ADVERSE CHILDHOOD EXPERIENCES:

CONNECTING THE DOTS FROM INDIVIDUAL TO COMMUNITY

ADVERSE CHILDHOOD EXPERIENCES : ACE STUDY

My name is Jayne Fry MS, LMFT

Welcome, Good afternoon! So glad you choose to join me this afternoon, as I have the pleasure and honor to share a tiny bit of information about the Adverse Childhood Experiences Study

This afternoon we are going To learn a little about What Adverse Childhood Experiences are and how they impact us on a personal level and on a larger scale as our community /society

ACE STUDY? WHAT IS IT? WHY IS IT SO IMPORTANT?

In the last few years "ACES" has become somewhat of a buzz word among, social services, child welfare, teachers/education, criminal / juvenile justice, public health, mental health, pediatrics, and so many more.

How many of you know someone with a common chronic illness? Such as diabetes, hypertension, or someone who struggles with depression, substance use /abuse, or relationships?

Previously we blamed the individuals poor choices, lack of will power, or high risk behaviors; like poor diet, drug use, lack of exercise, and promiscuity as the culprit causing the ills of our children, families and society. "What's wrong with YOU?" we asked. Then came the Adverse Childhood Experiences Study, which lead to a paradigm shift to What happened to you?

ADVERSE CHILDHOOD EXPERIENCES (ACE) STUDY

Kaiser Permanente began a collaborative project with the CDC in 1995. More than 17,000 participants completed a standardized physical examination and the initial surveys began in 1995 and continued through 1997, with the participants followed subsequently for more than fifteen years. The cohort group was 80% white including Hispanic, 10% African American, and 10% Asian. Average age was 57 years; 74% had been to college, 44 % graduated college; 49.5 were men.

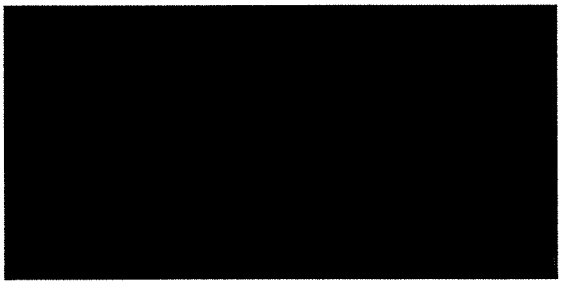
This study became the largest study of its kind ever done to examine the health and social effects of adverse childhood experiences over the lifespan .

ACES: HISTORY

Doctor Vincent J. Felitti in his article "The Origins of Addiction: Evidence from Adverse Childhood Experiences Study" 2003, states " In the mid-1980's physicians in Kaiser Permanente's Department of preventative Medicine in San Diego discovered that patients successfully losing weight in the Weight Program were most likely to drop out." This observation lead to the idea that obesity may serve as a protective solution to unrecognized problems from childhood.

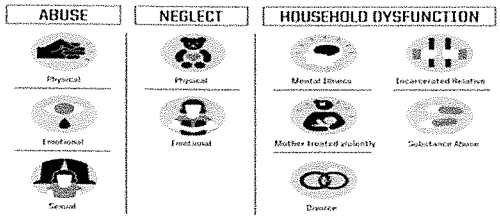
Could obesity have benefits?

The finding that health problems like obesity had an unexpectedly high prevalence rate of the experience of childhood adversities in middle class adult population, led to Collaboration with the Center for Disease Control.



WHAT DO WE MEAN BY ADVERSE CHILDHOOD EXPERIENCES?

EXPERIENCES THAT REPRESENT MEDICAL AND SOCIAL PROBLEMS OF NATIONAL IMPORTANCE
PLEASE REFER TO ACE QUESTIONNAIRE HANDOUT (DOES NOT LOOK LIKE THIS PICTORIAL REPRESENTATION)



RESULTS

- The results were amazing and surprising. Almost 2/3's of individuals had experienced 1 or more of the categories. Felitti and Anda used Adverse Childhood Experiences to capture the chronic, unpredictable trauma and toxic stress some children endure.
- The number of ACE's an individual had was predictive of the amount of medical issues over their life span.
- Individuals with 4 or more categories of ACEs were twice as likely to be diagnosed with cancer and individuals who had no experience.
- For each ACE score a woman had increased her risk of being hospitalized with an autoimmune disease rose by 20%
- Someone with an ACE score of 4 was 460 % more likely to suffer depression than someone with an ACE Score of 0

SO WHAT DOES ALL THIS MEAN?

