Acknowledgement

National Quality Improvement Center for Collaborative Community Court Teams

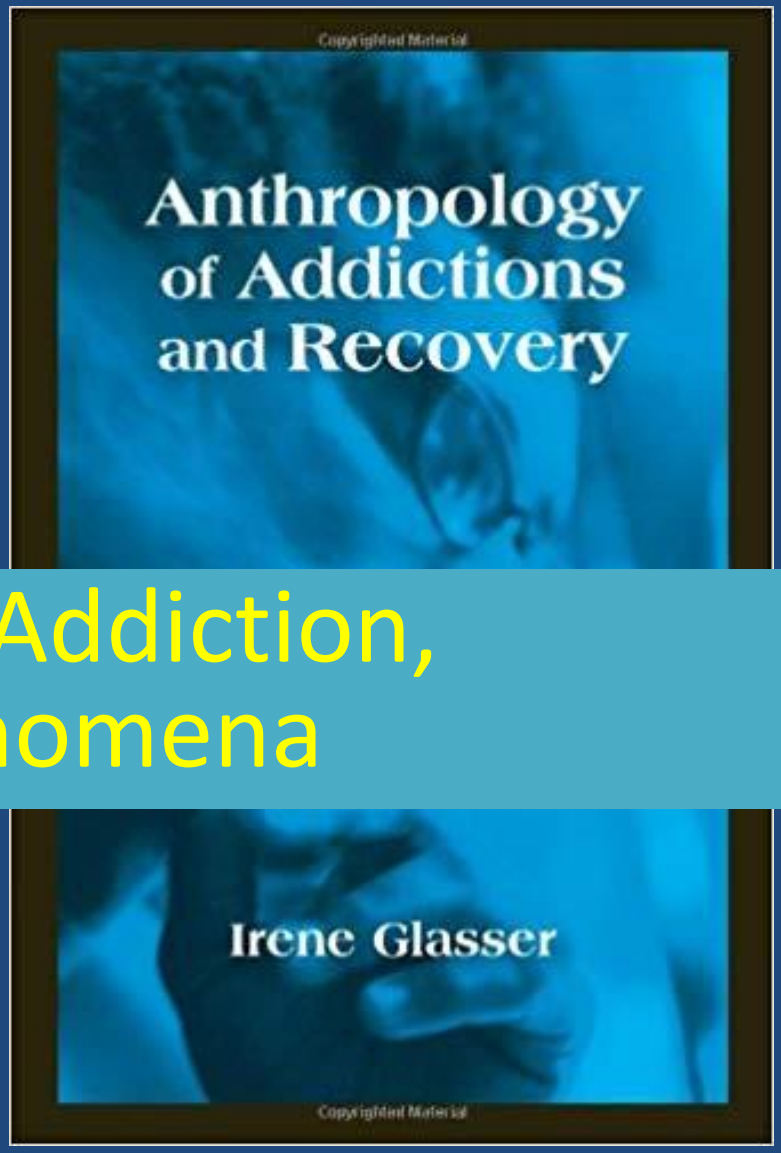
This presentation was made possible by cooperative agreement HHS-2017-ACF-ACYF-CA-1272 from the Administration on Children, Youth and Families (ACYF), Children's Bureau. The views, opinions and content of this presentation are those of the authors and do not necessarily reflect the views, opinions, or policies of ACYF or HHS.

Improving Care Improves Outcomes for Pregnant and Postpartum Women with Substance Use Disorder

