



How ACEs Aware Training Can Support Providers and Patients through COVID-19

February 24, 2021

ACEs Aware Mission



To change and save lives by helping providers understand the importance of screening for Adverse Childhood Experiences and training providers to respond with trauma-informed care to mitigate the health impacts of toxic stress.

Continuing Medical Education and Maintenance of Certification



JOINTLY ACCREDITED PROVIDER™
INTERPROFESSIONAL CONTINUING EDUCATION

Joint Accreditation Statement

In support of improving patient care, this activity has been planned and implemented by the Postgraduate Institute for Medicine, the Office of the California Surgeon General, the California Department of Health Care Services and Aurrera Health Group. Postgraduate Institute for Medicine is jointly accredited by the Accreditation Council for Continuing Medical Education (ACCME), the Accreditation Council for Pharmacy Education (ACPE), and the American Nurses Credentialing Center (ANCC), to provide continuing education for the healthcare team.

See [ACESAware.org](https://www.acesaware.org) for full accreditation information.

Presenters

Devika Bhushan, MD, FAAP

Pediatrician; Chief Health Officer, Office of the California Surgeon General

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CHOC Primary Care Network

Immediate Past President, American Academy of Pediatrics, Orange County, California

Martina Jelley, MD, MSPH, FACP

Professor and Vice Chair for Research, Julian Rothbaum Chair in Community Health Research, Assistant Dean for Clinical Research, University of Oklahoma School of Community Medicine

Agenda



1. Define Adverse Childhood Experiences (ACEs), toxic stress response, and principles of trauma-informed care
2. Discuss acute stressors that activate the toxic stress response affecting physical and mental health, including increased rates of ACEs and ACE-Associated Health Conditions
3. Apply the ACEs Aware training and buffering resources to help patients mitigate the secondary health impacts caused by COVID-19 and how to support communities in these efforts
4. Answer audience questions



Secondary Health Impacts of COVID-19: Overview

Devika Bhushan, MD, FAAP
Office of the CA Surgeon General

Observed Secondary Health Impacts

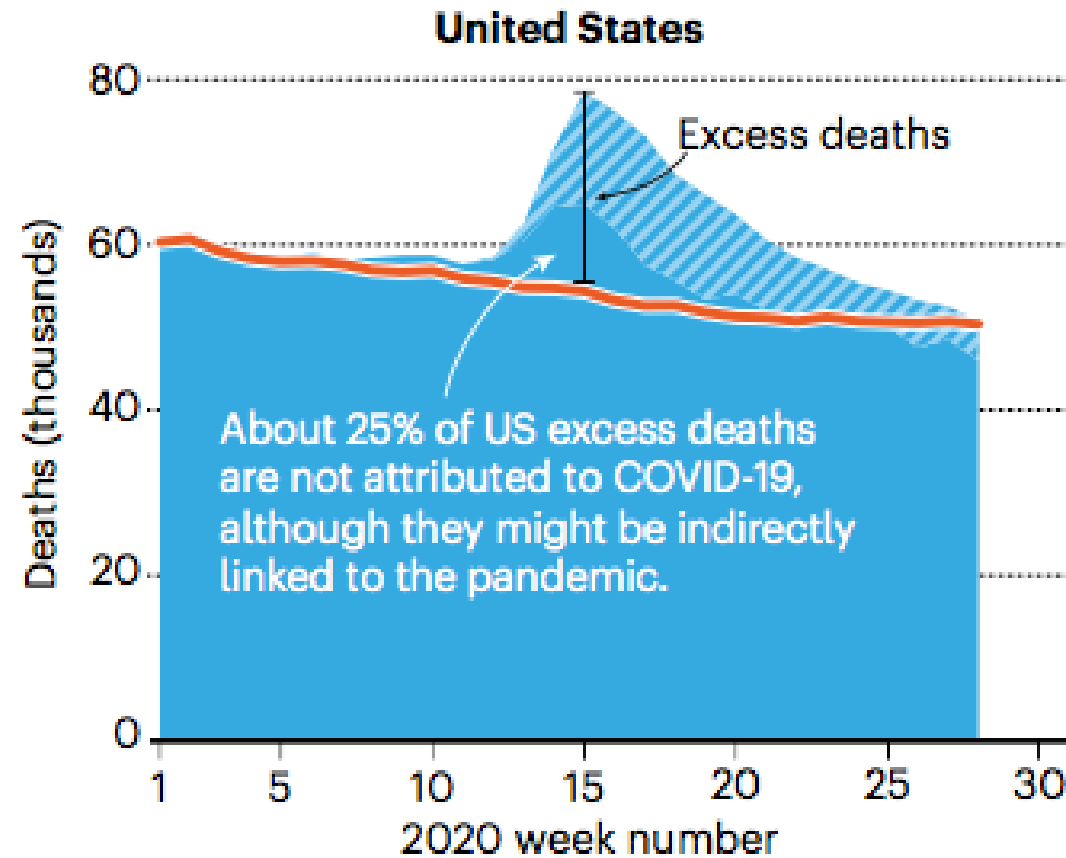
- *Heart disease
- *Strokes
- *Diabetes
- *Kidney disease
- *Dementia
- *Cancer detection, care
- *Traumatic injuries
- Poorer oral health
- Poorer perinatal outcomes
- Developmental and learning loss
- Depression, anxiety
- *Suicidality
- PTSD
- Substance use
- Interpersonal violence: child abuse, neglect, IPV

Leading Causes of Death in US

	Leading Causes of Death in US, 2017
1	Heart Disease
2	Cancer
3	Accidents
4	Chronic Lower Respiratory Disease
5	Stroke
6	Alzheimer's
7	Diabetes
8	Influenza and Pneumonia
9	Kidney Disease
10	Suicide (Attempts)

Source: CDC, 2017.

Secondary Health Impacts: Excess Deaths



Observed Secondary Health Impacts

- Heart disease
- Strokes
- Diabetes
- Kidney disease
- Dementia
- Cancer detection, care
- Poorer oral health
- Poorer perinatal outcomes
- Developmental and learning loss
- **Depression, anxiety**
- **Suicidality**
- **PTSD**
- **Substance use**
- **Interpersonal violence: child abuse, neglect, IPV**
- Traumatic injuries

ABUSE

Physical, emotional,
or sexual



Physical



Emotional



Sexual

NEGLECT

Physical or emotional



Physical



Emotional

HOUSEHOLD CHALLENGES

Growing up in a household with incarceration, mental illness,
substance dependence, absence due to separation or divorce,
or intimate partner violence



