend using the term *childhood adversity*, rather than ACEs, to refer to stressful or traumatic experiences that occur prior to adulthood.

The types of adversity captured in newer ACEs-based screening instruments vary widely,²⁷ and many now include one or more early life experiences that reflect social-structural or policy-related conditions, such as forced separation of a child from a parent; severe poverty; discrimination based on race, ethnicity, or sexual orientation; and historical or community-level experience of violence and trauma. Broadening the original list of adversities is an important step toward acknowledging the diverse challenges that children and families may face every day and responding appropriately to a family’s particular needs.

Because many policymakers and practitioners mistakenly assume that the experiences included in the original ACEs study are synonymous with early exposure to trauma, we recommend the term *childhood adversity*, rather than ACEs, to refer to stressful or traumatic experiences that occur prior to adulthood.

Box 1: Studies of Adverse Childhood Experiences (ACEs)

The landmark study of ACEs²⁸ listed adverse experiences including physical, emotional, and sexual abuse; parental mental illness; parental substance abuse; parental incarceration; and witnessing violence against one’s mother. This list was subsequently expanded by the Centers for Disease Control and Prevention to include parental separation or divorce and emotional or physical neglect. The original study yielded several key findings:

- The prevalence of ACEs was unexpectedly high, even with the study’s relatively advantaged population. More than two thirds of the sample reported experiencing one ACE, and almost one quarter reported three or more ACEs.
- Cumulatively, ACEs were associated with an elevated lifetime risk for poor health and well-being. There was a dose-response relationship between the cumulative number of reported ACEs and poor well-being, meaning that more negative outcomes were associated with a higher number of ACEs. For example, compared to individuals with one ACE, those with four or more ACEs were more likely to experience substance abuse, smoking, sexually transmitted diseases, heart disease, diabetes, obesity, depression, poor academic performance, and early death. Stress on the developing child that rises to harmful levels, affecting multiple body systems (including brain development, as well as immune, endocrine, and epigenetic effects), appears to be the underlying mechanism for these effects.²⁹

Since then, numerous studies using the ACEs index, along with parallel work in neuroscience and biology, have confirmed this overall picture while adding important elaborations:

- Some populations—including clinic-referred youth,³⁰ children in foster care,³¹ young mothers,³² children in poverty,^{33,34} children who experience homelessness,³⁵ racial or ethnic minority children,^{36,37,38} justice system-involved youth,³⁹ and military veterans⁴⁰—have exceptionally high levels of cumulative adversities.
- Adversity can have detrimental effects in childhood, as well, including health and behavior problems.^{41,42,43,44}
- The effects of childhood adversities can be transmitted to the next generation through epigenetic changes and impaired parental behavior.^{45,46,47,48}
- Problems with social-emotional skills, including self-regulation and other executive functions, are common symptoms of exposure to unhealthy levels of adversity.^{49,50,51}
- An estimated 16 percent of children who experience these events develop post-traumatic stress disorder (PTSD).⁵²
- Individuals can show remarkable resilience, especially in the face of a single adversity. But even children who encounter multiple adversities can exhibit resilient responses⁵³ if they have caring, consistent support from a loving caregiver who buffers them from unhealthy levels of stress. Other protective factors can also maintain positive development in the face of adversity.^{54,55,56,57}
- Many interventions with children and families exposed to multiple adversities can improve the odds of positive outcomes^{58,59,60}—again, attesting to the human capacity for resilience, given the right conditions.⁶¹

Multiple reasons to identify childhood adversity

Identifying childhood adversity at a community or larger population level to monitor public health is markedly different from identifying adversity in the life of an individual child to make decisions regarding what services to provide them and their families. The first use contributes to the larger picture of how well-being is distributed (on the basis of geography, race/ethnicity, income, etc.), and is essential for both policymakers and a well-informed public.^a The second use informs how care decisions are made by, or on behalf of, specific individuals—for example, in a family, school, or clinic setting.

This brief focuses on screening for adversity to identify and provide services to individual children. However, there can be value in collecting data for each of these purposes. In a previous effort to describe and monitor population health, for example, Child Trends used data from the National Survey of Children's Health (NSCH) to highlight—for the nation and for each state—the prevalence of, and disparities within, the adversities listed in that survey.^{62,63} However, the NSCH list, while more inclusive than the original ACEs Index, still omits many social-structural adversities. Regarding the second purpose, we spotlight some examples of how adversity screening can be incorporated into a comprehensive clinical decision-making process, in Box 2 on pages 11-12.

Policymakers should distinguish between identifying childhood adversity in the context of monitoring population health versus making decisions regarding services for individual young children and their families. The former can inform community and systems-level responses to adversity, while the latter can improve outcomes for individuals.

^a For example, federal legislation signed in October 2018 authorized support to states for collecting and reporting data on ACEs (see endnote 33).

Unfortunately, some of the current calls for expanding ACEs screening confuse these two very different purposes. Although the interest in screening individual children for ACEs generally reflects a well-intentioned response to the concerns surfaced by the new science of stress, the use of screening by itself can be harmful. Widespread screening of individual children for early adversity as a single strategy for supporting their well-being, or for addressing the negative effects of childhood trauma, is misguided. Many other experts agree.^{64,65,66} We are especially concerned about the current push to focus already-limited resources for infant and early childhood mental health on screening children using flawed tools.

As a single approach, screening for childhood adversity is flawed

Those who adopt any screening tool should be clear about its purpose and the appropriate use of its results.⁶⁷ Screening can be an efficient way to select individuals for a more thorough assessment. However, screening can neither predict how a given child will develop over time, nor specify an appropriate strategy for supporting that child. In our view, the idea that screening alone should be the primary means for addressing childhood adversity is mistaken.

Many current ACEs-based screens are blunt instruments that omit important experiences. There is no scientific consensus about which adverse experiences are most important to children's developmental outcomes. A typical ACEs screening tool includes a brief checklist of items that are counted equally, despite the fact that their impact on children may vary considerably. For instance, a relatively amicable divorce is likely to be less harmful to a child than sexual abuse, yet these experiences are considered the same when determining a child's adversity score (i.e., the total number of such events an individual has experienced in childhood). Indeed, it is impractical for any list of adversities to represent the full spectrum of potentially traumatic experiences in childhood. As noted in this brief, the screen developed for the original ACEs study omits many circumstances that can have lifelong negative consequences for an individual's well-being: forced displacement, separation from a parent (other than through marital dissolution or death), exposure to wartime or community violence, bullying, natural disasters, and homelessness. As a result, screening inevitably underestimates these exposures, especially for specific groups of vulnerable children.

In our view, the idea that screening alone should be the primary means for addressing childhood adversity is mistaken.

