



**“The Nation’s Drug Overdose Epidemic:
Helping Children, Families, and Patients with Pain”**

April 5, 2022

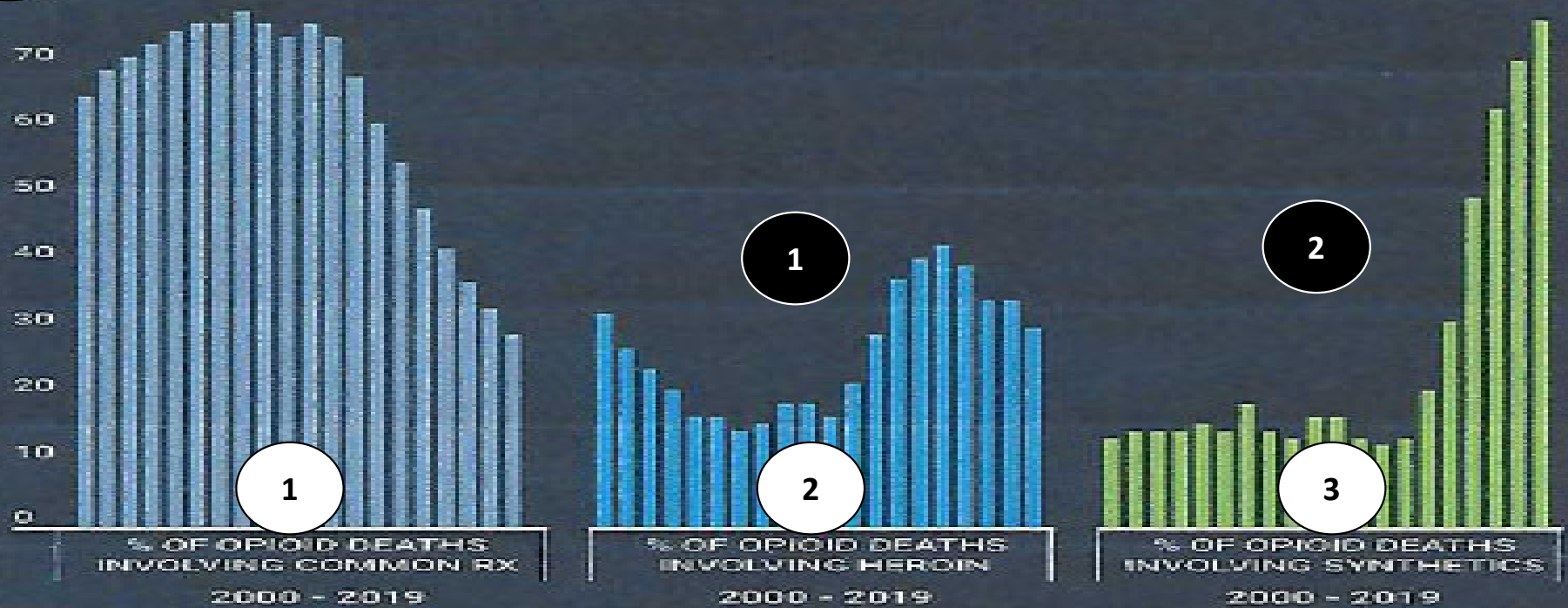
**Edwin C. Chapman, MD DABIM FASAM
Private Practice
Washington, DC**

BLACK

WHITE



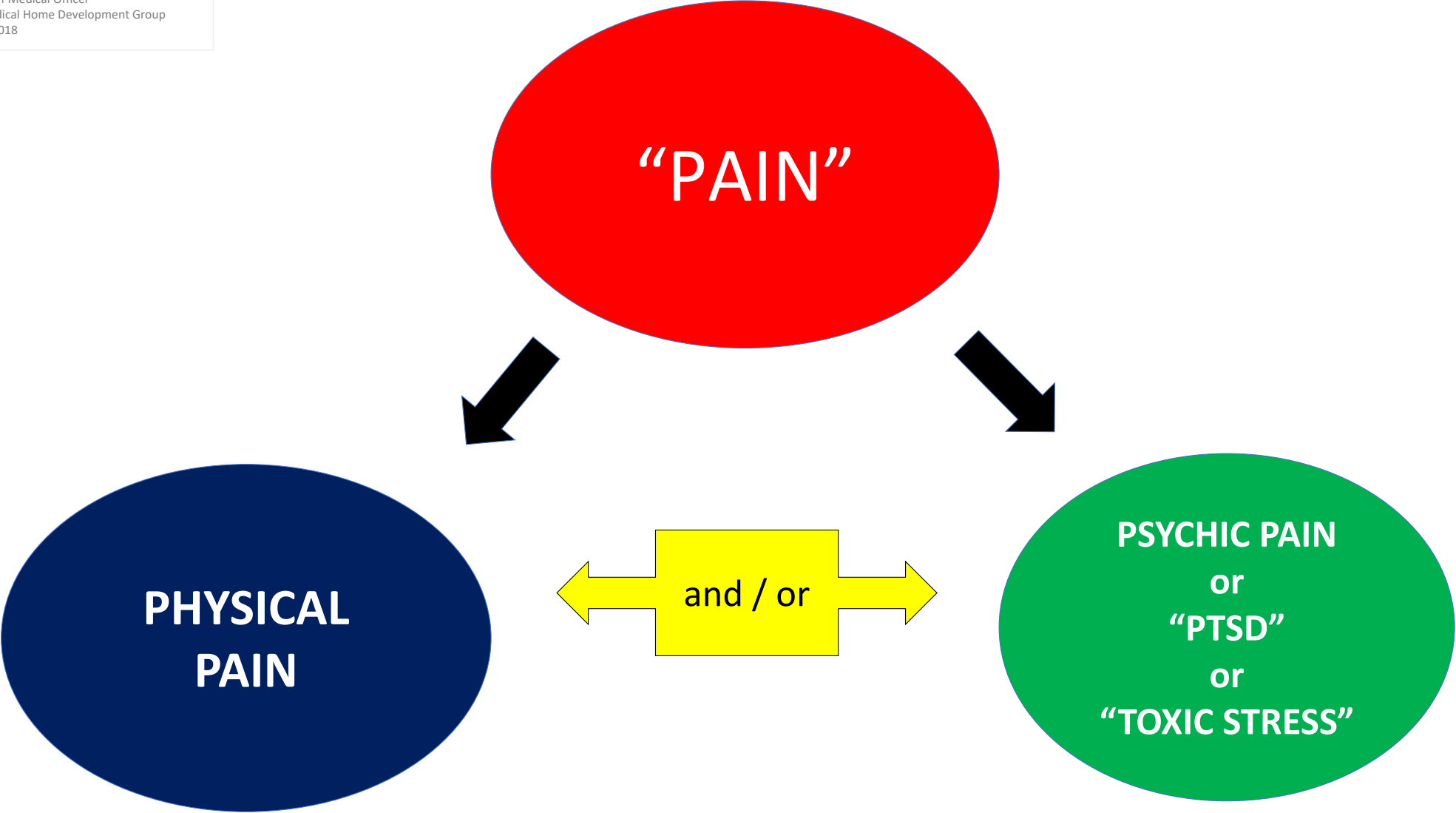
Opioid deaths increasingly involve synthetic opioids

