

Childhood adversity is strongly linked to health over the life course. How should health care systems respond?

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Collaboration with First 5 LA and Los Angeles
County Department of Public Health

UCLA David Geffen School of Medicine

Adverse Childhood Experiences

Understanding Childhood
Adversity & Health Systems
Change

DISCLOSURES

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- Ann Isbell, PhD, Program Officer, First 5 LA, CME Planner
- Laura Stein, MPH, Program Specialist, Help Me Grow LA, Division of Maternal, Child, and Adolescent Health, Health Promotion Bureau, Los Angeles County Department of Public Health, CME Planner
- Adam Schickedanz, MD, PhD, Department of Pediatrics, University of California Los Angeles, CME Faculty

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Learning Objective

1

ACE Response Barriers



Describe common barriers to identifying and addressing adverse childhood experiences

Learning Objective

2

Your System's Barriers



Examine health system barriers to identifying and addressing adverse childhood experiences in your own practices

Learning Objective

3

Your Readiness



Assess readiness to deliver trauma-informed care in your own practice

Learning Objective

4

Available Tools

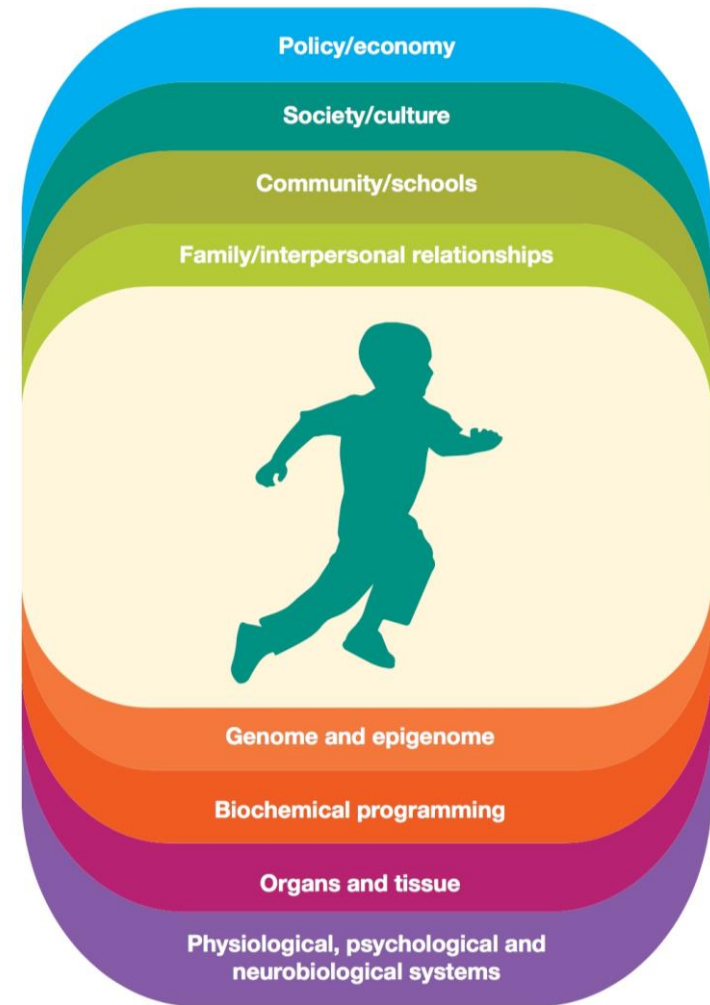


Identify at least one publicly-available tool for identifying and/or responding to adverse childhood experiences

Upstream Health Care & Life Course Health

Root Causes of Poor Health Outcomes are Found Upstream

- Upstream in the Life Course: Adverse Childhood Experiences
- Upstream of a Medical Diagnosis: Social Determinants of Health & Social Risks



Norris, Lake, and Draper, 2019 (See References)

Upstream Health Care & Life Course Health

Root Causes of Poor Health Outcomes are Found Upstream

What Happens Here...

Impacts Health Here



How do we define Adverse Childhood Experiences?



Broad definition, conventional ACE categories, expanding the frame, and the importance of functional/health impact

Definition: ACEs Are...

Stressful and often emotionally traumatic events that occur before the age of 18¹

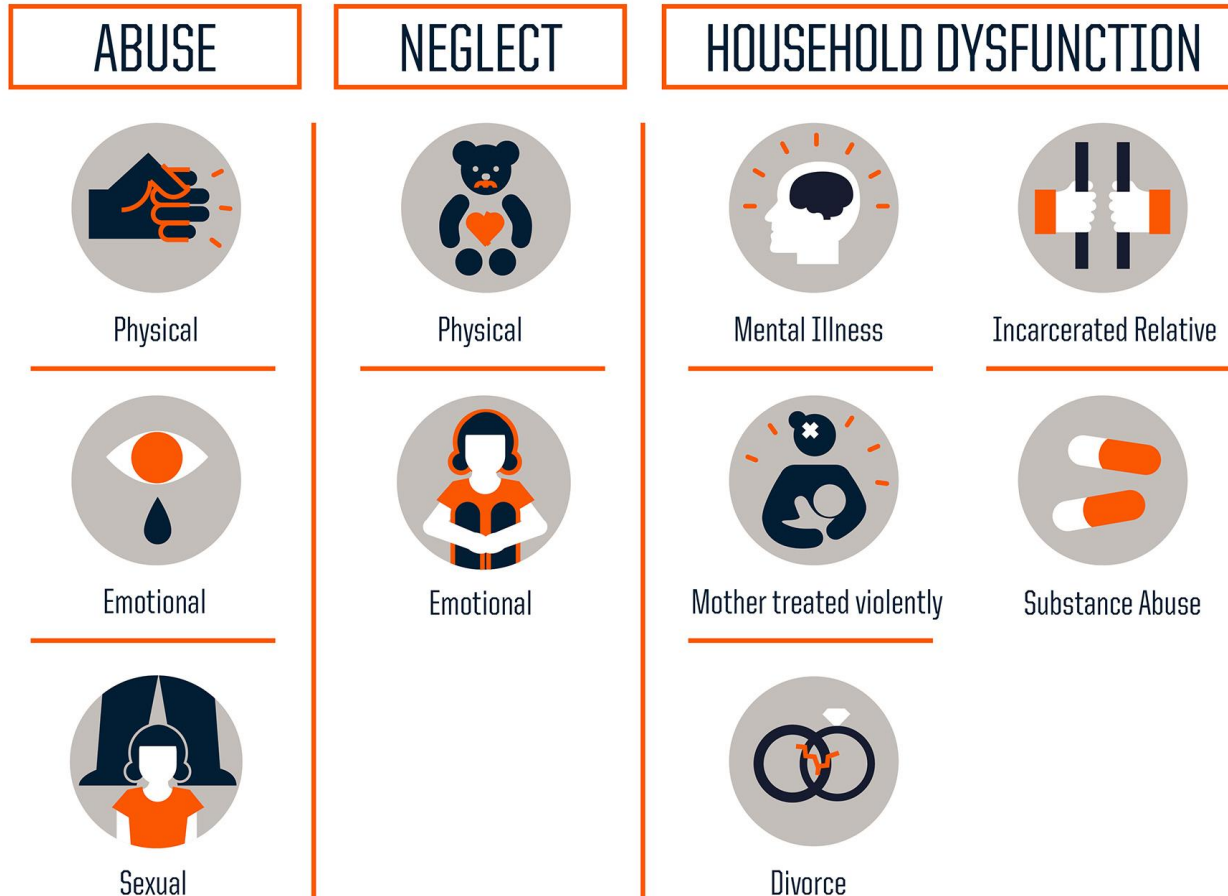
And beyond that, ACEs are...

- Experiences as well as indices of risk
- Subjective, but unlikely to be confabulated
- Measured in a variety of ways, without a gold standard
- All convergent on common stress response neuroendocrine pathway

1. SAMHSA Definition

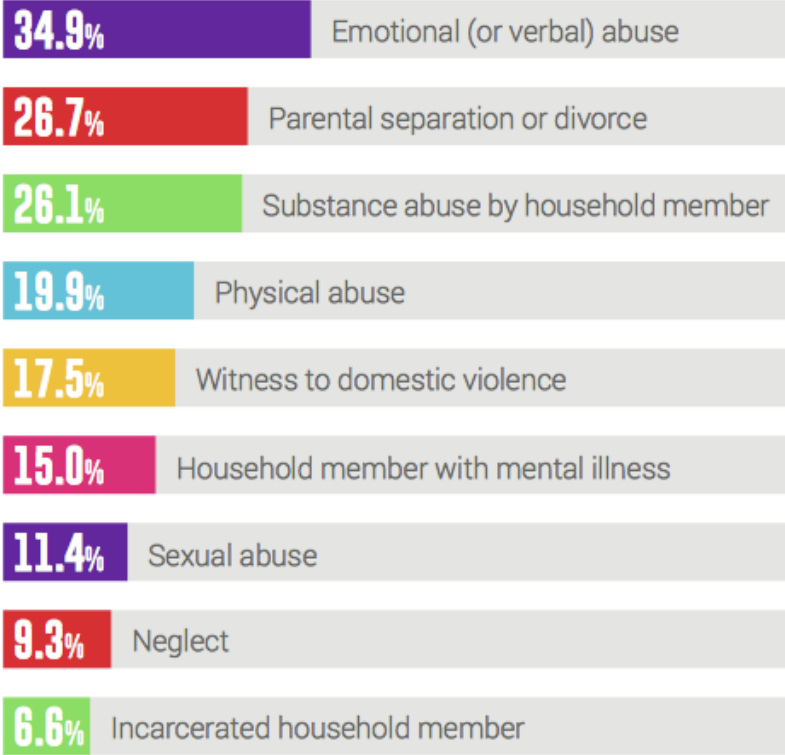
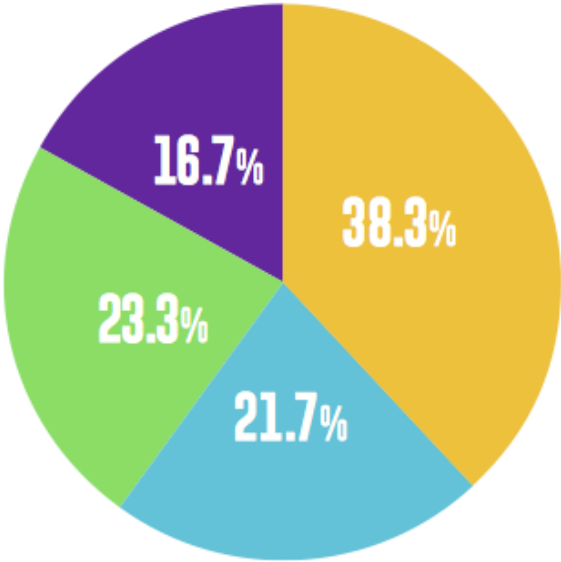
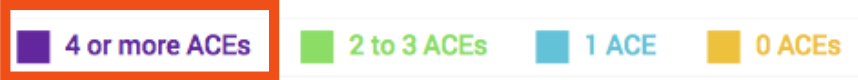
Adverse Childhood Experiences

The Original 10



CDC ACEs Study; RWJF. *Hidden Crisis: Findings On Adverse Childhood Experiences in California*