Experiencing chronic unpredictable toxic stress in childhood predisposes us to a constellation of conditions in adulthood. Today in countless neuroscientists are examining the brain –body connection; breaking it down on a biochemical level to see how stress alters our bodies, our cells and even our DNA.

The scientific findings are a little overwhelming, but they make us think and re-examine how our emotional and physical pain are intertwined. The ACE study is changing how we view illness and how medicine is done.

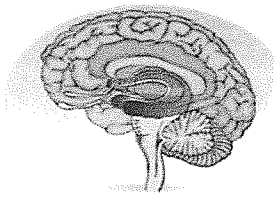
Three Core Concepts in Early Development

Toxic Stress Derails Healthy Development

NATIONAL SCIENTIFIC COUNCIL ON THE DEVELOPING CHILD
Center on the Developing Child HARVARD UNIVERSITY

EXPLANATION OF PHYSIOLOGICAL AND EPIGENETIC CHANGES

- Stress: fight, flight or Freeze response/cortisol and adrenal/immune system
- Toxic stress: genes, epigenetics
- Body –Brain Pathway: Immune privilege



IMPACT ON CHILD DEVELOPMENT CONTINUED

- **Psychosocial Effects (e.g., poor attachment, poor socialization, poor self-efficacy**
- The sensitive period for attachment is the first two years of life. All development occurs in the context of relationship. A child's relationship with an attachment figure mediates the child's response to a trauma. Oftentimes, the caregivers' response to the trauma influences how the child perceives the trauma.
- The stress reactions from adverse experiences vary by developmental stage Children expend a great deal of energy responding to, coping with, and coming to terms with the event. This may reduce children's capacity to explore their environment and to master age-appropriate developmental tasks.
- **Health Risk Behaviors** (e.g., smoking, obesity, substance abuse, promiscuity)

Adverse Childhood Experiences

- Abuse and Neglect (e.g., psychological, physical, sexual)
- Household Dysfunction (e.g., domestic violence, substance abuse, mental illness)

Impact on Child Development

- Neurobiological Effects (e.g., brain abnormalities, stress hormone dysregulation)
- Psychosocial Effects (e.g., poor attachment, poor socialization, poor self-efficacy)
- Health Risk Behaviors (e.g., smoking, obesity, substance abuse, promiscuity)

Long-Term Consequences

Disease and Disability	Social Problems
• Major Depression, Suicide, PTSD	• Homelessness
• Drug and Alcohol Abuse	• Prostitution
• Heart Disease	• Criminal Behavior
• Cancer	• Unemployment
• Chronic Lung Disease	• Parenting Problems
• Sexually Transmitted Diseases	• Family Violence
• Intergenerational Transmission of Abuse	• High Utilization of Health and Social Services

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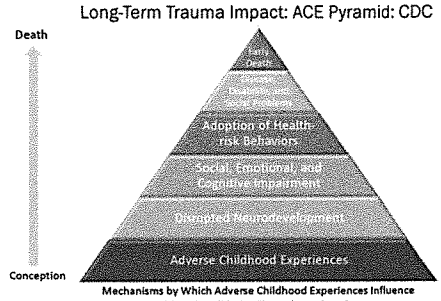
Source: Putnam, F., & Harris, W. (2006). Opportunities to change the outcomes of traumatized children: Draft narrative. Retrieved from http://childwelfare.gov/systemwide/cb_ongoing/summer_of_trauma/ppt_child.ppt

Long-Term Trauma Impact: ACE Pyramid: CDC



Mechanisms by Which Adverse Childhood Experiences Influence Health and Well-being Throughout the Lifespan

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[redacted]

