Adverse Childhood Experiences (ACES) and their impact on mental and physical health outcomes 09/13/17
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Presentation Objectives
• Overview
• Current Data
• Translation and dissemination of data
• Resilience and Protective Factors
• Next Steps: Kentucky moving forward

Defined as:
potentially traumatic events that can have negative, lasting effects on health and well-being including early death¹. These experiences range from physical, emotional, or sexual abuse to parental divorce or the incarceration of a parent or guardian.

Source: Child Trends, Research Brief, Adverse Childhood Experiences, May 2014

Critical Periods
• Birth – 2 years; critical window for hardwiring the brain for social-emotional development.

• Social-Emotional development is based on secure attachment and becomes the foundation for cognitive development and sense of self-identity.
• Attachment comes from a nurturing relationship with a caregiver that is consistent and caring.

Critical Periods

Allostasis, Allostatic Load
• Allostasis refers to the way the brain and body respond to challenges or stresses: by reacting, adapting and then recovering. That accumulated wear-and-tear, called allostatic load, can cause chemical imbalances, accelerate certain diseases, and even alter brain structures.
• Genetics, early brain development, the social and physical environment, diet and other behaviors can all influence a person’s allostatic load.

The Two Year window – results of extreme deprivation of stimulation
Epigenetics

- Epigenetics is the study of how the social and physical environment change the expression of our genes. Even our genes respond to what happens to us, through chemical reactions that turn certain parts of the genome on or off in response to stress, diet, behavior, toxins and other factors.

How did we get here - The ACEs Study

- In 1995, the Kaiser Permanente conducted the first ACEs study, to assess the long-term health impact of childhood abuse
- Over 17,000 individuals were included in the study
- Over 50% of respondents had at least one ACE
- People with 6 or more ACE’s died nearly 20 years earlier than those without ACE’s
  - 60.6 years old versus 79.1 years old

How did we get here – The ACEs Study

- This study laid the foundation for numerous follow-up studies and initiatives aimed at better understanding the impact of childhood trauma on adult wellbeing
- Researchers are now further exploring the role of ACEs in many physical and mental health outcomes.
- Findings also helped drive the discussion of trauma-informed care as a strategy to address the impact of ACEs

On-going Research

- The importance of neighborhood context in youth trauma among delinquent youth
- The Role of ACE’s and the use of Non-medical Prescription drugs among U.S. Adolescents
- Race/Ethnic difference in exposure to traumatic events and the development of PTSD and treatment seeking for PTSD in the U.S.
- Poly-Victimization and Risk of Posttraumatic, Depressive, and Substance Use Disorders and the involvement of delinquency in a National Sample of Adolescents
What the Research says:
Researchers have also found links between ACEs and these health and social outcomes:

- Asthma
- Depression
- Drug abuse
- Fetal death
- Frequent headaches
- Hallucinations
- Health-related quality of life
- Insufficient sleep
- Intimate partner violence
- Liver disease
- Sexual assault
- Teen pregnancy
- Low yearly income
- Medicaid participation
- Home ownership
- Separation and divorce

Toxic Stress

When young children feel safe and nurtured, they are calm. This frees their brains, at a neurological level, to develop these more advanced skills. Children who experience early trauma — toxic stress — are often in a chronic state of crisis. They feel unsafe or threatened, their brains spend more time in basic, survival-oriented stages of development.

Trauma/Toxic Stress Effects in Children

- Altered Neurodevelopment
- Altered cardiovascular regulation
- Behavioral impulsivity
- Increased anxiety
- Increased startle response
- Sleep abnormalities
- Effects on Relationship
  - Difficulty forming positive relationships
  - Poor sense of self
  - Lowered self esteem
  - Expectation of being treated poorly
  - Loss of secure base
  - Loss of sense of trust

Trauma-Informed, Trauma-Sensitive

- Health care systems, schools, child protection agencies and other such organizations can develop approaches that recognize the role of trauma in their clients’ and staff members’ lives.
- They can work to build trust, provide supportive relationships and work with clients as partners in healing.
- A trauma-informed or trauma-sensitive agency asks: “What happened to you?” rather than “What’s wrong with you?”
Kentucky Behavioral Risk Factor Survey (KyBRFS)

Eleven questions about adverse childhood experiences (ACE) were added in the 2015 Kentucky Behavioral Risk Factor Survey (KyBRFS).