Mental Illness



Intimate Partner
Violence



Parental Separation
or Divorce



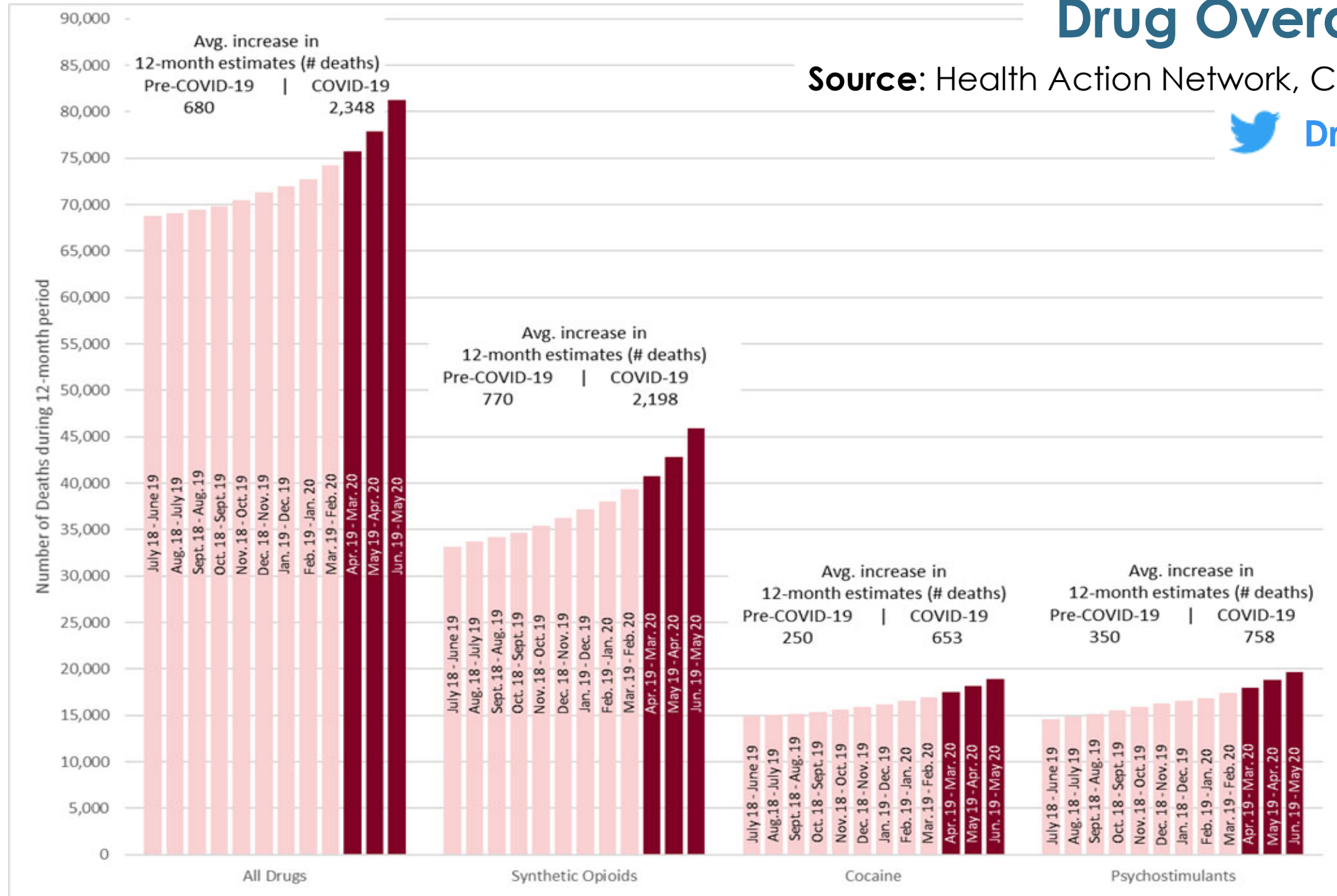
Incarceration



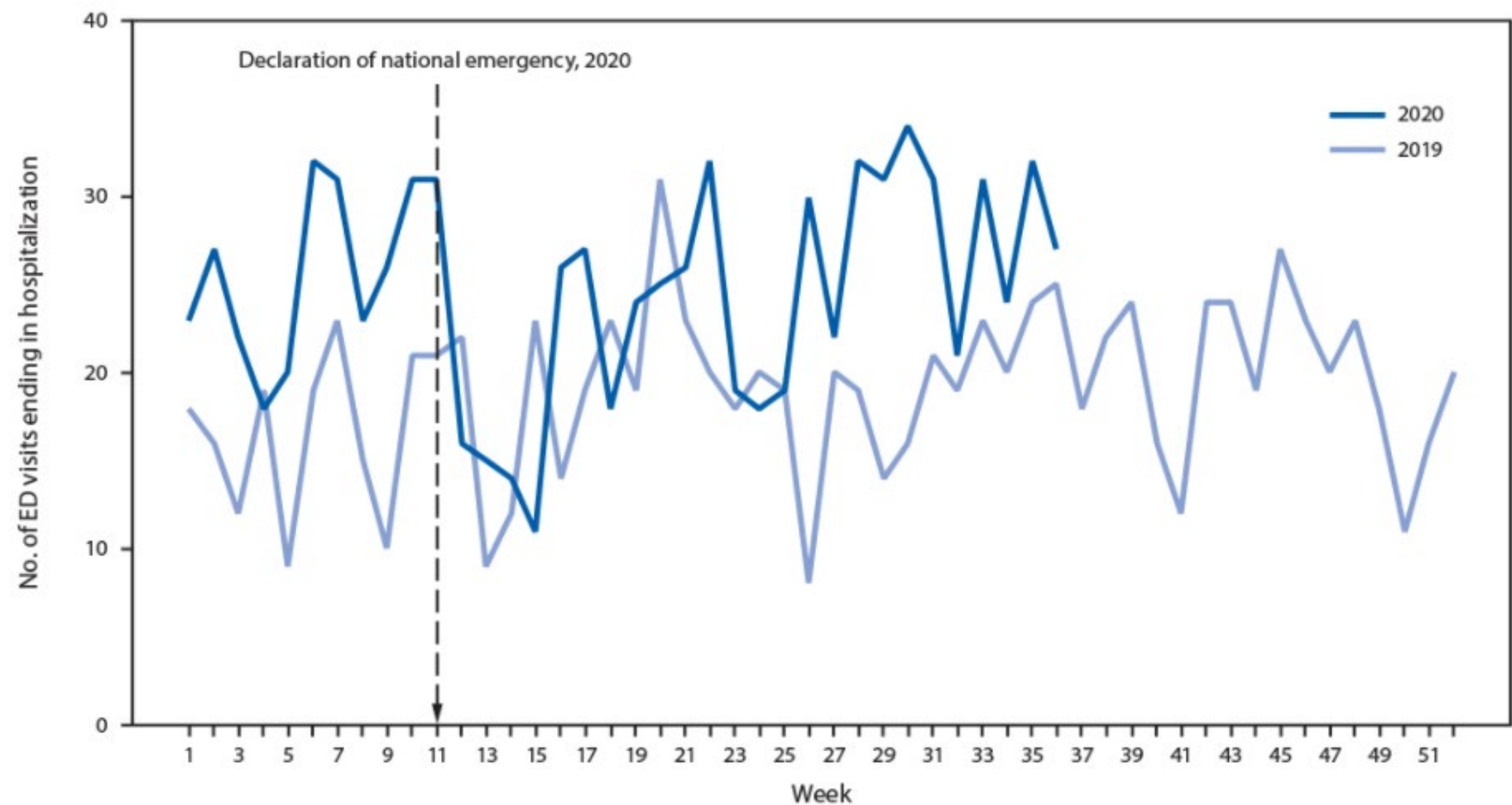
Substance
Dependence

Drug Overdoses

Source: Health Action Network, CDC, 2020



Child Abuse and Neglect



Source: Swedo E, et al. Trends in U.S. Emergency Department Visits Related to Suspected or Confirmed Child Abuse and Neglect Among Children and Adolescents Aged <18 Years Before and During the COVID-19 Pandemic — United States, January 2019–September 2020. *MMWR Morb Mortal Wkly Rep* 2020; **69**: 1841–7.

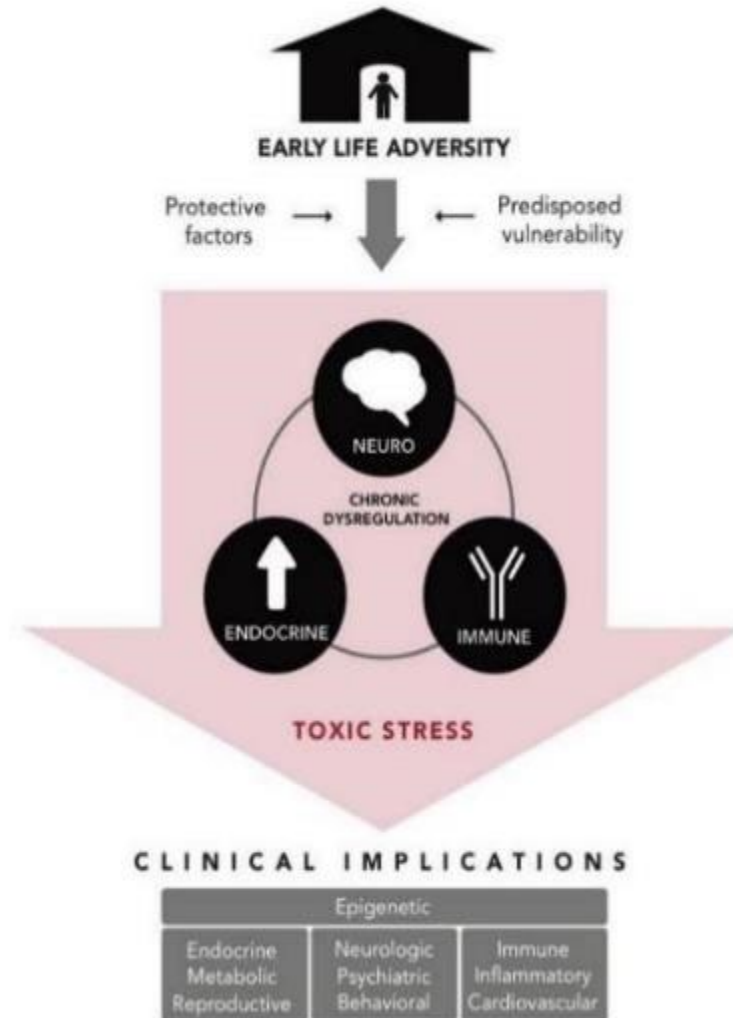
Underlying Reasons for Secondary Impacts



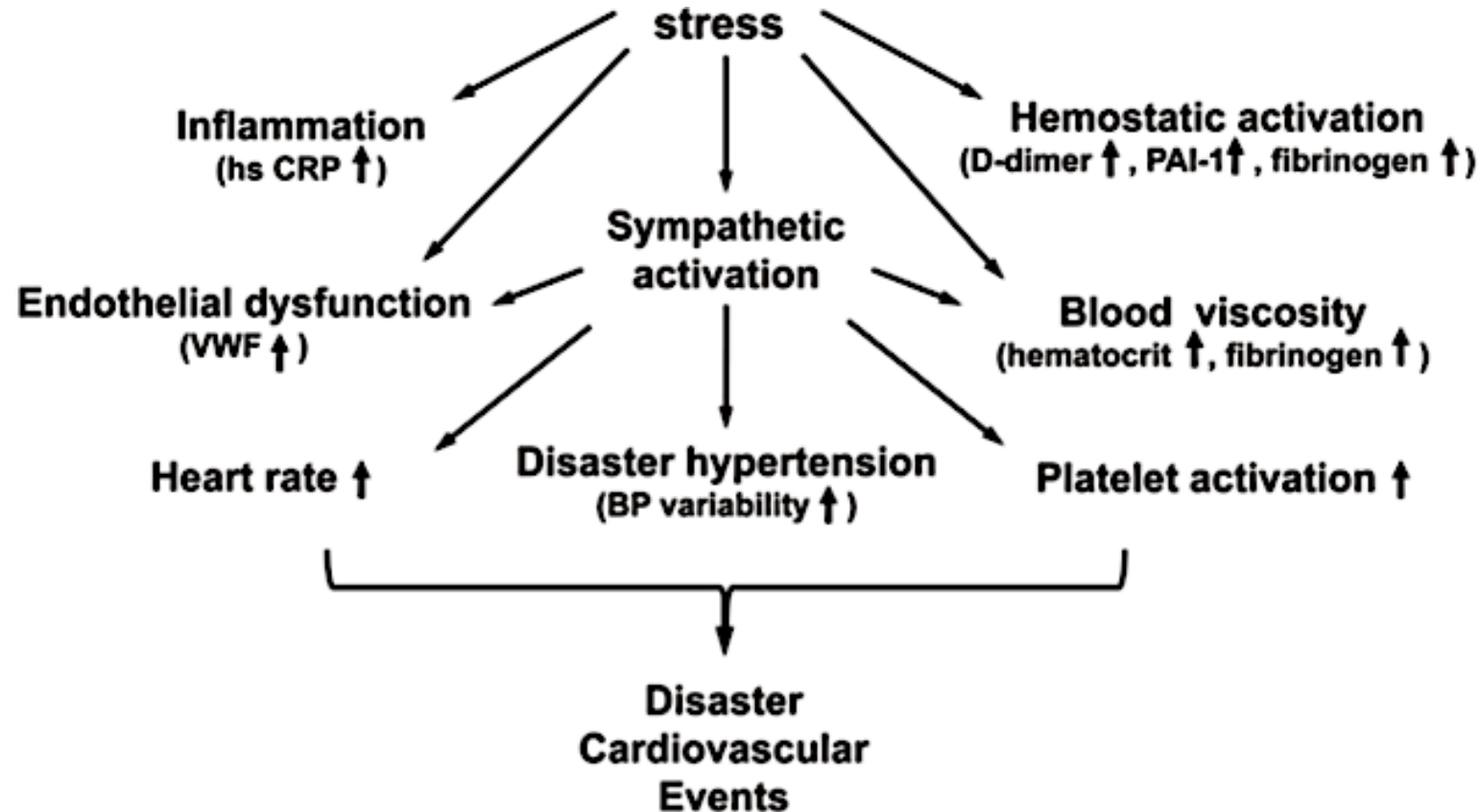
- 1. Activated biological stress response**
 - Neuro-endocrine-immune-metabolic dysregulation
- 2. Disrupted health care access**
- 3. Reduced health maintenance resources**

