



## UNDERSTANDING

Adverse Childhood Experiences

01/12/14

## Early Adversity Increases Physical, Mental, Behavioral Problems, Scientists Report





Dr. Robert Anda & Dr. Vincent Felitti Investigators

Centers for Disease Control & Prevention, Kaiser Permanente Study

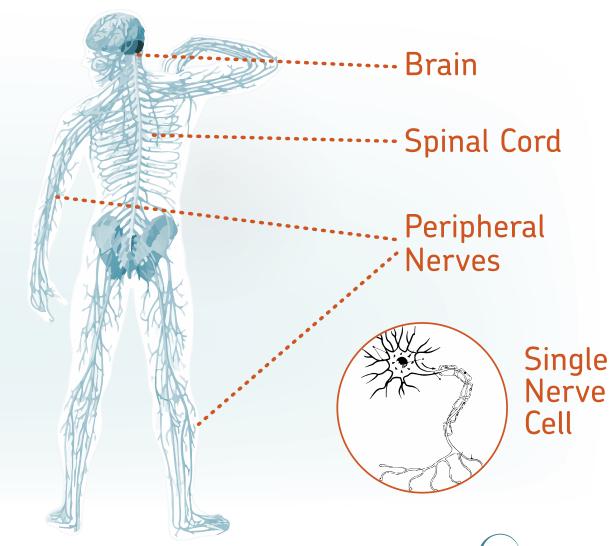
Over 17,000 study participants

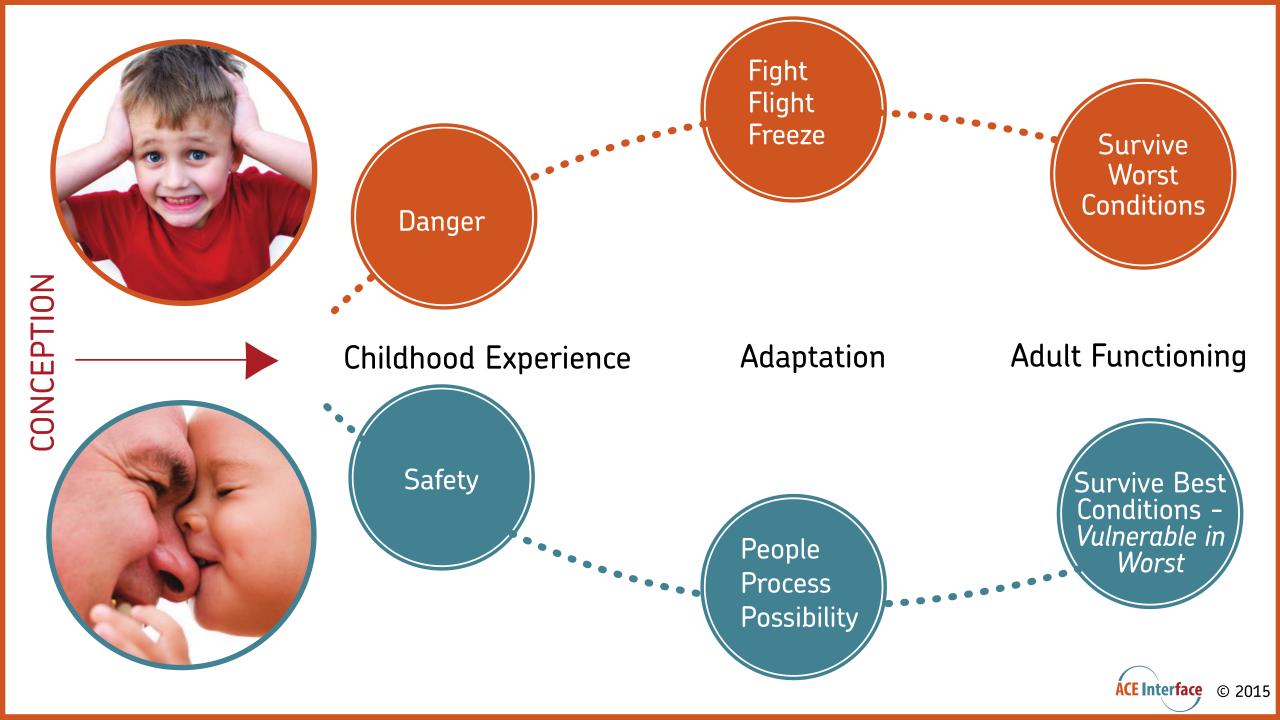
The ACE Study confirms, with scientific evidence, that adversity early in life increases physical, mental and behavioral problems later in life.

