

Understanding Adverse Childhood Experiences

Building Self-Healing Communities

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www.aceinterface.com

Unity Transformation

Unity: the state of being united
or joined as a whole

Unity...
is being together or at one with
someone or something

It's the opposite of being divided

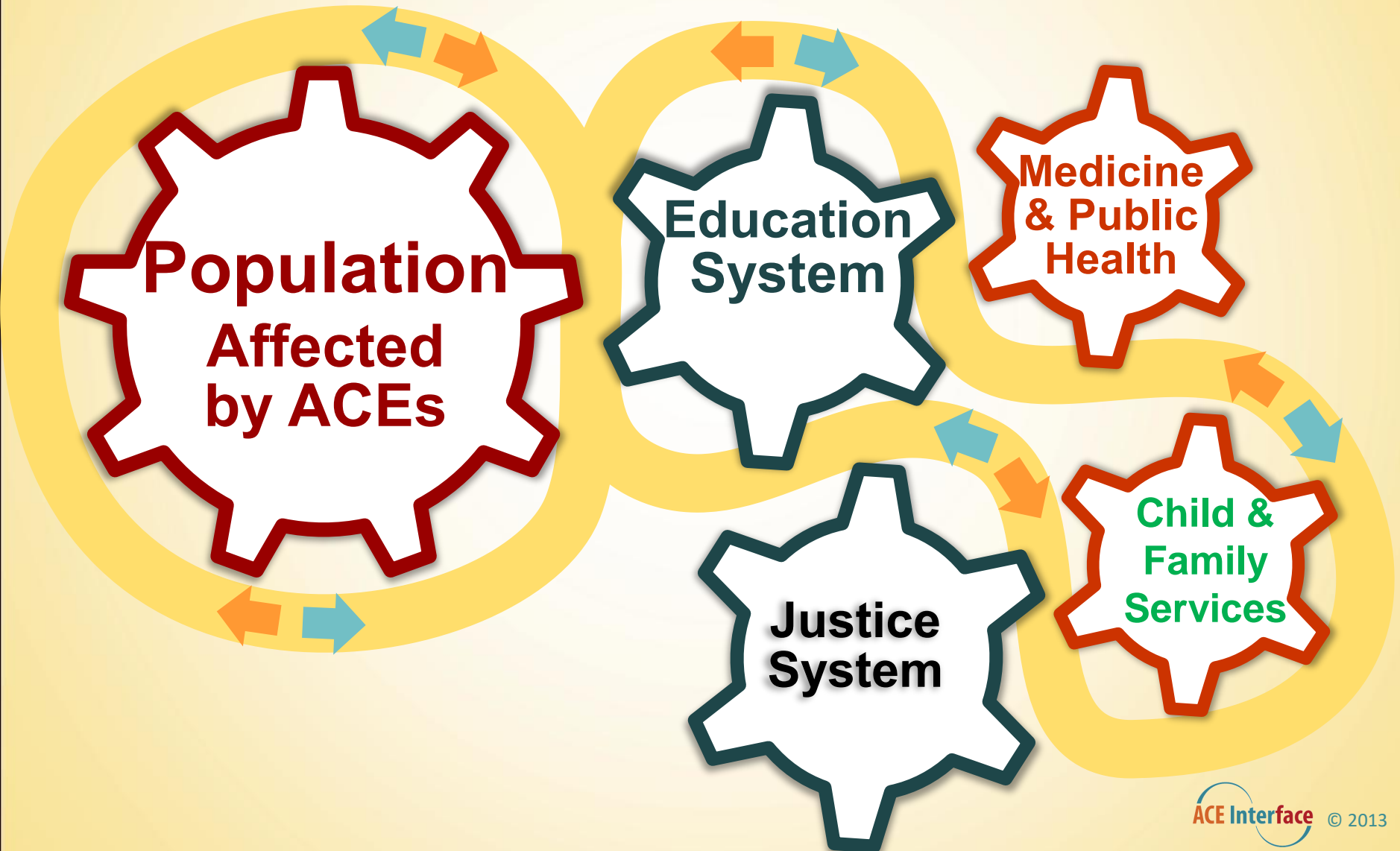
Transformation..

a metamorphosis during the life
cycle of a living being



The Walk to
Paradise Garden
W. Eugene Smith

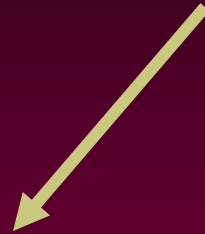
Building Self-Healing Communities



The Biology of Adversity

Stress

(adrenaline, cortisol)



