



Patrick **Knue**, Director
Don **Vogt**, Senior TTAC Coordinator
Rebecca **Cambria**, Legal Coordinator

PDMPs and Child Maltreatment in the United States, 2004–2018

January 27, 2022



Prescription Drug Monitoring and Child Maltreatment in the United States, 2004–2018

Emilie Bruzelius, Mphil, MPH
January 27, 2022

Disclosures

None

Overview

- Substance use and child welfare involvement
- Recent trends in maltreatment and foster care
- PDMP impacts
- Policy implications and ongoing questions

Collaborators



Natalie S. Levy, MPH, Mphil
Department of Epidemiology
Mailman School of Public Health
Columbia University



Shakira F. Suglia, ScD
Department of Epidemiology,
Rollings School of Public Health
Emory University



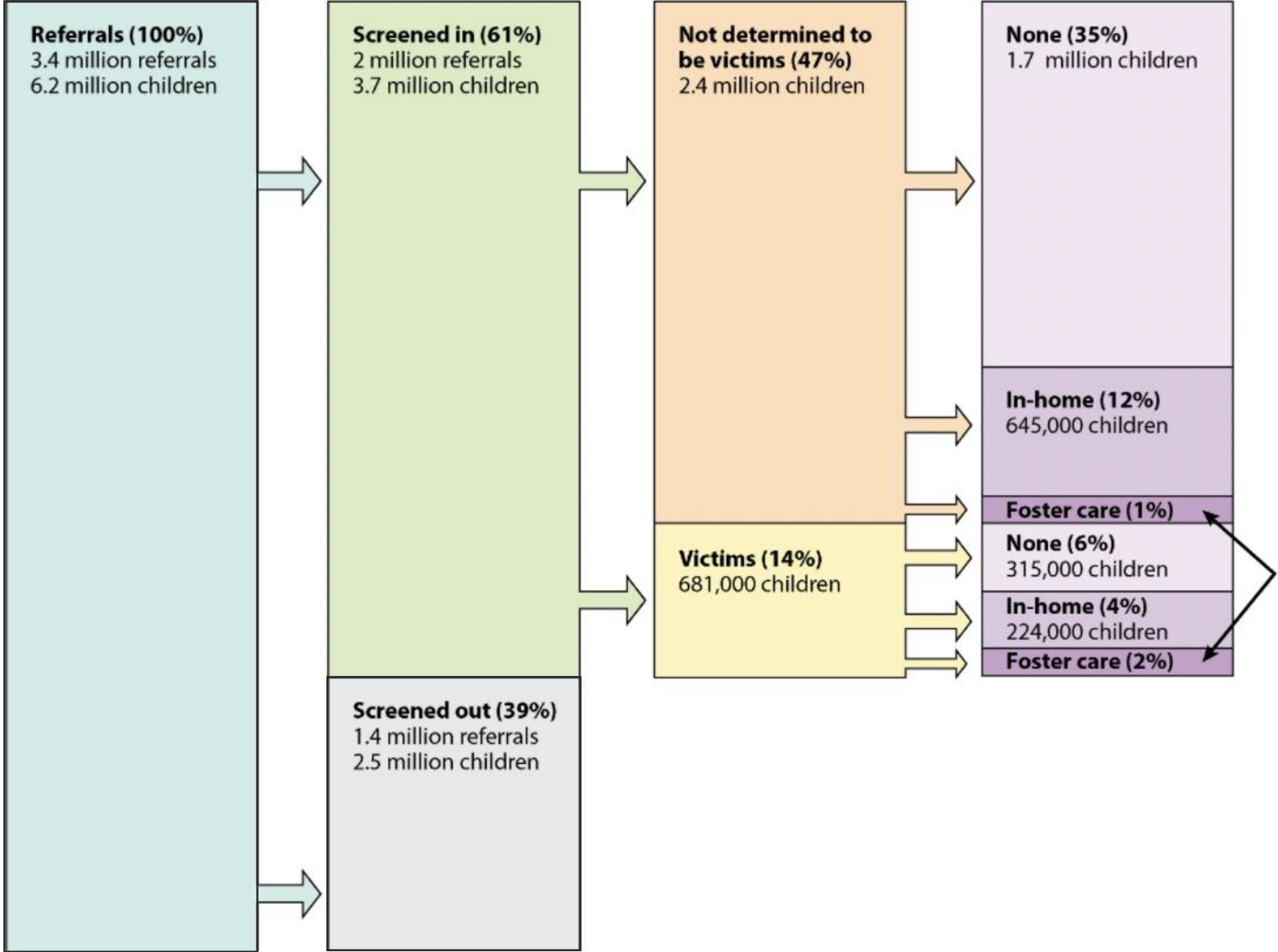
Mayumi Okuda, MD
Department of Psychiatry
Columbia University



Silvia S. Martins, MD, PhD
Department of Epidemiology
Mailman School of Public Health
Columbia University

Substance Use and Child Welfare Involvement

Movement Through the Child Welfare System



Maltreatment

“Any recent act or failure to act on the part of a parent or caretaker which results in death, serious physical or emotional harm, sexual abuse or exploitation; or which presents imminent risk of serious harm.”

- Federal CAPTA (1974) legislation
- States definitions may vary

Indications

- Neglect (medical neglect)
- Physical Abuse
- Sexual Abuse
- Psychological Abuse

Exposure to parental substance use alone does not constitute maltreatment

Prenatal substance exposure

“Infants born with and identified as being affected by substance abuse or withdrawal symptoms resulting from prenatal drug exposure, or a Fetal Alcohol Spectrum Disorder.”

