

**Building Self-Healing
Communities**



Understanding

N. E. A. R.

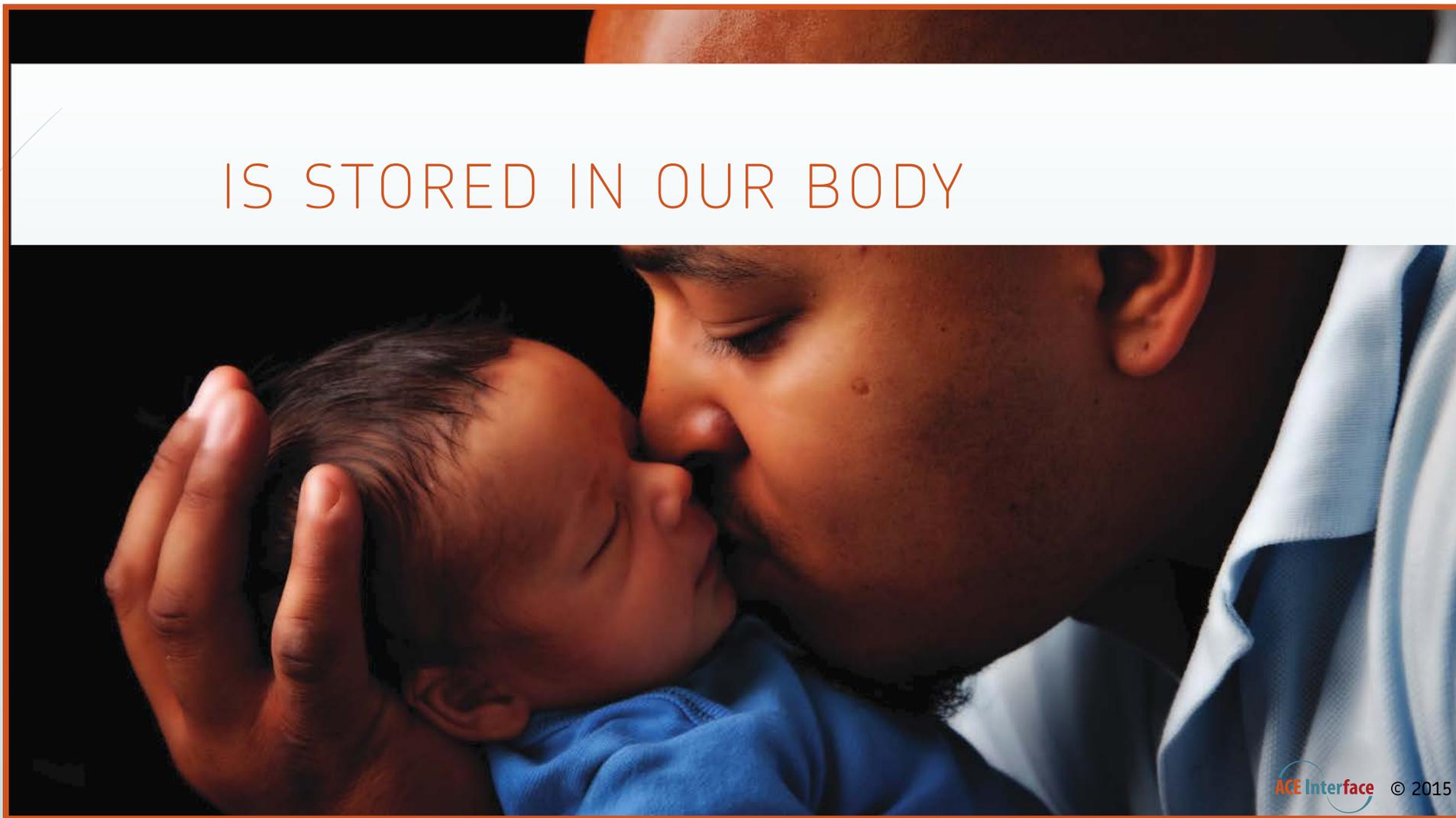
Neuroscience

Epigenetics

Adverse Childhood Experiences

Resilience

IS STORED IN OUR BODY



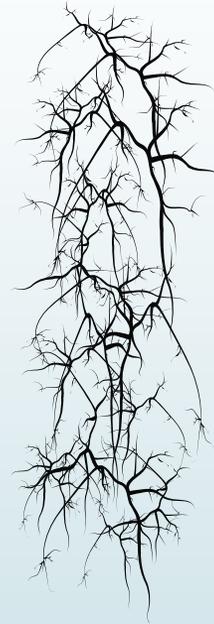
DISCOVERY



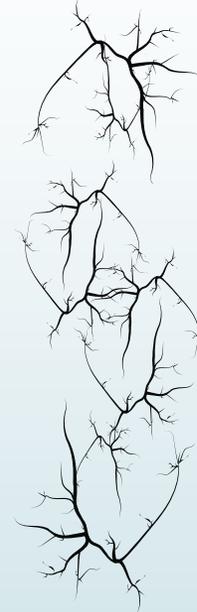
SYNAPTIC DENSITY



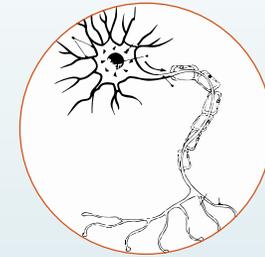
At Birth



Elementary Age



Puberty



Neuron



CONCEPTION



Childhood Experience



Adaptation



Adult Functioning



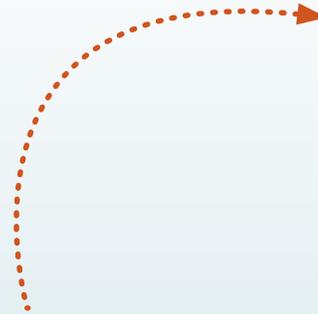
Best Conditions -
Vulnerable in
Worst