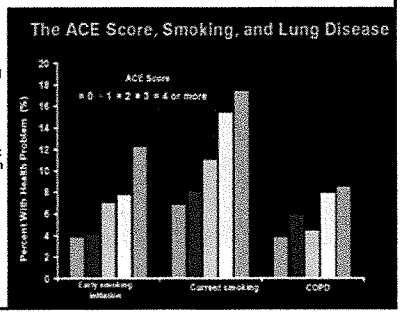
FINDINGS

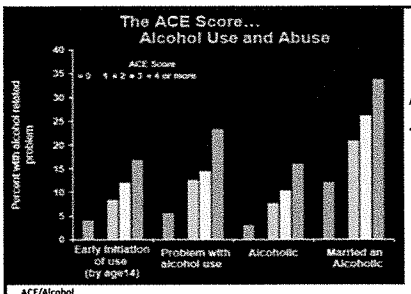
- **Adverse Childhood Experiences are surprisingly common, although typically concealed and unrecognized.**
- **Adverse Childhood Experiences have a profound effect on individuals 50 years later, although now transformed from psychosocial experience into organic disease, social malfunction, and mental illness.**
- **Adverse Childhood Experiences are the main determinant of the health and social well-being of the nation.**
- **These findings challenge conventional views. They also provide opportunities for new approaches to some of our most difficult health problems. The ACE study provides insights into changes that are needed in pediatric and adult medicine, which can have a significant impact on the cost and effectiveness of medical care.**

ACE SCORE, SMOKING & DISEASE

ACE/Smoking/Health- COPD

- **Research shows a strong relationship to adverse childhood experiences. There is an increased likelihood that an individual with an ACE score of 6 is a current smoker compared to a person with an ACE score of 0. This illustrates the psychoactive benefits of nicotine. That piece seems to be left out of the public initiatives against smoking, but important in understanding the nature of smoking in many people.**
- **When ACE scores and the prevalence of COPD and Emphysema again there is another strong relationship. From adverse childhood experience or stressor to organic disease. A person with an ACE Score of 4 is more likely to have COPD than is a person with an ACE Score of 0.**





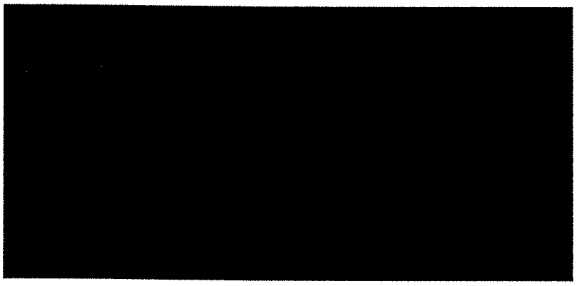
ACE/Alcohol

- The study group was asked if they had ever considered themselves to be alcoholic, researchers felt that Yes answers probably understated the truth, making the effect even stronger. They found there to be a 500% increase in adult alcoholism in the same graded manner as the previous.

ACE SCORE & SUBSTANCE USE

ACE/ Illegal drugs

- In the United States, the most commonly injected street drugs are heroin and methamphetamine. Methamphetamine has the interesting property of being closely related to amphetamine, the first anti-depressant introduced by Ciba Pharmaceuticals in 1932. When we studied the relation of injecting illicit drugs to adverse childhood experiences, we again found a similar dose-response pattern; the likelihood of injection of street drugs increases strongly and in a graded fashion as the ACE Score increases. (Figure 4) At the extremes of ACE Score, the figures for injected drug use are even more powerful. For instance, a male child with an ACE Score of 6, when compared to a male child with an ACE Score of 0, has a 46-fold (4,600%) increase in the likelihood of becoming an injection drug user sometime later in life.



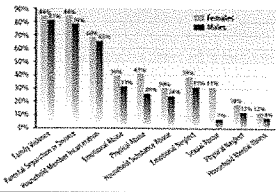
ACE SCORES AND CRIMINAL JUSTICE SYSTEM

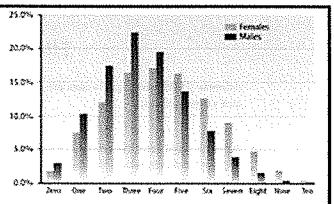
A study titled "The Prevalence of Adverse Childhood Experiences (ACE) in the Lives of Juvenile Offenders" reported higher prevalence rates of adversity (ACE) for juvenile youth than general population youth. Juvenile involved youth had roughly 3 times more ACEs than Felitti and Anda reported in the original study. Placement in in Child welfare due to parental maltreatment made unique contributions to the risk for delinquency in 99,602 officially delinquent youth, compared to the same number of matched youth.