**Unpredictable
Severe**

**Predictable
Moderate**

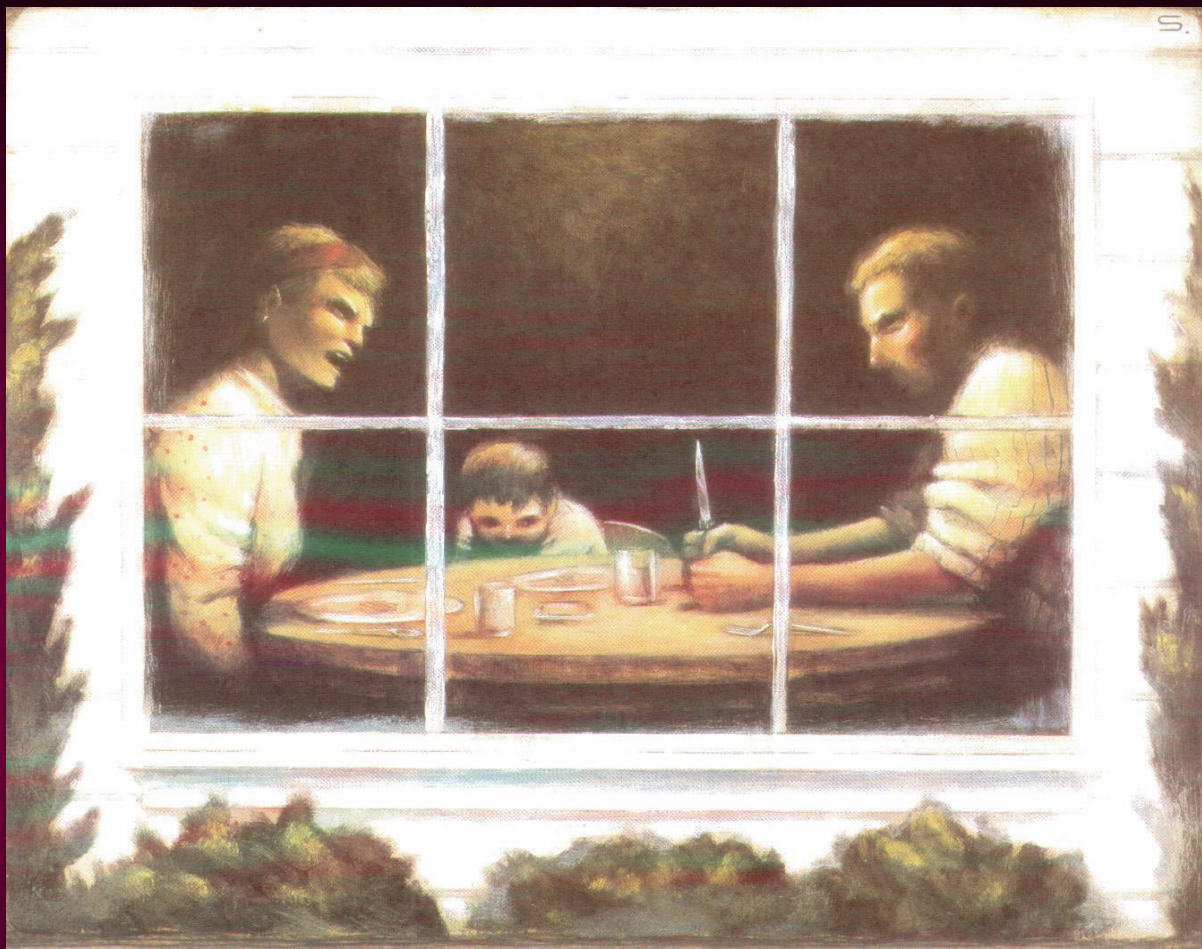
*Brain development
Epigenetics*

*Number of Episodes
Chronicity*



Higher Vulnerability

Lower Vulnerability



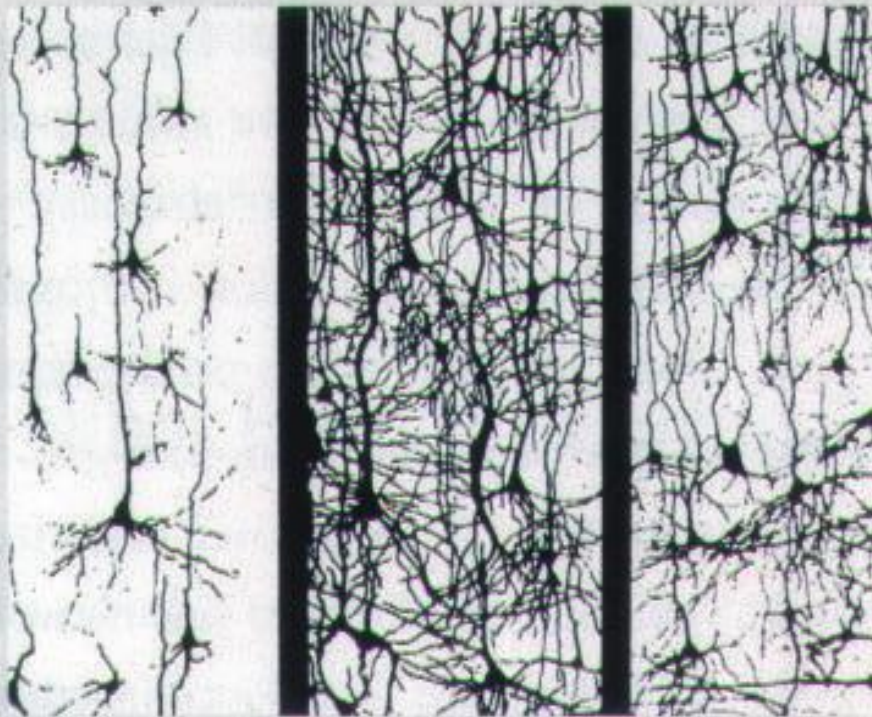
Seeing the Pain

America's physicians confront family violence

At Birth

6 Years Old

14 Years Old



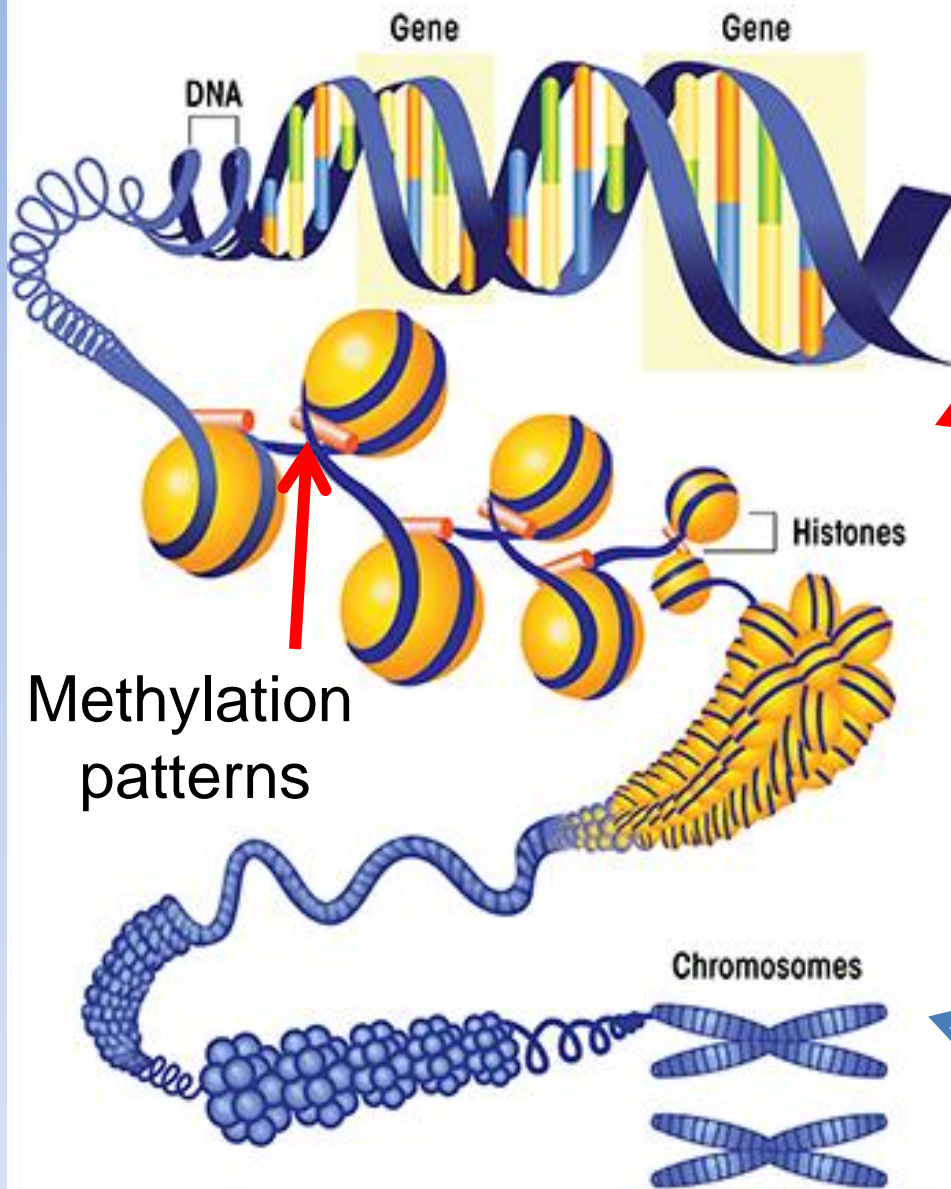
What gets
experienced
gets wired...

Adaptation

SYNAPTIC DENSITY: Synapses are created with astonishing speed in the first three years of life. For the rest of the first decade, children's brains have twice as many synapses as adults' brains.

Drawings supplied by H.T. Chugani.

Functioning of the Genome--Epigenetics



epigenetics

ACEs
Influence
Gene expression

Chromosomes
tightly packed DNA

Memory of our experiences IS STORED IN OUR BODY



Death

Early
Death

Disease,
Disability, and
Social Problems

Adoption of
Health-risk Behaviors

Social, Emotional, and
Cognitive Impairment

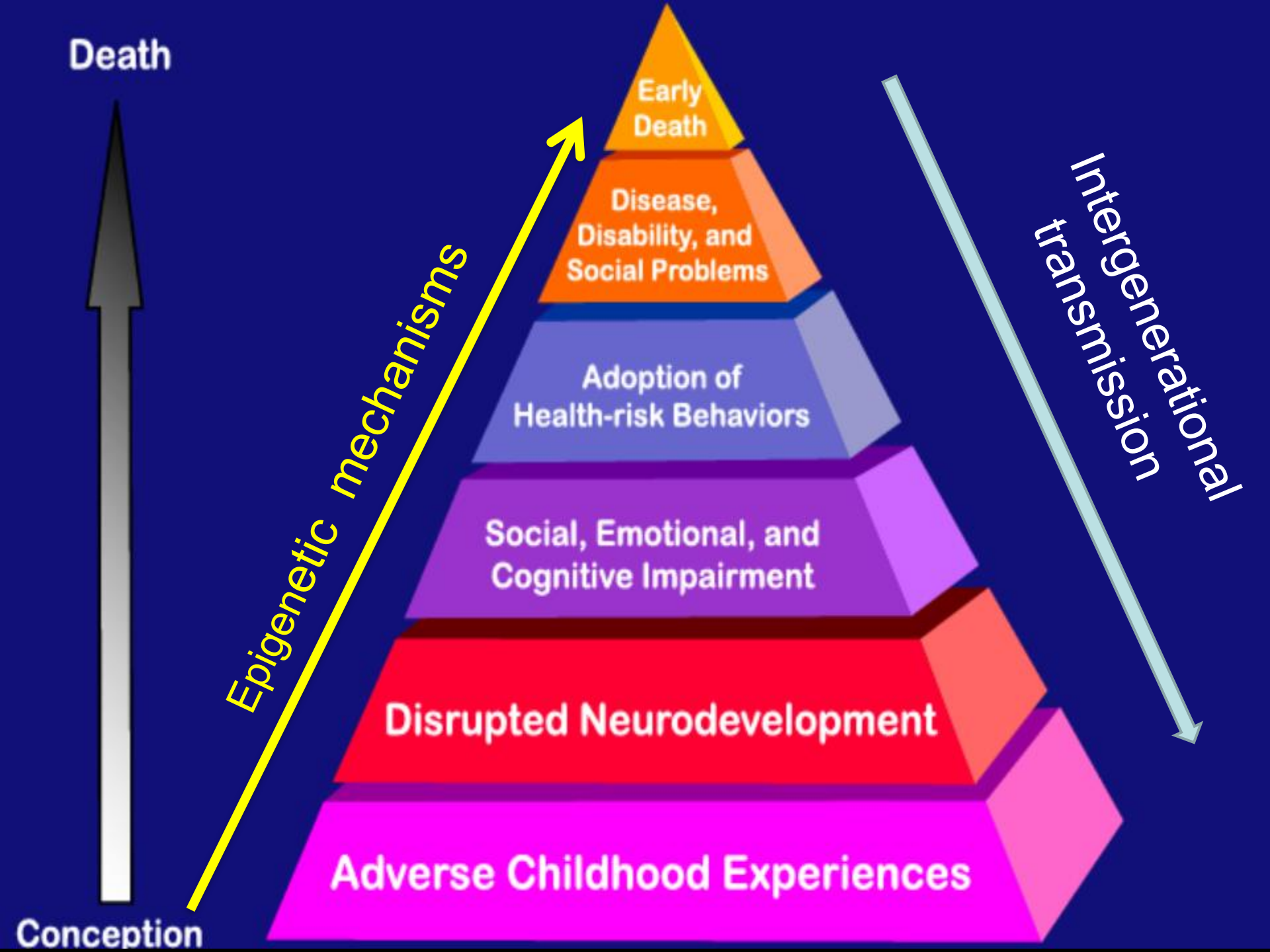
Disrupted Neurodevelopment

Adverse Childhood Experiences

Epigenetic mechanisms

*Intergenerational
transmission*

Conception



Adverse Childhood Experiences Are Common

Household dysfunction:

Substance abuse	27%
Parental sep/divorce	23%
Mental illness	17%
Battered mother	13%
Criminal behavior	6%

Abuse:

Emotional	11%
Physical	28%
Sexual	21%

Neglect:

Emotional	15%
Physical	10%

Adverse Childhood Experiences Rarely Occur in Isolation...