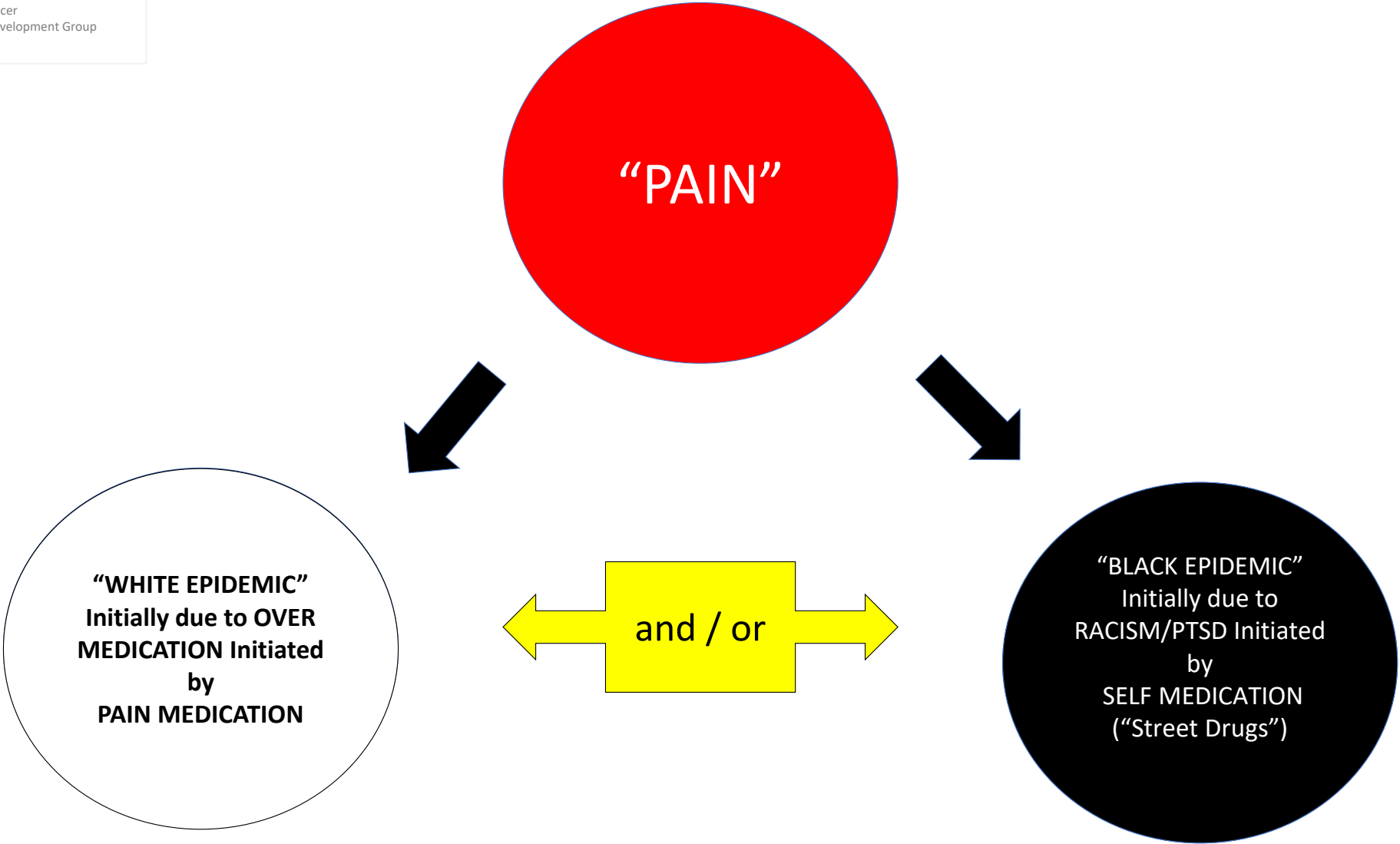


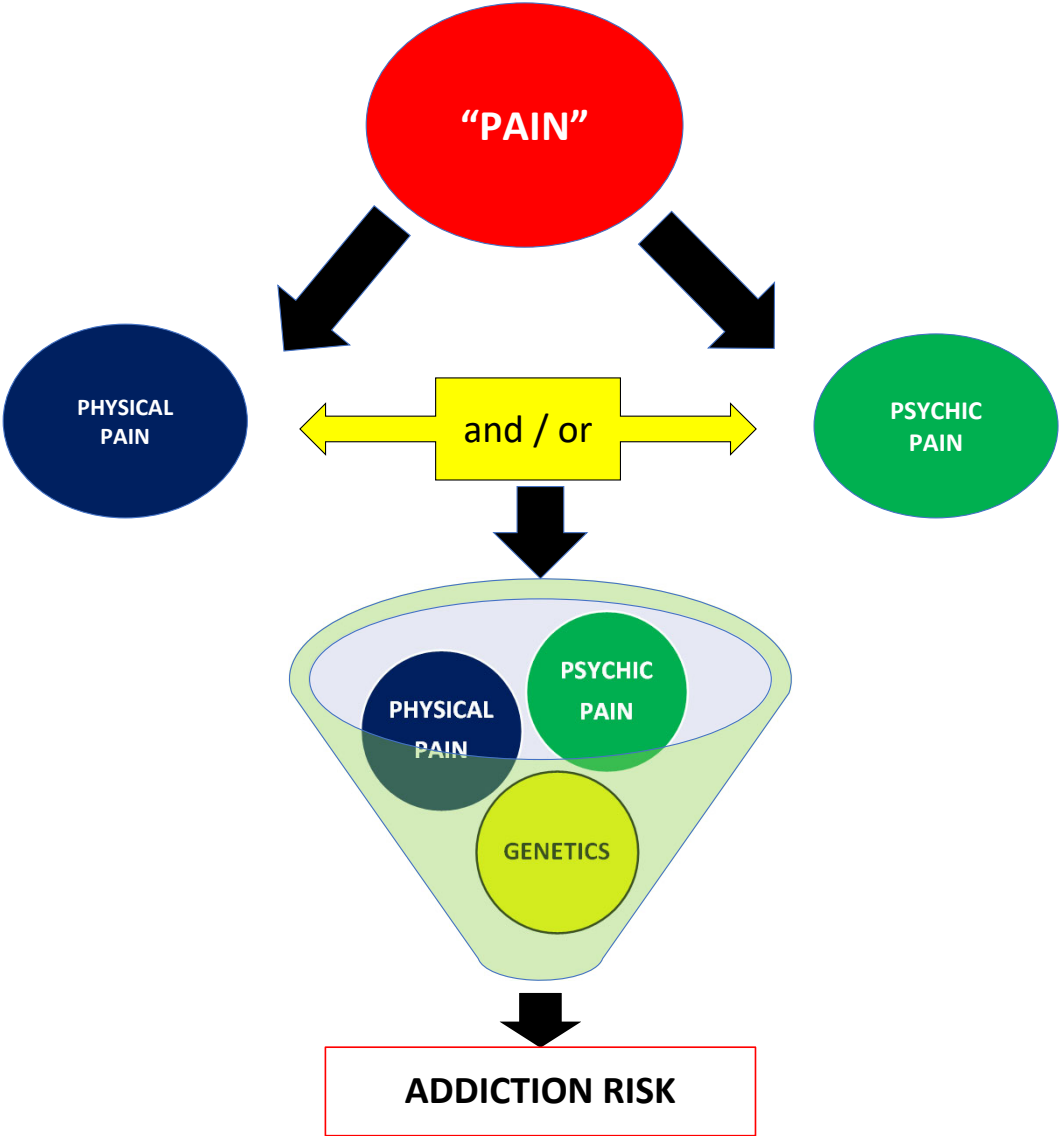
Annual percentages sum to more than 100 across substances because a single death may involve multiple substances.



“PAIN”
IS THE
COMMON
DENOMINATOR







THE WHY FACTOR?

OPIOIDS BECAME a “DISEASE” in WHITE (SUBURBAN and RURAL) AMERICA

Death rates are rising for middle-aged white Americans, while declining in other wealthy countries and among