ACE MODULE - BRFSS

Comprised of 11 questions that assess the following eight categories of ACE:

- Childhood Abuse
  1. Physical abuse
  2. Sexual Abuse
  3. Emotional Abuse

- Household Dysfunction
  4. Presence of a mentally ill household member
  5. Alcohol or drug abuse in the household
  6. Incarcerated household member
  7. Violence between adults in the household
  8. Parental divorce or separation

ACE Rate in Nine States

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<th>State</th>
<th>Year</th>
<th>2015</th>
<th>2014</th>
<th>2013</th>
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Prevalence of selected health risk factors among Kentucky adults aged 18 years and older by ACE score group, KyBRFS 2015

<table>
<thead>
<tr>
<th>Risk Factor</th>
<th>Weighted %</th>
<th>0 (No ACE)</th>
<th>1-2 (Low ACE)</th>
<th>3+ (High ACE)</th>
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<tbody>
<tr>
<td>Current Smoking</td>
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<td>17.6</td>
<td>24.7</td>
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<tr>
<td>Binge Drinking</td>
<td></td>
<td>9.9</td>
<td>14.1</td>
<td>18.1</td>
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<tr>
<td>Obesity</td>
<td></td>
<td>34.4</td>
<td>35.9</td>
<td>38.7</td>
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Prevalence of Adverse Childhood Experiences (ACE) among Kentucky adults ages 18 and older by ACE Score, KyBRFS 2015

ACEs and Kentucky Children 2011-2012 National Survey of Children’s Health

- 30% of KY children with ACE>=2 (22.6% nationally)
- 1:5 KY children experience >=2 ACES by age 5 (1:8 nationally)
- KY children with ACE scores >=3, one of the highest rates in the country

ACDe and High School Sophomores and Seniors

Washington School Classroom (30 Students)

Odds for Academic and Health Problems with Increasing ACDEs in Spokane Children

Population Average

Washington State determined that 17 out of every 30 students will have toxic stress from 3 or more traumatic experiences.

<table>
<thead>
<tr>
<th>ACDEs</th>
<th>Academic Failure</th>
<th>Severe Attendance Problems</th>
<th>Severe School Behavior Concerns</th>
<th>Frequent Reported Poor Health</th>
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<tbody>
<tr>
<td>Three or more ACDEs N=248</td>
<td>3</td>
<td>5</td>
<td>6</td>
<td>4</td>
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<td>Two ACDEs N=213</td>
<td>2.5</td>
<td>2.5</td>
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<td>One ACDE N=476</td>
<td>1.5</td>
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<td>No Known ACDEs N=1,164</td>
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ACE Score and Teen Sexual Behaviors

ACE Score and Attempting Suicide During Adolescence

ACES RESEARCH MOVING FORWARD

- Advocates, policymakers and practitioners are asking how other childhood experiences (such as economic hardship, neighborhood violence and exposure to racism) are linked to toxic stress and in turn shape child development and lifelong health.
- The National Center for Children in Poverty (NCCP) has identified other risk factors:
  - Poverty
  - Low parental education
  - Residential mobility
  - Single parent
  - Teen mother
  - Non-employed parent(s).