## HUMAN NERVOUS SYSTEM

Nervous system ORCHESTRATES BODY **FUNCTIONS & PERCEPTIONS** 

Neuroscience HELPS US UNDERSTAND WHY ARE SO POWERFUL





## ADAPTATIONS VS EXPECTATIONS

WHEN BIOLOGY
COLICES
WITH SOCIAL
EXPECTATIONS
WE run into
TROUBLE



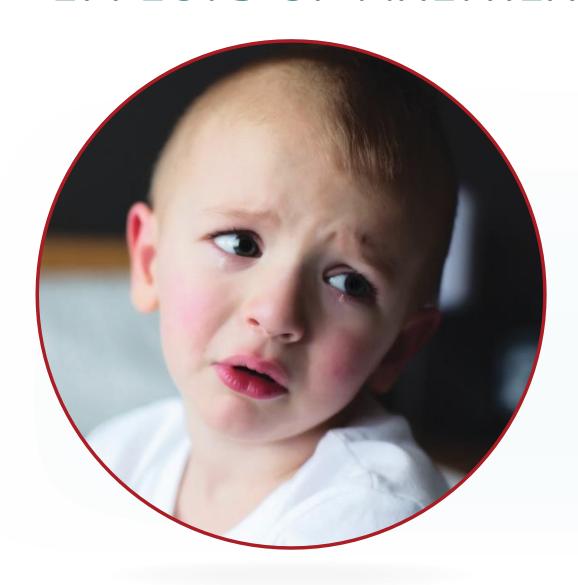
## How Experience Gets Into Biology



- Cell communication builds brain architecture
- Brain activity builds experienceinformed capabilities
- Experience can strengthen or erode protection of DNA (genetic instruction to cells)
- Ancestral experience can alter how our genes are used by our cells