They come in groups.

ACEs tend to come in groups...

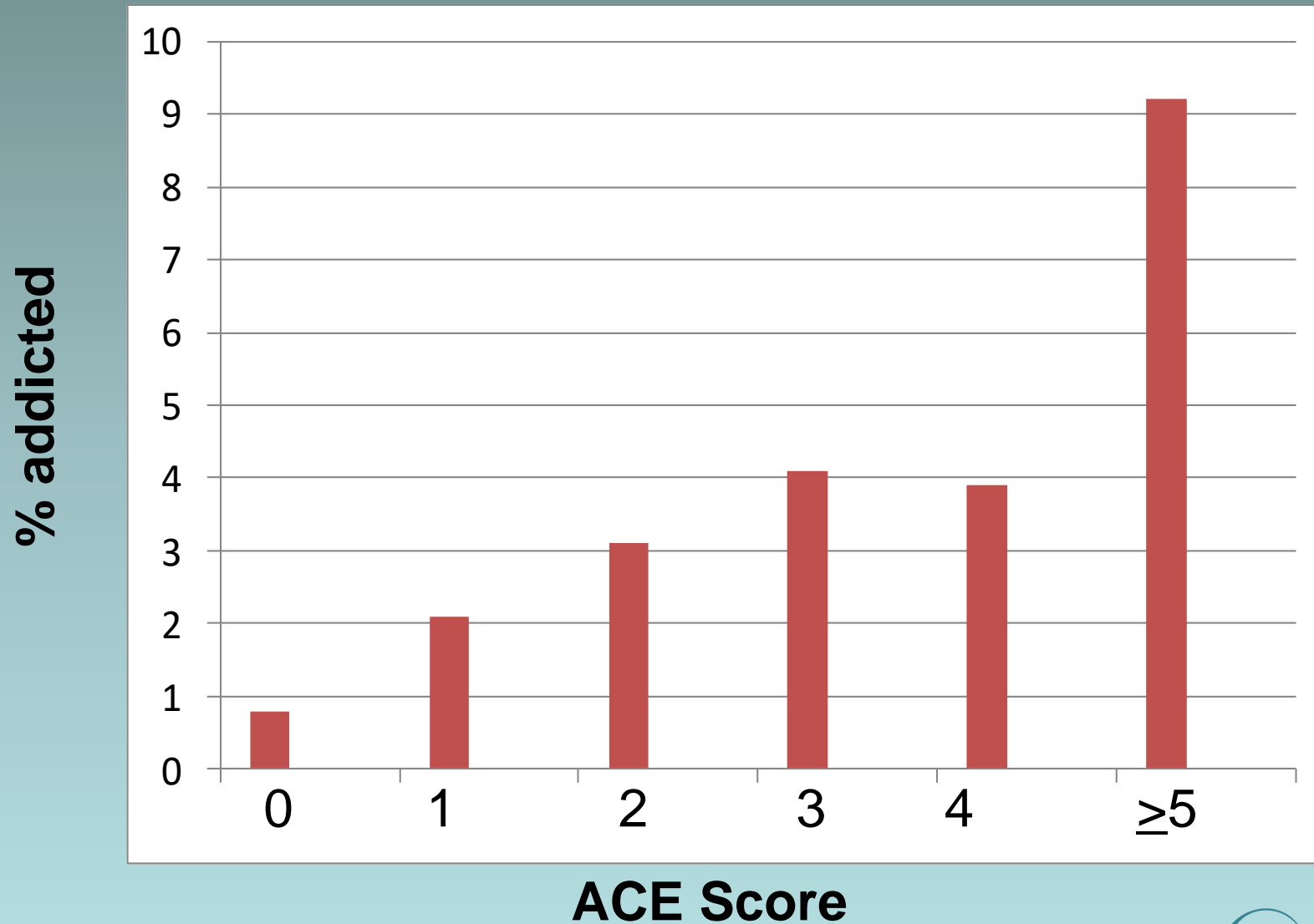
	Additional ACEs (%)			
	1	2	3	4 or more
<i>If you grew up with:</i>				
<i>Household</i>				
<i>Substance Abuse</i>	81	60	41	58

Adverse Childhood Experiences Score Biologic Stress “Dose”

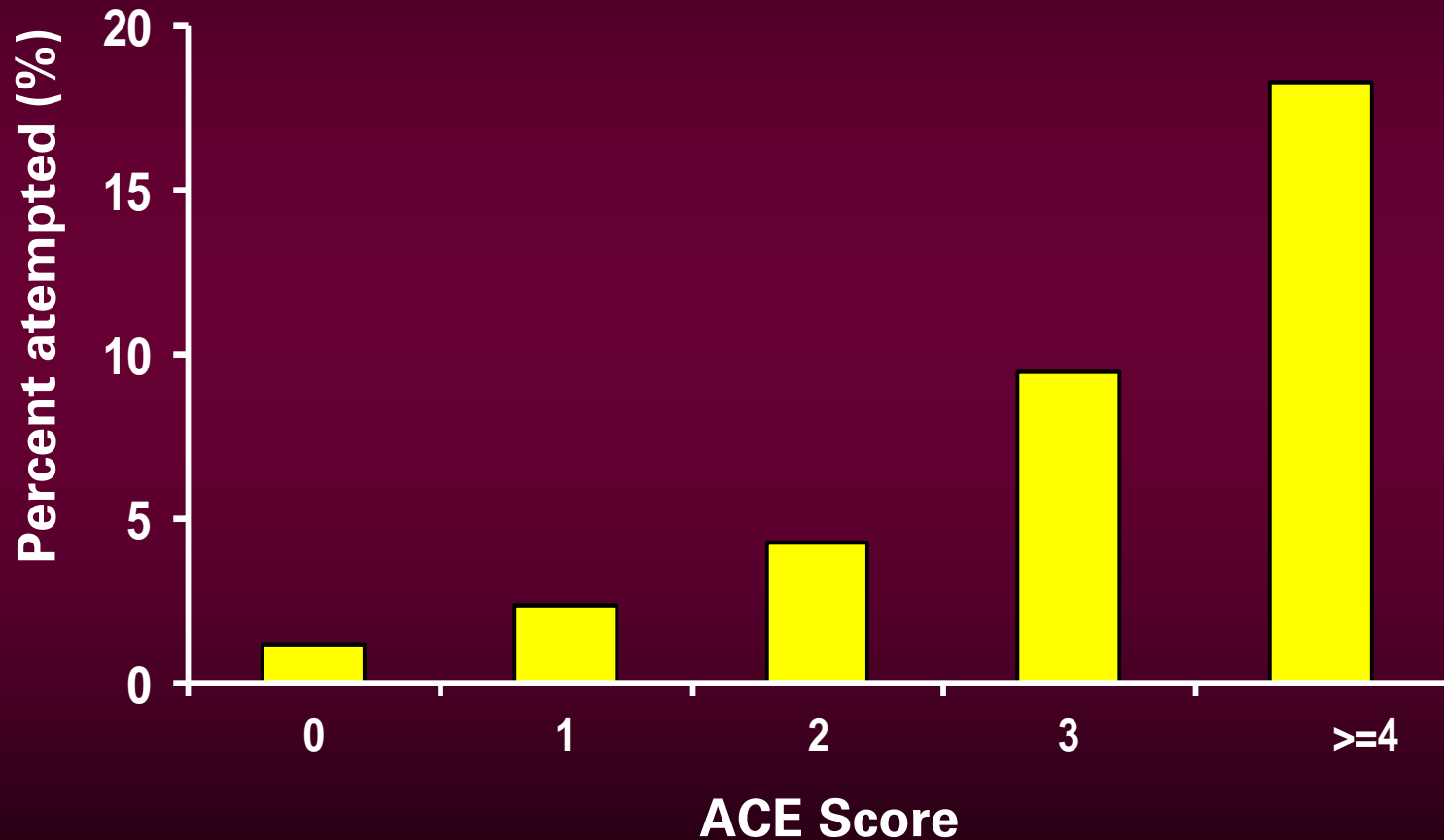
<u>ACE Score</u>	<u>Prevalence</u>
0	33%
1	26%
2	16%
3	10%
4 or more	16%

