

# Child Physical Abuse During COVID-19

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Child Maltreatment Symposium

Lurie Children's Hospital of Chicago

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# Disclosures

- I have authored some of the research studies in this lecture.
- Otherwise, I have no disclosures relevant to this presentation.

# Now...the Real Disclosure



# Objectives

1. Why pandemic-related factors may have increased child abuse.
2. Review the evidence for child abuse during COVID-19.
3. Discuss why the observed trends may or may not be truth.
4. Discuss implications for future research and prevention.

# The New York Times

OPINION

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## The Coronavirus Could Cause a Child Abuse Epidemic

This crisis has created conditions for a rise in violence that young victims will find difficult to escape.

**By Nina Agrawal**

Dr. Agrawal is child abuse pediatrician.

April 7, 2020

# Hypothesis

- The COVID-19 pandemic will increase the risk of violence towards children and increase rates of child physical abuse, specifically.

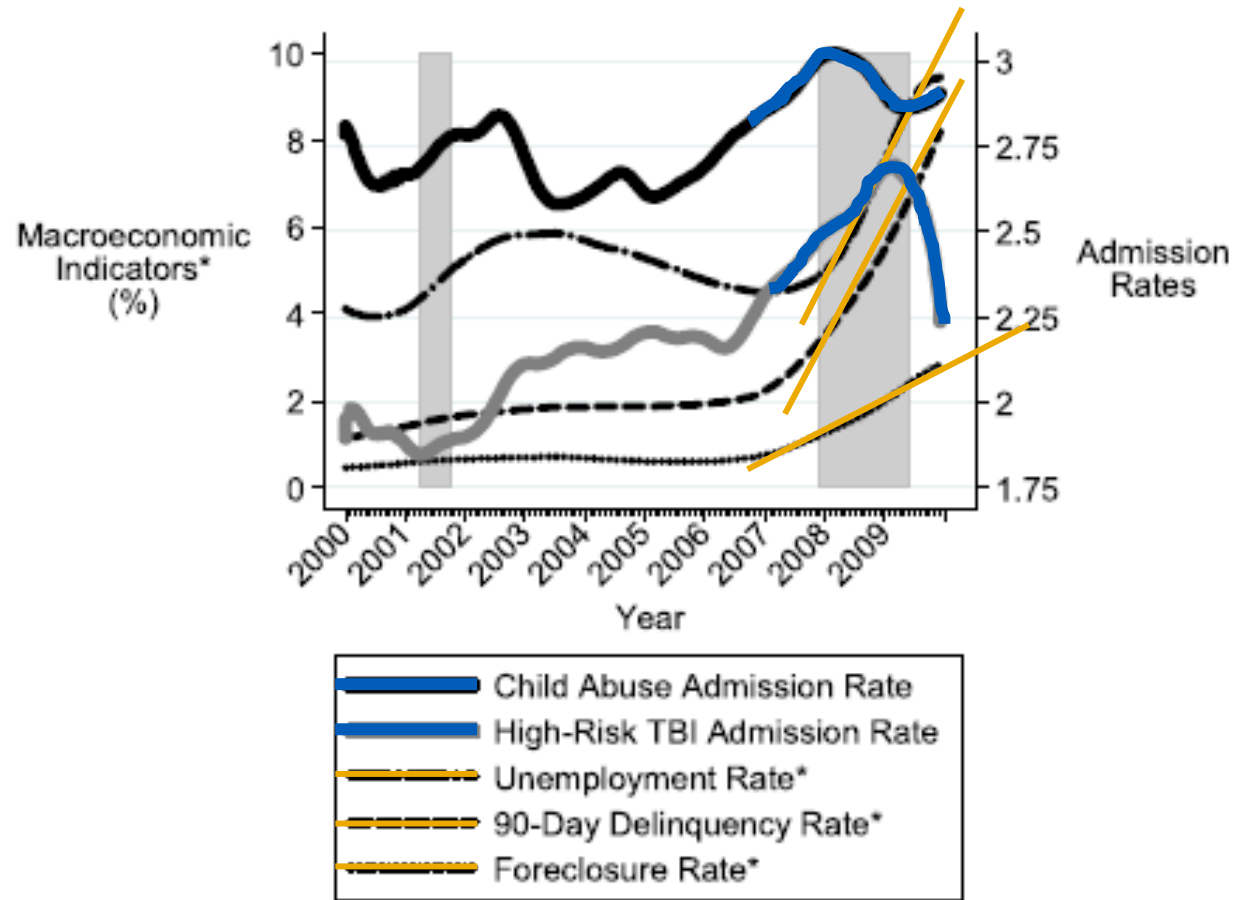
# Why Was This our Hypothesis?

Risk Factors for Abuse During COVID-19	Consistent Evidence	Inconsistent Evidence	No Evidence
Economic recession			
Unemployment			
Natural disaster			
Disruptions to surveillance & prevention			
Stress			
Death of caregivers			

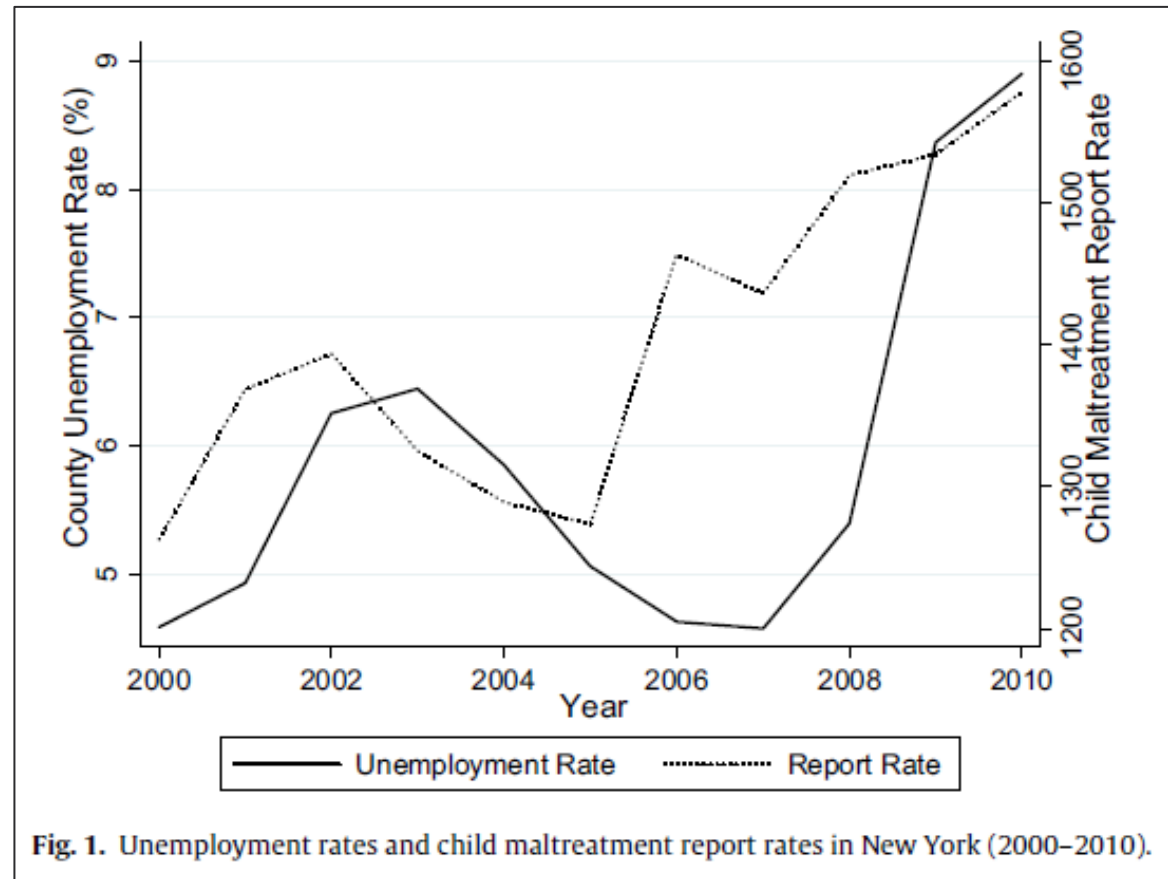
# Economic Recession

- Children living in poverty are at 3x risk for physical abuse. (Sedlack 2010)
- AHT increased during the 2008 recession in PA, OH, and WA. (Berger 2011)
- Physical abuse have trended with mortgage delinquency and home foreclosure rates. (Wood 2012)

# Local Macroeconomic Trends and Hospital Admissions for Child Abuse, 2000–2009



# Unemployment & Reporting Rates



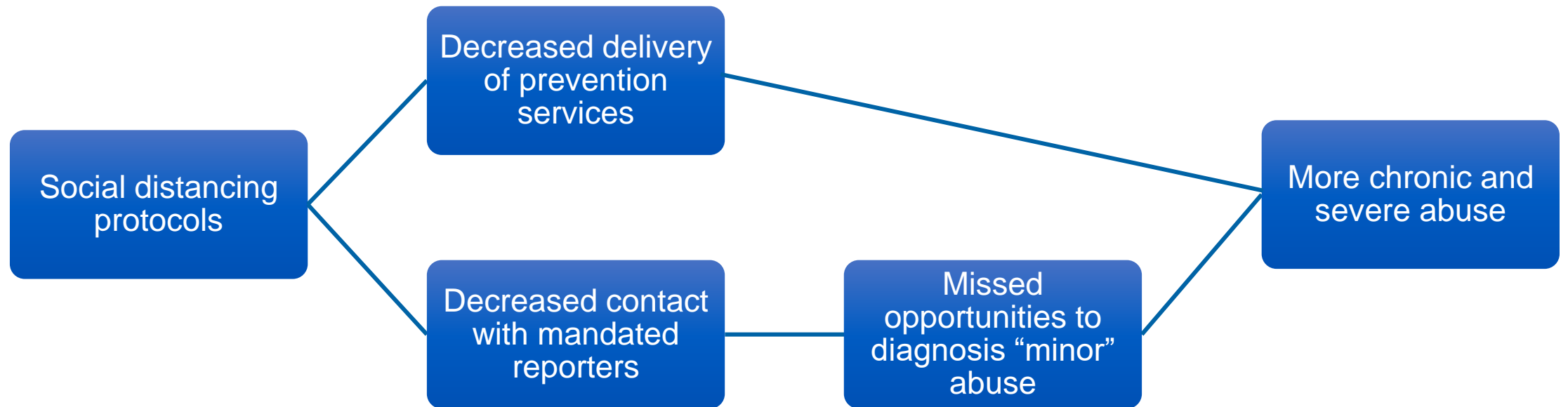
# Unemployment

- Our hypothesis for unemployment:
  - Unemployment → economic instability, stress, risk for violence.
- But unemployment rates have not been associated with higher rates of hospitalizations for abuse and AHT, specifically. (Berger 2011; Wood 2012)
- An alternative hypothesis:
  - Unemployment may → increased child-parent time (with broader supports, this may offer a protective effect).