Toxic Stress: Underlying Vulnerability

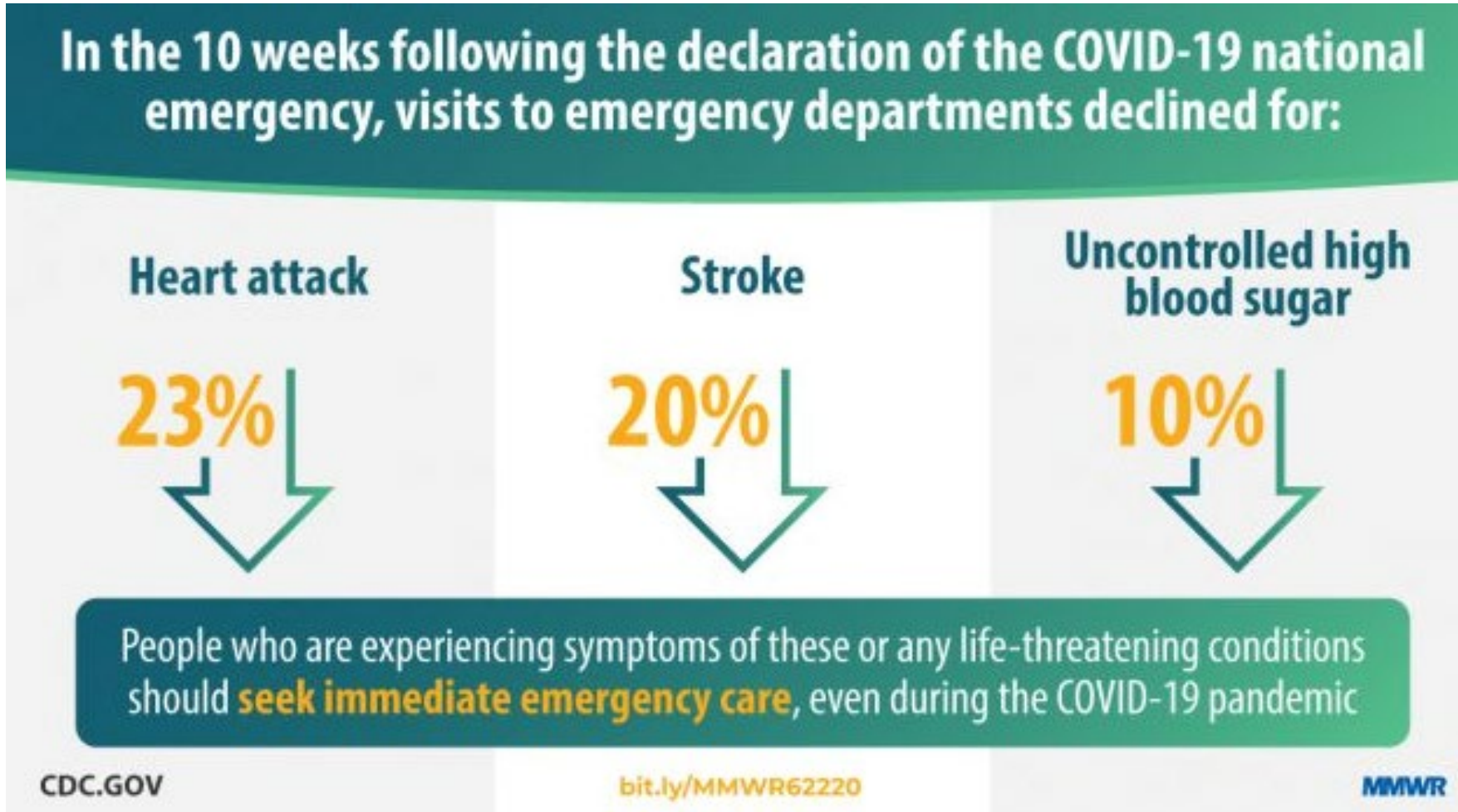
Already
biologically
“**stress-
sensitized**”



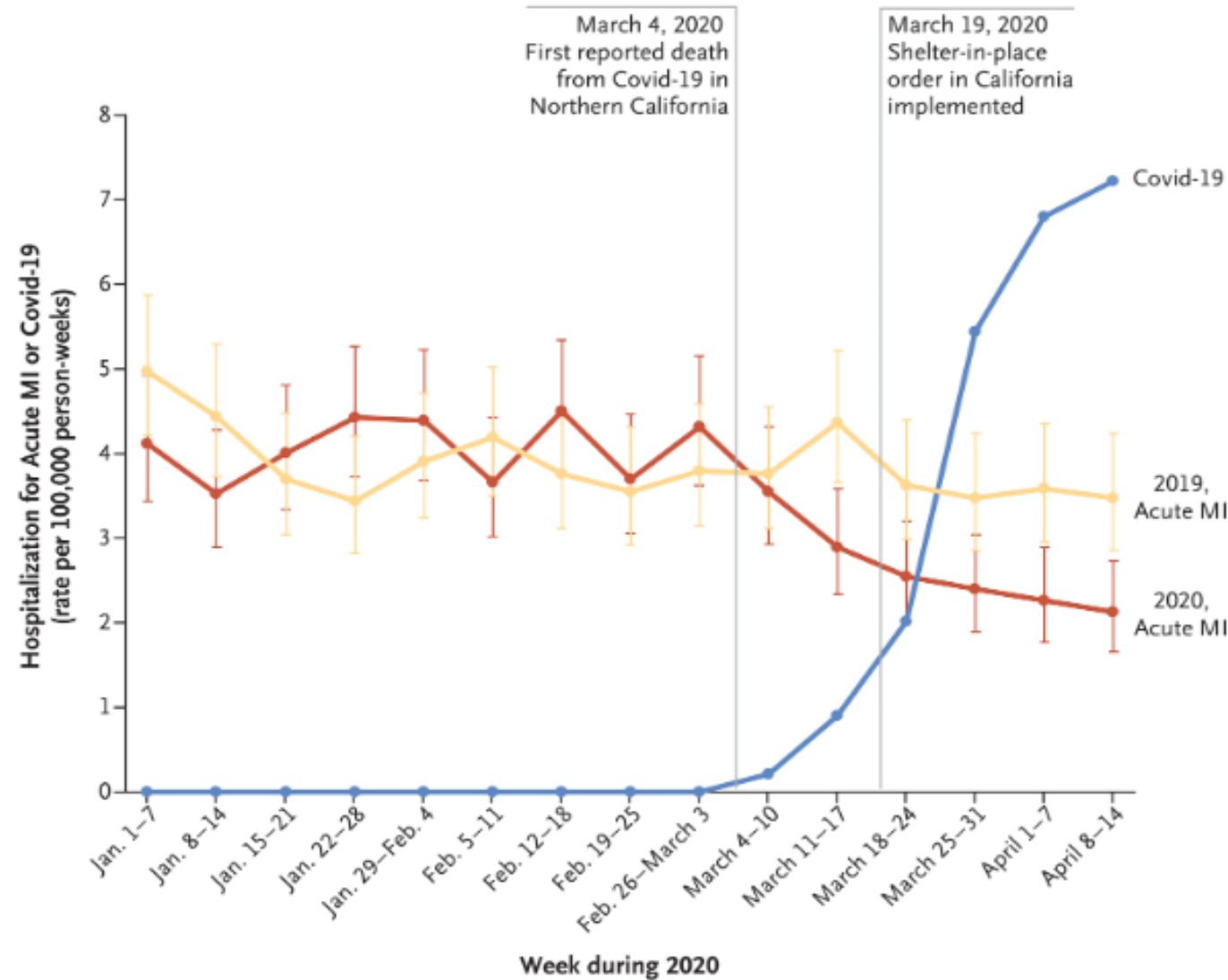
A Closer Look: Cardio/Cerebrovascular Risk



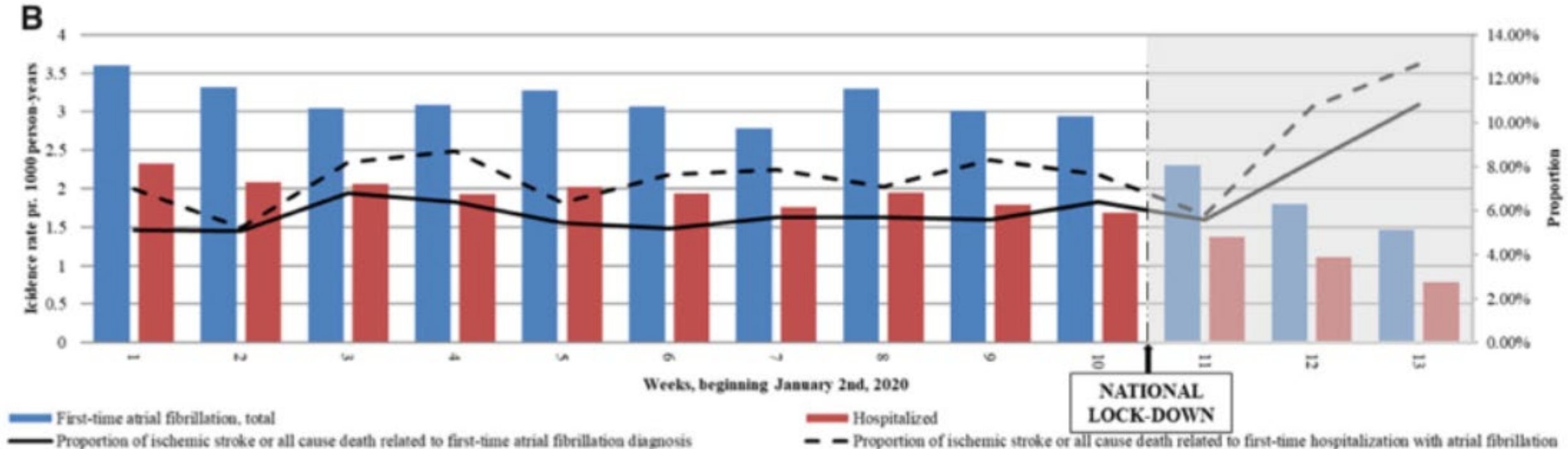
Decreased Care-Seeking



Heart Attacks



Strokes



Source: Holt A, *et al.* New-onset atrial fibrillation: incidence, characteristics, and related events following a national COVID-19 lockdown of 5.6 million people. *European Heart Journal* 2020; **41**: 3072–9.

Underlying Reasons for Secondary Impacts



- 1. Activated biological stress response**
 - Neuro-endocrine-immune-metabolic dysregulation
- 2. Disrupted health care access**
- 3. Reduced health maintenance resources**

Evidenced-Based Buffering Interventions DrDevikaB



Sources: Bhushan D, *et al.* The Roadmap for Resilience: The California Surgeon General's Report on Adverse Childhood Experiences, Toxic Stress, and Health. Office of the California Surgeon General, 2020 DOI:[10.48019/PEAM8812](https://doi.org/10.48019/PEAM8812); Gilgoff et al. Adverse Childhood Experiences, outcomes, and interventions. *Pediatric Clinics* 2020; **67**(2): 259-73.