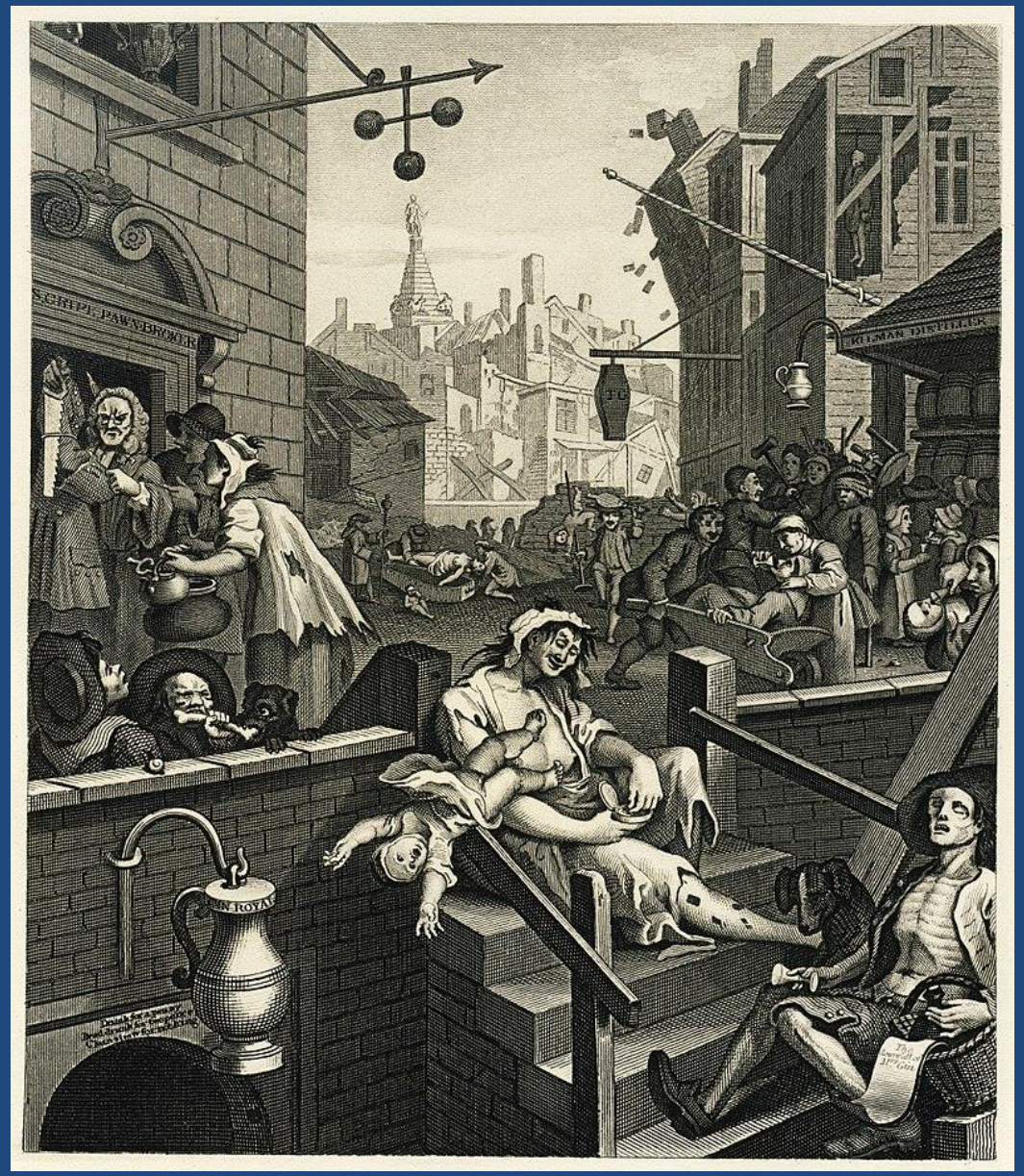
Mishka Terplan MD MPH FACOG DFASAM
Associate Medical Director, Friends Research Institute
Adjunct Faculty, UCSF, National Clinician Consultation Center
Deputy Chief Clinical Officer, Department Behavioral Health, DC
@ Do_Less_Harm