other races and ethnicities. The rise appears to be driven by suicide, drugs and alcohol abuse.

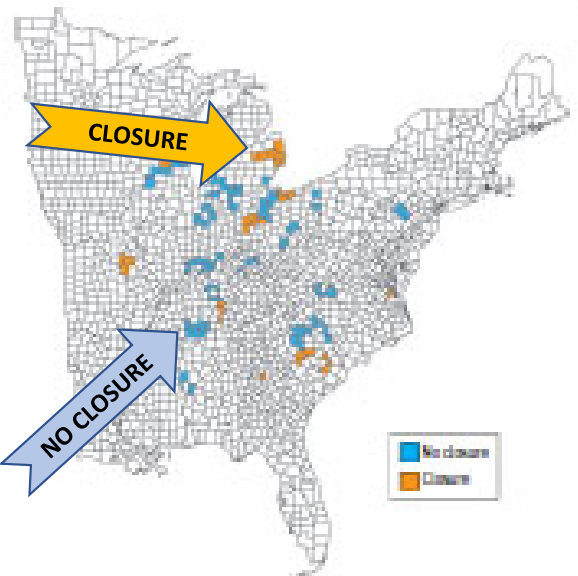


Association Between Automotive Assembly Plant Closures and Opioid Overdose Mortality in the United States

A Difference-in-Differences Analysis

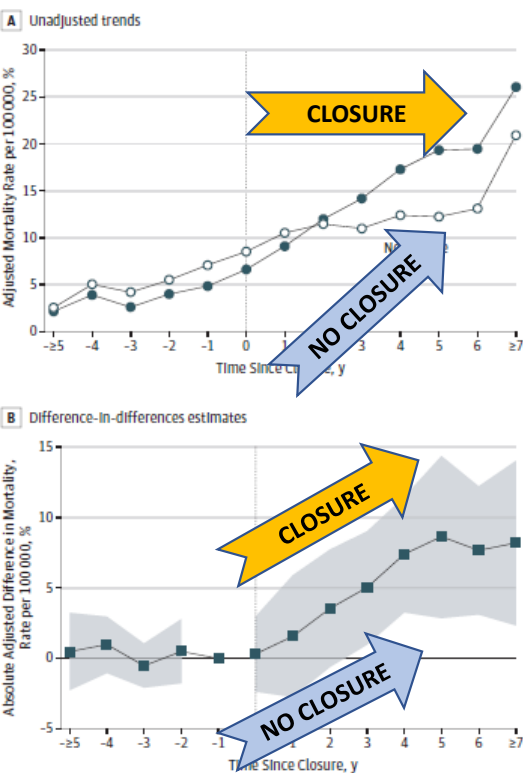
Ashwinder S. Venkatesan, MD, PhD; Elizabeth F. Bair, MS; Rourke L. O'Brien, PhD; Alexander C. Tsai, MD, PhD