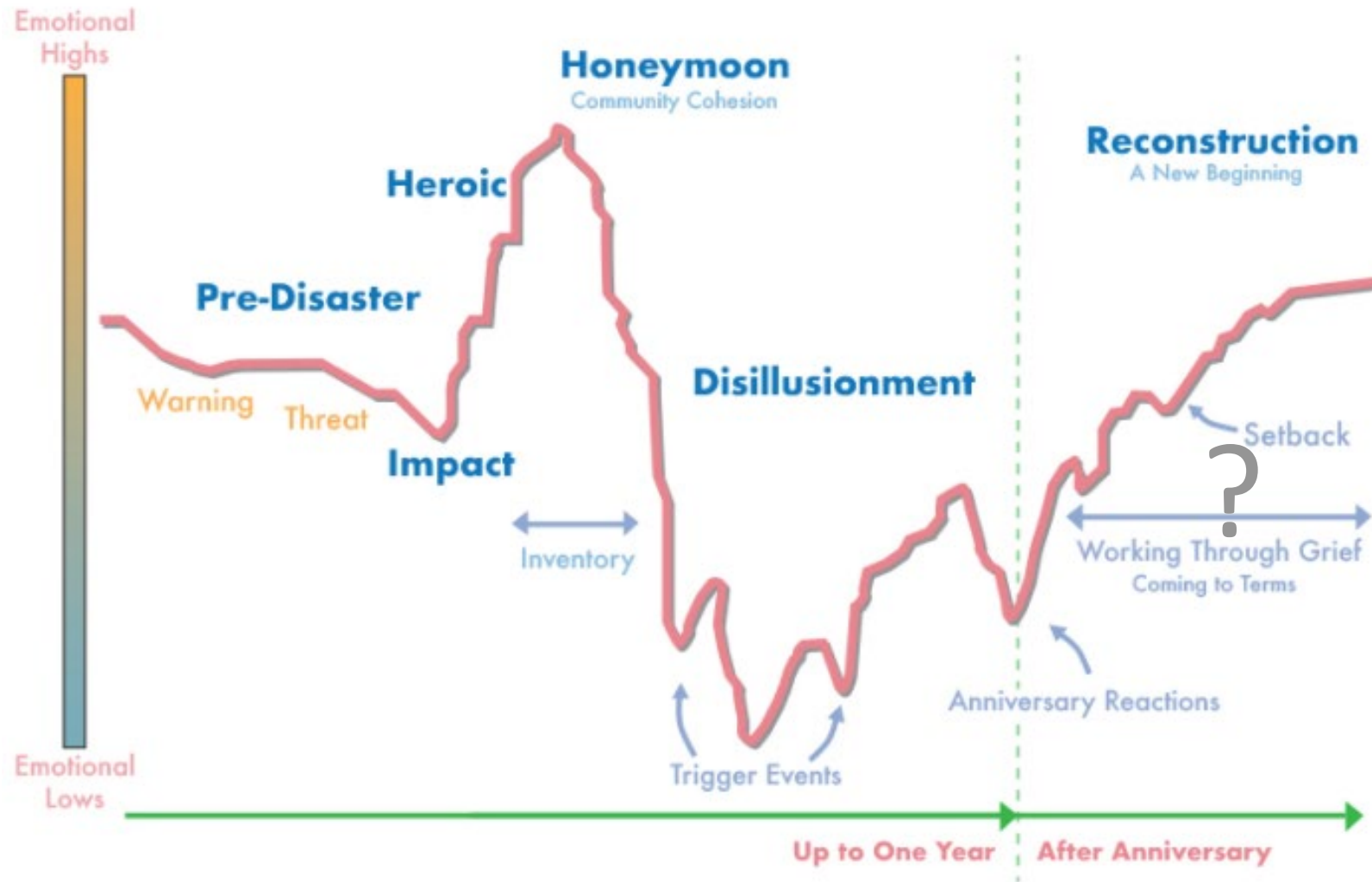


Caring for Kids: ACEs Aware Training and Clinical Response to Toxic Stress and COVID-19

Eric Ball, MD, FAAP

CHOC Primary Care Network

Mental Health in the Context of COVID-19



Source: Adapted from Zunin & Myers as cited in DeWolfe, D. J., 2000. Training manual for mental health and human service workers in major disasters (2nd ed., HHS Publication No. ADM 90-538). Rockville, MD: U.S. Department of Health and Human Services, Substance Abuse and Mental Health Services Administration, Center for Mental Health Services.

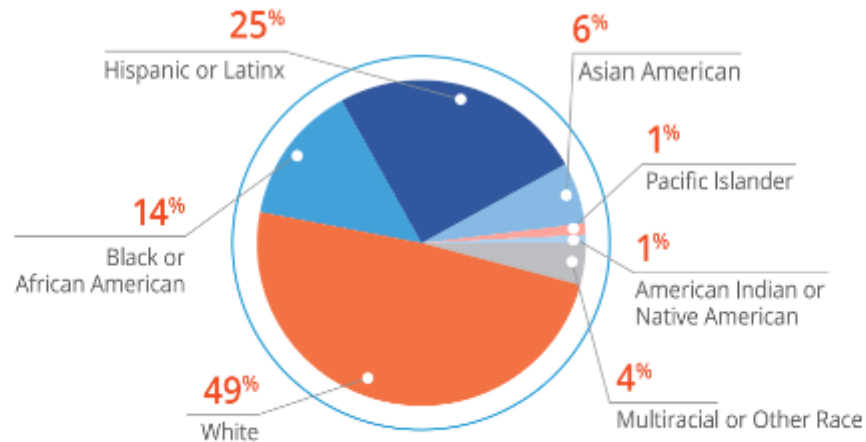
ABOUT THE SURVEY

This brief describes selected data from a nationally representative survey of 3,300 young people, aged 13-19, that was conducted as part of the *How Learning Happens* initiative at America's Promise Alliance. The survey was designed by a team at the Center for Promise and America's Promise Alliance; then administered online by Qualtrics, an online survey platform, over a two-week period during late April and early May 2020. For any young person under 16, consent was obtained via parental consent forms. Respondents were evenly split across grades 9-12 and were 49% female, 50% male, and 1% non-binary.

Demographic breakdown by urbanicity (N=3,300)



Demographic breakdown by race (N=3,300)



The State of Young People during COVID-19

Findings from a nationally representative survey of high school youth

OVERVIEW

The public health crisis created by the spread of COVID-19 has disrupted day-to-day routines across the United States, including an extended closure of school buildings. "Hybrid" news sources and emerging researchers are reporting on the deep and disparate effects that are reverberating from these closures. But how do young people themselves perceive the impact so far on their learning and their lives?

To answer this question, the Center for Promise at America's Promise Alliance conducted a nationally representative survey¹ of 3,300 young people aged 13-19.

Overall, the results are deeply sobering:

- While nearly all of the high school youth surveyed (95%) say they are participating in online learning opportunities, more than three-quarters (78%) are spending four or fewer hours each day in class or working on assignments.
- Since their school buildings closed, young people's levels of concern about the present and future have increased, and indicators of overall health and well-being have suffered. For example, 88% of young people say they have more often been feeling unhappy or depressed, and nearly as many say they are much more concerned than usual about having their basic needs met.
- More than one-quarter of students (26%) say they do not feel connected at all to school clubs. A similar percentage do not feel connected to classmates or to their school community.

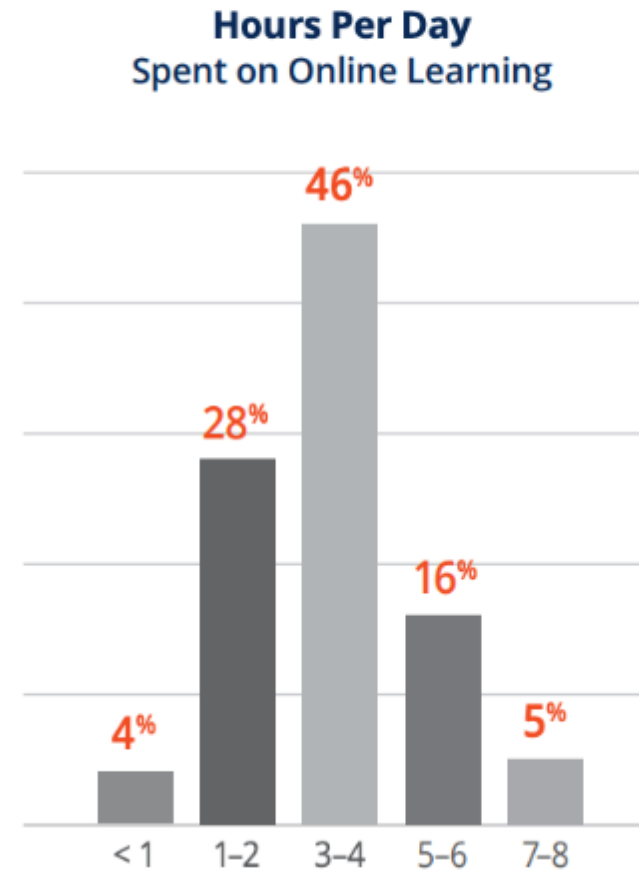
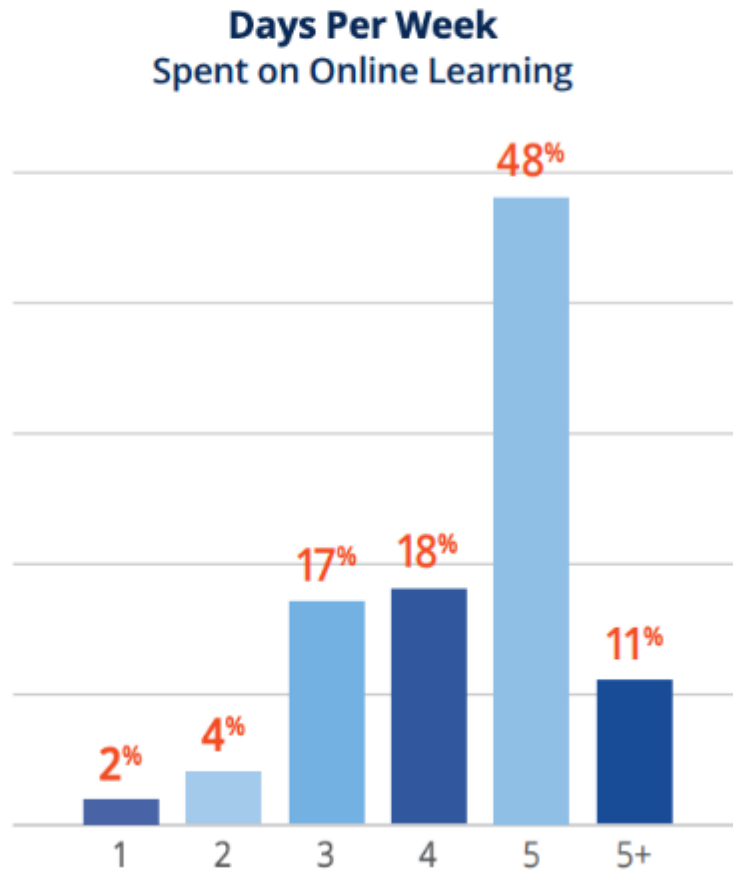
Taken together, these findings suggest that students are experiencing a collective trauma, and that they and their families would benefit from immediate and ongoing support for both mental, physical and mental health, and learning opportunities. Without that support, the current in time is likely to have lasting negative effects for this cohort of high school students.²