Alaska Perinatal Quality Collaborative Summit 2021

Psychoactive Substance Use is Ancient



Drug Problems/Addiction, Modern Phenomena



William Hogarth's ***Gin Lane*** 1751

MORPHINISM

AND

NARCOMANIAS FROM OTHER DRUGS

THEIR

ETIOLOGY, TREATMENT, AND MEDICOLEGAL RELATIONS

BY

T. D. CROTHERS, M.D.

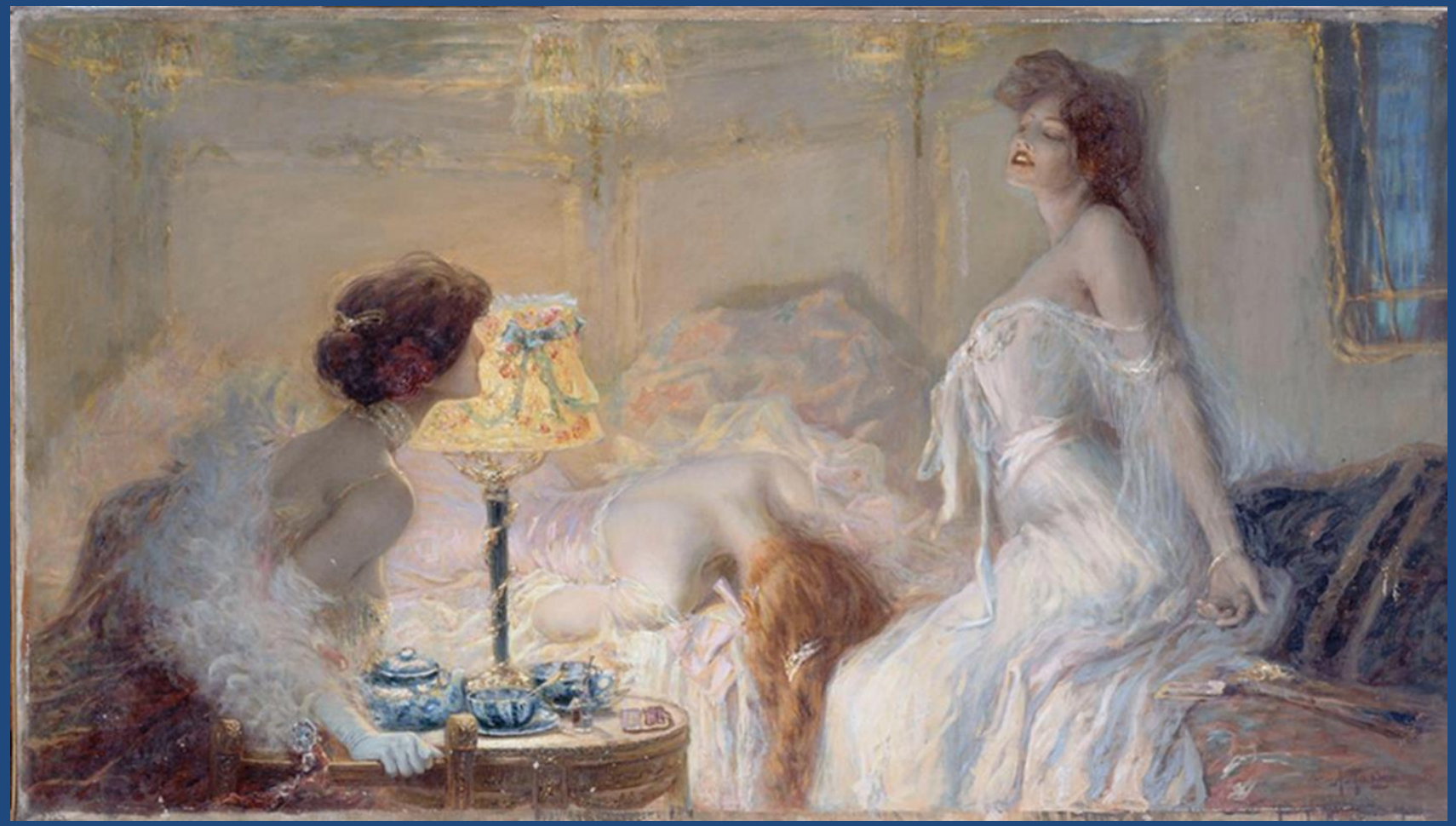
Superintendent of Walnut Lodge Hospital, Hartford, Conn.; Editor of the Journal of Inebriety; Professor of Mental and Nervous Diseases, New York School of Clinical Medicine, etc.

