

Does Trauma Affect Academic Performance?
You bet your **ACE**.

MAPSA Fall Symposium

Shawna Boomgaard, LMSW, ACTP
Julie Hopper, ACE Master Trainer

December 11th, 2019



A Little Bit About Julie Hopper





A Little Bit About Shawna Boomgaard



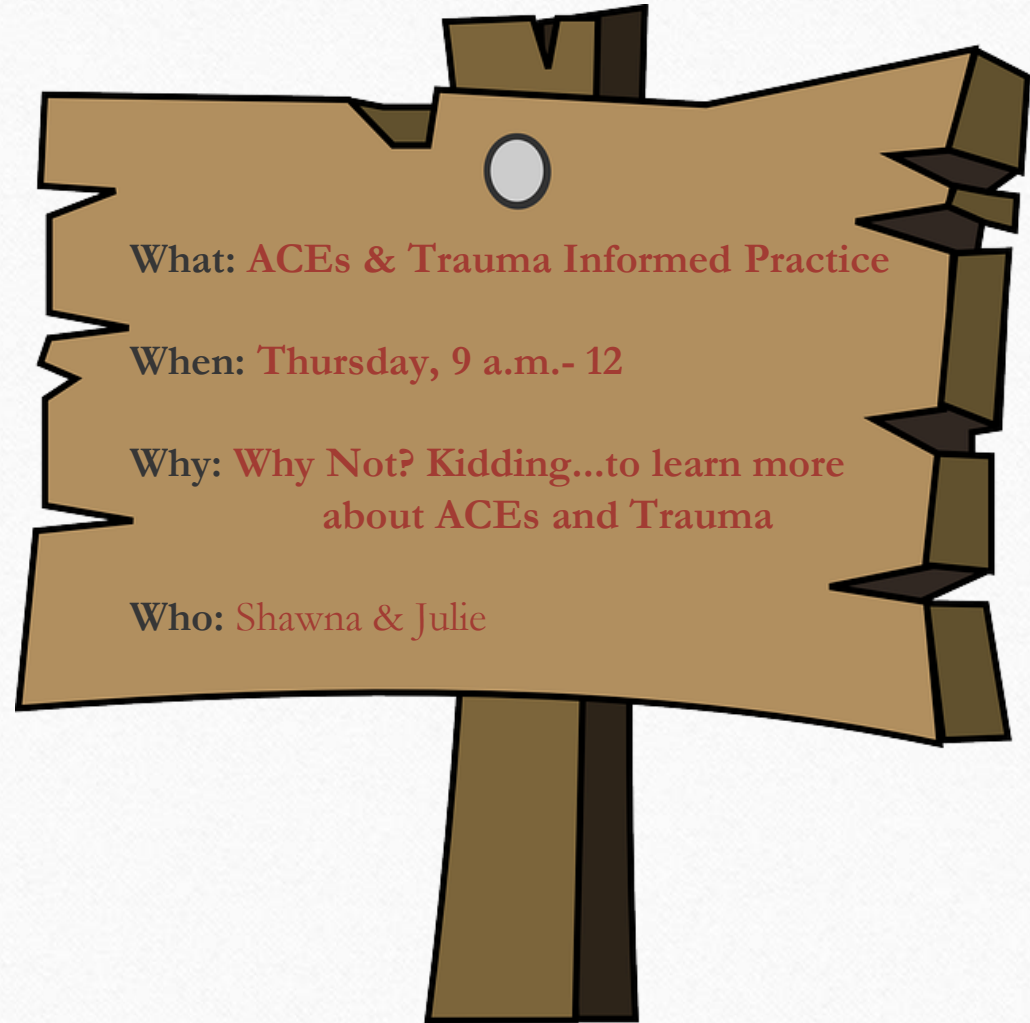
Part One

- What are ACEs?
- Original ACE Study
- Research & Data
- ACE Implications (Social, Health, and Academics)

-NOTE-

IF YOU WANT TO
LEARN MORE,
JOIN US
TOMORROW FOR
THE DEEP DIVE

- Biology behind trauma
- ACE survey
- Brain story video
- Brain Game



What: ACEs & Trauma Informed Practice

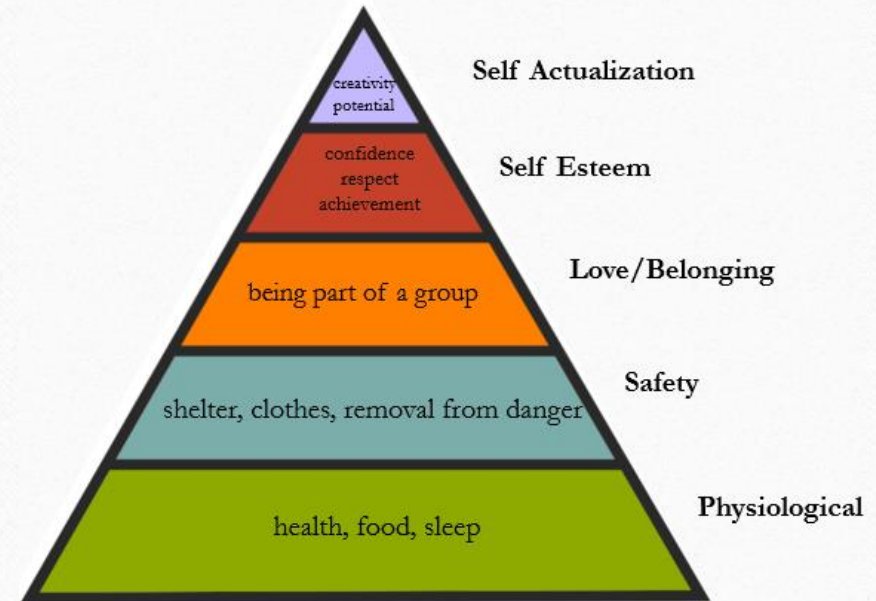
When: Thursday, 9 a.m.- 12

Why: Why Not? Kidding...to learn more
about ACEs and Trauma

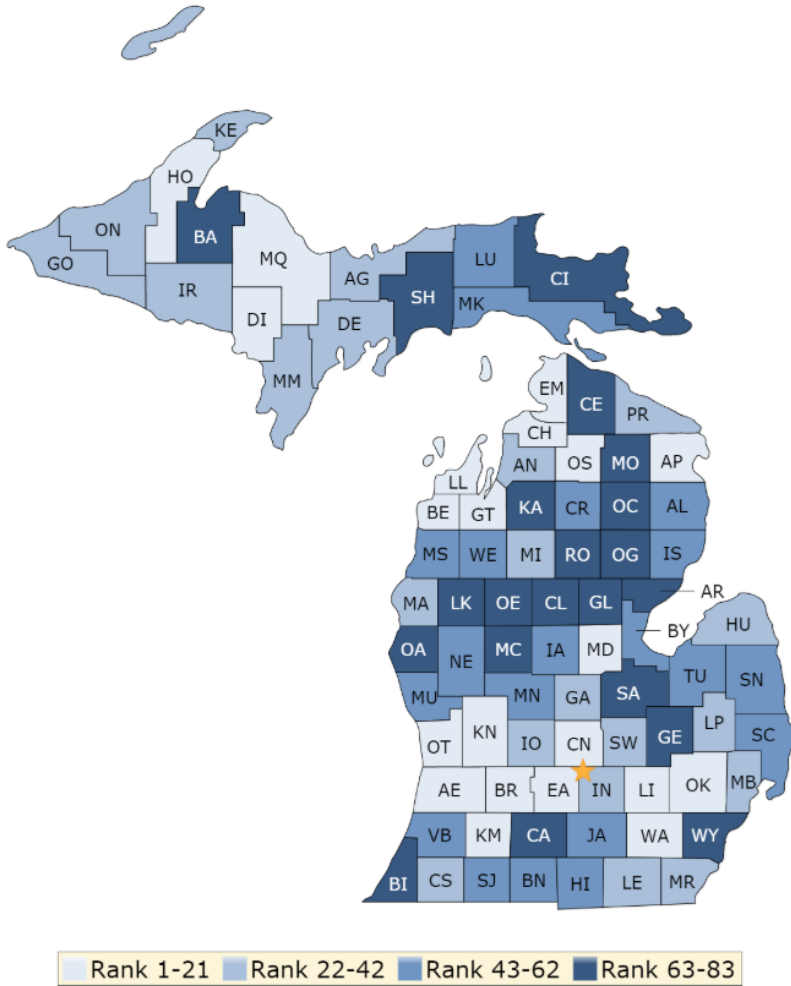
Who: Shawna & Julie

LSSU Charter Schools Philosophy

“We believe in authorizing through the lens of an educator, realizing students are more than academic performance or financial incentives. True authorizing takes into account the whole child, whole academy, and whole community while recognizing the importance of increased performance and sustainability.”