A higher score on an adversities screen does not necessarily indicate more exposure to trauma, nor does it necessarily identify all children who would benefit from intervention. As the Substance Abuse and Mental Health Services Administration notes, "Positive screens only indicate that assessment or further evaluation is warranted, and negative screens do not necessarily mean that an individual doesn't have symptoms that warrant intervention."⁶⁸ Policymakers who use screening results to inform the allocation of resources should not rely on a tool that fails to identify many children in need of support.

Screening for childhood adversity raises concerns about validity and ethical practice. The typical options for obtaining reports of adversity also have important limitations. Having children self-report adversity is practicable, especially at older ages, but may lead to distress for both child and family—and, in some cases, to re-traumatization. Such screening could be considered unethical unless there are adequate supports at hand and the screen is administered by a well-trained interviewer.^{69,70}

Parental report (or report by another primary caregiver) of a child's exposure to adversity can be biased. For example, an abusive parent might refuse screening altogether or have reason to be untruthful. Alternatively, a parent may be unaware that the child has been maltreated by another adult.⁷¹

Furthermore, when an untrained interviewer asks parents to identify harmful events their child has experienced, this may raise barriers of guilt and shame, exacerbate post-traumatic stress, or lead to re-traumatization (for example, a mother may feel responsible for being unable to protect her child from an abusive partner while she herself is a victim of domestic violence).

As a result, even a valid screening tool may introduce bias and ethical problems if used inappropriately. At the least, screening should be conducted by someone who has had comprehensive, culturally sensitive training in trauma-informed care.⁷² The tool should be appropriate for the child's age and skills and have been validated and normed on a population that represents the child.⁷³ A one-size-fits-all approach to screening is definitely ill-advised. These concerns are particularly important in the case of very young children, for whom the types and symptoms of adversity exposure may be difficult to recognize, and high-quality screening tools are not readily available.^{74,75}

Screening for adversity alone provides a simplistic and unbalanced picture of children's development. The impact of childhood adversity depends on a multitude of factors, such as age at exposure, the severity of the experience, its duration, the presence or absence of a caring adult and other protective factors, and whether the adversity has persisted over generations.^{76,77,78,79} Furthermore, while adversities occur among children from all geographic, socioeconomic, racial, and ethnic backgrounds, little is known about how adversities are defined and how their consequences may differ across cultures⁸⁰ (recall that the seminal ACEs study was based on a white, middle-class sample).

In addition, exposure to adversity represents only one aspect of a child's experience and does not provide information on overall well-being, including (importantly) their strengths. Screening should include functioning across multiple domains of development—social, emotional, cognitive, language, and physical. It should also identify family, school, community, and broader environmental factors that can either promote resilience or place a child at further risk.

Because children's reactions to adversity vary widely, screening may not support recovery and well-being.⁸¹ While screening for adversity may identify a child's *exposure*, it does not provide information on the child's *reactions* or *symptoms*—critical information for determining the specific types of supports and services the child needs.⁸² If two children have experienced the same adversity, one may develop PTSD and require treatment while the other returns to normal activities on their own. Often, the presence or absence of protective factors (e.g., the consistent presence of a caring adult) accounts for these differences.

Labeling an individual based on a single cumulative adversity score may cause more harm than good. While exposure to adversity is a risk factor for healthy development,⁸³ there is considerable variability in how individuals fare in response to exposure. In the worst-case scenario, a singular focus on young children's cumulative adversities could lead to stigmatization of children and their families—especially those already experiencing considerable stress—by schools or other child-serving institutions.⁸⁴ Just as we worry that widespread sharing of personal medical information could be used to discriminate against people, so too could a person's ACEs score. Unfortunately, there are already disturbing signs that various measures of risk (including, conceivably, ACEs scores) are being used by health insurers and providers to shape their policies and procedures in ways that do not benefit children and families affected by trauma (e.g., higher costs of care).⁸⁵

Any screening requires a commitment of resources, which are typically scarce in the context of primary care and other child- and family-serving systems. Basic developmental screening is more likely to identify a broader range of health problems—and thus have a greater impact on well-being—than screening for adversity alone. However, parents of less than one third of infants and toddlers⁸⁶ report completing a pediatrician-provided screening tool. We cannot expect that many providers and parents will participate in

a childhood adversity screen when most do not use the basic screenings that are critically important for identifying young children (not just those with exposure to adversities) in need of services and supports.^b

Despite a burgeoning awareness of childhood adversities, communities currently lack the necessary infrastructure to support universal screening in the context of routine physical and behavioral health care. Moreover, they lack the resources necessary to respond to children's needs; many children and families have poor access to adequate food, housing, income, or child care, let alone trauma-informed and evidence-based mental health services developed for young children. In particular, few child- and family-serving providers are trained in evidence-based trauma assessments and treatments for infants and toddlers,⁸⁷ whose trauma symptoms are frequently overlooked due to myths that they are immune to the effects of adversity, or because they are misdiagnosed with developmental delays when they are actually exhibiting symptoms of trauma.⁸⁸

Moving toward a more comprehensive approach to identifying and addressing childhood adversity

Given the limitations of a screening-only approach, we offer some basic principles for a more thoughtful strategy:

- Screening for childhood adversity should be just one component of a comprehensive, trauma-informed, and community-based system of care.^{c, 89}
- To promote their resilience, children need safe, stable, and nurturing relationships and environments. Foster caregivers' skills in promoting attachment, attunement, self-regulation, and safety.⁹⁰
- Individual screening results should be followed up with more detailed assessments. When indicated, practitioners should refer children to appropriate services to help them and their families heal from the effects of trauma, including interventions to help them manage symptoms and gain skills to reduce the impact of adverse experiences. For example, participation in evidence-based trauma treatment (e.g., Child-Parent Psychotherapy,⁹¹ Parent-Child Interaction Therapy,⁹² Trauma-Focused Cognitive Behavioral Therapy⁹³) has been found to be effective when children have difficulty recovering from an adverse experience.
- Finally, professionals who work with children should have a system to follow up on and monitor children's well-being over time to ensure the effectiveness of any interventions the family receives.

As part of a comprehensive, trauma-sensitive, strengths-based approach to identifying and addressing childhood adversity, screening can be conducted effectively not only in mental health settings, but also in pediatric care, early care and education settings and schools, child welfare agencies, and home visiting programs, among others (see Box 2 on page 11 for examples of comprehensive approaches in different child- and family-serving systems).

^b In a sample of practicing general pediatricians, only a tiny fraction (2 percent) reported using an adversities screening tool, and nearly half did not know that such a tool existed. Four percent routinely asked about seven adversities, 32 percent did not usually inquire about any, and less than 11 percent were familiar with the ACEs study. Kerker, B. D., Storfer-Isser, A., Szilagyi, M., Stein, R. E. K., Garner, A. S., O'Connor, B. S., ...Horwitz, S. M. (2016). Do pediatricians ask about adverse childhood experiences in pediatric primary care? *Academic Pediatrics*, 16(2), 154-160.