- Federal CARA (2016) legislation
- Mandates state policies for identification and safety planning in cases of prenatal substance exposure
 - CPS/health department notification procedures
 - Plan of safe care
 - Data collection

Guidance

- Requires evidence of ‘harm’
- Includes both alcohol and drugs (including legal drugs)
- Addresses needs of both mothers and infants
- Distinguishes ‘notification’ from ‘reporting’

Foster Care Indications

Maltreatment



Neglect

Physical Abuse

Sexual Abuse

Other Indication



Alcohol use (parent)

Drug use (parent)

Drug use (child [i.e. PSE])

Parental incarceration

Caretaker inability to cope

Abandonment/relinquishment

Inadequate housing

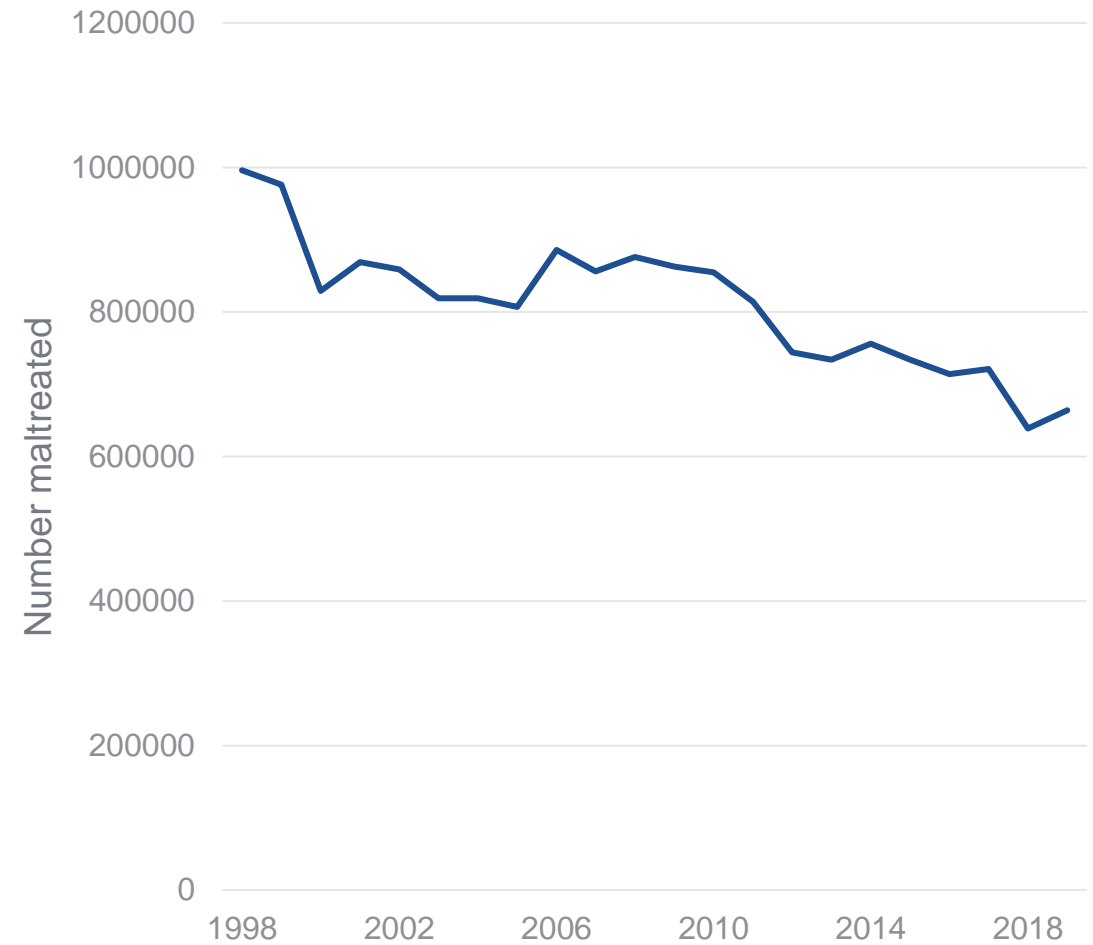
Child disability

Child behavior problem

Parent death

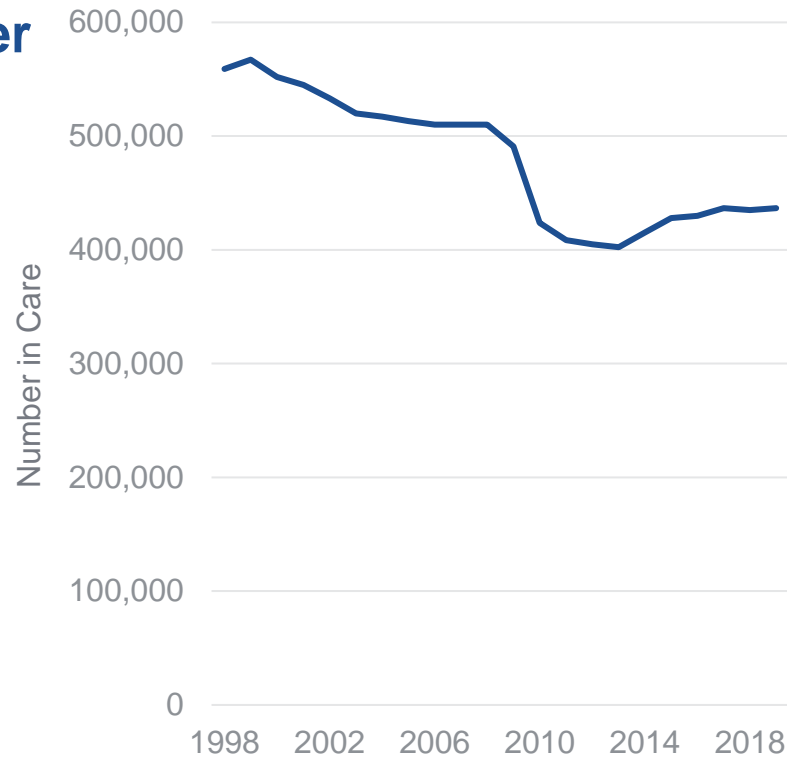
Trends in substance use-related child welfare involvement