Mental Health and Substance Abuse

ACE Score and Ever Addicted to Drugs

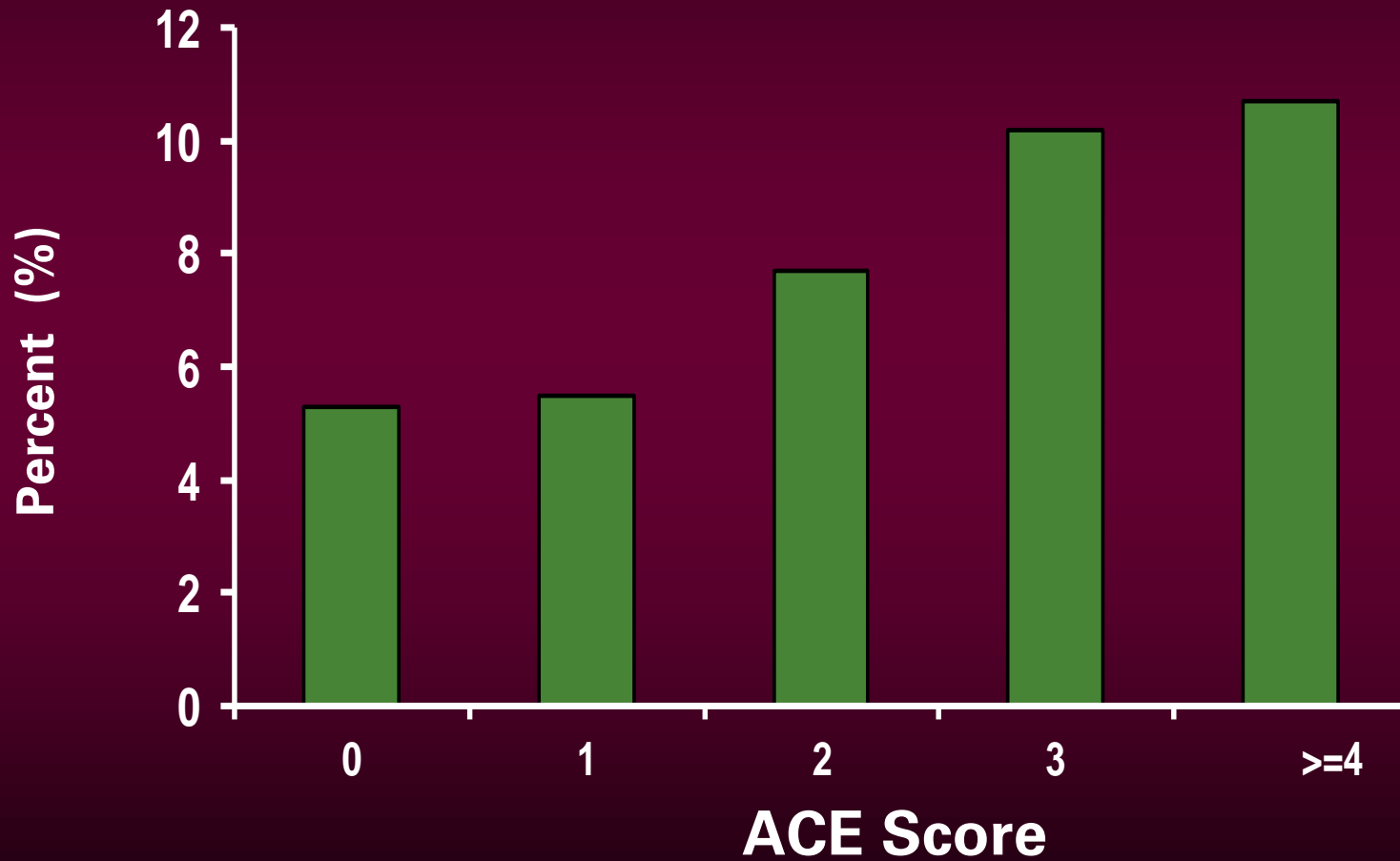


The ACE Score and the Prevalence of Attempted Suicide

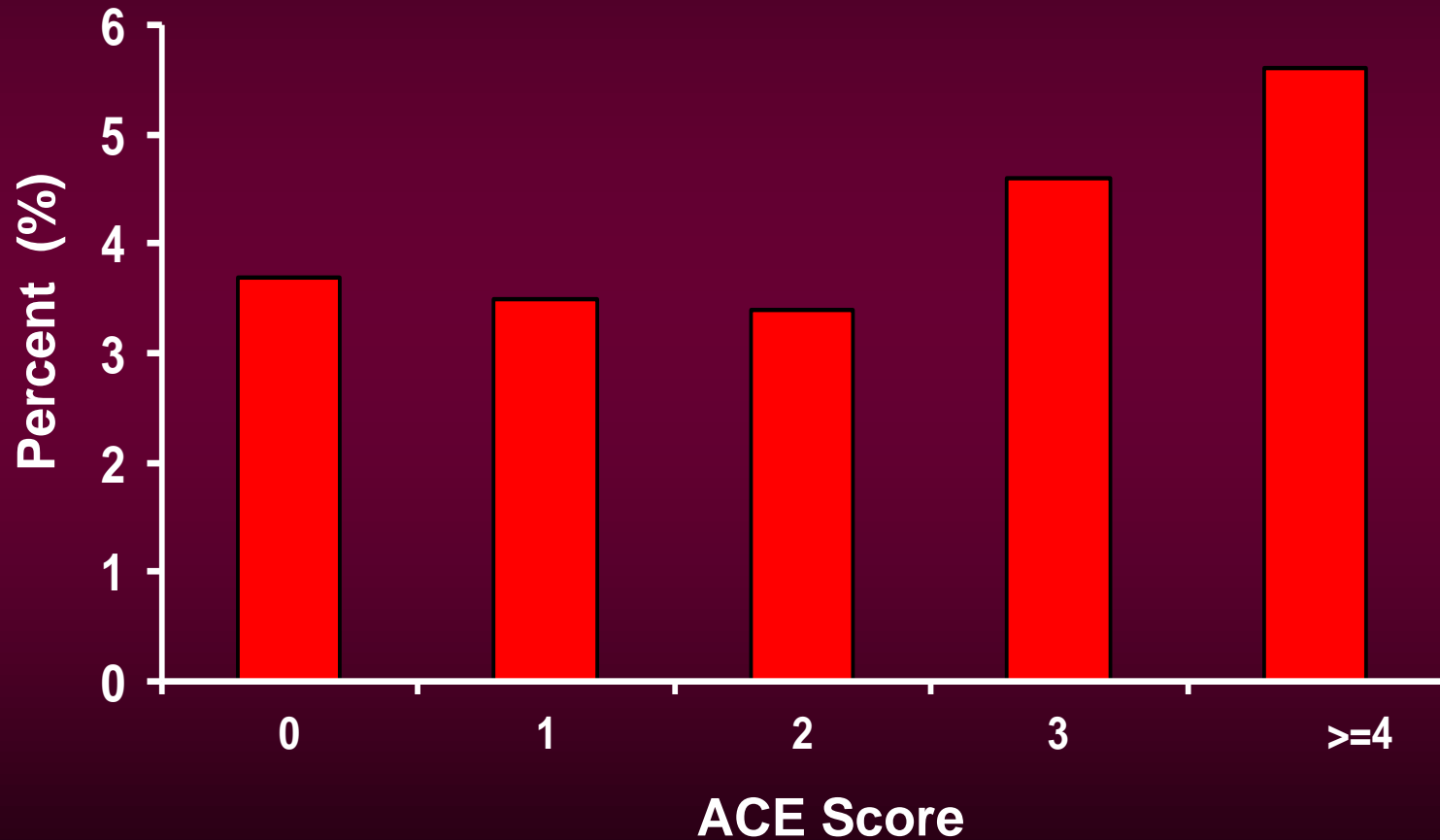


ACEs are a Pathway to Disease

The ACE Score and Liver Disease



The ACE Score and Coronary Heart Disease



Adverse Childhood Experiences
have a strong influence on common
health and social problems:

- adolescent health
- reproductive health
 - smoking
 - obesity
 - alcohol abuse
 - illicit drug abuse
 - sexual behavior
 - mental health
- risk of violence and revictimization
 - stability of relationships
 - performance in the workforce

ACEs Increase the Risk for Chronic Diseases

- **Heart disease**
- **Chronic lung disease**
- **Stroke**
- **Diabetes**
- **Cancer**
- **Lung cancer**
- **Liver disease**
- **Suicide**
- **Injuries**
- **HIV and STDs**

-Autoimmune diseases

-Premature mortality

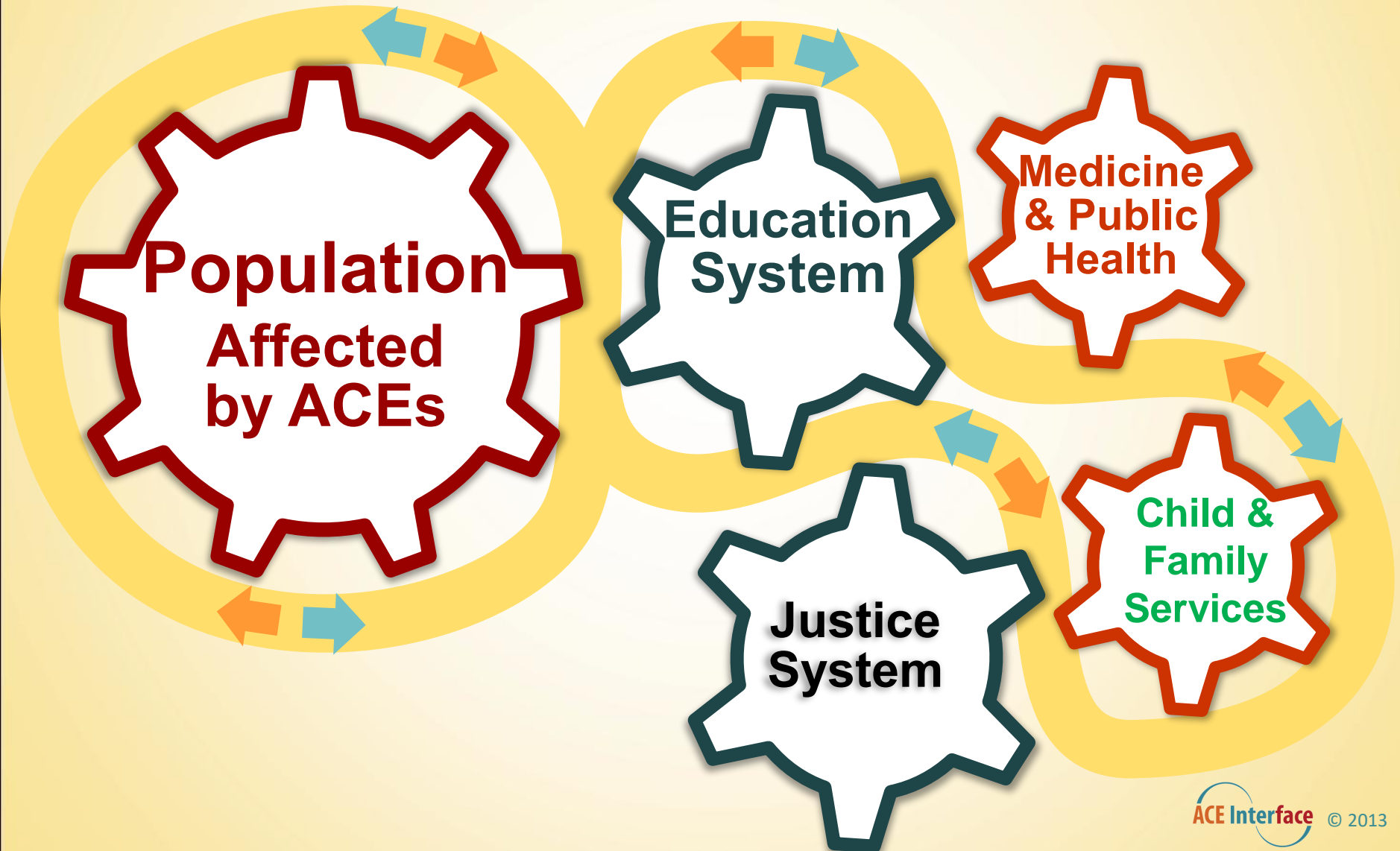
ACEs are not a disease!