# Natural Disasters

- Physical abuse reporting increased after Hurricane Hugo in South Carolina and an earthquake in California. (Curtis 2000)
  - But not after a Hurricane Andrew in Louisiana
  - And all changes were small
- Hospitalized cases of AHT increased for 6 months following Hurricane Floyd in North Carolina. (Keenan 2004)

# Disruptions to Surveillance & Prevention



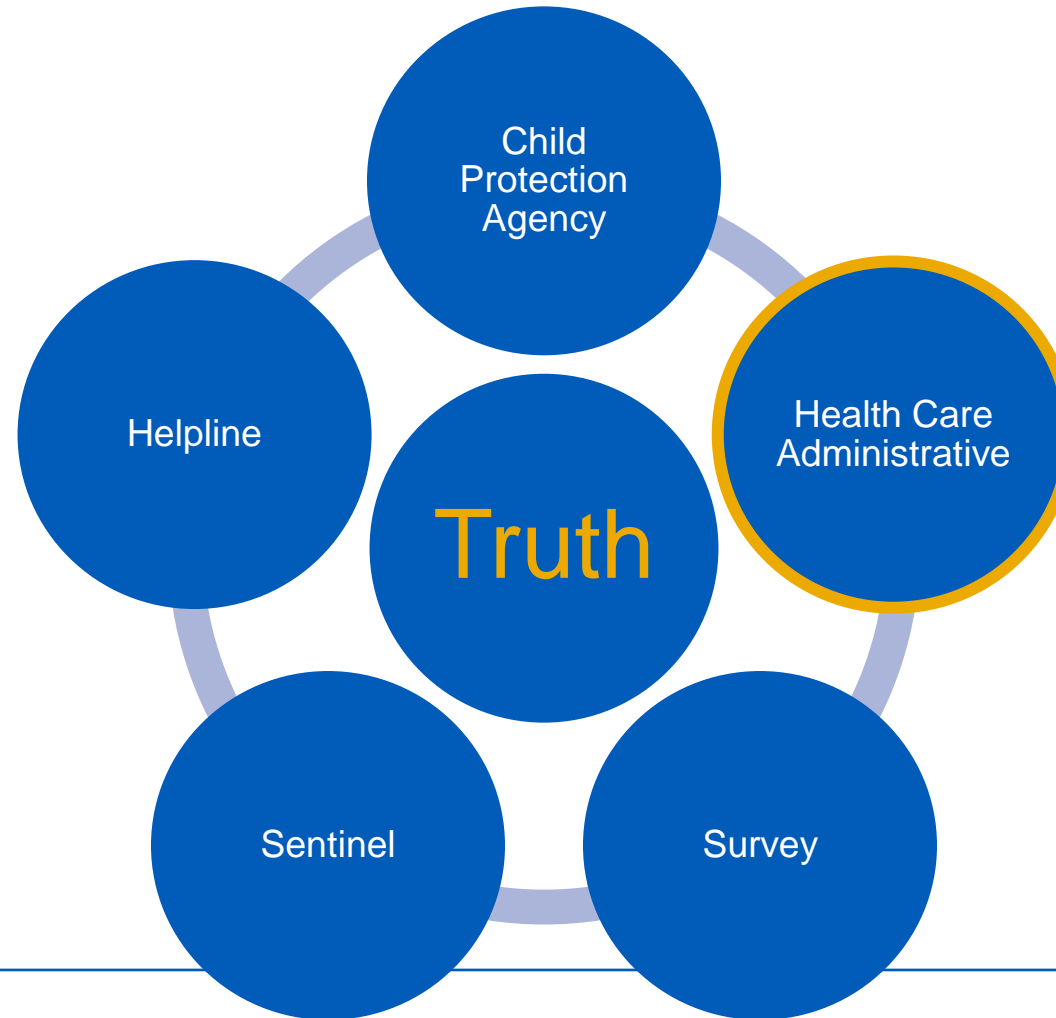
# COVID-19 and Parent-Child Psychological Well-being

- Survey of hourly service workers (n= 645) with children aged 2-7 years during first 2 months of the pandemic:
  - Increased days with negative mood
  - Job losses
  - Income losses
  - Caregiving burden
  - Illness
- Well-being was strongly associated with their number of hardships.

# Why Was This our Hypothesis?

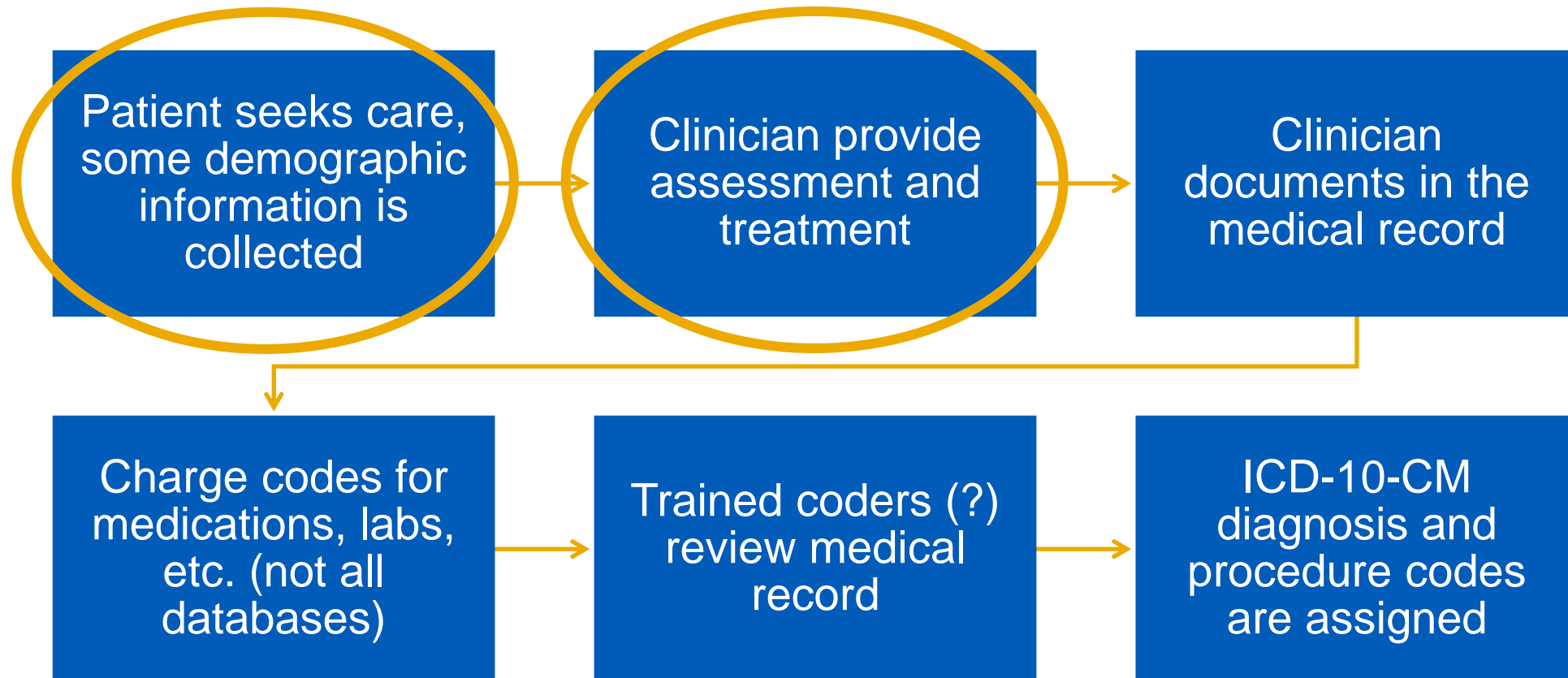
Risk Factors for Abuse During COVID-19	Consistent Evidence	Inconsistent Evidence	No Evidence
Economic recession	✓		
Unemployment		✓	
Natural disaster		✓	
Disruptions to surveillance & prevention	✓		
Stress	✓		
Death of caregivers	✓		

# Complimentary Measures for Child Maltreatment

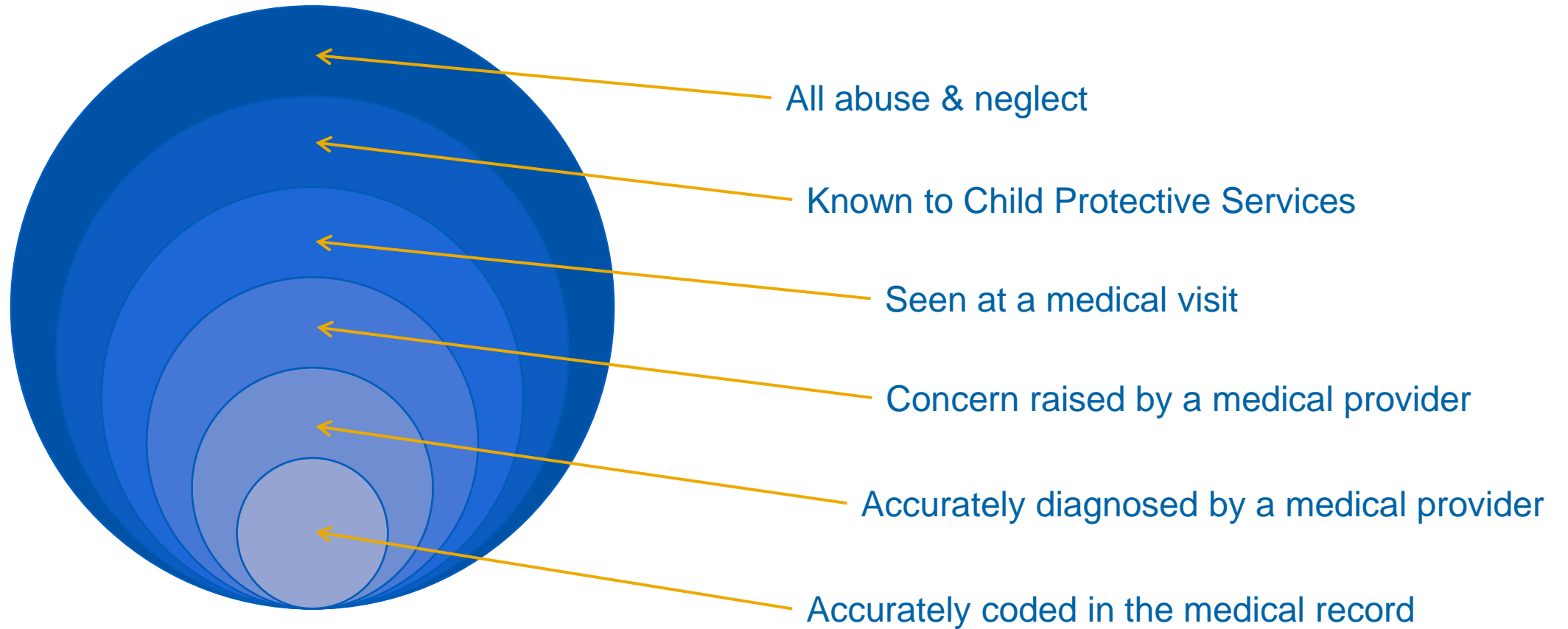


# Basics of Health Care Administrative Data

# How are Administrative Data Coded?



# Sampling of Child Physical Abuse



# Health Care Administrative Data

- Reasonable epidemiologic tool for surveillance, but:
  - Often, not population-based.
  - Underestimates incidence.
  - Requires stable coding practices during the period being examined.
  - Requires stable clinical practice during the period being examined.
  - Primarily captures cases among children <5 years of age
  - Primarily captures cases with more severe injuries (or those cases with other social complexity requiring hospitalization).