Figure 1. Sample Counties and Geographic Distribution of Automotive Assembly Plant Closures



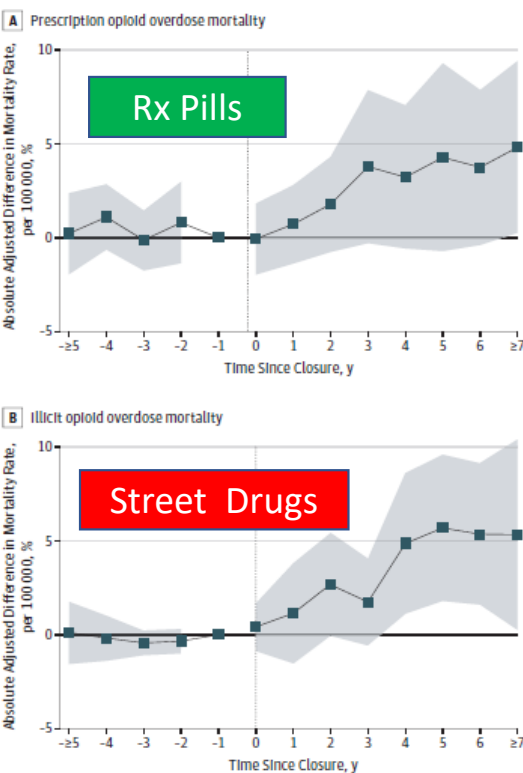
The 103 manufacturing counties that comprised the study sample were defined as those in which the percentage of employed residents working in manufacturing are in the top quintile nationwide. The 29 exposed manufacturing counties (Closure) were located in the 10 commuting zones in which an automotive assembly plant closure occurred between 1999 and 2016. The 103 unexposed manufacturing counties (No closure) were located in the 30 commuting zones in which automotive assembly plants in operation as of 1999 remained open throughout the duration of the study period.

Figure 2. Unadjusted Trends and Adjusted Difference-in-Differences Estimates of the Association Between Automotive Assembly Plant Closures and Opioid Overdose Mortality Rates



A, Unadjusted trends in county-level age-adjusted opioid overdose mortality rates among adults aged 18 to 65 years, separately for counties exposed and unexposed to automotive assembly plant closures. B, Adjusted difference-in-differences estimates (ie, the absolute adjusted difference between exposed and unexposed counties) for the same outcome (with the shaded areas representing 95% CIs) are plotted. In both panels, the x-axis represents the number of years relative to a plant closure, with event years 5 years or more years before exposure and 7 years or more years after combined into a single time point. The sample consisted of 2016 county-year observations, representing 29 exposed and 83 unexposed counties in 30 commuting zones followed from 1999 to 2016.

Figure 3. Difference-in-Differences Estimates of the Association Between Automotive Assembly Plant Closures and Prescription Opioid Overdose Mortality and Illicit Opioid Overdose Mortality



A, Prescription opioid overdose mortality. B, Illicit opioid overdose mortality. Models are identical to those presented in Figure 2B, except here the dependent variables are opioid overdose mortality per 100 000 individuals aged 18 to 65 years from prescription opioids and illicit opioids. See Figure 2 caption for further details.

100 000 (95% CI, 0.4-12.3; $P = .04$), while the estimated association for older non-Hispanic white women (35-65 years) was smaller in magnitude and not statistically significant. Estimates for nonwhite men and women were generally smaller

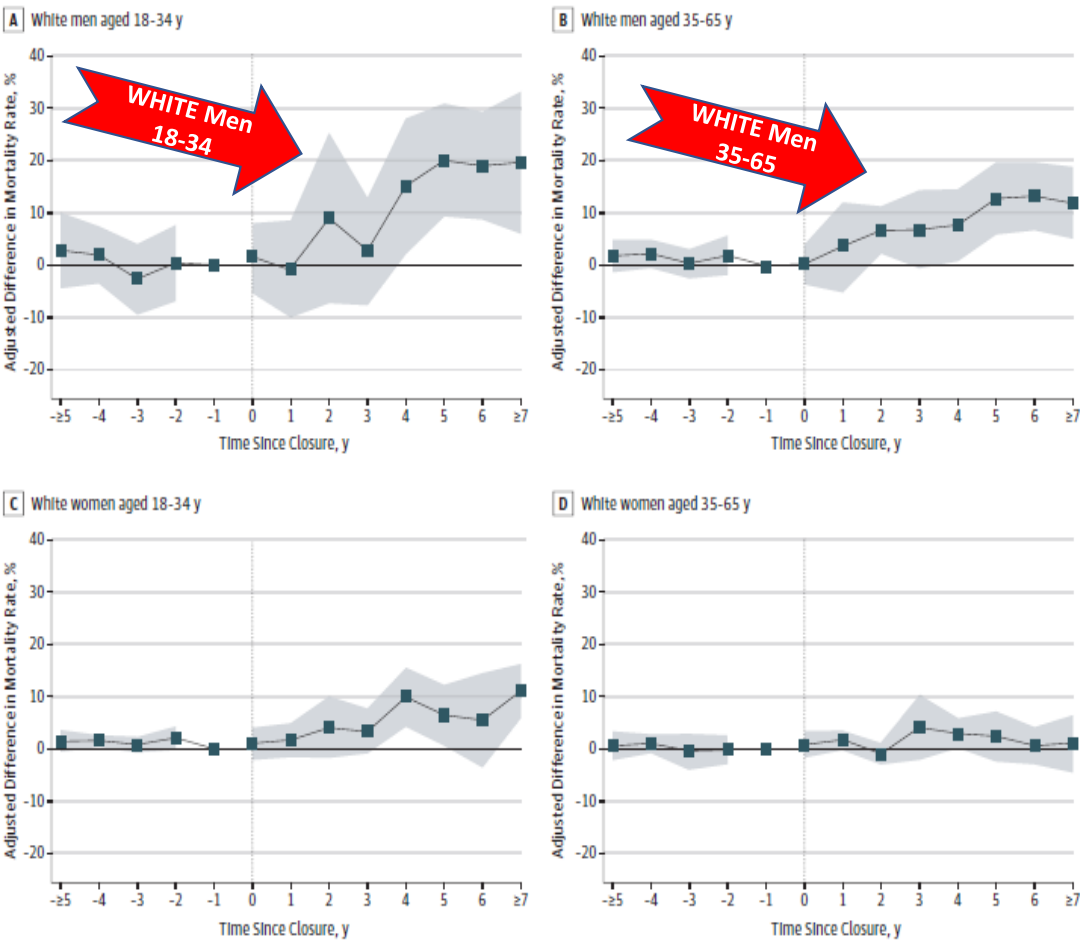
Association Between Automotive Assembly Plant Closures and Opioid Overdose Mortality in the United States A Difference-in-Differences Analysis