Maltreatment 1998 to 2019

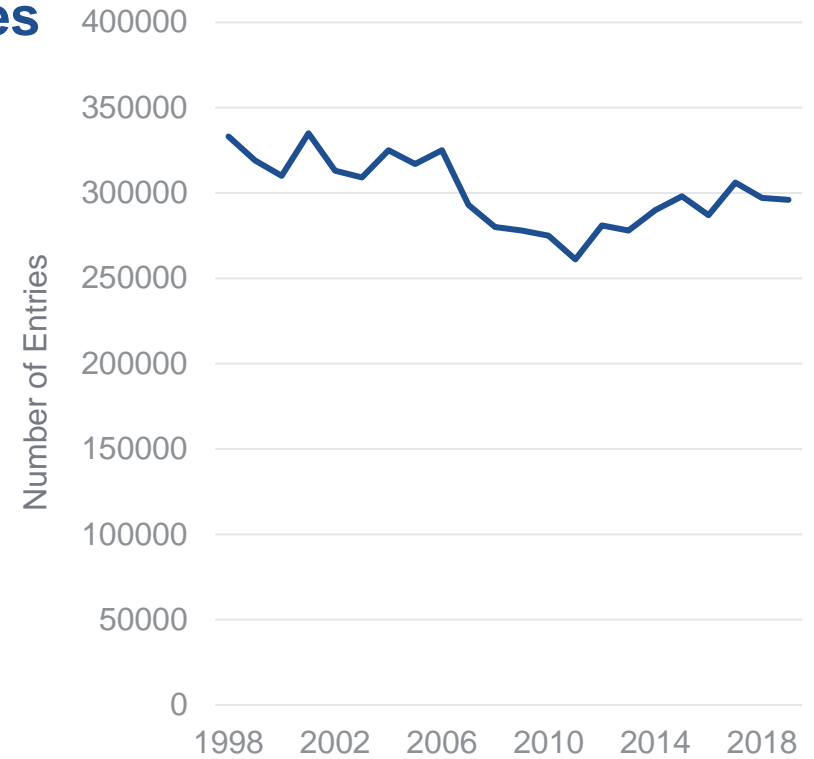


Foster Care, 1998 to 2019

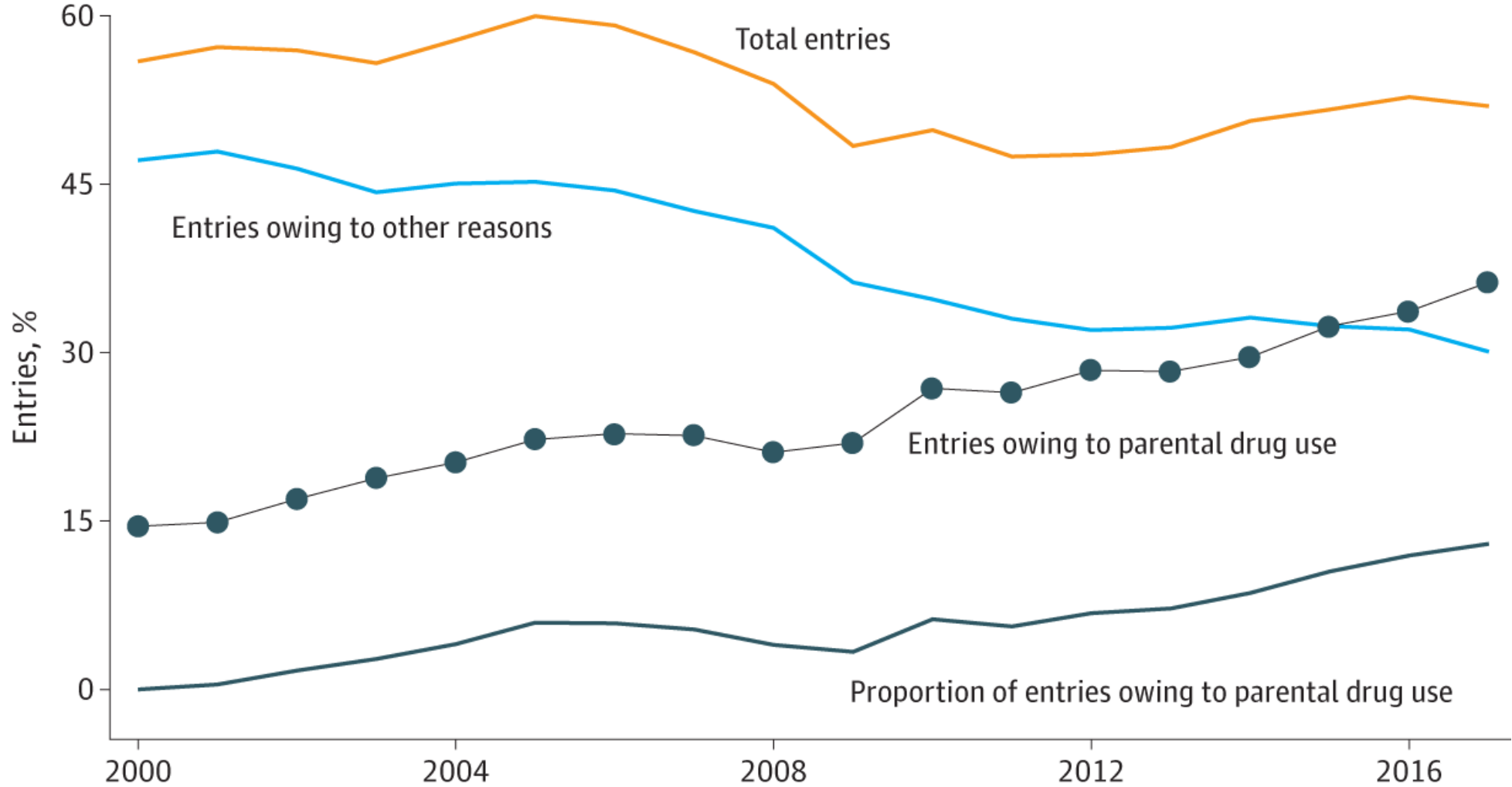
Total Number in Care



