

# ACES and Trauma- Informed Care: Creating a Tool Kit

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**Physical illness**

**Mental Illness**

**Developmental Delay**

**School Failure**

**Maladaptive Lifestyle**

**Early Death**

**Would you fear it?**





$2/3$



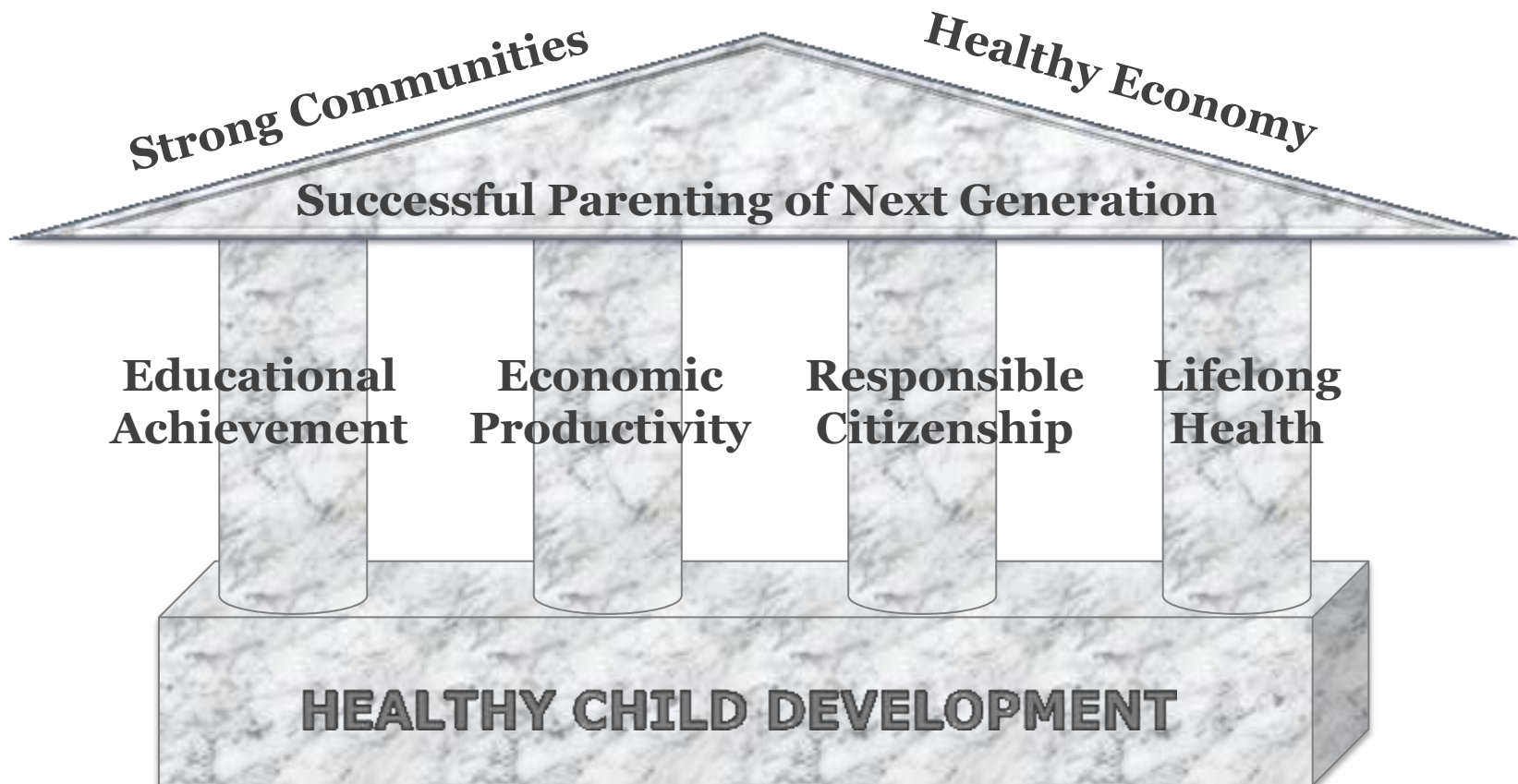


# Objectives

- Overview of ACES and the brain
- Downstream effects
- Tools for Trauma-informed Care



# The Foundation of a Successful Society is Built in Early Childhood



# The Science of Early Brain Development

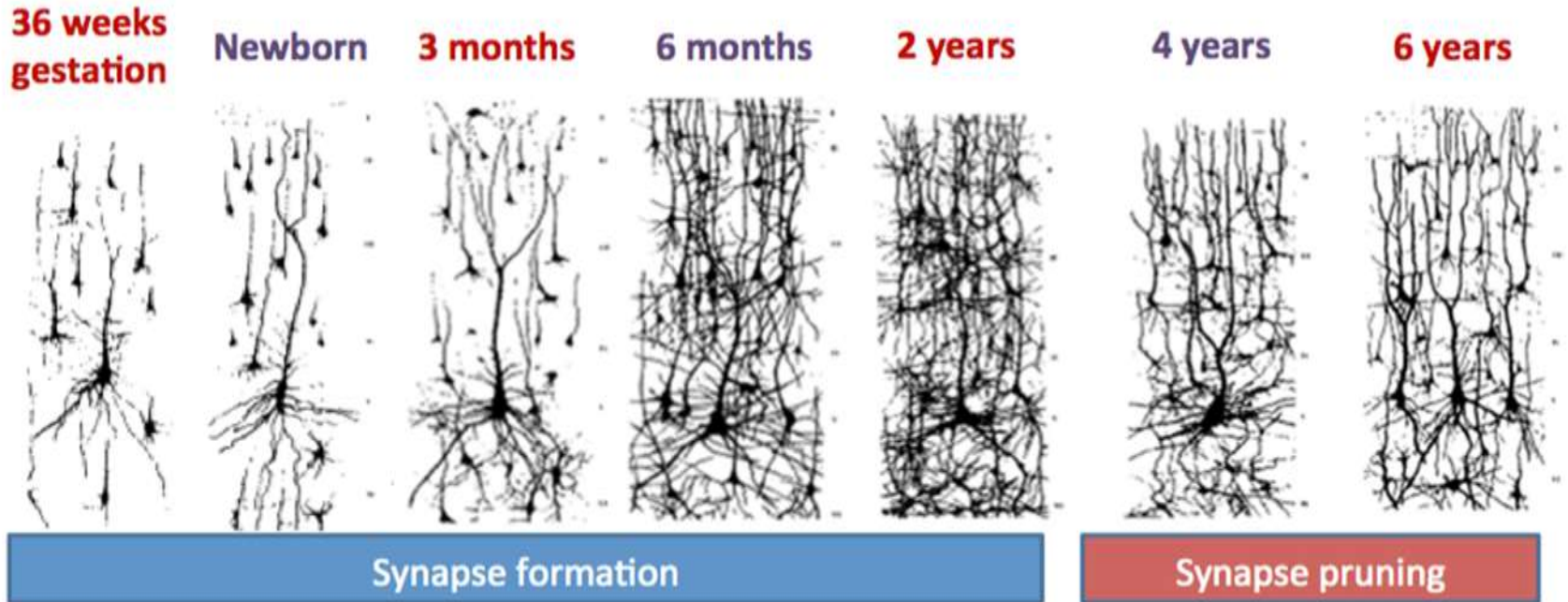






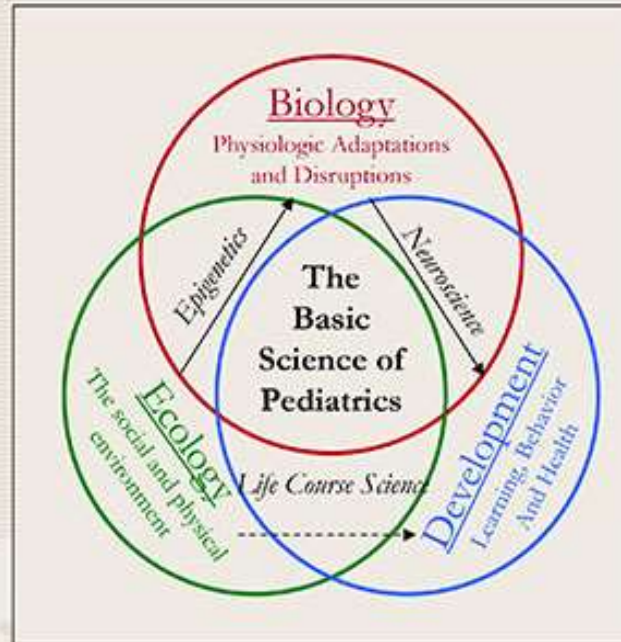
**Brains are built over time, from the bottom up.**

# Growth and Pruning



700 to 1,000 new neural connections form every second.