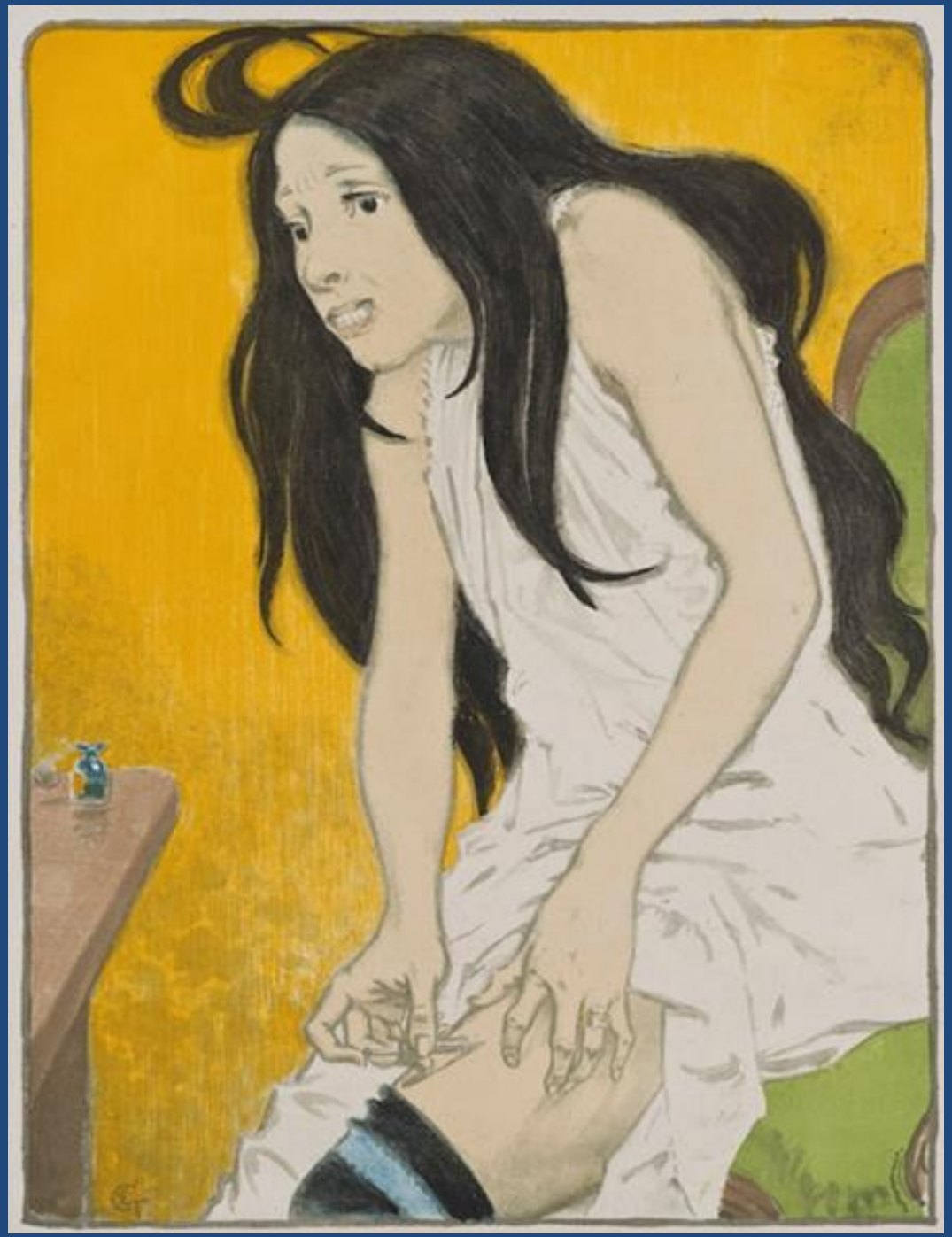
PHILADELPHIA AND LONDON

W. B. SAUNDERS & COMPANY

1902

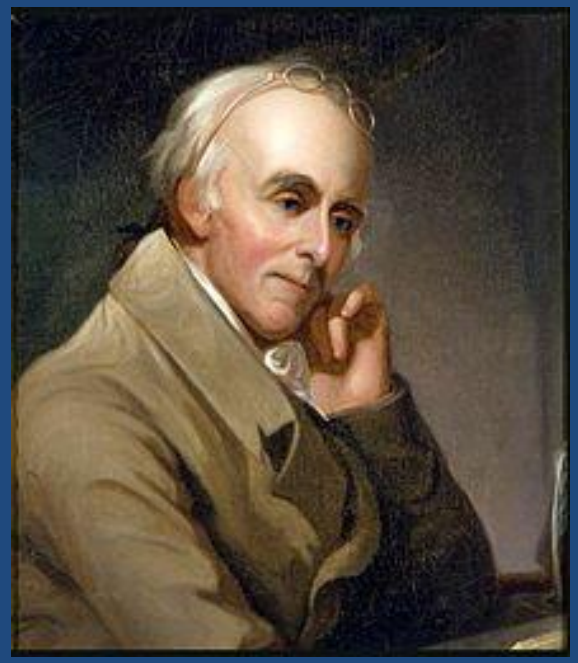
Within a few years many authorities have pointed out the danger of morphinism in women who come under treatment for gynecologic disorders. The



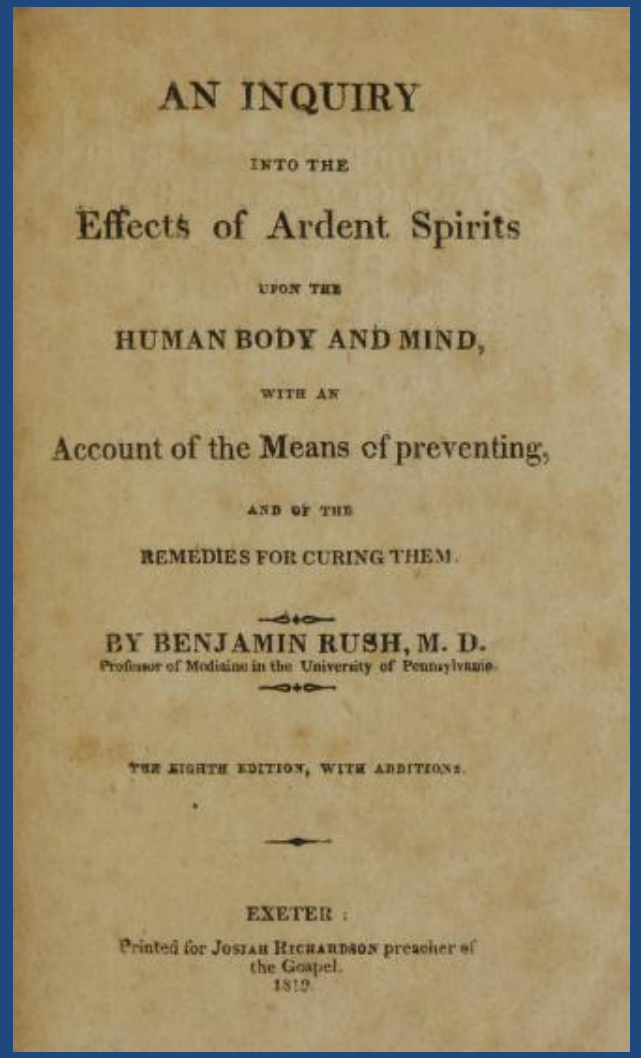


Turn of the Century Treatment: Addiction is a Disease

- Morphinism: seen as medical condition and treated like one
  - Short acting opioids used for detox and “maintenance”
  - Specialty (morphine) clinics – run by both public health and police departments
  - Neonatal Abstinence Syndrome first described (and treated)



Dr Benjamin Rush:
Father of Addiction Medicine
Signatory of Declaration of Independence
Owner of Enslaved Peoples



AN INQUIRY

INTO THE

Effects of Ardent Spirits

UPON THE

HUMAN BODY AND MIND,

WITH AN

Account of the Means of preventing,

AND OF THE

REMEDIES FOR CURING THEM.

BY BENJAMIN RUSH, M. D.
Professor of Medicine in the University of Pennsylvania.

THE EIGHTH EDITION, WITH ADDITIONS.

EXETER:
Printed for JOSIAH RICHARDSON preacher of the Gospel.
1812.