# Evidence for Child Physical Abuse from Medical Administrative Data

# Rise in the incidence of abusive head trauma during the COVID-19 pandemic



- In the first month of the pandemic at 1 hospital in the UK.
- Reported a 1493% increase in suspected AHT cases compared to the prior 3 years (10 cases vs 0.67 cases per month)
- Sound the ALARMS!? **NO**

# Rise in the incidence of abusive head trauma during the COVID-19 pandemic

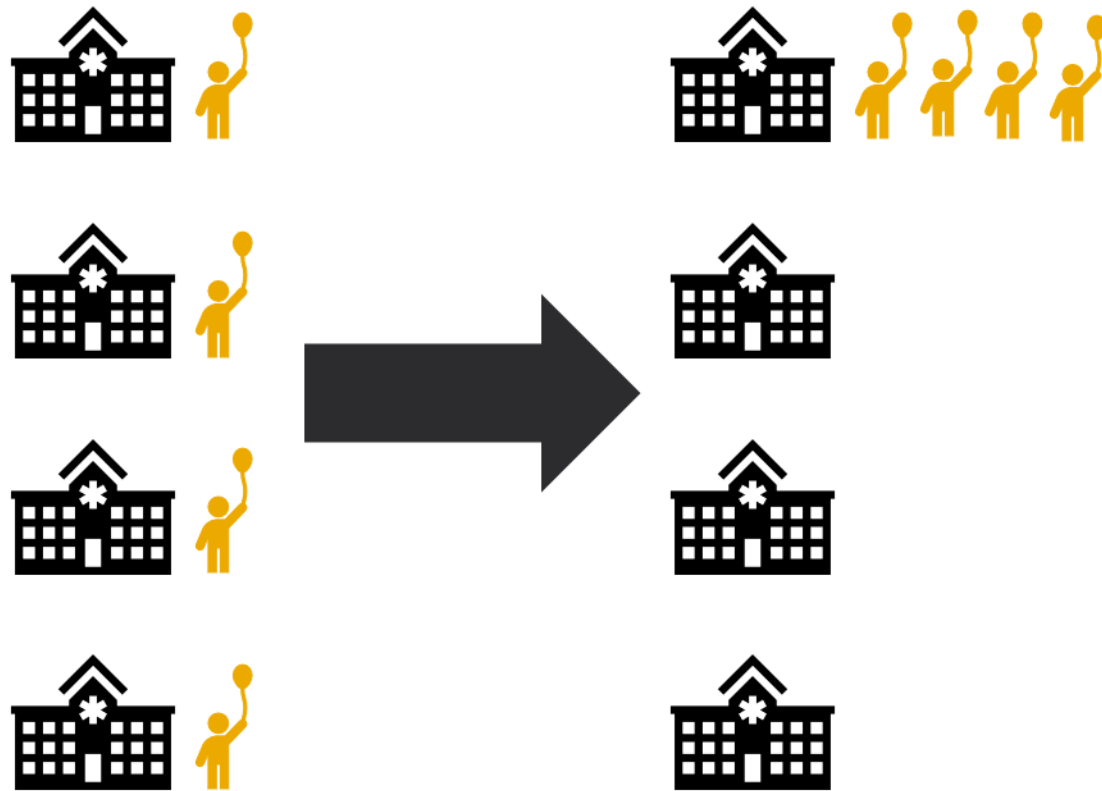
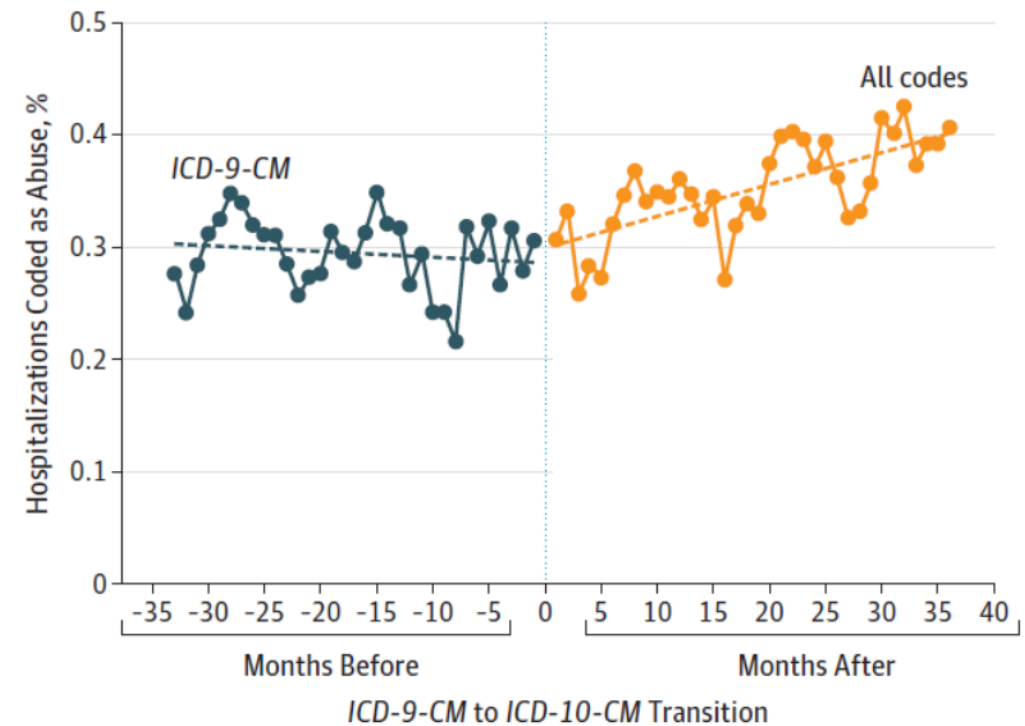


Figure. Trends in the Use of Administrative Codes for Physical Child Abuse



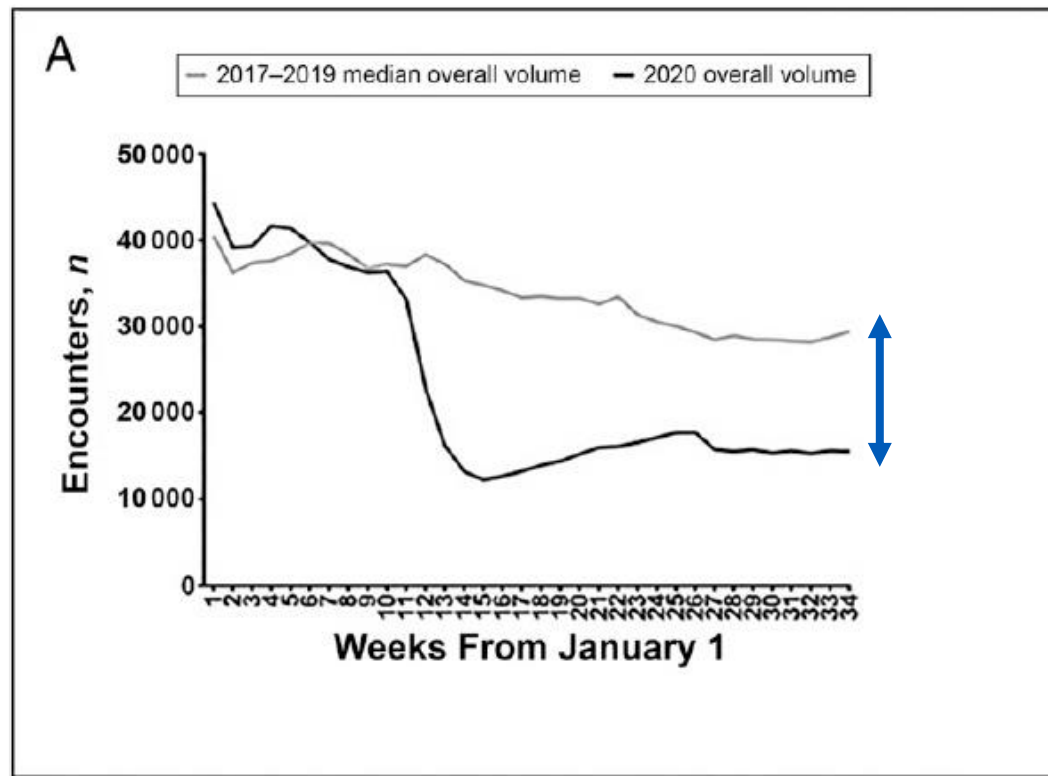
# Increased proportion of physical child abuse injuries at a level I pediatric trauma center during the Covid-19 pandemic

- In the first month of the COVID-19 pandemic at a single hospital in Maryland:
  - 13% of trauma patients were due to an abusive mechanism
  - Compared to 3-4% pre-pandemic.
- However, this does not mean abuse went up!
  - Only that all trauma cases disproportionately went down.
  - Others studies subject to this misinterpretation (Loiseau 2021; Swedo 2020)