# Eco-Bio-Developmental Model of Human Health and Disease



**Ecology**  
Becomes **biology**,  
And together they drive **development** across the lifespan

# Serve and Return

*biologically shapes the architecture  
of the  
developing brain.*







# Stress response

**Positive Stress  
Response**



**Tolerable Stress  
Response**



**Toxic Stress  
Response**



Prefrontal Cortex

Hippocampus

Concentration  
Judgment  
Problem Solving  
Executive function

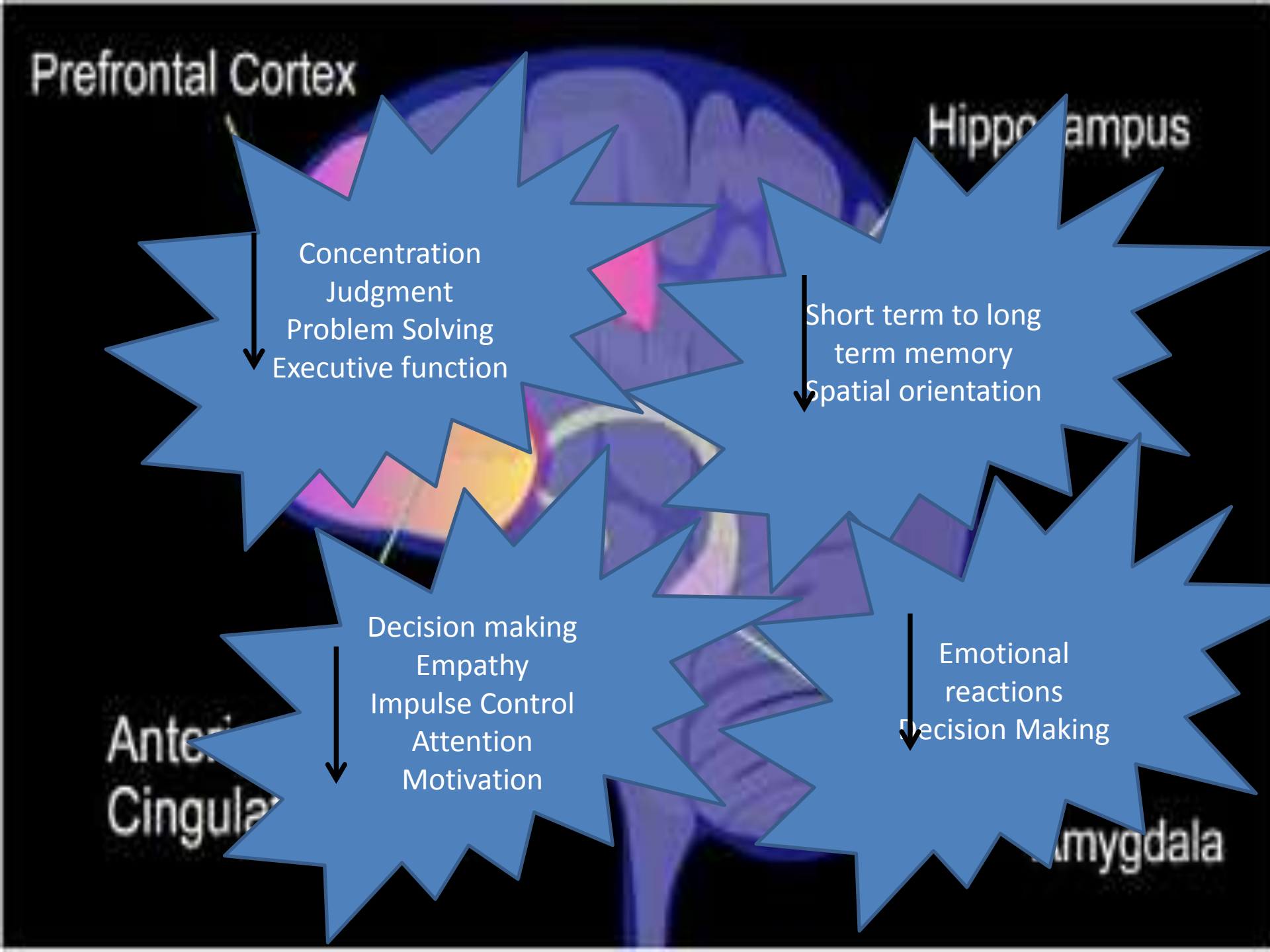
Short term to long  
term memory  
Spatial orientation