In the area of criminology it is known that among offenders experiencing childhood physical abuse and other forms of maltreatment leads to higher rates of self reported total of offending, violent offending, and property offending even after controlling for prior delinquent behavior. The experience of parental separation/divorce has also been documented to have a strong correlation with delinquency. Even with the increased social acceptance and increased prevalence of divorce in recent decades, the difference between youth exposed to parental divorce and those from intact families has not decreased.

GIRLS & THE JUVENILE JUSTICE SYSTEM

A new comprehensive report on girls in the juvenile justice system, states that girls are now making up a larger share of the juvenile population, despite the overall decline in juvenile arrests over the last two decades.





- In the current justice system, girls 'coping behaviors, which are reactions to the violence and abuse they experienced (ACEs), are criminalized rather than addressed and resolved.
http://www.nationalcrimecenter.org/center-in-justice

TRAUMA SURVIVOR COMMENTS

During every incarceration, every institutionalization, every court –ordered drug treatment program, it was always the same: I was treated like a hopeless case. All people could see was the way I looked or the way I smelled. It wasn't until I finally entered a recovery –oriented, trauma –informed treatment program, where I felt safe and respected, that I could begin to heal.....Someone finally asked "What happened to you?" Instead of "What's wrong with you?"

"Tonier Cain, Team Leader, SAMHSA's National Center for Trauma Informed Care

I was in the mental health system for 14 years before somebody thought to ask if I'd been hit, kicked, punched, slapped, or knocked out. When they asked those questions, I said "oh, Yeah sure." "But, when they asked if I'd been abused, I said no." It was just my life.

"Anonymous trauma survivor

CONSEQUENCES OF CHILD MALTREATMENT

- An estimated 681,000 Children were confirmed by Child Protective services as being victims of child Maltreatment in2011
- Abuse Cost US $124 Billion in 2008
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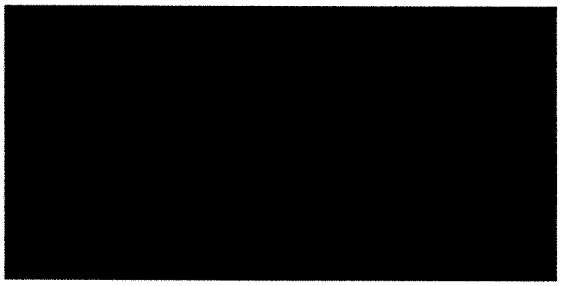
- 2011, approximately 1,570 children died fro abuse and neglect across the country
- 80% of young adults who has been abused met the diagnostic criteria for at least 1 psychiatric disorder by age 21healthy relationships
- Children who experience maltreatment are at risk of engaging in high risk sexual behaviors and are 1.5 times more likely to use illicit drugs
- Early child maltreatment can have a negative impact on the ability of men and women to establish and maintain intimate relationships in adulthood. The estimated average cost per victim of ACEs 210,012 (2010)



RISK FACTORS

Individual risk factors for victimization

- Children under 4 years of age
- Special needs that may increase caregiver burden e.g. disabilities, intellectual disability, mental health, chronic physical illness

Risk factors for Perpetration:

- Parents lack of understanding of child development and parental skills
- Parents history of maltreatment in family of origin
- Substance abuse and/or mental health issues
- Parental characteristics: young age, low education, single parent, large number of dependents, low income
- Non-biological transient caregivers in the home e.g. mother, male partner, parental thoughts or beliefs that support or justify maltreatment

RISK FACTORS

Social isolation:

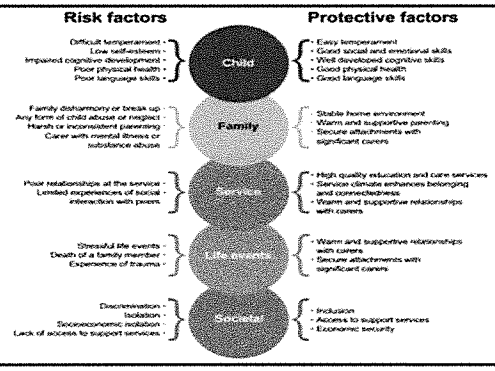
- Family disorganization, violence, domestic violence
- Parenting stress poor parent-child relationships and negative interactions

Community Risk Factors:

- Community violence
- Concentrated rates and high density of alcohol outlets and poor social connections

PROTECTIVE FACTORS

- Protective factors buffer children from abuse and neglect. Protective factors have not been researched a extensively as Risks
- There is evidence to support the following \Family Protective factors
- Supportive environment and social networks
- Potential factors, research is ongoing
- Nurturing parental skills
- Stable family relationships
- Child monitoring
- Parental employment
- Adequate housing
- Access to health care and social services
- Caring adults outside family



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Community Protective Factors:

- Communities that support parents and take responsibility to preventing abuse

OUTCOMES COSTS

- ACE's alters the individual on multiple levels and those effects are seen across the lifespan. The trauma and stress experienced by the child creates profound consequences for the adult. Often ACEs are passed down from one generation to the next. These ACEs impact the community in the neighborhood, at school, medical health system, mental health system, social services, addiction and recovery systems, and the justice system. This list is in no way exhaustive and only speaks to the human aspect what about the financial cost to the local, state and Federal communities.
- ACE Outcome in Maine14 Odds Ratio15

for ACE>4		PAF16	Annual Cost Million$	Savings if prevent 100%	Savings if prevent 25%
Substance Abuse	3.5	24%	$898	$215.5	$53.8
Attempted Suicide	12.2	58%	$29.5	$17.1	$4.3
Alcohol Problem	4.9	33%	$132.6	$44.2	$11.0
STDs	2.5	16%	$32	$5.1	$1.3
Current *smoker*	2.2	13%	$667	$86	$21.5
Severe obesity	1.6	7%	$863	$60.4	$15.1
Diabetes	1.6	7%	$542.5	$40	$10
Cancer	1.9	10%	$328	$32.8	$8.2
Depression	4.6	31%	$6.7	$2.1	$0.5
(State of Maine employees)					
Lost productivity	3.2				
Total			$3.5 billion	$503 million	$125 million

Maine Children's Growth Council Health Accountability Team (HAT) Working with Adverse Childhood Experiences: Maine's History,

NEED FOR PREVENTION

- The Ace study shines an enormous light on Adverse Childhood experiences rooted in unhealthy relationships, and environments. It seems clear that all children need and deserve safe stable nurturing environments to prevent child maltreatment. The solutions, however, are as complex as the problem.
- Please refer to The handout from CDC https://www.cdc.gov/violenceprevention/childmaltreatment/prevention.html

PREVENTION?

- Data from National Child Traumatic Stress Network (NCTSN) and the Family Research Laboratory indicates many children exposed to cumulative trauma /victimization will show negative health and behavioral outcomes before 18. Amazingly the majority do not develop the significant health and behavior issues identified in the ACE study.
- Resilience : Please refer to **"What is your Resilience Score"** handout.
- How does that happen and how do we extend to more vulnerable children?
- Families and Communities that are able to be **"Good Enough"** to protect, from trauma and to support resilience development, and health coping.

"The # 1 predictor ... That a child will develop socially, emotionally, cognitively, etc. is the parent's self understanding, or how you have made sense of your own experiences, good, bad.... It is never too late to make sense of your life and what happened to you.