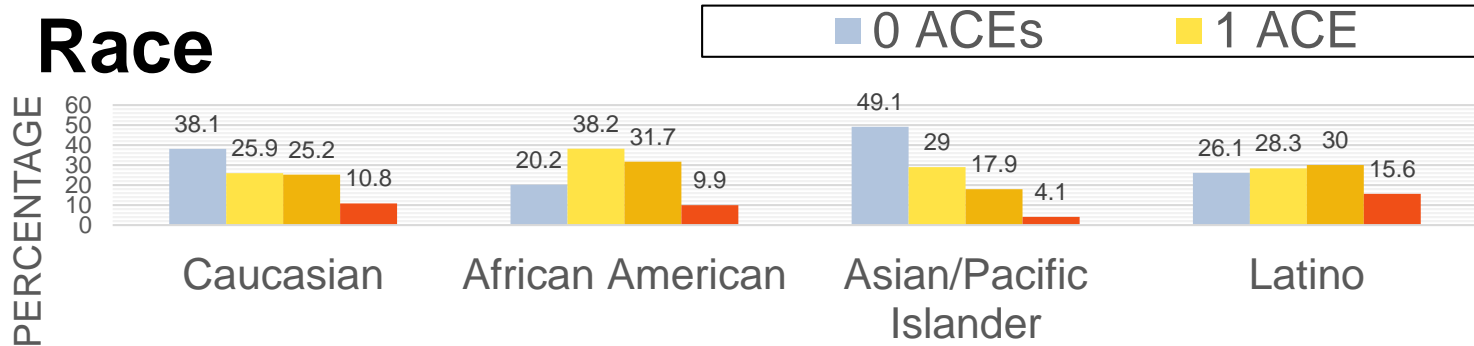
Over 60% of Californians Have ACE Histories



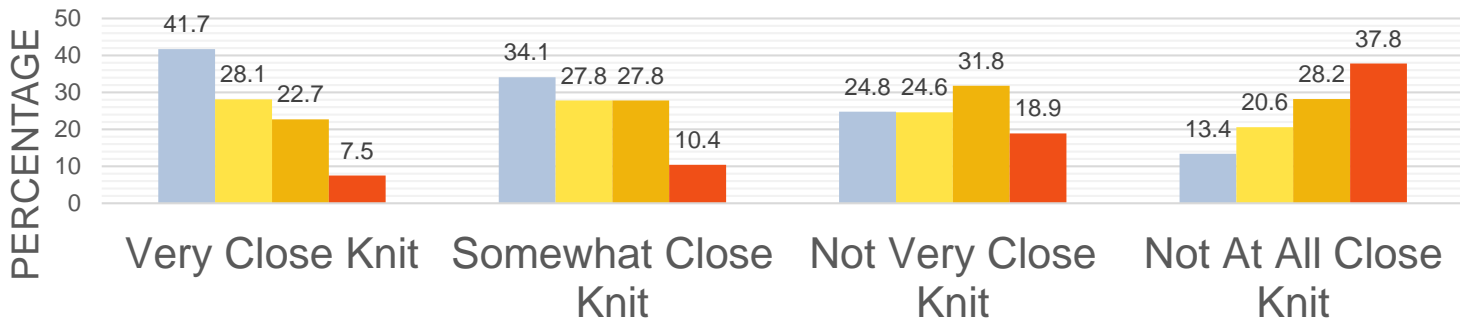
RWJF. *Hidden Crisis: Findings On Adverse Childhood Experiences in California*

ACEs Are Epidemic & Affect Us All

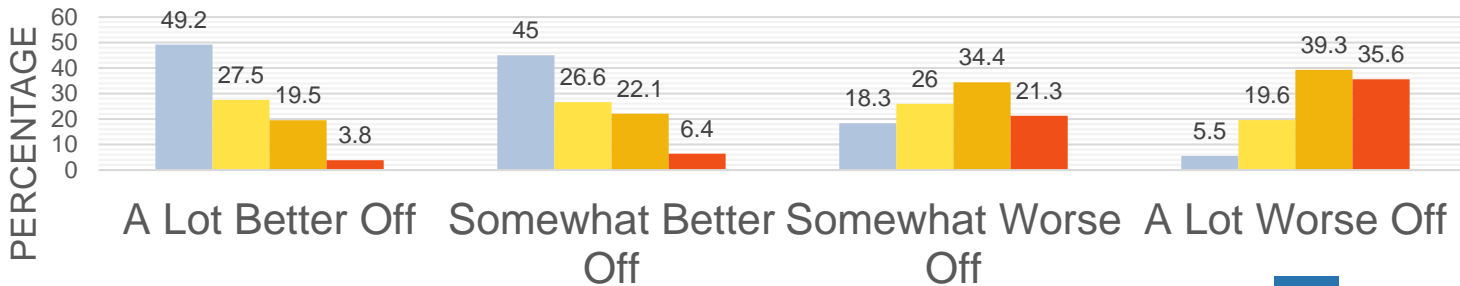
Race



Neighborhood Social Cohesion



Childhood Household Subjective SES

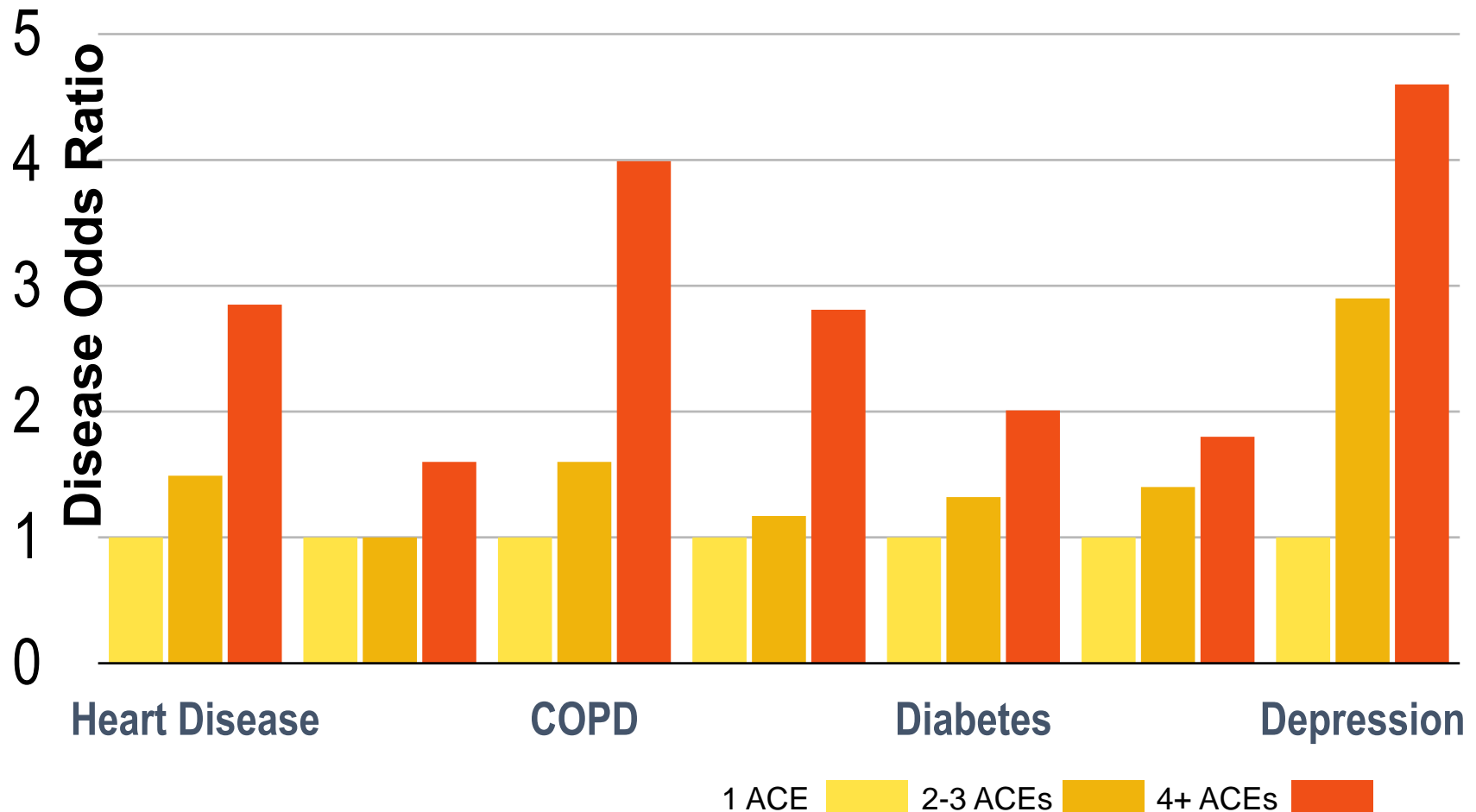


ACEs Dose Predicts Adult Disease Risk



Figure: RWJF. Hidden Crisis: Findings On Adverse Childhood Experiences in California

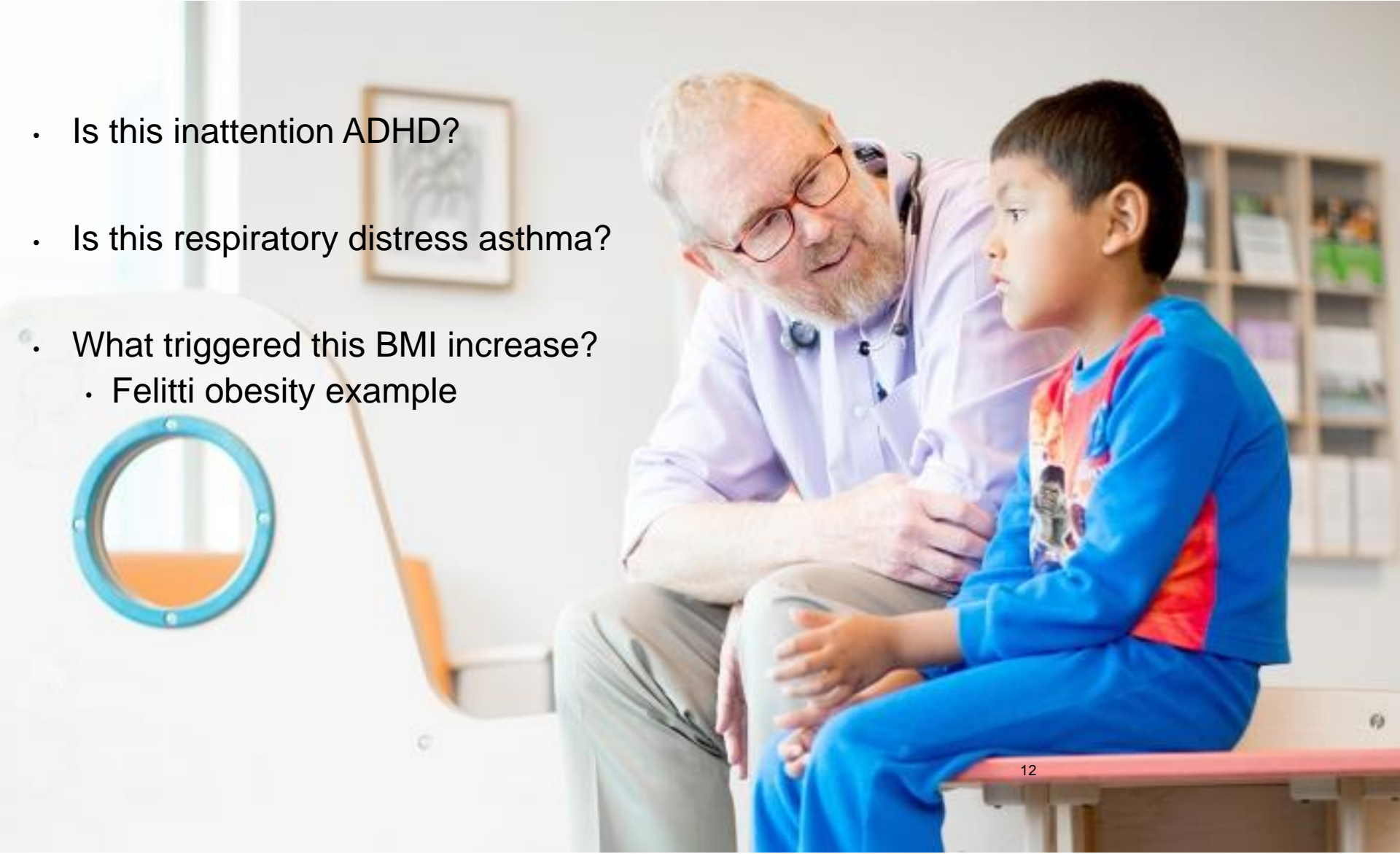
ACE Dose Predicts Adult Disease Risk



Felitti and Anda, in Lanius, Vermetten, & Pain Ch 8, 2011; Iowa ACEs360

ACEs Across Specialties & Settings

- Is this inattention ADHD?
- Is this respiratory distress asthma?
- What triggered this BMI increase?
 - Felitti obesity example