^c A system of care can be defined as a coordinated network of mental health services and supports that is community-based, family-driven, and youth-guided. See Center for Mental Health Services. (2011). The Comprehensive Community Mental Health Services for Children and Their Families Program: Evaluation findings. Annual Report to Congress. Substance Abuse and Mental Health Services Administration, U.S. Department of Human Services. Retrieved from <https://store.samhsa.gov/system/files/pep13-cmhi2011.pdf>; and National Technical Assistance Center for Children's Mental Health. (n.d.) System of care definition and philosophy. Retrieved from https://gucchd.georgetown.edu/products/Toolkit_SOC_Resource1.pdf

Policy recommendations for addressing childhood adversity

Screening should be part of a comprehensive approach to identifying and addressing childhood adversity. Below, we provide specific recommendations to policymakers to promote more comprehensive and effective strategies:

- **Train service providers across child and family service systems to increase their capacity for trauma-informed care (TIC).** Investments in professional development are needed to increase trauma knowledge and skills among service providers. Such investments will allow providers to conduct screening as part of a comprehensive approach to assessment, referral, and follow-up in two-generation programs (e.g., Early Intervention [IDEA Part C], home visiting, Head Start/Early Head Start),⁹⁴ early care and education,⁹⁵ pediatric care settings,⁹⁶ child welfare,^{97,98,99} mental health, and other services for children and their families.¹⁰⁰ Research shows that training in TIC not only improves providers' skills and knowledge, but also improves behavior and mental health outcomes among children with posttraumatic stress.^{101,102,103,104} Recently enacted federal legislation supports states' efforts to increase access to trauma-informed services.¹⁰⁵
- **Promote screening for adversity only as one component of a comprehensive, trauma-informed, strengths-based approach to addressing childhood adversity.**
 - Screening should be conducted using a high-quality tool that is culturally sensitive, age-appropriate, reliable, and valid, and that accounts for adversity related to social inequities (e.g., poverty, homelessness, discrimination, historical trauma, community violence, adversity related to immigration or refugee status) in addition to household-level challenges. The tool should identify both a child's *exposure* and related *reactions* (i.e., symptoms).¹⁰⁶
 - Providers should be able to administer the screen without causing undue stress or re-traumatizing children and families.
 - To avoid drawing erroneous conclusions about a child's prospects based on deficits alone, additional assessments should be conducted that identify each child's strengths and challenges across multiple areas of development.
 - Increasing providers' use of child developmental screening,¹⁰⁷ along with obtaining a comprehensive developmental history,¹⁰⁸ may be equally or more valuable in developing a care plan than screening for exposure to adversity alone. Because most providers still do not conduct basic developmental screening, incentives will likely be required.¹⁰⁹
 - Screening for adversity should not be conducted unless programs and service providers have developed the capacity to follow up by facilitating a family's access to evidence-based treatment and supports.
- **Support research to develop more sensitive tools for assessing the effects of early adversity and informing individualized responses for infants and toddlers.** To promote long-term well-being, we must not only identify children's exposure to adversity, but also address their symptoms. Presently, there are few assessments that are appropriate for use with the youngest children.¹¹⁰ Tools for that age group should identify children's exposure and reactions to adversity, but also assess infant/toddler behavior¹¹¹ and the quality of parent-child interactions, and collect other age-relevant information that can guide an effective response.¹¹²
- **Increase the availability and accessibility of evidence-based treatments and services.** The number of effective interventions that address childhood trauma and adversity (many of which are cited here) has grown considerably in recent years.¹¹³ This is due in part to public¹¹⁴ and private initiatives¹¹⁵ that have invested in evaluation. Because some therapies for children who experience severe adversity

may be ineffective or even harmful, care providers should identify interventions that are supported by evidence and, ideally, designed for the appropriate population. For example, in efforts to improve school climate, states may be able to use funding from the Every Student Succeeds Act (ESSA) for trauma-informed strategies.¹¹⁶ In addition, efforts are needed to increase the workforce's capacity to provide evidence-based trauma interventions for infants, toddlers, and their families; currently, our youngest, most vulnerable children wait the longest for services or, in some instances, receive none at all.¹¹⁷ The majority of mental health providers have limited knowledge or skills to address the impact of trauma on very young children.¹¹⁸

- Implement primary prevention strategies that reduce the likelihood of early adversity and its harmful effects on children and promote resilience in development. Sources of widespread childhood adversity (e.g., poverty, abuse and neglect, intimate partner violence, unintended injuries) should be reduced. For children already exposed to adversity, policymakers' focus should be on preventing subsequent exposure. Act to strengthen the characteristics of children, families, schools, and communities that protect against harm, promote recovery, and lead to flourishing lives. Promising approaches to this goal include establishing a medical home for all young families;¹¹⁹ reducing families' financial stress through expansion of programs shown to be effective, such as the Earned Income Tax Credit (EITC), the Child Care Tax Credit, Supplemental Nutrition Assistance Program (SNAP), paid parental leave, and increased minimum wage; and expanding access to high-quality, trauma-informed Early Intervention (IDEA Part C), early care and education, and home visiting.¹²⁰

Box 2: Current Initiatives that Integrate Screening for Childhood Adversity into a Comprehensive System of Trauma-Informed Care

The following are a few representative examples, within settings that serve families, of responses to adversity that go beyond identification to create more comprehensive strategies.

Pediatric and other medical settings. Pediatric and general practice clinics can integrate a range of trauma-related services, delivered either in-house or referred to an external provider.^{121,122} These places are critical because children with mental health issues, including those related to trauma, are more likely to be seen in medical settings than in specialized mental health clinics.¹²³ In Marin County, California, community clinics offer a wide range of services (access to a local food pantry, individual therapy, parenting groups, support groups, stress management classes) to all patients with a positive ACEs screen.¹²⁴

Family-based prevention programs.^d Family-based prevention programs include home visiting,¹²⁵ as well as a number of parent-focused interventions effective in improving the social-emotional skills critical to parenting (e.g., Child-Parent Psychotherapy,¹²⁶ Family Check-Up, Parent-Child Interaction Therapy,¹²⁷ Triple-P).¹²⁸ A number of states have begun to implement trauma-informed strategies with families who receive home visiting services. The Wisconsin Family Foundations Home Visiting program, for example, uses a comprehensive approach that includes training for staff and supervisors on a range of screening and assessment tools, monthly groups facilitated by a mental health consultant, peer-to-peer learning through communities of practice, and integrating activities and resources into home visits. Washington state has implemented a toolkit (Neuroscience, Epigenetics, Adverse Childhood Experiences, and Resilience, or NEAR) for home visitors to address adversities with families.^{129,130}

^d It can be important to understand not only the child's history of adversity, but also the parents' history. The consequences of a parent's experience can affect the current parent-child relationship. In this context, it is important to emphasize inclusive compassion over intergenerational blame.