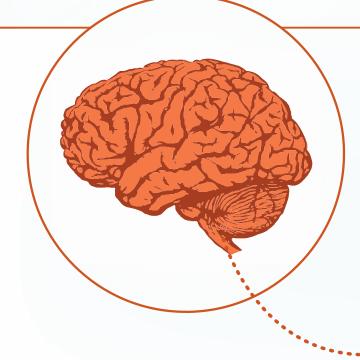
### **EFFECTS OF MALTREATMENT**



type of maltreatment GENDER AGE

EXPERIENCE & ADAPTATION sensitive periods

Cause-Effect

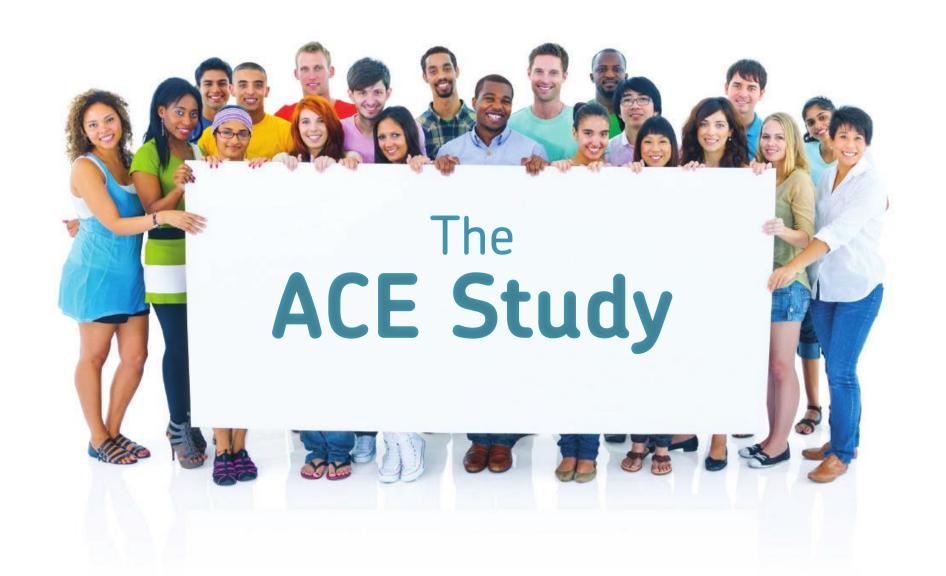


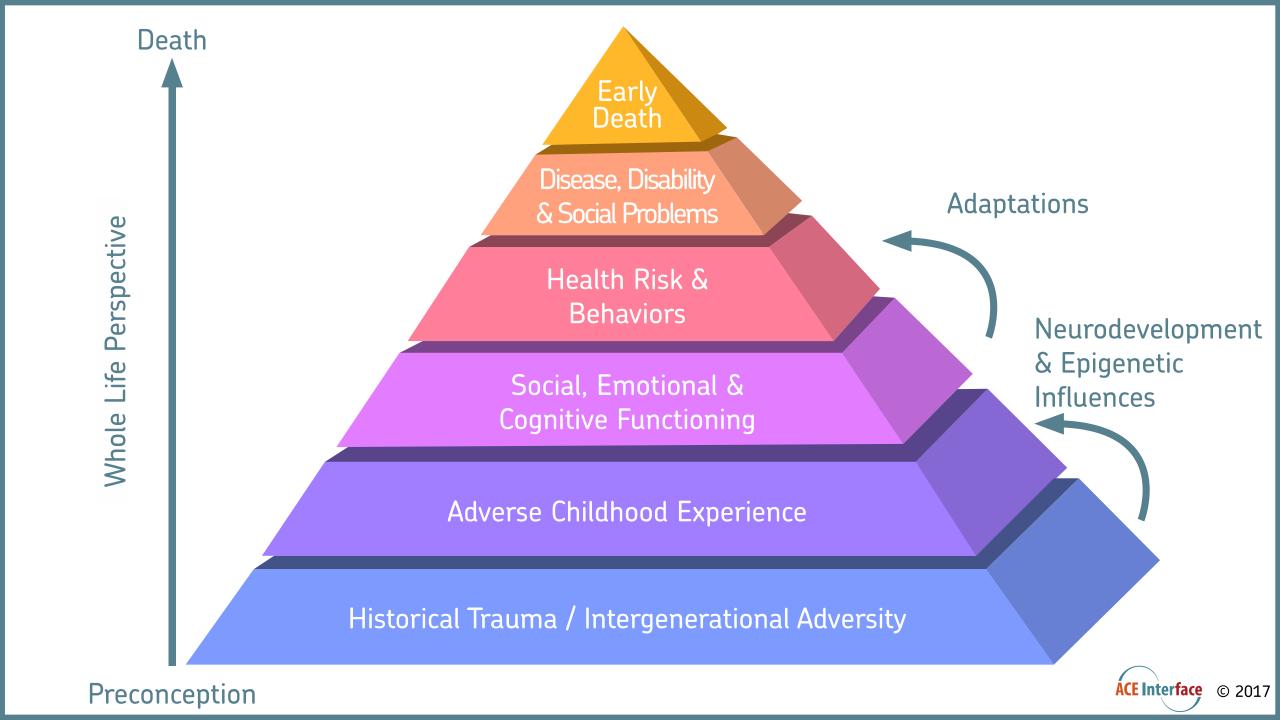














### FINDING MORE CONNECTIONS

how multiple forms of childhood adversity can affect many important PUBLIC HEALTH PROBLEMS