Substance Use and Addiction: Early 20th Century

19th Century

Medical
and
Public Health

Women
White
Upper SES

20th Century

Criminal
Justice

Men
Non-White
Lower SES

PUBLIC ACTS OF THE SIXTY-THIRD CONGRESS

OF THE

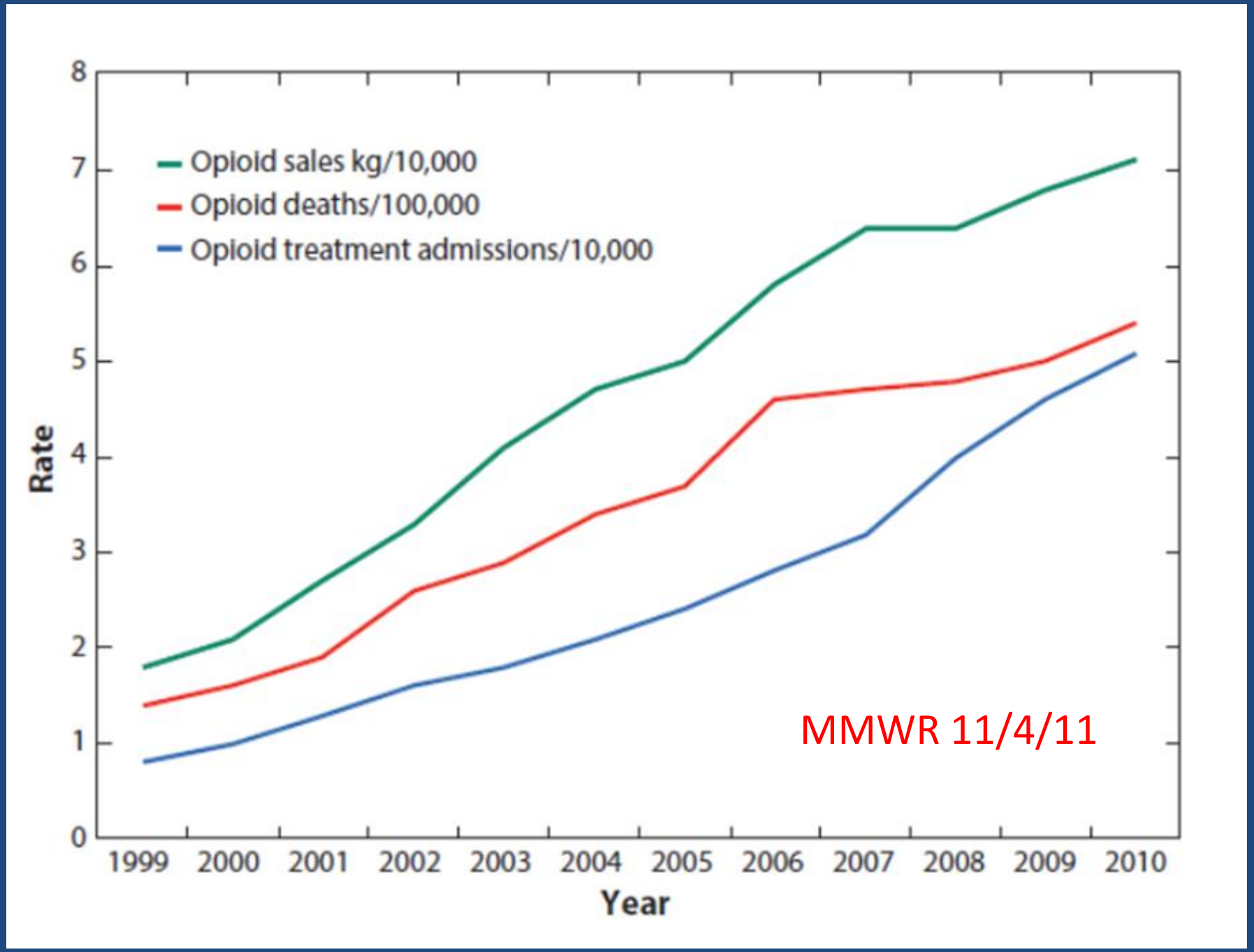
UNITED STATES

Passed at the third session, which was begun and held at the city of Washington, in the District of Columbia, on Monday, the seventh day of December, 1914, and was adjourned without day on Thursday, the fourth day of March, 1915.