Adheendhar S. Venkatesan, MD, PhD; Elizabeth F. Baic, MS; Rourke L. O'Brien, PhD; Alexander C. Tsai, MD, PhD

ties. The estimates imply that, 5 years after a plant closure, opioid overdose mortality rates were 85% higher, in relative terms, than what would have been expected had exposed counties followed the same outcome trends as unexposed counties. The burden of this increase in opioid overdose mortality was primarily borne by non-Hispanic white men.

Our findings illustrate the importance of declining economic opportunity as an underlying factor associated with the opioid overdose crisis. In particular, our findings, combined with a growing body of research demonstrating adverse associations between trade-related industrial decline and drug overdose mortality,^{23,24} lend support to the view that the current opioid overdose crisis may be associated in part with the same structural changes to the US economy that have been responsible for worsening overall mortality among less-educated adults since the 1980s.^{47,48} Declining economic opportunity is one hypothesized mechanism associated with these longer-term trends.^{15,16,21,49} Given our study context, this argument

Figure 4. Difference-in-Differences Estimates for Opioid Overdose Mortality for Non-Hispanic White Adults, Stratified by Sex-Age Subgroups



A, White men aged 18 to 34 years. B, White men aged 35 to 65 years. C, White women aged 18 to 34 years. D, White women aged 35 to 65 years. Models are identical to those in Figure 2B except here the dependent variable is opioid overdose mortality for each listed sex-age subgroup among non-Hispanic white adults. See Figure 2 caption for further details.

Black Opioid Overdose Deaths Increasing Faster Than Whites, Study Finds

September 10, 2021 · 5:00 AMET



MARISA PEÑALOZA

A study published Thursday reveals a growing racial disparity in opioid overdose death rates. Deaths among African Americans are growing faster than whites across the country. The study authors call for an "antiracist public health approach" to address the crisis in Black communities.

The study, conducted in partnership with the National Institute on Drug Abuse at the National Institutes of Health, analyzed overdose data and death certificates from four states: Kentucky, Ohio, Massachusetts and New York. It found that the rate of opioid deaths among Blacks increased by 38% from 2018 to 2019, while rates for other racial and ethnic groups did not rise.



New research shows racial disparities in opioid overdose rates, with the rate of deaths among Blacks growing faster than other racial and ethnic groups.

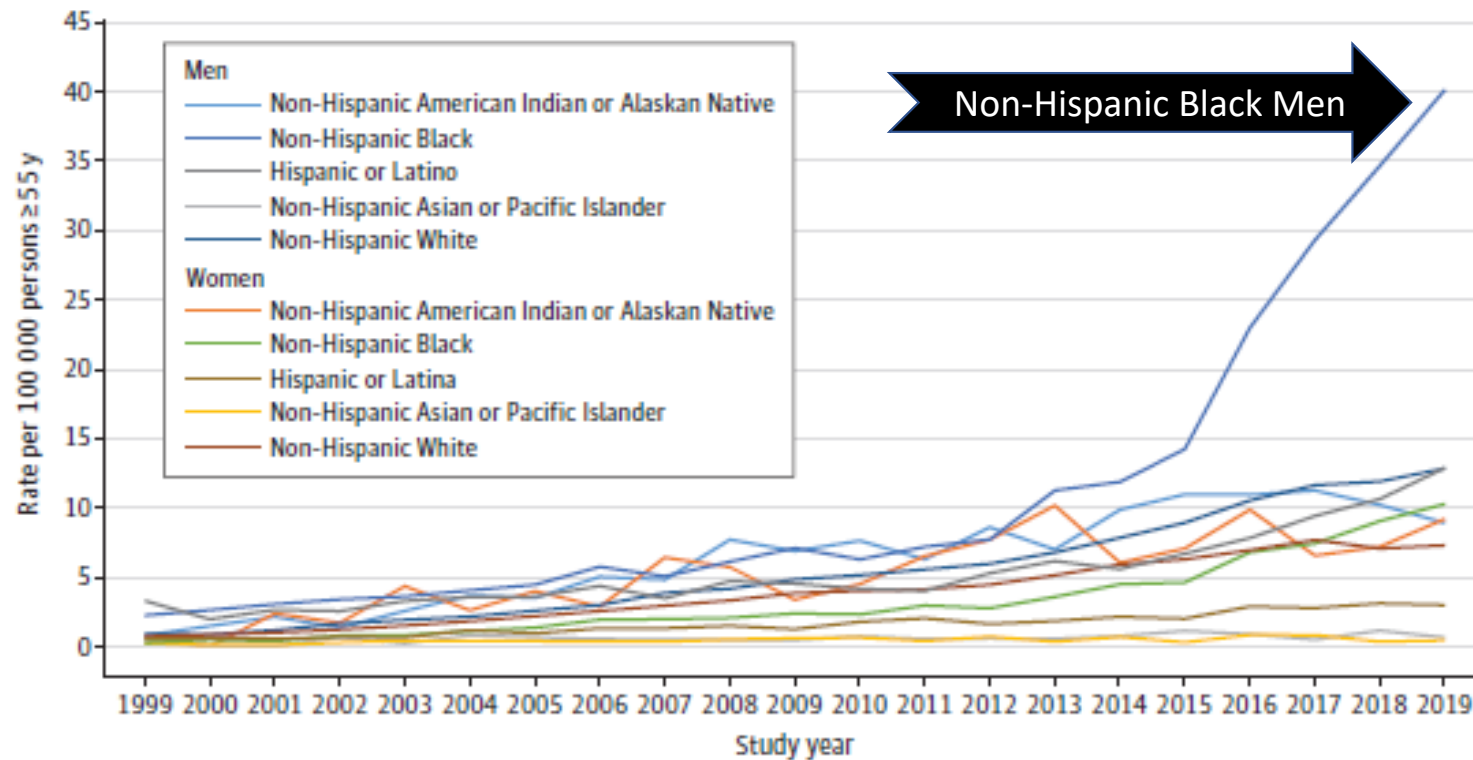
Krisanapong Detraphiphat/Getty Images



Original Investigation | Substance Use and Addiction

Disparities by Sex and Race and Ethnicity in Death Rates Due to Opioid Overdose
Among Adults 55 Years or Older, 1999 to 2019