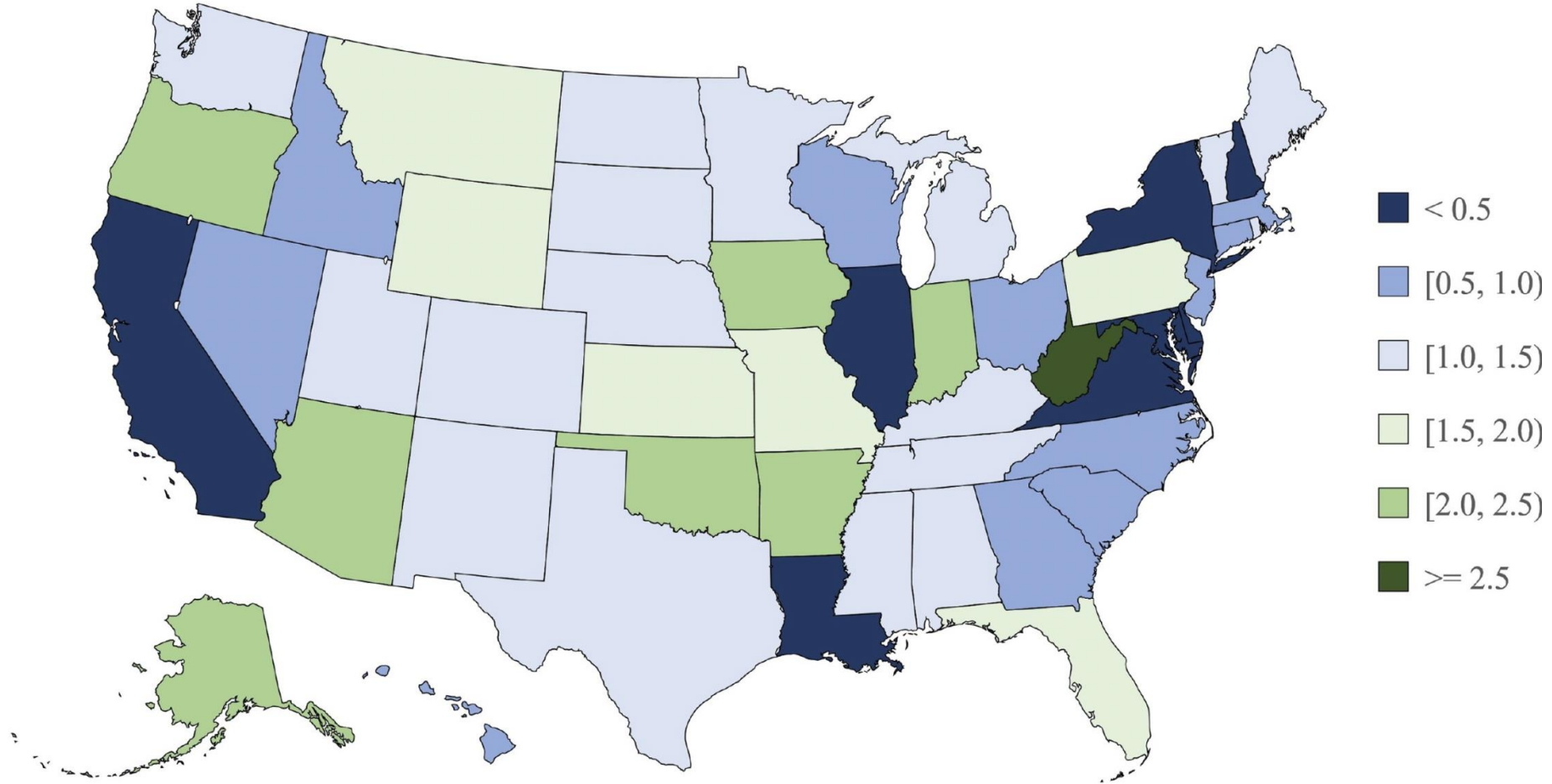
Entries



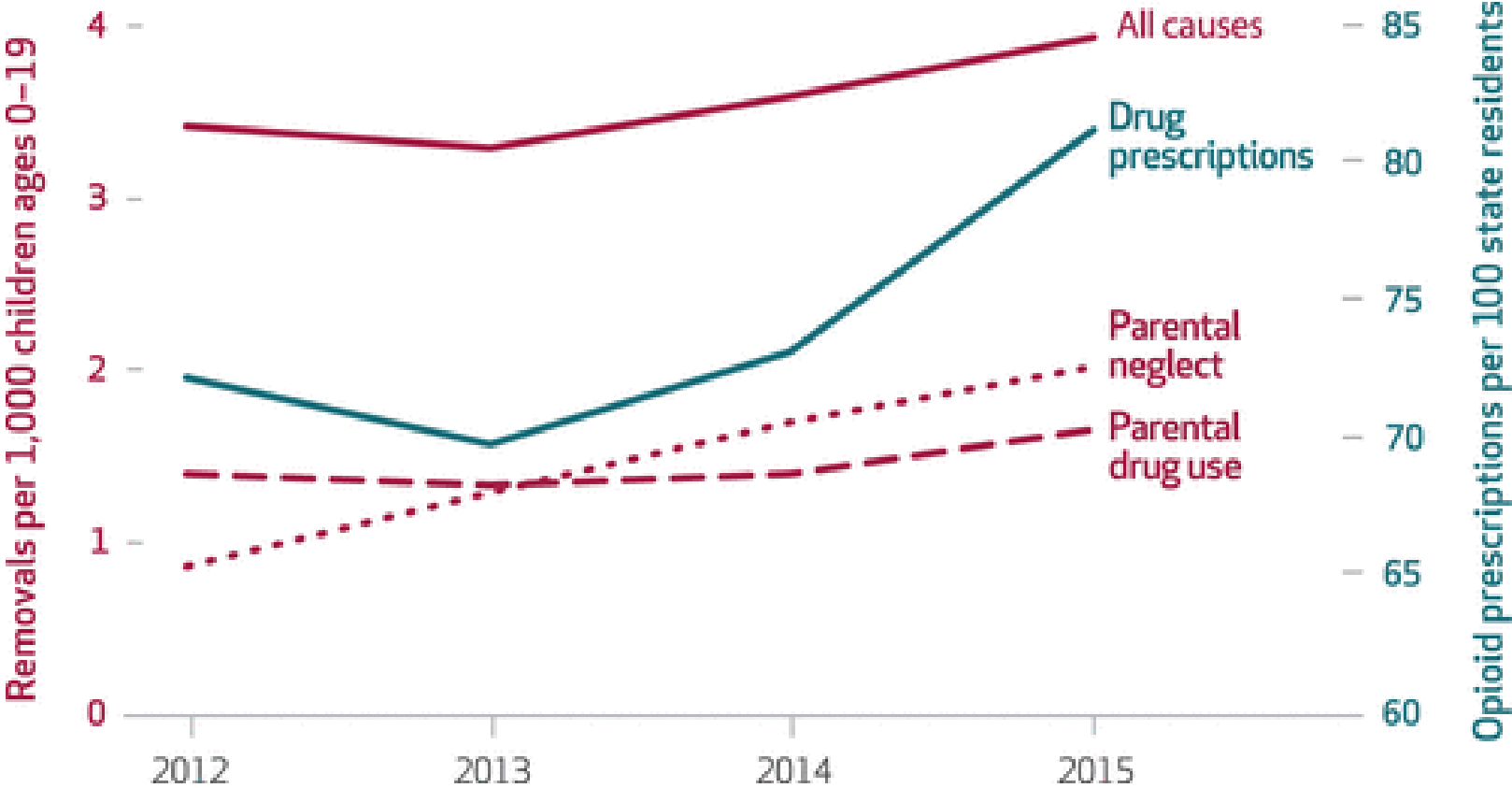
Foster Care Entries Attributable to Parental Drug Use, 2000 to 2017