Decision making  
Empathy  
Impulse Control  
Attention  
Motivation

Emotional  
reactions  
Decision Making

Anterior  
Cingulate

amygdala



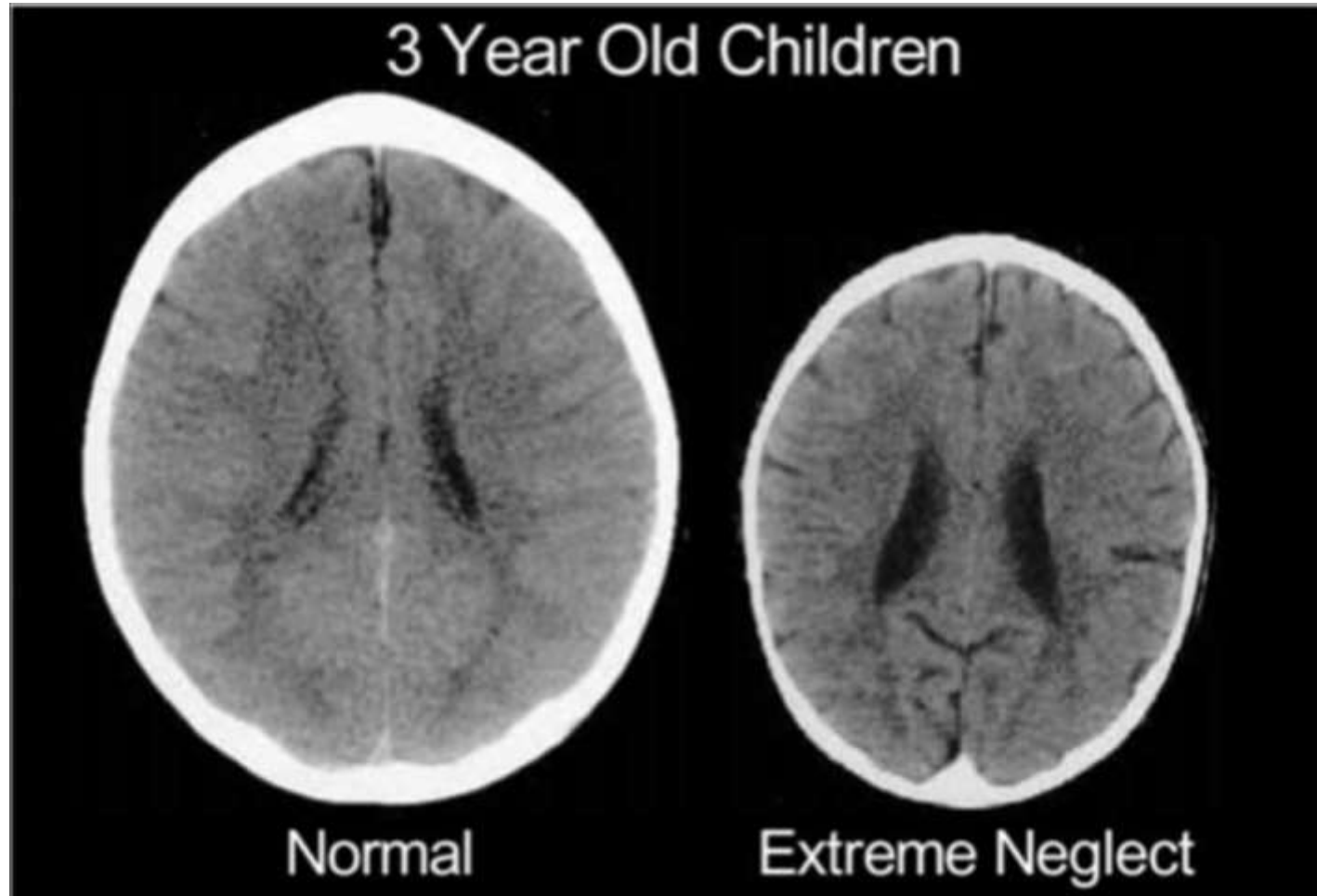
# Toxic Stress and the body

- Neurologic
- Immunologic
- Cardiovascular
- Endocrine
- Epigenetic





# Early Stress is Neurotoxic





**And now...**

**The most amazingly  
important, mind-blowing  
study that will change your  
lives forever!**



# The ACES Study



# Once upon a time....

## 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.



## ABUSE



Physical

---



Emotional

---



Sexual

## NEGLECT



Physical

---



Emotional

## HOUSEHOLD DYSFUNCTION



Mental Illness

---



Incarcerated Relative

---



Mother treated violently

---



Substance Abuse



Divorce

# Adverse Childhood Experiences ARE COMMON

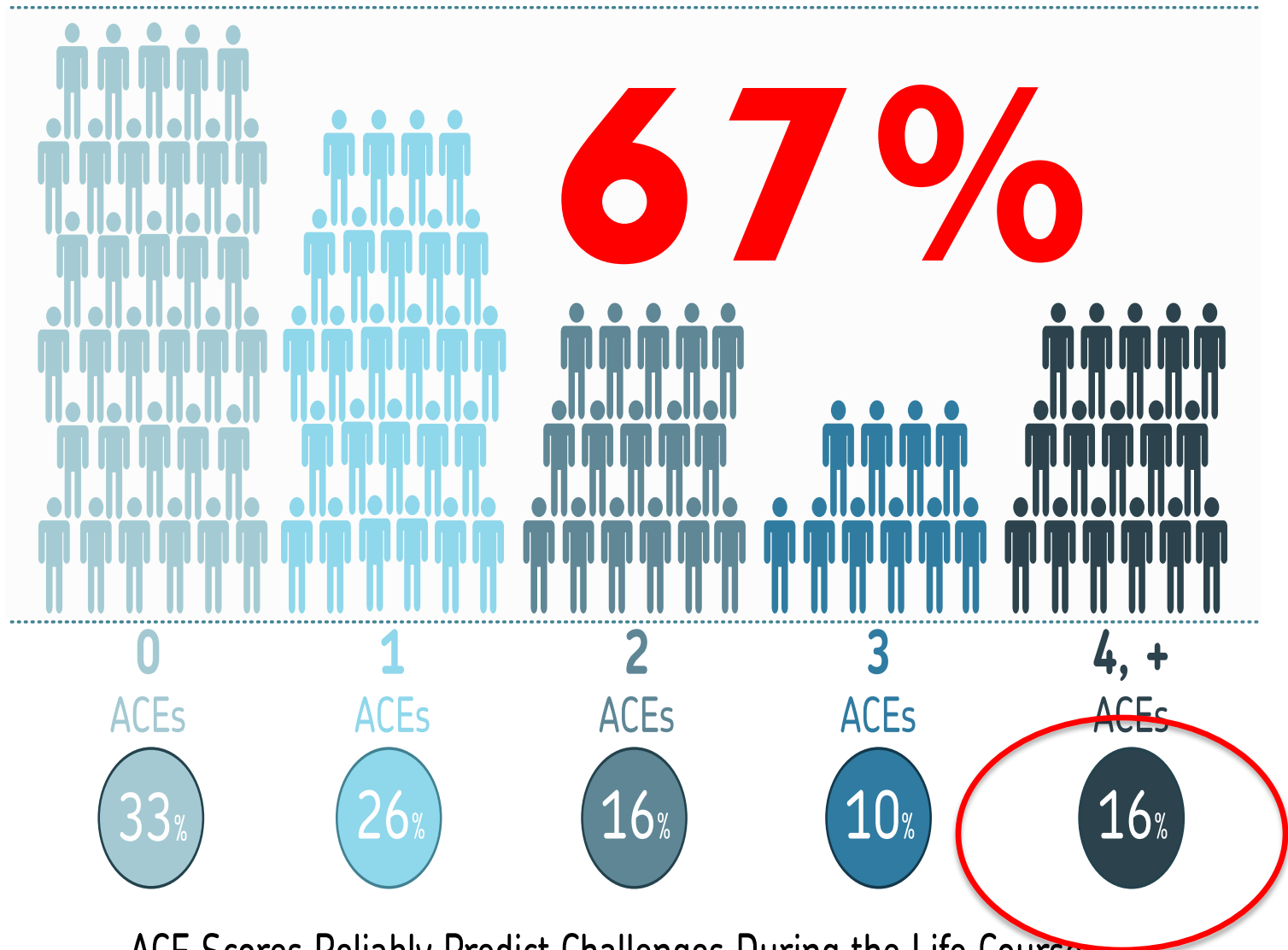
| Household Dysfunction |     |
|-----------------------|-----|
| Substance Abuse       | 27% |
| Parental Sep/Divorce  | 23% |
| Mental Illness        | 17% |
| Battered Mothers      | 13% |
| Criminal Behavior     | 6%  |

| 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

# What it found

People with 4 or more ACEs compared to those with 0 ACEs:

| <b>RISK FACTOR</b>       | <b>% INCREASE</b> |
|--------------------------|-------------------|
| <b>Smoking</b>           | <b>242%</b>       |
| <b>Obesity</b>           | <b>222%</b>       |
| <b>Depression</b>        | <b>357%</b>       |
| <b>Illicit drug use</b>  | <b>443%</b>       |
| <b>Injected drug use</b> | <b>1,133%</b>     |
| <b>STD</b>               | <b>298%</b>       |
| <b>Attempted suicide</b> | <b>1,525%</b>     |
| <b>Alcoholism</b>        | <b>555%</b>       |

As the number of ACEs increases, so does the level of risk for each health issue

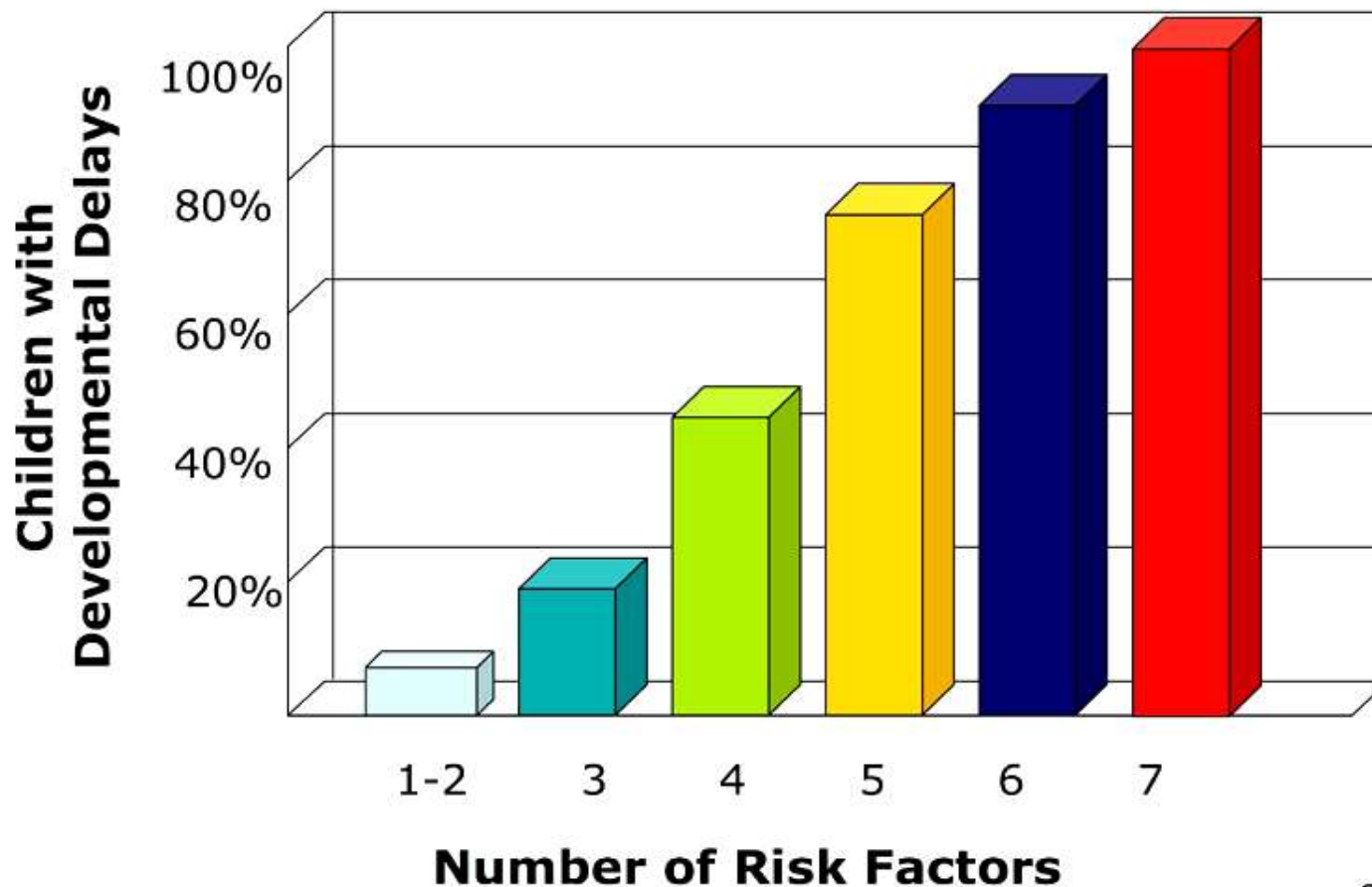


# Odds of having serious health condition

| Health Condition | 0 ACEs | 1 ACEs      | 2 ACEs      | 3 ACEs      | 4+ ACEs     |
|------------------|--------|-------------|-------------|-------------|-------------|
| Arthritis        | 100%   | <b>130%</b> | <b>145%</b> | <b>155%</b> | <b>236%</b> |
| Asthma           | 100%   | 115%        | 118%        | <b>160%</b> | <b>231%</b> |
| Cancer           | 100%   | 112%        | 101%        | 111%        | <b>157%</b> |
| COPD             | 100%   | 120%        | <b>161%</b> | <b>220%</b> | <b>399%</b> |
| Diabetes         | 100%   | 128%        | 132%        | 115%        | <b>201%</b> |
| Heart Attack     | 100%   | 148%        | 144%        | <b>287%</b> | <b>232%</b> |
| Heart Disease    | 100%   | 123%        | <b>149%</b> | <b>250%</b> | <b>285%</b> |
| Kidney Disease   | 100%   | -17%        | 164%        | 179%        | <b>263%</b> |
| Stroke           | 100%   | 114%        | 117%        | 180%        | <b>281%</b> |
| Vision           | 100%   | <b>167%</b> | <b>181%</b> | <b>199%</b> | <b>354%</b> |



## Significant Adversity Impairs Development in the First Three Years



# ACE “adaptations” affect Social/Emotional Development



- **Dysregulation of emotions and behavior**
- **Persistent fear response**
- **Hyperarousal**
- **Increased internalizing symptoms**
- **Diminished executive function**
- **Complicated social interactions**
- **Abnormal attachment**

# Child Mental Health



74.5 million children  
live in the US.

**17.1 million** have  
a mental health  
disorder.

That's more than  
the # of kids with  
cancer, diabetes,  
and AIDS combined!