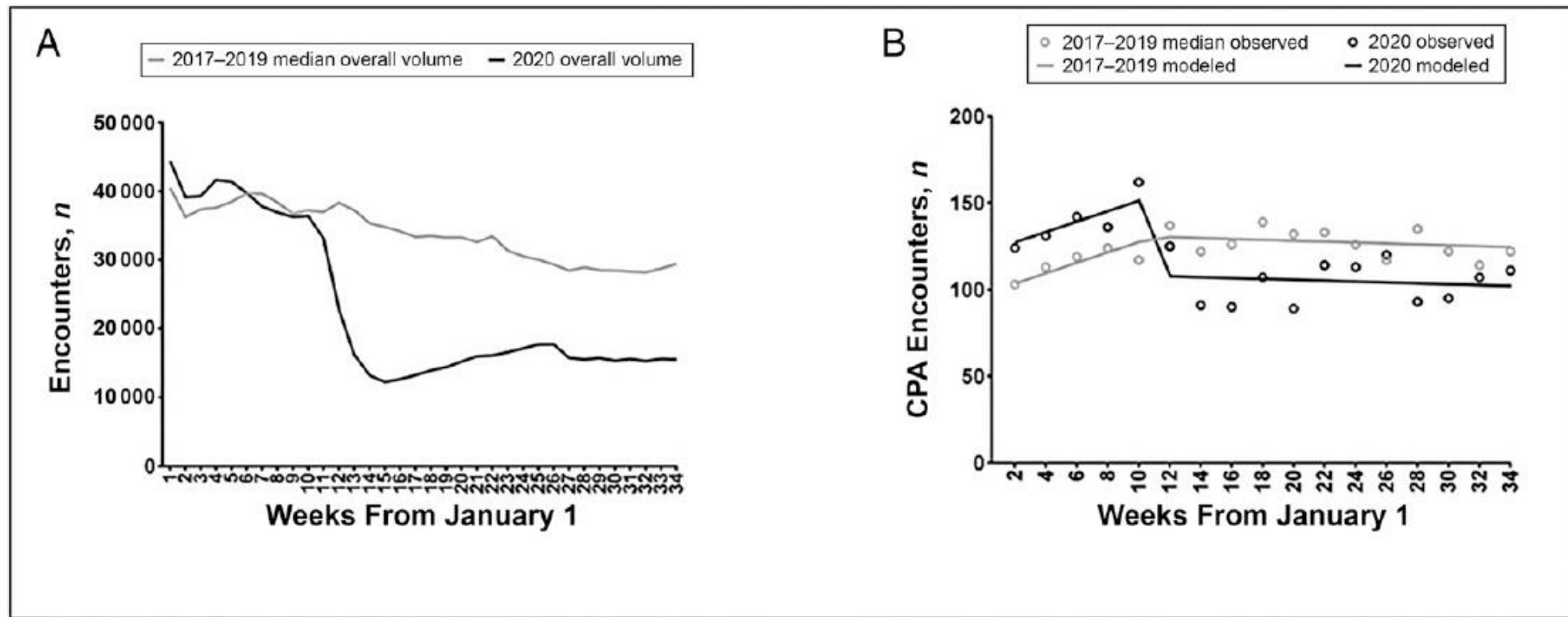


# Multi-Center Studies

# Emergency Visits and Hospitalizations for Child Abuse During the COVID-19 Pandemic



# Emergency Visits and Hospitalizations for Child Abuse During the COVID-19 Pandemic



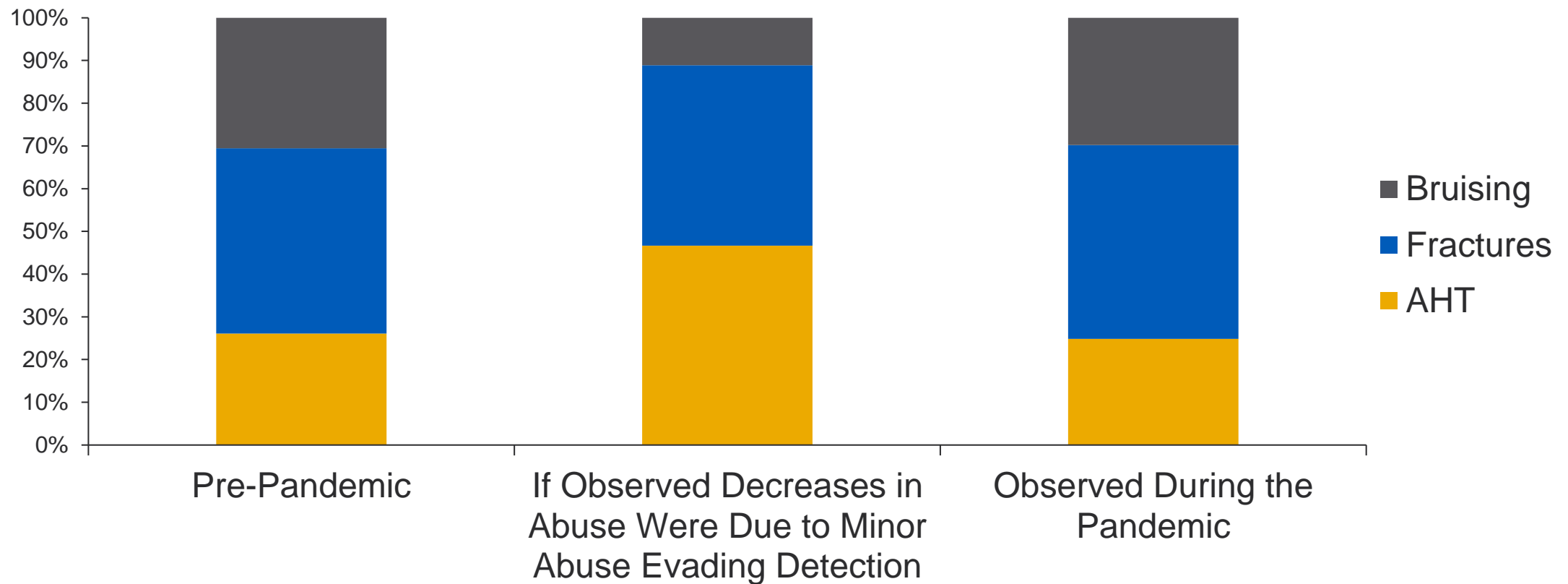
# Okay...but...

- Some caregivers may not seek medical care for abusive injuries!
- Particularly minor abusive injuries.
- But, most AHT may be too severe to avoid presentation.

# Did Minor Abusive Injuries Evade Detection?



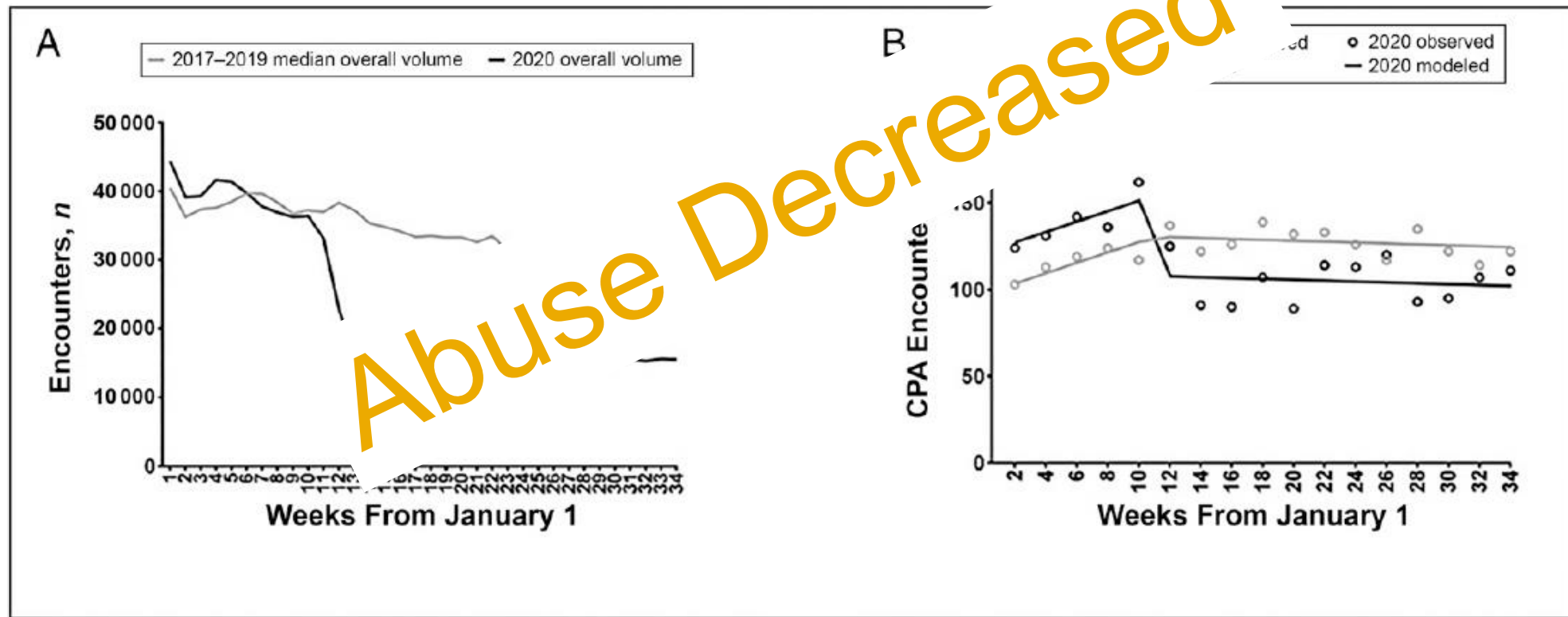
# Did Minor Abusive Injuries Evade Detection?



# Emergency Visits and Hospitalizations for Child Abuse During the COVID-19 Pandemic

- The severity of the abusive injuries did NOT change.
  - % of cases that were AHT (compared to fractures, burns, bruising, etc.).
  - Number of injuries.
  - Intensive care.
  - In-hospital mortality.

# Emergency Visits and Hospitalizations for Child Abuse During the COVID-19 Pandemic





# Child physical abuse and COVID-19: Trends from nine pediatric trauma centers

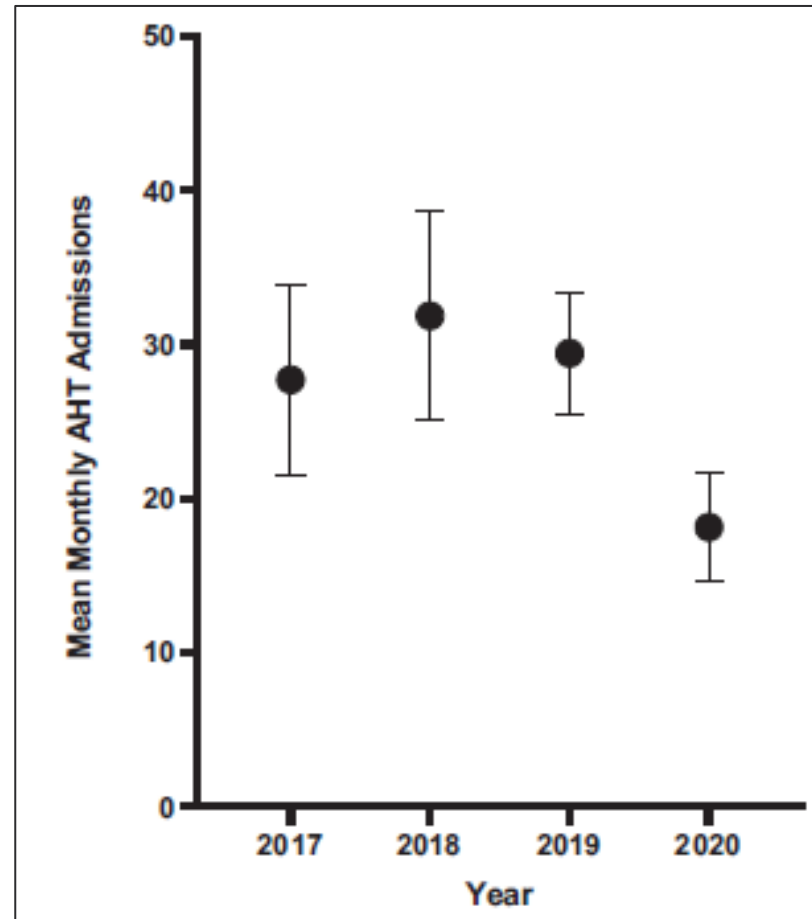
- Nine-center review during the first 3 months of the pandemic using data from the Western Pediatric Surgery Research Consortium.
- No changes in:
  - Number of abuse cases
  - Patient characteristics
  - Injury types or severity
  - Resource utilization
  - Mortality
- “The possibility exists that a silent pandemic of abuse still occurred.”

# Child physical abuse and COVID-19: Trends from nine pediatric trauma centers

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Abuse Did Not Increase

# Hospital Admissions for Abusive Head Trauma at Children's Hospitals During COVID-19



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- “Mild cases of AHT may be able to forgo care; however, the overall severity of this type of abuse necessitates consideration of alternative hypotheses...”

# Hospital Admissions for Abusive Head Trauma at Children's Hospitals During COVID-19

- “Mild cases of AHT may be able to find a way to reduce the severity of this type of abuse rather than the consideration of alternative hypotheses...”

AHT Decreased



# Child Abuse Imaging and Findings in the Time of COVID-19

- Use of skeletal surveys decreased 20% during the first 7 months of the pandemic.
- If children with more minor injuries evaded medical detection, we should expect increased identification of occult injuries and relative increase in presenting severity.
- But, there were NO changes in:
  - Identification of occult fractures (6.9% pre-COVID vs 6.4% COVID,  $p=0.87$ )
  - Severity of presentations
- Conclusion: “...decreases in medical evaluations for abuse did not stem from decreased presentation of less severely injured children.”

# Child Abuse Imaging and Findings in the Time of COVID-19

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- But, there were no significant differences:
  - Identification of fractures (6.9% pre-COVID vs 6.4% COVID,  $p=0.87$ )
  - Severity of presentation
- Conclusion: "...decreases in medical evaluations for abuse did not stem from decreased presentation of less severely injured children."

