



CENTER FOR
**YOUTH
WELLNESS**

health begins with hope

**Adverse Childhood
Experiences, Toxic Stress
and Implications for
Juvenile Justice**

A Guide for Positive Youth Justice Initiative Counties

**Funding for
this guide
was provided by
Sierra Health
Foundation**

Partners



The Positive Youth Justice Initiative is an innovative approach to transform California's juvenile justice system. The focus is to improve the lives of crossover youth—young people who have experienced documented neglect, abuse and/or trauma, have a history in the child welfare and foster care system, and who are currently in the juvenile justice system.

The initiative supports counties throughout California to design and implement a series of reforms grounded in the principle of positive youth development, and recognizing that crossover youth have the potential to thrive and become valuable members of their communities when equipped with the right support systems. In each county, a partnership of public agencies, nonprofits and community leaders are working together to change how their local juvenile justice system views, screens and provides services to youth and their families.

The Positive Youth Justice Initiative partners are redefining the purpose and approach of the juvenile justice system to be better equipped to serve the state's most vulnerable youth and help them to have a healthy transition into adulthood.

The Alameda County Probation Department, San Joaquin County Probation Department, San Diego County Probation Department, and Vallejo City Unified School District (Solano County) are receiving \$400,000 grants over two years to implement their juvenile justice reform plans. Grantees receive expert technical assistance to assist in the integration, adoption and implementation of the initiative's four design elements: Investing in Youth, Treating Trauma, Changing Systems and Providing Wraparound Services. Grantees are supported throughout the initiative by significant investment in policy, communications and evaluation to the broadest possible reach into the juvenile justice field.

The Positive Youth Justice Initiative is a Sierra Health Foundation initiative managed by the Center for Health Program Management with additional funding from The California Endowment and The California Wellness Foundation.



The Center for Youth Wellness (CYW) is a health organization imbedded with a primary care pediatric home serving children and families in the Bayview Hunters Point neighborhood in San Francisco. Created to respond to a new medical understanding of how early adversity harms the developing brains and bodies of children, CYW works to prevent poor health outcomes for and among children by raising national awareness about unaddressed exposure to Adverse Childhood Experiences as a public health crisis among those who have the power to make a difference—from parents to pediatricians to policymakers.

Since 2012, CYW has worked with Sierra Health Foundation's Positive Youth Justice Initiative (PYJI) as experts in Adverse Childhood Experiences and toxic stress. Specifically, CYW was charged with providing technical assistance on the topic of trauma-informed care to probation counties selected by the foundation. CYW has served as a thought partner and supported county PYJI leaders in developing and implementing their trauma-informed care plans.

This guide was created to provide a foundation for trauma-informed care and to support PYJI leaders from each county in their trauma-informed efforts. Our hope is that all county leaders will refer to this document as the work moves forward. Because trauma-informed care is a new concept for the juvenile justice field, a juvenile justice specific model and research is not currently available. We hope this guide will help all PYJI leaders in the development of groundbreaking trauma-informed care strategies in the field of juvenile justice.

Executive Summary

Adverse Childhood Experiences, or ACEs, are stressful or traumatic experiences that can have a profound impact on a child's developing brain and body with lasting impacts on their health and livelihood. There are 10 recognized ACEs, which fall into three types—abuse, neglect and household dysfunction.

Numerous studies have shown a strong dose-response relationship between ACEs and poor outcomes in adulthood.¹ High numbers of ACEs have been found to correlate with increased risk for serious health conditions such as heart disease and negative health behaviors such as drug use.² Even when controlling for risk factors, research has shown a strong relationship between ACEs and chronic disease, suggesting that there is a direct link between ACEs and the development of disease.³

Early exposure to adversity is an unfortunate reality for many justice-involved youth. In one study, 97% of justice-involved youth reported one ACE, and 52% reported four ACEs.⁴ Moreover, as seen in scientific studies, high numbers of ACEs correlate with worse health outcomes in adults. Adults with four or more ACEs are more likely to experience worse physical and mental health and more likely to engage in risky health behaviors as compared to adults who have no ACEs. In addition, a person with four or more ACEs is 50% more likely to lack access to health insurance, and almost 13 times as likely to have been removed from their home as a child.⁵

To mitigate the long-term consequences of ACEs, it is critical that the juvenile justice system and its partners become trauma informed.

A trauma-informed system understands that trauma is universal and is highly prevalent among clients as well as staff. Developing a trauma-informed system among all partners engaged in the juvenile justice system (i.e. probation officers, child welfare, behavioral health, court officials) is essential to:

1. Support the wellness of youth involved in the justice system
2. Decrease use of placement and ensure successful re-entry into the community
3. Prevent a host of health-related (mental, behavioral, physical, emotional and social) problems and associated costs in the future
4. Benefit the safety and well-being of juvenile justice practitioners

Currently, much of juvenile justice practice is directly in conflict with a trauma-informed approach. It is important to understand how far your county is from being trauma informed through a rigorous assessment of practices—from hiring, training, youth intake, screenings, assessments, interventions and re-entry—and begin to reform policy and practice based on the principals of trauma-informed care discussed in this guide.

Introduction

In communities across the nation, early adversity stands in the way of the health and success of many children. Now, more than ever, we are beginning to understand the impact of Adverse Childhood Experiences on the developing brain and body of a child.

Children’s bodies adapt and develop in direct relation to their environments. Adverse Childhood Experiences (ACEs) are traumatic or stressful experiences over which a child has no control. A child can enter the world with multiple ACEs, and these experiences can have lifelong implications for the child’s health and future success. Left unaddressed, these adversities can lead to alterations in the fundamental biological

functioning of the brain and development of brain architecture.