ACEs are not a “condition”

ACEs Are **Not Destiny**

ACEs Tend to Create Risk

Building Self-Healing Communities



Impact of ACEs on Student Learning

Among Elementary Students with 3 or more ACEs The Risk of Multiple Problems Increase

-Academic failure: 3 times

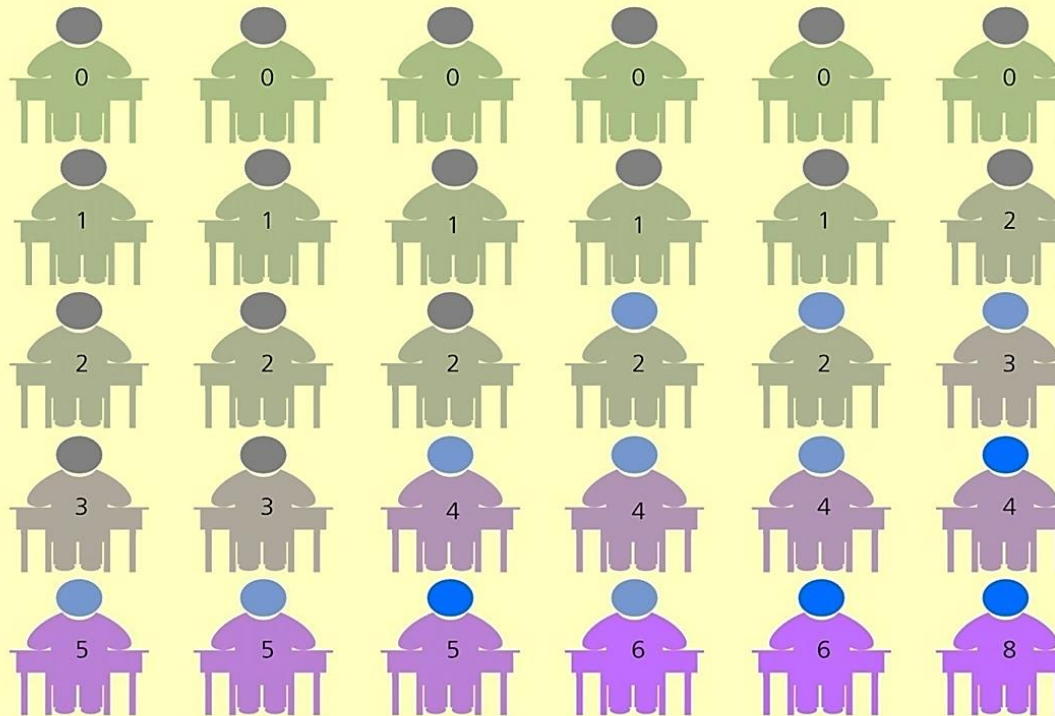
Poor Health: 4 times

-Severe Attendance Problems: 5 times

-Severe Behavior Problems: 6 times

**▪ Source: Chris Blodgett, PhD
Washington State University**

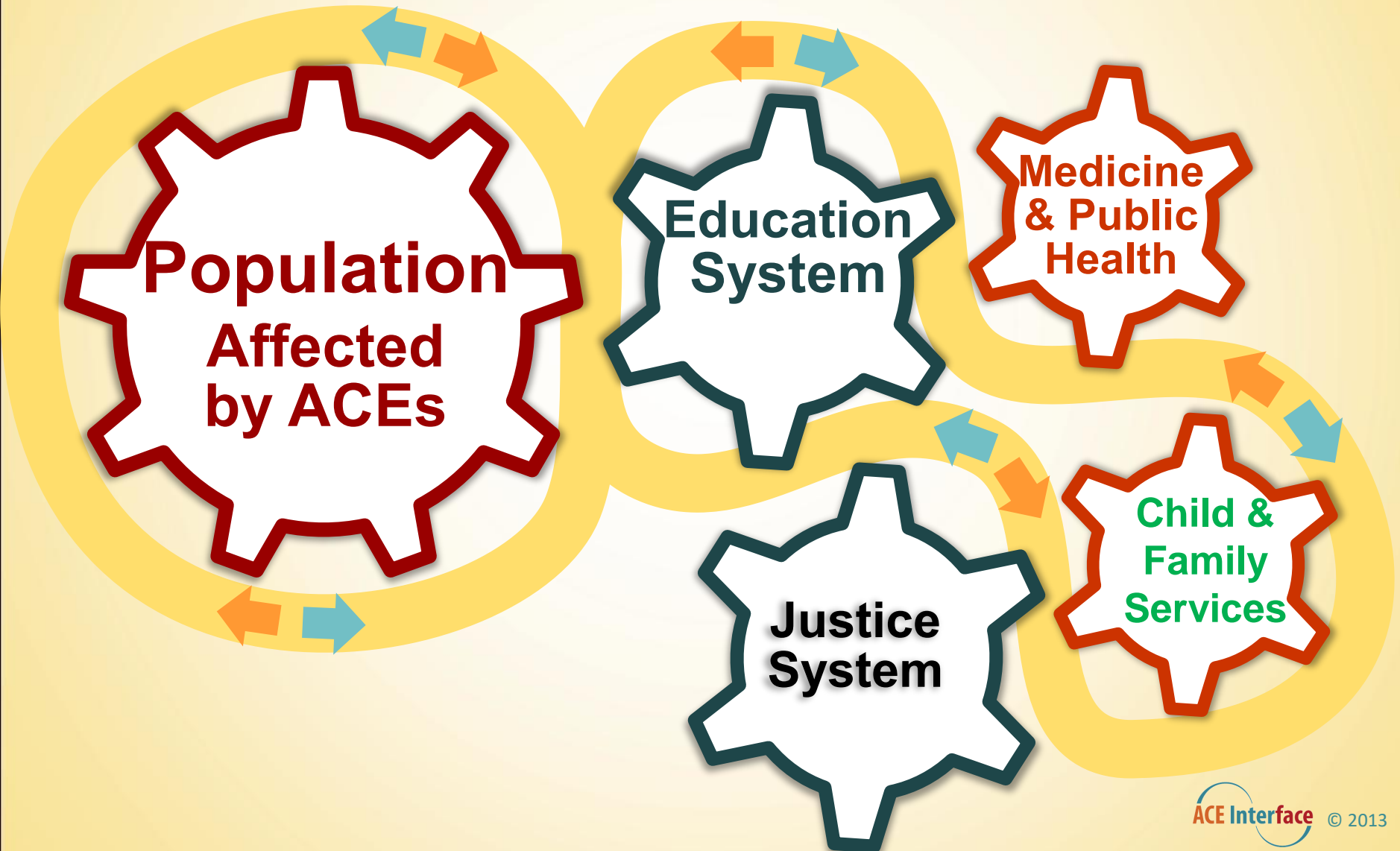
6 students with no ACE
5 students with 1 ACE
6 students with 2 ACEs
3 students with 3 ACEs
7 students with 4 or 5 ACEs
3 students with ≥ 6 ACEs