# ACES worsen mental health

1 in 5

- Children under 18 has a diagnosable mental health disorder

1 in 10

- Youth have severe mental health issues that impair school, home, and community function

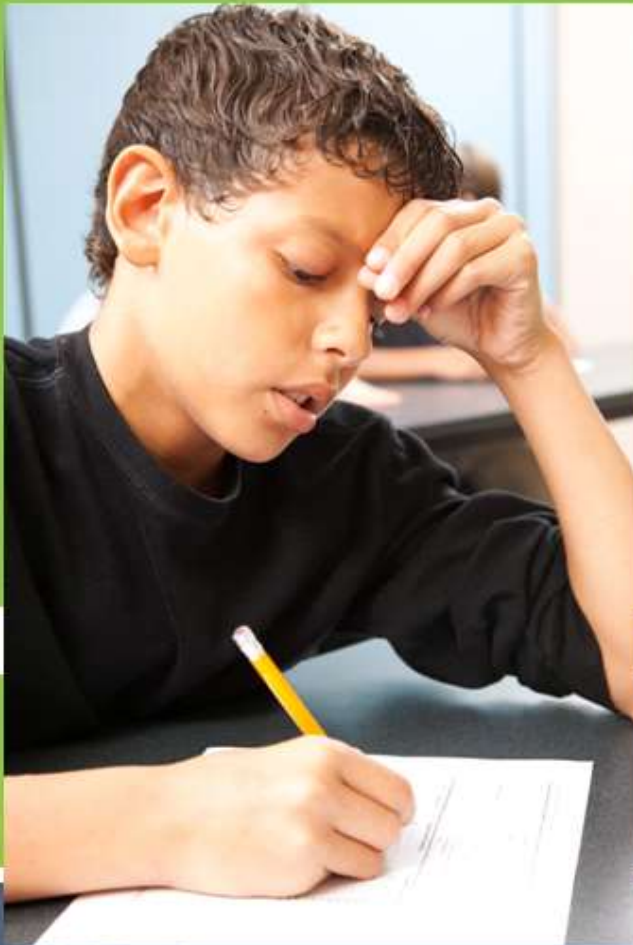
50%

- Of all lifetime mental health disorders start by age 14

**RF for mental health problems: poverty, teen parents, foster care**

# Students with higher number of ACEs are more likely to:

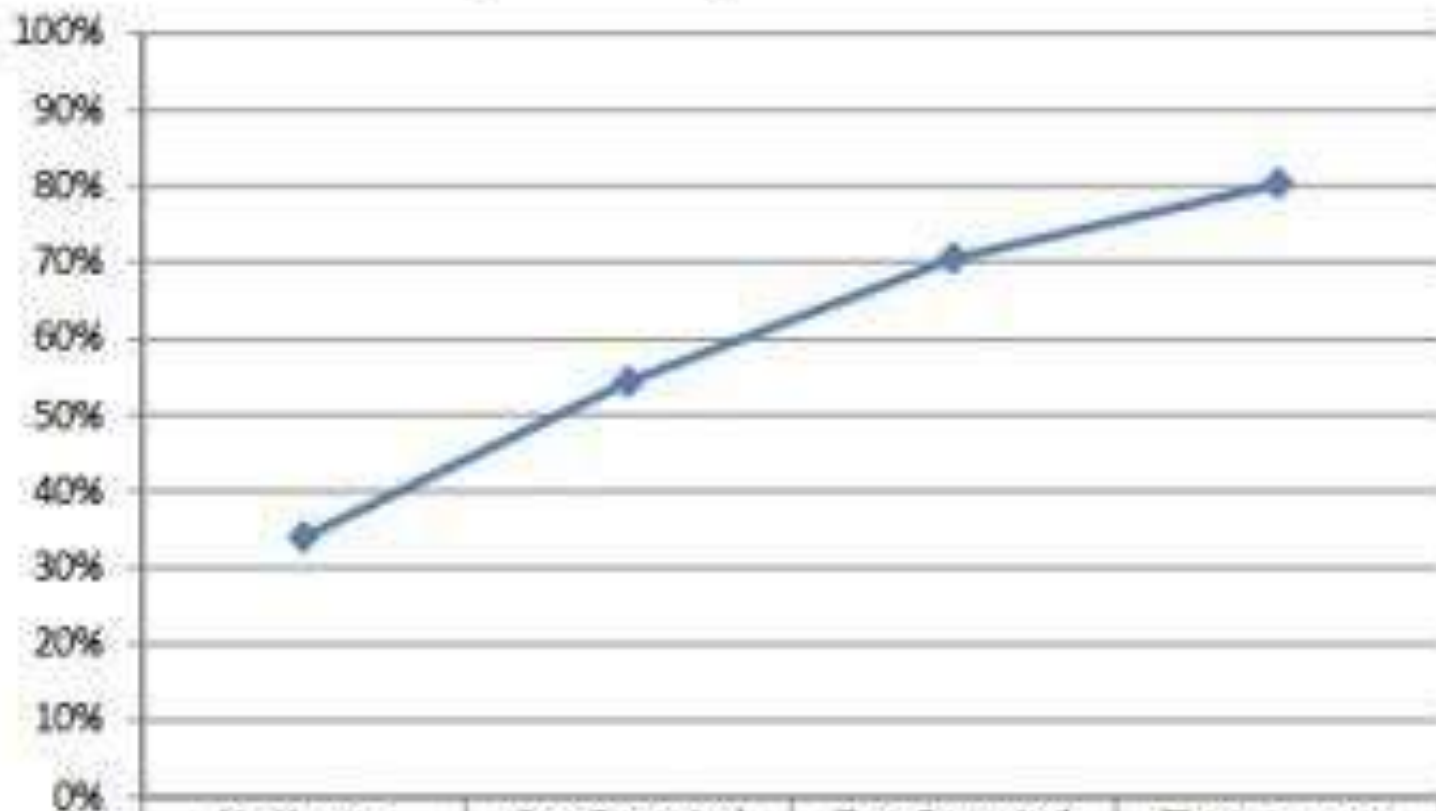
## Educational Health



- Be designated to special education
- Score lower on standardized tests
  - Have language difficulties
  - Be suspended or expelled
    - Have poorer health
    - Fail a grade

## Percent of Students with One or More Academic Concerns by ACE Exposure

Percent of Students with Academic Problems



No Known Adverse Events

One Reported Adverse Event

Two Reported Adverse Events

Three or more Adverse Events

34%

54%

71%

80%

One or More Academic Concerns

# Downstream effects on social health

**Gangs**

**Poverty**

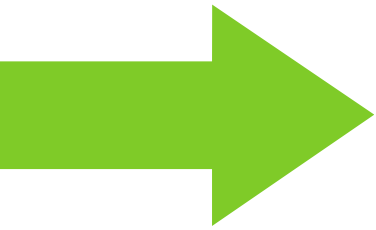
**Homelessness**

**Violence**

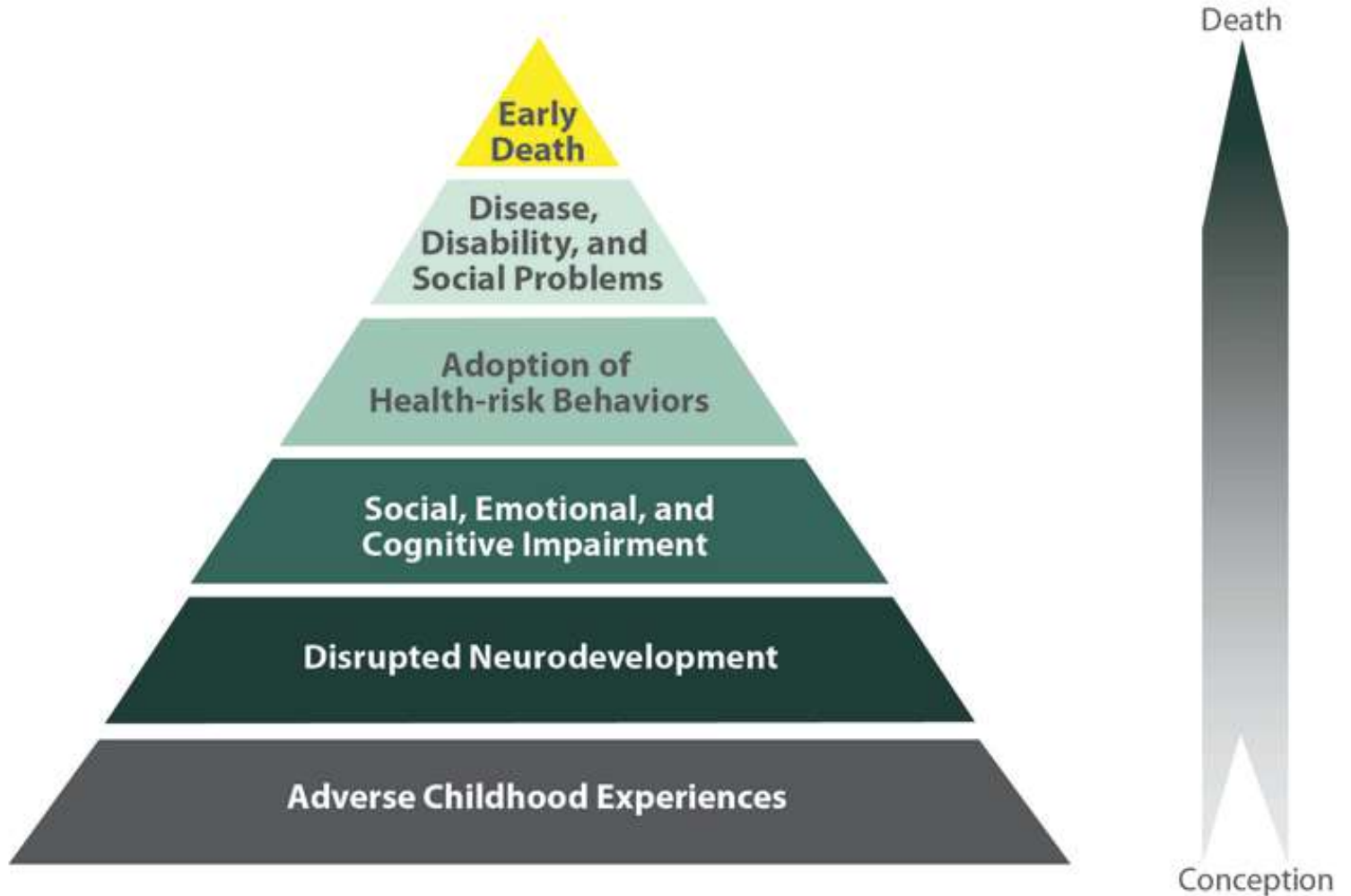
**Criminality**







# ACE Pyramid



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



# What can we do?

**Childhood experiences can be powerful determinants of our health and well-being as adults....**

***BUT THEY DO NOT HAVE TO.***

# Trauma-Informed Care: Being Aware



- What
- Why
- Who
- How



**It is Not:**

**“What’s wrong with you?”**

**But...**

**“What happened to you?”**



# What is TIC?

- Treatment framework for people who have experienced trauma
- Recognizing and responding to trauma and its effects
- Emphasizes physical, psychological and emotional safety & love