Early care and education (ECE). Policies and strategies relevant to ECE settings include integrating trauma-sensitive strategies into programs; developing strong partnerships with community social service agencies that specialize in responding to the needs of children negatively affected by adversity; and promoting professional development for mental health consultants, teachers, and others in the ECE workforce.¹³¹ Specific programs include Trauma Smart and infant and early childhood mental health consultation.^{132,133}

Schools. School-based prevention largely focuses on social-emotional learning and includes evidence-based programs such as the Good Behavior Game.¹³⁴ Other approaches follow a community-schools model.¹³⁵ For example, at Newark's BRICK Academy, the Greater Newark Healthcare Coalition screens students in Kindergarten through third grade. Depending on results and other information from school personnel, children are referred to a tiered set of services—some provided in-house and others externally.¹³⁶ School-community partnerships are also active in Cincinnati, Ohio; and in Portland¹³⁷ and Deschutes County in Oregon.¹³⁸

Child welfare systems. States' child welfare systems are natural places to infuse the principles and practices of trauma-sensitive care.^{139,140} These settings represent the front lines of primary, secondary, and tertiary prevention with children and families. Several trauma-informed approaches have been brought into child welfare systems and found to have positive results, including foster home retention, placement stability, and reduction of children's behavior problems and post-traumatic stress symptoms.^{141,142,143,144}

Community-based approaches. Community approaches represent another model for reducing the harmful effects of childhood adversity.^{145,146} These strategies may be particularly appropriate where historical and/or cultural trauma is prevalent, and where whole communities have been stigmatized and deprived of opportunity on the basis of race or ethnicity. One example of trauma-informed community building in San Francisco incorporates multiple levels of action: individual, interpersonal, community, and systems.¹⁴⁷

Acknowledgements

We thank Craig McEwen, Ph.D., Heather Forkey, M.D., Kristen Harper, Elizabeth Jordan, Al Race, Maria Ramos-Olazagasti, Ph.D., Jack Shonkoff, M.D., and Helene Stebbins for their thoughtful reviews of this brief. In addition, we are grateful to the Alliance for Early Success for supporting this work.

Copyright Child Trends 2019 | Publication # 2019-19

References

- ¹ Benjet, C., Bromet, E., Karam, E. G., & Kessler, R. C., McLaughlin, K. A., Ruscio, A. M., ...Koenen, K. C. (2016). The epidemiology of traumatic event exposure worldwide: Results from the World Mental Health Survey Consortium. *Psychological Medicine*, 46(2), 327-343.
- ² Fantuzzo, J., & Fusco, R. (2007). Children's direct exposure to types of domestic violence crime: A population-based investigation. *Journal of Family Violence*, 22(7), 543-552.
- ³ Grossman, D. C. (2000). The history of injury control and the epidemiology of child and adolescent injuries. *The Future of Children*, 10(1), 23-52.
- ⁴ U.S. Department of Health & Human Services, Administration for Children and Families, Administration on Children, Youth and Families, Children's Bureau. (2019). *Child maltreatment 2017*. Retrieved March 8, 2019 from <https://www.acf.hhs.gov/cb/resource/child-maltreatment-2017>
- ⁵ SAMHSA-HRSA Center for Integrated Health Solutions. (2018). *Trauma*. Rockville, MD: Author. Retrieved July 8, 2019 from <https://www.integration.samhsa.gov/clinical-practice/trauma>
- ⁶ Felitti, V. J., Anda, R. F., Nordenberg, D., Williamson, D. F., Spitz, A. M., Edwards, V., ... Marks, J. S. (1998). Relationship of childhood abuse and household dysfunction to many of the leading causes of death in adults: The Adverse Childhood Experiences (ACE) Study. *American Journal of Preventive Medicine*, 14(4), 245-258.
- ⁷ Substance Abuse and Mental Health Services Administration. (2014). *SAMHSA's concept of trauma and guidance for a trauma-informed approach*. HHS Publication No. (SMA) 14-4884. Rockville, MD: Author.
- ⁸ Bartlett, J. D., & Steber, K., (2019, May). *How to implement trauma-informed care to build resilience to childhood trauma*. Bethesda, MD: Child Trends. Retrieved May 17, 2019 from <https://www.childtrends.org/publications/how-to-implement-trauma-informed-care-to-build-resilience-to-childhood-trauma>
- ⁹ Barto, B., Bartlett, J. D., Bodian, R., Noroña, C.R., Spinazzola, J., Griffin, J. L., ...Todd, M. (2018). The impact of a statewide trauma-informed child welfare initiative on children's permanency and maltreatment outcomes. *Children & Youth Services Review*, 81, 149-160.
- ¹⁰ Redd, Z., Malm, K., Moore, K., Murphey, K., & Beltz, M. (2017). KVC's Bridging the Way Home: An innovative approach to the application of Trauma Systems Therapy in child welfare. *Children & Youth Services Review*, 76, 170-180.
- ¹¹ Murphy, K., Moore, K. A., Redd, Z., & Malm, K. (2017). Trauma-informed child welfare systems and children's well-being: A longitudinal evaluation of KVC's bridging the way home initiative. *Children & Youth Services Review*, 75, 22-34.
- ¹² Fantuzzo, J., & Fusco, R. (2007). Children's direct exposure to types of domestic violence crime: A population-based investigation. *Journal of Family Violence*, 22(7), 543-552.
- ¹³ Grossman, D. C. (2000). The history of injury control and the epidemiology of child and adolescent injuries. *The Future of Children*, 10(1), 23-52.
- ¹⁴ U.S. Department of Health & Human Services, Administration for Children and Families, Administration on Children, Youth and Families, Children's Bureau. (2019). *Child maltreatment 2017*. Retrieved February 3, 2019 from <https://www.acf.hhs.gov/sites/default/files/cb/cm2017.pdf>
- ¹⁵ Lieberman, A., & Van Horn, P. (2004/2016). *Don't hit my mommy: A manual for Child-Parent Psychotherapy with young witnesses of family violence*. Washington, DC: Zero to Three Press.
- ¹⁶ Eyberg, S. M., Boggs, S., & Algina, J. (1995). Parent-Child Interaction Therapy: A psychosocial model for the treatment of young children with conduct problem behavior and their families. *Psychopharmacology Bulletin*, 31, 83-91.