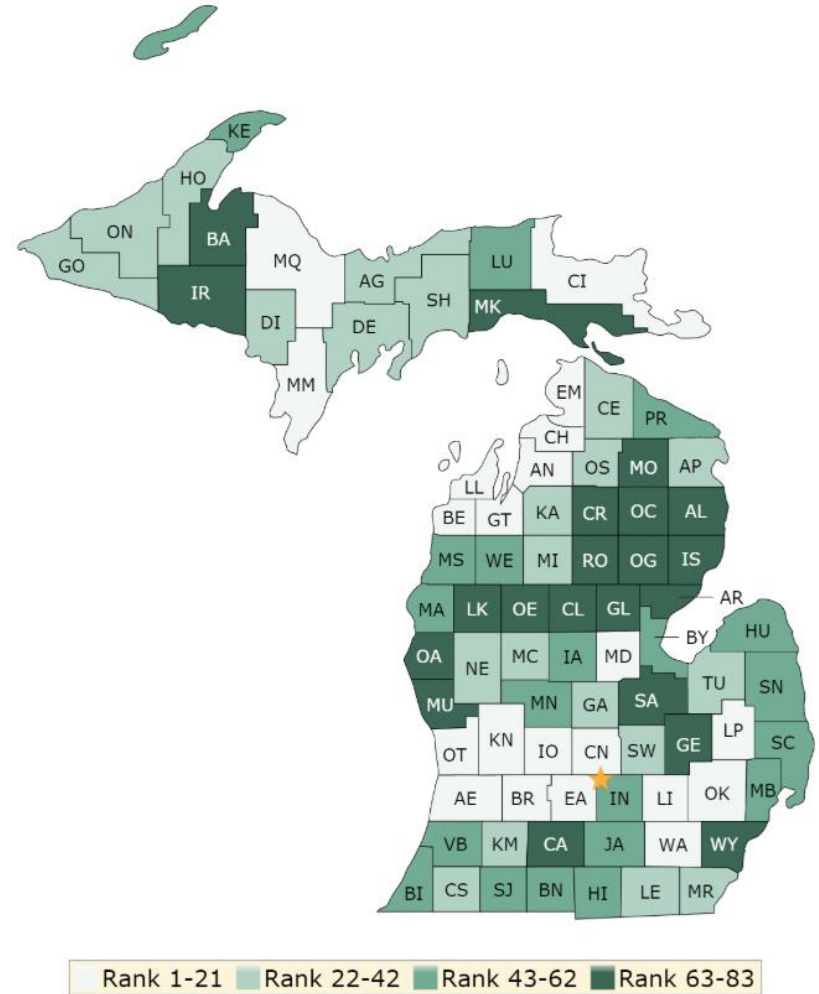


2019 Health Factors - Michigan



Michigan
County
Health
Rankings
2019

2019 Health Outcomes - Michigan

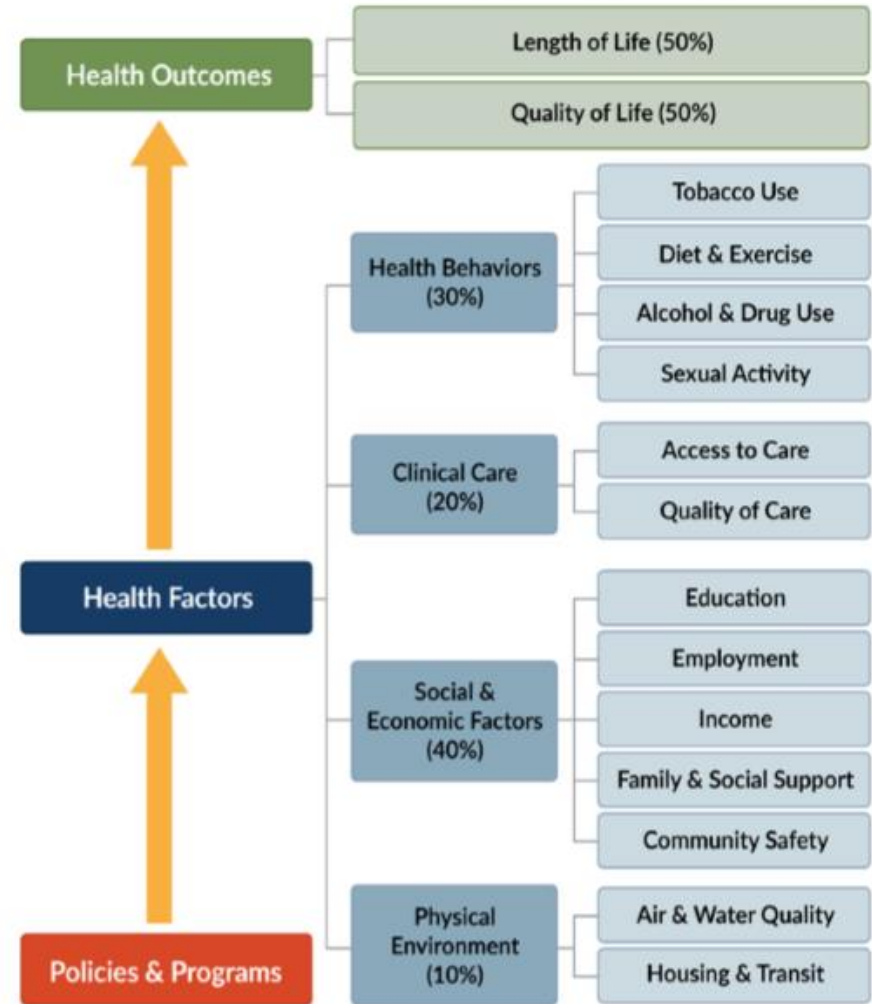


FORMULA

Health Behaviors + Clinical Care + Social and Economic Factors
+ Physical Environment = Length & Quality of Life



County Health Rankings Model



2019 County Health Rankings for the 83 Ranked Counties in Michigan

County	Health Outcomes	Health Factors	County	Health Outcomes	Health Factors	County	Health Outcomes	Health Factors	County	Health Outcomes	Health Factors
Alcona	76	43	Dickinson	24	10	Lake	74	82	Oceana	66	63
Alger	34	23	Eaton	21	14	Lapeer	16	28	Ogemaw	70	77
Allegan	15	17	Emmet	7	8	Leelanau	1	5	Ontonagon	39	31
Alpena	41	20	Genesee	80	76	Lenawee	36	26	Osceola	63	64
Antrim	17	29	Gladwin	65	72	Livingston	3	2	Oscoda	81	80
Arenac	68	75	Gogebic	35	30	Luce	47	46	Otsego	40	21
Baraga	67	69	Grand Traverse	6	7	Mackinac	77	54	Ottawa	2	3
Barry	11	15	Gratiot	23	35	Macomb	54	37	Presque Isle	62	42
Bay	58	52	Hillsdale	44	58	Manistee	49	55	Roscommon	72	79
Benzie	18	16	Houghton	28	19	Marquette	20	12	Saginaw	73	65
Berrien	59	67	Huron	50	25	Mason	43	24	Sanilac	52	48
Branch	45	62	Ingham	57	38	Mecosta	27	74	Schoolcraft	33	68
Calhoun	78	66	Ionia	14	33	Menominee	10	27	Shiawassee	25	39
Cass	42	40	Iosco	64	51	Midland	9	9	St. Clair	51	56
Charlevoix	13	11	Iron	69	36	Missaukee	22	41	St. Joseph	55	45
Cheboygan	32	70	Isabella	53	57	Monroe	38	32	Tuscola	31	47
Chippewa	19	78	Jackson	60	53	Montcalm	48	50	Van Buren	61	60
Clare	79	81	Kalamazoo	30	18	Montmorency	71	73	Washtenaw	4	1
Clinton	5	6	Kalkaska	29	71	Muskegon	75	59	Wayne	82	83
Crawford	83	49	Kent	12	13	Newaygo	37	44	Wexford	56	61
Delta	26	22	Keweenaw	46	34	Oakland	8	4			

Important to Note...



- ACEs is an emerging topic in the public health arena – especially as it relates to adult health and wellness.
- Begin to shift thinking from:

“What’s wrong with you?”

to

“What happened to you?”

Begin with the End in Mind

-Stephen Covey-





Secondary Trauma or Compassion Fatigue

“A state experienced by those helping people or animals in distress; it is an extreme state of tension and preoccupation with the suffering of those being helped to the degree that it can create a secondary traumatic stress for the helper.” Dr. Charles Figley

- May include feelings of isolation, anxiety, dissociation, physical ailments, and sleep disturbances
- https://www.youtube.com/watch?v=Iv9AMA_WFo8

Common Compassion Fatigue Symptoms

Cognitive

Lowered Concentration

Apathy

Rigid thinking

Perfectionism

Preoccupation with trauma

Behavioral

Withdrawal

Sleep disturbance

Appetite change

Hyper-vigilance

Elevated startle response

Emotional

Guilt

Anger

Numbness

Sadness

Helplessness

Physical

Increased heart rate

Difficulty breathing

Muscle and joint pain

Impaired immune system

Increased severity of medical concerns

May Result In:

- Chronic absenteeism
- Impaired judgement
- Low productivity
- Poor quality of work
- Higher staff turnover
- Greater staff friction

Prevention Strategies & Treatment

Individual Prevention	Individual Treatment	Organizational Prevention
<ul style="list-style-type: none">➤ Life Balance➤ Relaxation Techniques➤ Contact with Nature➤ Creative Expression➤ Assertiveness Training➤ Interpersonal Communication➤ Cognitive Restructuring➤ Time Management➤ Plan for Coping	<ul style="list-style-type: none">➤ Self-Care➤ Journaling➤ Professional Support➤ Support Group➤ Stress Management Technique➤ Ask for Help➤ Recognize Success	<ul style="list-style-type: none">➤ Culture that normalizes Effects of Working with Trauma Survivors➤ Adopt Policies that Promote and Support Staff Self-Care➤ Allow for Diversified Workloads➤ Encourage Professional Development➤ Create Opportunities for Staff to Participate in Social Change/Community➤ Ensure a Safe Work Environment➤ Provide Secondary Trauma Education➤ Make Counseling Resources Available

What are ACEs?

ACE= **A**dverse **C**hildhood **E**xperience

An adverse childhood experience is a traumatic event that happens during childhood (prior to age 18).

The three types of ACEs include

ABUSE



Physical



Emotional



Sexual

NEGLECT



Physical



Emotional

HOUSEHOLD DYSFUNCTION



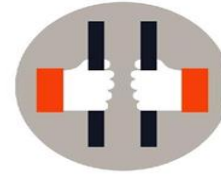
Mental Illness



Mother treated violently



Divorce



Incarcerated Relative



Substance Abuse

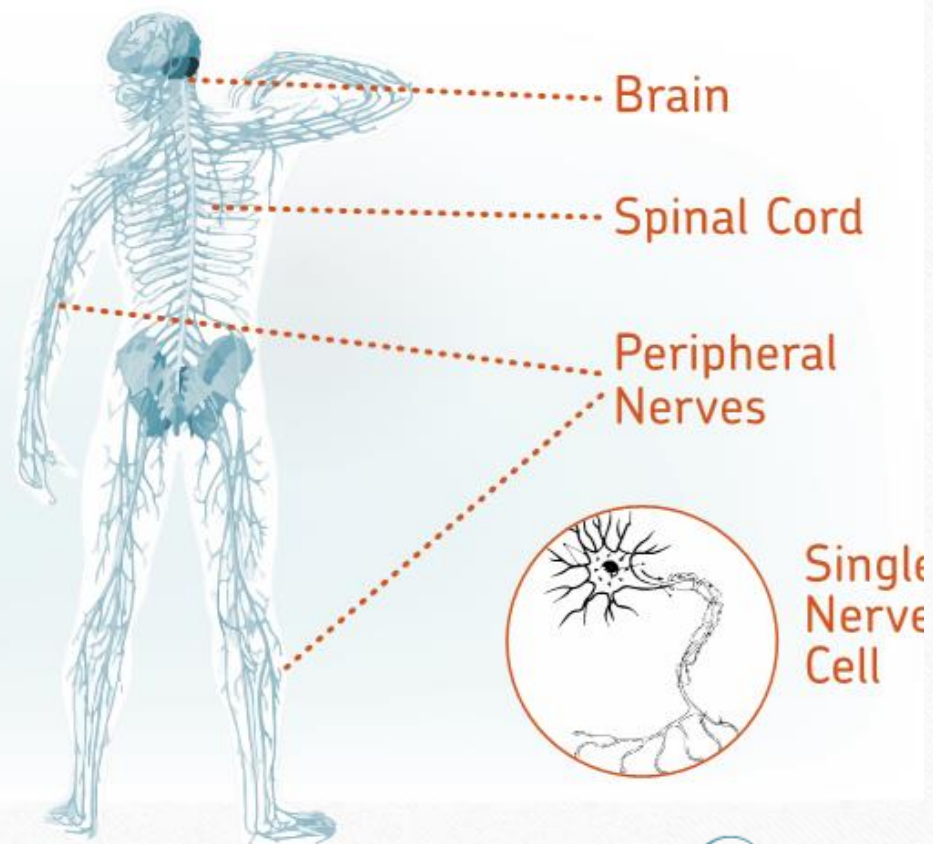
Memory of our experiences
IS STORED IN OUR BODY