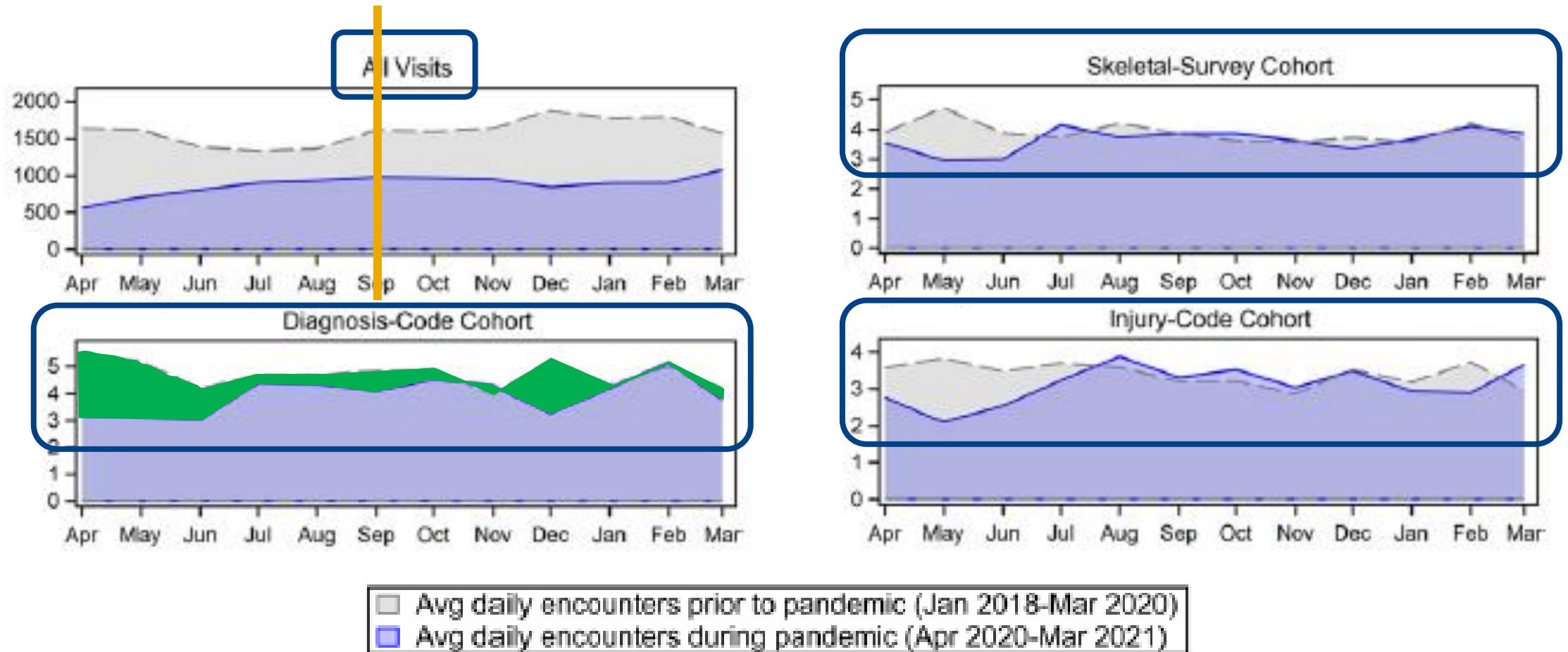
Abuse Decreased

# Prevalence, severity, and neurosurgical management of abusive head trauma during the COVID-19 pandemic

Jasmine L. Hect, BS,<sup>1</sup> Anmol Almast, BS,<sup>1</sup> Dennis Simon, MD,<sup>2</sup> Shannon Shoemaker,<sup>3</sup> and Michael M. McDowell, MD<sup>1,4</sup>

- Prevalence of AHT did not increase during the pandemic at Children's Hospital of Pittsburgh, Pennsylvania.
- Patients were more likely:
  - More severe traumatic brain injuries
  - Require decompressive craniectomy
  - Die

# Emergency Department Child Abuse Evaluations During COVID-19: A Multicenter Study



# Emergency Department Child Abuse Evaluations During COVID-19: A Multicenter Study

- Abuse was reduced 19% during the pandemic.
  - Preschool (-30%)
  - School-aged children (-20%)
  - infants (5% - 10%)
- Age-specific high-risk injuries were reduced 10% during the pandemic.
- Higher-severity encounters were unchanged.
- But, lower-severity encounters were significantly reduced.

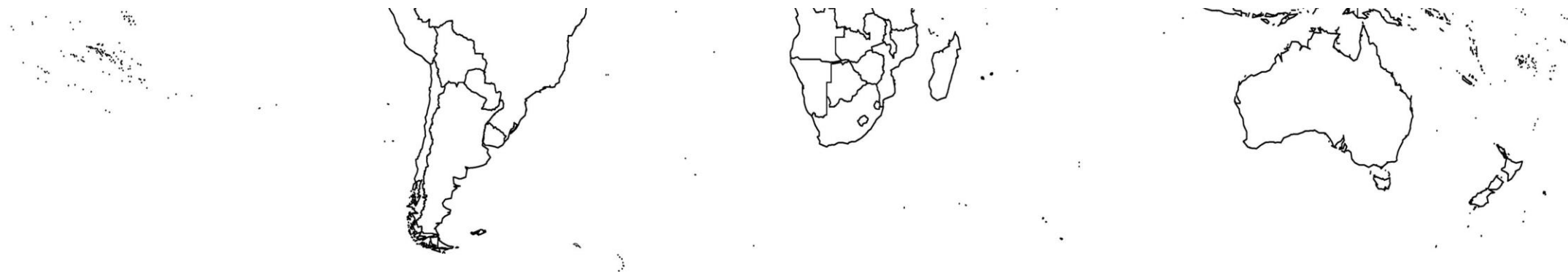
# Emergency Department Child Abuse Evaluations During COVID-19: A Multicenter Study

- Abuse was reduced 19% during the pandemic
  - Greatest reduction in sexual abuse, school and social abuse
- Age-specific findings
  - No change in physical injuries
- \*\*\*Lower-severity encounters were reduced but higher-severity encounters were not

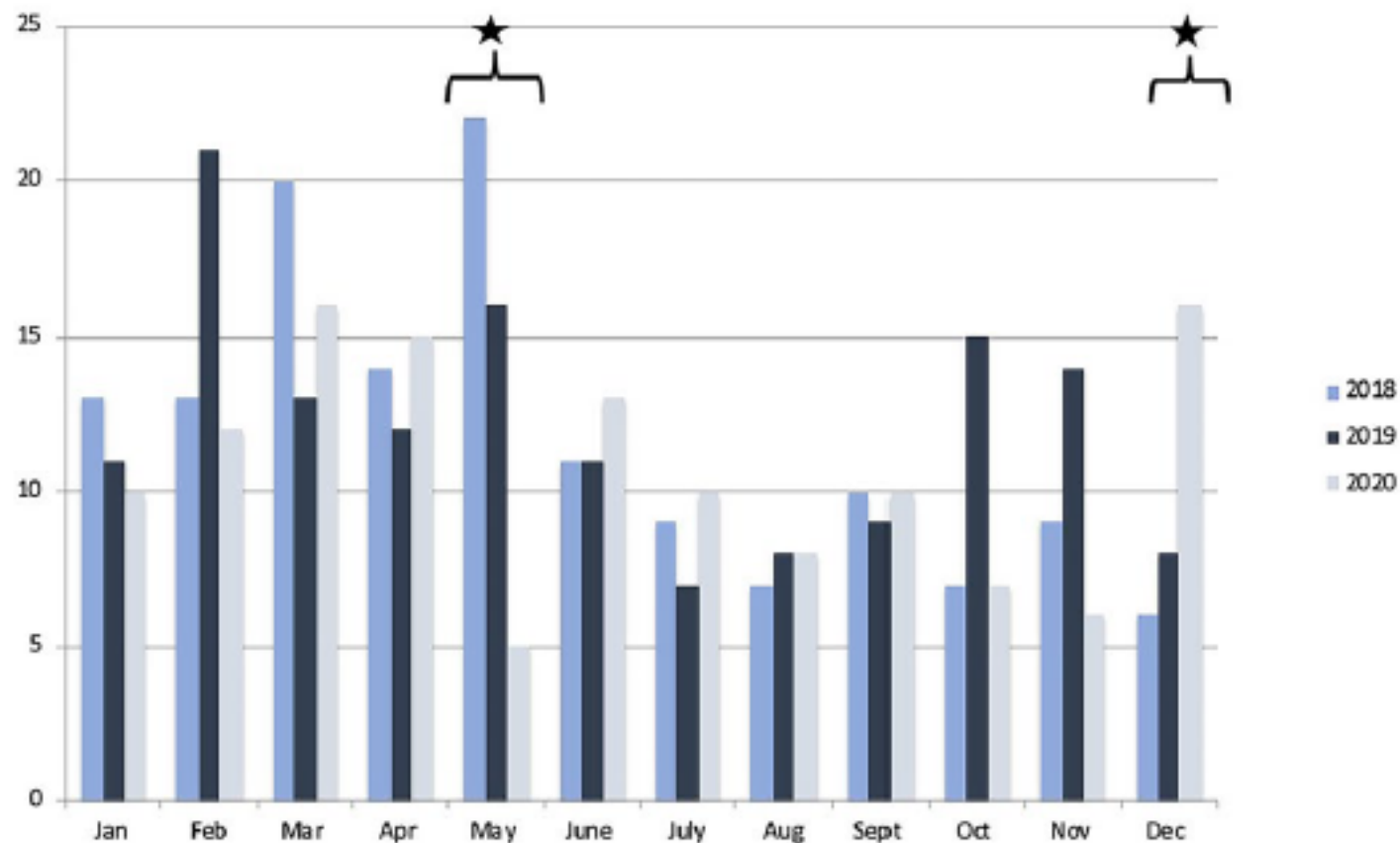
AHT Did Not Increase  
Less Severe Abuse  
Either Decreased or  
Evaded Detection



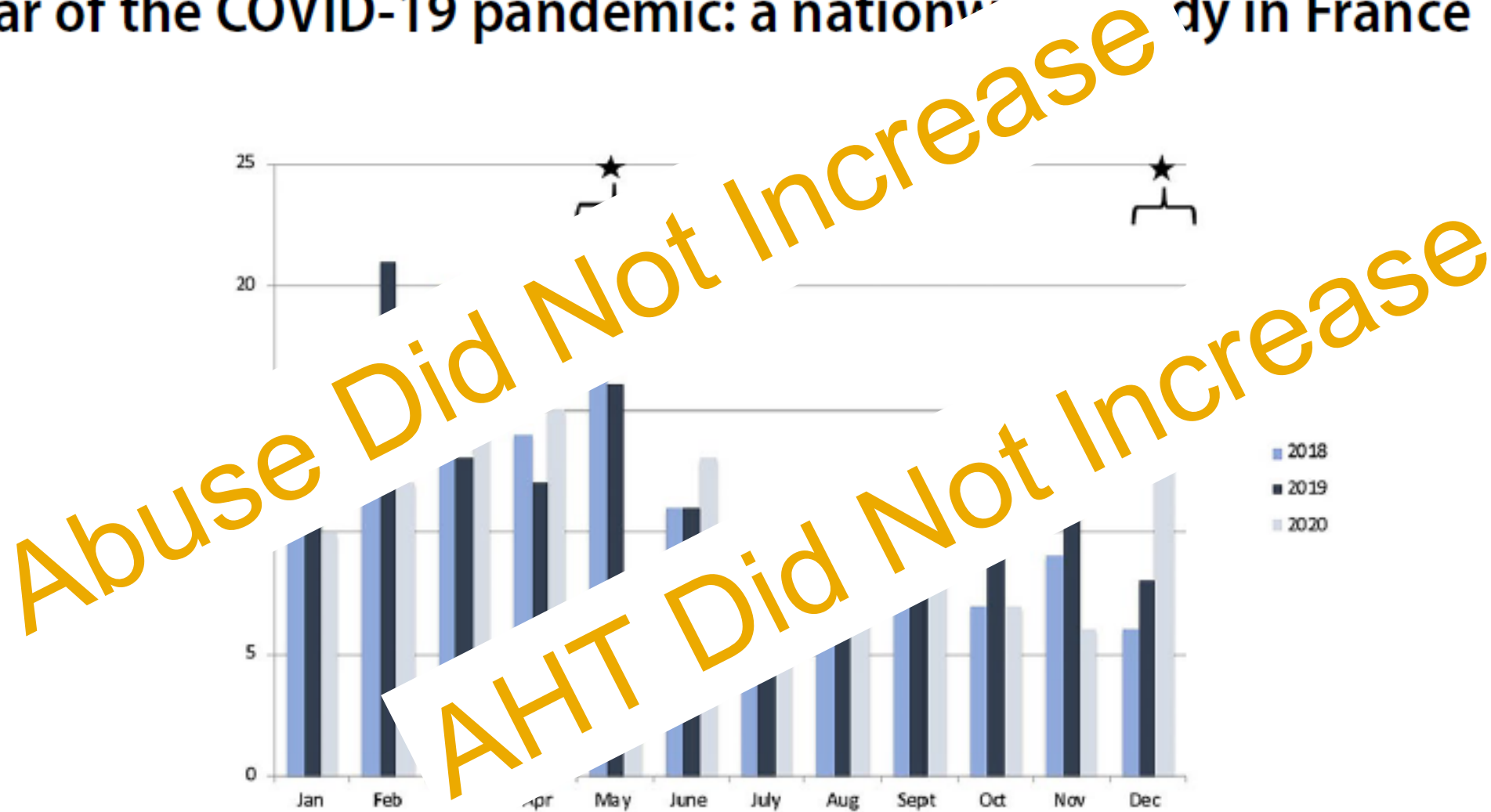
# International Studies



# Incidence of child abuse with subdural hemorrhage during the first year of the COVID-19 pandemic: a nationwide study in France