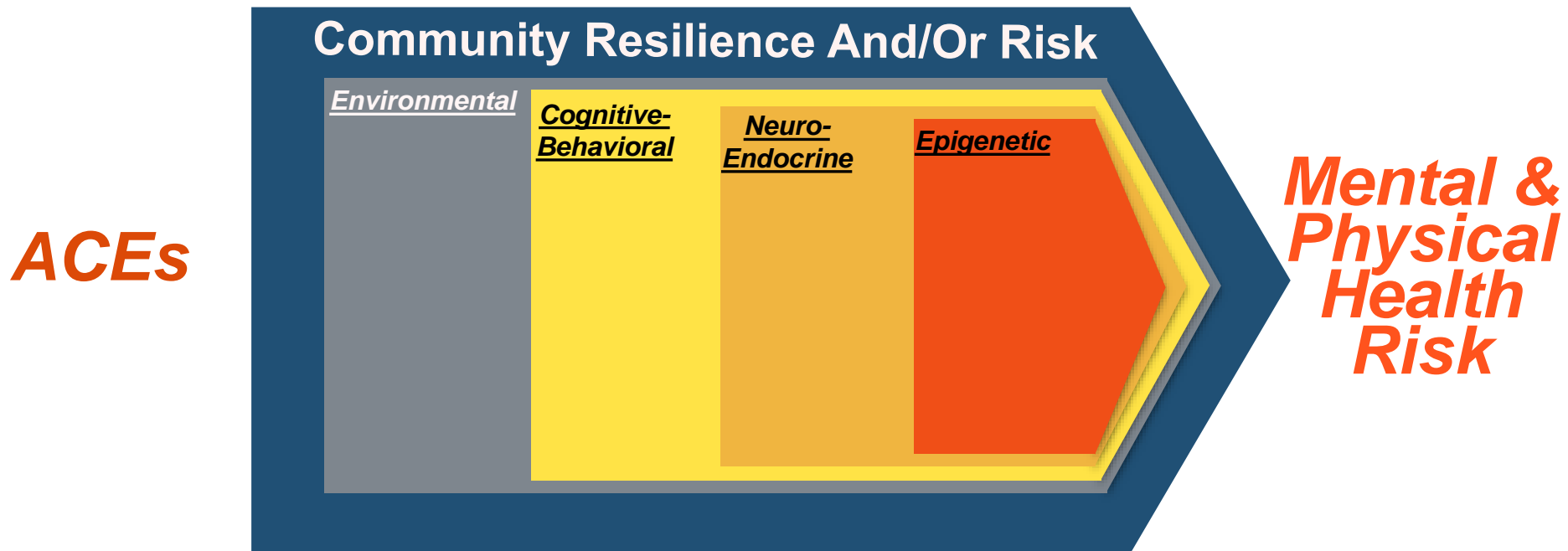


ACEs Mechanisms: Toxic Stress & Its Consequences



Multidimensional health risks, how adversity gets under the skin, and intergenerational impacts