HUMAN NERVOUS SYSTEM

Nervous system
ORCHESTRATES BODY
FUNCTIONS & PERCEPTIONS

Neuroscience
HELPS US UNDERSTAND WHY
A C E s
ARE SO POWERFUL



SYNAPTIC DENSITY



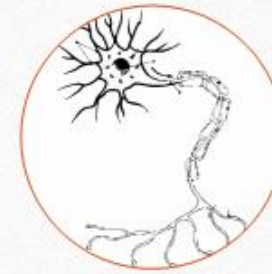
At Birth



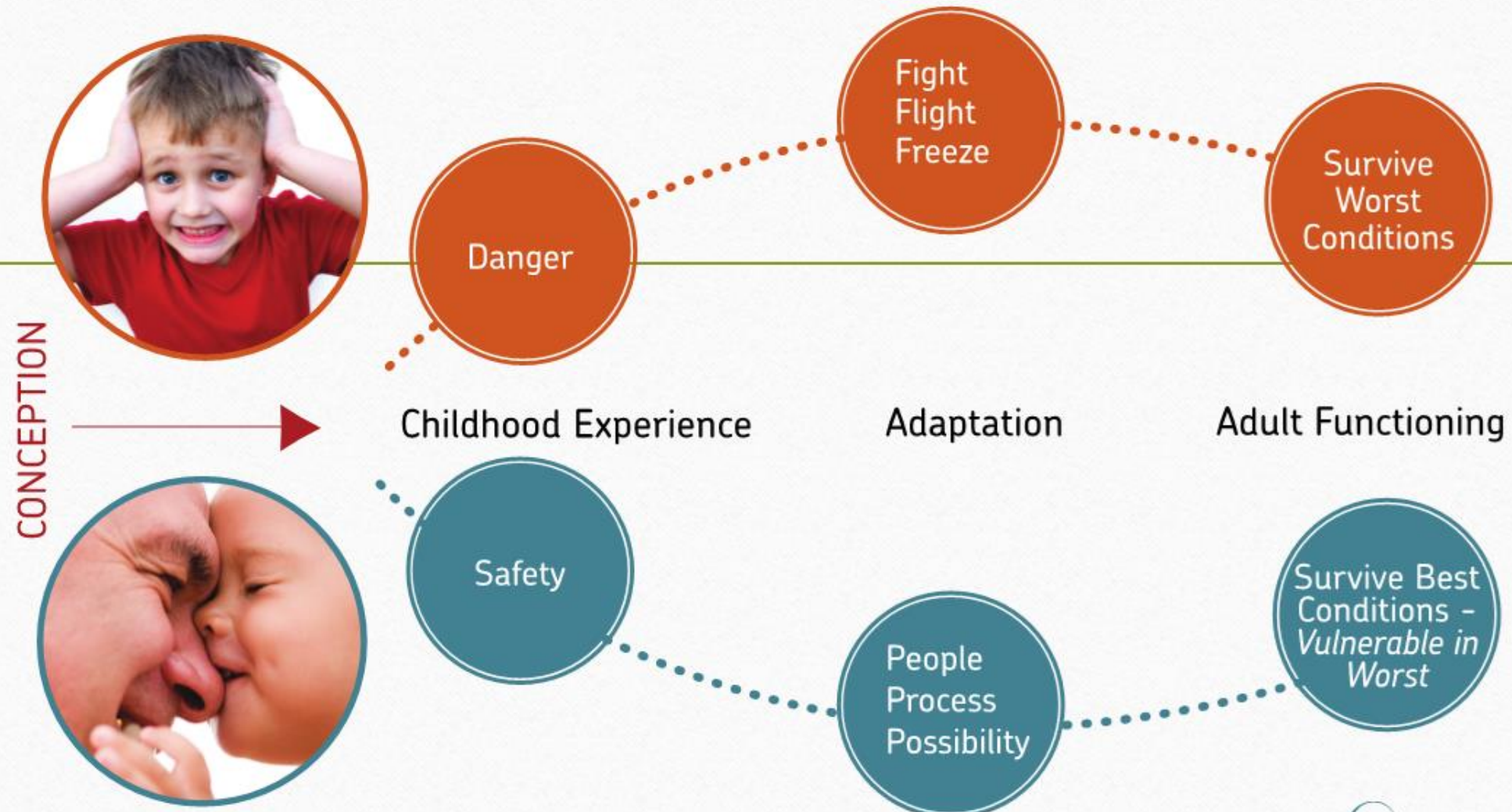
Elementary Age



Puberty



Single
Neuron



The Original ACE Study

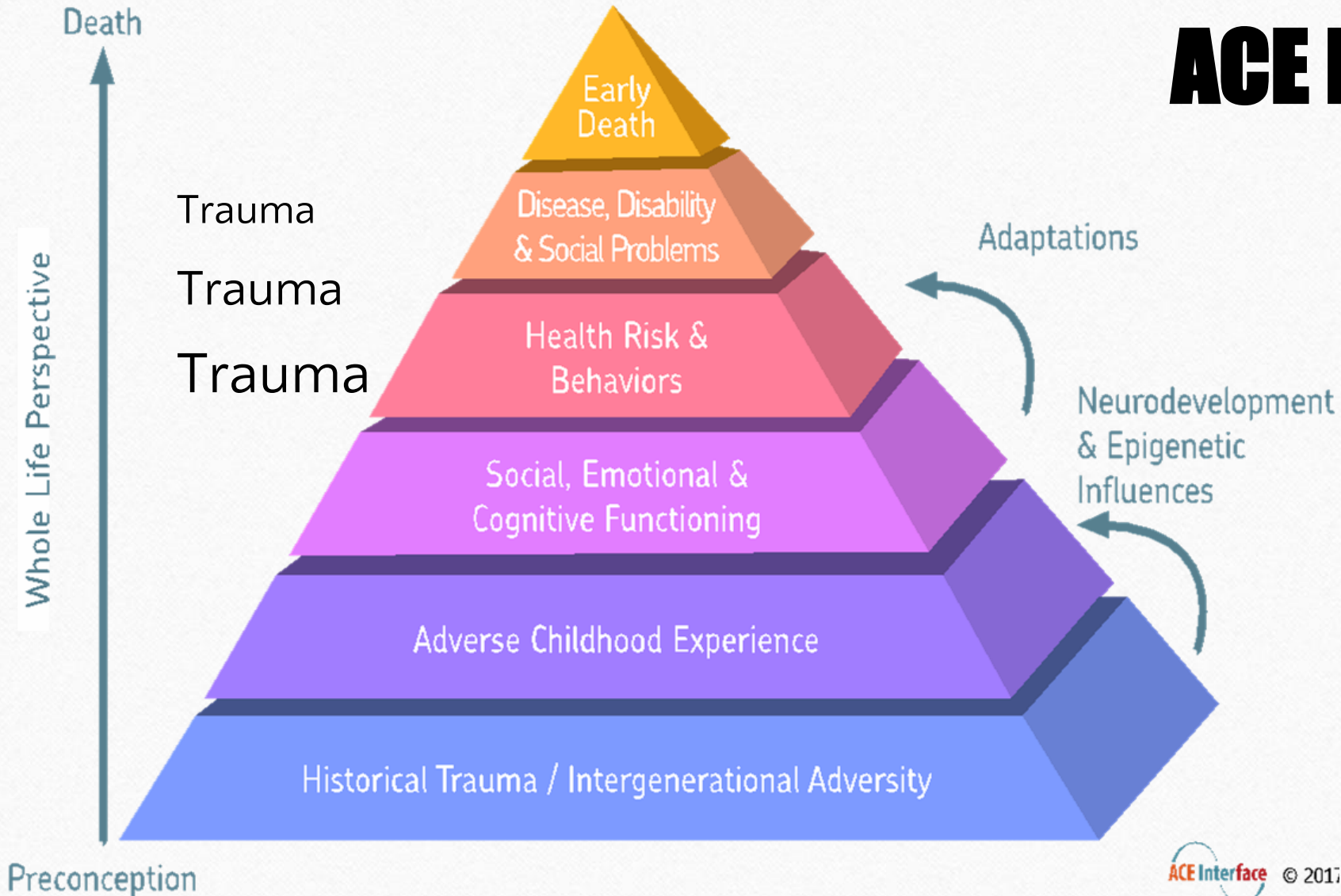


- 17,000 participants
- Average age 57
- Middle class
- 74% college educated
- Self reported survey



Dr. Robert Anda & Julie Hopper
May 2019- Michigan ACE Initiative Conference

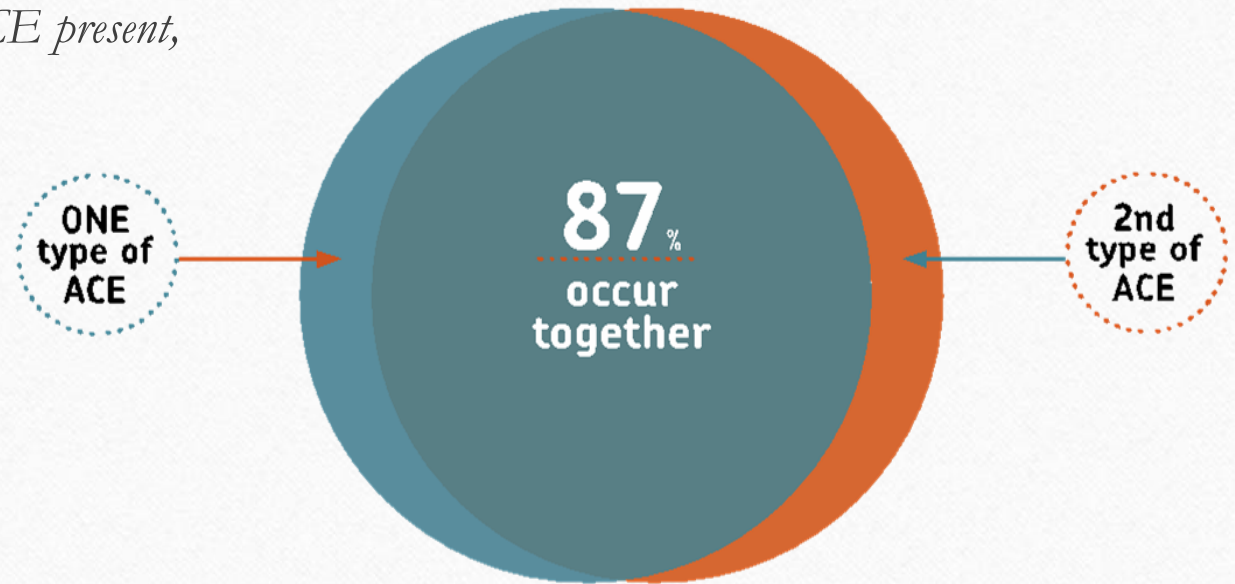
ACE Pyramid



What Did the Study Find?

- Adverse Childhood Experiences rarely occur in isolation and are highly interrelated.

If any one ACE is present, there is an 87% chance of at least one other category of ACE present, and 50% chance of 3 or more.



Adverse Childhood Experiences **ARE COMMON**

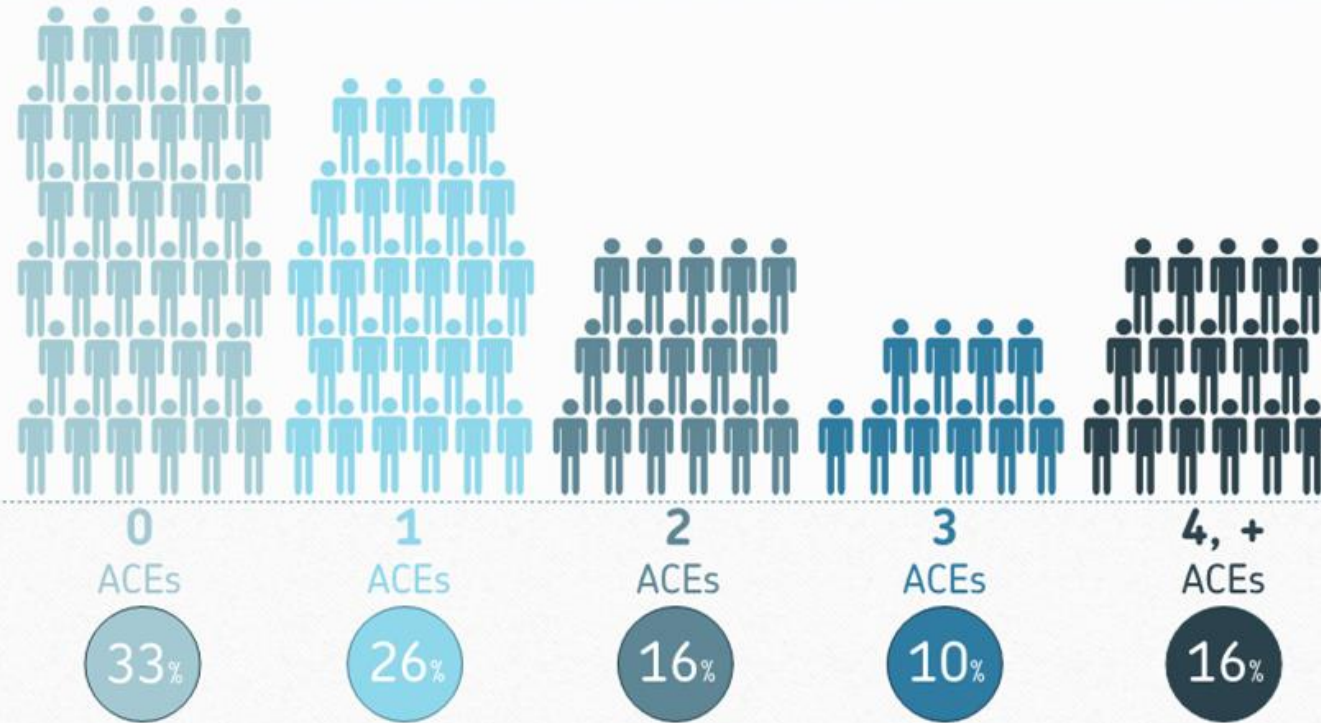
Household Dysfunction	
Substance Abuse	27%
Parental Sep/Divorce	23%
Mental Illness	17%
Battered Mothers	13%
Criminal Behavior	6%