The State of Young People during COVID-19

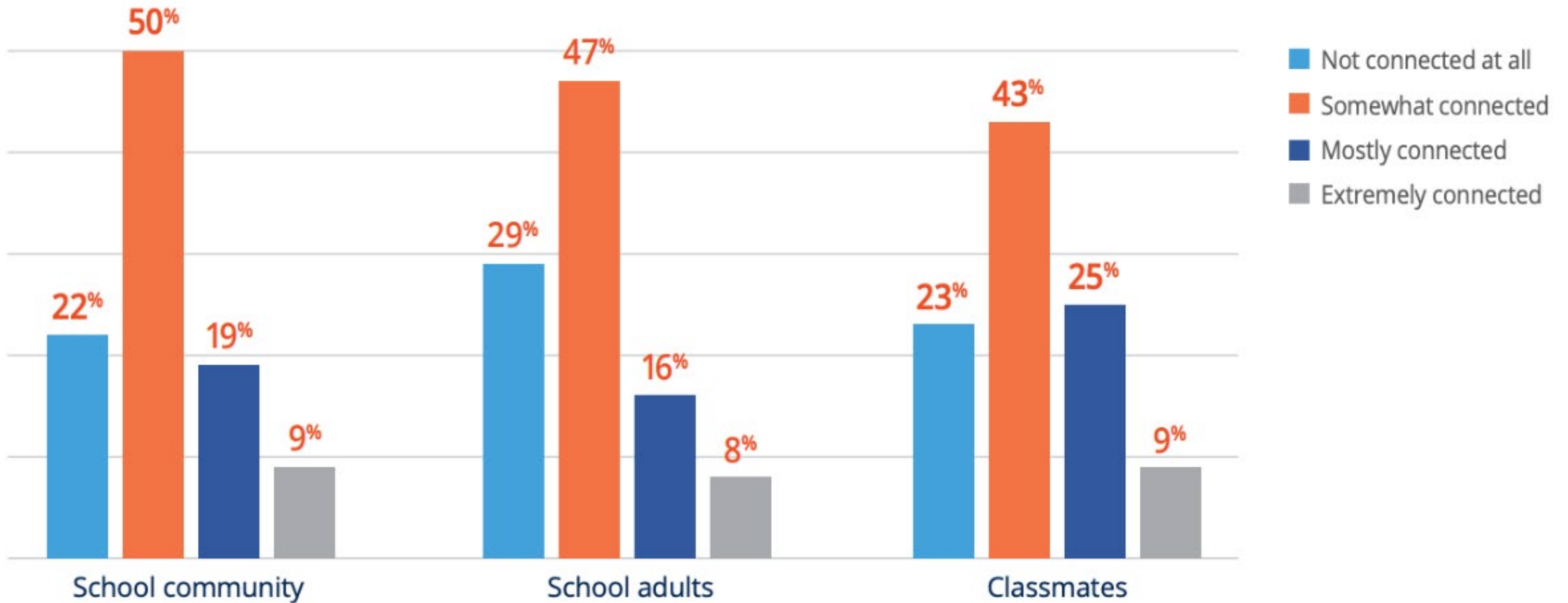
1

Showing up to learn, but fewer hours per day

Although just over half of students report participating in online learning or working on assignments five or more days a week, **three-quarters** report spending between **1 and 4 hours** on these activities during a typical day—far less time than a regular school day.⁵



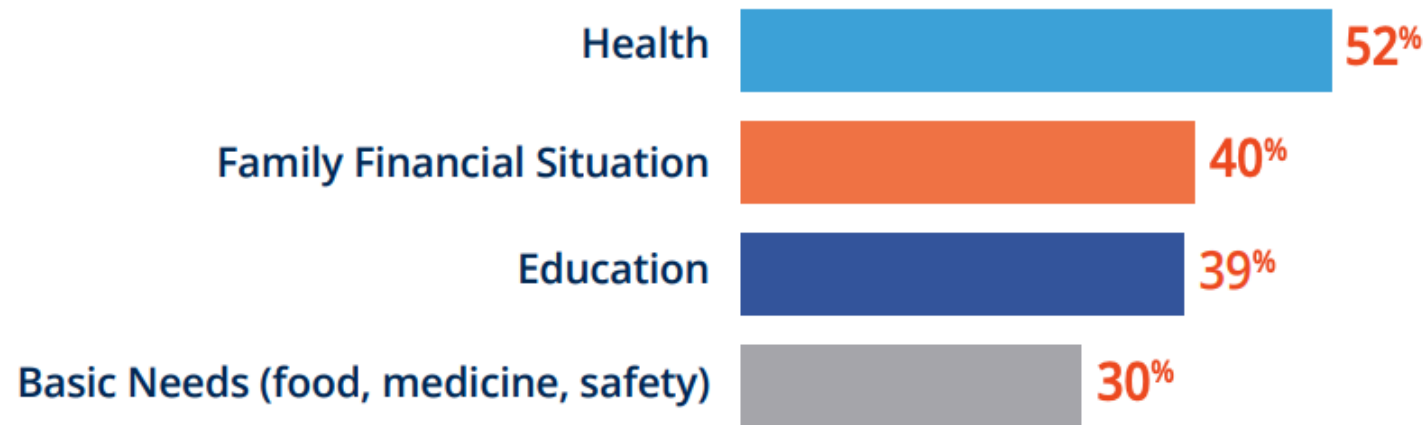
During this time, how connected do you feel to...



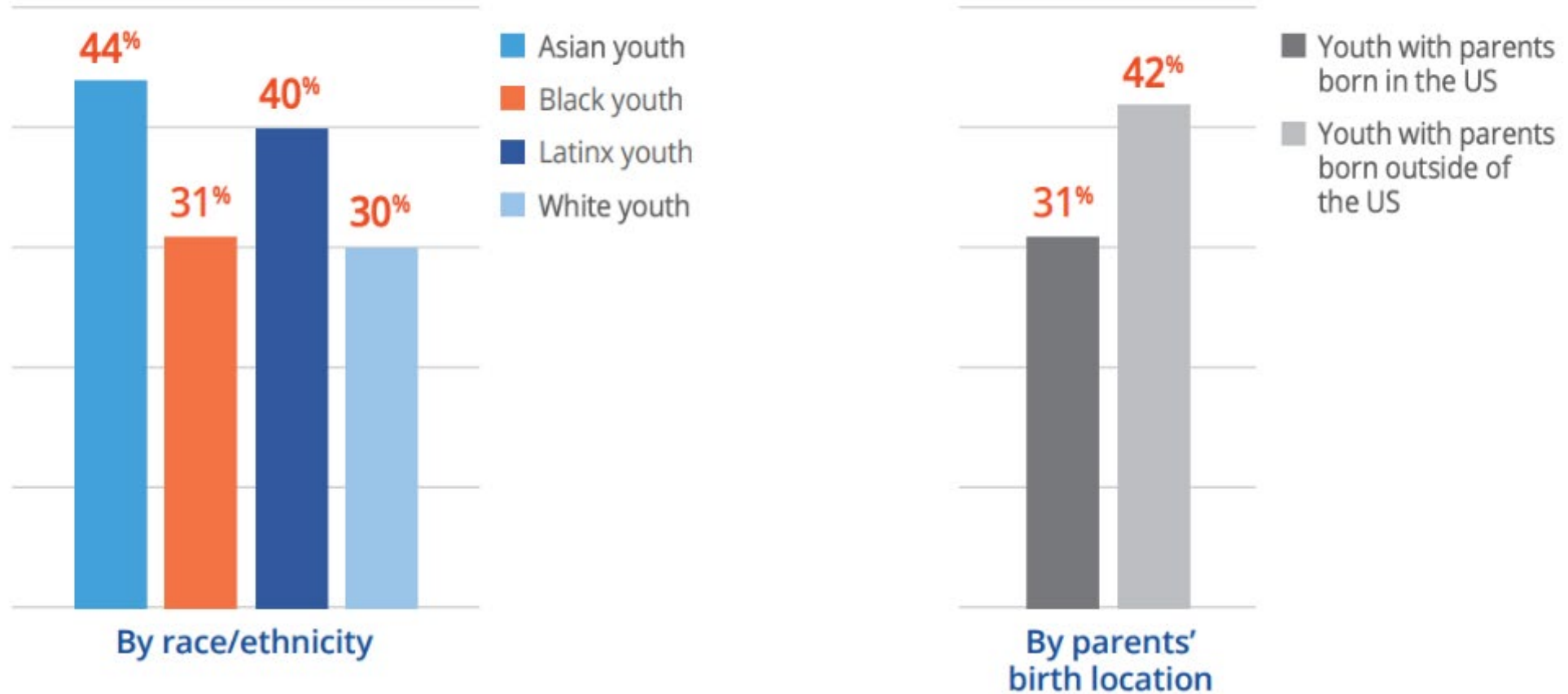
More concerned about basic needs, health, and academics

More than half of young people are much more concerned than usual about their own and their family's physical and emotional health. In addition, a sizeable proportion of young people are much more concerned than usual about their current and future education, including their grades and getting into college.

Percent of students who are “much more concerned than usual” about...