Multidimensional Health Risks from ACEs



Multidimensional Health Risks from ACEs

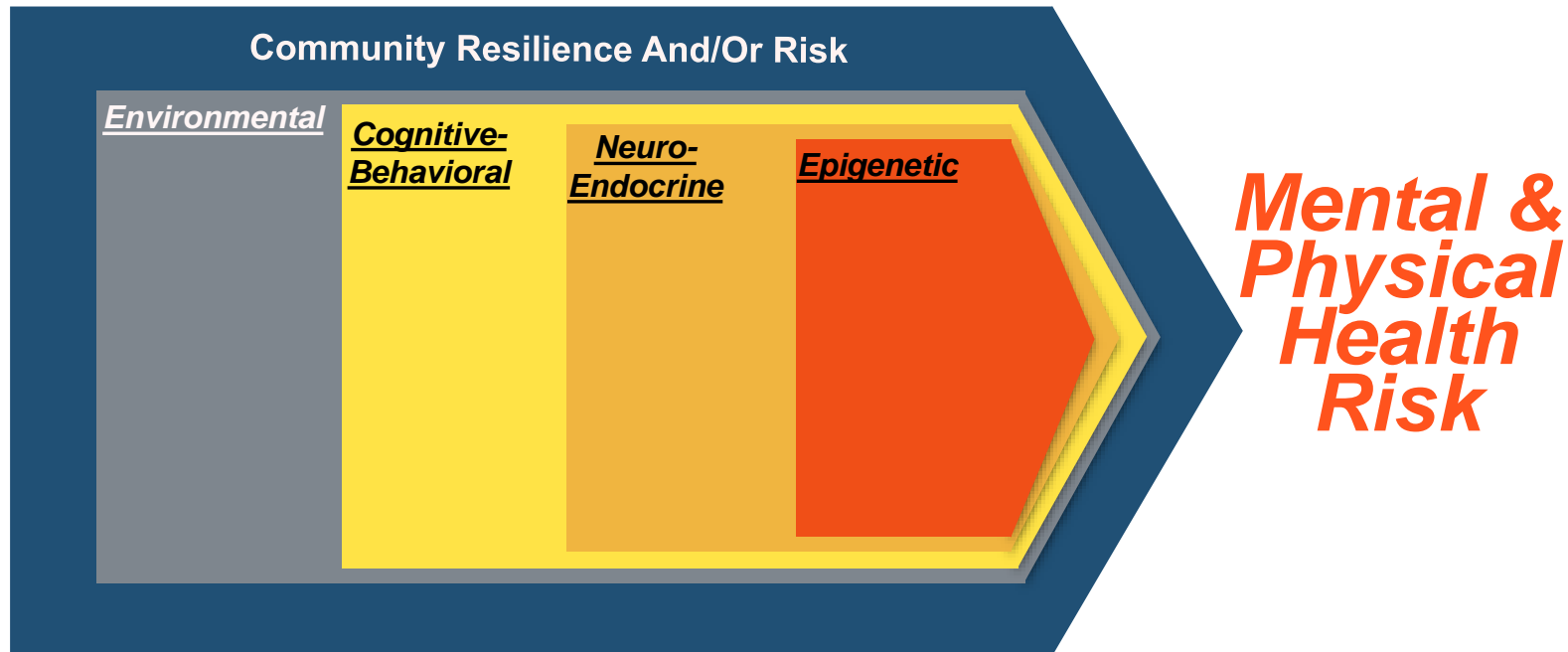
ACEs



Mental & Physical Health Risk

Multidimensional Health Risks from ACEs

ACEs

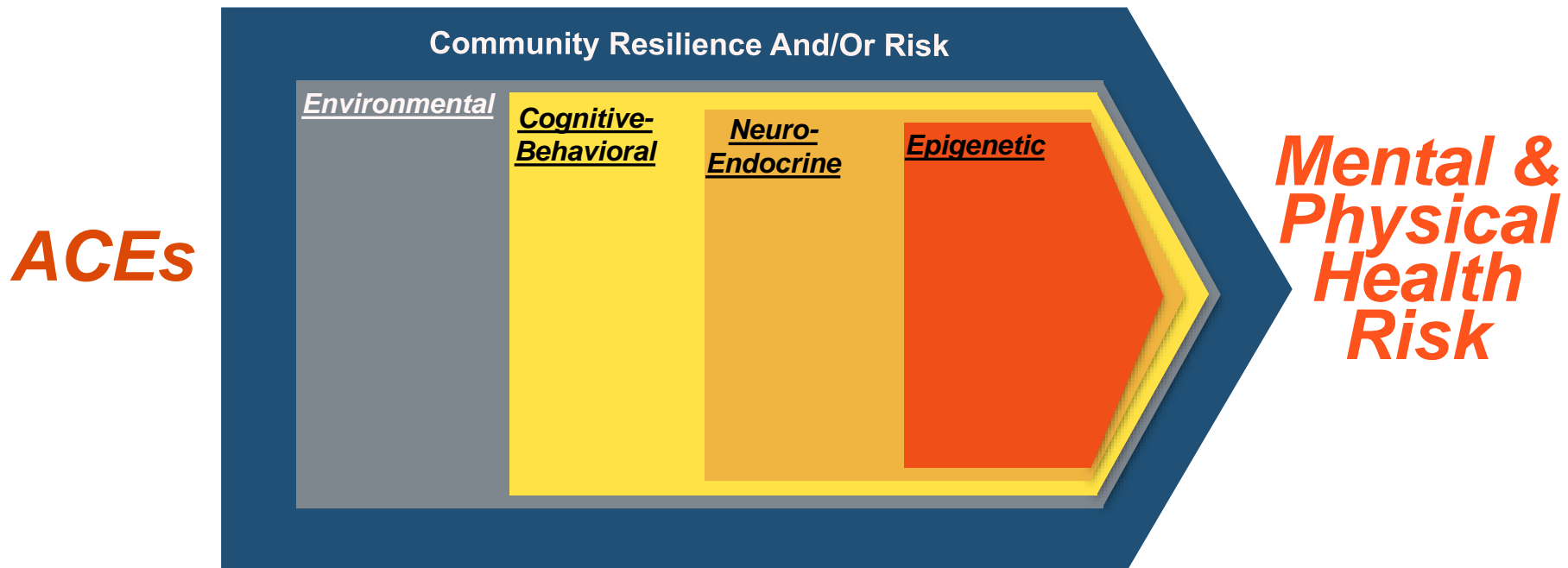


Multidimensional Health Risks from ACEs

ACEs



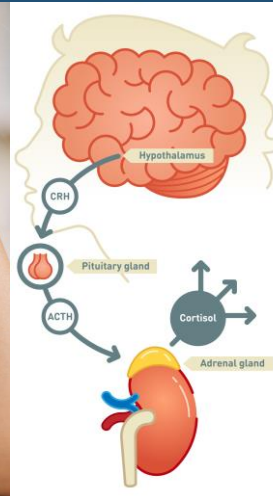
Multidimensional Health Risks from ACEs



Multidimensional Health Risks from ACEs

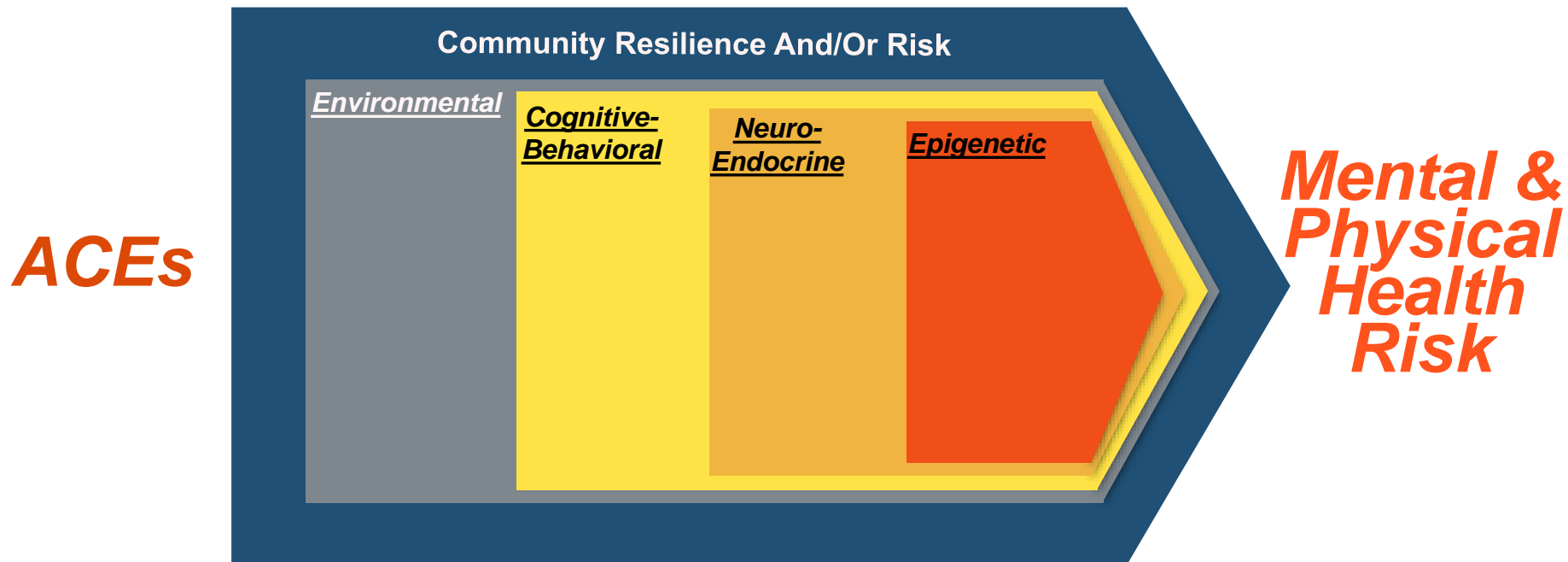
ACEs

Neuro-Endocrine



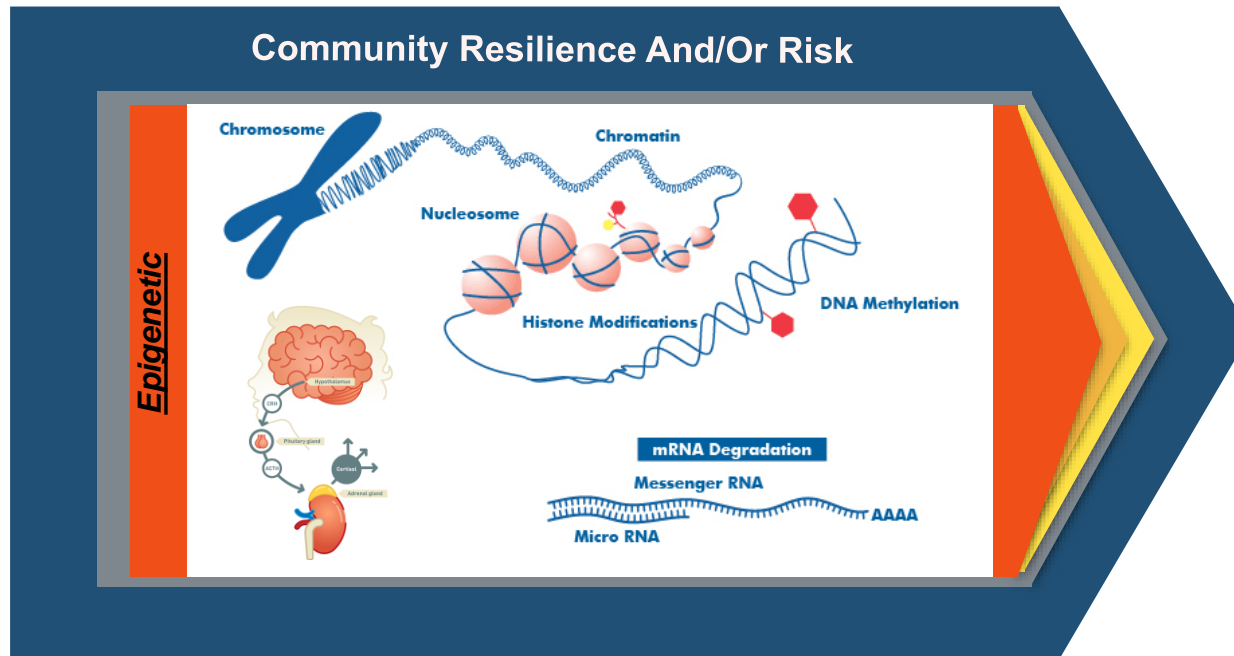
Mental & Physical Health Risk

Multidimensional Health Risks from ACEs



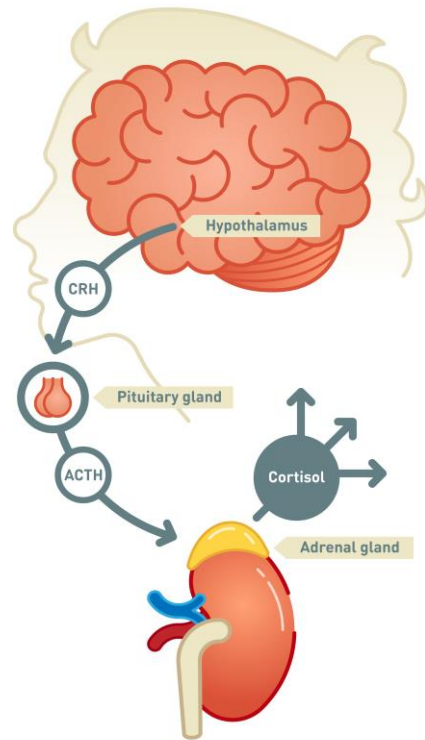
Multidimensional Health Risks from ACEs

ACEs



Mental & Physical Health Risk

How Adversity Gets Under the Skin

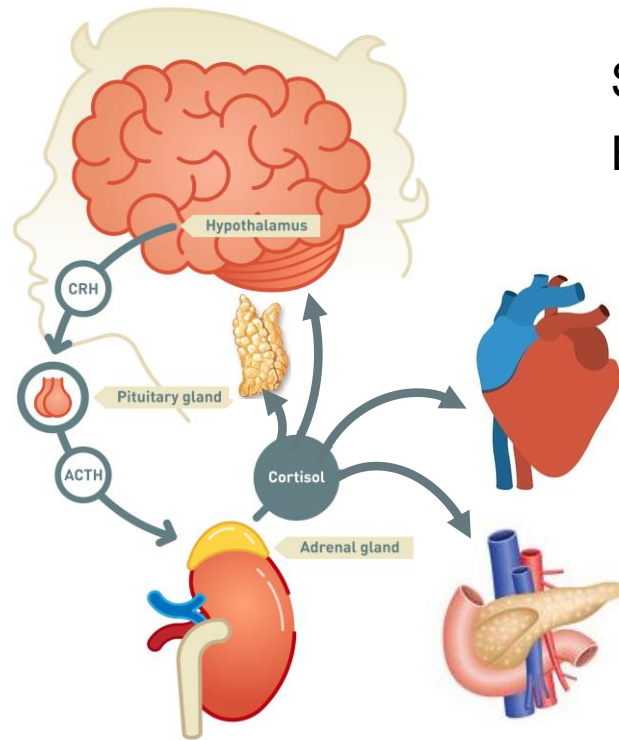


Stress Response Pathway

CRH = Corticotropin Releasing Hormone
ACTH = Adrenocorticotropic Hormone

Schickedanz, Halfon, Dreyer. *Pediatric Clinics N. America*, 2016

How Adversity Gets Under the Skin

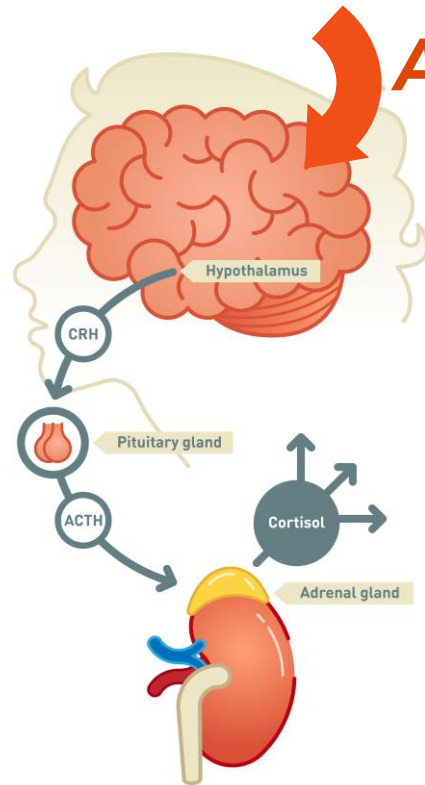


Stress Response Pathway End-Organ Effects

CRH = Corticotropin Releasing Hormone
ACTH = Adrenocorticotropic Hormone

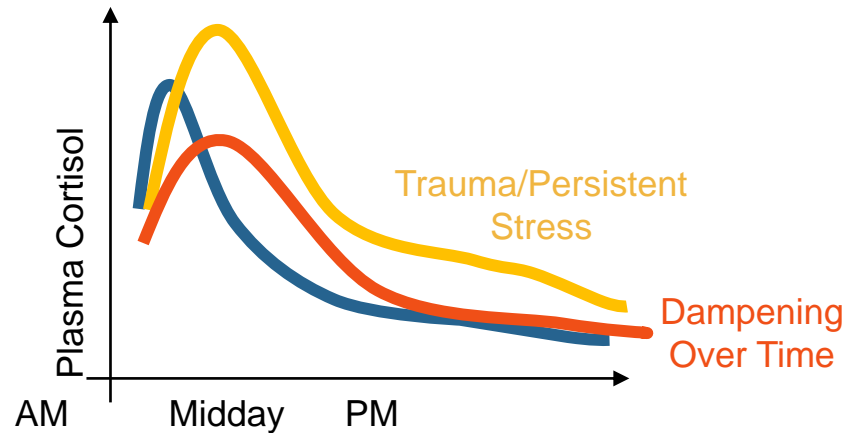
Schickedanz, Halfon, Dreyer. *Pediatric Clinics N. America*, 2016

