

# Overcoming Adverse Childhood Experiences:

**CREATING HOPE  
FOR A HEALTHIER  
ARIZONA**

The first years of a child's life have a profound effect on future learning, behavior and well-being. But recently, a new line of research has made it clear just how strongly early experiences shape adult lives.

Stable, nurturing environments help children develop cognitive and emotional skills as well as the resilience they need to thrive as adults. Unfortunately, negative experiences can hinder this development, often leading to risky behaviors and health problems in adulthood.

While it's easy to understand how adverse childhood



## ACEs can lead to poor mental and physical health, less success at school and work, and lower socioeconomic status in adulthood.

experiences—or ACEs—affect mental health, the link between early childhood trauma and adult physical health has only recently begun to be understood.

Research on the biology of stress shows that being exposed to "toxic" levels of stress harms the developing brain and other organs. Toxic stress occurs when a child experiences strong, frequent or prolonged adversity, such as extreme poverty, abuse or exposure to violence, substance abuse or mental illness.

Fortunately, safe, nurturing relationships and communities can

help break the cycle and produce long-term improvements in children's outcomes. The Arizona Adverse Childhood Experiences (ACE) Consortium is working to raise awareness about the lifelong impacts of ACEs and to support initiatives aimed at preventing or mitigating their effects. This brochure will tell you how you can play a role.

### What Is an ACE?

An adverse childhood experience (ACE) is trauma that takes place in a child's life before age 18. In the ACE Survey, adults were asked whether they grew up exposed to any of the following:

- Recurrent physical abuse
- Recurrent emotional abuse
- Contact sexual abuse
- Alcohol and/or drug abuse in the household
- An incarcerated household member
- Someone in the household who was depressed, mentally ill, institutionalized or suicidal
- Mother who was treated violently
- One or no parent
- Emotional or physical neglect

The number of "yes" answers yields an ACE score that represents a person's cumulative exposure to particular adverse conditions in childhood. If a person experienced none of the conditions above in childhood, the ACE score would be zero; an ACE score of nine means that a person was exposed to all of the categories of trauma above.

### The ACE Study

The ACE Study is a long-term collaboration between the U.S. Centers for Disease Control and Prevention and Kaiser Permanente. It analyzes the relationship between childhood trauma and

social and health consequences later in life.

The study provides compelling evidence that certain health, social and economic risks result from childhood trauma. As the number of ACEs in a young person's life increases, so does the likelihood of cancer, depression, diabetes, alcoholism, smoking, heart disease and other conditions that most often show up in adulthood. In fact, the ACE Study suggests that certain childhood experiences are major risk factors for the leading causes of illness and death in the U.S.

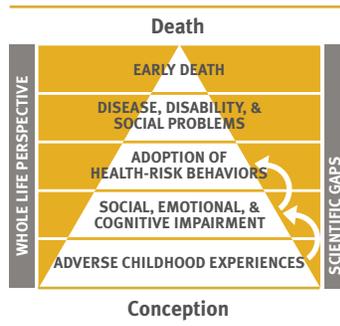
### Toxic Stress Affects Future Health

We have begun to learn the extent to which toxic stress affects the architecture of young children's developing brains. In short, early experiences factor into how children learn, how they cope with stress, how they form friendships and adult relationships, and how they view themselves and their world.

Unfortunately, a growing body of research suggests that adverse childhood experiences can lead to poor mental and physical health, less success at school and work, and lower socioeconomic status in adulthood.

ACEs activate the stress-response system, disrupting brain and organ development and weakening the defense system against diseases. The more ACEs a child experiences, the greater the chance of health problems later in life.

The good news is that although the impact of ACEs can last a lifetime, it doesn't have to.



Responsive caregivers and supportive communities can break the cycle and reverse the impacts of toxic stress.

### ACEs in Arizona Adults

The relationship of ACEs to adult physical and mental health outcomes in Arizona was explored using the 2008 Arizona Health Survey. A random sample of more than 2,400 Arizona residents was given a form of the ACE Survey. The findings were consistent with the initial ACE Study and other states' ACE studies. Data from this survey shows that ACEs are common in Arizona. In fact, more than half (57.5%) of Arizona adults have experienced at least one ACE. The number of ACEs is tied to income level, family structure, ethnicity, insurance status and the educational attainment of adults in the household.

Beyond this, ACEs frequently occur together. A separate study found that one Arizonan in four has experienced one ACE. One in three has experienced two or more. That is to say, more Arizonans report multiple ACEs than those who report just one.

This has serious implications for our state's health future, because the higher the ACE score, the greater the risk for numerous health and social problems throughout a person's lifetime. For example, Arizonans with more



ACEs were more likely to rate their health as fair or poor, to report smoking, to have been diagnosed with gastrointestinal or autoimmune disorders, to have been diagnosed with depression, anxiety, bipolar disorder or other mental disorder, and to have serious employment problems.