#### **Adverse Childhood Experiences**

## ARE COMMON

#### Household Dysfunction

Substance Abuse 27%
ParentalSep/Divorce 23%
Mental Illness 17%
Battered Mothers 13%
Criminal Behavior 6%

#### Neglect

Emo	otional	15%

Physical 10%

#### Abuse

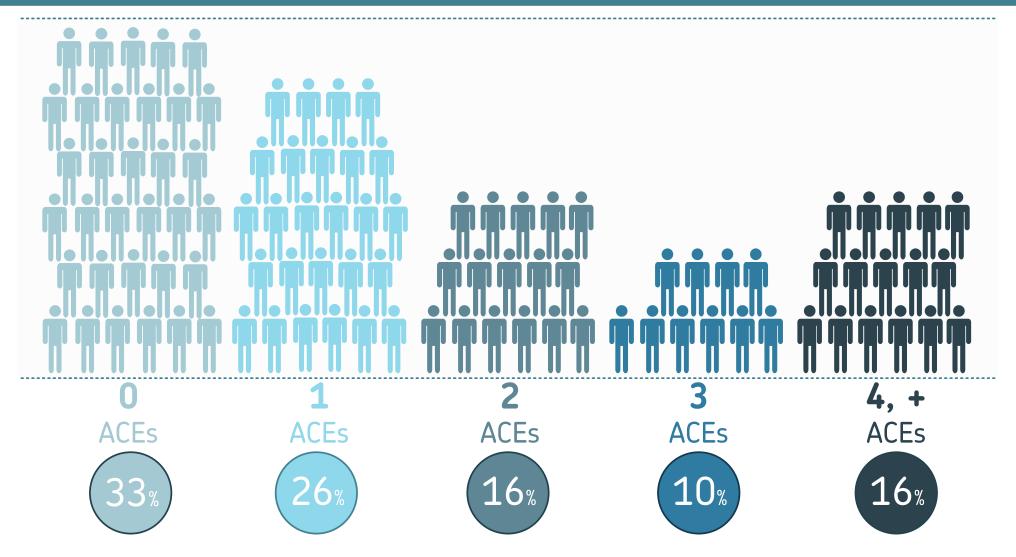