WHAT ARE ACEs?

ACEs affects all communities regardless of race, ethnicity, income or geography. ACEs refer to 10 childhood experiences that, as research has shown, can lead to an increased risk for chronic disease in adulthood.

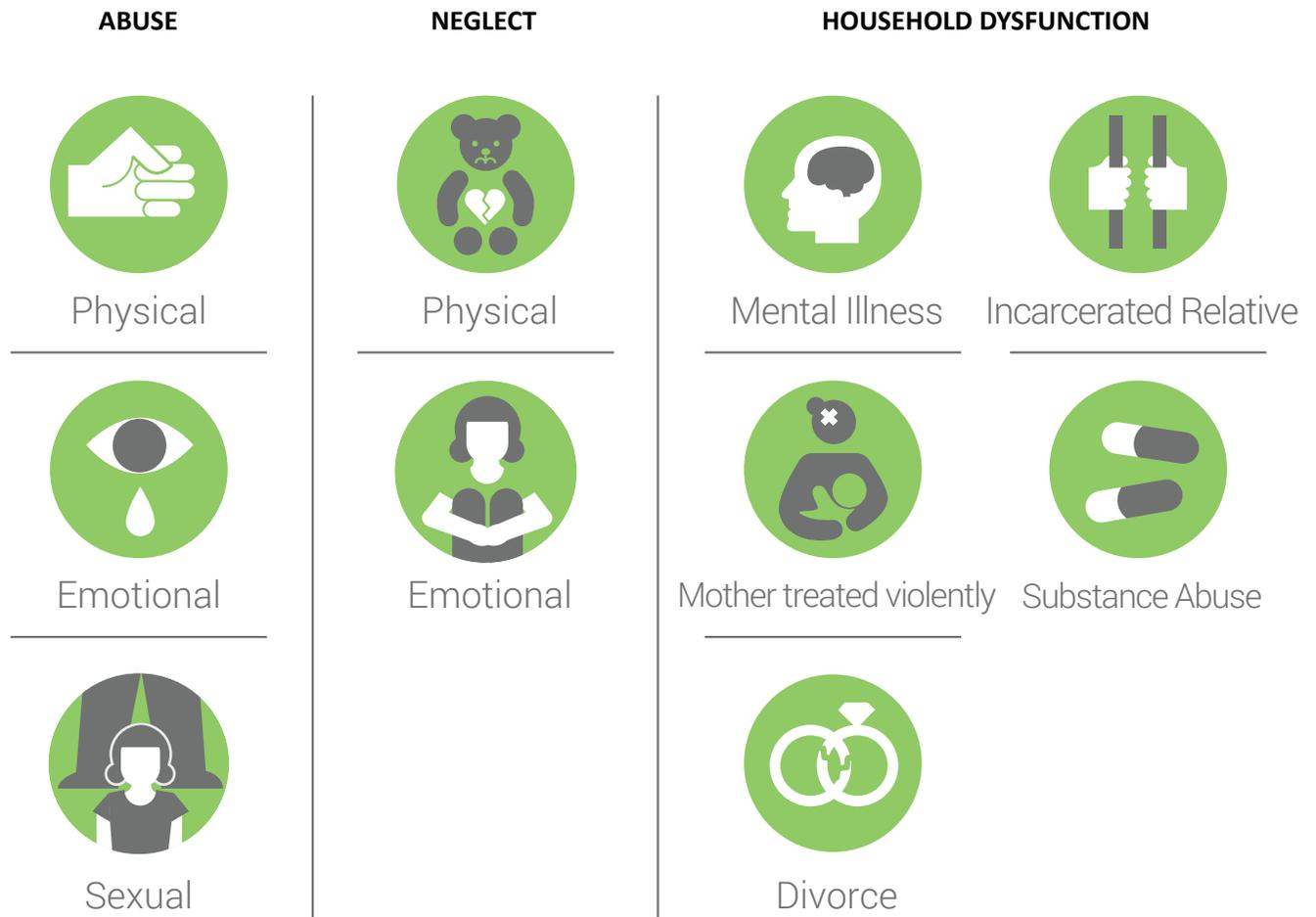
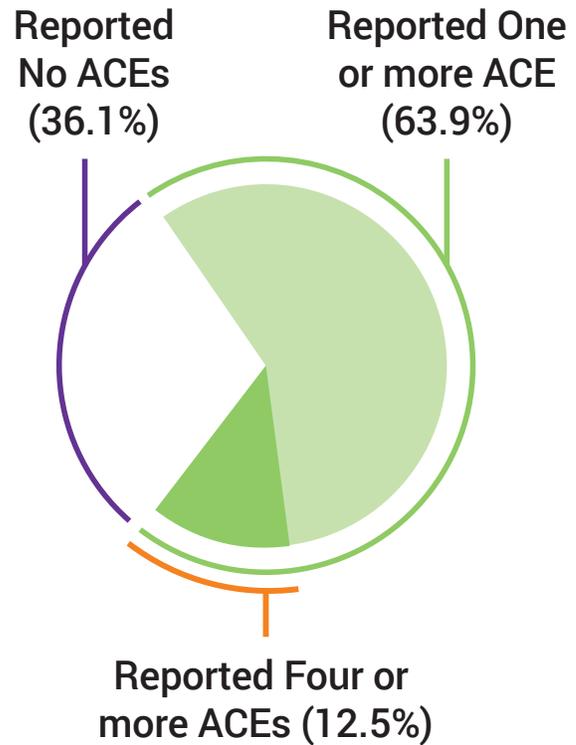