Neglect	
Emotional	15%
Physical	10%

Abuse	
Emotional	11%
Physical	28%
Sexual	21%

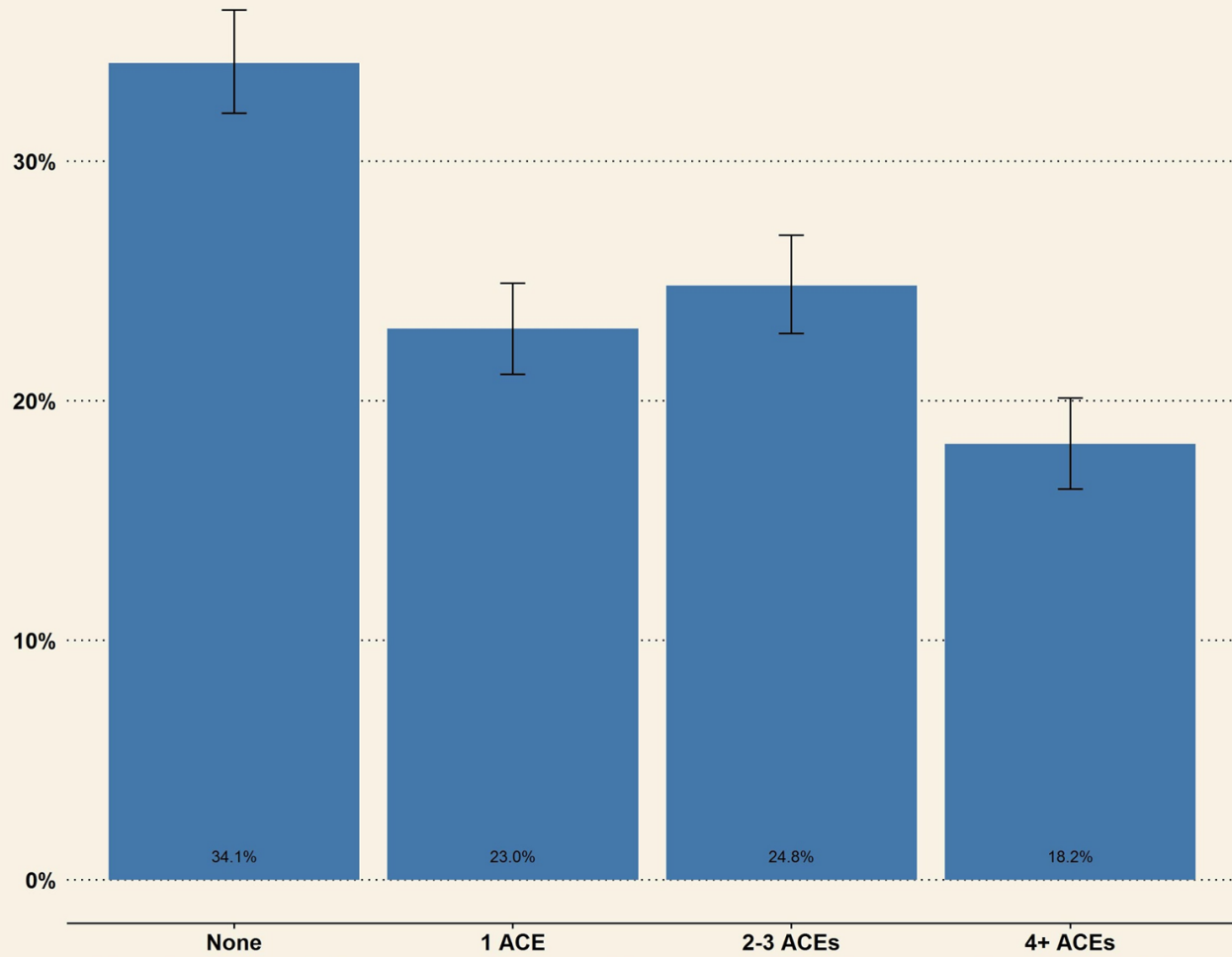


ACE Score = Number of ACE Categories



ACE Scores Reliably Predict Challenges During the Life Course

Prevalence of Adverse Childhood Experiences by Number



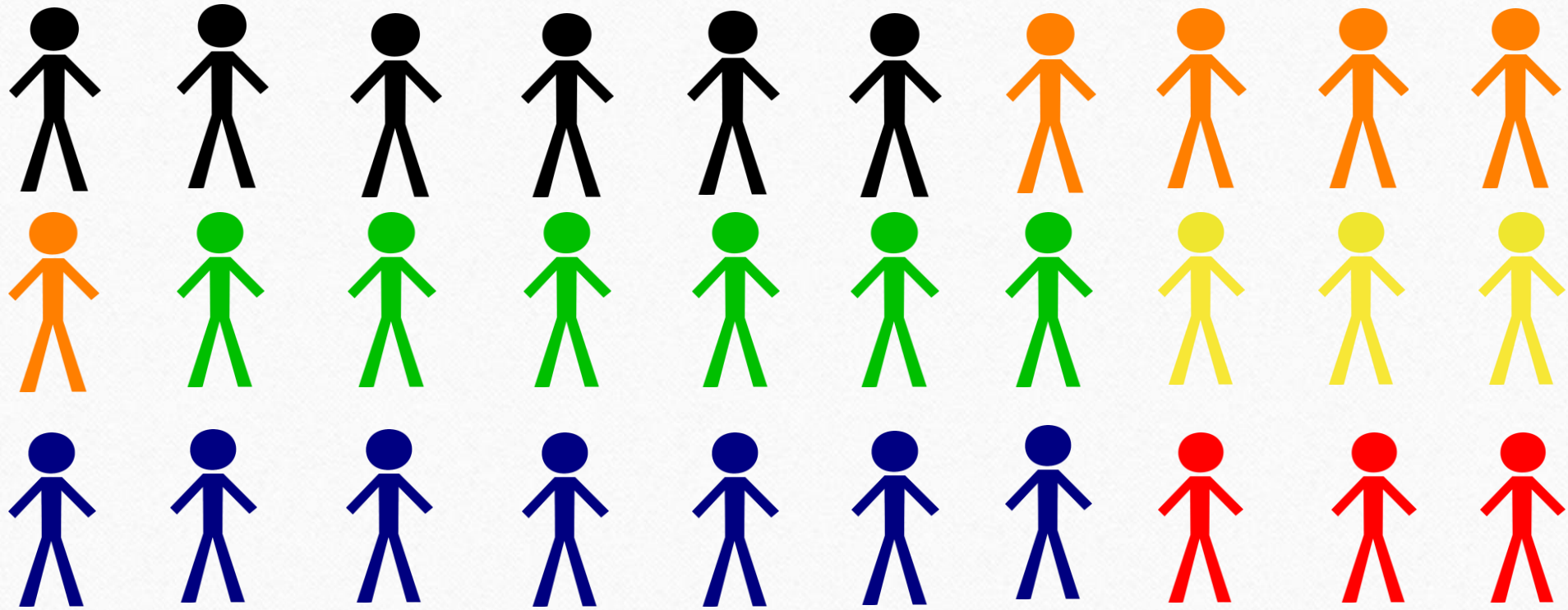
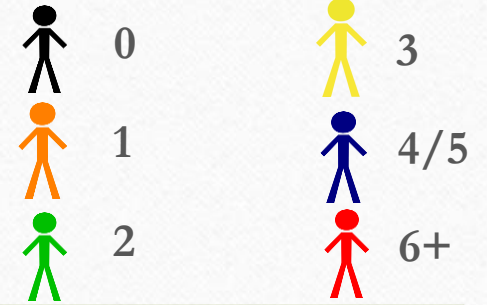
Michigan Department of Health and Human Services. Michigan Behavioral Risk Factor Surveillance System. 2016.

2016 Michigan Data

ACE Score	% MI	% ACE Study
0	34.1%	33%
1	23%	26%
2-3	24.8%	26%
4+	18.2%	16%

ACE in a Classroom

ACE Score



Cumulative Impact

ACEs have a cumulative effect – the higher the score, the higher the likelihood of health risk behaviors and poor health outcomes.

This is most likely due to the increased **allostatic load** – or “wear and tear on the body” which grows over time when an individual is exposed to repeated or chronic stress.