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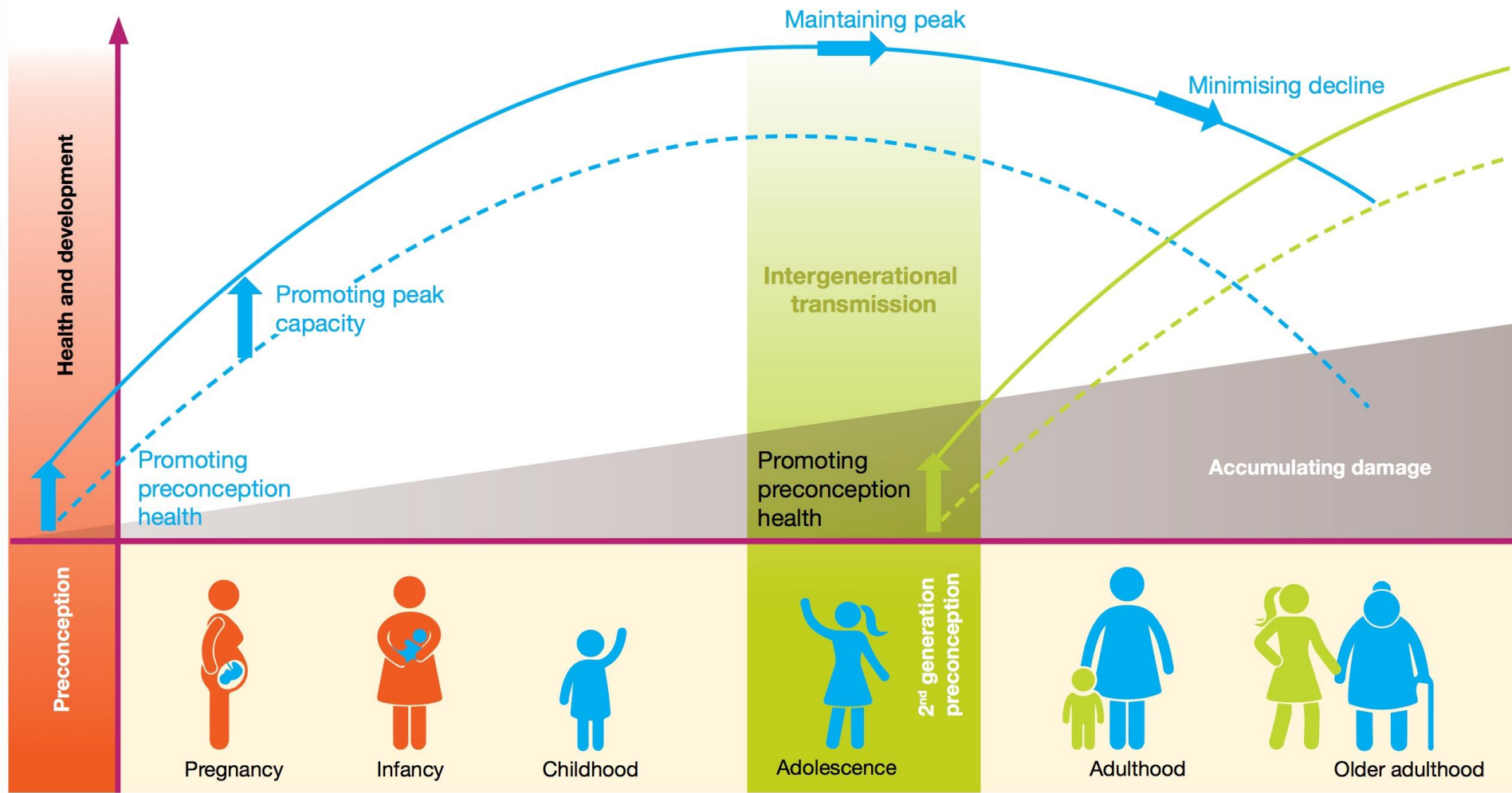


ACEs

Stress Response Pathway
End-Organ Effects
HPA Axis Adaptation

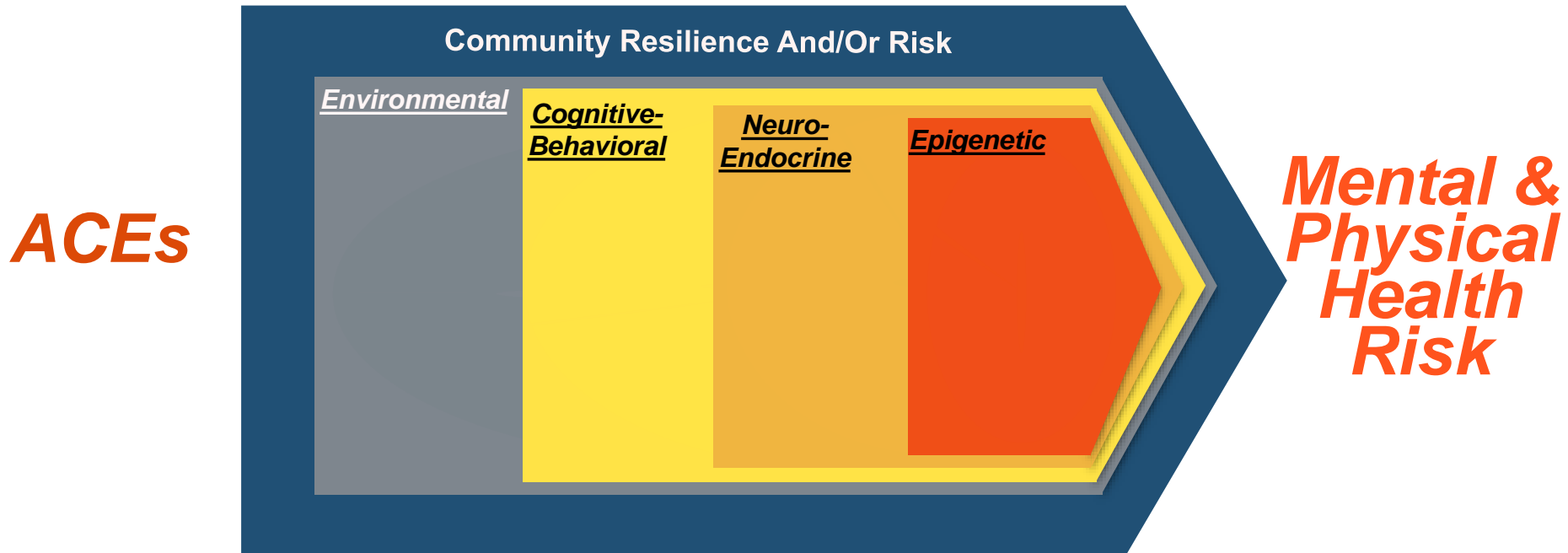


Schickedanz, Halfon, Dreyer. *Pediatric Clinics N. America*, 2016

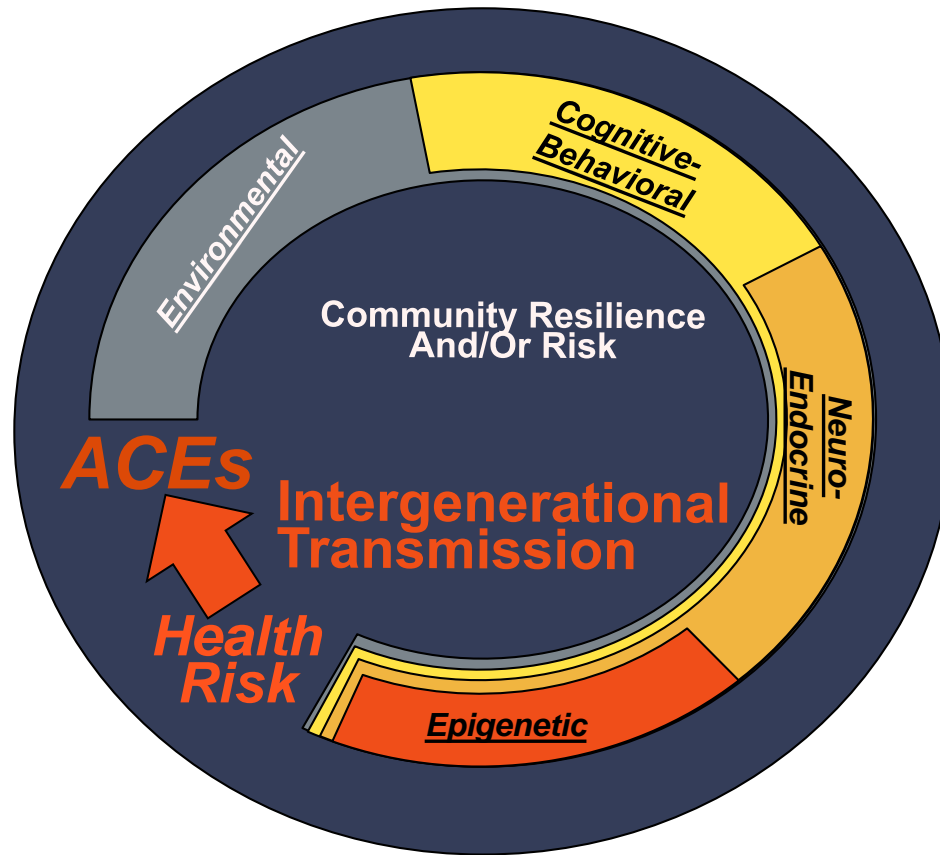


Norris, Lake, and Draper, 2019 (See References)

Multidimensional Health Risks from ACEs



Intergenerational Health Risks from ACEs



A Clinical Case Example

(case shared by Dr. Adwoa Osei)

CC: 12yo boy (“Henry”) comes in with mother for a well child visit. Mother has no concerns today. “We are here for his annual physical and shots.”

PMH/PSH: Asthma diagnosed at 3yo, “fairly well-controlled”. Albuterol inhaler used PRN. Misses school once every approximately 6 months because of wheezing episodes. No allergies to drugs or medications.

SHx: Henry resides with his mother & maternal grandmother. Occasional contact with his father who is now remarried and has another child. When questioned alone and directly about his father, Henry is open to the discussion and bluntly reports, “I feel unloved by my father. There is no point in being alive.” He is also very sad about losing his “best uncle” 2 years ago to witnessed assault. He was like a father to him. He is afraid “his mother will die too.” He is happy to have his grandmother and mom who care “deeply about him.” He has no health concerns for today’s visit and shrugs his shoulders when asked about school. Mom reports he struggles with his 6th grade schoolwork. Per mom, “if only he got off those video games and paid attention, he would do better in school.” When questioned directly, Henry reports, “I don’t get math, and the words don’t make sense when I read. School is boring.” Henry confides in you that this is his third school, and kids always pick on him. He barely speaks to anyone in school because the kids are “mean and dumb.” Video games make him happy, “oh and church,” he adds. He would like to study coding and programming in the future. He stays up until 2AM playing games most nights and struggles to wake up for school in the mornings. When asked to turn it off, he becomes “very angry and threatens to burn down the house.” Mom reports she is “tired of this behavior but doesn’t know what to do.” Mom has trouble sleeping if Henry is awake due to safety concerns.

You review his depression screening which shows a high risk for moderate to severe depression. Screening for alcohol and substance abuse is negative.