Foster Care Entries per 100,000 Child Population Attributable to Parental Drug Use, 2010 to 2015



County-Level Associations, Opioid Prescribing and Foster Care Entries in Florida



Zip Code-Level Associations, Hospital Discharges and Child Maltreatment Prevalence in California and Pennsylvania

	California, 2001-2011		Pennsylvania, 2004-2013	
	OR	95% CI	OR	95% CI
Hospital discharges, opioid-related	1.089*	(1.004, 1.165)	1.059*	(1.012, 1.107)
Hospital discharges, alcohol related	1.068*	(1.015, 1.068)	1.016	(0.985, 1,044)
Source	Wolf JP, Ponicki WR, Kepple NJ, Gaidus A. Are community level prescription opioid overdoses associated with child harm? A spatial analysis of California zip codes, 2001–2011. Drug Alcohol Depend. 2016;166:202–8.		Sumetsky N, Burke JG, Mair C. Relationships Between Opioid-Related Hospitalizations and Intimate Partner Violence and Child Maltreatment Hospitalizations in Pennsylvania Across Space and Time. J Interpers Violence. 2020;2020 Aug 17.	

Federal lawsuit targets West Virginia foster care system

By JOHN RABY October 1, 2019

NATIONAL

The Foster Care System Is Flooded With Children Of The Opioid Epidemic

December 23, 2017 · 8:11 AM ET
Heard on Weekend Edition Saturday



SCOTT SIMON

◆ WSJ NEWS EXCLUSIVE | U.S.

States Seek \$26.4 Billion From Drug Companies in Opioid Litigation

Higher settlement demand comes as trial dates in Ohio and West Virginia add urgency to talks

The opioid crisis is forcing more kids into the foster system

CBS EVENING NEWS

BY DEAN REYNOLDS
OCTOBER 21, 2019 / 6:42 PM / CBS NEWS



The Opioid Plague's Youngest Victims: Children in Foster Care

By Sherry Lachman
Dec. 28, 2017

Summary

- Prior to 2010, foster care caseloads were decreasing
- Around 2012, caseloads began increasing
- The proportion of foster care entries attributable to parental substance use, primarily drug use, has been increasing since 2000
- Maltreatment is decreasing but we are not able to track indicators of parental substance use disorder
- Places with higher rates of opioid-related morbidity and mortality also have higher prevalence rates of maltreatment and foster care entry

Our Research

Aims

- Was the introduction of PDMPs between 2004 and 2018 associated with reductions in state-level, Child Protective Services (CPS)-reported, maltreatment prevalence?
- What are the potential pathways through which PDMPs might impact maltreatment prevalence?
- Given pervasive disparities in child welfare system involvement and the disproportionate impact of the opioid crisis on American Indian/Alaskan Native communities, is the relationship between PDMPs and maltreatment modified by race/ethnicity?

Potential Mechanisms

Direct Risk

Parents experiencing SUD are more likely to maltreat their children

SUD interferes with other aspects of the caregiving environment

Reporting biases

Maltreatment more commonly reported/substantiated when parental substance use is suspected or identified

Community/family factors

High intergenerational or community-level SUD prevalence reduces opportunities for out-of-home care

Methods

Maltreatment:

National Data Archive on Child Abuse and Neglect

- Total Incidents
- Total Victims
- Incidents by type
 - Neglect
 - Physical Abuse
 - Psychological Abuse
 - Sexual Abuse
- Incidents by race/ethnicity
 - American Indian/Alaskan Native
 - Asian or other Pacific Islander
 - Black
 - Hispanic

PDMPs:

Modern operational PDMP

- Operational PDMP (not law enactment)
- Data accessible to authorized parties
- Electronic system (not paper based)