Dr. Daniel Siegel, Co-author of **Parenting From the Inside Out: How a Deeper Self –Understanding Can Help You Raise Children Who Thrive.** From Lecture at Parents as Teachers National Conference, 4-5-07

PREVENTION IDEAS

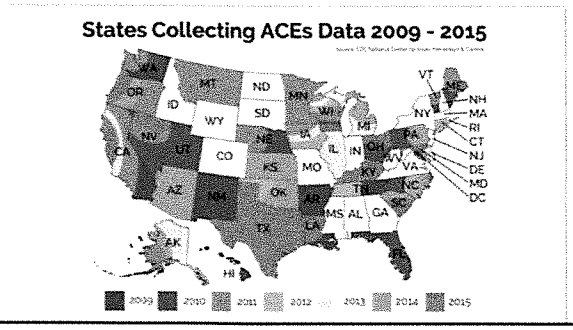
- Parents managing their risk issues such as substances, marriage, mental health, etc. before causing ACE's in their children
- Parents reflecting on their histories and supporting healthy ways to cope and protect their children.
- Identify ACE's early and provide protective experiences to build resilience
- Integrate ACE screening into child welfare, medicine, schools, and other programs and agencies.
- What are your ideas?

ACE/ THE BEHAVIORAL RISK FACTOR SURVEILLANCE SYSTEM (BRFSS)

With the peer reviewed science of the ACE study, local ACE/BRFSS will raise awareness of policymakers, service providers, and the general public on the importance of ACEs in relation to the health and well being of community. Policymakers considering this public health information as well as human, social, and financial cost of ACES and their consequences will promote new thinking in areas of research, policy, and practice at all levels local to national.

- As a result of the ACE study the CDC adapted the questions for the Behavioral Risk Factor Surveillance System (BRFSS). The BRFSS is the largest ongoing health survey in the world and has proved useful in defining prevalence of health behaviors. Kansas is a participating state.

STATES COLLECTING BRFSS DATA



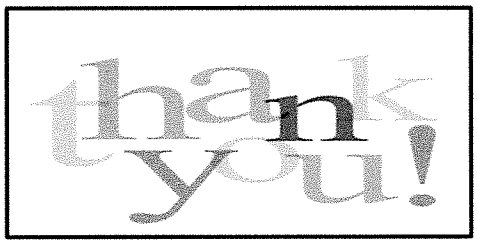
EXAMPLES OF INTERVENTIONS

- Incredible Years –
  - Authors: Webster-Stratton, Focus: healthy & safe children, Intervention: 12-14 weeks, Format: 2 hour sessions, Evidence based: PROVEN
- Strengthening Families Initiative –
  - Focus: Abuse/neglect prevention parent resilience, Intervention: social support/resource access/parenting skills and knowledge/ parent resilience, Format: early care education program & support for families, Evidence based: No information
- Parenting From the Inside out-
  - Authors: Siegel & Hartzell, Focus: Parent thought/ feeling/experience, Intervention: Parent mindfulness, Format: group sessions, Promising/untested
- Child & Family Traumatic Stress Intervention-
  - Authors: Marans, Berkowitz, Focus: Trauma, Intervention: communication child experience, Format: four 1.5 hour sessions, Evidence based: Randomized Clinical trail vs treatment as usual
- Project FOCUS: Families OverComing Under Stress –
  - Authors: Beardslee, Saltzman, Focus: Separation/Deployment, intervention: Psychoeducational/communication/ resilience-building, 6-8 sessions, children/or parents, Evidence based: pre-post improvement

CONCLUSIONS

The Health and Social consequences of Adverse Childhood Experiences (ACE) across the Lifespan: An Introduction to Prevention and Intervention in the community; reports the ACE study to provide sweeping public health perspective on the prevalence and interrelatedness of ACES and their relationship to later life consequences, the data generated is relevant and influential across professions.

- The World Health Organization (WHO) called policymakers to address ACES to improve health and promote pilot ACE studies that are underway in Multiple countries (WHO, 2009).

WRAP UP

- Now that you are aware...can you just sit here and think it's not your problem? I hope not. I challenge you to look at others and their actions differently. To ask what happened to you? To speak and treat all children with care. All of us belong to this group called humanity and change doesn't happen in a vacuum or isolation. It is up to each of us and the agencies, programs, schools, courts, etc. to continue to learn, be trauma informed, stay involved, collaborate, join forces, deal with our own experiences and demand early detection, intervention, and prevention.