Maryann Mason, PhD; Rebekah Soliman; Howard S. Kim, MD, MS; Lori Ann Post, PhD

Figure 2. Rates of Opioid Overdose Deaths per 100 000 Persons 55 Years and Older by Sex and by Race and Ethnicity, 1999 to 2019



Dr. Gabor Mate

"Toxic Stress"

WRITINGS AND VIEWS

"A recurring theme in Maté's books is the impact of a person's childhood on their mental and physical health through neurological and psychological mechanisms, which he connects with the need for social change. In the book In the Realm of Hungry Ghosts, he proposes new approaches to treating addiction (e.g. safe injection sites) based on an understanding of the biological and socio-economic roots of addiction. He describes the significant role of "early adversity", i.e. stress, mistreatment, and particularly childhood abuse, in increasing susceptibility to addiction."

https://en.wikipedia.org/wiki/Gabor_Mate

New Hampshire Mothers Struggling With Opioid Addiction Fight To Keep Their Children

Rachel Gotbaum June 2, 2018 8:37 AM ET

Jillian Broomstein starts to cry when she talks about the day her newborn son Jeremy was taken from her by New Hampshire's child welfare agency. He was 2 weeks old.

"They came into the house and said they would have to place him in foster care and I would get a call and we would set up visits," she says. "It was scary."

Broomstein, who was 26 at the time, had not used heroin for months and was on methadone treatment. The clinic social worker told her that since Jeremy would test positive for methadone when he was born, she would need to find safe housing or risk losing custody.

Neonatal Abstinence Syndrome (NAS)



Jillian Broomstein plays with her son.

Rachel Gotbaum/NPR



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This 2016 photo of a grandmother and her boyfriend, overdosed in the front seat with her grandchild in the back, became symbolic of the need for stronger government response to the child welfare side of the opioid epidemic

FINANCE REFORM • OPINION • SUBSTANCE ABUSE

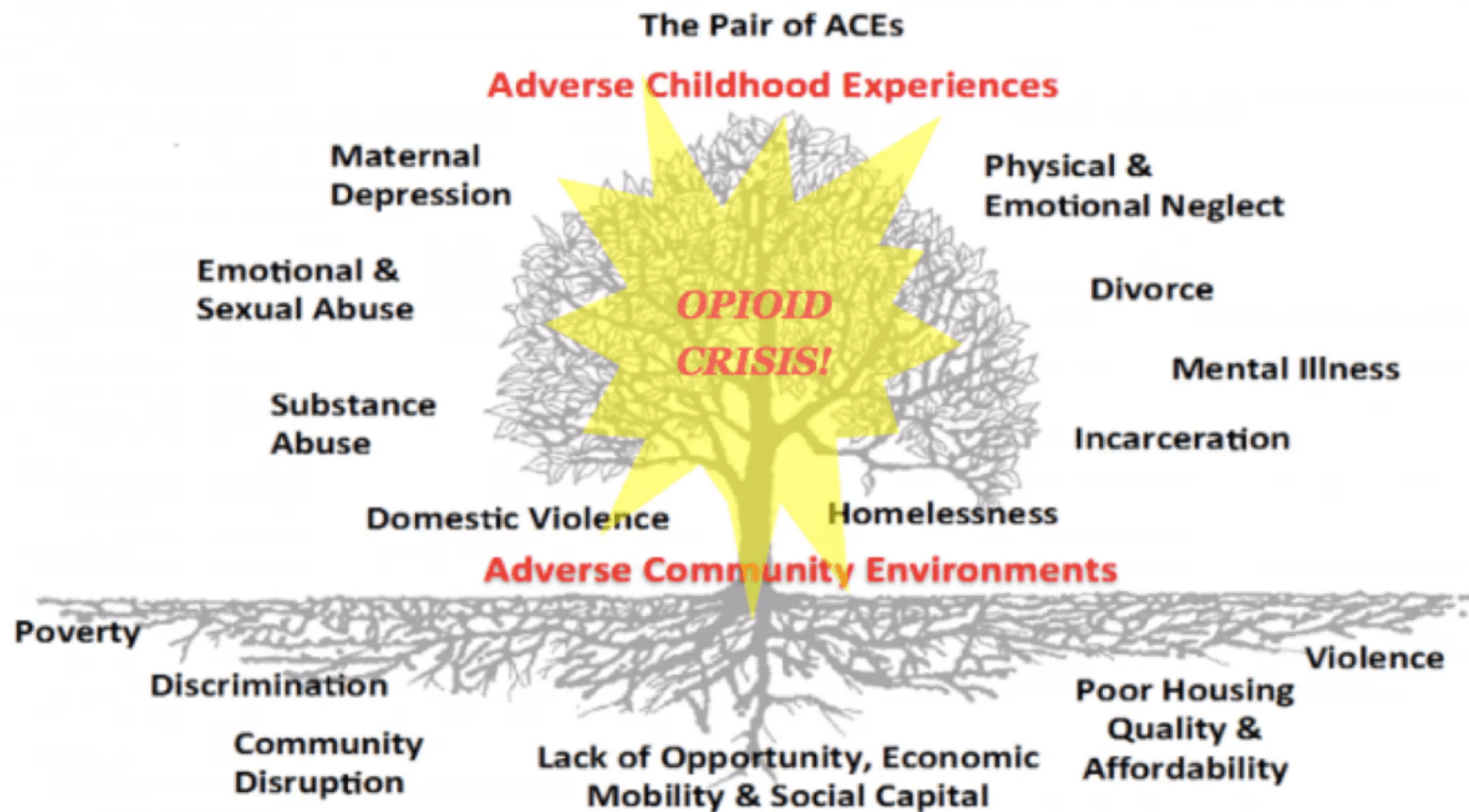
On Child Welfare, an Insufficient Federal Response to the Opioid Epidemic