Image courtesy of the Robert Wood Johnson Foundation

In the original Kaiser Permanente San Diego ACEs Study, published in 1998, all participants were insured, mostly well-educated and middle-class. Almost two-thirds (63.9%) of participants reported having one or more ACEs. One in eight participants (12.5%) reported having four or more ACEs.⁶



▶▶ ALERT

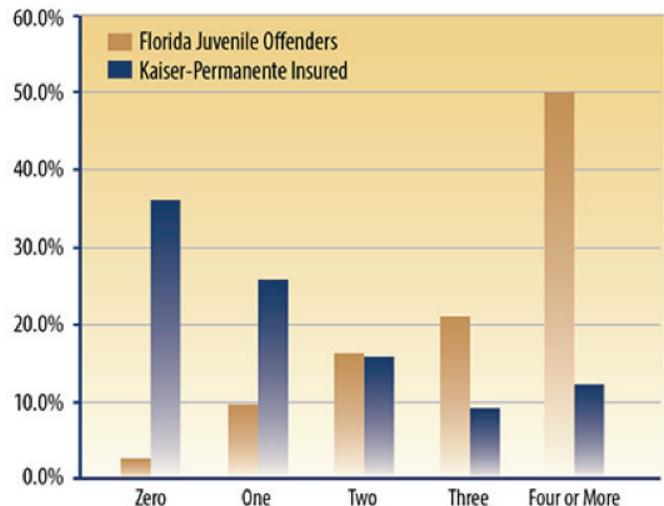
The original ACEs study does not represent communities where most youth entering the juvenile justice system come from—low-income communities of color. Data provided by counties participating in PYJI indicate that youth in the system come from communities with high poverty rates and higher incidence of violence. Taking these economic and social realities into account is important; children served by the justice system are faced with additional adversities not accounted for in the ACEs study. Such adversities—including, for example, involvement in the foster care system, history of homelessness, and exposure to community violence—negatively impact children’s development.

Compared to a person with no ACEs, a person with four or more ACEs is:

- 2.2 times as likely to have ischemic heart disease
- 1.9 times as likely to have cancer
- 10.3 times as likely to use injection drugs
- 2.4 times as likely to have a stroke
- 1.6 times as likely to have diabetes
- 7.4 times as likely to be an alcoholic
- 12.2 times as likely to attempt suicide

2014 STUDY ON PREVALENCE OF ACEs AMONG JUVENILE OFFENDERS

In spring 2014, a report of justice-involved youth in Florida showed that justice-involved youth have experienced adversity at an elevated rate. The study of 64,329 participants found that 97% of youth reported having one or more ACEs, 52% reported having four ACEs and 32% reported having five or more. These justice-involved youth are four times more likely to report having four or more ACEs than participants in the original ACE study.⁷



The Science: Why is it Important?

Over the course of our lives, our brains change and adapt. However, significant brain development occurs primarily during specific critical periods. These are known as “**windows of opportunity**” for brain development.

One of the most important windows of opportunity is early childhood from birth to 5 years and again at 11 and 15. The brain does continue to develop through the mid 20s.⁸

GLOSSARY

***Windows of opportunity** are sensitive periods of development during which capacities are readily shaped or altered by experience.⁹*

One of the most important developments occurring in a young child’s brain pertains to **neuroplasticity**—how our brains are shaped by our experiences. In children younger than 5, two types of neuroplasticity are prominent—synaptic plasticity and cellular plasticity. **Synaptic plasticity** refers to the strength of connections between brain cells and can be compared to the strength of your voice from a whisper to a shout. **Cellular plasticity** is the number of those brain cell connections and can be compared to one person shouting versus an entire stadium shouting. The phrase “Use it or lose it” applies neuroplasticity. The more we use neuronal connections, the stronger they become; the less we use neuronal connections, the weaker they become.

GLOSSARY

***Neuroplasticity** refers to the way the brain is shaped by experiences.*

***Cellular plasticity** refers to the number of connections between brain cells.*

***Synaptic plasticity** refers to the strength of the connections between brain cells.*

Synaptic plasticity occurs throughout our life. Although our brains are shaped by experiences throughout our life, experiences in early childhood play a crucial role in preparing our brains for the future. Because of the brain’s greater plasticity in early childhood, positive and negative experiences can deeply affect brain development. Positive experiences can promote healthy brain development in a young child; conversely, negative experiences may promote unhealthy brain development as the brain adapts to the negative experiences.¹⁰

There is early evidence of the impact of ACEs on the developing brains and bodies of children. In 2011, CYW Founder and Chief Executive Officer Dr. Nadine Burke Harris and Stanford University Professor Dr. Victor Carrion published a study that examined the correlation between Adverse Childhood Experiences and health outcomes in an urban pediatric population—patients from the Bayview Child Health Center located in one of San Francisco’s poorest neighborhoods. In a group of patients where the median age was 8, Dr. Burke Harris and Dr. Carrion found that more than two-thirds of the children had at least one ACE and 12% had four or more ACEs.⁷ Moreover, they found that children who had four or more ACEs were 32.6 times more likely to have learning or behavior problems compared with children who had no ACEs. They also found that children with four or more ACEs were twice as likely to be overweight or obese compared with children who had no ACEs.¹¹