ADAPTATIONS VS EXPECTATIONS



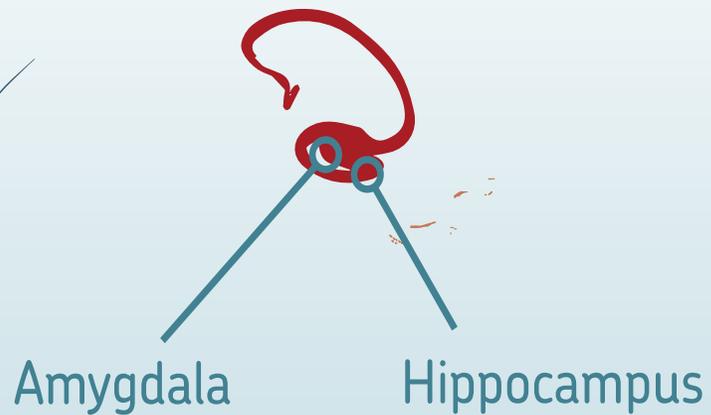


Cause-Effect

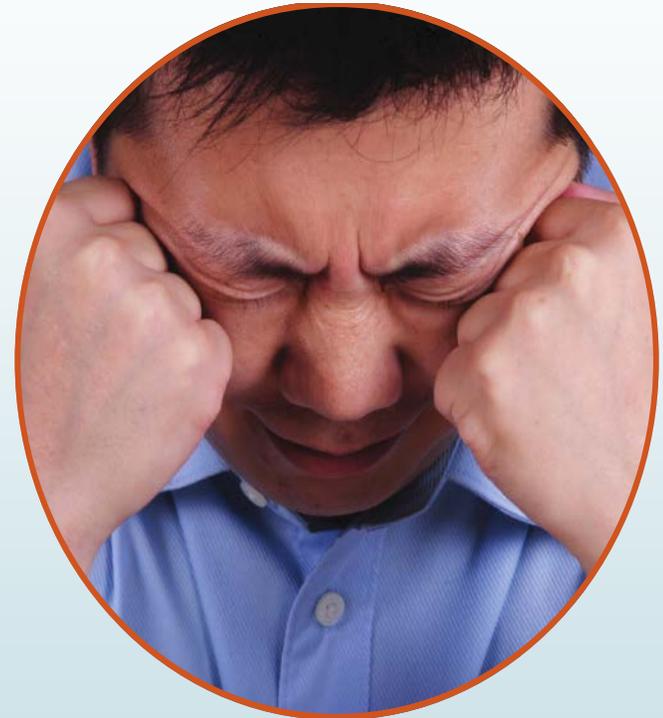




THE HIPPOCAMPUS AND AMYGDALA



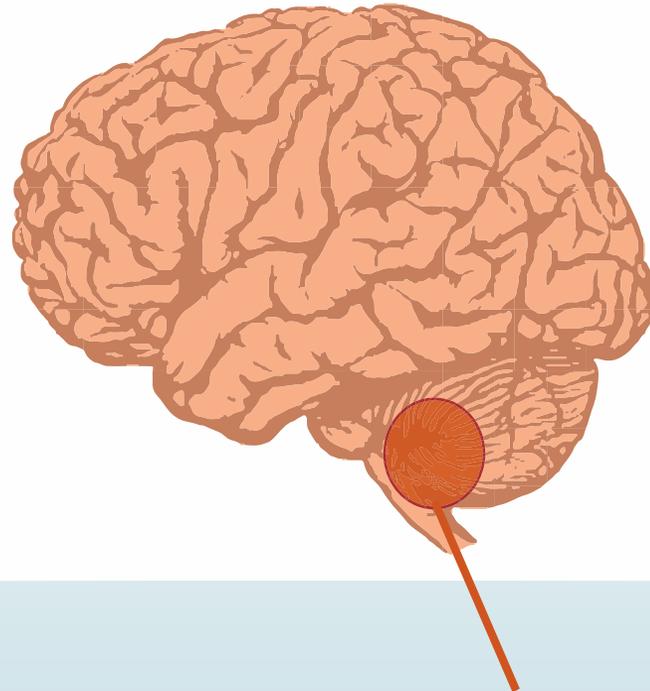
Panic & Fear | Attention | Memory | Social Cues



POSITIVE FEELINGS

Perception

Attention



ADDICTION

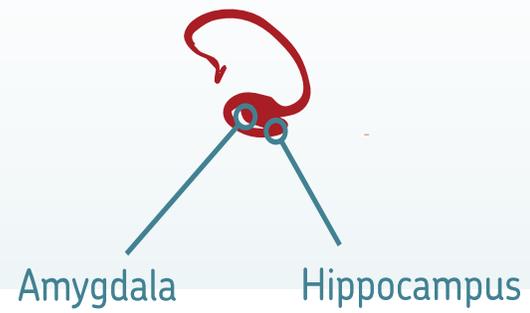
Attention Problems

Mental Illness

Cerebellar Vermis

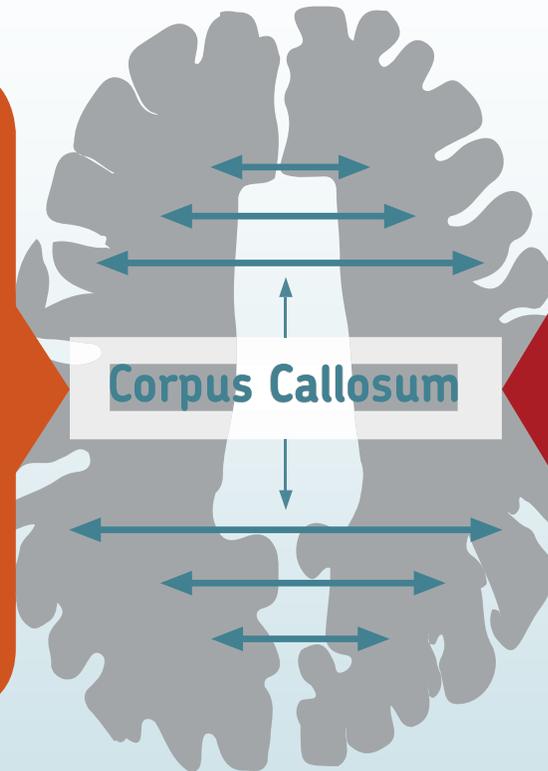


CONNECTIONS
between trauma-induced
adaptations in the Vermis
—— and ——
serious and persistent
MENTAL ILLNESS