- by Angie Schwartz and Sean Hughes
- April 24, 2018 | [Guest Writer](#)

In 2012, following more than a decade of significant decline, the number of American children in foster care began rising. Between 2012 and 2016, the number of children in foster care nationally has increased by more than 10 percent. There is broad agreement that the ongoing opioid epidemic has been a primary contributor to those increases.

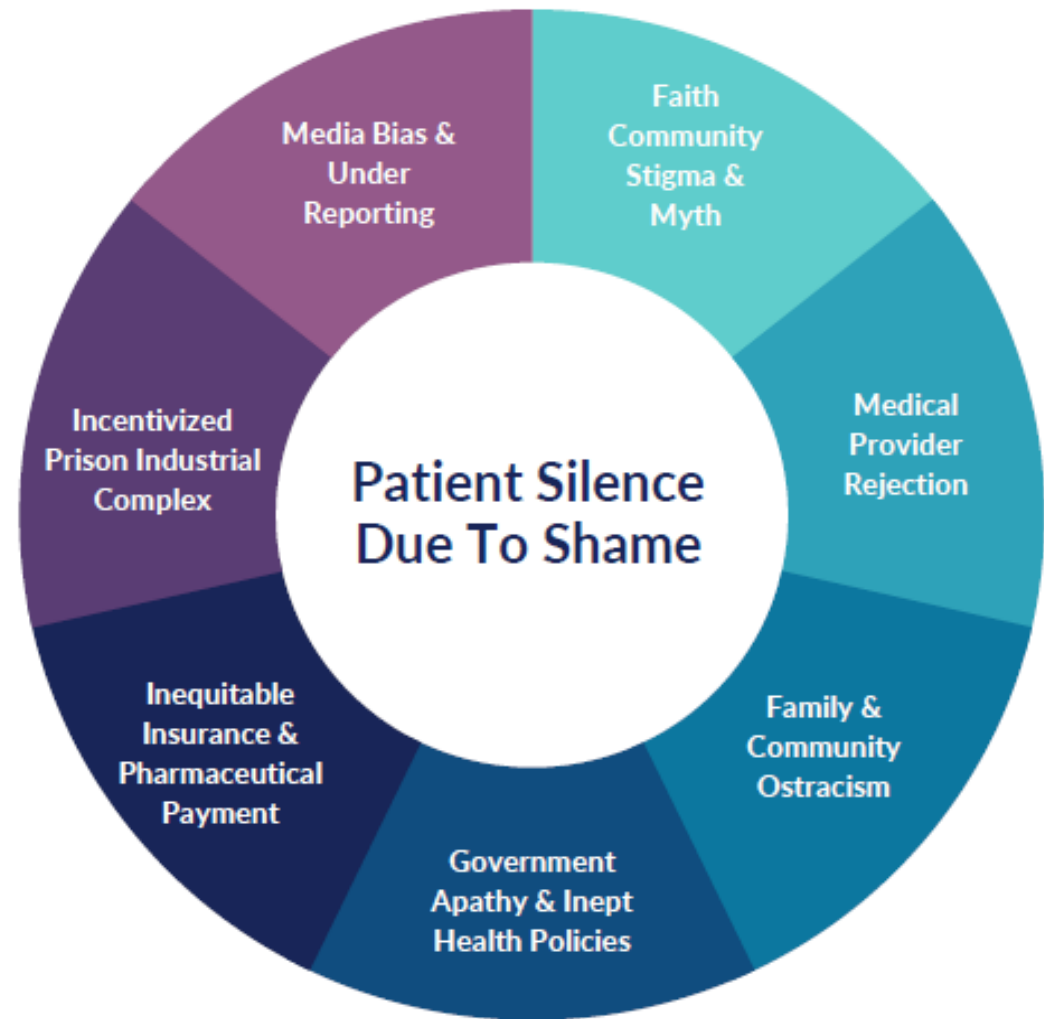


Ellis W. & Dietz W. BCR Framework. *Academic Peds* (2017).