Average High School Classroom

42% have ≥ 3 ACEs

Building Self-Healing Communities



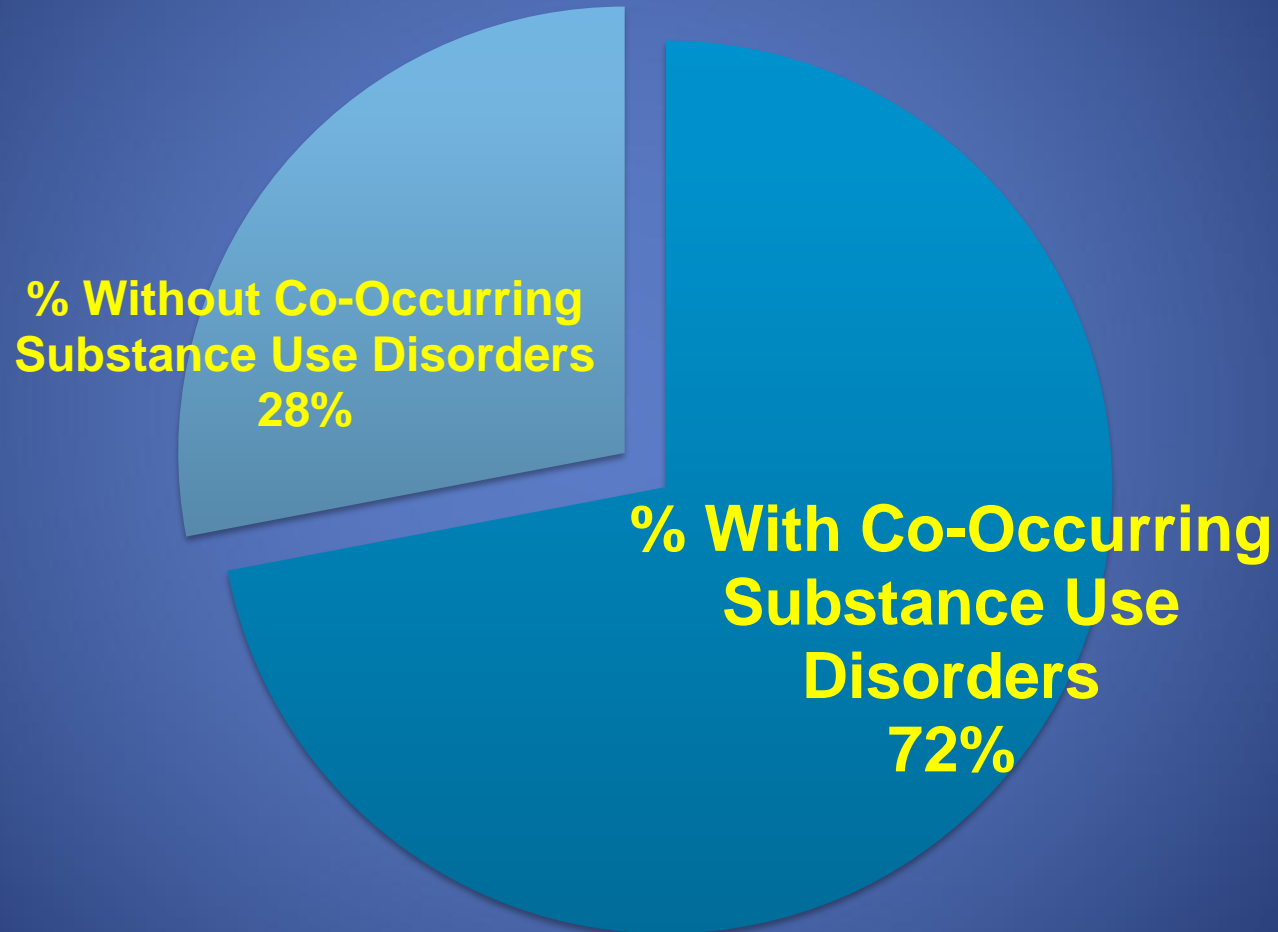
Implications for the Justice System

The Prison Pipeline

Large numbers of youth in the juvenile justice system are experiencing mental health disorders

Prevalence of Mental Disorders- Findings From Recent Studies	Positive Diagnosis
NCMHJJ (2006)	70.4%
Teplin et al. (2002)	69.0%
Wasserman et al. (2002)	68.5%
Wasserman, Ko, McReynolds (2004)	67.2%