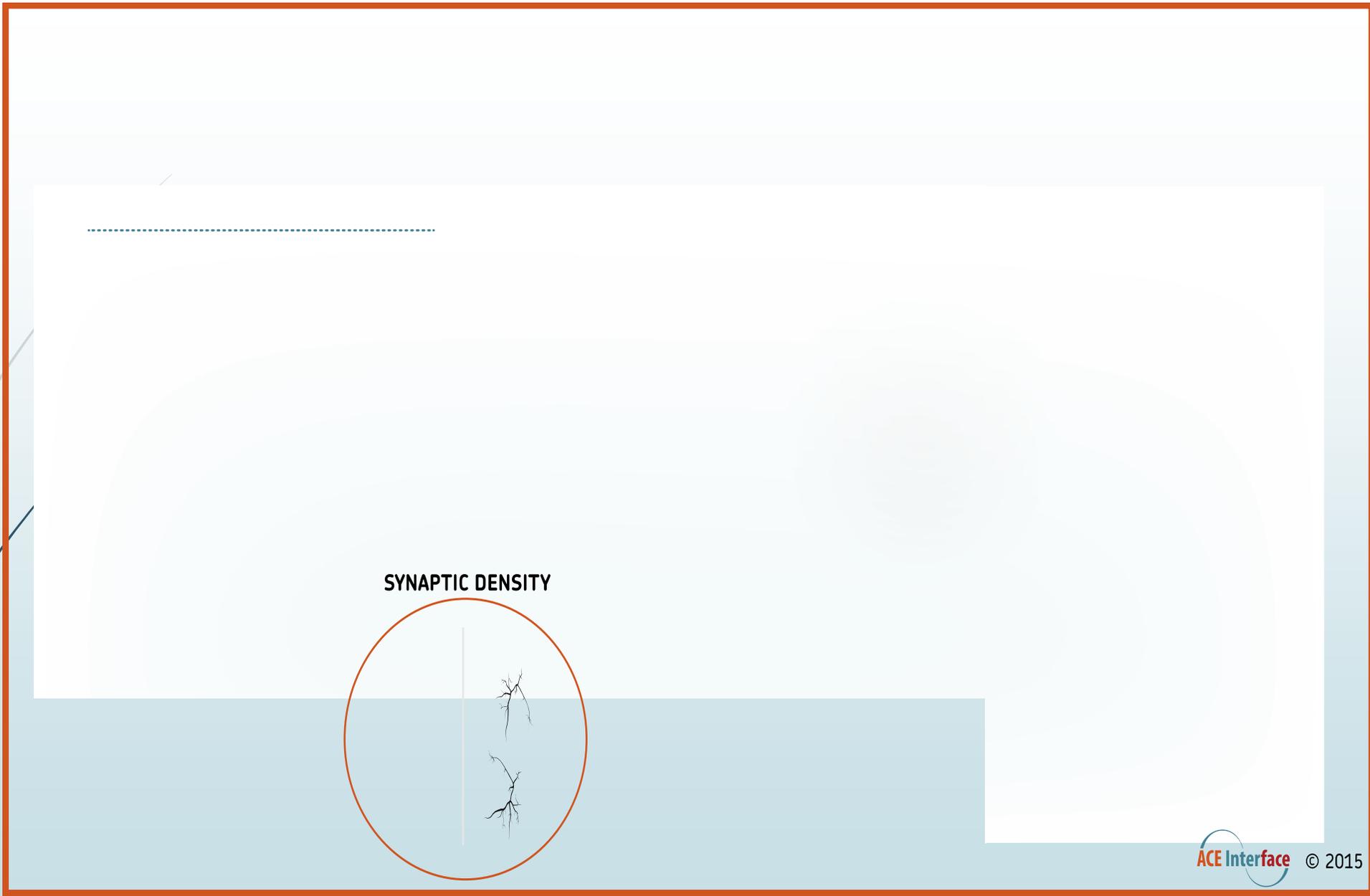


The Corpus Callosum

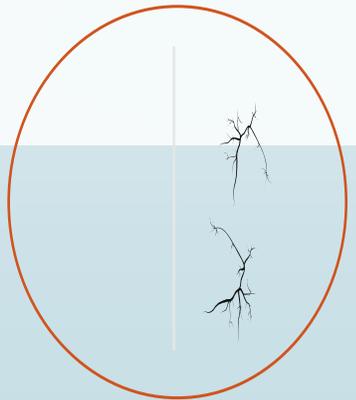
LEFT HEMISPHERE
Spatial Patterns
Math Calculation
& Fact Retrieval
Grammar &
Vocabulary
Processing Routine
Situations