ACEs are Common, Interrelated, Powerful



High ACE Scores
in Population

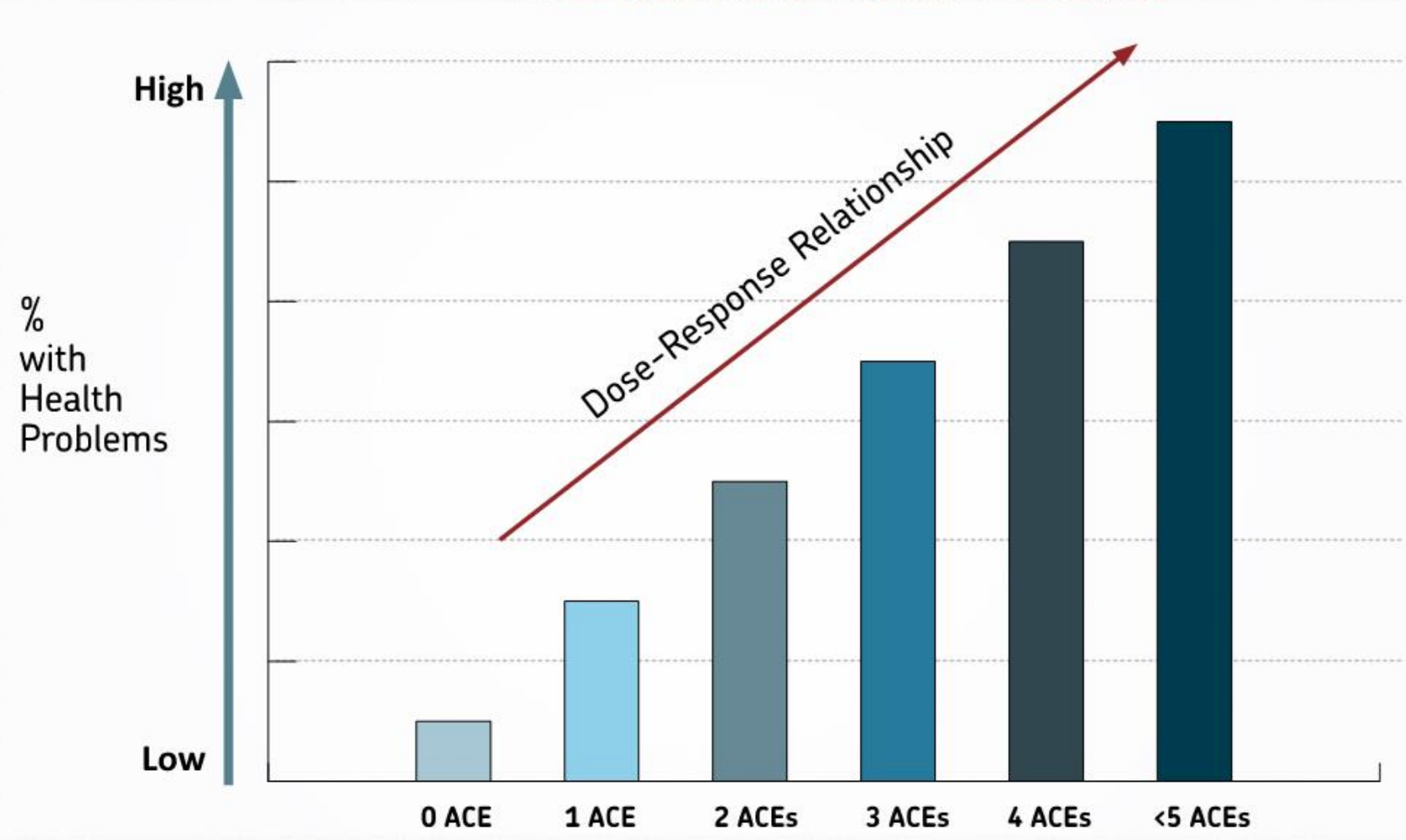


Increased Risk of Multiple
Health and Social Problems



Intergenerational
Transmission of ACEs

ACE Score and Health Problems

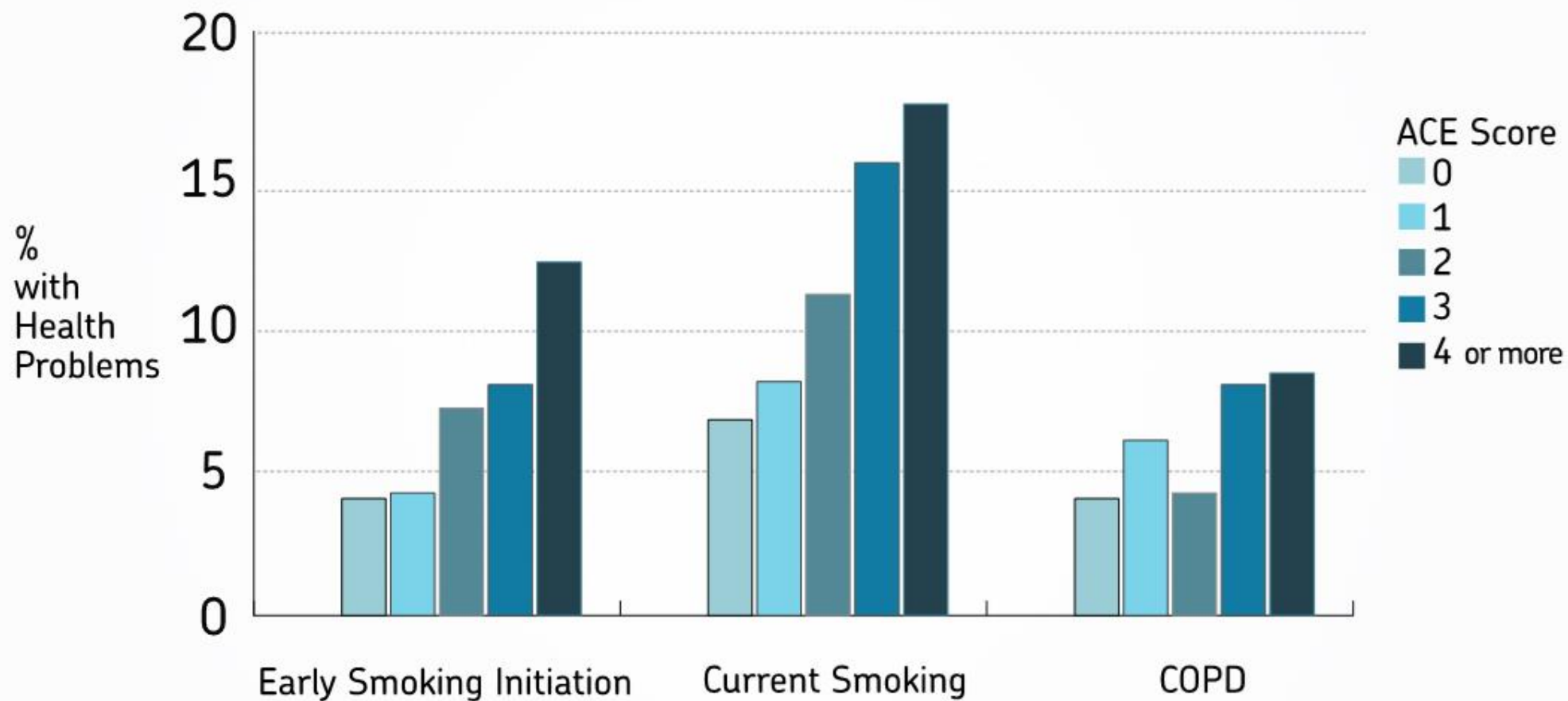




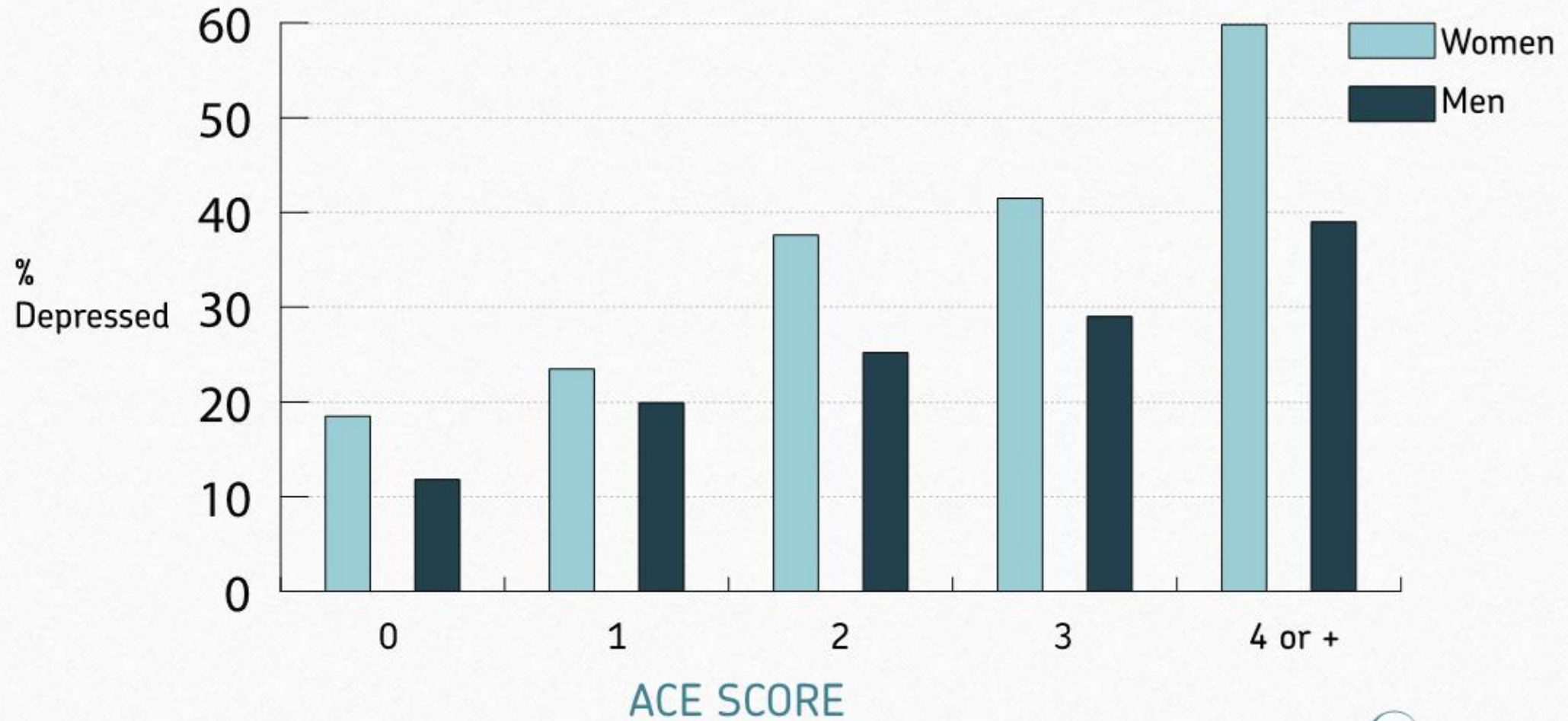
Anxiety
Depression
Difficulty Concentrating

SMOKING

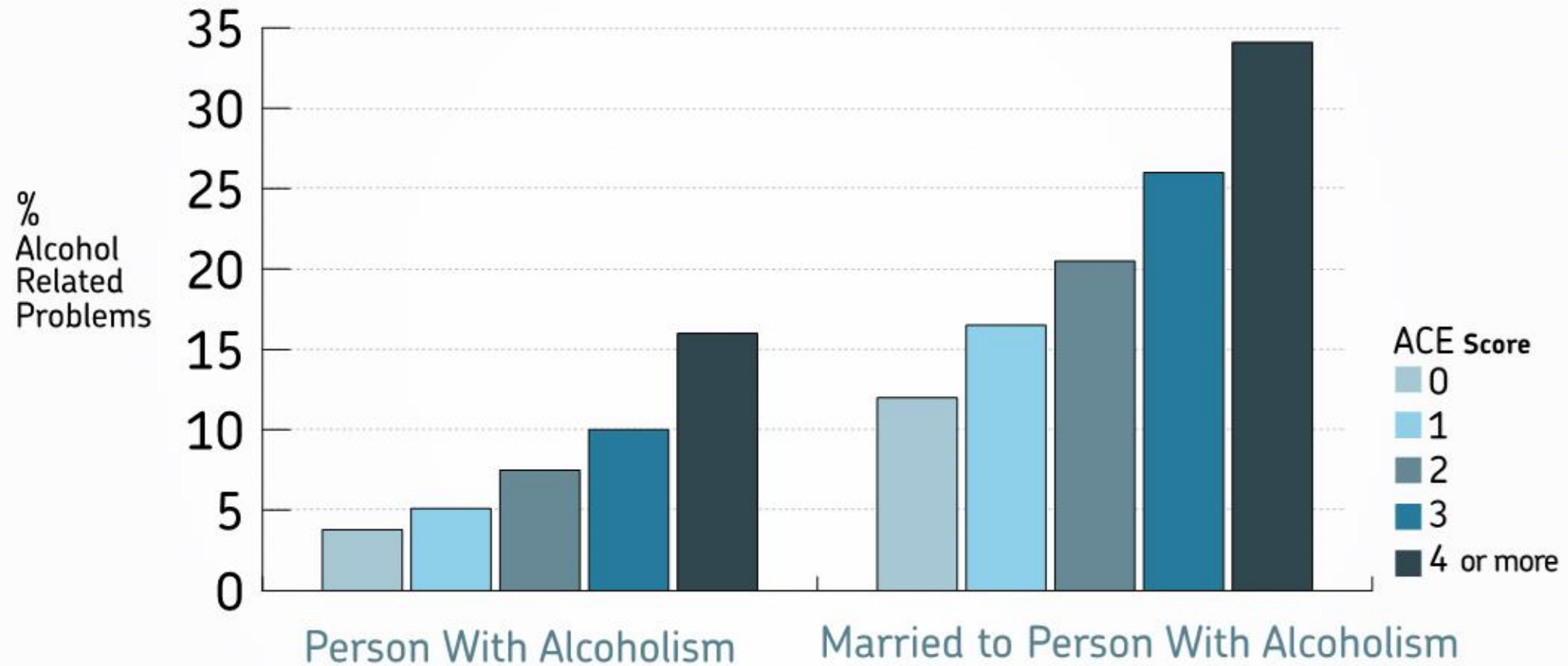
ACEs, Smoking and Lung Disease



ACEs & Depression



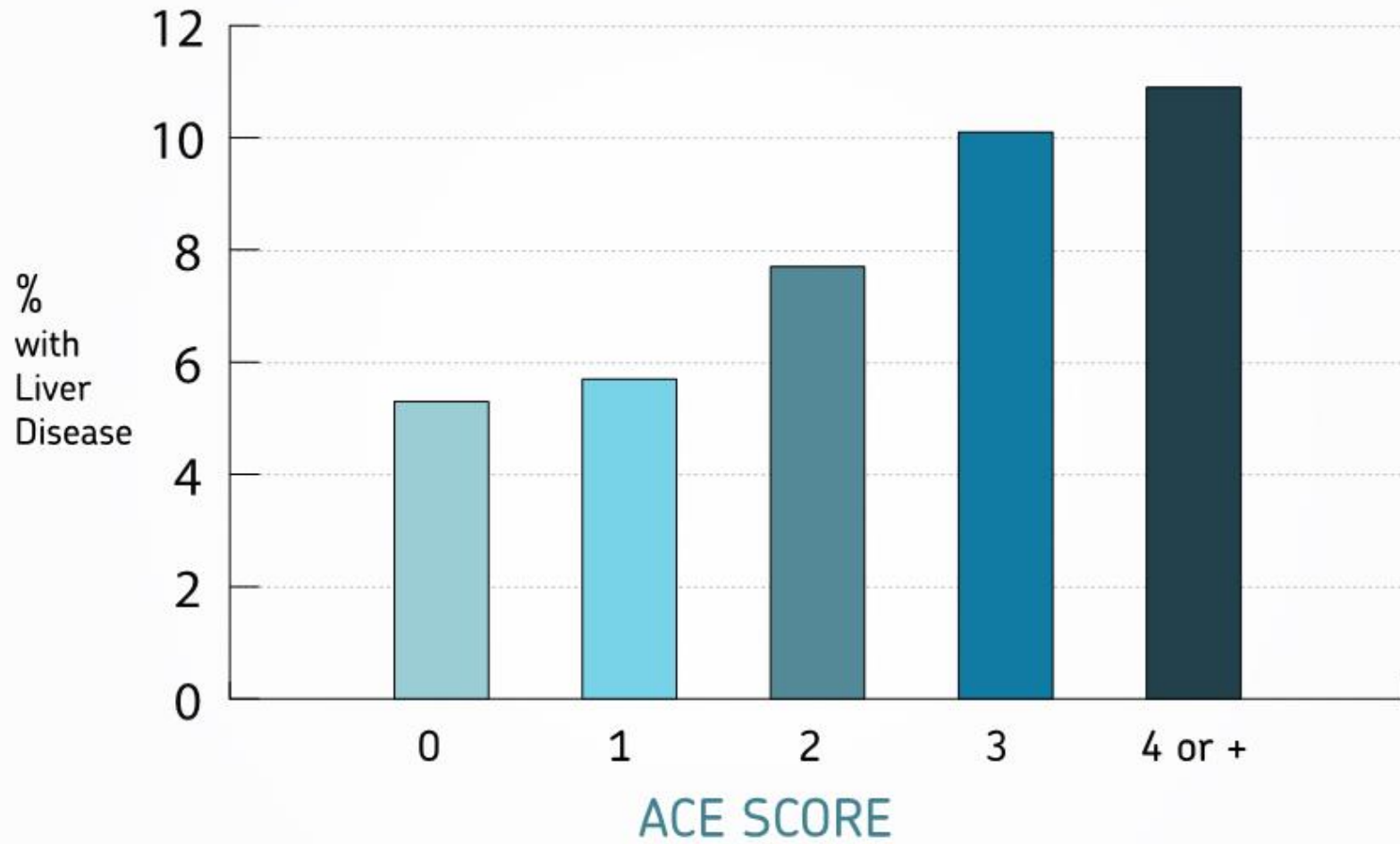
ACEs & Alcoholism & Marrying an Alcoholic