Emotional	11%
Physical	28%
Sexual	21%



TOTAL 10 ACEs



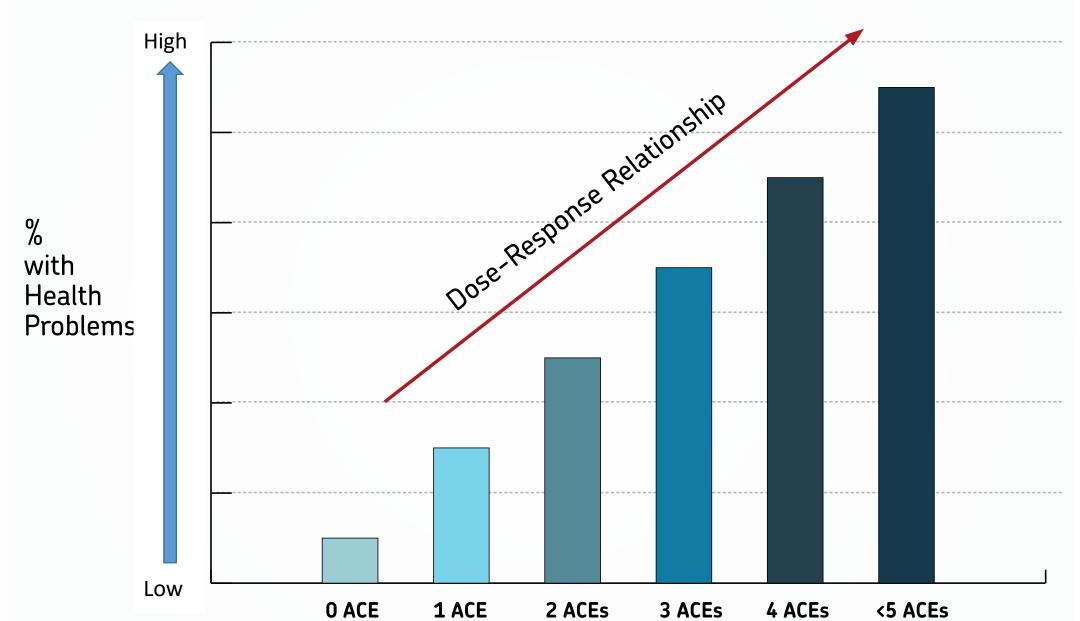
## ACE Score = Number of ACE Categories



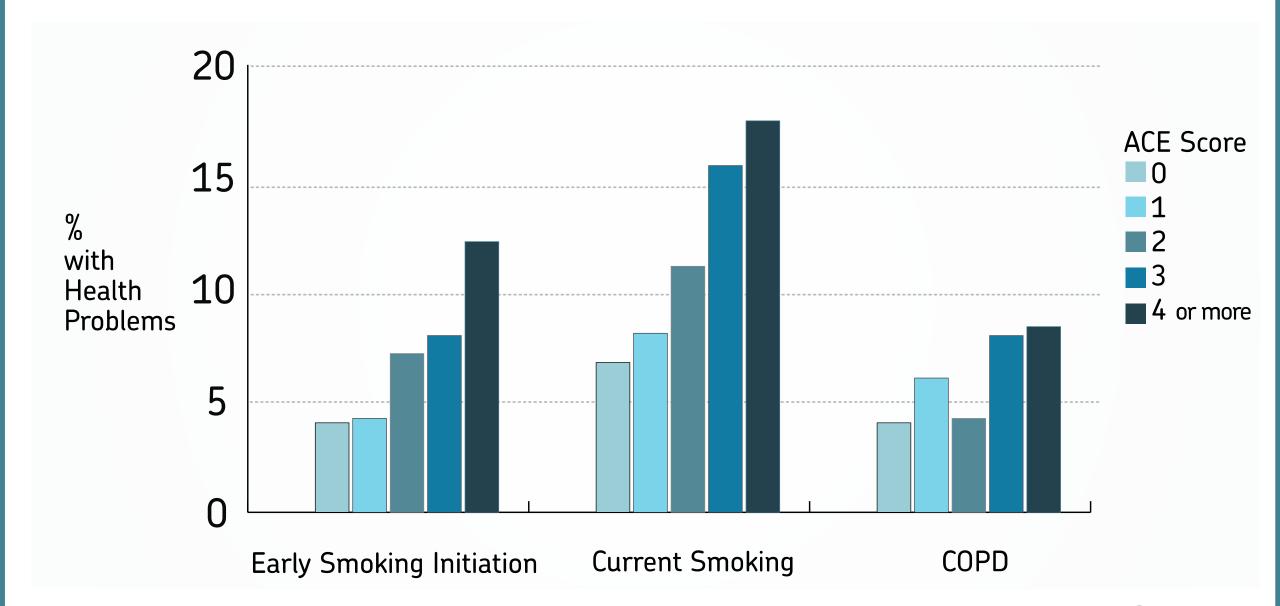
ACE Scores Reliably Predict Challenges During the Life Course