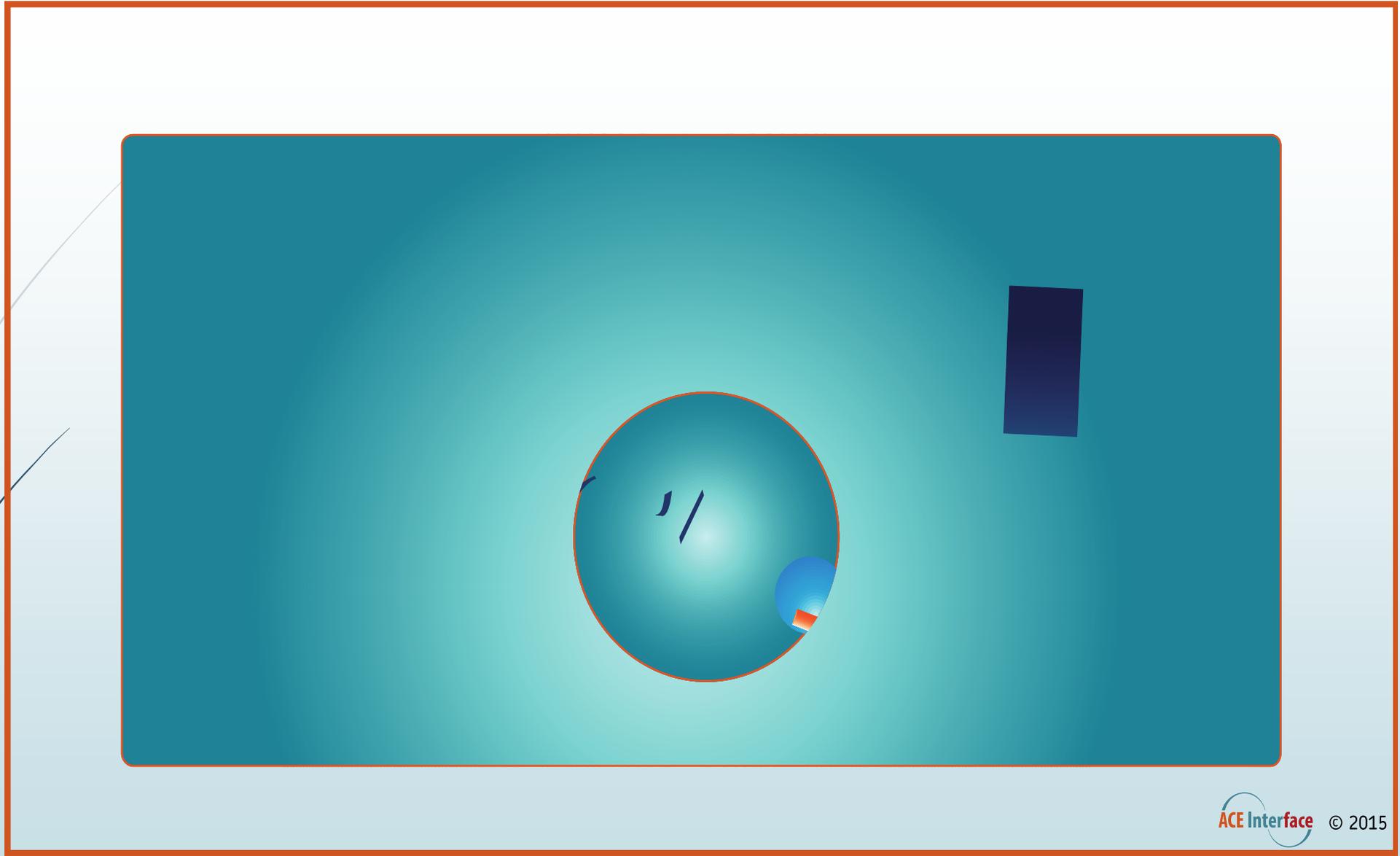
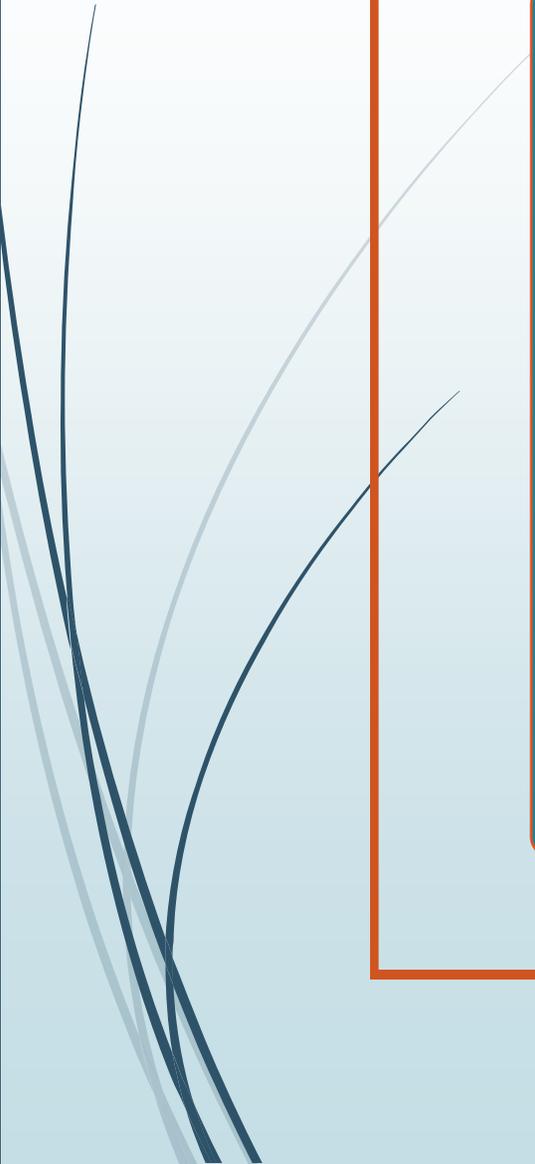


RIGHT HEMISPHERE
Visual & Auditory
Processing
Prosaic Language
Facial Perception
Processing Novel
Situations



SYNAPTIC DENSITY







01/12/14

NEWS

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

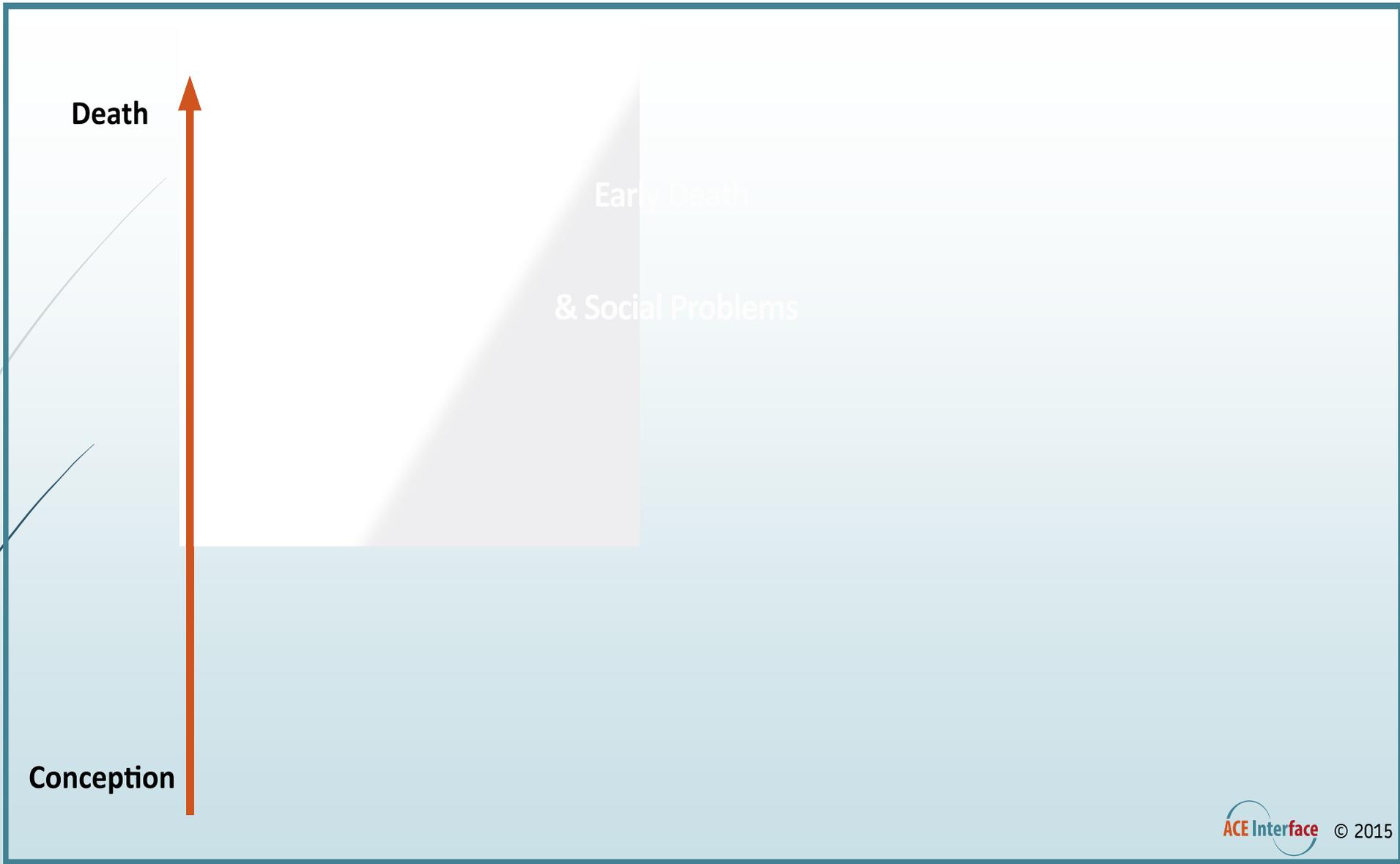


Dr. Robert Anda & Dr. Vincent Felitti
Investigators

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.