ACEs & Suicide Attempt



ACE Score and Liver Disease



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

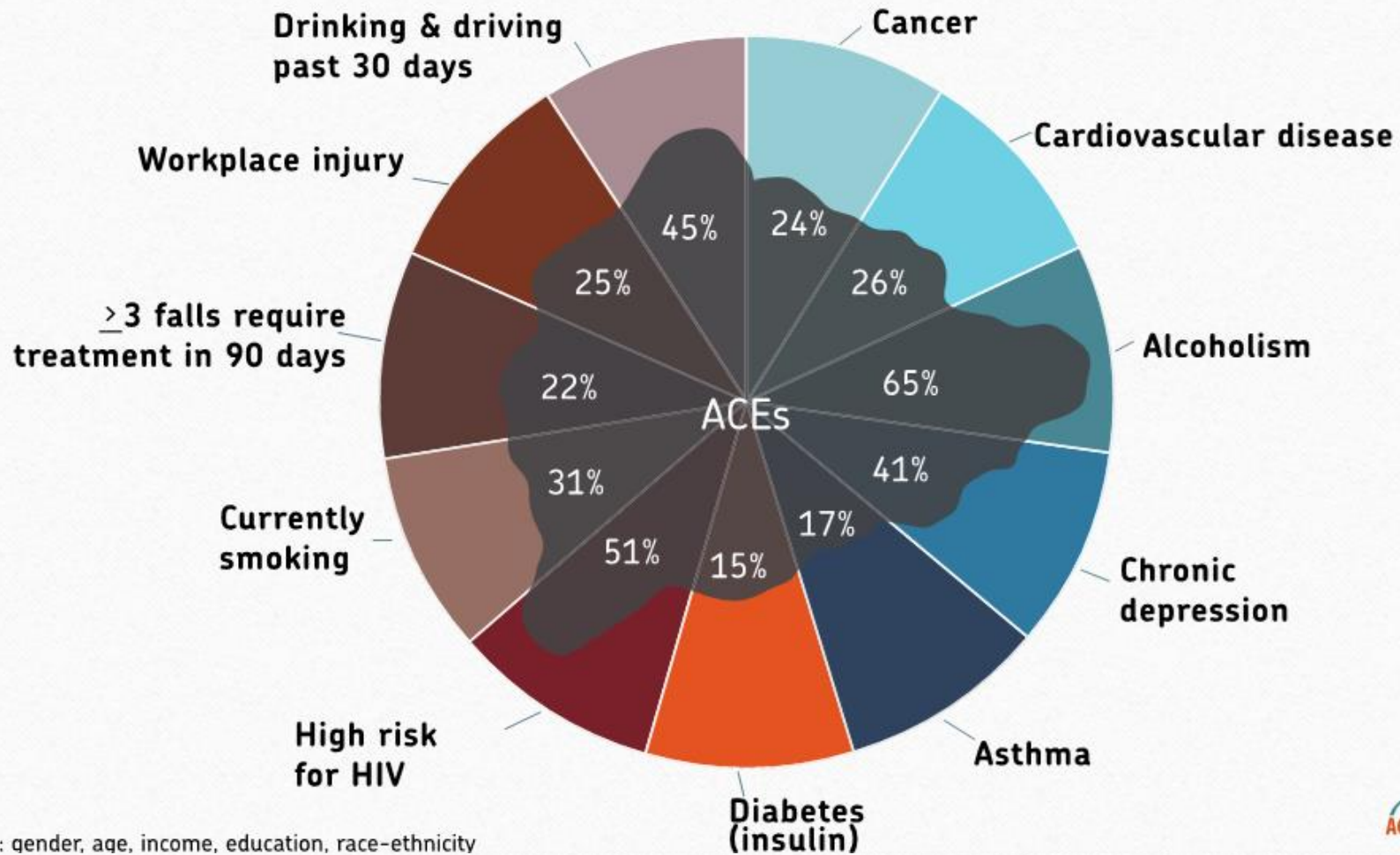
Smoking

Unintended Pregnancy

Violence

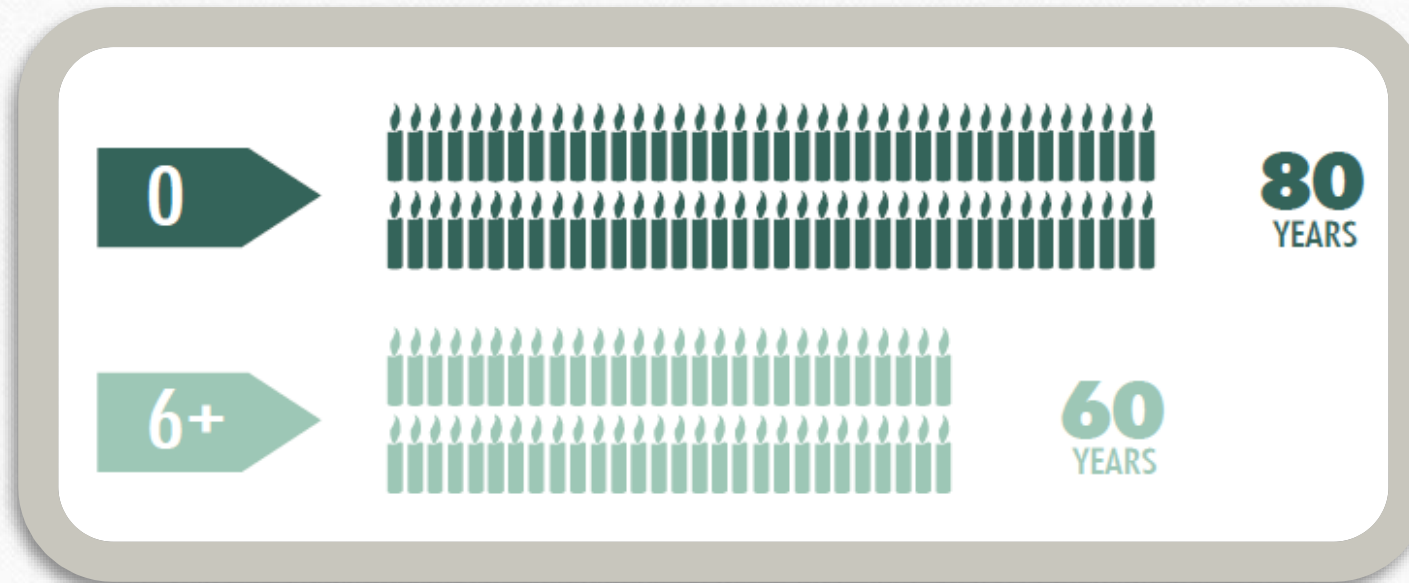
Workplace Problems

Population Attributable Risk



ACEs Affect the Lifespan

People with 6 or more ACEs died nearly *20 years earlier on average* than those without ACEs.



ACEs have been shown to impact:



Health: obesity, diabetes, depression, suicide attempts, STDs, heart disease, cancer, stroke, COPD, broken bones



Behaviors: smoking, alcoholism, drug use



Life Potential: graduation rates, academic achievement, lost time from work

ACE Survey

- 10 Questions
- 1 point for each question
- Simply add up total points for ACE score

Prior to your 18th birthday:

1. Did a parent or other adult in the household **often or very often**...
Swear at you, insult you, put you down, or humiliate you?
or
Act in a way that made you afraid that you might be physically hurt?
Yes No If yes enter 1 ____
2. Did a parent or other adult in the household **often or very often**...
Push, grab, slap, or throw something at you?
or
Ever hit you so hard that you had marks or were injured?
Yes No If yes enter 1 ____
3. Did an adult or person at least 5 years older than you **ever**...
Touch or fondle you or have you touch their body in a sexual way?
or
Attempt or actually have oral, anal, or vaginal intercourse with you?
Yes No If yes enter 1 ____
4. Did you **often or very often** feel that ...
No one in your family loved you or thought you were important or special?
or
Your family didn't look out for each other, feel close to each other, or support each other?
Yes No If yes enter 1 ____
5. Did you **often or very often** feel that ...
You didn't have enough to eat, had to wear dirty clothes, and had no one to protect you?
or
Your parents were too drunk or high to take care of you or take you to the doctor if you needed it?
Yes No If yes enter 1 ____
6. Were your parents ever separated or divorced?
Yes No If yes enter 1 ____
7. Was your mother or stepmother:
Often or very often pushed, grabbed, slapped, or had something thrown at her?
or
Sometimes, often, or very often kicked, bitten, hit with a fist, or hit with something hard?
or
Ever repeatedly hit over at least a few minutes or threatened with a gun or knife?
Yes No If yes enter 1 ____
8. Did you live with anyone who was a problem drinker or alcoholic or who used street drugs?
Yes No If yes enter 1 ____
9. Was a household member depressed or mentally ill or did a household member attempt suicide?
Yes No If yes enter 1 ____
10. Did a household member go to prison?
Yes No If yes enter 1 ____

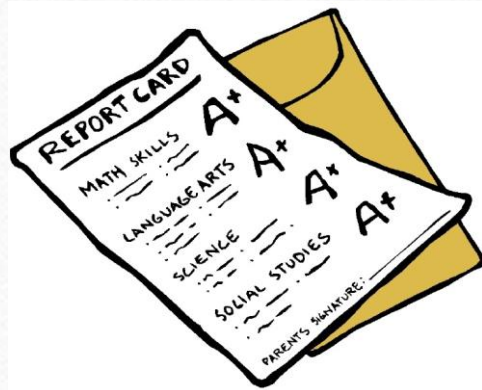
Now add up your "Yes" answers: ____ This is your ACE Score

Anda, 2000



ACES Are NOT Destiny!

What About ACE and Academics?



ACEs, Toxic Stress, and Learning

Dr. Nadine Burke Harris

Pediatrician, Toxic Stress Researcher, Surgeon General of CA

- Presented to the Committee on Educ. and Labor, U.S. House of Representatives on 9-11-19
- Toxic stress impacts/alters brain regions
 - Hippocampus-Where new memory formation takes place, critical to learning
 - Amygdala- Fear center (vigilance, startle, aggressive behavior)
 - Prefrontal cortex- Executive functioning which controls attention, organization, memory, and impulse control

*As ACE score increases, learning and behavior in children are impaired in a dose response pattern