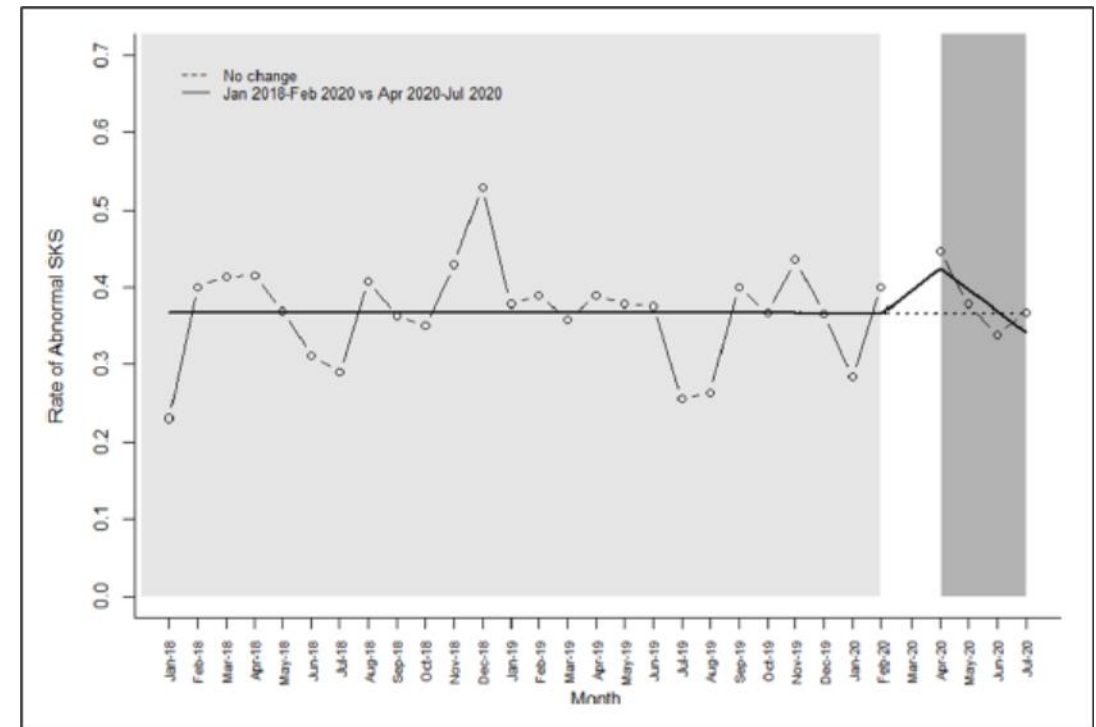


# Incidence of child abuse with subdural hemorrhage during the first year of the COVID-19 pandemic: a nationwide study in France



# Rate and severity of radiological features of physical abuse in children during the first UK-wide COVID-19 enforced national lockdown

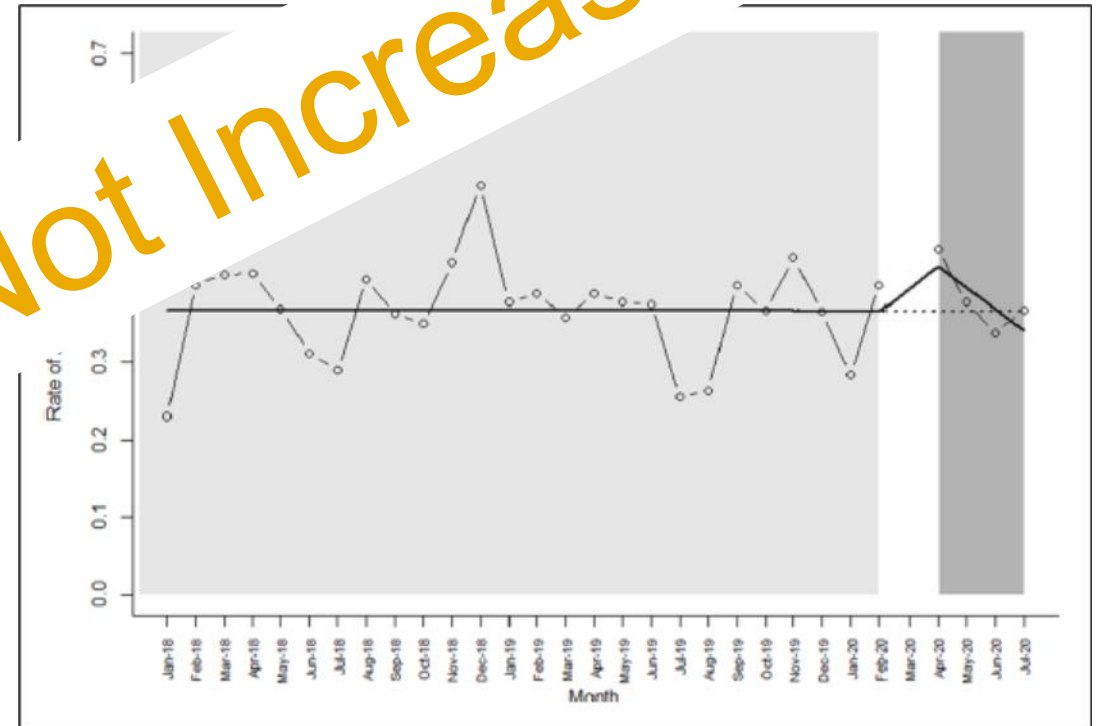
- At 8 pediatric centers in the UK, during the first 4 months of the pandemic, there were no observed increases in:
  - Incidence of skeletal trauma
  - Severity of skeletal injury
  - Number head injuries
  - Severity of head injuries
  - Fatalities



# Rate and severity of radiological features of physical abuse in children during the first UK-wide COVID-19 enforced national lockdown

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- Incidence of skeletal
- Severity of skeletal
- Number of injuries
- Severity of injuries
- Fatalities



First Author (Country)	Outcome	Ages	Months of Pandemic	Decrease	No Change	Increase
Russell (US)	All abuse, including AHT	<18 yrs	3 mo		X	
Stivaros (UK)	All abuse, fatalities	<18 yrs	4 mo		X	
Kaiser (US)	All abuse, including AHT	≤5 yrs	6 mo	X		
Maassel (US)	AHT	<5 yrs	6 mo	X		
Henry (US)	Skeletal survey use and occult fractures	<2 yrs	7 mo	X		
Caron (FR)	AHT	<2 yrs	12 mo		X	
Chaiyachati (US)	All abuse, age-specific high-risk injuries, use of skeletal surveys	varied	12 mo	X	X	

# Possible Interpretations

1. ~~Abuse increased but children with minor injuries did not present for care.~~
2. ~~Abuse was missed by clinicians more often during the pandemic.~~
3. ~~Delayed pandemic effects.~~
4. Child physical abuse *decreased (or at least did not increase)*.

# Hypothesis

- The COVID-19 pandemic will increase risk of violence towards children and increase rate statistically.

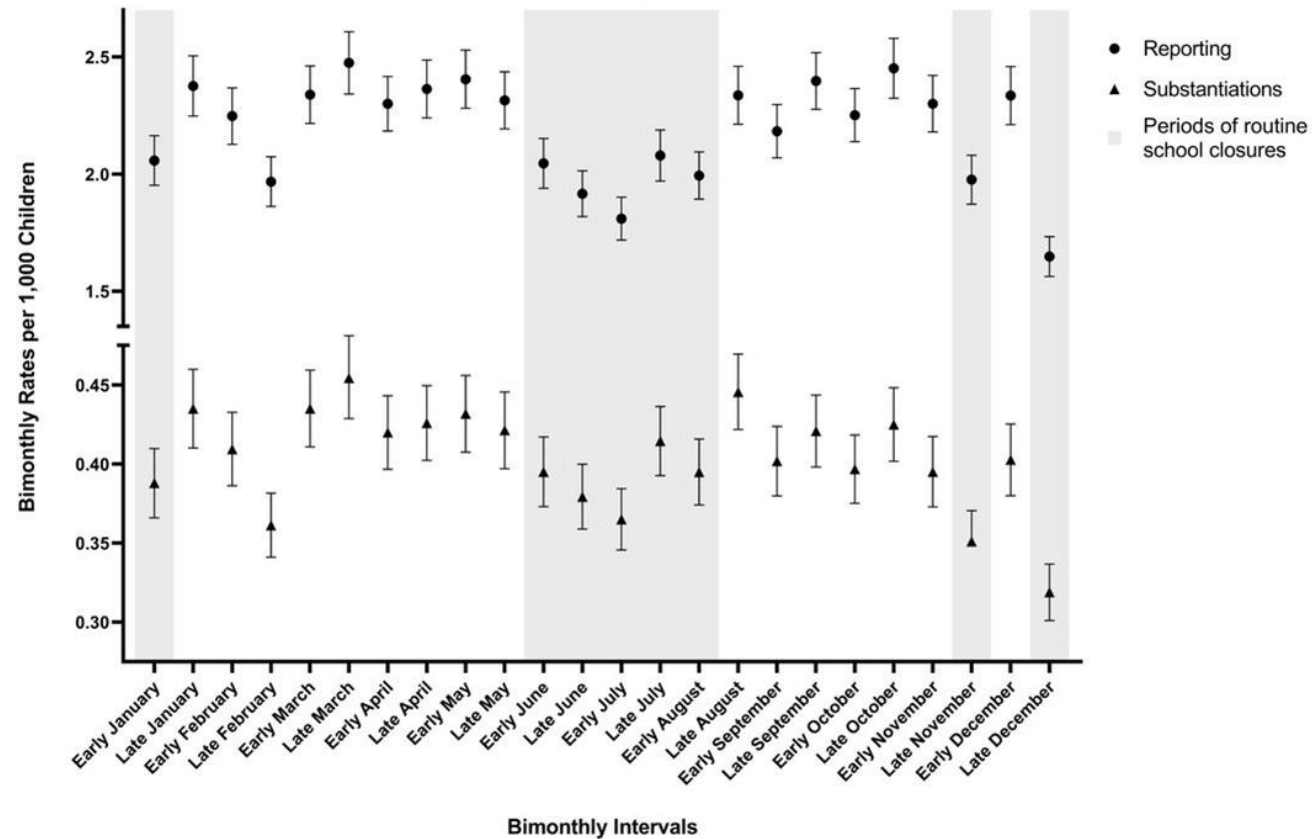
Reject

# Other Measures for Child Physical Abuse

- ✓ Emergency department visits and hospitalizations
- ✓ Injuries associated with abuse
- ☐ Abuse reported to CPS
- ☐ Self-reports to text hotlines
- ☐ Intimate partner violence