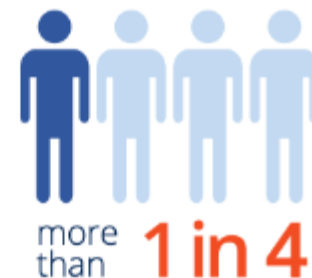


Percent of youth reporting poorer emotional and cognitive health



Experiencing poorer emotional and cognitive health

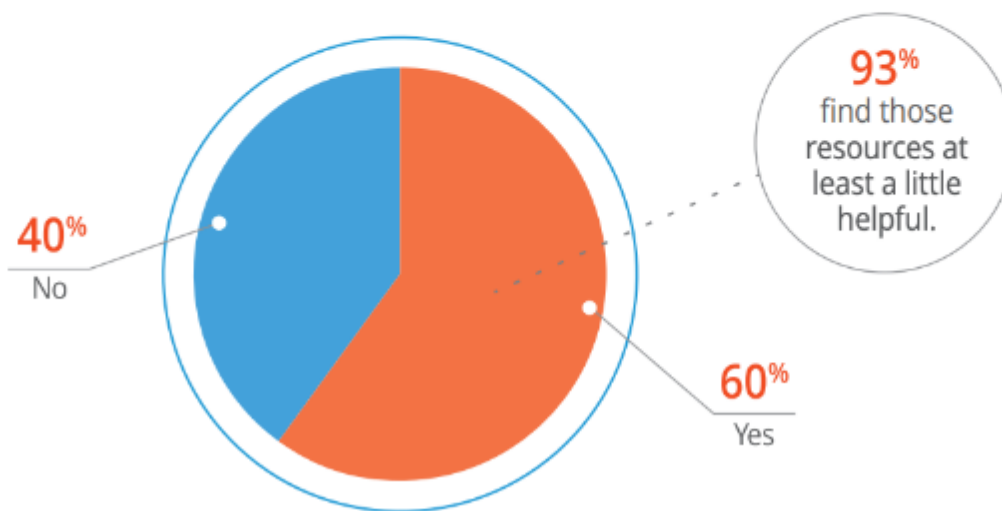
In addition to the growing concerns young people have for themselves and their families, their emotional and cognitive health is also suffering. When asked about specific indicators of emotional and cognitive health,⁶ **more than 1 in 4** young people reported an increase in **losing sleep because of worry, feeling unhappy or depressed, feeling constantly under strain, or experiencing a loss of confidence in themselves.**



Finding support helpful, when it is offered

The survey findings point to a **greater need for social and emotional support**. Although most young people say that an adult from their school has suggested tools and resources for them—and the vast majority of these young people say the resources are at least a little helpful—a large percentage say no adult from school has suggested this kind of support.

Percent of youth offered social or emotional support by an adult from their school



COVID-19 and Parent-Child Psychological Well-being

Anna Gassman-Pines, PhD, Elizabeth Oltmans Ananat, PhD, John Fitz-Henley, II, BA

TABLE 3 Descriptive Statistics of COVID-19–Related Hardships

	%
COVID-19 hardships	
Job loss	59.8
Income loss	68.6
Caregiving burden	44.5
Household illness	11.6
No. COVID-19 hardships	
0	14.1
1	20.8
2	34.9
3	26.8
4	3.4

n = 561 families.

TABLE 4 Associations Between Risk Factors and Family Mental Health Outcomes in Post–COVID-19 Period

	Parental Negative Mood	Parental Negative Sleep Quality	Child Uncooperative Behavior	Child Worried
Household adult layoff	0.116** (0.053)	0.127 (0.091)	0.026 (0.079)	0.028 (0.053)
Household income loss	0.173*** (0.055)	0.178* (0.094)	0.158* (0.082)	0.071 (0.055)
Increased caregiving burden	0.117** (0.050)	0.094 (0.085)	0.225*** (0.073)	0.105** (0.049)
Household member felt sick	0.172** (0.078)	0.226* (0.132)	0.461*** (0.113)	0.263*** (0.076)
Cumulative COVID-19 hardship index (reference group = 0 hardships)				
1 hardship	0.12 (0.099)	0.144 (0.167)	0.185 (0.147)	−0.061 (0.099)
2 hardships	0.316*** (0.090)	0.471*** (0.152)	0.295** (0.134)	0.061 (0.090)
3 hardships	0.334*** (0.094)	0.315** (0.159)	0.376*** (0.140)	0.111 (0.094)
4 hardships	0.429*** (0.141)	0.641*** (0.237)	0.789*** (0.209)	0.324** (0.140)

n = 352 families with daily survey reports after the crisis began who also answered the point-in-time survey. Unstandardized coefficients from separate OLS regressions predicting each outcome are shown. All models are weighted by the number of surveys participants completed during the postcrisis period. Data are presented as regression coefficients and (SE).

* *P* < .10.

** *P* < .05.

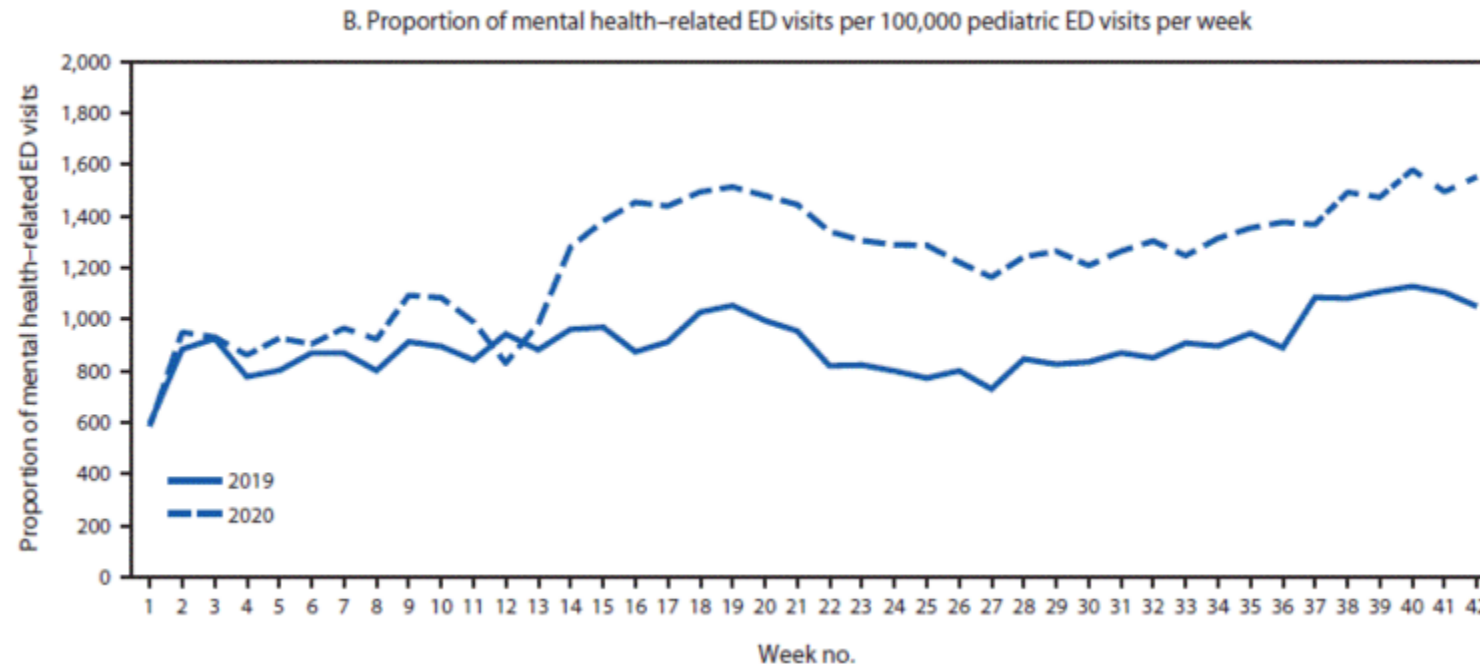
*** *P* < .01.

**** *P* < .001.

Morbidity and Mortality Weekly Report

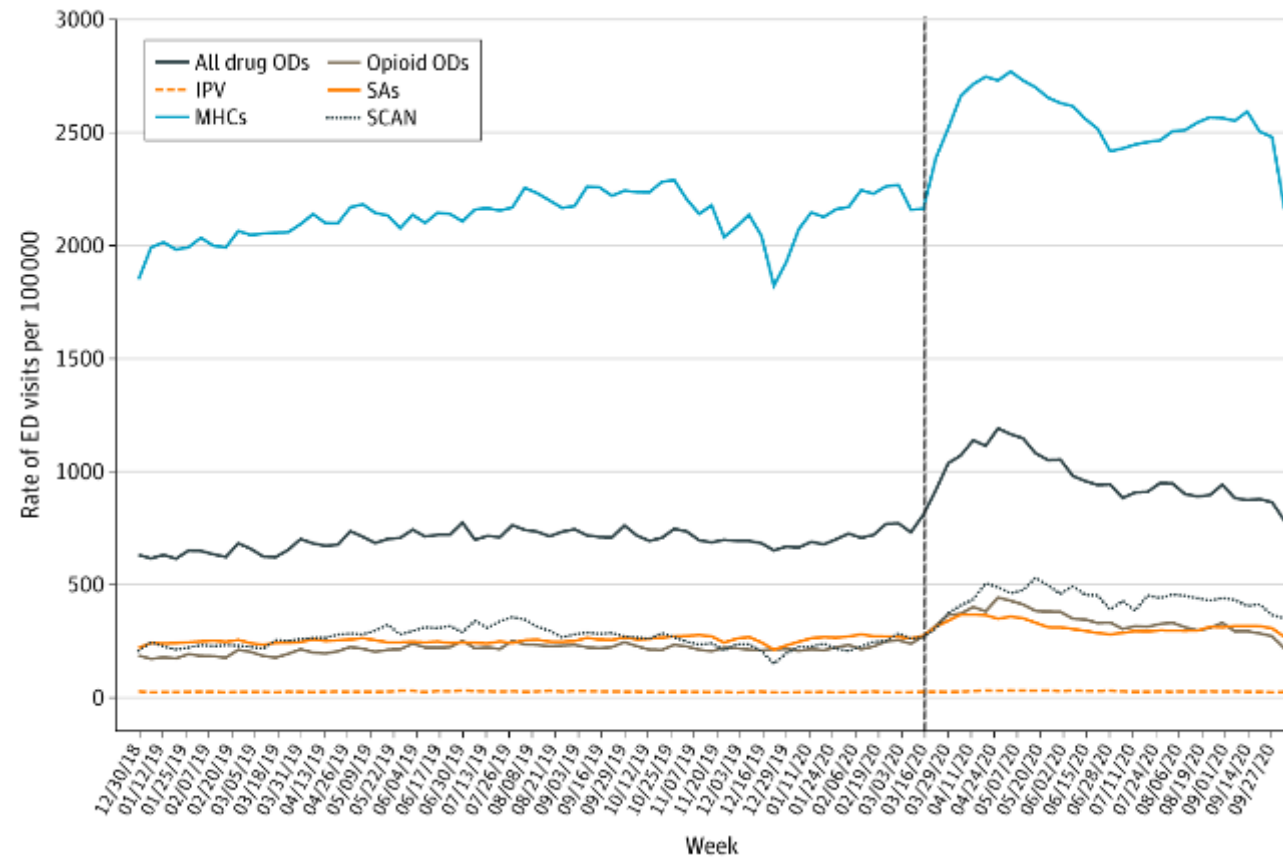
Mental Health–Related Emergency Department Visits Among Children Aged <18 Years During the COVID-19 Pandemic — United States, January 1–October 17, 2020

Rebecca T. Leeb, PhD¹; Rebecca H. Bitsko, PhD¹; Lakshmi Radhakrishnan, MPH²; Pedro Martinez, MPH³; Rashid Njai, PhD⁴; Kristin M. Holland, PhD⁵



*Proportion of mental health-related ED visits = number of ED visits for children's mental health/total number of pediatric ED visits x 100,000

Rate of Emergency Department (ED) Visits for All Drug and Opioid Overdoses (ODs), Intimate Partner Violence (IPV), Suicide Attempts (SAs), Mental Health Conditions (MHCs), and Suspected Child Abuse and Neglect (SCAN) per 100,000 ED Visits in the US December 30, 2018, to October 10, 2020



Top E.R. Doctor Who Treated Virus Patients Dies by Suicide

“She tried to do her job, and it killed her,” said the father of Dr. Lorna M. Breen, who worked at a Manhattan hospital hit hard by the coronavirus outbreak.