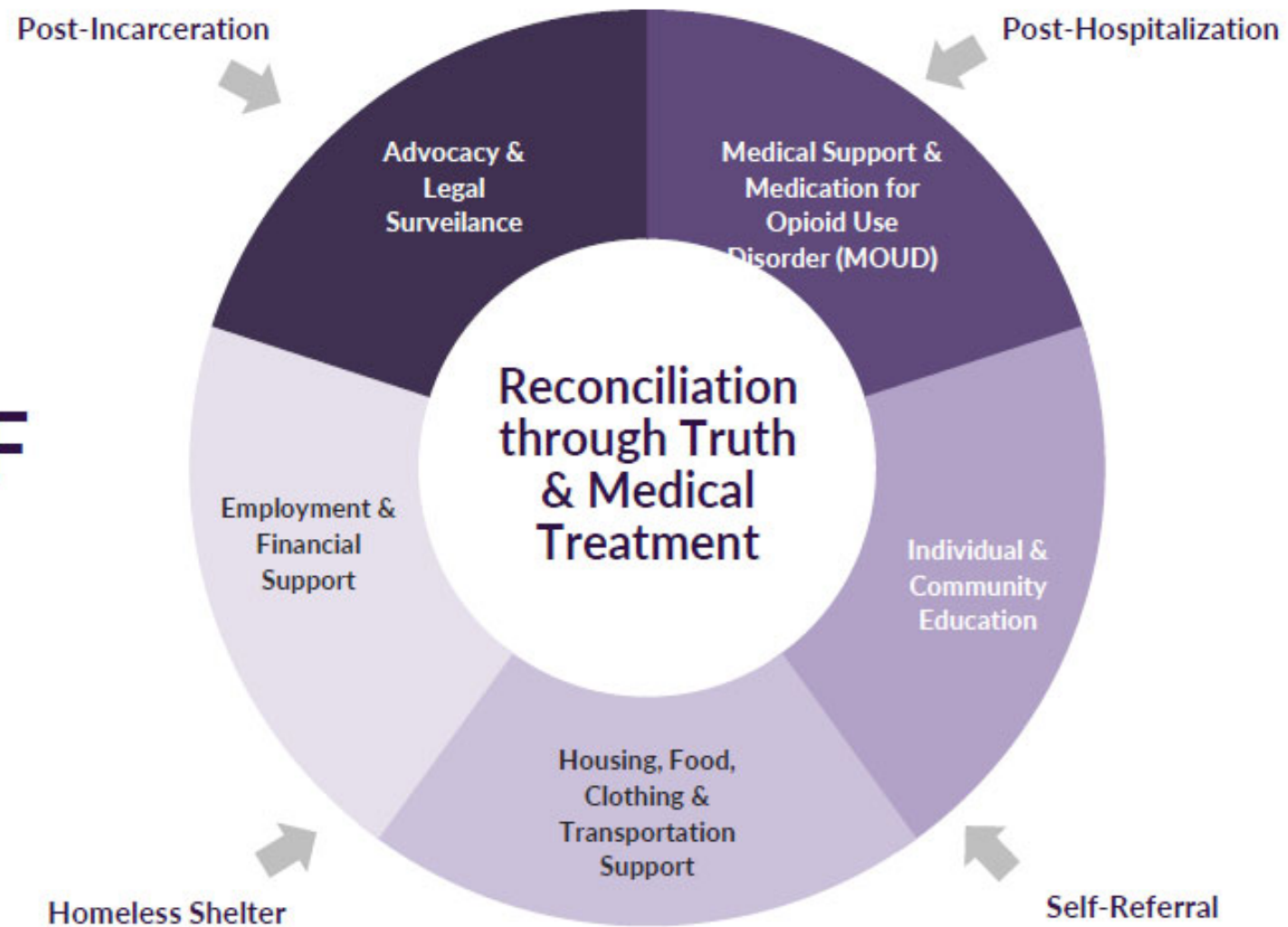


Ellis W & Dietz W, A New Framework for Addressing Adverse Childhood and Community Experiences:
The Building Community Resilience (BCR) Model, *Academic Pediatrics* (2017).

THE CYCLE OF DESPAIR



THE CYCLE OF REPAIR



The Washington Post
By Phil Davis
December 10, 2019

With dozens of kids orphaned by the opioid crisis, this Md. county has a new outlook on trauma services

But as gas prices rose in the mid-2000s, people weren't buying as many Chrysler Aspen and Dodge Durango SUVs produced in Newark. Chrysler announced in 2007 that it would close the plant. **General Motors closed its Newport, Del., automotive plant in 2009. "In the last 10, 15 years, all of that is gone," Lynn said. "There is no more jobs like that."**

By year's end, 89 people succumbed to fatal opioid-related overdoses, more than twice the previous year's total. It was that August when Lynn and school officials noticed a startling statistic: 33 children had been orphaned in just that month after at least one parent died of a drug overdose. "It was a surprise to everyone. I guess no one had ever put two and two together and realized the severity of the issue," Lynn said. "We had a classroom and a half of children, in one month, [who] lost a parent." Since then, Lynn and other county officials have identified "well over" **100 children who have been orphaned by the opioid epidemic. He said he's already identified 50 children in 2019.**



Ray Lynn, Cecil County heroin overdose coordinator since 2016, tracks overdoses and works with drug task forces to combat opioid abuse. (Amy Davis/Baltimore Sun)

The Washington Post
By Phil Davis
December 10, 2019

.... “New outlook on trauma services”



Ray Lynn, Cecil County heroin overdose coordinator since 2016, tracks overdoses and works with drug task forces to combat opioid abuse. (Amy Davis/Baltimore Sun)

“We sort of built from the health department the **4 PILLARS of : (1) ENFORCEMENT, (2) TREATMENT, (3) RECOVERY, and (4) PREVENTION** to deal with this,” he said. “And this sort of creates number **(5) SUPPORT SERVICES.**” To pay for the overhaul, the county applied for a federal grant for young crime victims, intended to address children whose parents or guardians have overdosed. **The three-year, \$639,000 grant has allowed the county to enter a public-private partnership that offers therapy for children and adults who have been exposed to overdoses. The partnership will “provide direct trauma therapy services to young crime victims in Cecil County at no cost to the family.”** In addition, the county also provides training on how to identify and handle a child in trauma to various agencies and professionals, including health care workers, public safety personnel, educators and community service providers. **From April through September, 76 children and 41 adults have been referred for services.**

Opinion: She was paid to stay off drugs. Here's why this approach could help others.

By Emefa Addo Agawu

Fellow, Post Opinions

March 31, 2022 at 9:15 a.m. EDT



Contingency management increased abstinence

People in contingency management programs were more likely to be abstinent at the end of the treatment than those in other programs.

Contingency management + community reinforcement approach

2.84 times more likely*

Contingency management alone

2.2

Contingency management + 12-step program

1.82

12-step program alone

1.35

Cognitive behavioral therapy alone

1.17

* Compared with the control group.

Source: "Comparative efficacy and acceptability of psychosocial interventions for individuals with cocaine and amphetamine addiction," De Crescenzo et al. (2018)

THE WASHINGTON POST

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Cost comparison

Maximum rewards for a typical contingency management program

\$600

Average cost of one stimulant-related ER visit

\$570

Typical cost of one ambulance ride

\$1,211

Typical cost for two weeks in prison

\$1,360

Note: All costs for 2019.

Sources: Health Care Cost and Utilization Project (ER visit); ValuePenguin (ambulance ride); Federal Bureau of Prisons (prison costs); author's calculations

THE WASHINGTON POST