-
- ¹⁷ Cohen, J. A., Mannarino, A. P., & Deblinger, E. (2006). *Treating trauma and traumatic grief in children and adolescents*. New York: Guilford.
- ¹⁸ Finkelhor, D. (2018). Screening for adverse childhood experiences (ACEs): Cautions and suggestions. *Child Abuse & Neglect*, 85, 174-179.
- ¹⁹ McEwen, C., & Gregerson, S. F. (2019). A critical assessment of the Adverse Childhood Experiences Study at 20 Years. *American Journal of Preventive Medicine*, 56(6), 790-794.
- ²⁰ Felitti et al. (1998).
- ²¹ Substance Abuse and Mental Health Services Administration. (2014).
- ²² Substance Abuse and Mental Health Services Administration. (2014).
- ²³ Felitti et al. (1998).
- ²⁴ Brown, D. W., Anda, R. F., Felitti, V. J., Edwards, V. J., Malarcher, A. M., Croft, J. B., & Giles, W. H. (2010). Adverse childhood experiences are associated with the risk of lung cancer: A prospective cohort. *BMC Public Health*, 10, 1-12.
- ²⁵ Edwards, V. J., Holden, G. W., Anda, R. F., & Felitti, V. J. (2003). Experiencing multiple forms of childhood maltreatment and adult mental health in community respondents: results from the Adverse Childhood Experiences (ACE) Study. *American Journal of Psychiatry*, 160(8), 1453-1460.
- ²⁶ Felitti et al. (1998).
- ²⁷ Oh, D. L., Jerman, P., Boparai, S. K. P., Koita, K., Briner, S., Bucci, M., & Harris, N. D. (2018a). Review of tools for measuring exposure to adversity in children and adolescents. *Journal of Pediatric Health Care*, 32(6). Retrieved December 5, 2018 from [https://www.jpeds.org/article/S0891-5245\(18\)30134-2/pdf](https://www.jpeds.org/article/S0891-5245(18)30134-2/pdf)
- ²⁸ Felitti et al. (1998).
- ²⁹ Oh, D. L., Jerman, P., & Marques, S. S. (2018b). Systematic review of pediatric health outcomes associated with childhood adversity. *BMC Pediatrics*, 18(83). Retrieved December 5, 2018 from https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5824569/pdf/12887_2018_Article_1037.pdf
- ³⁰ Grasso, D. J., Dierkhising, C. B., Branson, C. E., Ford, J. D., & Lee, R. (2016). Developmental patterns of adverse childhood experiences and current symptoms and impairment in a youth referred for trauma-specific services. *Journal of Abnormal Child Psychology*, 44(5), 871-886.
- ³¹ Bramlett, M. D., & Radel, L. F. (2014). *Adverse family experiences among children in nonparental care, 2011-2012*. *National Health Statistics Report*, 74. Washington, DC: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, National Center for Health Statistics. Retrieved May 7, 2014 from <https://www.cdc.gov/nchs/products/nhsr.htm>
- ³² The National Crittenton Foundation. (2012). *Summary of results: Crittenton Adverse Childhood Experiences (ACE) Pilot*. Retrieved December 5, 2018 from <http://www.nationalcrittenton.org/wp-content/uploads/2015/03/ACEResults.pdf>
- ³³ Bethell, C., D., Davis, M. B., Gombojav, N., Stumbo, S., & Powers, K. (2017). *Issue brief: Adverse childhood experiences among U.S. children*. Child and Adolescent Health Measurement Initiative. Baltimore, MD: Johns Hopkins Bloomberg School of Public Health. Retrieved December 5, 2018 from http://www.cahmi.org/wp-content/uploads/2018/05/aces_fact_sheet.pdf
- ³⁴ Giovanelli, A., Reynolds, A. J., Mondì, C. F., & Ou, S-R. (2016). Adverse childhood experiences and adult well-being in a low-income, urban cohort. *Pediatrics*, 137(4), e220154016.
- ³⁵ Monn, A. R., Casey, E. C., Wenzel, A. J., Sapienza, J., Kimball, A., Brownell, M., ...Michaels, C. (2013). Risk and resilience in homeless children. St. Paul, MN: University of Minnesota Extension, Children, Youth and Family Consortium.

-
- ³⁶ Kenney, M. K. & Singh, G. K. (2016). Adverse childhood experiences among American Indian/Alaska Native children: The 2011-2012 National Survey of Children's Health. *Scientifica*, 1-14.
- ³⁷ Slopen, N., Shonkoff, J. P., Albert, M. A., Yoshikawa, H., Jacobs, A., Stoltz, R., Williams, D. R. (2016). Racial disparities in child adversity in the U.S.: Interactions with family immigration history and income. *American Journal of Preventive Medicine*, 50(1), 47-56.
- ³⁸ Sacks, V. & Murphey, D. (2018). *The prevalence of adverse childhood experiences, nationally, by state, and by race/ethnicity*. *Child Trends research brief*. Bethesda, MD: Child Trends. Retrieved December 5, 2018 from <https://www.childtrends.org/publications/prevalence-adverse-childhood-experiences-nationally-state-race-ethnicity>
- ³⁹ Complex Trauma Treatment Network of the National Child Traumatic Stress Network. (2016). *Complex trauma: In juvenile justice system-involved youth*. Retrieved December 5, 2018 from https://www.nctsn.org/sites/default/files/resources//complex_trauma_in_juvenile_justice_system_involved_youth.pdf
- ⁴⁰ Blossnich, J. R., Dichter, M. E., Cerulli, C., Batten, S. V., & Bossarte, R. M. (2014). Disparities in adverse childhood experiences among individuals with a history of military service. *JAMA Psychiatry*, 71(9), 1041-1048.
- ⁴¹ Flaherty, E. G., Thompson, R., Dubowitz, H., Harvey, E. M., English, D. J., Proctor, L. J. & Runyan, D. K. (2013). Adverse childhood experiences and child health in adolescence. *JAMA Pediatrics*, 167(7), 622-629.
- ⁴² Flaherty, E. G., Thompson, R., Litrownick, A. J., Theodore, A., English, D. J., Black, M. M., ...Dubowitz, H. (2006). Effect of early childhood adversity on child health. *Archives of Pediatrics & Adolescent Medicine*, 160(12), 1232-1238.
- ⁴³ Jimenez, M. E., Wade, R. (Jr.), Lin, Y., Morrow, L. M., & Reichman, N. E. (2016). Adverse experiences in early childhood and kindergarten outcomes. *Pediatrics*, 137(2), e20151839.
- ⁴⁴ Oh et al. (2018b).
- ⁴⁵ Folger, A. T., Eismann, E. A., Stephenson, N. B., Shapiro, R. A., Macaluso, M., Brownrigg, M. E., & Gillespie, R. J. (2018). Parental adverse childhood experiences and offspring development at 2 years of age. *Pediatrics*, 141(4), e20172826.
- ⁴⁶ Racine, N., Plamondon, A., Madigan, S., McDonald, S., & Tough, S. (2018). Maternal adverse childhood experiences and infant development. *Pediatrics*, 141(4), e20172495.
- ⁴⁷ Schickedanz, A., Halfon, N., Sastry, N., & Chung, P. J. (2018). Parents' adverse childhood experiences and their children's behavioral health problems. *Pediatrics*, 142(2), e200180023.
- ⁴⁸ Sun, J., Patel, F., Rose-Jacobs, R., Frank, D. A., Black, M. M., & Chilton, M. (2017). Mothers' adverse childhood experiences and their young children's development. *American Journal of Preventive Medicine*, 53(6), 882-891.
- ⁴⁹ Thompson, R. A. (2014). Stress and child development. *The Future of Children*, 24(1), 41-59.
- ⁵⁰ Murray, D. W., Rosanbalm, K., Christopoulos, C., & Hamoudi, A. (2014). *Self-regulation and toxic stress: Foundations for understanding self-regulation from an applied developmental perspective*. OPRE Report #2015-21. Office of Planning, Research, and Evaluation, the Administration for Children and Families, U.S. Department of Health and Human Services.
- ⁵¹ National Scientific Council on the Developing Child. (2015). *Supportive relationships and active skill-building strengthen the foundations of resilience: Working Paper 13*. Retrieved December 5, 2018 from <https://developingchild.harvard.edu/wp-content/uploads/2015/05/The-Science-of-Resilience.pdf>
- ⁵² Alsic, E., Zalta, A. K., van Wesel, F., Larsen, S. E., Hafstad, G. S., Hassanpour, K., & Smid, G. E. (2014). Rates of post-traumatic stress disorder in trauma-exposed children and adolescents: Meta-analysis. *British Journal of Psychiatry*, 204(5), 335-340.