FHx: Mom has generalized anxiety disorder, depression, pseudo seizures, diabetes, and hypertension. She had a cerebrovascular accident a few years ago that has affected her memory. Dad is otherwise healthy.

ROS: Increase in weight and difficulty concentrating but otherwise negative.

Physical exam: BP 110/70, RR 18, BMI >99% percentile, Height 75% percentile

He is calm and well appearing, avoids eye contact and plays on his phone through the visit.

His psychiatric assessment reveals passive thoughts of harming himself but has no specific plans. The last time he thought about that was 2 months ago.

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Clinical case summary

(case shared by Dr. Adwoa Osei)

Over 3 clinical visits and 3 months, you identified that...

- Henry is a 12yo boy with history of multiple ACEs (parental separation, witness to physical assault and death of uncle, maternal mental illness; possible bullying) who has...
 - Behavioral symptoms consistent with depression plus episodes of passive thoughts of self-harm.
 - Risks also include social isolation after multiple school transitions, poor sleep hygiene, apathy regarding academics.
 - Strengths include relationships with mother, grandmother, and church community, as well as willingness to engage in dialogue with you, his health care provider.



How should health care systems respond?

Alignment with existing population health improvement priorities & initiatives, trauma-informed care culture, identification of adverse childhood exposures, response pathways depend on clinical setting and readiness

Health Care Volume to Value (LO 2)

Health Care Payment Structures Can Present Barriers to Upstream Care

- *Traditional Fee For Service Doesn't Incentivize Addressing Social Risk*

- *New Payment Models Begin to Align Incentives to Reduce Barriers*

- *Alternative Payment Models & Value-Based Care*

- *Medicare Shared Savings, Managed Care Orgs, Accountable Care Orgs, Accountable Health Communities, etc.*

- *State Medicaid Waivers & Social Risk-Based Payment*

- *Many now support SDOH screening and intervention*

- *Ex. Massachusetts Medicaid MCO adjustment for homelessness*

- *Further State level innovation, such as CA ACEs Aware*

- *Medi-Cal Reimbursement for ACEs Screening, Funded by CA Prop 56*

Jones & Muller, Deloitte (See References); Fryer J & Keckley P; Lumeris (See References); Prop 56: <https://www.dhcs.ca.gov/provgovpart/Prop-56>

Integration & Coordination Across Systems (LOs 2 & 3)

Moving Upstream Means New Partnerships, Which Encounter Barriers in Many Health Systems

- Practices are coordinating with upstream services to address adversity and social risk
 - Federal Accountable Health Communities model incentivized coordination with social resource agencies to address food, housing, etc.
 - California ACEs Aware encouraging Trauma-Informed Networks of Care
- Addressing ACEs is part of a larger shift upstream



Castrucci & Auerbach, 2019; CMS Accountable Health Communities (See References); CA Office of the Surgeon General, ACEs Aware Networks of Care (See References)

Audience Poll – Upstream Practice Readiness 1 (LO 3)

Does your clinic/practice...

- A) screen for ACEs and/or social risks/needs systematically **and** refer to resources outside of clinic?
- B) screen for ACEs and/or social risks/needs systematically **but not** refer to resources outside of clinic?
- C) not screen for ACEs - ACEs surveillance **and** considering systematic ACEs screening?
- D) not screen for ACEs - ACEs surveillance **but not** considering systematic ACEs screening?

Please respond in the chat with your answer – A, B, C, or D

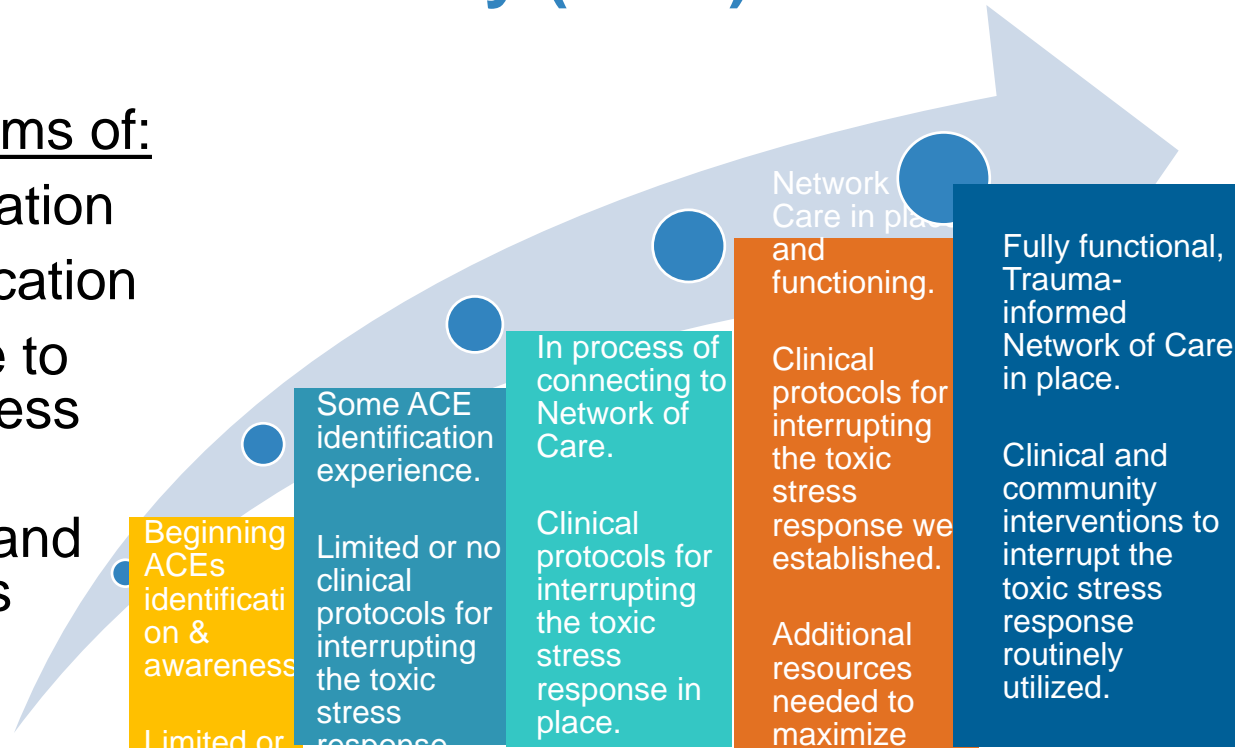
Audience Poll – Upstream Practice Readiness 2 (LO 3)

What resource does your clinic/practice need most to take the next steps toward systematically identifying and addressing ACES?

Continuum of Readiness to Address Childhood Adversity (LO 3)

Progression in terms of:

- Awareness/education
- Adversity identification
- Clinical response to identified toxic stress and trauma
- Network of care and response partners
- Community engagement



Source: California ACEs Aware Network of Care “Continuum of Integration” model.

Where to Start?

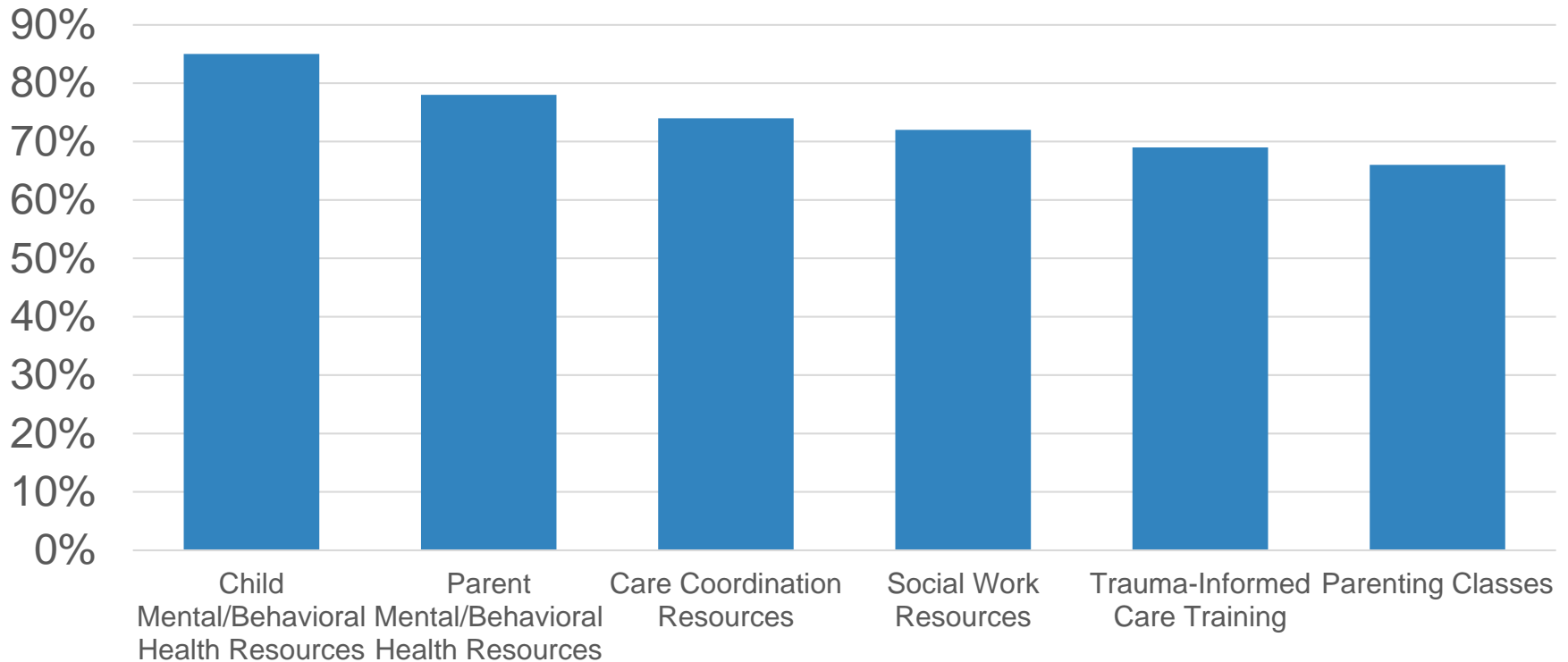
- It's fine to start small – add one area of risk/need at a time
- Consider your patients'/families' biggest risks/needs
 - Ideally from their perspective and with their input
- Focus on risks/needs with established interventions
- Anticipate pushback, primarily from clinicians
- Design and change care experience, not just care processes

Foundations for ACEs Screening & Intervention

- Trauma-Informed Care (TIC) is foundational
 - TIC must be in place first or addressing ACEs is non-starter
- Remember that ACEs are just risk factors, not destiny (like LDL!)
 - Consider context and apply clinical judgement
 - See forthcoming American Academy of Pediatrics policy statement on trauma-informed systems of care, which will emphasize not just ACEs/social risk but symptoms, functional impact, and strengths
- First do no harm