# What are the components of TIC?

Education

Parental supports

Screening

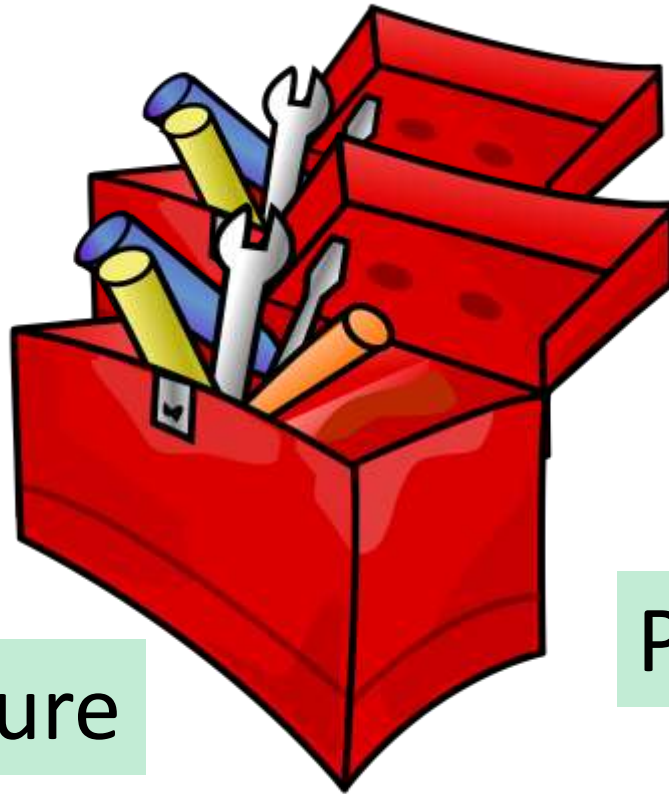
Treatments

Referral

Self-care

Climate/culture

Policy/Advocacy



# Why become Trauma-informed?

Changing organizational culture and clinical practice to reflect trauma-informed principles has the potential to improve

- patient engagement,
- treatment adherence,
- health outcomes, and
- provider and staff wellness.

# Why TIC?

- **Helps to empower kids**
- **Helps them feel connected**
- **Helps them feel confident/competent**
- **Helps them regulate emotions**



# How do we provide TIC?

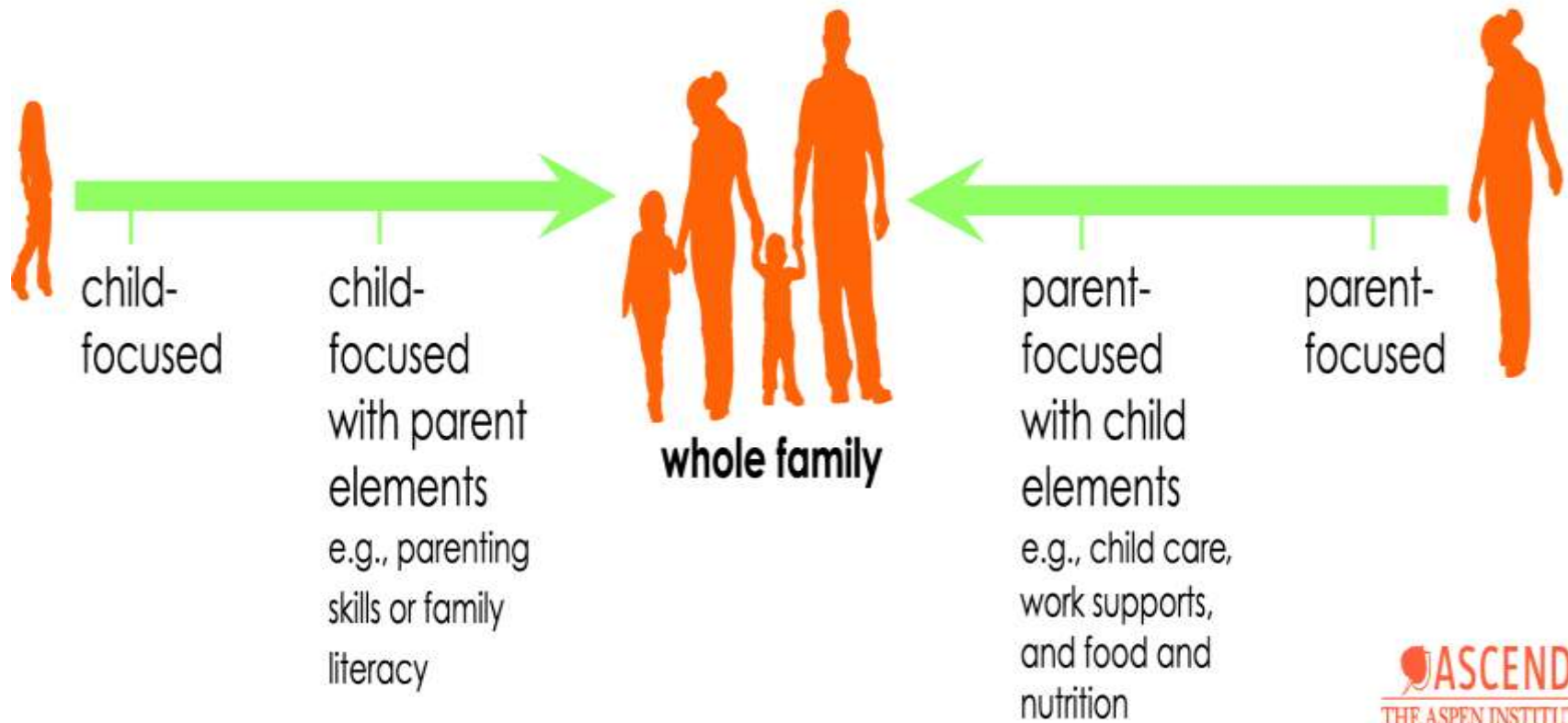
- Helping families meet basic needs
- Building secure attachment and relationships
- Building social connections
- Helping parents with problem solving/relationships
- Teaching parents about normal development
- Helping children develop S/E skills



