## What are ACEs?
ACEs are toxic experiences that include abuse, neglect, and household dysfunction. Such toxic experiences can occur in childhood, including emotional, physical, or sexual abuse, and witness violence in the home or by family members. ACEs can also include growing up with parents who abuse substances, parents who have mental health issues, or parents who are incarcerated. ACEs are experienced by nearly half of adults in the United States, and when the trauma experienced is significant, it can have lifelong consequences for health and well-being.

## Landmark CDC-Kaiser ACE Study
The Landmark CDC-Kaiser ACE Study is one of the largest and most influential studies in developmental psychology. The study, conducted by Dr. Nadia M. Anda and her team, aimed to understand the long-term consequences of childhood adversity. The study surveyed more than 17,000 adults and found that exposure to ACEs is associated with a wide range of physical and mental health problems, as well as increased risk of premature mortality.

## Behavioral Risk Factor Surveillance System (BRFSS)
The BRFSS is an annual, state-based, random-digit-dial telephone survey conducted by state health departments and funded by the CDC. It is the largest health-related telephone survey program in the world, with more than 400,000 interviews conducted each year. The BRFSS is used to collect data on health outcomes as well as risk and protective factors for health and well-being, including ACEs.

## How do ACEs affect our society?
ACEs have a significant impact on public health, resulting in increased healthcare costs and productivity losses. The economic toll of ACEs is estimated to be in the billions of dollars, with direct costs to the healthcare system and indirect costs to employers and society.

## How can ACEs be prevented?
Preventing ACEs involves creating supportive environments and promoting healthy relationships. Strategies to prevent ACEs include providing access to quality child care, promoting healthy relationships in families, and reducing exposure to violence and substance use. Early intervention programs can also be effective in preventing ACEs by addressing the needs of children and their families.

## What can be done about ACEs?
Although ACEs cannot be prevented, they can be managed and interventions can be implemented to address the health and well-being of individuals who have experienced ACEs. Interventions include providing therapy, support groups, and medication management. Supportive environments and healthy relationships can also help reduce the impact of ACEs.

## Strategies that address the needs of children and their families include:
- Training and support for teachers and caregivers
- Parenting support programs
- Voluntary home visiting programs
- School-based programs
- Mental health services

## How Relationships can Prevent ACEs
Healthy relationships are protective against the adverse impact of toxic experiences. Relationships that are supportive, stable, and nurturing can help buffer the effects of ACEs and promote positive development.

## How Environments can Prevent ACEs
Safe, stable, nurturing environments play a large role in preventing ACEs by providing a supportive and protective foundation for growth and development.

## Helpful Links
- [Landmark CDC-Kaiser ACE Study](https://www.childwelfare.gov/topics/preventing/)
- [Essentials for Childhood: Assuring Social and Emotional Well-Being](https://www.childwelfare.gov/topics/preventing/)
- [Adverse Childhood Experiences (ACEs)](https://www.cdc.gov/violenceprevention/acestudy)

## Contact Info
- dvpinquiries@cdc.gov
- [www.cdc.gov/violenceprevention/](https://www.cdc.gov/violenceprevention/)
- [www.cdc.gov/violenceprevention/childmaltreatment/essentials](https://www.cdc.gov/violenceprevention/childmaltreatment/essentials)

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**Types of ACEs**:
- **EMOTIONAL ABUSE**
- **PHYSICAL ABUSE**
- **SEXUAL ABUSE**
- **SUBSTANCE ABUSE**
- **SEPARATION/DIVORCE**
- **MENTAL ILLNESS**
- **INCARCERATED RELATIVE**
- **SUBSTANCE ABUSE ENVIRONMENT**

**ACE Score Distribution**:
- **0 ACES**: 11%
- **1 ACES**: 17%
- **2 ACES**: 25%
- **3 ACES**: 23%
- **4 ACES**: 19%
- **5 ACES**: 12%
- **6+ ACES**: 8%

**LIFE EXPECTANCY**
- **0 ACES**: 80 YEARS
- **1 ACES**: 78 YEARS
- **2 ACES**: 76 YEARS
- **3 ACES**: 74 YEARS
- **4 ACES**: 72 YEARS
- **5 ACES**: 70 YEARS
- **6+ ACES**: 68 YEARS

**ECONOMIC TOLL**
- **0 ACES**: $1 BILLION
- **1 ACES**: $2.4 BILLION
- **2 ACES**: $4.6 BILLION
- **3 ACES**: $6.6 BILLION
- **4 ACES**: $8.6 BILLION
- **5 ACES**: $10.6 BILLION
- **6+ ACES**: $12.4 BILLION

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The ACEs score is calculated by assigning a score of 1 for each type of experience and summing the scores. The maximum ACE score is 10, with 6 or more ACEs indicating a significant risk for health and well-being problems. The Landmark ACE Study included 10 types of ACEs, but the CDC-Kaiser ACE Study included 8 types of ACEs. The BRFSS includes the same question as the Landmark ACE Study, except the questions pertaining to neglect. The BRFSS is used to estimate the prevalence of ACEs in the United States and to identify high-risk populations for targeted interventions.

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**Notes**
- CDC-Kaiser ACE Study included 10 types of ACEs
- BRFSS includes the same question as the Landmark ACE Study, except the questions pertaining to neglect

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**Additional Resources**
- [National Center for Complementary and Integrative Health](https://www.nccih.nih.gov/health/ace)
- [National Child Traumatic Stress Network](https://www.nctsn.org)

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**Figures**
- Map showing states with and without the ACE module
- Graph showing prevalence of ACEs by state
- Chart showing dose-response effect on 40+ outcomes to date
- Bar chart showing the economic toll of ACEs

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**Acknowledgments**
- Acknowledgments to the Landmark ACE Study and the CDC-Kaiser ACE Study for their contributions to the understanding of ACEs and their impact on health and well-being.