Most have co-occurring substance abuse disorders



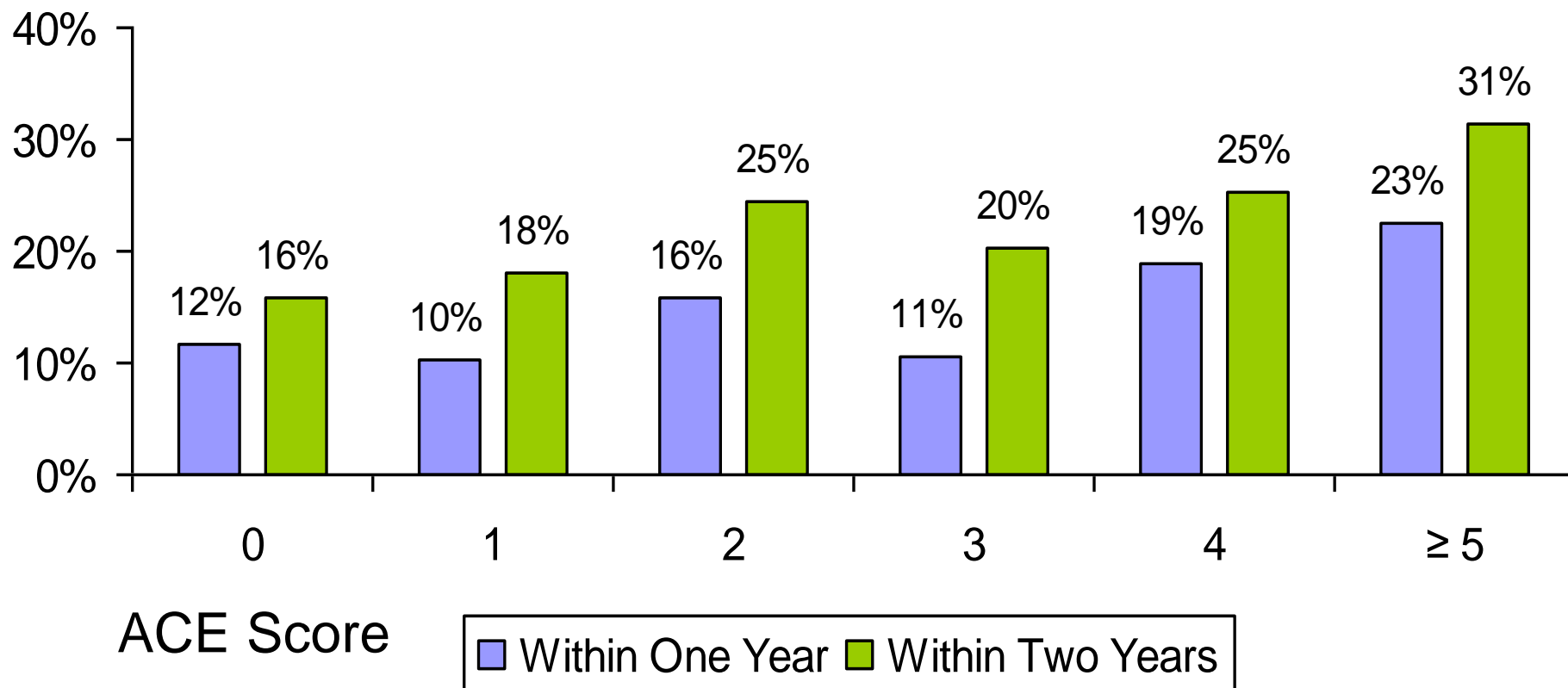
Source: The National GAINS Center, 2004



ACE Score and Felony Re-offense

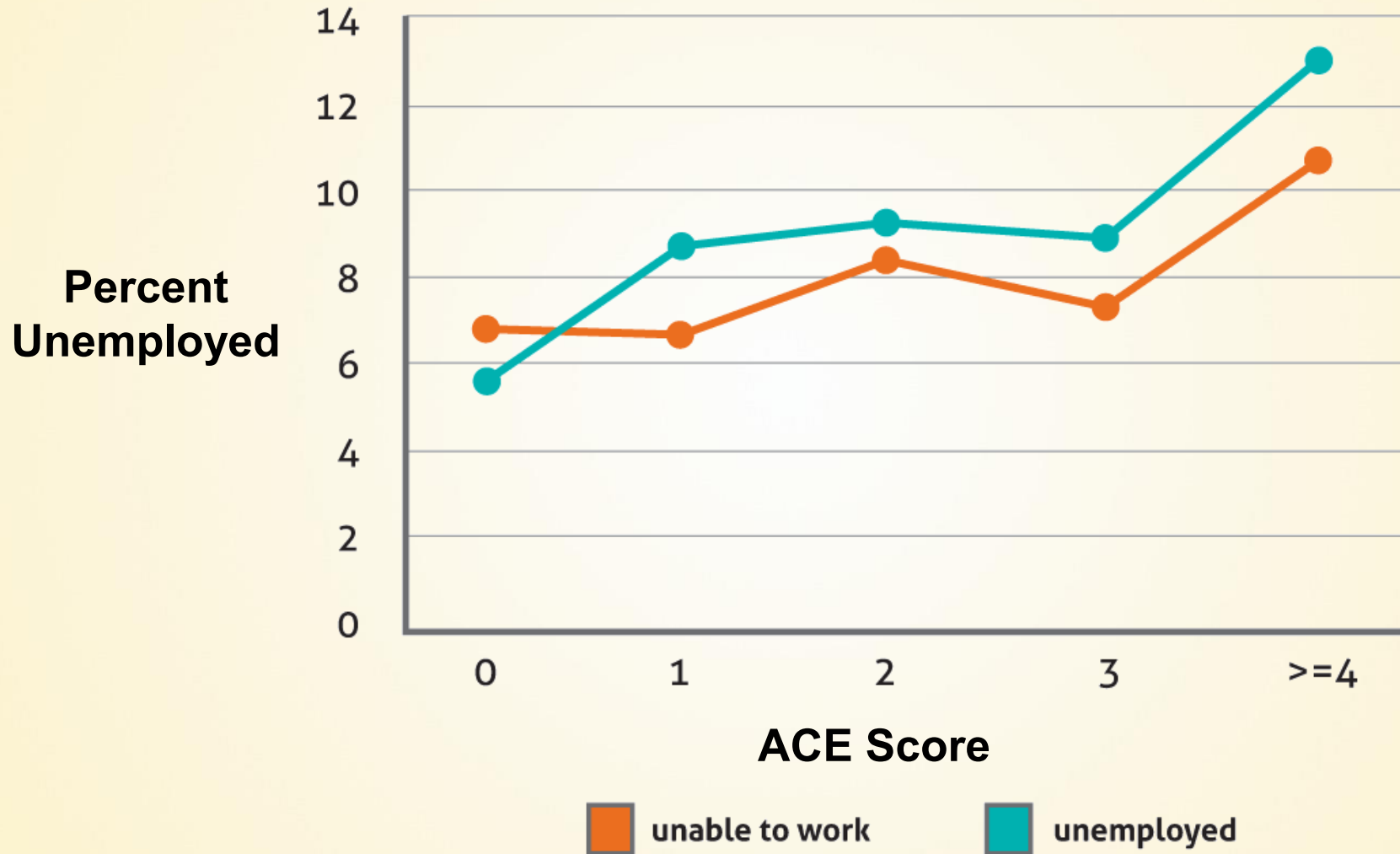
Tacoma
Urban
Network

Felony Re-offense Post Probation and ACE Score



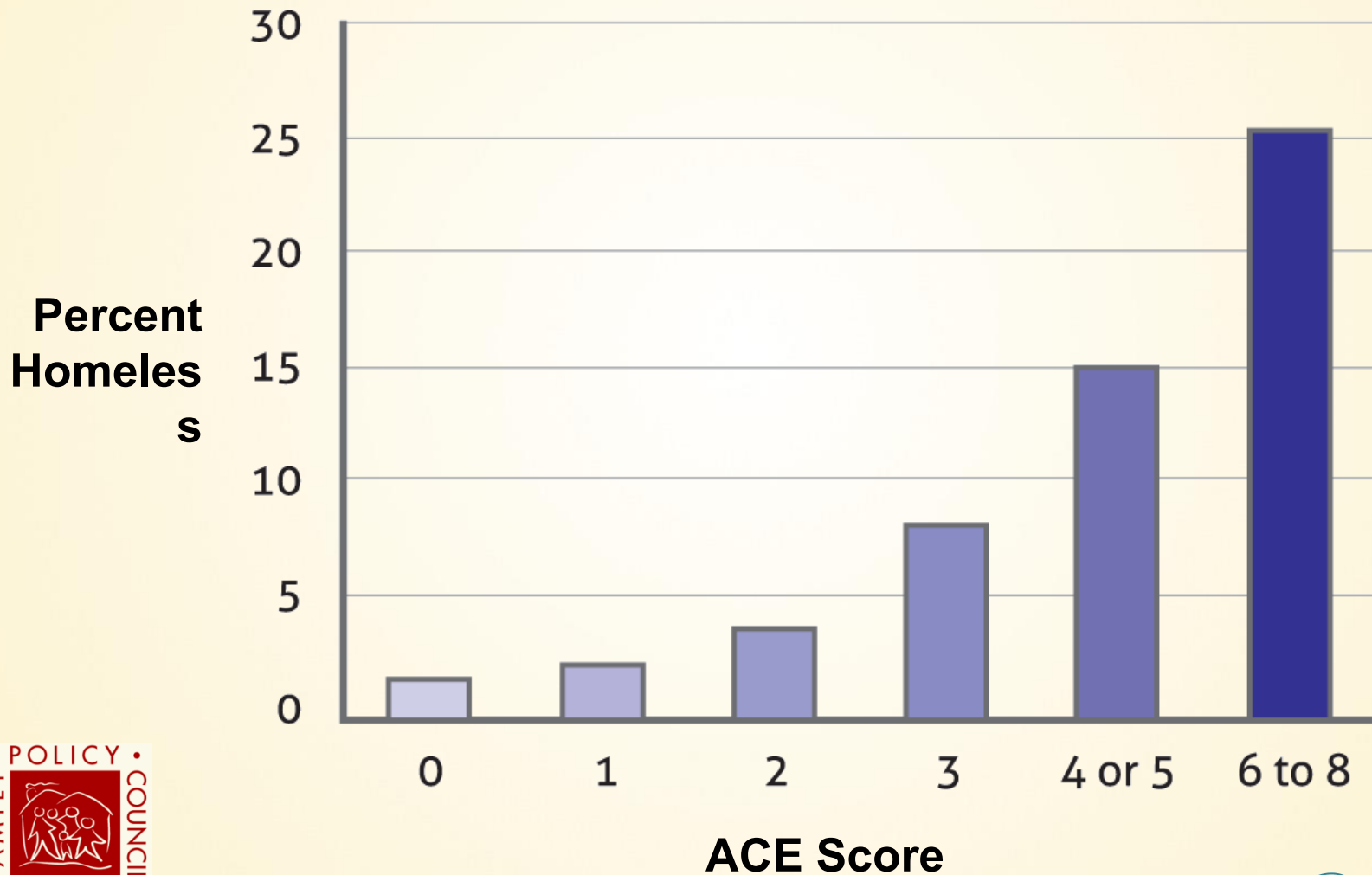
Pathways to Poverty

ACEs and Unemployment



Source: Soc Psychiatry & Epidemiology; Liu, et al., (2013)

ACEs and Adult History of Homelessness Washington State, BRFSS



ACEs Lead to *Adaptations With a Downside*



A n x i e t y
D e p r e s s i o n

Difficulty Concentrating

SMOKING

Being Trauma Informed

It's not what's WRONG with you...

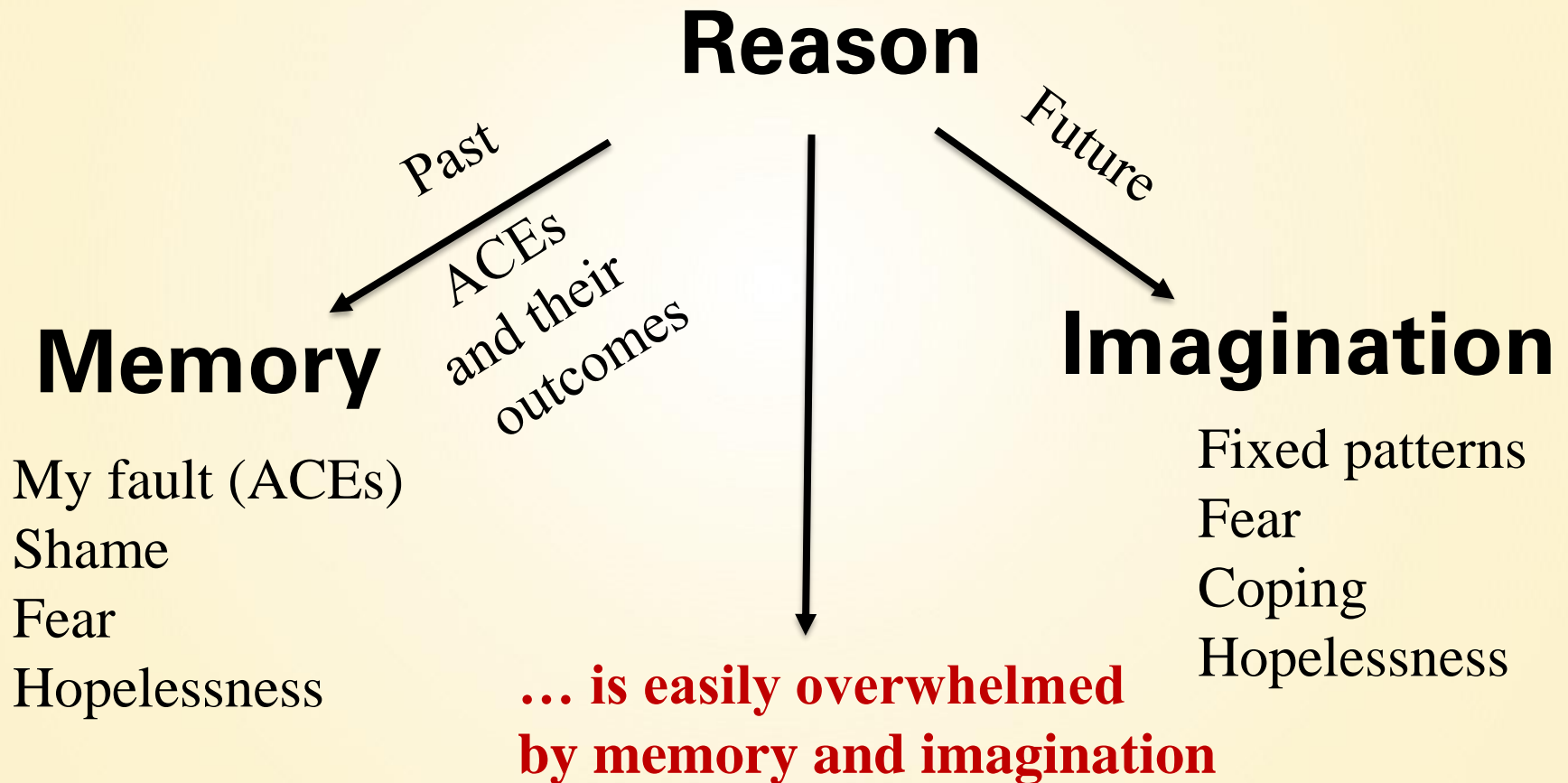
It's what HAPPENED to you...