-
- ⁵³ Luthar, S. S., & Cicchetti, D. (2000). The construct of resilience: Implications for interventions and social policies. *Development and Psychopathology*, 12(4), 857-885.
- ⁵⁴ Bonanno, G. A. & Mancini, A. D. (2008). The human capacity to thrive in the face of potential trauma. *Pediatrics*, 121(2), 369-375.
- ⁵⁵ Banyard, V., Hamby, S., & Grych, J. (2017). Health effects of adverse childhood events: Identifying promising protective factors at the intersection of mental and physical well-being. *Child Abuse & Neglect*, 65, 88-98.
- ⁵⁶ Center on the Developing Child at Harvard University (2015). *Supportive relationships and active skill-building strengthen the foundations of resilience: Working paper no. 13*. Retrieved December 4, 2018 from www.developingchild.harvard.edu
- ⁵⁷ Shonkoff, J. P. (2016). Capitalizing on advances in science to the health consequences of early childhood adversity. *JAMA Pediatrics*, 170(10), 1003-1007.
- ⁵⁸ Bartlett, J. D., Smith, S., & Bringewatt, E. (2017). *Helping young children who have experienced trauma: Policies and strategies for early care and education*. Bethesda, MD & Washington, DC: Child Trends & National Center for Children in Poverty. Retrieved April 28, 2018 from <https://www.ddcf.org/globalassets/17-0428-helping-young-children-who-have-experienced-trauma.pdf>
- ⁵⁹ JBS International & Georgetown University National Technical Assistance Center for Children's Mental Health. (n.d.). *Evidence-based treatments addressing trauma*. Retrieved December 5, 2018 from https://gucchdtacenter.georgetown.edu/TraumaInformedCare/IssueBrief4_EvidenceBasedTreatments.pdf
- ⁶⁰ Zero to Six Collaborative Group, National Traumatic Stress Network. (2010). *Early childhood trauma*. Retrieved December 5, 2018 from https://www.nctsn.org/sites/default/files/resources//early_childhood_trauma.pdf
- ⁶¹ Boparai, S. K. P., Au, V., Koita, K., Oh, D. L., Briner, S., Burke-Harris, N., & Bucci, M. (2018). Ameliorating the biological impacts of childhood adversity: A review of intervention programs. *Child Abuse & Neglect*, 81, 82-105.
- ⁶² Sacks & Murphey (2018).
- ⁶³ Sacks, V., & Murphey, D., & Moore, K. A. (2014). *Adverse childhood experiences: National and state-level prevalence*. Retrieved from https://www.childtrends.org/wp-content/uploads/2014/07/Brief-adverse-childhood-experiences_FINAL.pdf
- ⁶⁴ Finkelhor (2018).
- ⁶⁵ McEwen, C., & Gregerson, S. F. (2019). A critical assessment of the Adverse Childhood Experiences Study at 20 Years. *American Journal of Preventive Medicine*, 56(6), 790-794.
- ⁶⁶ McEwen & Gregerson (2019).
- ⁶⁷ Snow, C. E., Van Hemel, S. B., National Research Council of the National Academies, National Research Council, & National Academies. (2008). *Early childhood assessment: Why, what, and how (Vol. 1)*. Washington, DC: National Academies Press. Hemel, (Eds.). Washington, DC: Committee on Developmental Outcomes and Assessments for Young Children; Board on Children, Youth, and Families; Board on Testing and Assessment; Division of Behavioral and Social Sciences and Education; National Research Council. Retrieved December 5, 2018 from <https://www.nap.edu/download/12446>
- ⁶⁸ Substance Abuse and Mental Health Services Administration. (2014).
- ⁶⁹ Hardt, J. & Rutter, M. (2004). Validity of adult retrospective reports of adverse childhood experiences: Review of the evidence. *Journal of Child Psychology & Psychiatry*, 45(2), 260-73.
- ⁷⁰ Widom, C. S., & Shepard, R. L. (1996). Accuracy of adult recollections of childhood victimization: Part 1. Childhood physical abuse. *Psychological Assessment*, 8(4), 412-421.