Must query requirements

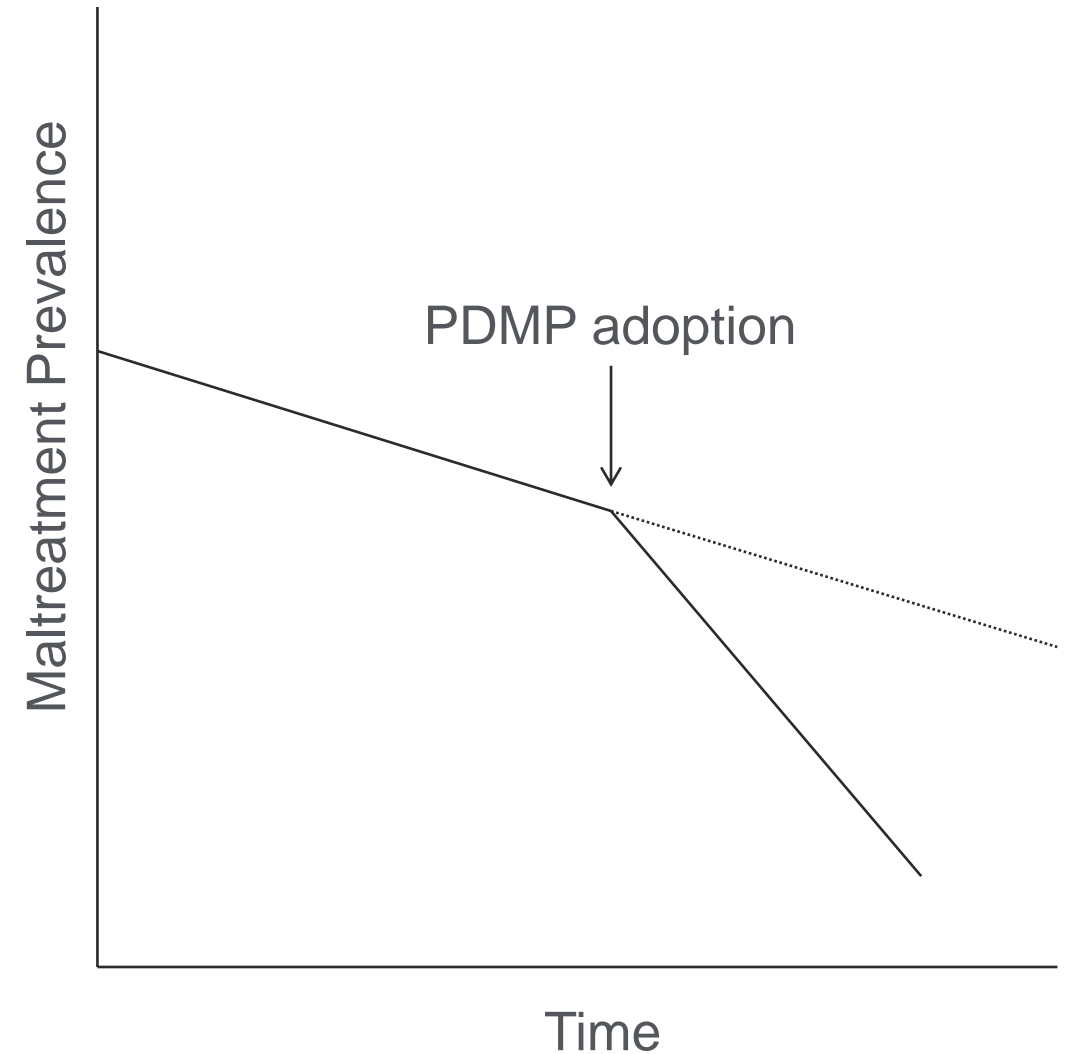
Other state-level factors

- % Child poverty
- % < High-school education
- % Rural
- Unemployment rate
- Prevalence of illicit substance use

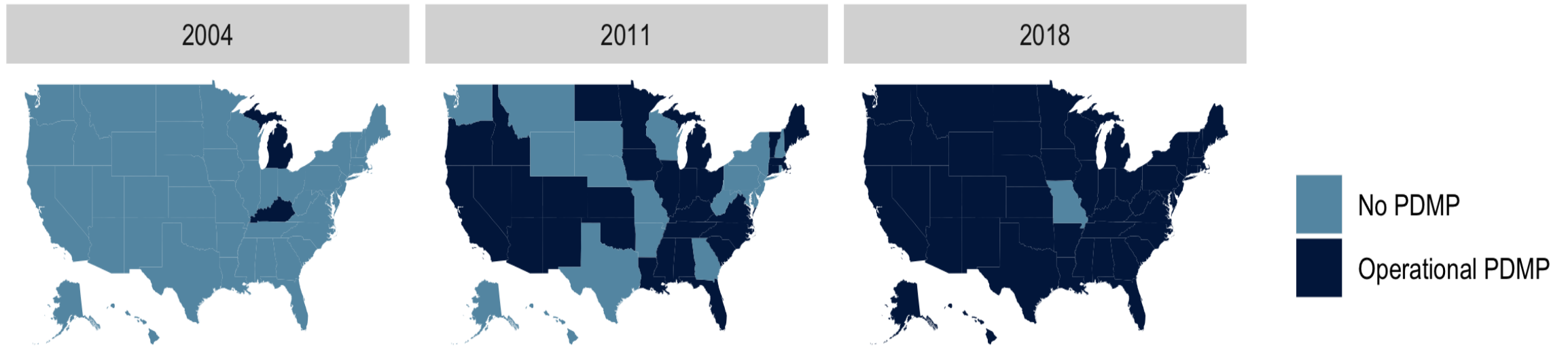
Methods

Analysis Approach

- Compare changes in maltreatment prevalence in states after PDMP adoption to maltreatment prevalence in states:
 - With no PDMP
 - States that had not yet adopted PDMPs
- We know that maltreatment prevalence is decreasing overall, did prevalence decrease more in states that adopted PDMPs?