Adverse Childhood Experiences **ARE COMMON**

Household Dysfunction

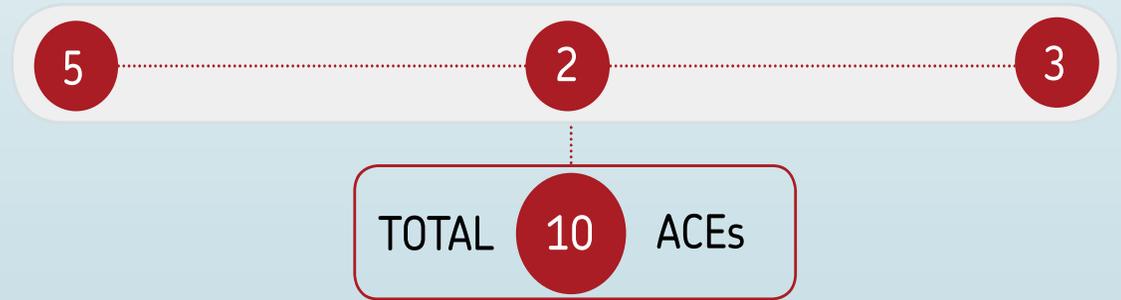
Substance Abuse	27%
Parental Sep/Divorce	23%
Mental Illness	17%
Battered Mothers	13%
Criminal Behavior	6%