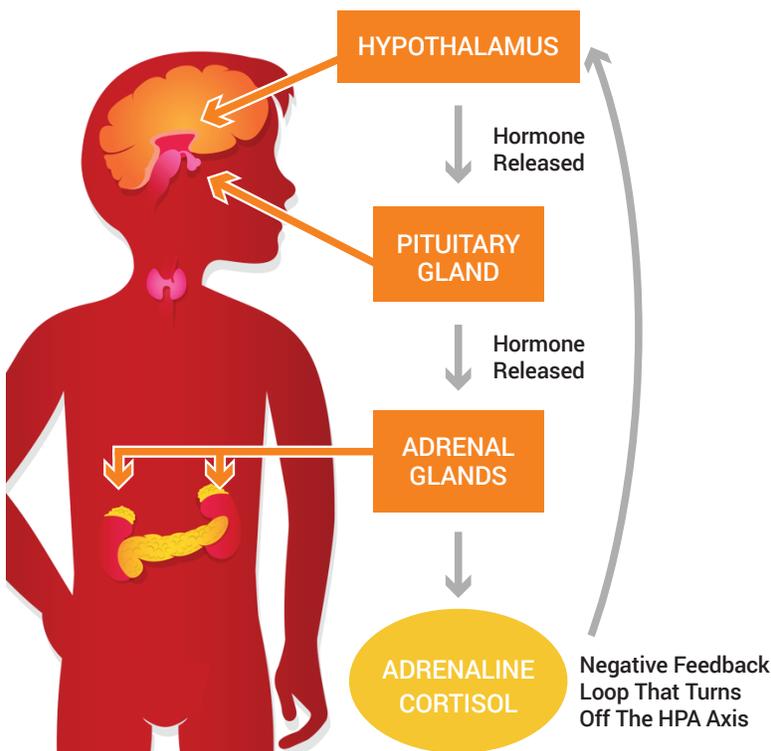
The Toxicity of Toxic Stress

This is Your Body on Toxic Stress

Most of us have heard of the “fight-or-flight response”—the body’s basic reaction to stress. Toxic stress (i.e. stress resulting from frequent or chronic adversity), leads to the over-activation of the body’s stress response.

Imagine you are walking through the woods and suddenly you come across an angry bear. Your natural instinct is to run away from the danger. Within your body, you release a series of hormones that govern your response to stress; it is this hormonal process that triggers the innate reaction to “fight or flight” when you are in danger.

HYPOTHALAMIC-PITUITARY-ADRENAL (HPA) AXIS



When the body reacts to a threat or stressor—in this case, the angry bear in your path—the brain triggers a series of hormone releases that activate the production of adrenaline and cortisol. **Adrenaline** is a hormone that is central to the body’s short-term response to stress—increasing the body’s heart rate and causing pupil dilation so the body is better equipped to combat the threat. **Cortisol** is a critical hormone in the body’s long-term response to stress, increasing blood pressure and blood sugar, and regulating the body’s metabolism and immune response.¹²

The HPA Axis: The body’s stress response system

The body’s stress response is regulated by the hypothalamic-pituitary-adrenal (HPA) axis. When the body receives a threat or stressor, the brain releases chemical messengers to the hypothalamus, which releases hormones that trigger the pituitary gland. The pituitary gland then releases a different hormone that stimulates the adrenal gland to produce adrenaline and cortisol.¹⁵

GLOSSARY

Adrenaline is a hormone that is central to the body’s short-term stress response. The effects of adrenaline secretion include increased heart rate and pupil dilation—changes that help the body prepare for “fight or flight.”

GLOSSARY

Cortisol is a hormone that is central to the body’s long-term stress response. The effects of cortisol secretion include increased blood pressure and blood sugar, and regulation of the body’s metabolism and immune response.

Too much or too little cortisol, however, can be harmful for the body, so cortisol also acts as a regulator. Cortisol turns off the body's stress response system, thus creating a negative feedback loop in the circuit that allows the body to maintain homeostasis, or balance.¹⁴

Go back to the bear example. Now imagine that the angry bear is a regular occurrence on your walk home, but you never know if you're going to see him or not. So everyday, your body is producing cortisol to make sure you're ready to run away in case you see the angry bear. Your body's stress response system is chronically activated. Our bodies are not meant to be in a state of constant stress response. As characterized by the term "fight or flight," the body's stress response developed as a response to short, periodic threats. Over time, this strong, frequent or chronic stress can lead to the dysregulation of the body's stress response system, meaning that the system responds in an unhealthy way, sometimes producing too much cortisol and sometimes responding to small or inappropriate threats.¹⁵

Learn more about the impact of toxic stress on the developing brains of children and the impact on behavior in Appendix A.

You Can Make a Difference: Fostering Resilience

Adults working with justice-involved youth have an opportunity to foster resilience.

In the simplest terms, resiliency is the ability to endure in the face of immense struggle. The Substance Abuse and Mental Health Services Administration (SAMHSA) defines “resilience” as the ability to not only bounce back and rise above adversity, but to find meaning and hope, respond positively, and transform difficult circumstances into wisdom and compassion.¹⁶

Resilience exists at multiple levels—individual, family, organization and community—and manifests on a continuum.¹⁷ Resilience takes time and effort to develop, fluctuates over time, can be context-bound, and is dependent upon available resources and support in one’s social and physical environment.¹⁸

Among several defining factors, resilience is not a trait and it is not rare—ordinary people demonstrate resiliency every day. Resilience is not the absence of pathology or struggle, but instead the ability to persist and to move forward.¹⁹