### ACEs in Arizona Children

According to the 2011–2012 National Survey of Children's Health, ACEs are common in Arizona's children as well. Over one-quarter (26.4%) of children ages 0 to 17 have already experienced one adverse family experience and nearly one-third (31.1%) have experienced two or more. This is significantly higher than the national average of

children experiencing two or more ACEs (22.6%). Even worse, in Arizona children ages 12 to 17, 44.4% have experienced two or more ACEs, compared to the national average of 30.5%.

### Community Support: Pay Now – or Pay More Later

Though our brains retain the capacity to change and adapt as we grow older, the neurological response to early toxic stress never goes away, with costly consequences for both children and society.

In a nutshell, nurturing environments—or lack of them—affect the development of brain circuitry. Trying to change behavior or build new skills on a foundation of damaged circuitry requires more work, is more expensive and produces worse outcomes than providing nurturing, protective relationships and appropriate learning experiences earlier in life.

Arizona's future prosperity depends on its ability to foster the

health and well-being of the next generation. Encouraging positive environments and experiences in our communities will pay dividends both in improving the health of the future adult as well as for the state as a whole.

### What Can We Do?

This is an exciting time for Arizona. The growing body of knowledge about ACEs and their impacts holds promise for our state's ability to improve its citizens' lives.

Solutions are available, and they need to be implemented. The most

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effective treatment is to reduce young children's exposure to adverse conditions, such as abuse, neglect, violence, or caregiver mental illness or substance abuse.

However, even under stressful conditions, the negative consequences of toxic stress can be mitigated. Stable, nurturing relationships with caring adults can prevent or reverse the damaging effects of toxic stress. Therefore, this call to action must also be to create safe spaces and strong, healthy communities for children.

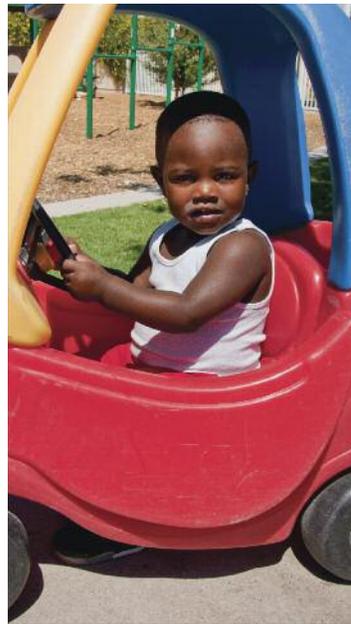
When it comes to legislation, Arizona-specific ACEs data will provide a powerful new tool for

Children 0-17 years of age in Arizona



planning human services. Based on the findings of Arizona's ACE Study, we recommend the following strategies to reduce ACEs and build stronger Arizona communities:

- Increase public understanding of ACEs and their impact on health and well-being;
- Enhance the capacity of families and providers to prevent and respond to ACEs;
- Improve the effectiveness of public-health campaigns by refining their messages regarding ACEs;
- Promote identification and early intervention of ACEs through universal screening or assessment within early-childhood and family-service systems; and
- Continue to collect Arizona-specific data on the relationship between ACEs, health outcomes and resilience.



How to respond to the new information on ACEs is a question requiring broad input at state and local levels, from public and private sectors, and from families, policymakers, health-care providers and educators. Through more effective prevention of ACEs, as well as better intervention with those who have already had adverse experiences, Arizona will enhance the lives of citizens so they can be healthier and more productive while also reducing the burden ACEs have on our economy, health and public-benefit systems.

**Learn what you can do to break the cycle. For Arizona ACE information, visit:**

- [azpbs.org/strongkids](http://azpbs.org/strongkids)
- [acestoohigh.com](http://acestoohigh.com)
- [arizonahealthsurvey.org](http://arizonahealthsurvey.org)
- [cdc.gov/ace](http://cdc.gov/ace)
- [cdc.gov/nchs/slaits/nsch.htm](http://cdc.gov/nchs/slaits/nsch.htm)
- [childhealthdata.org](http://childhealthdata.org)

2011/12 National Survey of Children's Health. Maternal and Child Health Bureau in collaboration with the National Center for Health Statistics. 2011/12 NSCH Data prepared by the Data Resource Center for Child and Adolescent Health, Child and Adolescent Health Measurement Initiative. [www.childhealthdata.org](http://www.childhealthdata.org)



**Adverse Childhood Experiences**  
*Can last a lifetime, but they don't have to. ...*

strong communities raise strong kids

Injury Prevention Center, Strong Families  
**Phoenix Children's Hospital**  
 1919 East Thomas Road, East Building, Room 1617 | Phoenix, AZ 85016  
 Office: 602.933.3342 | Fax: 602.933.3356 | [phoenixchildrens.com](http://phoenixchildrens.com)  
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