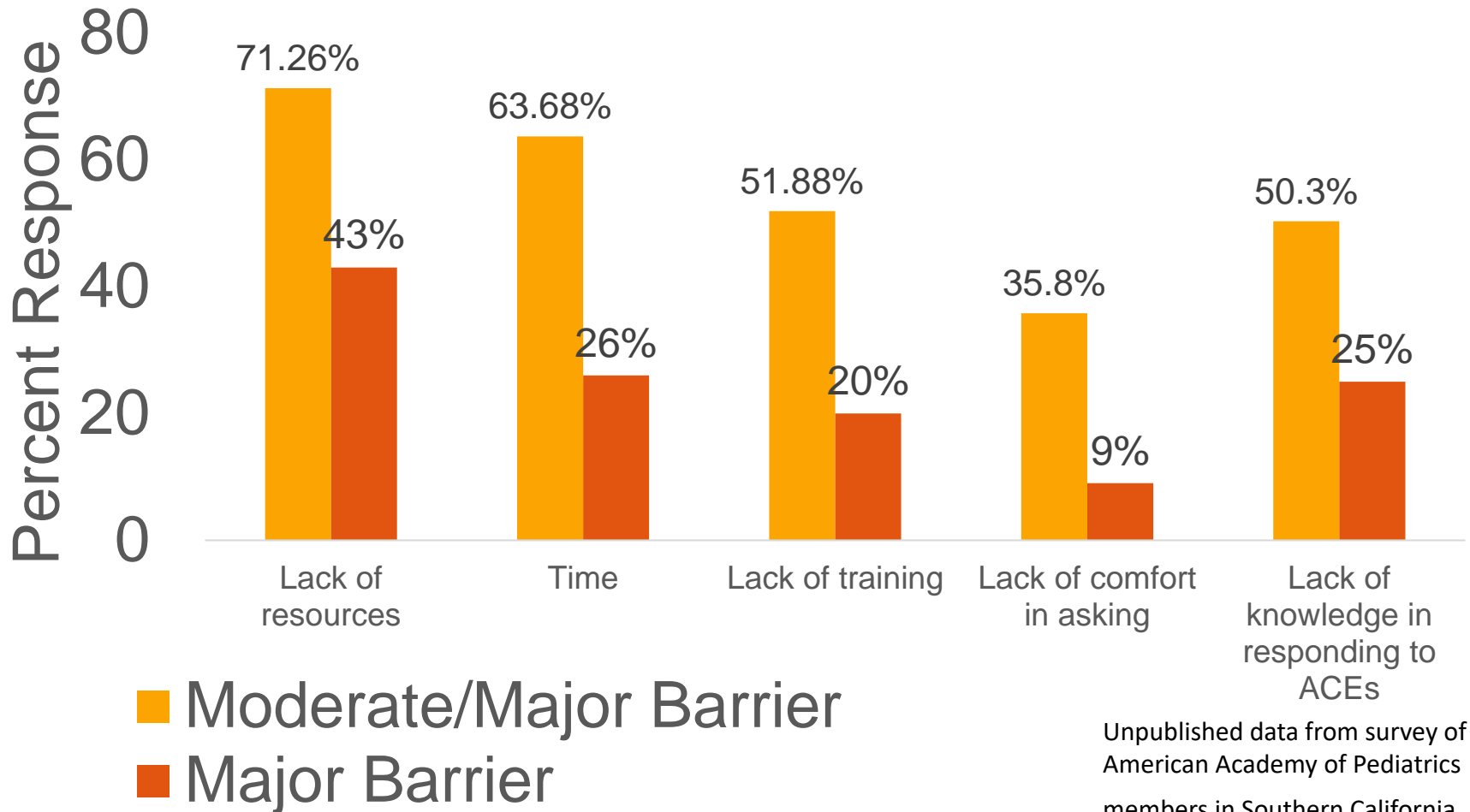
Resources Clinicians Want for ACEs Intervention (LO 2)

Resources Clinicians Indicated Would Be “Very Useful” for Responding to ACEs



Unpublished data from survey of 166 American Academy of Pediatrics members in Southern California.

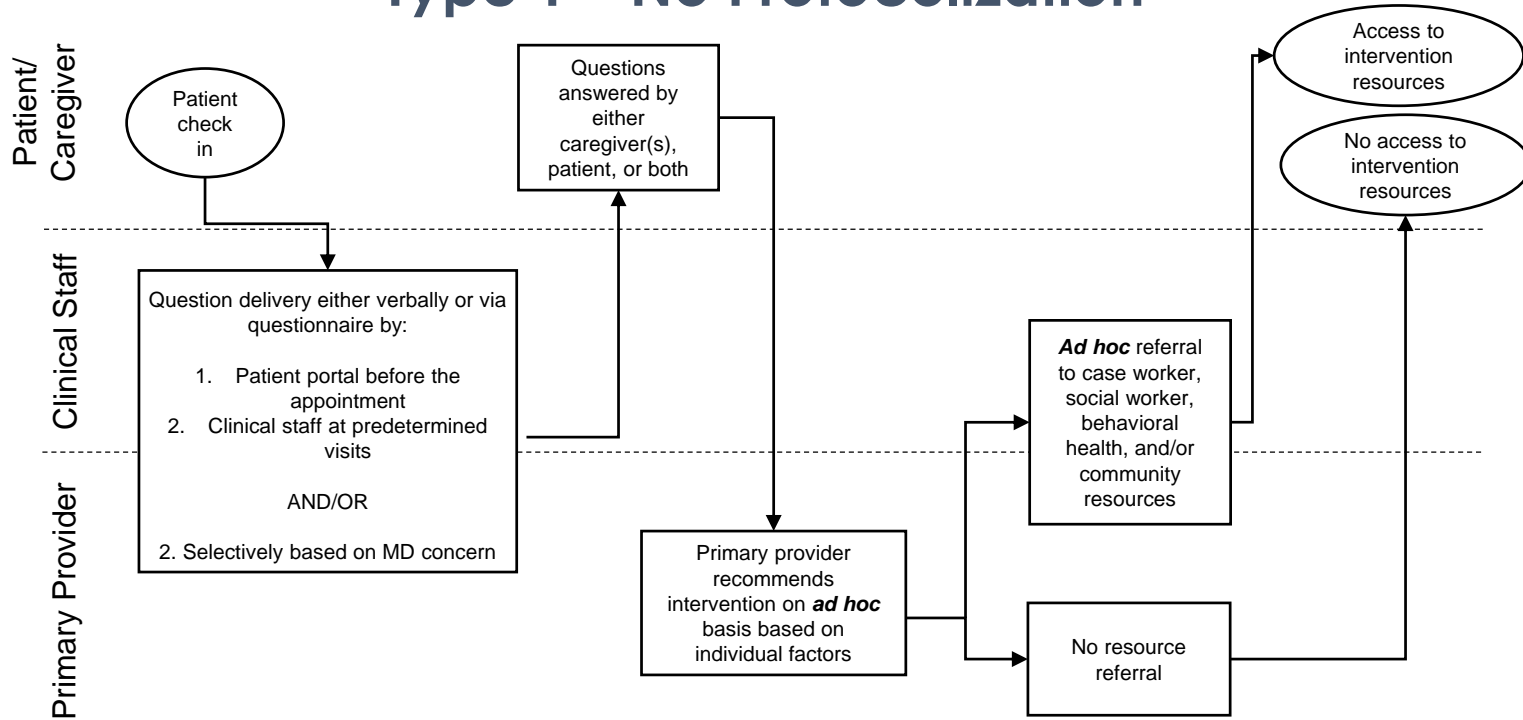
Common Barriers to ACEs Screening (LO 1)



Unpublished data from survey of 166 American Academy of Pediatrics members in Southern California.