# Association of routine school closures with child maltreatment reporting and substantiation in the United States; 2010–2017



- During periods of routine school closures:
  - All reporting down 16%
  - Reporting among infants down 8%
  - Abuse reporting down 19%

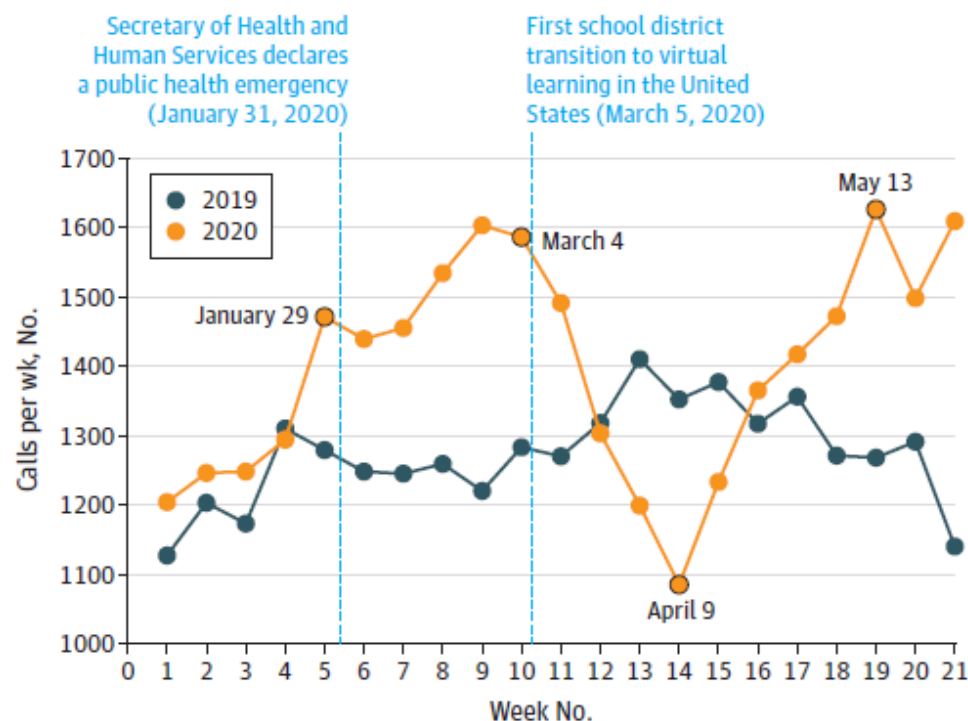
# The Impact of the COVID-19 Pandemic on Child Protection System Referrals and Responses in Colorado, USA

- All referrals to CPS were down 27.9% during COVID-19.
- Decreases were disproportionately observed for referrals from:
  - Day care providers
  - School professionals
  - Mental health providers
- Declines by type of maltreatment ranged from
  - Domestic violence – 6.8%
  - Physical abuse – 30.7%

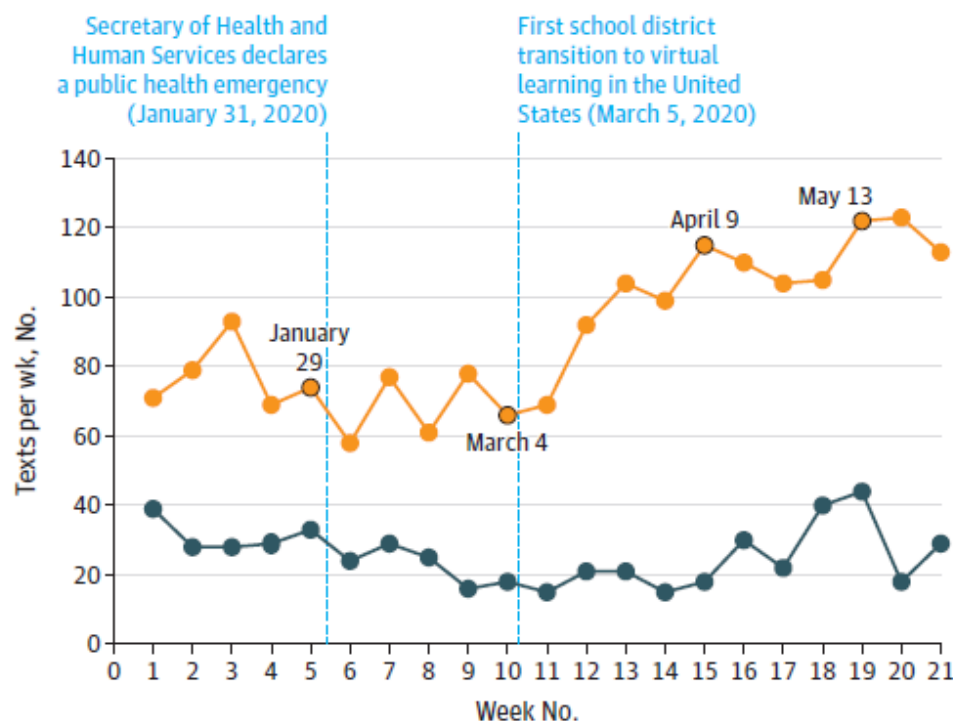
# Assessing Child Abuse Hotline Inquiries in the Wake of COVID-19: Answering the Call

Figure. Child Abuse Hotline Calls and Text Messages by Week in 2019 and 2020

## A Calls by week



## B Texts by week



# Domestic Violence During the COVID-19 Pandemic: A Systematic Review

- A total of 32 studies from worldwide sources.
- A majority of studies from North America indicated an increase in police and helpline reports.
  - On average 12% increase
- Some studies indicated that IPV increased in the initial weeks-to-month of the pandemic, only to return to prior levels.

# Again...the Real Disclosure



# Conclusions



**Conclusion #1: The available evidence *suggests* that rates of child physical abuse did not increase during the COVID-19 pandemic, particularly during the first 6 months.**

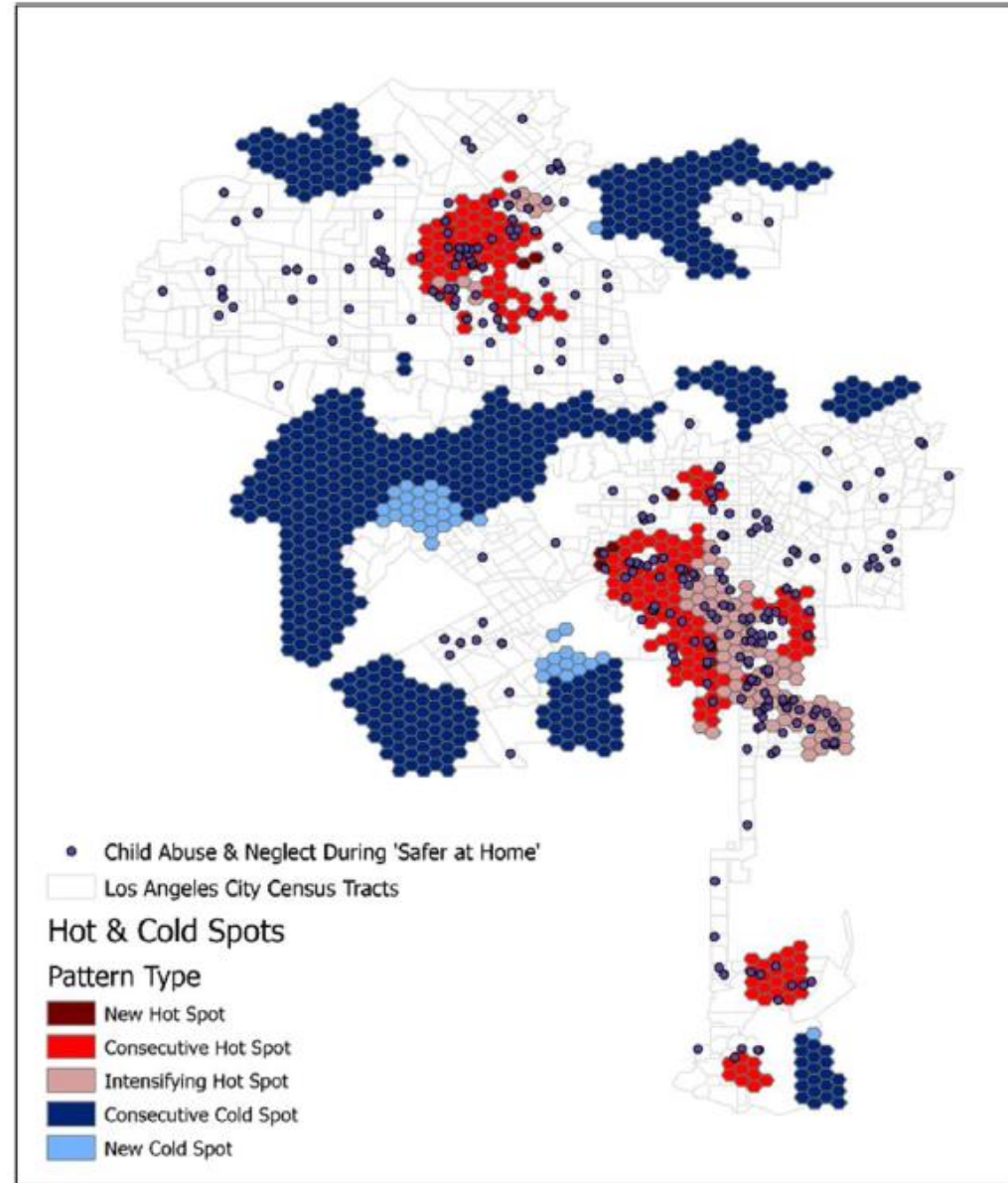
“All generalizations are false, including this one.”

--- Mark Twain

# Nuance

- The pandemic has meant different things for different:
  - Families
  - Demographics
  - Countries
  - Etc.
- Although abuse *may* not have increased during the pandemic, overall:
  - Abuse may have increased (or decreased) for some?
  - Risk for violence may have differed by age?

# Nuance: Hot and Cold Spots for Child Abuse & Neglect in Los Angeles, California

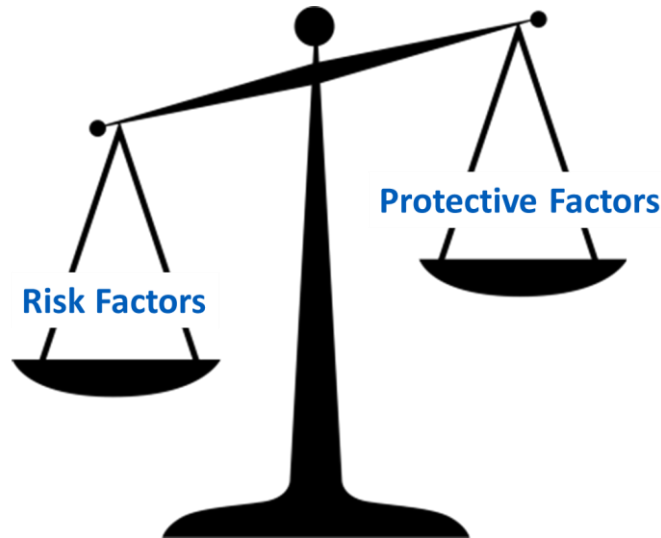


## Child Physical Abuse Did Not Increase During the Pandemic

- “Many professionals worry about increased child abuse due to the pandemic. At the same time, they tell heartwarming stories about bonding with their own children. We believe that all of us – healthcare professionals and those we serve – have experienced a complex combination of challenges and resilience during the pandemic. Those of use who promote child abuse prevention should use the data to learn about prevention.”