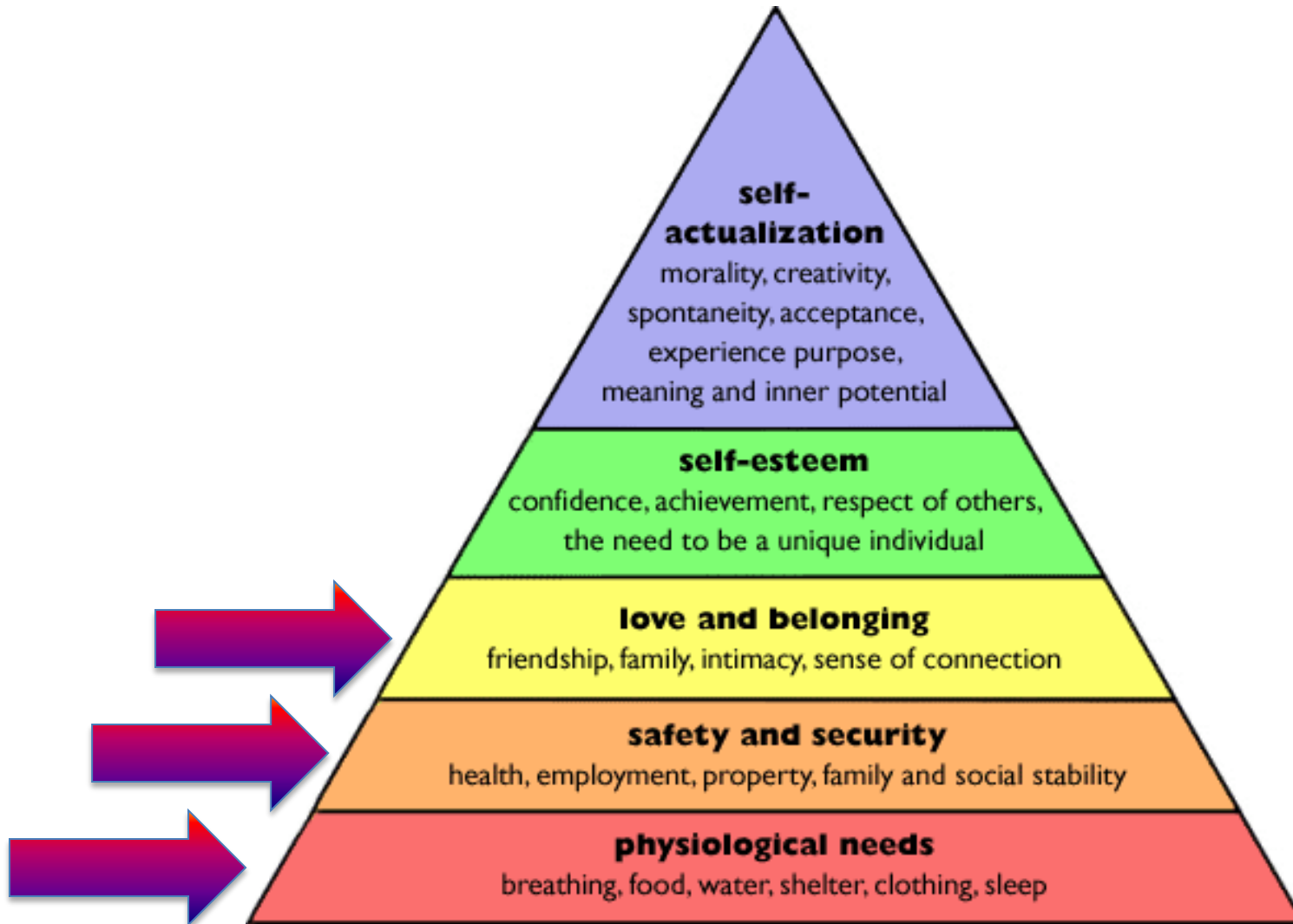


# How: A Two-Generation Approach

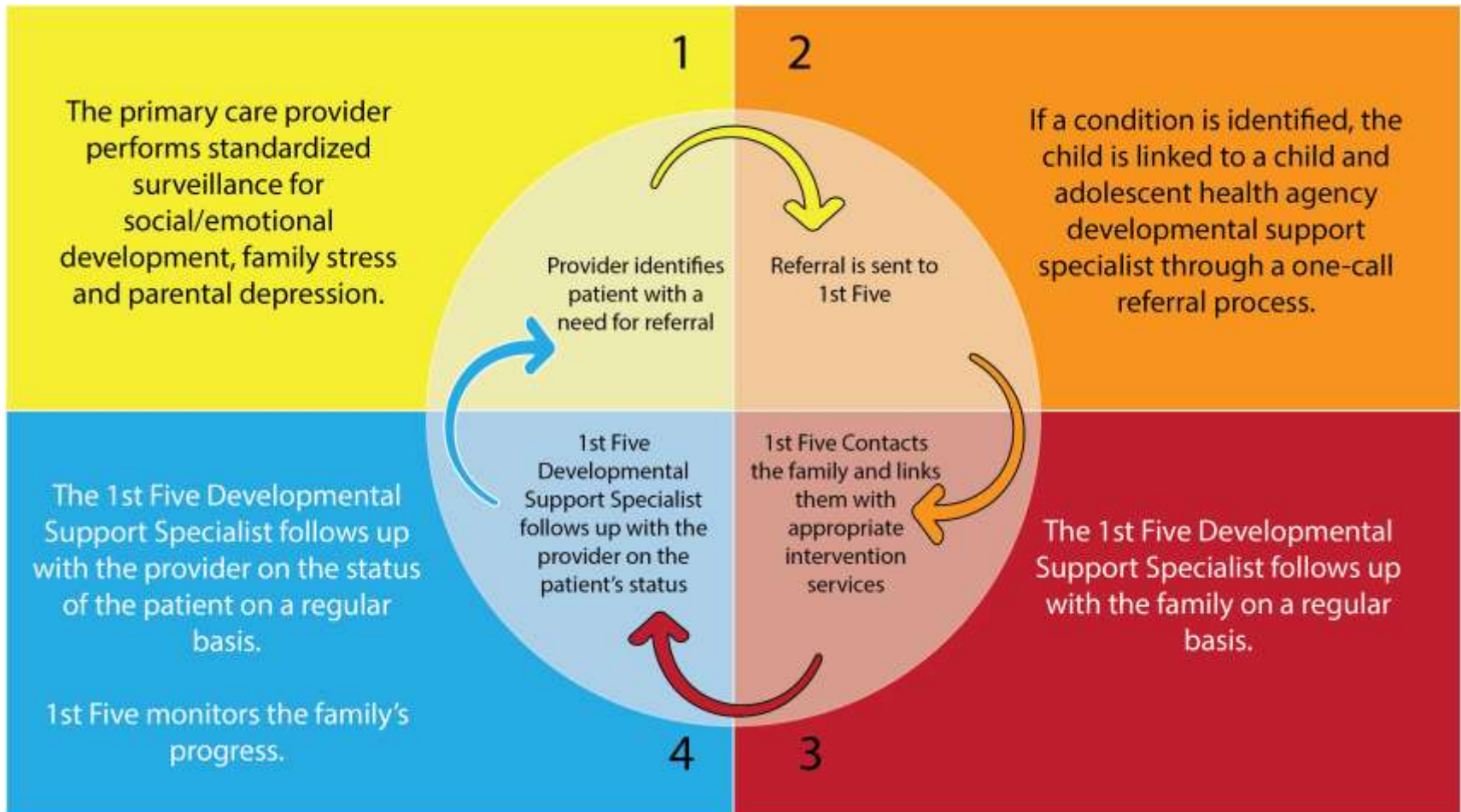
## The Two-Generation Continuum



# Helping with basic needs: Maslow's Hierarchy of Need



# 1<sup>st</sup> Five Iowa





# CONNECTIONS IN PRIMARY CARE



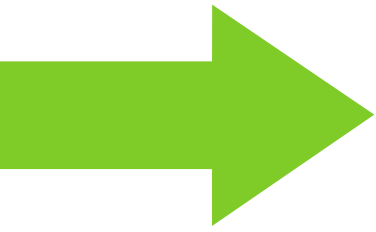
VISITING **NURSE** SERVICES **OF IOWA**



**Initiative Launch:**  
**National Pediatric  
Practice Community on  
ACEs**

*An initiative of* **CENTER FOR**  
**YOUTH WELLNESS**  
*health begins with hope*





# Breaking the cycle: pediatric and family care

## Trauma-Informed Pediatric Care Guide

- EDUCATION 
- RESOURCE & REFERRAL 
- ASSESSMENT 
- CLIMATE & SETTING 



# Barriers to Screening

- Lack of time
- Lack of provider comfort and perceived negative patient reaction
- Weak or nonexistent referral system
- Fear of providing incorrect information
- Fear of clinic liability and increases in cases of mandated reporting
- Questions about tools and scientific foundation
- Perception of that issue pertains to only certain populations
- Perception that issue is outside physician core function

# Referrals for Treatment

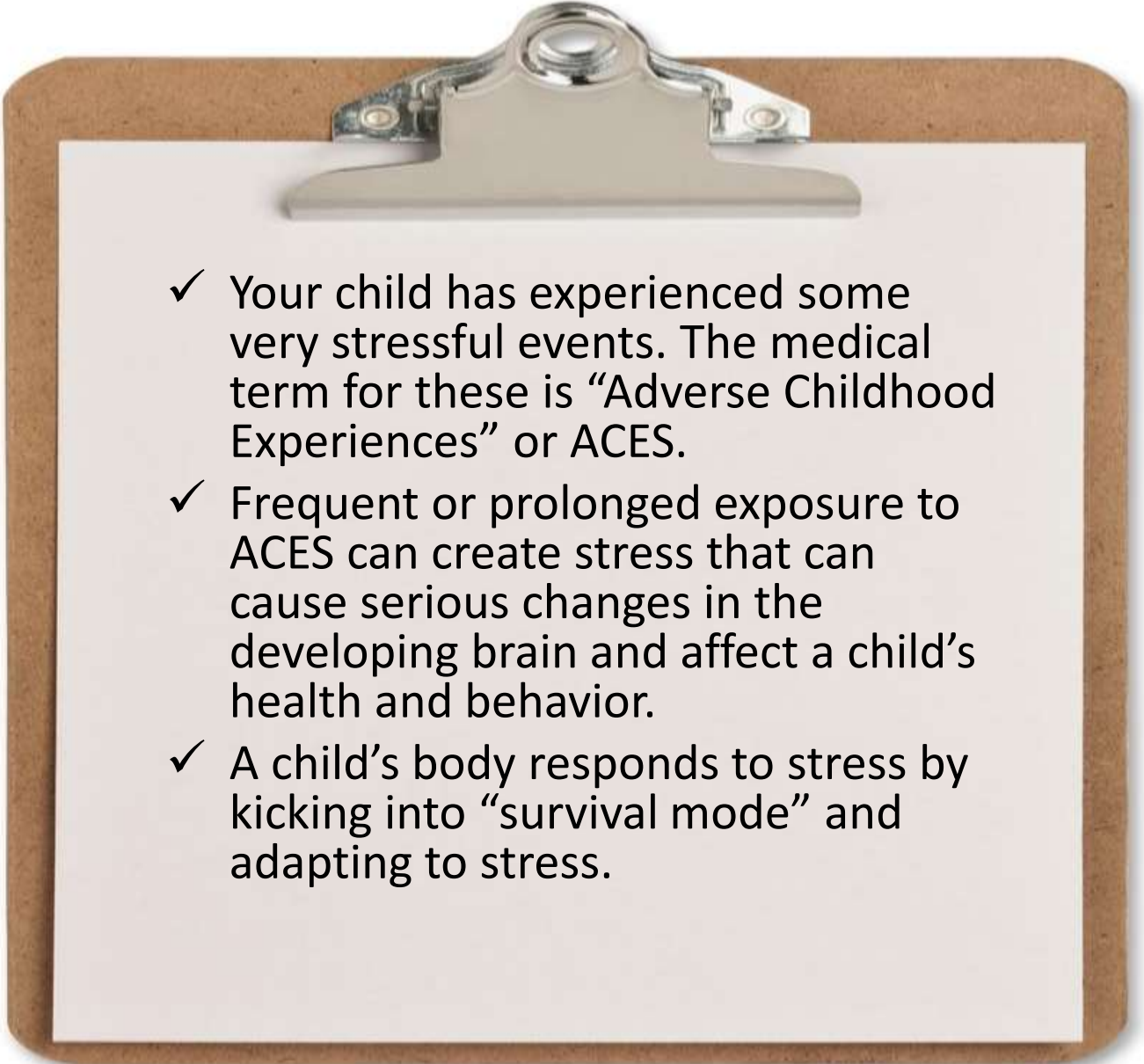
- Care coordinator works with families to:
  - Set up home visits
  - Psychotherapy
  - Psychiatry
  - Wellness nursing
  - Biofeedback and other self-regulation techniques
  - Education