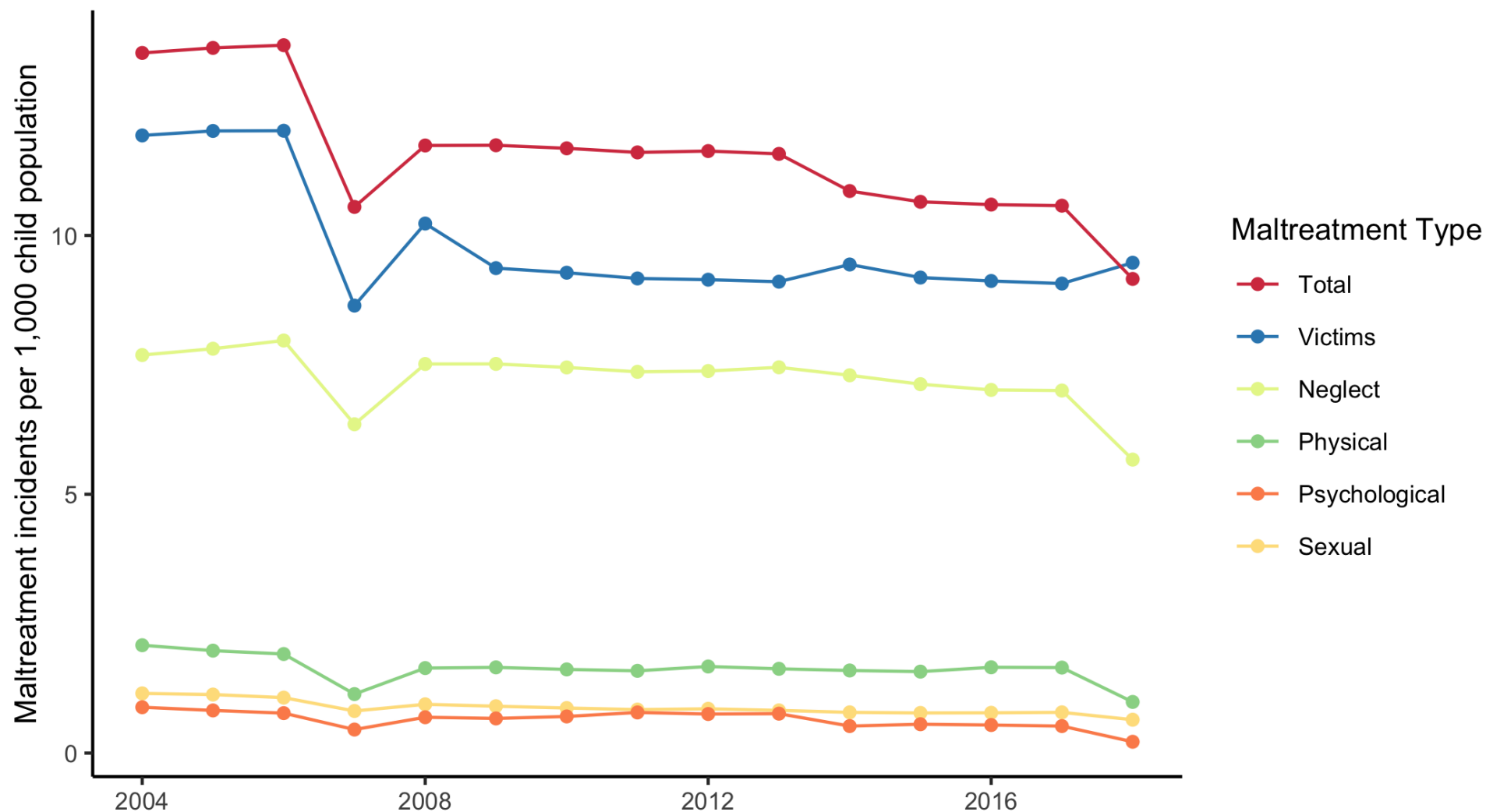


PDMP Adoption, 2004-2018

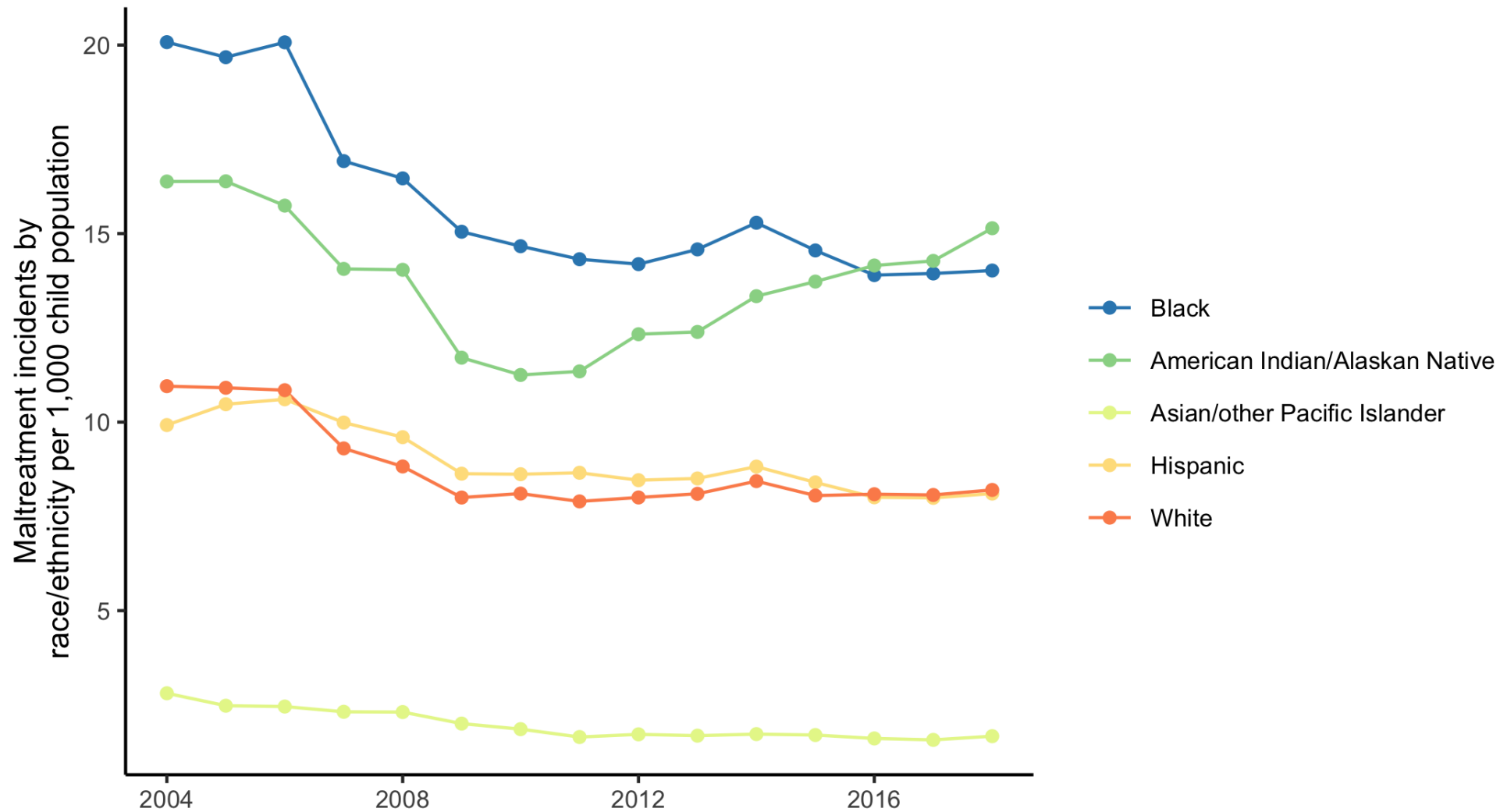


PDMP-adoption at the beginning (2004), middle (2011) and end (2018) of the observation period

Maltreatment by Type, 2004-2018



Maltreatment by Race/ethnicity, 2004-2018



Results, Overall and Type-Specific

Maltreatment measure	PDMP Adoption			p-value
	Estimate	95% CI	Relative reduction	
Total incidents	0.87*	(0.80, 0.94)	6-20%	0.01
Victimization	0.92*	(0.85, 0.98)	2-15%	0.02
Neglect	0.87*	(0.80, 0.93)	7-20%	0.01
Physical abuse	0.78*	(0.71, 0.87)	13-29%	0.01
Psychological abuse	0.88	(0.66, 1.17)		0.38
Sexual abuse	1.02	(0.97, 1.07)		0.46

Results, Race/ethnicity-Specific

Coefficient	PDMP Adoption			
	Estimate	95% CI	Relative Reduction	p-value
PDMP adoption	0.98	(0.91, 1.05)		0.53
American Indian/Alaskan Native	1.91	(1.66, 2.21)		0.01
Asian/other Pacific Islander	0.26	(0.23, 0.28)		0.01
Black	1.84	(1.67, 2.02)		0.01
Hispanic	1.03	(0.95, 1.13)		0.45
PDMP adoption*American Indian/Alaskan Native	0.78*	(0.65, 0.94)	6-35%	0.01
PDMP adoption* Asian/other Pacific Islander	0.87	(0.76, 1.00)		0.08
PDMP adoption*Black	0.98	(0.88, 1.09)		0.73
PDMP adoption*Hispanic	0.98	(0.89, 1.09)		0.77

Could other issues have affected findings

1. Different types of models: No change in results
2. Did the results differ by mandated query status: No change in results
3. Different ways states define neglect: No change in results
4. Does the timing of PDMP adoption/selection of observation window matter: Some changes in results, strongest effects for physical abuse
5. Could there be reverse causation: Changes in neglect results but not physical abuse
6. Can we assume trends in maltreatment would have been stable in the absence of PDMPs: Probably

Caveats

1. Other unmeasured factors
 - Polices/events occurring simultaneously
2. Could not isolate individual children where parental substance use was a precipitating factor in the substantiation of maltreatment
 - No evidence that PDMPs modify individual-level risk of maltreatment
3. Unreported incidents

Research Conclusions