Early research on resiliency sought to clarify protective factors. Resiliency functions optimally when these protective factors are maximized at multiple levels of interaction. At the individual level, longitudinal studies have found that autonomy, strong social orientation, close bonds, optimism, intelligence, positive self-esteem, connections, attachments, coping skills, temperament, health, gender, internal motivation, self-regulation and taking positive action (seeking opportunities and resources) have been documented to promote resiliency.²⁰

Ways to foster resiliency include:

- *Self-esteem*
- *Optimism*
- *Healthy Relationships*

Family conditions that are conducive to resiliency include authoritative and responsive parenting style, maternal expression of positive emotion, family structure, intimate-partner relationships, family cohesions, supportive parent-child relationships, social support, stimulating home environment and stable income. At the community level, role models external to family relationships (including teachers, coaches, clergy), early prevention and intervention programs, health and support services, recreational programs and services, safe neighborhoods, economic opportunities and spiritual and religious organizations are all factors in promoting community-level resilience.²¹

From understanding what characteristics make individuals resilient, researchers are currently shifting research questions that recognize multiple levels of interaction and support positive changes across levels and over time. Researchers are also interested in epigenetic factors and interventions that promote resiliency and reduce poor behavior and mental health outcomes.²²

▶▶ ALERT

Current research does not directly link resilience to physical health. However, research on biomarkers of resilience can help us understand the effects on physical health. Biomarkers offer us an evaluation tool other than self-reported data on feelings and behaviors. They help us understand the mechanisms through which risk and resilience leave epigenetic and physiological signatures on the body.

It has been established that behavior problems can spread across levels and domains (for example, home, school and work) and lead to detrimental outcomes including risky behavior and chronic diseases.

Researchers propose that similarly, positive behaviors can also spread across these systems and can reduce the risk for poor outcomes that are often associated with poor behavior.²³

Furthermore, scientists are interested in reducing risk at the gene-environment interaction level. Several studies have discovered modifications to the serotonin transporter gene among participants who report child maltreatment and adult depression. Changes in this gene are associated with risky behaviors including drug use and risky sexual activity. In later studies, researchers used these findings to develop and test interventions for youth with this specific genetic risk factor. The Strong African-American Families intervention is an example of a model that researchers found to be protective in warding off future risky behaviors among youth. Additional research studies have identified families as the appropriate level of intervention; for example, the Incredible Years Parent Training Program and The Bucharest Early Intervention Project both enhance parenting ability and promote positive outcomes for youth.²⁴

In line with “best practices” in the research literature, techniques to build resilience should begin in early childhood. Efforts to build resiliency should target multiple levels of interaction (the individual, family and community). Furthermore, agencies should promote the use of protective approaches whose efficacy has been well established by research evidence.

The Adolescent Health Working Group (AHWG) provides recommendations in its Trauma & Resilience Toolkit that are aligned with findings of the scientific research on resiliency. The toolkit recommendations are provided for adults, and for adults and youth together. Adults who work closely with youth should model behaviors that promote the development of a positive relationship highlighting support and structure. Such behaviors include establishing clear expectations and rules, having regular check-ins with youth, letting youth know they are loved and helping them to express their feelings. For both youth and adults, AHWG recommends developing a healthy relationship with a caring adult, learning about triggers, taking responsibility, asking for help and accepting it, showing appreciation and empathy, working as a team, and giving back to the community.²⁵

Essentially, the recommended targets for prevention and intervention are those that we know to be important for promoting not only resiliency, but also positive youth development. Through strategic and conscientious effort, community health professionals can promote resiliency for youth, families and communities.

Using a Trauma-informed Approach

Avoid Retraumatization: Many youth are often retraumatized by their experiences in the juvenile justice system.

Research shows that the brain continues to develop through early adulthood. Because individuals are shaped by their environment, it is critical that the justice system create a culture that is sensitive to trauma exposure and become “trauma-informed.” A trauma-informed system is one that recognizes that trauma is highly prevalent (among clients as well as among staff) and that acknowledges the organization’s role in the process of healing from trauma. First and foremost, the system should strive to “Do No Harm.”

According to SAMHSA’s concept of a trauma-informed approach, “A program, organization or system that is trauma-informed:

- ▶ **realizes** the widespread impact of trauma and understands potential paths for recovery;
- ▶ **recognizes** the signs and symptoms of trauma in clients, families, staff and others involved with the system;
- ▶ **responds** by fully integrating knowledge about trauma into policies, procedures and practices; and
- ▶ **seeks to actively resist retraumatization.**²⁶

A trauma-informed system is a way of “doing business” and does not mean trauma-informed interventions (which will be discussed later in this guide). The following table presents an adapted list from SAMHSA on a few key principles that underline a trauma-informed approach (referred to as a trauma-informed system in this guide). These principles are generalized and should be assessed based on how each organization is involved with youth (i.e. probation, mental health provider or community-based organization). For the purpose of this guide, the examples provided are related to the probation system.

Principle from SAMHSA	Probation-centered Example
Safety	Staff is trained on how to de-escalate conflicts with youth and do not have a high use of pepper spray or restraints.
Trustworthiness and Transparency	Develop a family-friendly roadmap of the probation process at the first point of engagement.
Peer Support	Develop support groups or peer navigation for youth and families on probation or in placement.
Collaboration and Mutuality	Incorporate the voice of key stakeholders in team decision-making meetings with other agency partners and CBOs connected to the family.
Empowerment, Voice and Choice	Incorporate positive youth development approaches such as family case conferencing and case plans that are strength-based and client centered.
Cultural, Historical and Gender Issues	Staff is trained in cultural humility and historical trauma, and probation offers youth services such as Working to Insure and Nurture Girls Success (WINGS), LaCulturaCura and other interventions.