-- Robert Sege, MD, PhD and Allison Stephens, PhD

**Conclusion #2: We may weigh risk factors to a greater degree than protective factors.**



# Protective Factors

- “One possible explanation could be that with the marked increase in job losses for women and many adults working from home, young children were more likely than before the pandemic to be cared for by  $\geq 2$  caregivers, potentially reducing the likelihood of sole male caregivers, who are the most common perpetrators of AHT.”

--- Maassel NL, et al. *Pediatrics* 2021

# Great Recession vs Pandemic?

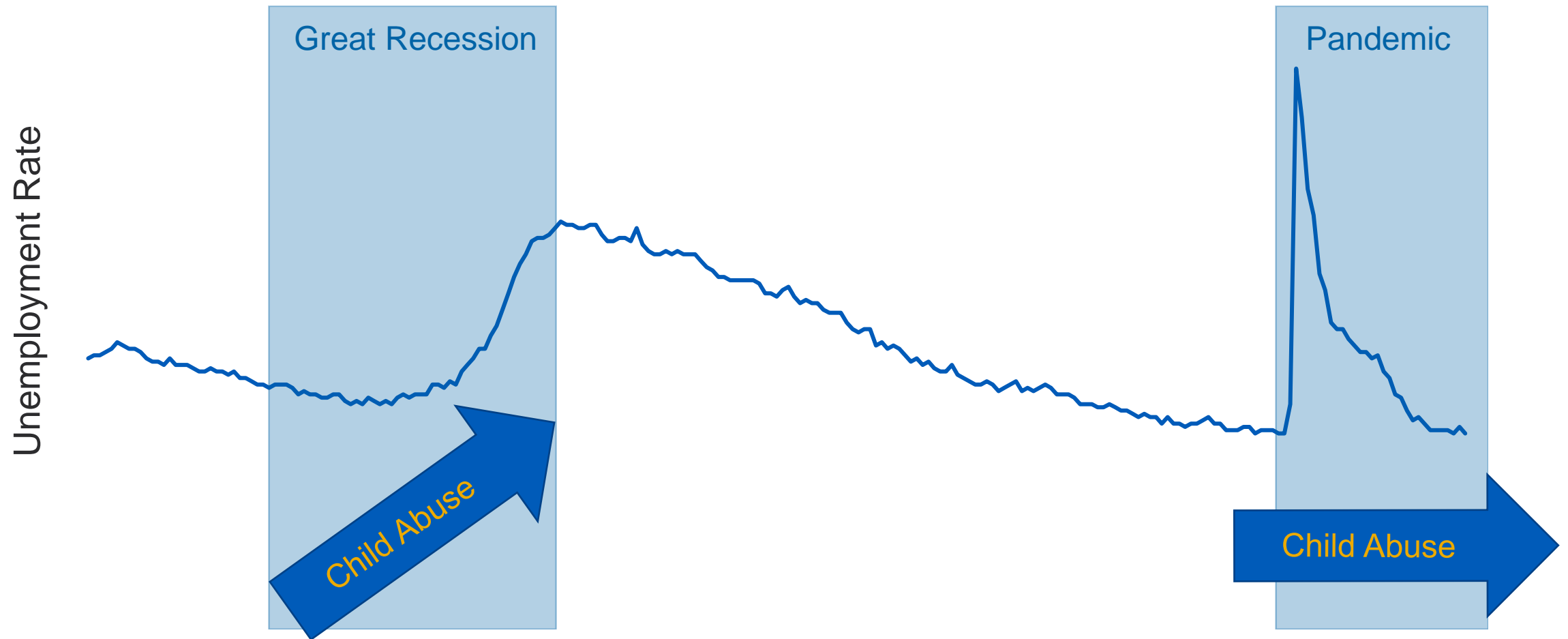


Figure created by Puls HT using data from Data Commons

**Conclusion #3: Public programs and policies that economically support families offer promising potential to mitigate risk and prevent child abuse.**

# Unprecedented Economic Supports

- Coronavirus Aid, Relief, and Economic Security Act (CARES Act)
  - \$2.2 trillion (largest financial rescue plan in US history)
- Consolidated Appropriations Act (CCA)
  - \$910 billion
- American Rescue Plan Act
  - \$1.9 trillion

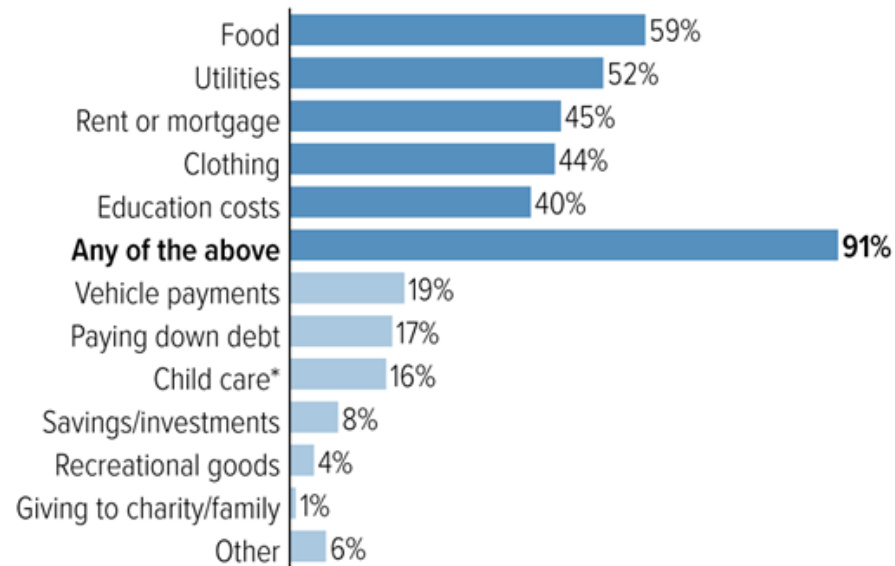
# Mitigating Abuse Risk Through Public Policy

- Direct payments to families
- Unemployment assistance
- Paycheck Protection Program loans
- Childcare assistance
- Moratorium and foreclosures and evictions
- Rent assistance
- Expanded Child Tax Credit

# Expanded Child Tax Credits

## Families With Low Incomes Spent Expanded Child Tax Credit on Basic Needs, Education

Percent of households with incomes below \$35,000 who spent their credit payments on:



\*Percent of households with child(ren) under age 5.

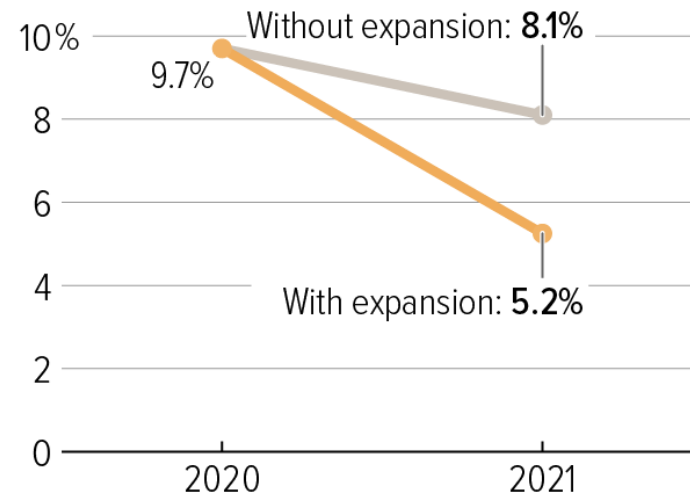
Note: Education costs include school books and supplies, school tuition, tutoring services, after-school programs, and transportation for school. Household income is in 2020. Figures are for households who reported receiving a Child Tax Credit payment in the last 30 days in data collected July 21–September 27, 2021.

Source: CBPP analysis of U.S. Census Bureau Household Pulse Survey public use files for survey weeks 34-38

# Expanded Child Tax Credits

## Child Tax Credit Expansion Drove Child Poverty Sharply Downward in 2021

Child poverty rate

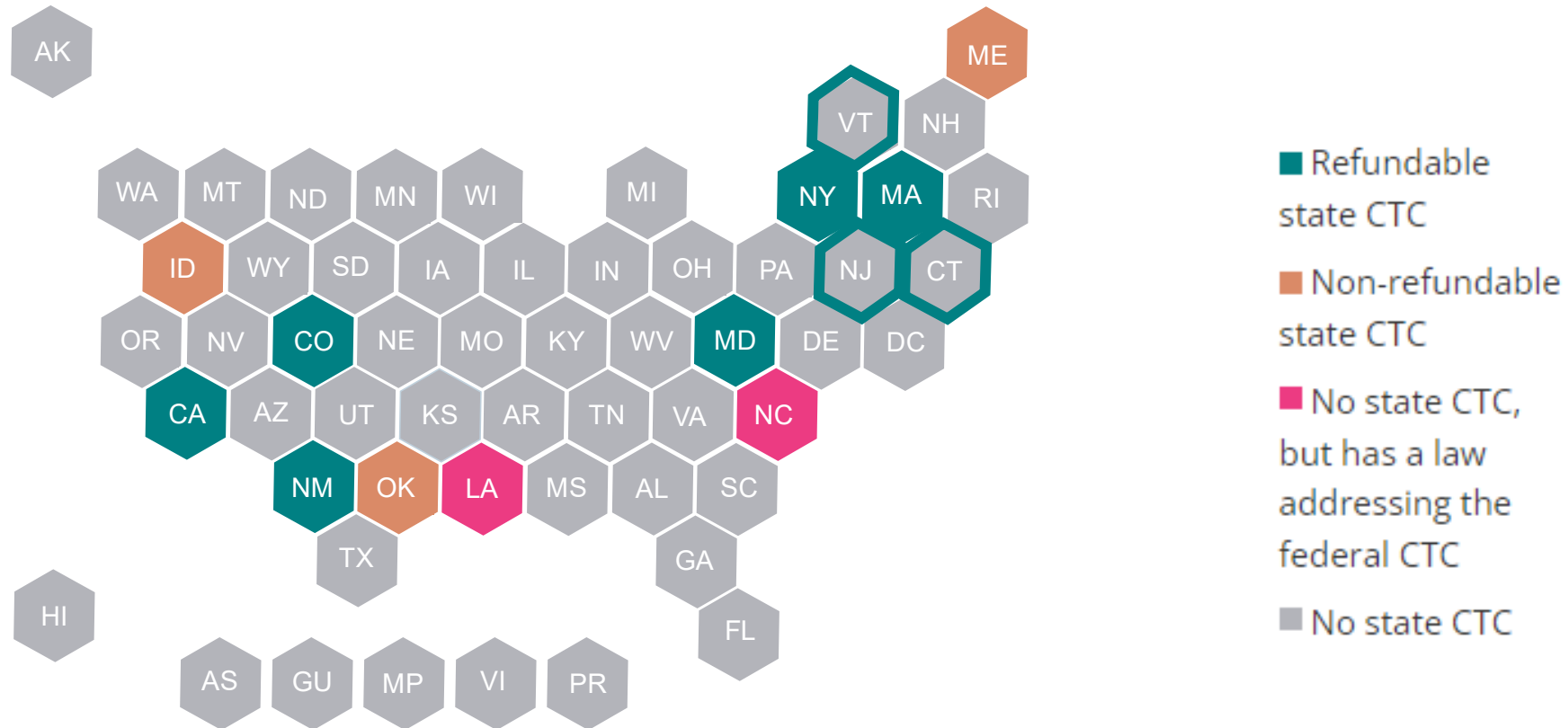


Note: Annual poverty figures use the federal government's Supplemental Poverty Measure.

Source: U.S. Census Bureau figures published September 13, 2022; additional calculations by CBPP

CENTER ON BUDGET AND POLICY PRIORITIES | CBPP.ORG

# State Child Tax Credits



National Conference of State Legislatures: [here](#)



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