-
- ⁷¹ Fisher H. L., Bunn, A., Jacobs, C., Moran, P., & Bifulco, A. (2011). Concordance between mother and offspring retrospective reports of childhood adversity. *Child Abuse & Neglect*, 35(2), 117–122.
- ⁷² Substance Abuse and Mental Health Services Administration. (2014).
- ⁷³ National Child Traumatic Stress Network. *Trauma screening*. Retrieved February 25, 2018 from <https://www.nctsn.org/treatments-and-practices/screening-and-assessments/trauma-screening>
- ⁷⁴ Harden, B. J. (2015). *Services for families of infants and toddlers experiencing trauma: A research-to-practice brief*. Washington, DC: Office of Planning, Research and Evaluation, Administration for Children and Families, U.S. Department of Health and Human Services. Retrieved February 25, 2019 from https://www.acf.hhs.gov/sites/default/files/opre/opre_nitr_brief_v07_508_2.pdf
- ⁷⁵ Bartlett, J. D., Smith, S., & Bringewatt, E. (2017). *Helping young children who have experienced trauma: Policies and strategies for early care and education*. Bethesda, MD: Child Trends. Retrieved July 6, 2019 from <https://www.childtrends.org/wp-content/uploads/2017/04/2017-19ECETrauma.pdf>
- ⁷⁶ Bartlett, J. D., Kotake, C., Fauth, R., & Easterbrooks, M. A. (2017). Intergenerational transmission of child abuse and neglect. Do maltreatment type, perpetrator, and substantiation status matter? *Child Abuse and Neglect*, 63, 84-94.
- ⁷⁷ Manly, J. T., Kim, J. E., Rogosch, F. A., & Cicchetti, D. (2001). Dimensions of child maltreatment and children's adjustment: Contributions of developmental timing and subtype. *Development and Psychopathology*, 13(4), 759-782.
- ⁷⁸ Jones, N. L., Gilman, S. E., Cheng, T. L., Drury, S. S., Hill, C. V., & Geronimus, A. (2019). Life course approaches to the causes of health disparities. *American Journal of Public Health, Suppl. 1*, 109(51), s48-s55.
- ⁷⁹ Bronfenbrenner, U., & Morris, P. A. (2006). The bioecological model of human development. In R. M. Lerner & W. Damon (Eds.), *Handbook of child psychology: Theoretical models of human development* (pp. 793-828). Hoboken, NJ, US: John Wiley & Sons.
- ⁸⁰ Finkelhor, D. (2018).
- ⁸¹ Child Trends DataBank (2013). *Indicators of child and youth well-being: Adverse experiences*. Retrieved November 30, 2018 from <https://www.childtrends.org/indicators/adverse-experiences>
- ⁸² Substance Abuse and Mental Health Services Administration. (2014).
- ⁸³ Felitti et al. (1998).
- ⁸⁴ Futures Without Violence. (2018). *Changing minds: Preventing and healing childhood trauma. State policy guide*. Retrieved July 7, 2019 from <https://www.futureswithoutviolence.org/wp-content/uploads/Changing-Minds-State-Policy-Framework.pdf>
- ⁸⁵ Allen, M. (2018, July 17). Health insurers are vacuuming up details about you – And It could raise your rates. *ProPublica*. Retrieved February 26, 2019 from <https://www.propublica.org/article/health-insurers-are-vacuuming-up-details-about-you-and-it-could-raise-your-rates>
- ⁸⁶ Child and Adolescent Health Measurement Initiative, Data Resource Center for Child and Adolescent Health. (2016). National Survey of Children's Health (NSCH) data query. Retrieved November 30, 2018 from <http://childhealthdata.org/browse/survey/results?q=5235&r=1>
- ⁸⁷ Centers for Disease Control and Prevention. (2018). *Improving access to children's mental health care*. Retrieved November 30, 2018 from <https://www.cdc.gov/childrensmentalhealth/access.html>
- ⁸⁸ Osofsky, J. D., Stepka, P. T., & King, L. S. (2017). *Treating infants and young children impacted by trauma: Interventions that promote healthy development*. Washington, DC: American Psychological Association.
- ⁸⁹ Substance Abuse and Mental Health Services Administration. (2014).
- ⁹⁰ Center on the Developing Child at Harvard University. (2017). *Three principles to improve outcomes for children and families*. Boston, MA: Author. Retrieved July 8, 2019 from
- 17** Childhood adversity screenings are just one part of an effective policy response to childhood trauma

https://46y5eh11fhgw3ve3ytpwxt9r-wpengine.netdna-ssl.com/wp-content/uploads/2017/10/HCDC_3PrinciplesPolicyPractice.pdf

⁹¹ Lieberman & Van Horn. (2004/2016).

⁹² Eyberg et al. (1995).

⁹³ Cohen et al. (2006).

⁹⁴ Holmes, C., Levy, M., Smith, A., Pinne, S., & Neese, P. (2015). A model for creating a supportive trauma-informed culture for children in preschool settings. *Journal of Child and Family Studies*, 24(6), 1650-1659.

⁹⁵ Bartlett et al. (2017).

⁹⁶ American Academy of Pediatrics. (2014). *Addressing adverse childhood experiences and other types of trauma in the primary care setting*. Retrieved December 5, 2018 from https://www.aap.org/en-us/Documents/ttb_addressing_aces.pdf

⁹⁷ Barto et al. (2018).

⁹⁸ Murphy et al. (2017).

⁹⁹ Redd et al. (2017).

¹⁰⁰ Futures Without Violence. (2018).

¹⁰¹ Bartlett & Steber (2019, May).

¹⁰² Barto et al. (2018).

¹⁰³ Redd et al. (2017).

¹⁰⁴ Murphy et al. (2017).

¹⁰⁵ H.R.6 Support for Patients and Communities Act. Retrieved March 8, 2018 from <https://www.congress.gov/bill/115th-congress/house-bill/6/text>

¹⁰⁶ Substance Abuse and Mental Health Services Administration. (2014). *Trauma-informed care in behavioral health services: Tip 57*. Rockville, MD: Author. Retrieved December 5, 2018 from <https://store.samhsa.gov/product/TIP-57-Trauma-Informed-Care-in-Behavioral-Health-Services/SMA14-4816>

¹⁰⁷ Moodie, S., Daneri, P., Goldhagen, S., Halle, T., Green, K., & LaMonte, L. (2014). *Early childhood developmental screening: A compendium of measures for children ages birth to five (OPRE Report 2014 11)*. Washington, DC: Office of Planning, Research and Evaluation, Administration for Children and Families, U.S. Department of Health and Human Services. Retrieved April 29, 2019 from https://www.acf.hhs.gov/sites/default/files/opre/compendium_2013_508_compliant_final_2_5_2014.pdf

¹⁰⁸ Centers for Disease Control and Prevention. (2019). *Developmental monitoring and screening for health professionals*. <https://www.cdc.gov/ncbddd/childdevelopment/screening-hcp.html>

¹⁰⁹ Kenney, G. K., & Pelletier, J. E. (2010). *Improving the lives of young children: The role of developmental screenings in Medicaid and CHIP*. Washington, DC: Urban Institute. Retrieved November 30, 2018 from <https://www.urban.org/sites/default/files/publication/29436/412275-Improving-the-Lives-of-Young-Children-.PDF>

¹¹⁰ Strand, V. C., Pasquael, L. E., & Sarmiento, T. L. (2005). *Child and adolescent trauma measures: A review*. Westchester, New York: Children F.I.R.S.T., The Children's Trauma Consortium of Westchester.

¹¹¹ National Child Traumatic Stress Network (n.d.). *Screening and assessment*. Retrieved November 30, 2018 <https://www.nctsn.org/treatments-and-practices/screening-and-assessment>

¹¹² Shonkoff, J. P. (2016).