ACES and Learning/Behavior

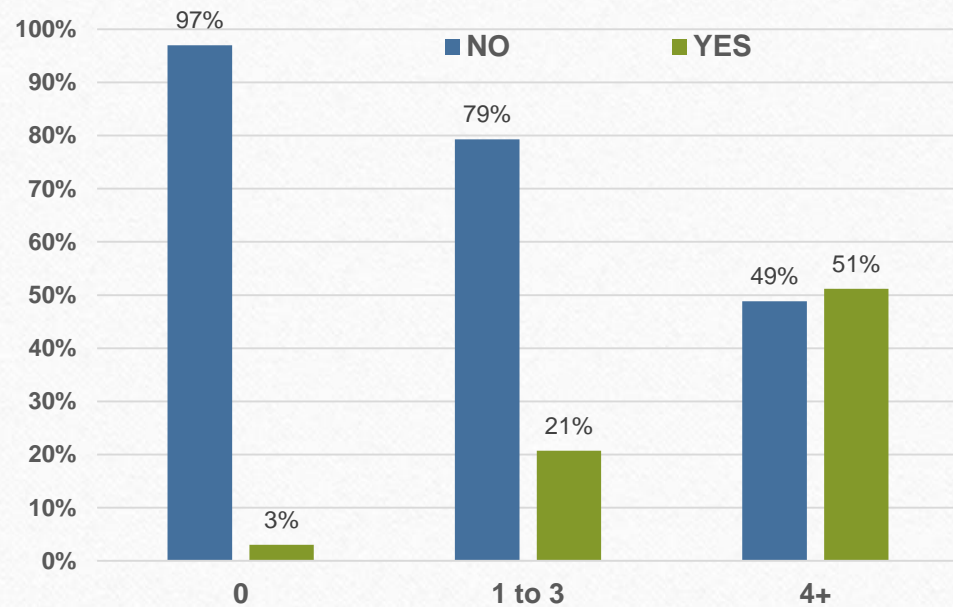


Figure 1

ACES and Performance

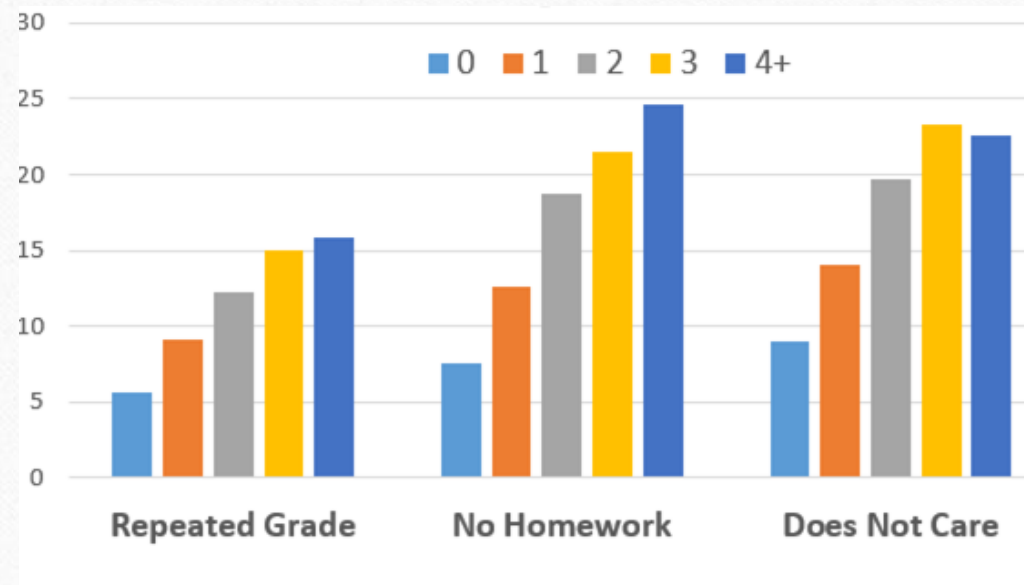


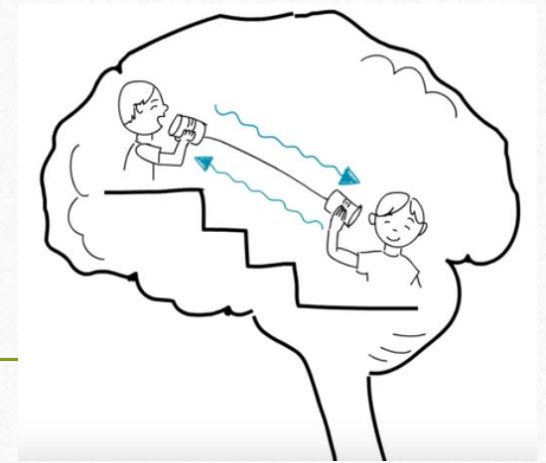
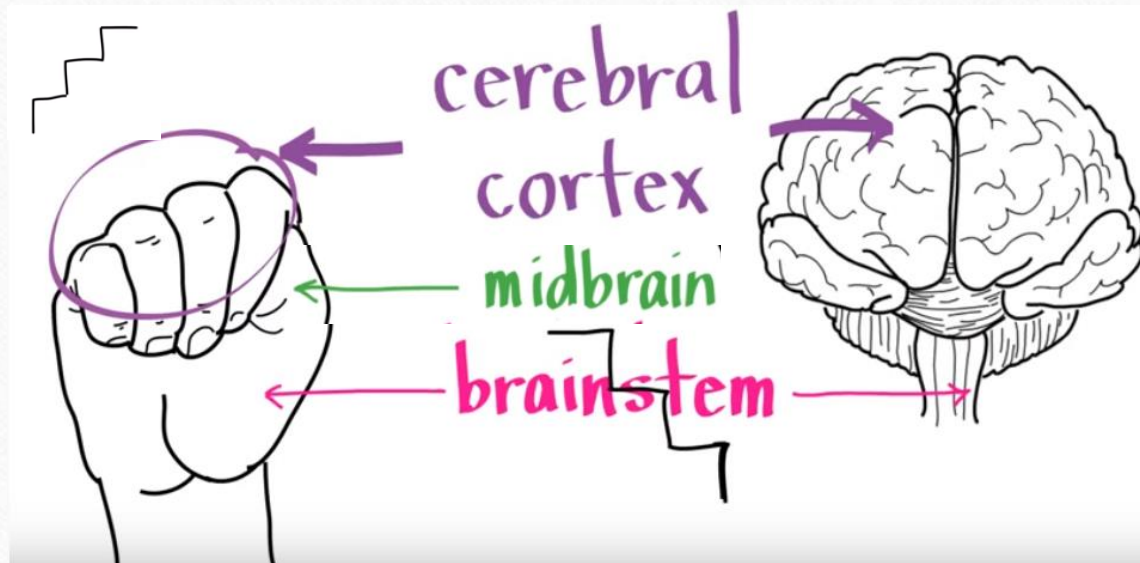
Figure 2

Flipping Your Lid

Upstairs and Downstairs Brain

UPSTAIRS BRAIN

Think Logically
Act with Kindness
Think of Others
Problem Solve



DOWNSTAIRS BRAIN

Automatic Reaction
Flight, Fight, or Freeze to
keep you safe

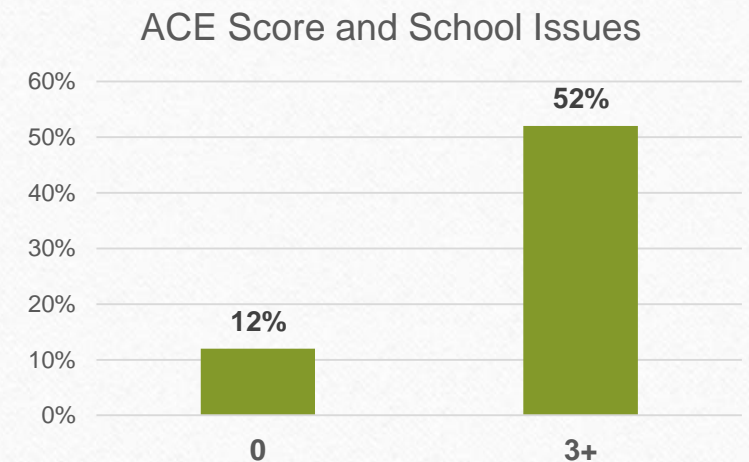
ACE and Academic Success

Washington State University

- Non-clinical sample
- 2,101 students in K-6
- 50% Male, 50% Female
- 78% Caucasian
- 55% FRL
- 13% Special Education
- School personnel reported factual knowledge of 10 ACEs and academic risk
 - Academic risk defined by academic failure, school behavior, and attendance
 - 44% with at least 1 ACE score
 - 13% with an ACE of 3 or more

Findings

- Dose-response relationship exists between ACE score and poor attendance, behavior issues, and failure to meet grade level standards in math, reading, and writing
 - As ACE score increased, the percentage of children with 2 or more areas of school problems increased as well
 - 12% of children with an ACE score of 0 experienced 2 or more areas of school problems compared to 52% of children with an ACE score of 3 or more



ACE and Juvenile Offenders

- Florida Dept. Juvenile Justice and University of Florida
- Examined prevalence of ACEs in juvenile offenders
 - 64, 329
 - 29% White Males, 9% White Females
 - 34% Black Males, 9% Black Females
 - 13% Hispanic Males, 3% Hispanic Females

Findings

- Offenders report disturbingly high rates of ACEs than previously examined populations
- Dose response relationship between ACE scores
- Of the 62, 536 youth who had an ACE of 1 or more, 90% reported at least 2 , 73% reported at least 3, 52% reported at least 4, and 32% reported 5+.
- Top three ACE indicators were family violence, parental separation/divorce, incarceration
- Average ACE score for Females- 4.29, Males- 3.48

ACE	Original ACE Study	Juvenile Offender Study
0	33%	2.8%
1	26%	9%
2	16%	17%
3	10%	22%
4+	16%	50%

Students with ACEs may struggle with:

- Learning
- Participating
- Communication
- Language Development
- Attendance
- More likely to drop out
- Difficulty with post-secondary education
- Later contributes to excessive absenteeism and overall performance deficiencies in adults
- Those with less education are more likely to experience divorce, substance abuse, physical abuse, or the incarceration of a loved one.

Childhood trauma and education level

U.S. adults with less education are more likely to report adverse childhood events (ACEs), such as physical abuse, divorce or an incarcerated parent.

■ 0 ACEs ■ 1 ■ 2 ■ 3 ■ 4 ■ 5 or more

Less than a
high school education



High school education



More than a
high school education

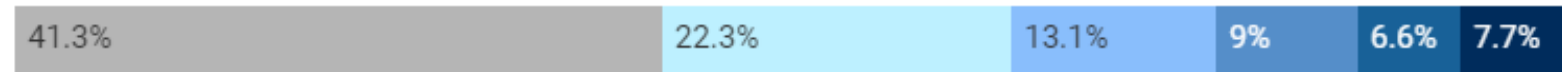


Chart: The Conversation, CC-BY-ND • Source: [Centers for Disease Control and Prevention](#) • [Get the data](#)

Part Two

What Can We Do?

- Resilience
- Trauma Informed Practice
- Classroom Application & Instruction



We Begin Here: Resilience

- We can't talk about being trauma-informed without talking about being resilience-focused.
- We may not be able to take away toxic stress and trauma a child has experienced or will continue to experience in their homes and communities, but we can create new experiences of resilience for them.
- **Resilience = Hope**



Concerning Statistics

- 1 out of 4 students have experienced a traumatic event
- 11% of all girls ages 14-17 have experienced sexual assault
- 33% of students have been bullied
- 60% of students under age 17 have been exposed to crime, violence, or abuse
- 30% of inner city students have witnessed a stabbing or shooting
- 16 million children in the U.S. live in poverty

Children of Trauma

- They live in a state of constant stress and turmoil
- They are driven by fear, not defiance
- They are not bad kids
- They are good kids who have had bad things happen to them
- Learn to read their behavior; it will always tell you something



What Can We Do?



- Meet the child where they are
- Tune in and support attachment
- Help manage overwhelming emotions/behavior
- Lower arousal- “neurons that fire together, wire together”
- Foster characteristics of resilience



Healthy Brain

Has the ability to:

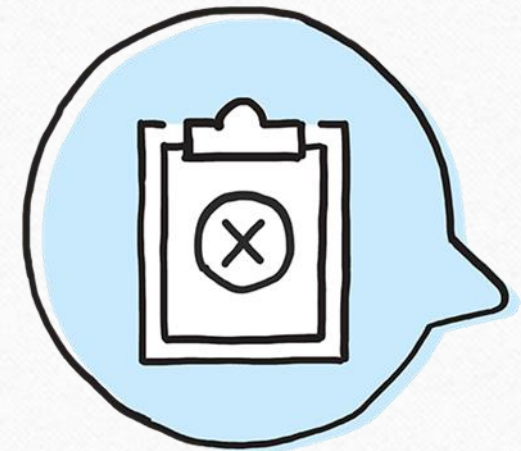
- Be kind/compassionate
- Think rationally
- Show empathy and understanding
- Be self aware
- Be imaginative and think logically
- Be curious
- Process language readily
- Be aware of time (past, present, future)
- Uses higher order thinking

Brain on Toxic Stress

- Is impulsive, angry, frustrated
- Can't process consequences
- Is highly stressed
- Thinks from an emotional platform
- Struggles with memory and focusing
- Can't process sequentially
- Only understands the moment
- More stressed out with traditional discipline techniques
- Controlled by the "lower" brain

Trauma-Informed & Resilience-Focused Care Is NOT:

- It is NOT asking, “What is wrong with this child?”
- It is NOT labeling
- It is NOT diagnosing without first REALLY assessing



Trauma-Informed & Resilience-Focused

- Trauma-informed and resilience-focused practice fosters the possibility of well-being by restoring and nurturing resilience – despite other life adversity.
- Change the Mindset
- It is asking, “What experiences are driving the way this child thinks about themselves and others?”
- And, “How does that impact the way they behave?”