Neglect

Emotional	15%
Physical	10%

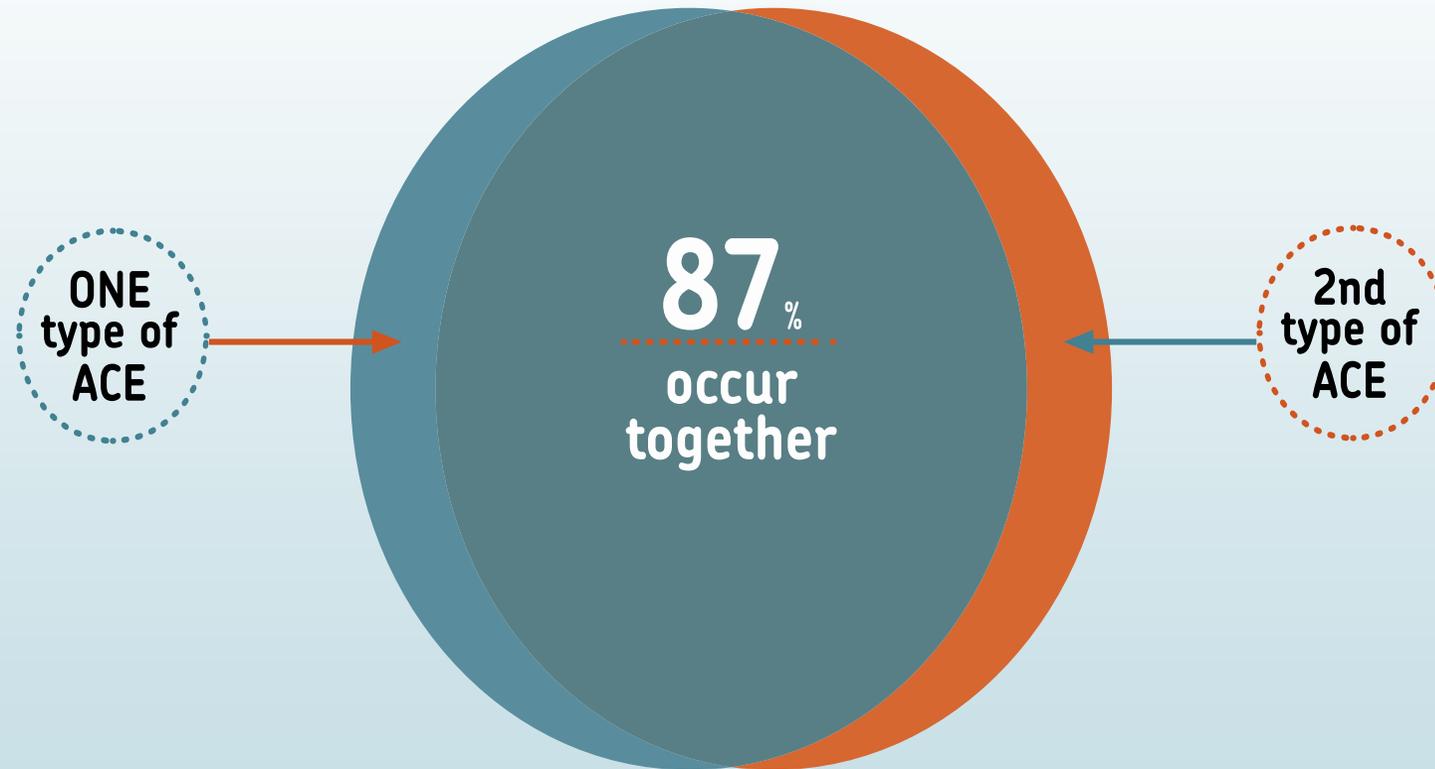
Abuse

Emotional	11%
Physical	28%
Sexual	21%

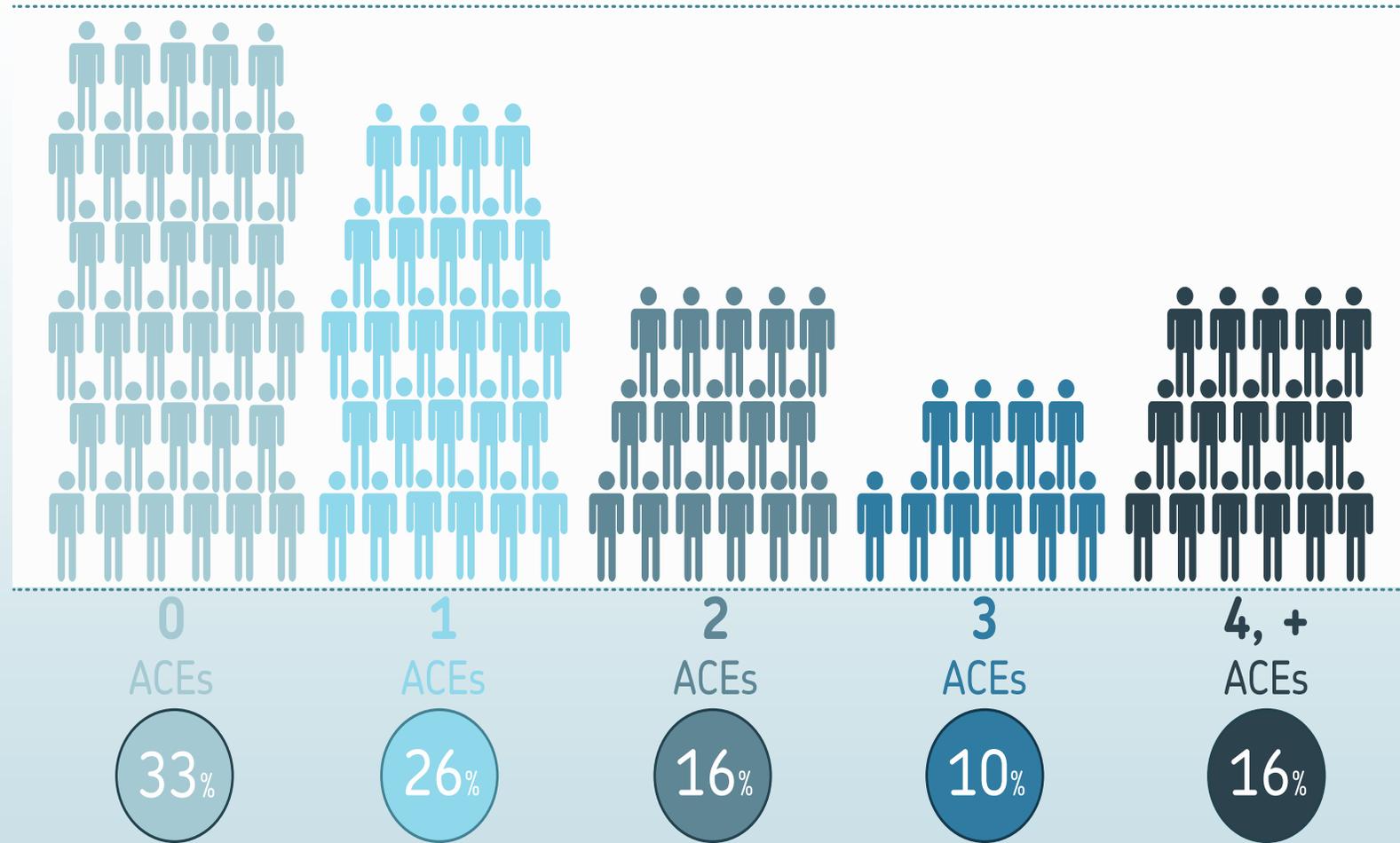


ACEs are Highly Interrelated:

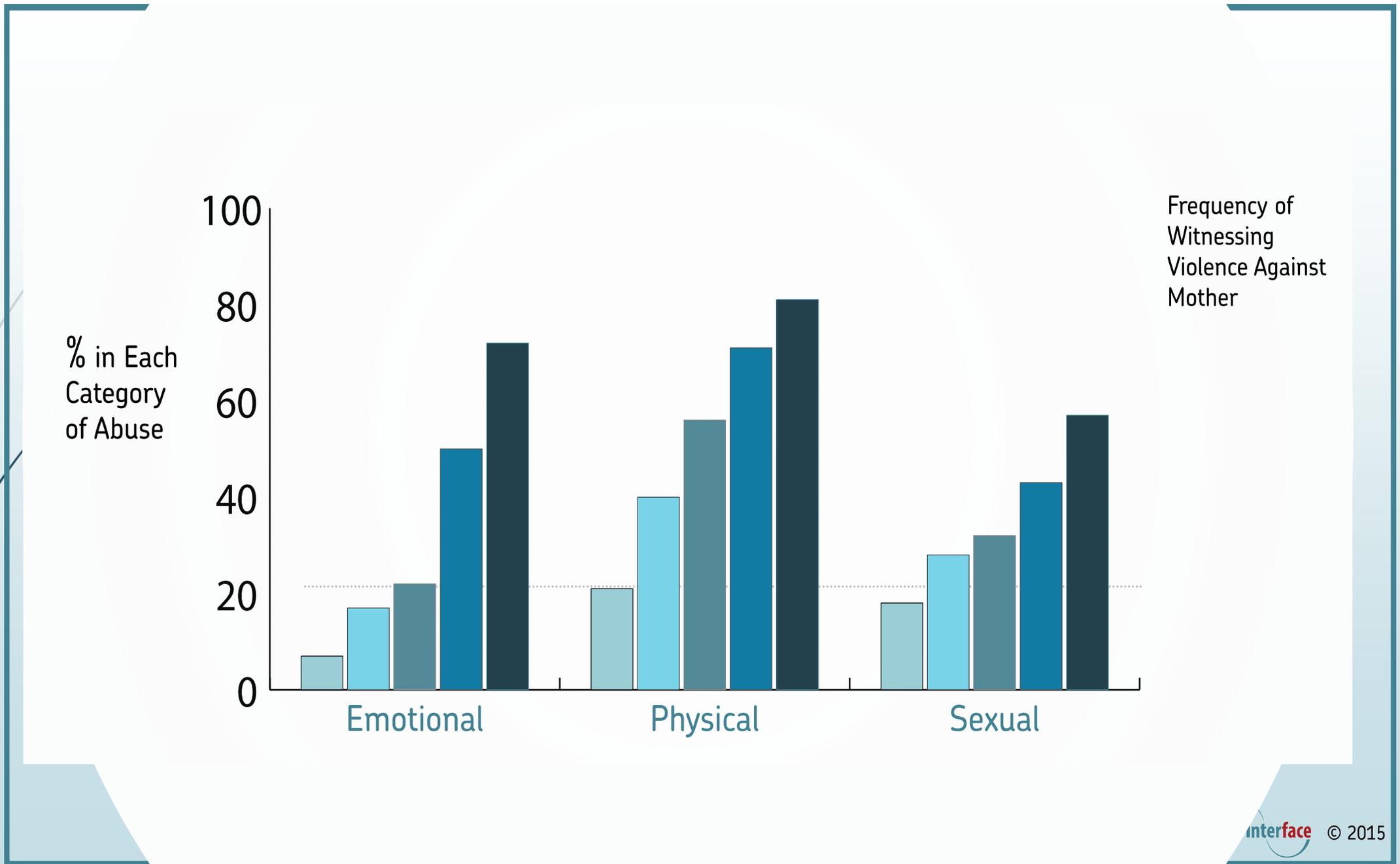
Where One ACE Occurs,
There are Usually Others