A **trauma-informed intervention** is the modality used to heal from the exposure of trauma. Trauma-specific interventions are those that incorporate the interrelation between trauma and symptoms, engage family or support systems, and respect the client via transparency and involvement in the healing process.²⁶

<i>Program Name</i>	<i>Description</i>
Seeking Safety	Design objective: Reduce substance abuse and post-traumatic stress symptoms. This intervention can be used for ages 13-55 and can be used inpatient or outpatient. To learn more about this intervention, visit http://www.nrepp.samhsa.gov/viewintervention.aspx?id=139
Trauma Affect Regulation: Guide for Education and Therapy (TARGET)	Design objective: Prevent and reduce Post Traumatic Stress Disorder symptoms, including rage, traumatic grief, survivor guilt, shame, interpersonal rejection and existential/spiritual alienation. TARGET can be used for all ages and is a combination of psycho education and coping strategies. Visit http://www.advancedtrauma.com/Services.html
Trauma-Informed-Cognitive Behavioral Therapy (TF-CBT)	Design objective: Reduce levels of post-traumatic stress symptoms including anxiety, depression and dissociation. This intervention can be used for ages 0-55. This intervention typically includes 12-16 sessions. For more information, visit http://www.nrepp.samhsa.gov/viewintervention.aspx?id=135

The **utilization of mental health partners** to identify trauma-informed interventions for the population being served is encouraged. Following is a list of a select few trauma-informed interventions used in placements in the juvenile justice system or by mental health professionals serving justice-involved youth.

Given the incredibly high prevalence of trauma among youth in the justice system, developing trauma-informed systems and providing trauma-specific interventions are essential to:

- ▶ Support the wellness of youth involved in the justice system
- ▶ Prevent entering the juvenile justice system or reoffending
- ▶ Prevent a host of health-related (mental, behavioral, physical, emotional, social) problems and associated costs in the future.

What Juvenile Justice Systems can do to Reduce Retraumatization and Promote Healing

Currently, juvenile justice practice is directly in conflict with a trauma-informed approach due to its punitive nature. The Positive Youth Justice Initiative is helping to reduce retraumatization of justice-involved youth.

- Through technical assistance support from The W. Haywood Burns Institute, counties receive assistance to enhance operational capacity, strengthening local infrastructure and sustaining improvements. Assistance is offered in methods for collecting and using key data to drive policy. Understanding where and how objective assessment tools are used to guide juvenile justice decisions, this process supports the further understanding of the population served. The THRIVE training by Dr. Monique Marrow at the spring 2014 learning community emphasized the use of data as part of each agency's Continuous Improvement Plan.
- Through technical support from the Center on Juvenile and Criminal Justice, counties can learn how to leverage Wraparound (WRAP) and Early and Periodic Screening, Diagnosis and Treatment (EPSDT) funds. WRAP can help youth receive services they need in the community instead of separating them from their families and incarcerating them. EPSDT is a funding stream for Medi-Cal-eligible youth in need of services, including rehabilitation, therapy and clinical case management.
- Through technical support from Impact Justice, counties can learn how to incorporate positive youth development tools into their systems. Positive youth development tools apply a youth-as-resource lens to the policies and practices in the justice system. Positive youth development tools include Family Group Conferencing and Individual Achievement Plans, which are strength-based and focus on a youth's needs. Positive youth development principles, if used correctly, should engage the youth and family, focus on the assets of the youth, and provide clear and fair sanctions and rewards.
- Dr. Monique Marrow (Think Trauma), Gena Castro-Rodriguez and other local experts on trauma-informed care provide staff and partner trainings.

Ideas for Adaptation of Trauma-informed Approach to Juvenile Justice System

SCREENING

- Screening at intake, through court process or of current caseload to develop effective policy or practice change in service delivery. **Note, net widening should not be the outcome.** Focus should be to keep youth out of the system (i.e. can WRAP be leveraged?).
- Each juvenile justice system should **understand the level and concentration of trauma exposure** among its juvenile justice population—through assessments—what is overall/average exposure and what is the concentration/number of those with highest exposure? Data should help to support system policies and procedures and to advocate for additional resources.
- Start with a small number of youth with the greatest exposure of trauma, develop **pilot programs and approaches**, measure the impact and scale out to those with less intense exposure. When resources are limited, use them where the need is greatest.
- Consider developing **special housing units**, with input from youth with high trauma exposure; evaluate, refine them over time and then scale to other units.
- Develop **peer support groups** (whether in special units or facility wide) specifically for youth with highest trauma exposure. Work with behavioral health partners and technical assistance providers to develop special curriculum and facilitation approach.
- Consider creating an **advisory council** of youth with trauma exposure to help develop departmental policy and practice change.

COMMUNITY SUPERVISION

- Screening at intake to determine potential trauma-focused services, during court process and/or of current caseload (see first bullet under Screening).
- Given that prevalence of high trauma exposure is likely to concentrate in a small population, consider **developing specialized caseloads** and partnerships to address this (use of WRAP could be very valuable here).
- These caseloads would be much smaller, with probation officers trained in trauma-informed care who work in direct partnership with families and behavioral health providers in the community.

IN CUSTODY

- Assess **use of force/security protocols** through trauma lens—can adjustments be made to limit likelihood of retraumatization and maximize likelihood of voluntary compliance? For example, train staff on de-escalation and crisis intervention strategies, regularly audit the use of pepper spray and isolation. This is important to address overuse and misuse before it becomes a liability.
- Screening at intake for appropriate housing and programming. Screening of current in-custody population as a baseline could also be considered.
- Consider developing a **special intake procedure** and **special housing units** for youth with extreme trauma exposure (i.e. six or more). Work with trauma-trained behavioral health partners to develop these special procedures and units.