- PDMPs likely contribute to small but meaningful reductions in statewide child maltreatment prevalence
- Greatest decreases observed among physical abuse-based incidents and potentially neglect-based incidents
 - Physical abuse: 13-29% relative reduction in prevalence
 - Neglect: 7-20% relative reduction in prevalence
- Evidence that the relationship between PDMP adoption and maltreatment prevalence may be modified by race/ethnicity
 - Greater relative reductions among American Indian and Alaskan Native children
- Results qualitatively similar when examining PDMP must-query requirements

Policy implications and ongoing questions

Implications

Data sharing

- CPS/law enforcement
 - Unclear to what extent this occurs in practice
 - Mechanisms may suggest population-level rather than individual-level risks
 - Prevention of SUD/ODU
 - Greater CPS reporting is not necessarily associated with better outcomes
 - SUD not an overt indication for maltreatment
 - Complications in the case of prenatal substance exposures
 - Could be associated with unintended consequences
- EHR integration
- Medicaid

Implications

Education and treatment opportunities

- Prescribers/dispensers
- Patient facing

Other opportunities?

Ongoing questions

1. Specific PDMP features with the greatest impact
2. PDMPs in conjunction with other opioid-related legislation and treatment factors
3. PDMPs in the context of changing medical and recreational cannabis legislation
4. PDMP impacts on prenatal substance exposures
5. Cost-benefit analyses
6. Other questions?

Acknowledgements

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Contact information

Emilie Bruzelius

PhD Student in Epidemiology

Mailman School of Public Health, Columbia University

eb2674@cumc.columbia.edu

Silvia S. Martins

Professor of Epidemiology

Director, Policy and Health Initiatives on Opioids and Other Substances (PHIOS)

Interdisciplinary Group

Co-Director, Substance Abuse Epidemiology T32 Program at Columbia University

Director, Substance Use Epidemiology Unit

ssm2183@cumc.columbia.edu



Email: pdmpttac@iir.com
Telephone: 850/481-PDMP (7367)
Website: www.pdmppassist.org