# State Child Mental Health Workgroup

**COLLABORATION FOR A  
RESILIENT IOWA  
NAMI**

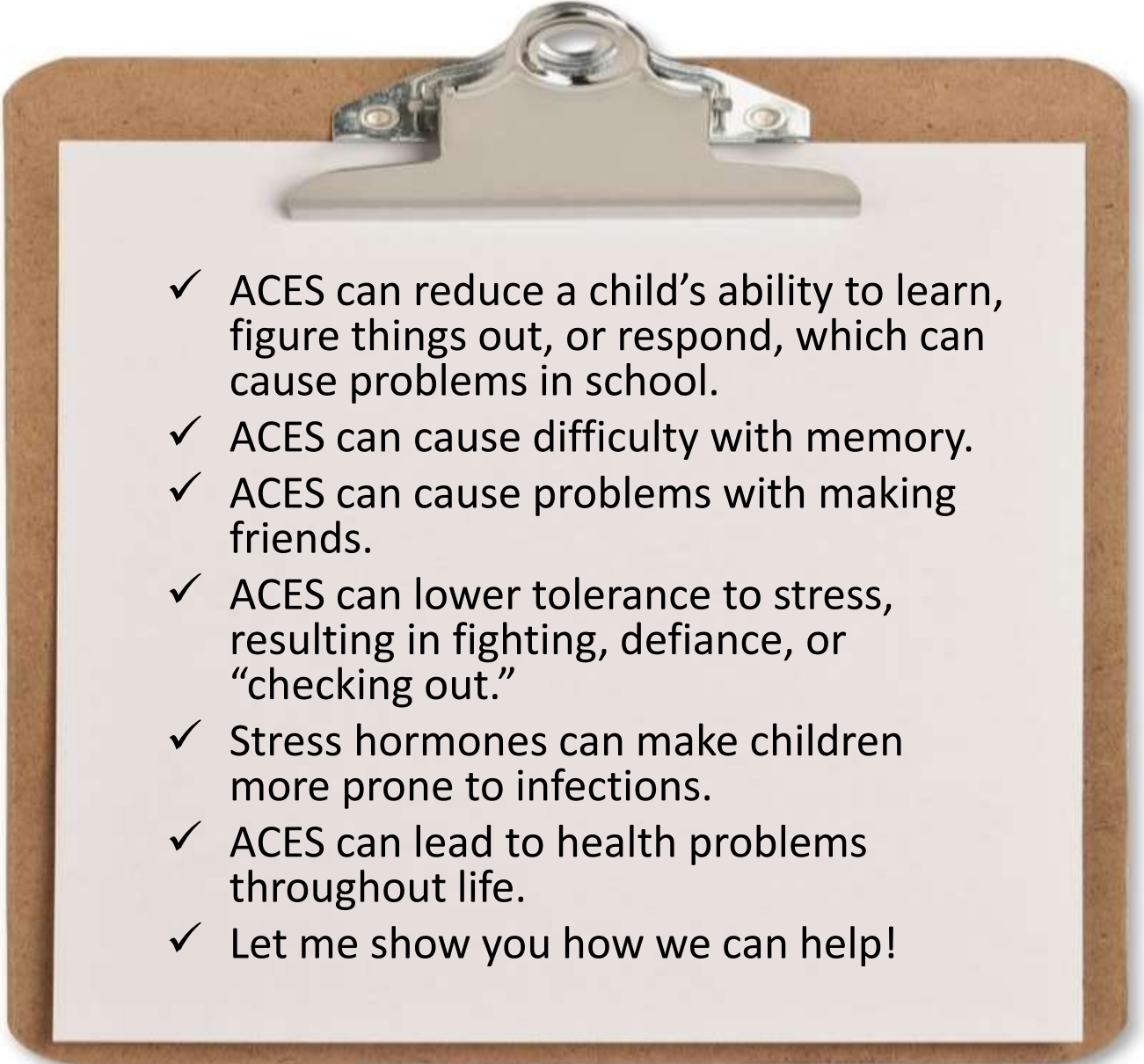
**TRAUMA INFORMED  
CARE CONSORTIUM**

# Explaining ACES

- 
- ✓ Your child has experienced some very stressful events. The medical term for these is “Adverse Childhood Experiences” or ACES.
  - ✓ Frequent or prolonged exposure to ACES can create stress that can cause serious changes in the developing brain and affect a child’s health and behavior.
  - ✓ A child’s body responds to stress by kicking into “survival mode” and adapting to stress.



# Explaining ACES

- 
- ✓ ACES can reduce a child's ability to learn, figure things out, or respond, which can cause problems in school.
  - ✓ ACES can cause difficulty with memory.
  - ✓ ACES can cause problems with making friends.
  - ✓ ACES can lower tolerance to stress, resulting in fighting, defiance, or "checking out."
  - ✓ Stress hormones can make children more prone to infections.
  - ✓ ACES can lead to health problems throughout life.
  - ✓ Let me show you how we can help!

**Executive function** and **self-regulation** skills are the mental processes that enable us to plan, focus attention, remember instructions, and juggle multiple tasks successfully.



Just as an air traffic control system at a busy airport safely manages the arrivals and departures of many aircraft on multiple runways, the brain needs this skill set to

- filter distractions,**
- prioritize tasks,**
- set and achieve goals,**
- and control impulses.**

Executive function and self-regulation skills depend on three types of brain function:  
**working memory,**  
**MENTAL FLEXIBILITY,**  
and  
**self-control.**



# Building capacities: Executive Function

- Create and maintain supportive relationships
- Establish routines
- Model good social behaviors
- Interactive games
  - Lap games
  - Imitating games
  - Role playing games
  - Fingerplays
  - Active inhibition games
  - Movement games
  - Imaginary play

# Building capacities: Self-regulation

Children who cannot effectively regulate anxiety or discouragement tend to move away from, rather than engage in, challenging learning activities.

Sleep

Exercise

Nutrition

Relaxation

Mental Health

Relationships



# Building Self-Regulation Skills

- Mindfulness and meditation
- Deep breathing (there's an app for that!)
- Sticky hands
- Stretching
- Tense and relax
- Yoga

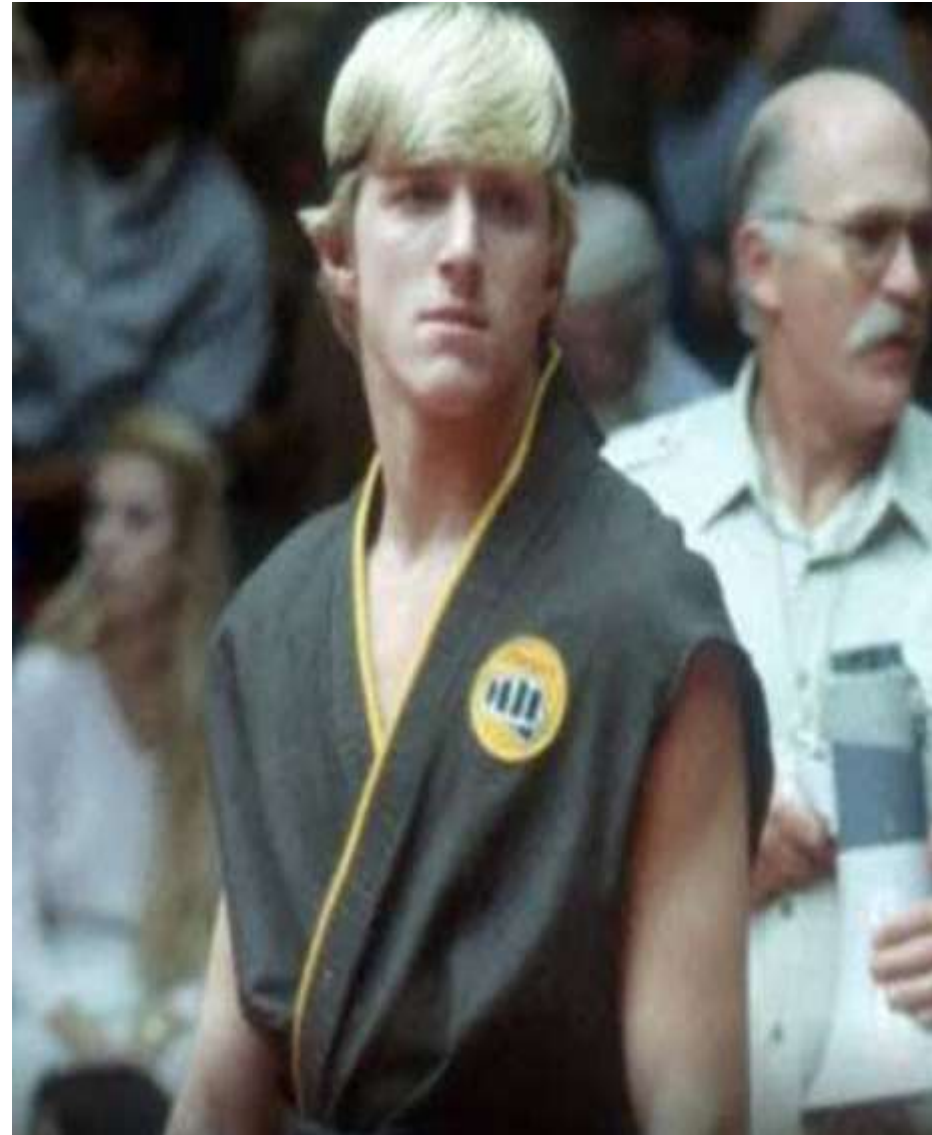
# Building Self-Regulation Skills

- ✓ Scaffolding
- ✓ Dry runs
- ✓ Paring down activities
- ✓ Slow down and self-reflect
- ✓ Teach them about emotions
- ✓ Teach “being intentional”



# TIC: The “bad kid”

- ✓ Maintain usual routines.
- ✓ Give children choices.
- ✓ Reduce chaos.
- ✓ Increase the level of support and encouragement.
- ✓ Recognize that behavioral problems may be trauma-related and transient.
- ✓ Set clear, firm limits.
- ✓ Develop logical—rather than punitive—consequences.
- ✓ Remember that traditional methods of discipline don't work here.