Detention diversion programs are a trauma-informed approach to reducing retraumatization for youth with high ACEs.

▶▶ ALERT

Avoid net-widening. Incarceration is a traumatizing event and should only be utilized as a last resort for violent offenses or the highest-risk youth.

- Consider developing a **custom “trauma-informed” case management tool**—this would work as a screen at intake to identify trauma experiences; likely current impacts on behavior and strategies to address youth needs in context of community supervision.
- Based on this case management tool, develop a specialized **case conference** for youth with highest trauma exposure. This would convene supervising officer, service partners, family and other community partners together to review challenges and progress, and problem solve with the youth. This can also directly contribute to organizational learning. Over time, case conferences identify patterns, gaps in service and promising approaches that can be incorporated into policy and practice (use of positive youth development approach is valuable here).
- Consider **peer support groups, peer advocates and advisory council efforts** (see last two recommendations under “In Custody”).

PARTNERS AND PROGRAMS

- Based on data and staff experience, work with behavioral health partners to **customize interventions** to respond to high-trauma population—individual counseling, support groups, etc.

- With partners, and through case conferences, identify additional resources and partners that can be incorporated into in-custody or community supervision programming.
- Think about **non-traditional healing modalities** that are proven to reduce anxiety, stress and improve health such as meditation, acupuncture, yoga, nutrition, exercise, etc.
- Incorporate these custom interventions into the specialized case planning tool and in-custody, community supervision programming.

PERFORMANCE METRICS AND EVALUATION

- **Performance analysis** and management is essential to understand whether these pilot or universal efforts are making a difference for youth with high trauma in juvenile justice care.
- Regular analysis of trauma screens to understand trauma exposure of local juvenile justice population. Is there change over time? How has the response to trauma exposure changed?
- Based on in-custody and/or community supervision policy change, develop performance measurement system to assess impact of these changes:
 - ▶ *Enhanced compliance with conditions of supervision?*
 - ▶ *Improved behavior of in-custody units or programs?*
 - ▶ *Greater engagement and retention in specialized programming?*
 - ▶ *Assessment by youth themselves—Are the changes making a difference for them?*

Additional Resources

NATIONAL CENTER FOR TRAUMA-INFORMED CARE

The National Center for Trauma-Informed Care (NCTIC) offers technical assistance on alternatives to seclusion and restraint. The Center can provide support with the development of trauma-informed approaches in programs, services and systems. Learn more about trauma-informed principles and interventions by visiting the web site.

www.samhsa.gov/nctic

NATIONAL CHILD TRAUMATIC STRESS NETWORK

The National Child Traumatic Stress Network aims to raise the standard of care and improve access to services for traumatized children, their families and communities. The web site below offers articles and briefs on trauma-related topics for mental health and juvenile justice professionals.

www.nctsn.org

NATIONAL COUNCIL OF JUVENILE AND FAMILY COURT JUDGES

The National Council of Juvenile and Family Court Judges (NCJFCJ) helps by providing resources to ensure just process for families and children. This web site has helpful information for court-involved personnel.

www.ncjfcj.org

CENTER FOR JUVENILE JUSTICE REFORM

The Center for Juvenile Justice Reform seeks to support the work across the country in juvenile justice reform by providing a multi-system perspective, leadership training and resources.

<http://cjr.georgetown.edu/>

AMERICAN BAR ASSOCIATION CENTER FOR CHILDREN AND THE LAW

This web site is geared for attorneys and judicial staff to understand issues related to children and families. One project in particular is polyvictimized youth. This project looks at how the judicial decision-making process can be sensitive to the needs of youth with multiple traumas.

www.americanbar.org/groups/child_law.html

MODELS FOR CHANGE

Models for Change supports a network working together to ensure justice-involved youth are treated fairly in the juvenile justice system. The web site offers trauma-related articles.

www.modelsforchange.net/index.html

ACES CONNECTION

ACES Connection and ACEs Too High can be great resources for counties to be connected with local ACEs and trauma-informed efforts and resources. Visit the web site below to get connected to local initiatives and to retrieve resources.

www.acesconnection.com

MENTAL HEALTH AND JUVENILE JUSTICE COLLABORATIVE FOR CHANGE

The Collaborative for Change is a Resource Center that works with Models for Change in different states and shares information on mental health reforms, including a guide for Trauma-Informed Care in the Juvenile Justice System.

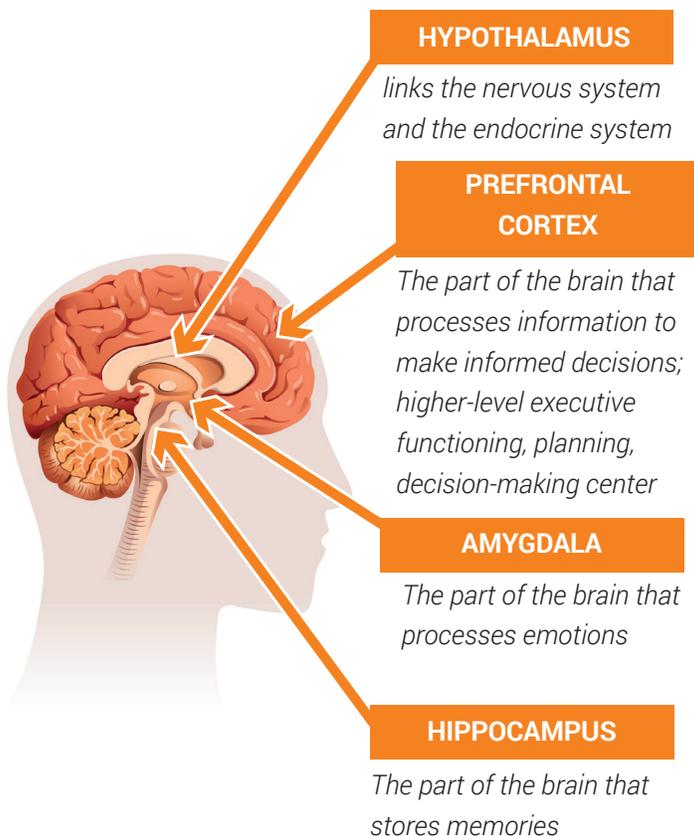
<http://cfc.ncmhjj.com/#sthash.OQfVgXM.dpuf>