[Infectious Disease](#) > [COVID-19](#)

COVID-19 Shuttters Some Private Practices

— “If [patients] are sick and get us sick, we can't help anyone”



Positive stress

The body's normal and health stress response to a tense situation/event

Tolerable stress

Activation of the body's stress response to a long-lasting or severe situation/event

Toxic stress

Prolonged activation of the body's stress response to frequent, intense situation/events

Protecting Ourselves and Our Patients from Stress and Adversity during COVID-19

- **MAINTAIN SUPPORTIVE RELATIONSHIPS:**

- Turn off media and devices for quality time together
- Make art, dance, cook or read with loved ones
- Remain in touch with mentors, friends, and family by phone or video chat, including schools and community- or faith-based organizations

- **ENGAGE IN DAILY EXERCISE:**

- Exercise for 60 minutes of physical activity daily

- **GET SUFFICIENT, HIGH QUALITY SLEEP:**

- Go to sleep and wake up at the same time each day
- Turn off electronics at least a half hour before bed
- Drink warm water or hot tea and read a book after you climb into bed
- Avoid caffeine in the afternoon and evening



Protecting Ourselves and Our Patients from Stress and Adversity during COVID-19

○ **KEEP BALANCED NUTRITION:**

- Keep regular mealtimes, so you aren't just snacking all day
- Minimize refined carbohydrates, high fat, and high sugar foods

○ **ENGAGE IN MENTAL HEALTH CARE:**

- Schedule video or phone sessions for psychotherapy, psychiatric care and substance use disorder treatment when possible
- Minimize consumption of news or other media content that feels upsetting

○ **ACCESS NATURE:**

- Go to a park or hike





Case Study #1

13-year-old teen well child check

Case Study #1: 13-year-old Well Child Check

- No prior history of any physical or mental health problems
- Active soccer and baseball player, but no longer playing either sport
- Attending 'distance learning' schooling since last March
 - Now in 7th grade (first year in middle school). Missed elementary school 'graduation'
 - Grades now declining—getting mainly B's and C's
 - Mom would like to discuss 'possible ADHD'
- PHQ-A depression screening tool: 13 (moderate depression). Last year score was 1.
- **ACE score: 0**

PHQ-9 modified for Adolescents (PHQ-A)

Name: _____ Clinician: _____ Date: _____

Instructions: How often have you been bothered by each of the following symptoms during the past two weeks? For each symptom put an "X" in the box beneath the answer that best describes how you have been feeling.

	(0) Not at all	(1) Several days	(2) More than half the days	(3) Nearly every day
1. Feeling down, depressed, irritable, or hopeless?			<input checked="" type="checkbox"/>	
2. Little interest or pleasure in doing things?		<input checked="" type="checkbox"/>		
3. Trouble falling asleep, staying asleep, or sleeping too much?				<input checked="" type="checkbox"/>
4. Poor appetite, weight loss, or overeating?		<input checked="" type="checkbox"/>		
5. Feeling tired, or having little energy?			<input checked="" type="checkbox"/>	
6. Feeling bad about yourself – or feeling that you are a failure, or that you have let yourself or your family down?		<input checked="" type="checkbox"/>		
7. Trouble concentrating on things like school work, reading, or watching TV?			<input checked="" type="checkbox"/>	
8. Moving or speaking so slowly that other people could have noticed? Or the opposite – being so fidgety or restless that you were moving around a lot more than usual?		<input checked="" type="checkbox"/>		
9. Thoughts that you would be better off dead, or of hurting yourself in some way?	<input checked="" type="checkbox"/>			

In the past year have you felt depressed or sad most days, even if you felt okay sometimes?
☒ Yes ☐ No

If you are experiencing any of the problems on this form, how **difficult** have these problems made it for you to do your work, take care of things at home or get along with other people?
☐ Not difficult at all ☒ Somewhat difficult ☐ Very difficult ☐ Extremely difficult

Has there been a time in the past month when you have had serious thoughts about ending your life?
☐ Yes ☒ No

Have you EVER, in your WHOLE LIFE, tried to kill yourself or made a suicide attempt?
☐ Yes ☒ No

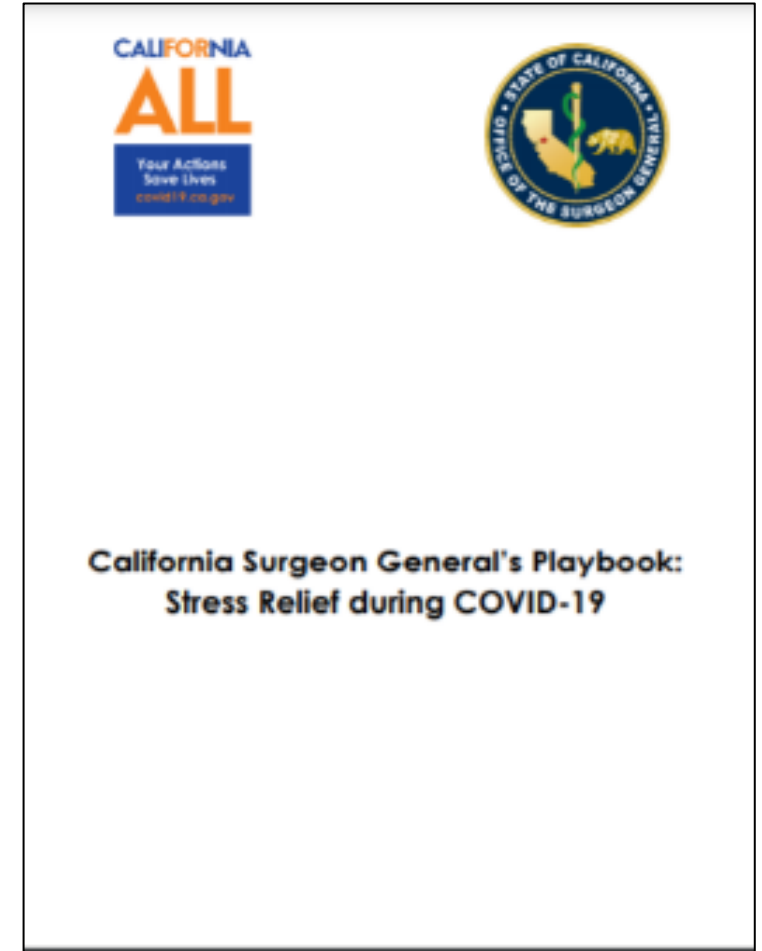
***If you have had thoughts that you would be better off dead or of hurting yourself in some way, please discuss this with your Health Care Clinician, go to a hospital emergency room or call 911.*

Office use only: _____ Severity score: _____

Modified with permission from the PHQ (Spitzer, Williams & Kroenke, 1999) by J. Johnson (Johnson, 2002)

Case Study #1: 13-year-old Well Child Check

- Discussed resiliency factors and gave the family the Surgeon General's Playbook for Stress Relief during COVID-19
 - Reviewed sleep hygiene
 - Discussed the importance of exercise despite the loss of his team sports
 - Downloaded a meditation app on his phone
 - Referred to a local child psychologist for therapy



Key Takeaways

- For many of our patients (and peers), COVID-19 and associated public health mitigation efforts might be the most traumatic event in their lives
 - This has been a ‘collective societal trauma’
- The resiliency factors and ‘stress busting’ strategies taught in ACEs Aware training are directly applicable to patients during the pandemic
- It is important to discuss these strategies with every patient, regardless of their ACE score



We **CAN** reduce the short and long-term effects of the COVID-19 pandemic on our patients.

ACEs Aware is here to help.



Caring for Adults with ACEs – and Now a Pandemic!

Martina Jelley, MD, MSPH, FACP
University of Oklahoma School of
Community Medicine

Learning about ACEs

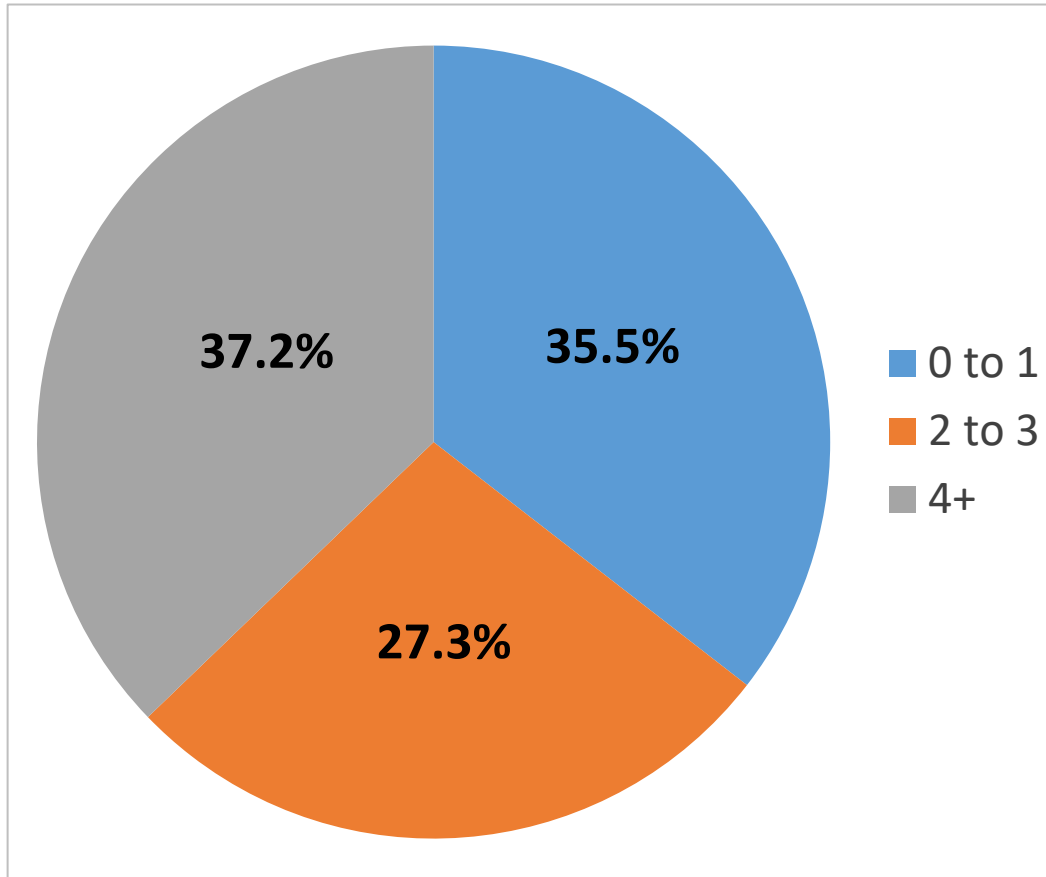
- Classical training in Internal Medicine/Adult Care included very little about childhood events
- ACE study published in 1998
- Exponential growth of interest in ACEs and trauma informed care training and publications
- Slow uptake by adult caregivers
- YET...
 - *Annals of Internal Medicine* has yet to publish any articles on ACEs
 - American College of Physicians annual meeting – no sessions on ACEs
 - No formal curriculum in most medical schools