# Building Resilience and Hope

- connectedness
- mastery/efficacy
- affect regulation



# 7 Cs of Fostering Resilience

## **1. Competence:**

When we notice what young people are doing right and give them opportunities to develop important skills, they feel competent. We undermine competence when we don't allow young people to recover themselves after a fall.

## **2. Confidence:**

Young people need confidence to be able to navigate the world, think outside the box, and recover from challenges.

## **3. Connection:**

Connections with other people, schools, and communities offer young people the security that allows them to stand on their own and develop creative solutions.



# 7 Cs of Fostering Resilience

## **4. Character:**

Young people need a clear sense of right and wrong and a commitment to integrity.

## **5. Contribution:**

Young people who contribute to the well-being of others will receive gratitude rather than condemnation. They will learn that contributing feels good and may therefore more easily turn to others, and do so without shame.

## **6. Coping:**

Young people who possess a variety of healthy coping strategies will be less likely to turn to dangerous quick fixes when stressed.

## **7. Control:**

Young people who understand privileges and respect are earned through demonstrated responsibility will learn to make wise choices and feel a sense of control.

# Supporting Parents

- Education on normal development
- Education on positive parenting techniques and attachment theory
- Playing games, shared reading practices
- Identification of parental stress
- Referrals as appropriate





**KEEP  
CALM  
AND  
PRACTICE  
SELF-CARE**

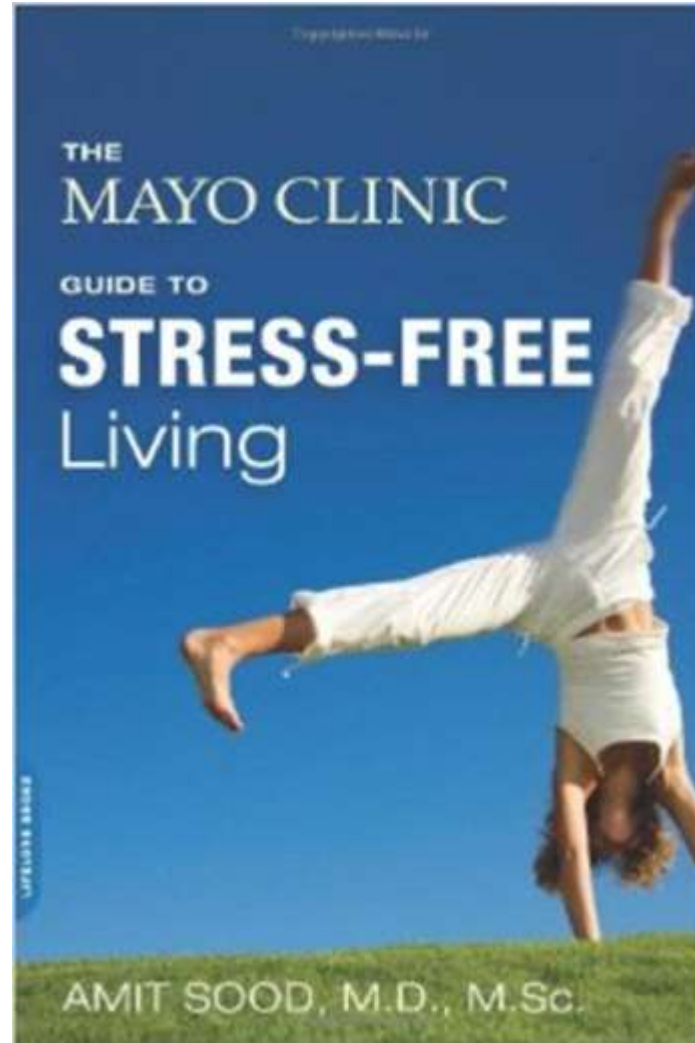
# What is self-care?

Self-care refers to activities and practices that we can engage in on a regular basis to **reduce stress and maintain and enhance our short- and longer-term health and well-being.**

**No one needs this more than early education teachers!**

# Self-care: an abbreviated guide

- Gratitude
- Compassion
- Acceptance
- Higher meaning
- Forgiveness
- Tribe
- Relaxation and reflection





| Lifestyle Behaviors  |                          |                          |   |                          |                          |
|--|--------------------------|--------------------------|---|--------------------------|--------------------------|
| When you are under stress, do you:   | Yes                      | No                       | When you are under stress, do you:  | Yes                      | No                       |
| Smoke/use tobacco  | <input type="checkbox"/> | <input type="checkbox"/> | Engage in physical activity at least three times a week for 30 minutes each day | <input type="checkbox"/> | <input type="checkbox"/> |
| Drink a lot of coffee or caffeinated drinks (more than 2-3 cups per day)                             | <input type="checkbox"/> | <input type="checkbox"/> | Get six to eight hours of sleep every night                                     | <input type="checkbox"/> | <input type="checkbox"/> |
| Drink alcohol (more than recommended levels of 1-2 per day)  | <input type="checkbox"/> | <input type="checkbox"/> | Maintain good eating habits   | <input type="checkbox"/> | <input type="checkbox"/> |
| Overuse over-the-counter medications   | <input type="checkbox"/> | <input type="checkbox"/> | Make time to relax  | <input type="checkbox"/> | <input type="checkbox"/> |
| Overeat or under eat   | <input type="checkbox"/> | <input type="checkbox"/> | Maintain a sense of humor   | <input type="checkbox"/> | <input type="checkbox"/> |
| Spend too much money (e.g., do you have a lot of credit card debt and have trouble making payments?) | <input type="checkbox"/> | <input type="checkbox"/> | Play  | <input type="checkbox"/> | <input type="checkbox"/> |
| Abuse/overuse tranquilizers or other over-the-counter medications                                    | <input type="checkbox"/> | <input type="checkbox"/> | Maintain healthy rituals and routines   | <input type="checkbox"/> | <input type="checkbox"/> |
| Watch too much television (more than 3-4 hours per day)  | <input type="checkbox"/> | <input type="checkbox"/> | Be optimistic. Engage in positive thinking                                      | <input type="checkbox"/> | <input type="checkbox"/> |
| Have angry outbursts   | <input type="checkbox"/> | <input type="checkbox"/> | Spend time with family  | <input type="checkbox"/> | <input type="checkbox"/> |
| Take illegal drugs   | <input type="checkbox"/> | <input type="checkbox"/> | Spend time with friends   | <input type="checkbox"/> | <input type="checkbox"/> |
| Withdraw from people   | <input type="checkbox"/> | <input type="checkbox"/> | Make plans for the future   | <input type="checkbox"/> | <input type="checkbox"/> |
| Ignore or deny stress symptoms   | <input type="checkbox"/> | <input type="checkbox"/> | Figure out ways to manage stress  | <input type="checkbox"/> | <input type="checkbox"/> |
| Engage in self-destructive relationships   | <input type="checkbox"/> | <input type="checkbox"/> | Reward yourself for your accomplishments  | <input type="checkbox"/> | <input type="checkbox"/> |
| <b>These are negative self-care behaviors.</b>   |                          |                          | <b>These are positive self-care behaviors.</b>                                  |                          |                          |

All children in foster care have experienced toxic stress.



Many children lived with families devastated by  
substance abuse,  
mental health disorders,  
poor education,  
unemployment,  
violence,  
lack of parenting skills,  
involvement with the criminal justice system.



Children and adolescents in foster care are a singularly **disadvantaged** and **vulnerable** population known to be at **high risk** for physical, emotional, and developmental conditions because of multiple and cumulative adverse events in their lives.



These children live in a world of impermanence, fragmentation, and instability, while in desperate need of permanence, cohesion, and stability.





Children in foster care  
have special health care  
needs!

## Health problems of children in foster care

| Health problem                         | Percent of foster care population               |
|--|---|
| Chronic medical problem                | 35 to 60 percent                                |
| Medically fragile or complex           | 11 percent                                      |
| Mental health problem                  | 80 percent of children older than age 4 years   |
| Developmental delay                    | 60 percent of children younger than age 5 years |
| Educational problems/special education | 45 percent                                      |
| Significant dental disease             | 35 percent                                      |
| Family relationship problems           | 100 percent                                     |

# Blank's Center for Foster Care Excellence

## What do we provide?

- Integrated Medical Home
- Coordinate care across multiple systems
  - Primary care
  - Mental/behavioral health care
  - Dental Care
  - Medical subspecialty care
  - Education
  - Developmental services
  - Social Services

# How to reach us

## **Regional Child Protection Center and Blank Center for Foster Care Excellence**

1215 Pleasant Street, Suite 303

Des Moines, IA 50309

**(515) 241-4311**

If you suspect a child is being physically or sexually abused or neglected, call the Department of Human Services **Child Abuse Hotline** at 1-800-362-2178.



**Thank You!**

Contact me at [amy.shriver@unitypoint.org](mailto:amy.shriver@unitypoint.org)

@shriver\_amy