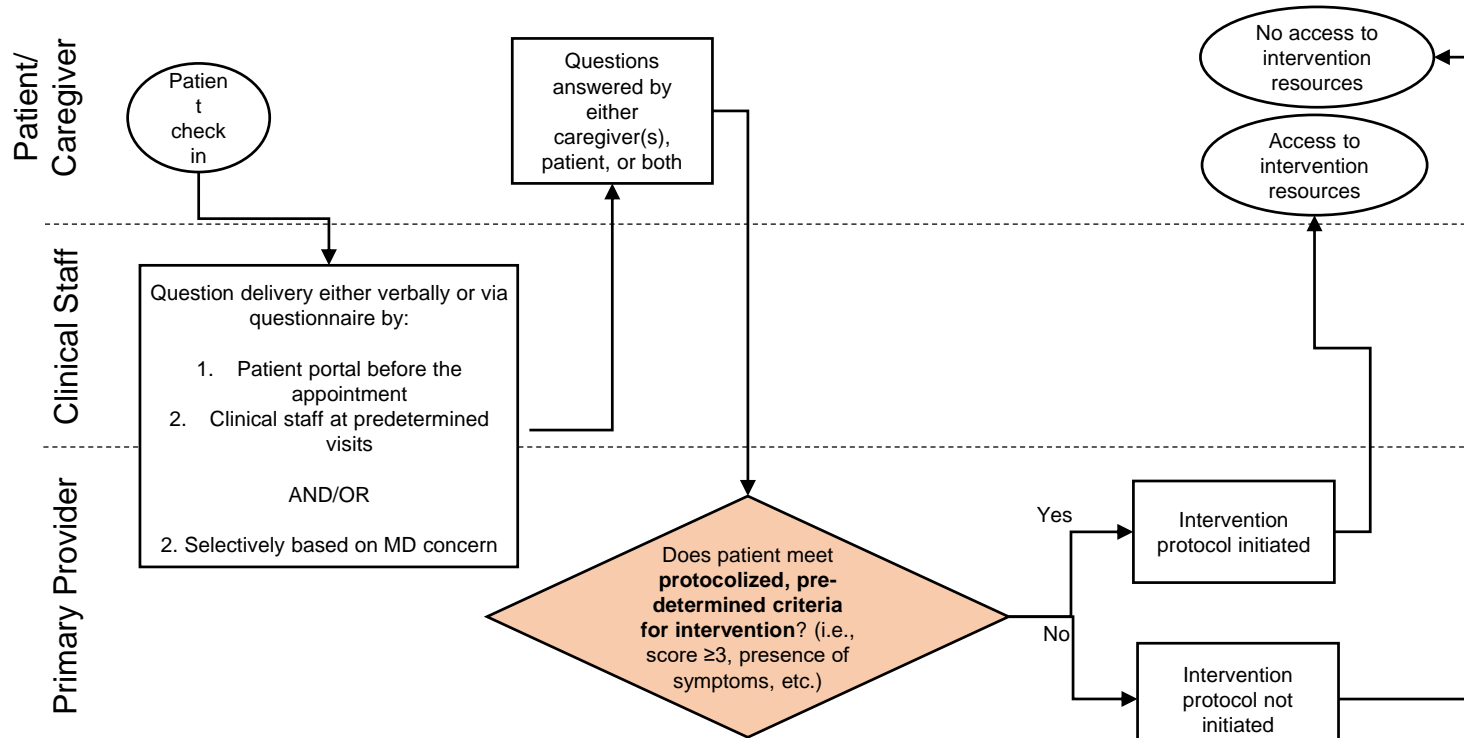
ACEs Screening & Response Workflows

Type 1 – No Protocolization



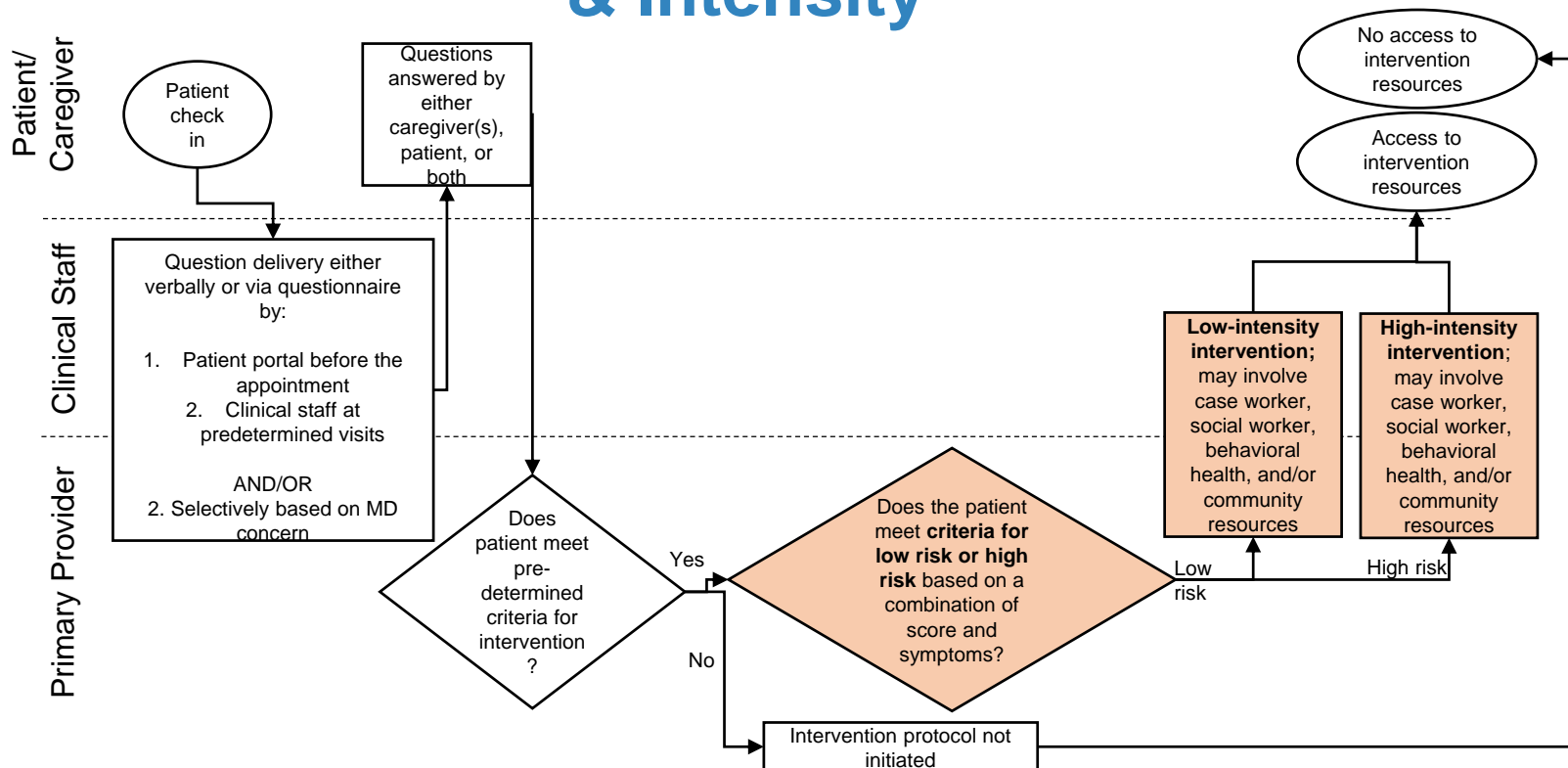
ACEs Screening & Response Workflows

Type 2 – Protocolization of Intervention Threshold



ACEs Screening & Response Workflows

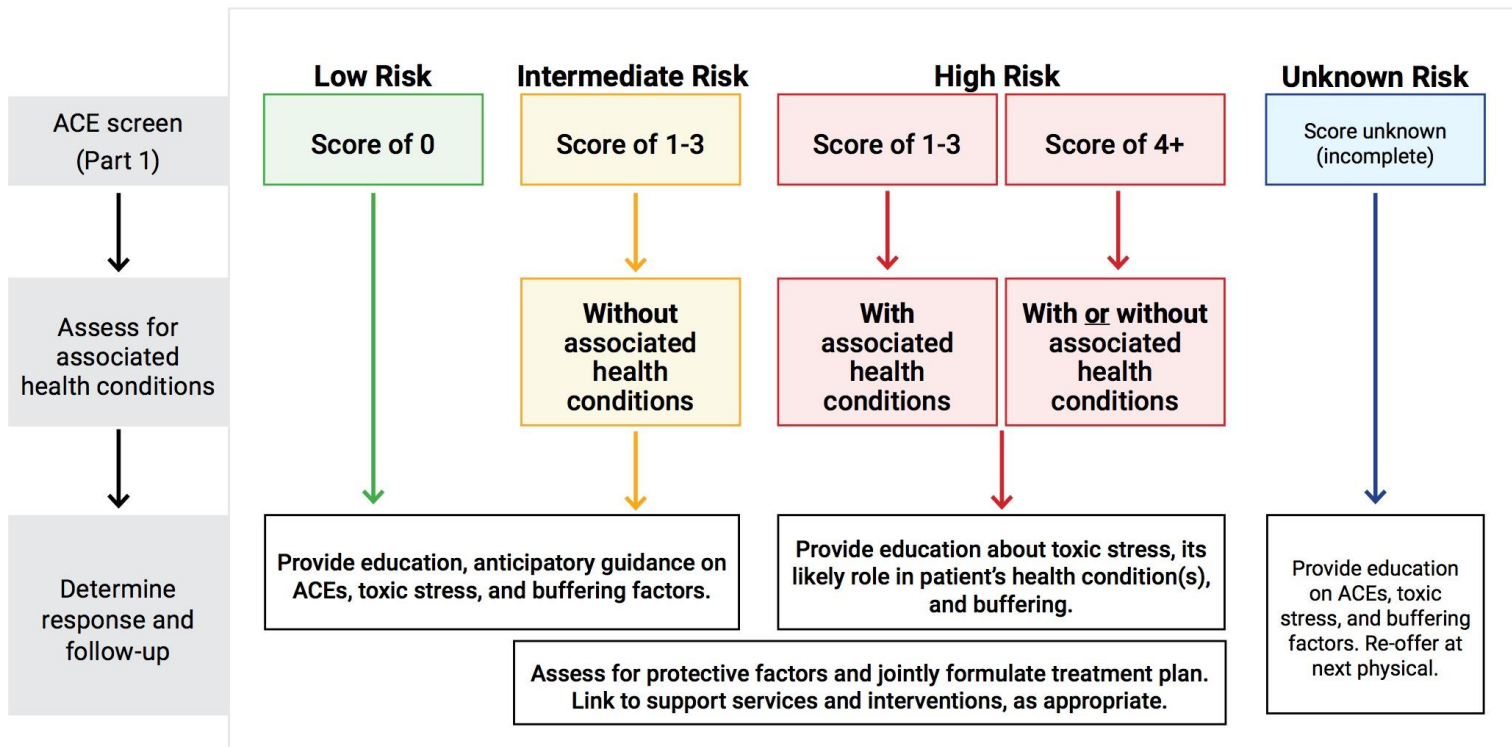
Type 3 – Protocolization of Intervention Threshold & Intensity



ACEs Aware Screening & Response Workflows (LO 4)

Adverse Childhood Experiences (ACEs) and Toxic Stress Risk Assessment Algorithm

Pediatrics



<https://www.acesaware.org/treat/clinical-assessment-treatment-planning/>

CA ACEs Aware Trainings & Resources (LO 4)



Events

Grants

Resources

Blog

About



GET CERTIFIED

ACE FUNDAMENTALS

LEARN ABOUT SCREENING

IMPLEMENT ACE SCREENING

PROVIDE TREATMENT & HEALING



Clinical Team Toolkit

Preventing, screening, and responding to the impact of ACEs and toxic stress

<https://www.acesaware.org/learn-about-screening/clinical-team-toolkit/>

CA ACEs Aware Trainings & Resources (LO 4)

Log in Register

<https://training.acesaware.org/>



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Becoming
aces aware
in California

INFORMATION ABOUT THIS TRAINING

The Becoming ACEs Aware in California Training is a free

TAKE THE TRAINING

Information You Will Need

Conclusion

ACEs are an everyday epidemic associated with broad, deep, lifelong, and intergenerational health impacts.

There is still much to learn about their scope, impact, and mechanisms.

We know more than enough to lead the public and clinical discussions already upon us, reduce ACEs' harms, and improve health.

FAQs

1. What are adverse childhood experiences?

Adverse childhood experiences (ACEs) include various stressful or traumatic events taking place in childhood (i.e. before age 18) that have been linked to increased risk of worse health outcomes over the life course for those who experience them. The most commonly-cited ACEs fall into the categories of abuse, neglect, and household challenges, such as exposure to household violence, substance use, or mental illness in a parent or close relative.

2. How are ACEs thought to influence health?

The pathways linking early life traumatic experiences and health are complex and there is still much to learn through ongoing and future study, but we know that the disruptions in safe, stable, nurturing relationships caused by ACEs produce tremendous stress in children who experience them. This stress is biologically-embedded through the physiologic stress response, and when the dysregulated stress response is not buffered by supports for the child this biochemical neuroendocrine cascade can lead to adaptations in various organ systems that threaten optimal mental and physical health.

FAQs

3. How should my practice go about identifying ACEs in our patients?

The answer to that question is different for every practice, and the decision to begin to systematically assess whether patients have experienced ACEs should be made carefully. Important considerations for any practice considering this step include the ability to meaningfully respond to identified ACEs in a timely manner to ensure patients are safe, whether the practice has implemented trauma-informed practices more broadly such that families feel safe disclosing prior trauma in the clinical environment, and ensuring there are mechanisms for gathering ongoing input from patients/caregivers and clinical staff to identify and respond to any challenges as they arise.

4. How should my practice go about addressing ACEs in our patients?

Similar to the last question, the answer to this one will be different for every practice. However, an important first step is often to first gather input from patients/caregivers and all practice staff who may be involved in ACEs identification and/or response. What do patients and families see as the most pressing forms of adversity to address? What resources do they see as most useful for addressing that adversity? These are essential starting points for patient- and family-centered strategies for "treating" ACEs, and they may lead to very different directions than those clinicians would suggest without patient input.

QUESTIONS?

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 David Geffen School of Medicine

THANK YOU.

References

- *Figures on Slides 11 and 13: Norris SA, Lake L, Draper CE. Child health matters: A life course perspective. Child and adolescent health: Leave no one behind. South Africa: University of Cape Town. 2019:63.*
- *Slide 14, Upstream Figure: Castrucci B & Auerbach J. Health Affairs Blog, 2019.*
<https://www.healthaffairs.org/doi/10.1377/hblog20190115.234942/full/>
- *Slide 14, MA Medicaid Waiver: Jones J & Muller S. Social determinants of health and Medicaid payments.*
<https://www2.deloitte.com/us/en/insights/industry/public-sector/medicaid-social-determinants-of-health.html>
- *Slide 14, APM Penetration: Lumeris Report on APMs: <https://www.lumeris.com/the-future-of-alternative-payment-models-in-healthcare-a-strategic-perspective/>*
- *Slide 15, CMS AHC Model: <https://innovation.cms.gov/innovation-models/ahcm>*
- *Slide 15, ACEs Aware Trauma-Informed Networks of Care: <https://www.acesaware.org/wp-content/uploads/2020/12/Draft-Network-of-Care-Roadmap-Final-12-14-20-For-Public-Comment.pdf>*