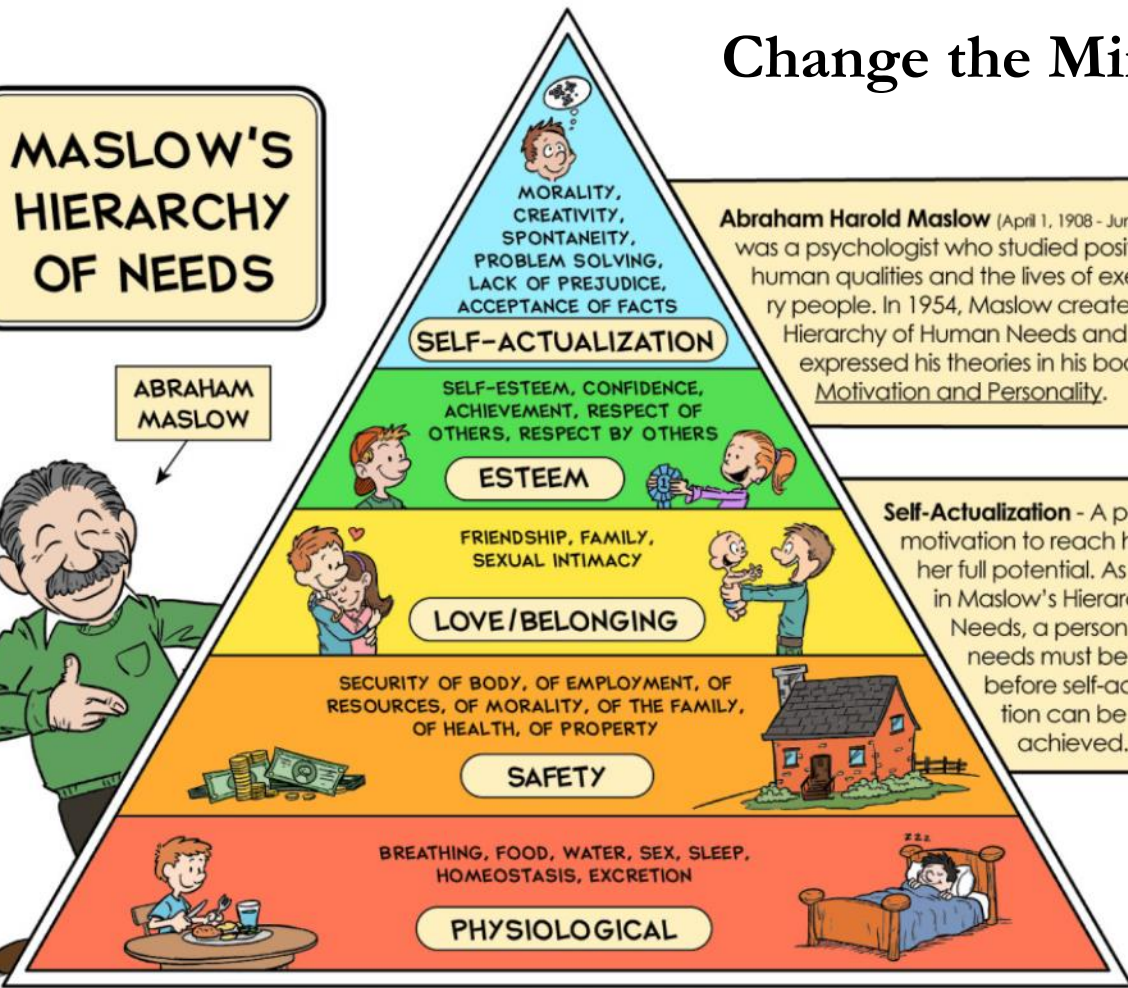
Trauma Informed Schools

- Provide School-wide Trauma Informed Awareness
- Understand Trauma's Impact on Students
- View Trauma as an Experience
- Link Private Logic to Behavior
- Establish Safety
- Create Connections
- Promote Play
- Prioritize Social-Emotional Skills
- Collaborate with Families and Communities
- Support Staff

Change the Mindset

MASLOW'S HIERARCHY OF NEEDS

ABRAHAM MASLOW



Abraham Harold Maslow (April 1, 1908 - June 8, 1970) was a psychologist who studied positive human qualities and the lives of exemplary people. In 1954, Maslow created the Hierarchy of Human Needs and expressed his theories in his book, *Motivation and Personality*.

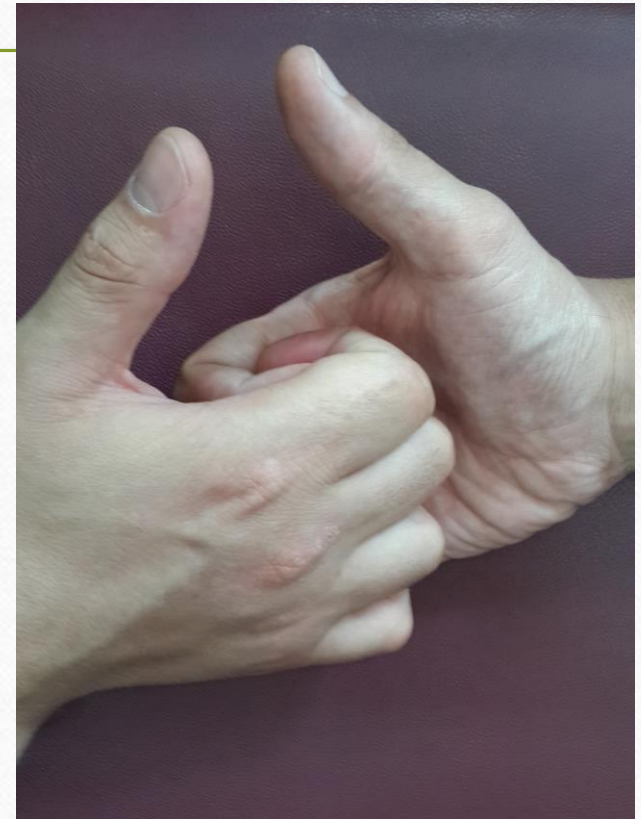
Self-Actualization - A person's motivation to reach his or her full potential. As shown in Maslow's Hierarchy of Needs, a person's basic needs must be met before self-actualization can be achieved.

“We can change social conditions to create environments in which children and adults can feel safe and where they can thrive.”

Bessel Van Der Kolk, M.D.

Brain Science Advances

Every experience changes our chemistry – both adverse and positive experiences!



Protective Factors

What does research tell us today?
There are four main *protective factors*
that come up time and time
again when you scour research
related to resilience. These include
internal and external factors.





“A caring adult relationship is the foundation in helping students impacted by trauma...it helps them move from hopelessness to HOPE. We have the ability to change students’ life paths and help them gain the resiliency they need to overcome their adverse childhood experiences.”

- Jim Sporleder

Why Do We Need A New Approach?

“If the only tool you have is a hammer, you tend to see every problem as a nail.”

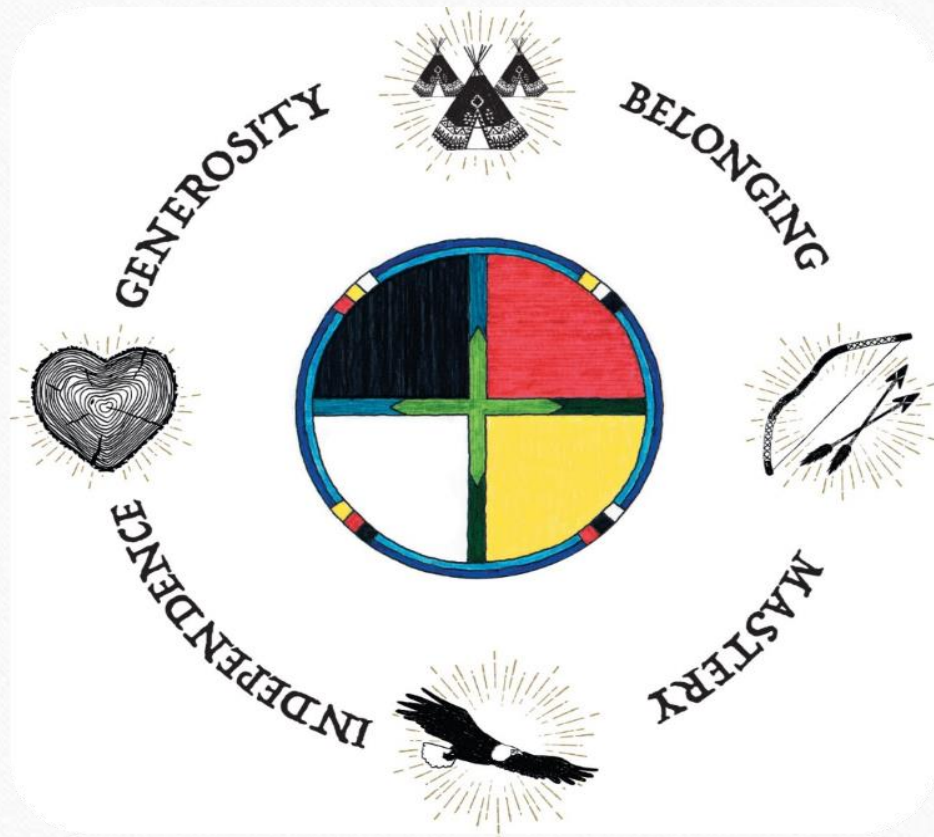
- Abraham Maslow



Group Discussion

- What are some innovative things already being implemented in your districts/schools to support social-emotional learning?





- Belonging
- Mastery
- Independence
- Generosity

Internal Protective Factors



Build Individual Capabilities

- Promoting a positive Self View
 - a person's self view is closely linked to hope and the belief that good things happen to me
- Promoting Self Efficacy
 - the belief that what I do influences what happens to me
- Promoting Self-Regulation
 - the ability to gauge our state of mind and emotions and to keep them under control

External Protective Factors

- Nurture a sense of belonging
 - recognize unique talents, strengths, interests
- Supportive relationships with caring and competent adults
 - competent adults serve as role models for learning new skills and demonstrate appropriate ways to manage stress/navigate life
- Sources of faith, hope and cultural traditions
 - build a school culture that is safe, supportive, and allows students to practice needed skills they may have not developed in their world



PROTECTIVE FACTORS THAT PROMOTE RESILIENCE

EXTERNAL FACTORS

- Caring and supportive relationships
- Supportive and safe environments
- Challenging but obtainable expectations for success
- Opportunities to belong
- Opportunities to have meaningful interactions with others
- Connection to community

INTERNAL FACTORS

- Competent and efficient social skills
- Problem solving skills
- Autonomy
- Sense of purpose
- Feelings of being effective
- Sense of being “all right”
- Vision of better future
- Self-regulatory skills

(Sporleder & Forbes, 2016)

Put Into Action

- Understand Private Logic
- Support Deficits in Universal Needs
- Normalize Symptoms and Reactions
- Teach and Practice
 - Emotional Awareness
 - Emotional Regulation
 - Encourage Expression
- 3 Tiered System of Support
 - Necessary conversations



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Action
Changes
Things



Next Steps....

Share information/training with others:

- Michigan ACE Initiative
- Brain Story Certificate
- Nadine Burke Harris TED Talk
- Mental Health Curriculum
- Starr Global Learning Network



Resources

- <https://mahp.org/tags/michigan-ace-initiative>
- www.albertawellness.org
- <https://www.cdc.gov/ace>
- <https://developingchild.harvard.edu/guide/a-guide-to-toxic-stress/>
- <http://resiliencetrumpsaces.org/>
- <https://oversight.house.gov/>
- https://www.youtube.com/watch?v=KdDr_nZOIXc

Shawna Boomgaard, LMSW, ACTP
Advanced Certified Trauma Practitioner/Trainer
OCC Manager of Academic Accountability
Email: boomgar@oakland.edu
Office: 234-370-4191
Main: 248-370-4596

Julie Hopper, M.A. Early Childhood Education
ACE Master Trainer
LSSU CSO Academic Assessment Specialist
Email: jhopper@lssu.edu
Office: 906-635-2118
Cell: 906-322-0822

thank you!