One of our clinic's patients, circa 2007

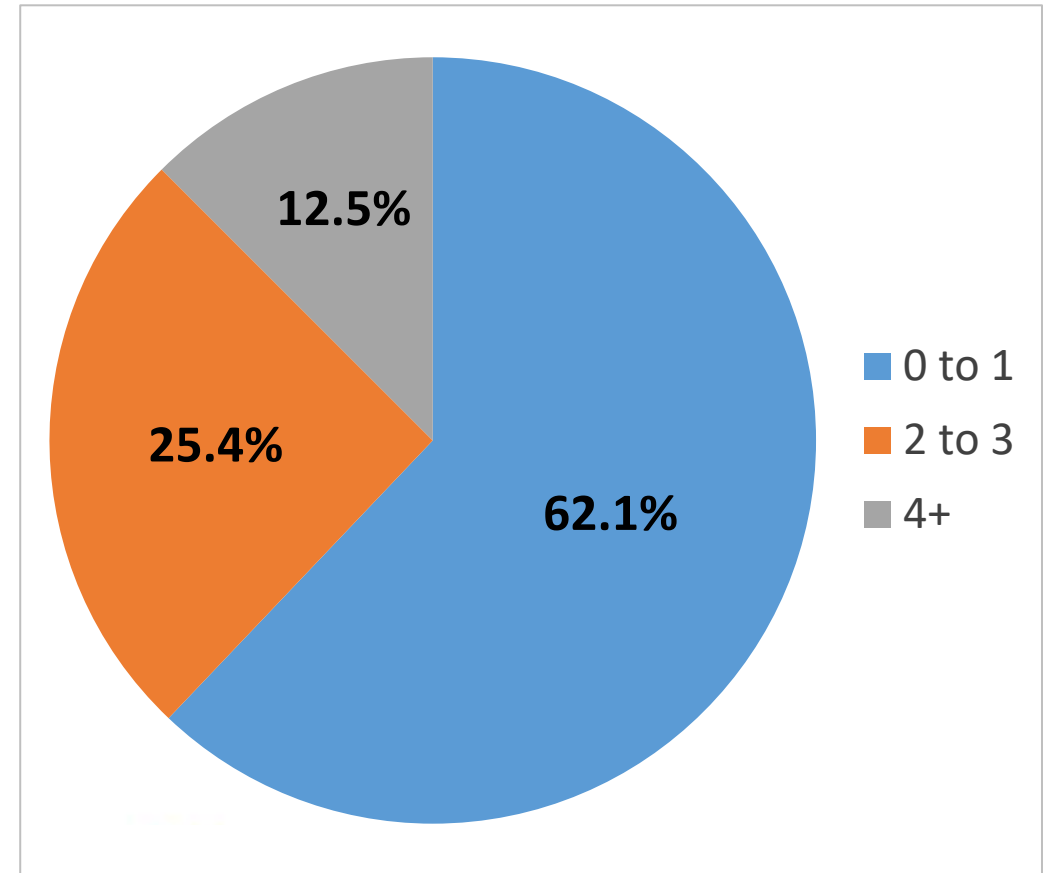
- Patient
 - Female, age 34
 - Morbidly obese, BMI 60
 - Smoker
 - Oxygen-dependent lung disease
 - Poorly controlled diabetes
- **Social history** (verbatim from chart):
 - *Married, 3 children ages 8, 13, 15*
 - *Molested at 8, raped at 13*
 - *Grew up in home with alcoholism, instability and physical abuse*

ACEs Comparison

Study Sample: OU Tulsa



CDC ACEs Study



What is a clinician to do?

“...time does *not* heal some of the adverse experiences we found so common in the childhoods of a large population of middle-aged, middle-class Americans”

Vincent Felitti, MD

Felitti, V. J. (2002). “[The relationship of adverse childhood experiences to adult health: Turning gold into lead].”
J Psychosom Med Psychother 48(4): 359-369. (p. 44)

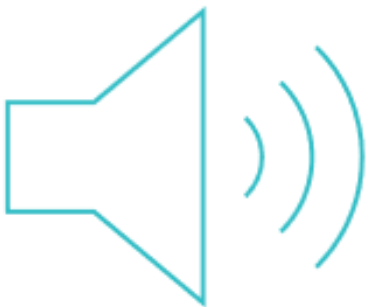
“Asking...Listening, and Accepting
that patient for who they are...are a powerful form of
***Doing* that confers great relief to patients”**

Vincent Felitti, MD

Nazakawa, DJ (2015). *Childhood disrupted*. NY: Simon & Schuster. (p. 153)

ACE Metaphors/Explanation Tools

- Using metaphors may help explain the effects of ACEs:
 - Overloaded pick-up truck or backpack
 - Turning up the volume



STRESS IN AMERICA 2020: A NATIONAL MENTAL HEALTH CRISIS

COVID-19 Is a Significant Stressor for Most Americans



Nearly 8 in 10 (**78%**) say the coronavirus pandemic is a significant source of stress in their life



Nearly 7 in 10 (**67%**) say they have experienced increased stress over the course of the pandemic

STRESS IN AMERICA™

© American Psychological Association

Childhood Adversity and Perceived Distress from the COVID-19 Pandemic*

- Study of 101 low-income pregnant women in two clinics in Oklahoma
- Survey inquired about health, social, and economic impacts as well as perceived change in stress and well-being attributed to the pandemic (i.e., perceived distress)
- After controlling for demographic characteristics, those who reported **more childhood adversity also reported increased stress and poorer mental health due to the pandemic** ($b = .08$; $p < .01$)
- This effect, however, was fully mediated by self-reported **loneliness**, suggesting that adverse childhood experiences influence pandemic-related distress due to social isolation



Case Study #2

- 29-year-old woman
- Gained 20 lbs. in last 3 months
- Blood pressure not controlled despite medication
- Complains of worsening insomnia for several months

Case Study #2 – ACEs, Exam & Assessment

ACE Score	3 (possibly more)
Medical History	HTN, anxiety, prediabetes, low back pain
Risks	Single mother of young children, lost job as server with COVID, currently underemployed, no family support, grandmother died of COVID
Strengths	Has plan to complete college degree, church involvement
Assessment	Toxic stress, exacerbated by pandemic, contributing to multiple issues, including HTN, weight gain, insomnia, anxiety, pain

Case Study #2 – Team Care Plan

Assessment	Toxic stress, exacerbated by pandemic, contributing to multiple issues, including HTN, weight gain, insomnia, anxiety, pain
1	Educate on ACEs and brain-body connection, pandemic as trauma, and self-care (mindfulness, exercise, nutrition, sleep hygiene)
2	Connect with social worker in clinic to help with financial resources, childcare, mental health options
3	Warm hand-off to in-house LCSW for counseling
4	Frequent PCP visits to assess progress, reinforce use of stress busters, continued discussion of brain-body connection, monitor health issues



Case Study #3

- 52-year-old woman
- ACE score: 0
- GAD-7 score 15

Case Study #3 – ACEs, Exam & Assessment

ACE Score	0
Medical History	Healthy except intermittent back pain
Symptoms	New complaints of insomnia, headaches, nausea/abdominal pain, weight loss Diagnostic work-up done – etiology of symptoms not found
Risks	Elderly mother in nursing home (unable to visit due to COVID), lost touch with close friends and extended family
Strengths	Highly educated, fully employed, supportive spouse
GAD-7 Score	15

Case Study #3

- “Toxic stress” due to COVID
- Can use similar explanation tools as ACEs
- Explain brain-body connection
- Discuss Stress Busters strategies
- Recommend CBT-I app for sleep
- Restart yoga practice
- Offer counseling options
- Enhance supportive relationships



Key Takeaways

- ACEs-informed approach should be used with all adult patients
 - Especially those with chronic disease exacerbations, new unexplained symptoms, mental health issues
- Skills and resources learned using ACEs-informed approach can be used with patients affected by any type of toxic stress, including a pandemic
- Ask, Listen, Accept – a powerful form of Doing





Audience Questions & Answers

ACEs Aware Provider Training



- 1. Get trained** at www.ACEsAware.org/training
 - Free, 2-hour online course that offers CME and MOC credits
- 2. Self-attest to completing the training** at www.Medi-Cal.ca.gov/TSTA/TSTAattest.aspx
 - List of Medi-Cal provider types eligible to receive payment at www.ACEsAware.org/eligible-providers/
- 3. Be part of the ACEs Aware Provider Directory** at www.acesaware.org/provider-directory





ACE Resources

While approaches for responding to Adverse Childhood Experiences (ACEs), and toxic stress may differ, ACEs Aware is aggregating and sharing resources and experiences that will unite us to address ACEs and toxic stress.

Visit [Advanced Search](#) to filter the resources and search by keyword.

[Get Updates from ACEs Aware >](#)

COVID-19 & Stress

Educational Events

Provider Toolkit

ACEs Aware Grants

ACE Resources

Resources by Type

Clinical Resources for Adult Providers

Clinical Resources for Pediatric Providers

Patient/Family Education Handouts

Organizational Toolkits

Policy, Research and Advocacy Briefs

Resources by Topic

Science of Toxic Stress

Trauma-Informed Systems

Screening & Clinical Response

Resilience-Building Interventions

Self-Care Tools

Upcoming Webinars

Register for Webinars and Find Webinar Recordings at:

www.ACEsAware.org/educational-events





Questions?

Contact Us



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