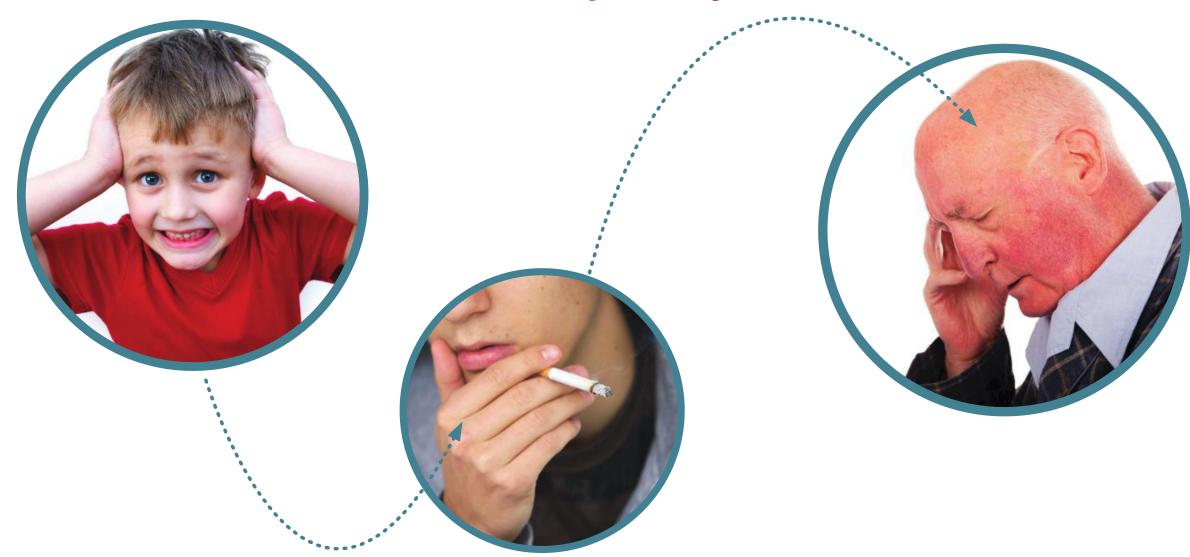
#### ACE Score and Health Problems

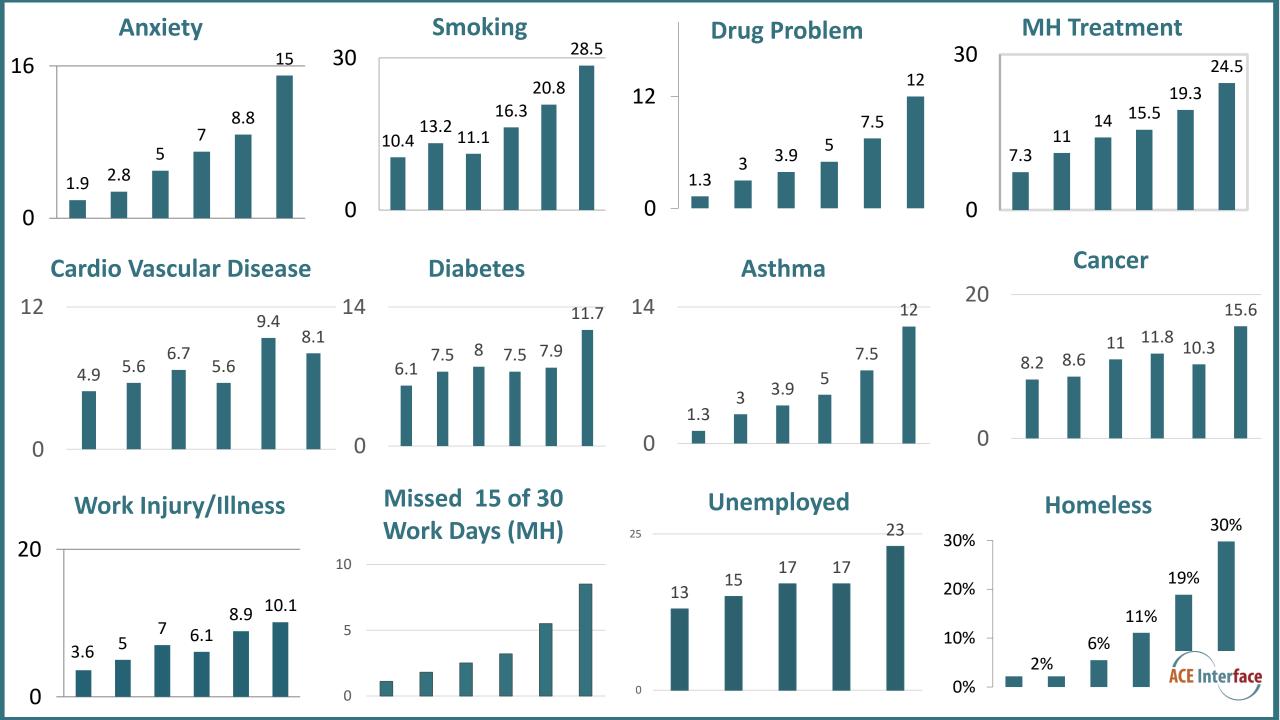


#### ACEs, Smoking and Lung Disease



## What is the story of your life?





#### EXAMPLES OF ACE-ATTRIBUTABLE PROBLEMS

Alcoholism & Alcohol Abuse

Chronic Obstructive Pulmonary Disease

Coronary Heart Disease

Depression

Drug Abuse & Illicit Drug Use

Fetal Death

Intimate Partner Violence

Liver Disease

Mental Health Problems

Obesity

Sexual Behavior Problems

**Smoking** 

**Unintended Pregnancy** 

Violence

Workplace Problems

## ACEs are Common, Interrelated, Powerful



High ACE Scores in Population

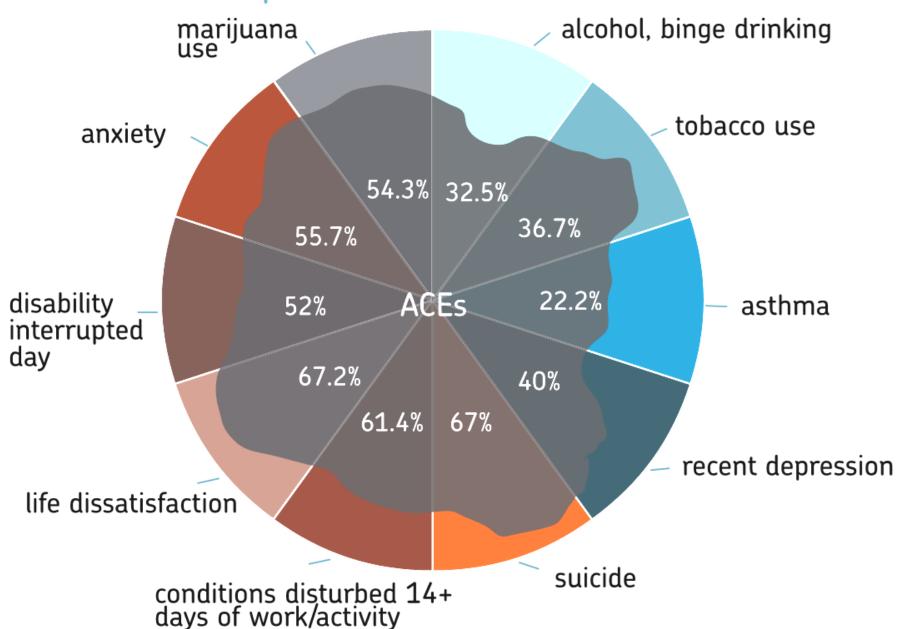


Increased Risk of Multiple Health and Social Problems



Intergenerational Transmission of ACEs

#### Population Attributable Risk



have the power to shift the dynamics that lead to high ACE scores.



## Core Protective Systems

Capabilities

Attachment & Belonging

Community Culture Spirituality "Nurturing the healthy development of these protective systems affords the most important preparation or 'inoculation' for overcoming potential threats and adversities in human development. Similarly, damage or destruction of these systems has dire consequences for the positive adaptive capacity of individuals."

Ann Masten, 2009

# CHANGE is up to US







It is shaped by our thoughts, our conversations, the way we relate with one another in relationships, in families, and in communities.



www.aceinterface.com