ACE Score = Number of ACE Categories



ACE Scores Reliably Predict Challenges During the Life Course



Domestic Violence In Wyoming (2015 data)





Data

- ▶ In Wyoming in 2016 we had 974 substantiated cases of abuse and neglect
- ▶ Of the substantiated cases, the three top reasons for entry into the system are
 - ▶ Substance abuse by adult care givers
 - ▶ Domestic Violence
 - ▶ Mental health issues of the adult care giver

ADVERSITY





Difficulty Concentrating

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

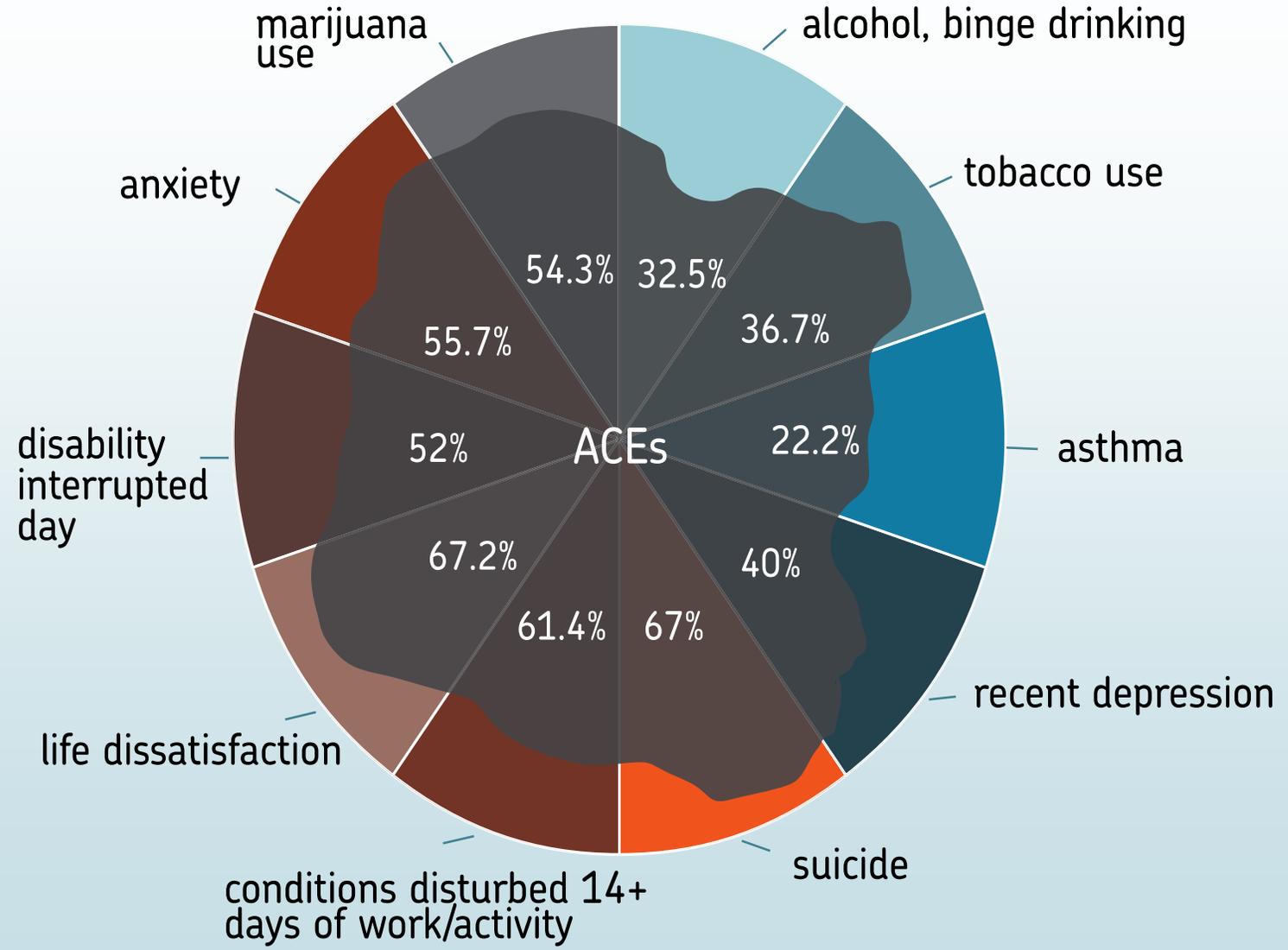
Smoking

Unintended Pregnancy

Violence

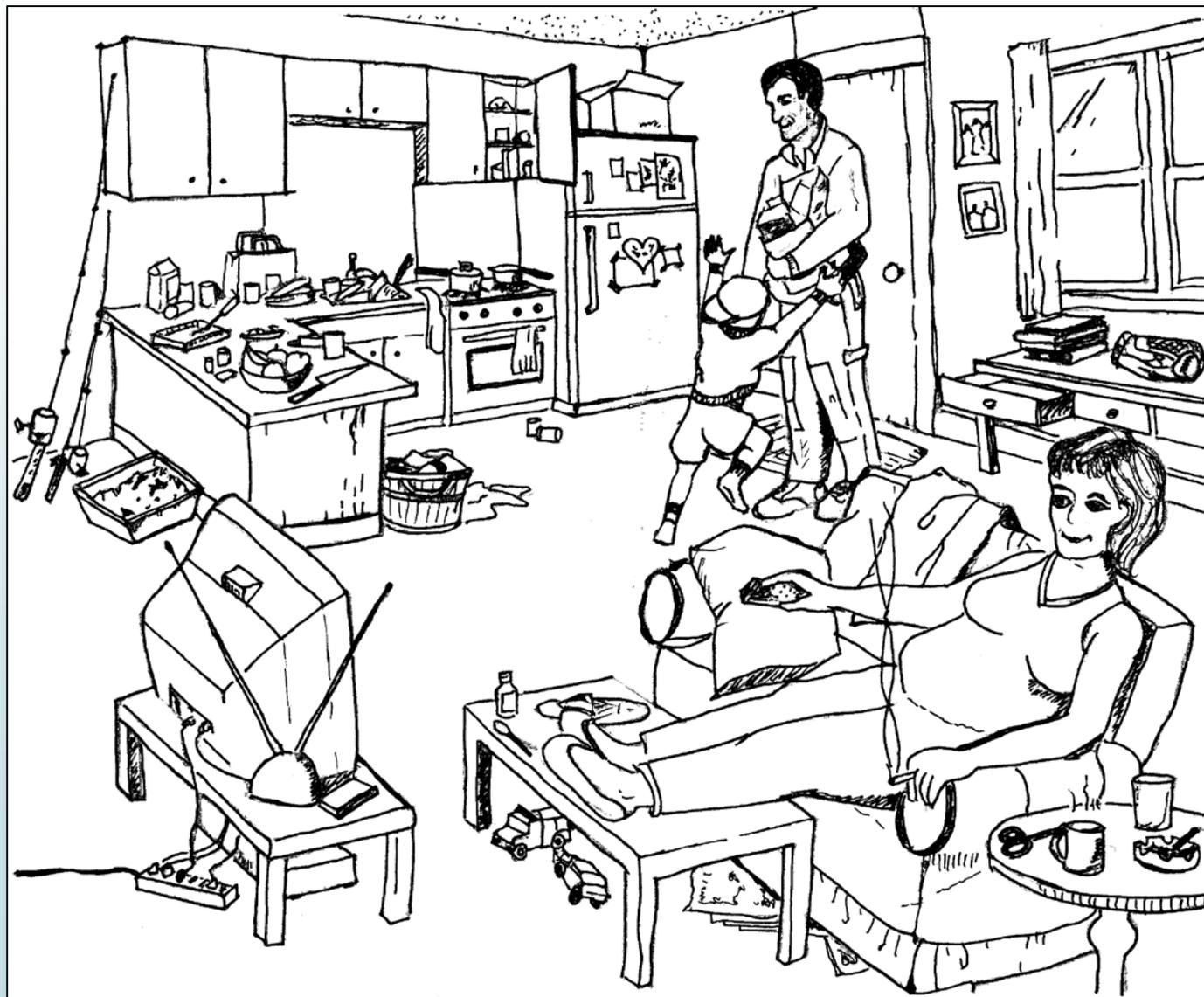
Workplace Problems

Population Attributable Risk



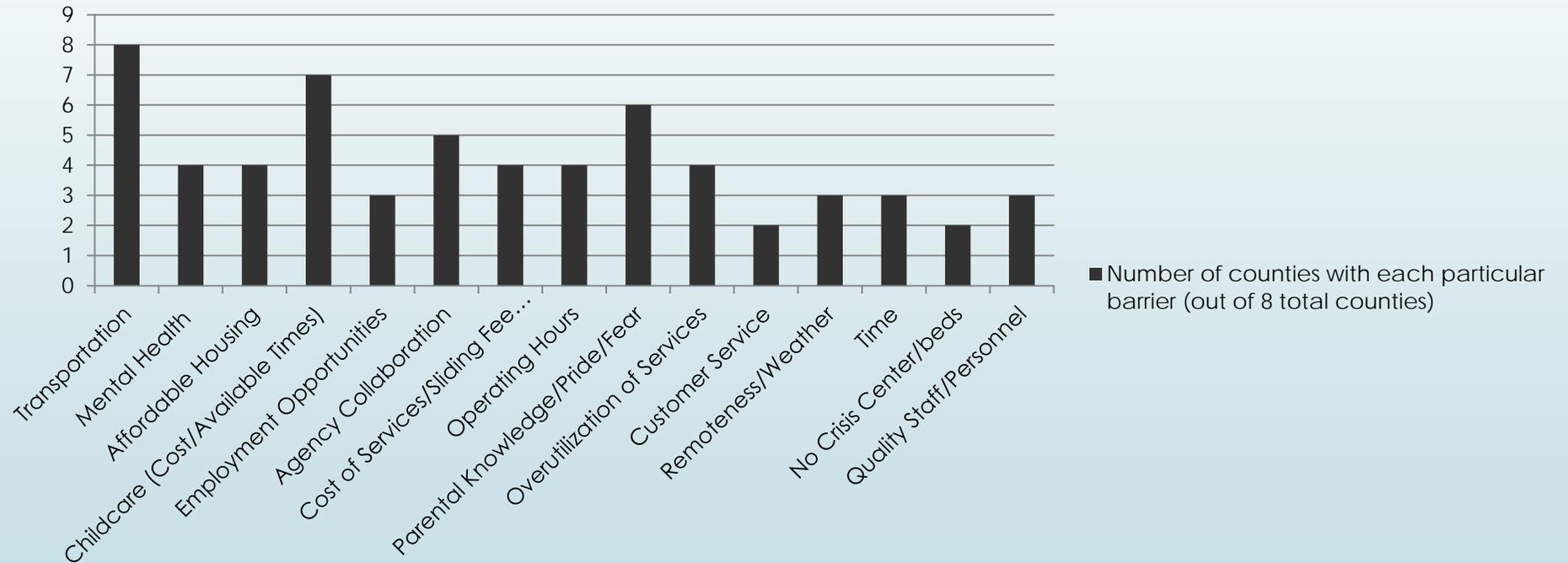
Controls: gender, age, income, education, race-ethnicity

Risk and Protective Factors Cartoon



Communities in Wyoming

Community Cafe Barrier Trends



A dark blue arrow points to the right from the left edge of the slide. Several thin, curved lines in shades of blue and grey originate from the left side and sweep across the slide towards the text.

Strengthening Families Protective Factors

- ▶ Parental Resilience
- ▶ Concrete Supports in Time of Need
- ▶ Social and Emotional Competence of Children
- ▶ Social Connections
- ▶ Knowledge of Parenting and Child Development

We

have a collective
CHOICE





H.O.P.E.

Health Outcomes from Positive Experiences

- ▶ Dr. Robert Sege from Boston
 - ▶ Building Strong Connections for Families based on positive experiences
 - ▶ Two main points of his findings
 - ▶ Communities need to accept mutual responsibility
 - ▶ At some point we all need help and empowering people to ask for it

CHANGE is up to US



the way we relate with one another in relationships, in families, and in communities.

Thank You!!

QUESTIONS