Appendix A

IMPACT OF TOXIC STRESS ON THE DEVELOPING BRAIN

Toxic stress can have devastating effects on a child's brain development. Toxic stress can result in changes to crucial parts of the brain including the hippocampus, the prefrontal cortex and the amygdala.²⁷

CRUCIAL PARTS OF THE BRAIN AFFECTED BY TOXIC STRESS



Changes in brain architecture due to toxic stress include:

- ▶ loss of brain cells
- ▶ damage to brain cell connections
- ▶ enlargement or shrinking of certain parts of the brain
- ▶ hyperactivity of certain parts of the brain

The **hippocampus** is responsible for learning, memory and some types of stress response regulation. Changes to the hippocampus due to toxic stress can lead to impaired memory and mood control.²⁸

The **prefrontal cortex** is responsible for decision-making, judgment, impulse control and attention.²⁹ Toxic stress can result in difficulty focusing, poor memory and impaired critical thinking.

Toxic stress can also cause changes to the **amygdala**, which is responsible for processing emotional reactions such as anxiety and fear.³⁰ These changes may manifest as increased anxiety or proneness to fear.

WHAT IS THE IMPACT ON BEHAVIOR?

Children who have experienced trauma commonly have the following reactions:

- ▶ Re-enactment/re-experiencing
- ▶ Avoidance/numbing
- ▶ Hyperarousal/reactivity of the brain³¹

Re-enactment/re-experiencing refers to the experience in which thoughts, images, sounds or feelings associated with the traumatic event come back uncontrollably. These images and sensations can be so intense that a person can feel as if they are going through the trauma all over again.

▶▶ ALERT

After an ACE, elementary school, middle school and high school students may have a drop in attendance or grades.

Avoidance (or separation from normal life) or **numbing** is when someone feels numb, frozen or shut down. This may involve pulling away from friends and activities that the person used to enjoy.

Think about it ...
Have you ever lost a person close to you? Do you remember what you felt? Did you feel anything at all? Were there times when you felt nothing or didn't want to be around others?

Dissociation is a reaction that is a type of cognitive separation. Dissociation can occur when one is under extreme stress, when strong emotions surface, or when a person feels threatened. Individuals who dissociate are mentally separating the self from the experience. They may feel as if they are in a dream or an unreal state. As a result, they may experience "loss" of time.

▶▶ ALERT
Dissociation is common in youth who have multiple ACEs in their background, especially chronic sexual abuse.

Think about it ...
Have you ever worked with someone who you thought was spacing out? You had to literally say their name several times to get them to "come back to you"?

Hyperarousal/Reactivity is when your body is always on alert. A person may exhibit jumpiness, nervousness or being quick to startle. Hyperarousal can also include hypervigilance or the need to constantly scan the environment and others for danger.

People who experience hyperarousal are always unconsciously ready to respond with the "fight or flight" reaction. You may have youth who are quick to anger. Do you experience this as well? They can flash, going from zero to RED in a matter of seconds. This is hyperreactivity.

Think about it ...
Have you ever had someone always sit with his or her back to the wall in a room? How about when there is a sudden loud noise and you see a person jump out of their skin?

Re-enacting/Re-experiencing	Avoidance/Numbing	Hyperarousal/Reactivity
▶ Flashbacks	▶ Isolation from friends and family	▶ Constant scanning
▶ Nightmare	▶ Withdrawal from enjoyed activities	▶ Jumpy
▶ Reliving through play	▶ "Spacing out" or blacking out	▶ Anxious and nervous
▶ Talking about the event over and over	▶ Feelings of hopelessness	▶ Impulsive and restless
		▶ Difficulty regulating moods

▶▶ ALERT

Many of these reactions are connected to one another. For example, a flashback or re-experiencing, may make you feel out of control, and will therefore produce hyperarousal. Many people think that their flashbacks mean that they are “going crazy” or “losing it.” You can help them understand that these responses are common to the situations they have experienced.

Trauma reactions can lead to a range of behaviors in children. Be on the lookout for:

- ▶ **Difficulty with learning**—*They may not be able to focus, concentrate or take in new information due to damage to brain cell connections.*
- ▶ **Sleep problems**—*Children may have trouble going to sleep or staying asleep, or experience nightmares when they do sleep.*
- ▶ **Mood swings**—*Youth may be tearful one minute and cheerful the next, or suddenly become angry or aggressive.*

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Acknowledgements

The Center for Youth Wellness would like to thank Sierra Health Foundation and The California Wellness Foundation for their generous support. We also thank David Muhammad and Tshaka Barrows for their valuable input.