Five protective factors:
1. Parental Resilience: Managing stress and functioning well when faced with challenges, adversity and trauma
2. Social Connections: Having a sense of connectedness with constructive, supportive people and institutions
3. Knowledge of Parenting and Child Development: Understanding parenting best practices and developmentally appropriate child skills and behaviors
4. Concrete Support in Times of Need: Identifying, accessing and receiving needed adult, child and family services
5. Social and Emotional Competence of Children: Forming secure adult and peer relationships; experiencing, regulating and expressing emotions

Altering Outcomes for Children

Decreasing the trajectory of children's health and developmental risks involves improving access to or enrichment of protective factors or a social definition of health—enrichments.
Protective Factors
Think of these as the opposite of ACEs—the factors or circumstances in a child’s life that buffer her/him from harm and promote stability and resilience. Research has shown that supportive family and social relationships, exercise, adequate sleep, proper nutrition, spending time in nature, listening to music, and meditation are key protective factors for individuals.

Protective Community Factors
includes adequate housing, access to health care, support in times of need and caring adults outside the family who serve as mentors and role models.

Resilience
- Resilience is the ability to overcome serious hardship
- The foundation of resilience is the combination of
  - Supportive relationships
  - Adaptive skill building
  - Positive experiences that re-inforce self-efficacy, perceived control, and belonging
- Resilience requires relationships
- The capabilities that underlie resilience can be strengthened at any age
  Harvard Center for the Developing Child. Key Concepts

The Science of Resilience
https://www.youtube.com/watch?v=xSF7qf1g04U

How Resilience is Built
https://www.youtube.com/watch?v=1r8j17zbfGt

Building Community Resilience
Building Human Resilience

- Building Blocks
  - Physical and psychological health of the population;
  - Social and economic well-being
  - Individual, family and community knowledge and attitudes regarding self-reliance and self-help;
  - Effective risk communication
  - Level of social integration of government and nongovernmental organizations

- Skillsets
  - Active stakeholder engagement
  - Social networks
  - Health Promotion opportunities
  - At risk people’s needs
  - Strengthen/rebuild health and social system

What do Families need to Thrive?

- Job opportunities
- Fair Wages, scheduling, paid leave
- Transportation options
- The quality and affordability of housing and neighborhoods
- Affordable, healthy food supply
- Access to affordable, quality health care
- Quality of child care, public schools and opportunities for higher education
- Freedom from racism and discrimination
- Civic engagement and inclusion
- Availability of networks of social support
- Family Support

What can we do?

- Data Sharing
- Identify opportunities to incorporate protective factors into existing programs
- Raise awareness and education through community engagement
- Adopt evidence based strategies to address ACES and resilience
- Encourage and support policy that will support building strong families and strong communities
- Commitment from Leadership to recognized the impact of ACES on the mission and vision of your organization
- Reduce structural and institutional barriers that may prevent families and communities from thriving
- Continue to LISTEN to our Youth and our Youth Advocates

Perspective

If you always do what you have always done, you will always get what you already got.

Every child is one caring adult away from a success story

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Take Home Messages

- Exposure to violence/trauma is the single most prevalent risk factor for children today.
- Adversity is necessary for life and learning; toxic stress disrupts life and learning
- Relationships are necessary for resilience.
- The lifelong toll of unaddressed Adverse Childhood Experiences is a [perhaps THE] major cause of death and disability in adults
- Knowing what we know, we can do better in preventing, mitigating, and treating toxic stress.

Resources

- Adverse childhood experiences reported by adults---five states, 2009. - [Link](https://www.cdc.gov/mmwr/preview/mmwrhtml/mm5949a1.htm)
- Adverse childhood experiences: national and state-level

Resources

- Kentucky Strengthening Families - [Link](http://chfs.ky.gov/dph/mch/ecd/Kentucky+Strengthening+Families.htm)
- ACEs in Foster Care - [Link](http://www.acesconnection.com/g/foster-children-parents-support-network)

Resources

- Predicting Adverse Childhood Experiences: The Importance of Neighborhood Context in Youth Trauma Among Delinquent Youth - [Link](https://www.researchgate.net/publication/273352473)
- The Racial and Gender Differences in the Impact of Adverse Childhood Experiences on Juvenile Residential Placement - [Link](https://www.researchgate.net/publication/314652289)

Resources

- Thank You!

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