-
- ¹¹³ National Child Traumatic Stress Network (n.d.). *Trauma treatments*. Retrieved November 30, 2018 from <https://www.nctsn.org/treatments-and-practices/trauma-treatments>
- ¹¹⁴ Substance Abuse and Mental Health Services Administration. (2016). *National Child Traumatic Stress Initiative*. Retrieved March 8, 2017 from <https://www.samhsa.gov/child-trauma>
- ¹¹⁵ Rushovich, B., Murphy, K., & Bartlett, J. D. (2018). *Trauma-informed care initiatives show promise for improving practice in the child welfare system*. Bethesda, MD: Child Trends. Retrieved December 5, 2018 from <https://www.childtrends.org/trauma-informed-care-initiatives-show-promise-improving-practice-child-welfare-system>
- ¹¹⁶ Futures Without Violence (2018).
- ¹¹⁷ Harden (2015).
- ¹¹⁸ De Young, A. C., Kenardy, J. A., & Cobham, V. E. (2011). Trauma in early childhood: A neglected population. *Clinical Child & Family Psychology Review*, 14, 231–250.
- ¹¹⁹ American Academy of Pediatrics. *What is medical home?* Retrieved July 9, 2019 from <https://www.aap.org/en-us/professional-resources/practice-transformation/managing-patients/Pages/what-is-medical-home.aspx>
- ¹²⁰ Thompson, R. A. & Haskins, R. (2014). Policy brief: Early stress gets under the skin: Promising initiatives to help children facing chronic adversity. *The Future of Children*, 24(1), 41-59. Retrieved December 5, 2018 from https://futureofchildren.princeton.edu/sites/futureofchildren/files/media/helping_parents_helping_children_24_01_policy_brief.pdf
- ¹²¹ Traub, F., & Boynton-Jarrett, R. (2017). Modifiable resilience factors to childhood adversity for clinical pediatric practice, *Pediatrics*, 139(5), e20162569.
- ¹²² Purewal, S. K., Bucci, M., Wang, L. G., Koita, K., Marques, S. S., Oh, D., & Harris, N. D. (2016). Screening for adverse childhood experiences in an integrated pediatric care model. *Zero to Three*, 36(3), 10-17.
- ¹²³ National Child Traumatic Stress Network. (2018). *Trauma-informed integrated care for children and families in healthcare settings*. Retrieved December 5, 2018 from https://www.nctsn.org/sites/default/files/resources/fact-sheet/trauma_informed_integrated_care_for_children_and_families_in_healthcare_settings.pdf
- ¹²⁴ Udesky, L. (2018). *Marin Community clinics in California screen babies for ACEs, provide support in effort to prevent trauma*. Sonoma County ACEsConnection. Retrieved December 5, 2018 from <https://www.acesconnection.com/blog/marin-community-clinics-screen-babies-for-aces-provide-support-in-effort-to-prevent-trauma>
- ¹²⁵ Garner, A. S. (2013). Home visiting and the biology of toxic stress: Opportunities to address early childhood adversity. *Pediatrics*, 132(Supplement 2), s65-s73.
- ¹²⁶ Hulette, A. C., Dunham, M., Davis, M., Gortney, J., & Lieberman, A. F. (2016). Early intervention for families exposed to chronic stress and trauma: The attachment vitamins program. *Zero to Three*, 36(6), 19-25.
- ¹²⁷ Eyberg et al. (1995).
- ¹²⁸ Biglan, A., van Ryzin, M. J., & Hawkins, J. D. (2017). Evolving a more nurturing society to prevent adverse childhood experiences. *Academic Pediatrics*, 17(7S), S150-S157.
- ¹²⁹ Cairone, K., Rudick S., & McAuley, E. (2017). *Home visiting issues and insights: Creating a trauma-informed home visiting program*. Retrieved December 31, 2018 from https://mchb.hrsa.gov/sites/default/files/mchb/MaternalChildHealthInitiatives/HomeVisiting/Creating_a_Trauma_Informed_Home_Visiting_Program_Issue_Brief_January_2017.pdf

-
- ¹³⁰ Region X ACEs Planning Team (2016). *NEAR@Home toolkit*. Retrieved December 31, 2018 from <https://www.nearathome.org/>
- ¹³¹ Bartlett et al. (2017).
- ¹³² Holmes et al. (2015).
- ¹³³ Perry, D. F. & Conners-Burrow, N. (2016). Addressing early adversity through mental health consultation in early childhood settings. *Family Relations*, 65, 24-36.
- ¹³⁴ Biglan et al. (2017).
- ¹³⁵ Moore, K. A., Lantos, H., Jones, R., Schindler, A., Belford, J., Sacks, V. & Harper, K. (2017). *Making the grade: A progress report and next steps for integrated student supports*. Bethesda, MD: Child Trends. Retrieved December 5, 2018 from <https://www.childtrends.org/publications/making-grade-progress-report-next-steps-integrated-student-supports>
- ¹³⁶ Center for Health Care Strategies, Inc. (2018).
- ¹³⁷ Price, O. A. & Ellis, W. (2018, February 26). Student trauma is widespread. Schools don't have to go it alone. *Education Week*. Retrieved July 8, 2019 from <https://www.edweek.org/ew/articles/2018/02/26/student-trauma-is-widespread-schools-dont-have-to-go-alone.html>
- ¹³⁸ Paull, S. (2016). *Rural Oregon county integrates ACEs screening in school-based trauma-informed health centers*. *Aces Connection*. Retrieved December 5, 2018 from <https://acestoohigh.com/2016/04/26/rural-oregon-county-integrates-aces-screening-in-school-based-trauma-informed-health-centers/>
- ¹³⁹ Rushovich et al. (2018).
- ¹⁴⁰ Child Welfare Information Gateway. (2017). *Supporting brain development in traumatized children and youth*. Washington, DC: U.S. Department of Health and Human Services, Administration for Children and Families, Administration for Children, Youth and Families, Children's Bureau. Retrieved December 5, 2018 from <https://www.childwelfare.gov/pubPDFs/braindevtrauma.pdf>
- ¹⁴¹ Barto et al. (2018).
- ¹⁴² Murphy et al. (2017).
- ¹⁴³ Redd et al. (2017).
- ¹⁴⁴ Rushovich et al. (2018).
- ¹⁴⁵ Farrow, F. (2018). Working toward well-being: Community approaches to toxic stress. Washington, DC: Center for the Study of Social Policy. Retrieved December 5, 2018 from <https://cssp.org/2018/04/ec-linc-network-of-early-childhood-innovators-welcomes-new-members/>
- ¹⁴⁶ Ellis, W. R. & Dietz, W. H. (2017). A new framework for addressing adverse childhood and community experiences: The Building Community Resilience model. *Academic Pediatrics*, 17(7s), s86-s92.
- ¹⁴⁷ Weinstein, E., Wolin, J., & Rose, S. (2014). *White paper: A model for strengthening community in trauma-affected neighborhoods*. Retrieved December 5, 2018 from https://healthequity.sfsu.edu/sites/default/files/FINAL_TICB_Paper_5.14.pdf