“The Kiss”

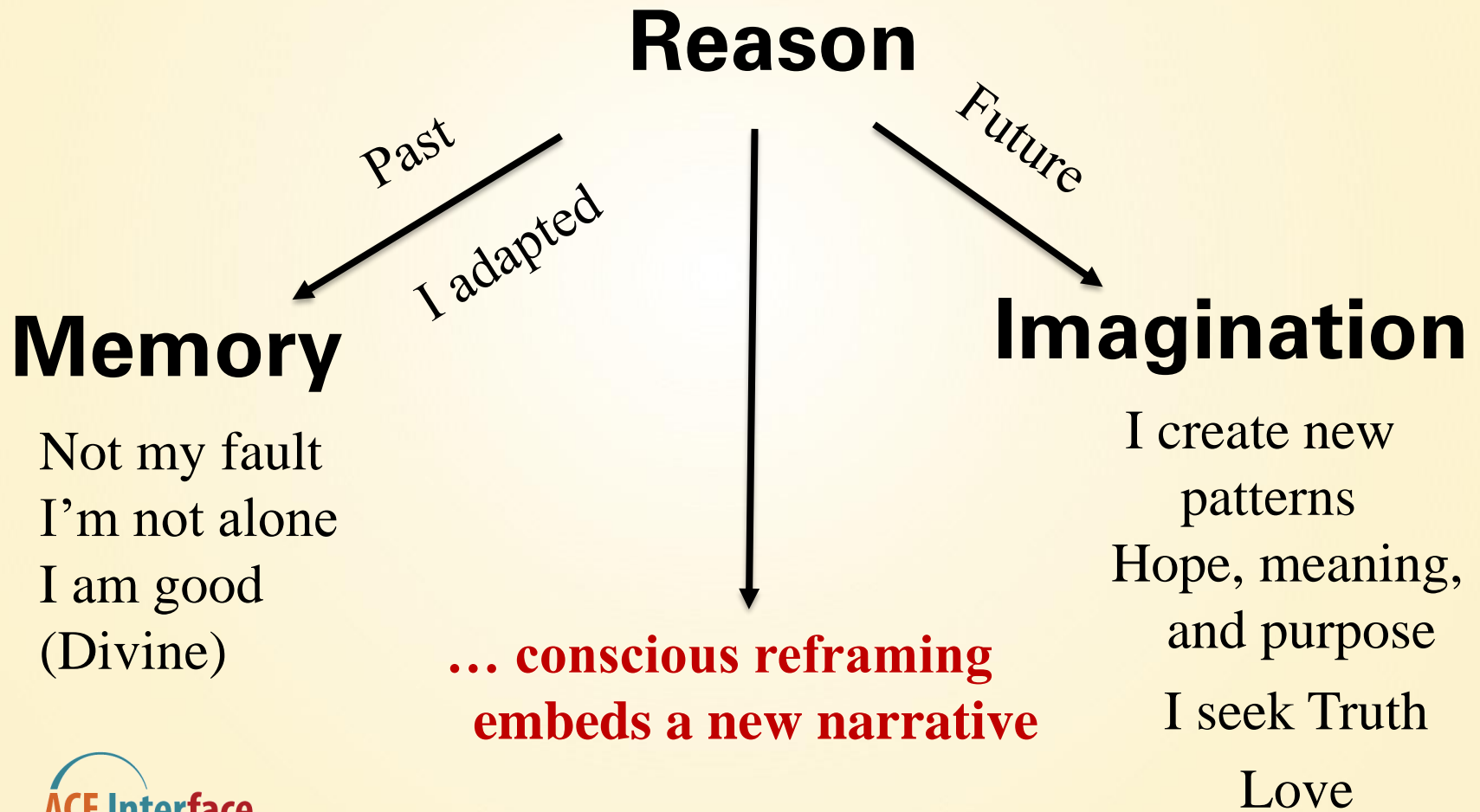
**Constantin Brancusi
1909**



Faculties of the Mind (Consciousness)



Understanding ACEs (Reframing Consciousness)



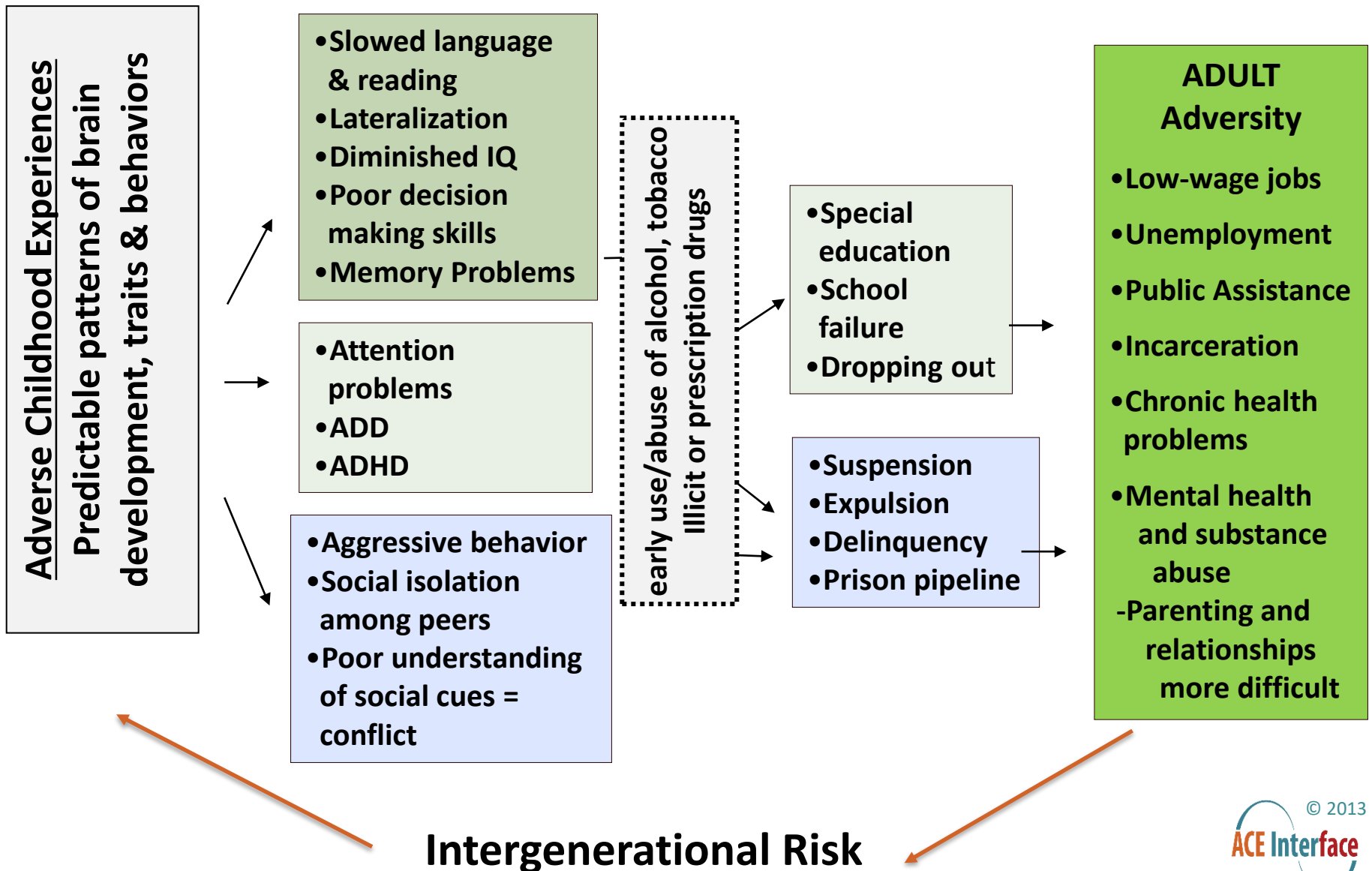
Power of the ACE Study?

-A Common Language

-And Conceptual Framework

- **ACEs are common**
 - **ACEs are highly interrelated**
 - **ACEs “pile up” and have a cumulative impact (ACE Score)**
 - **ACEs account for a large percentage of health and social problems**
 - **Biologic Understanding
(Neuroscience and Epigenetics)**
- Gateway to Empathy, Compassion,
and Healing**

The Progressive Nature of Adversity in the Life-Course



A Focus on Prevention..

Two Fundamental Questions

Are we...

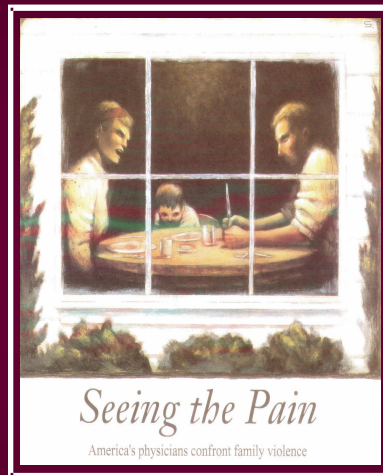
- Slowing or halting the progression of adversity in the life course?**
- Reducing the intergenerational transmission of adversity?**

Understanding ACEs Has A Unifying Effect...



Unify

Transform



Building Self-Healing Communities