WOODROW WILSON, President; THOMAS R. MARSHALL, Vice President; JAMES P. CLARKE, President of the Senate *pro tempore*; CLAUDE A. SWANSON, Acting President of the Senate *pro tempore*, December 21 to 23, 29 to 31, 1914, and January 2, 1915; NATHAN P. BRYAN, Acting President of the Senate *pro tempore*, January 22, 1915; CHAMP CLARK, Speaker of the House of Representatives.

The Current Opioid Crisis:

Iatrogenic



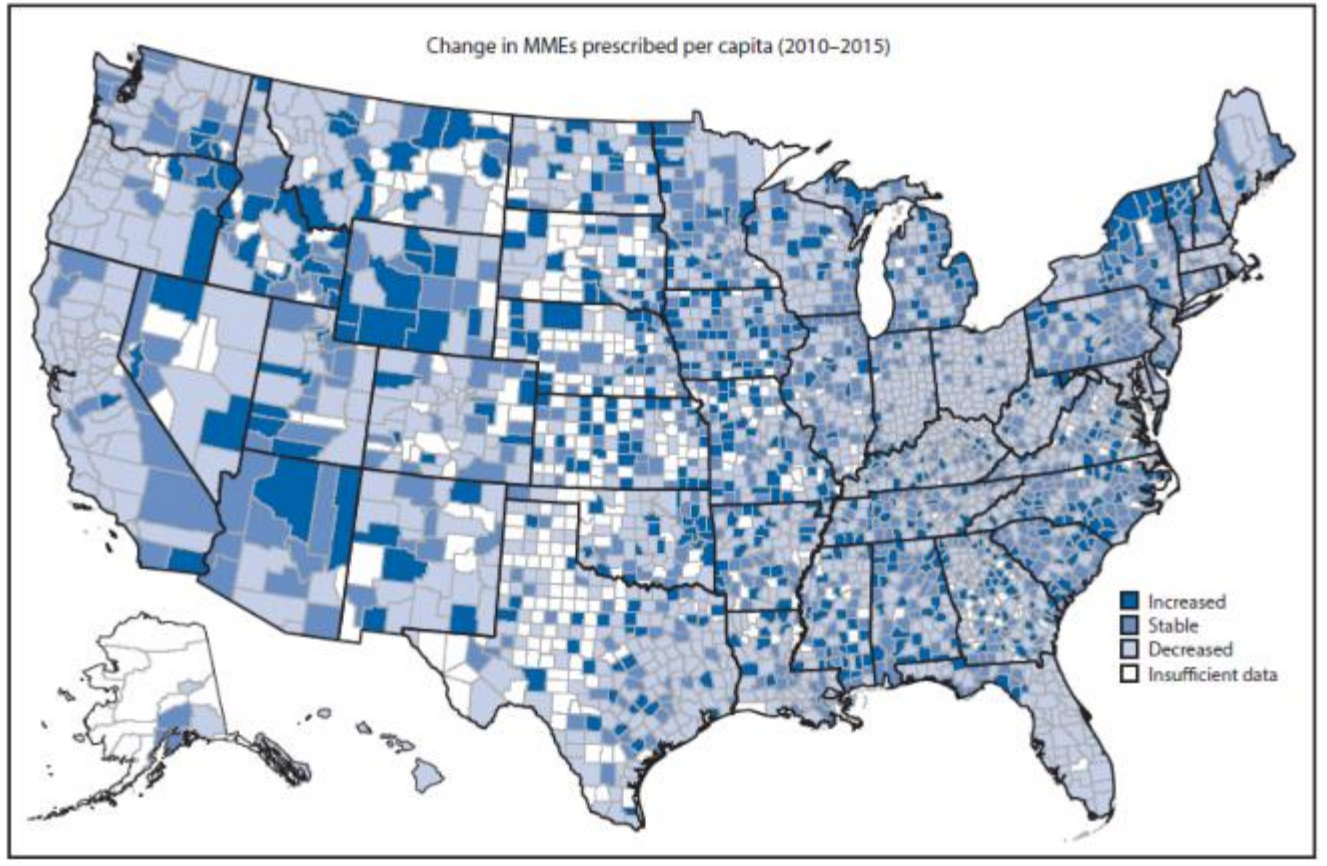
Vital Signs: Changes in Opioid Prescribing in the United States, 2006–2015

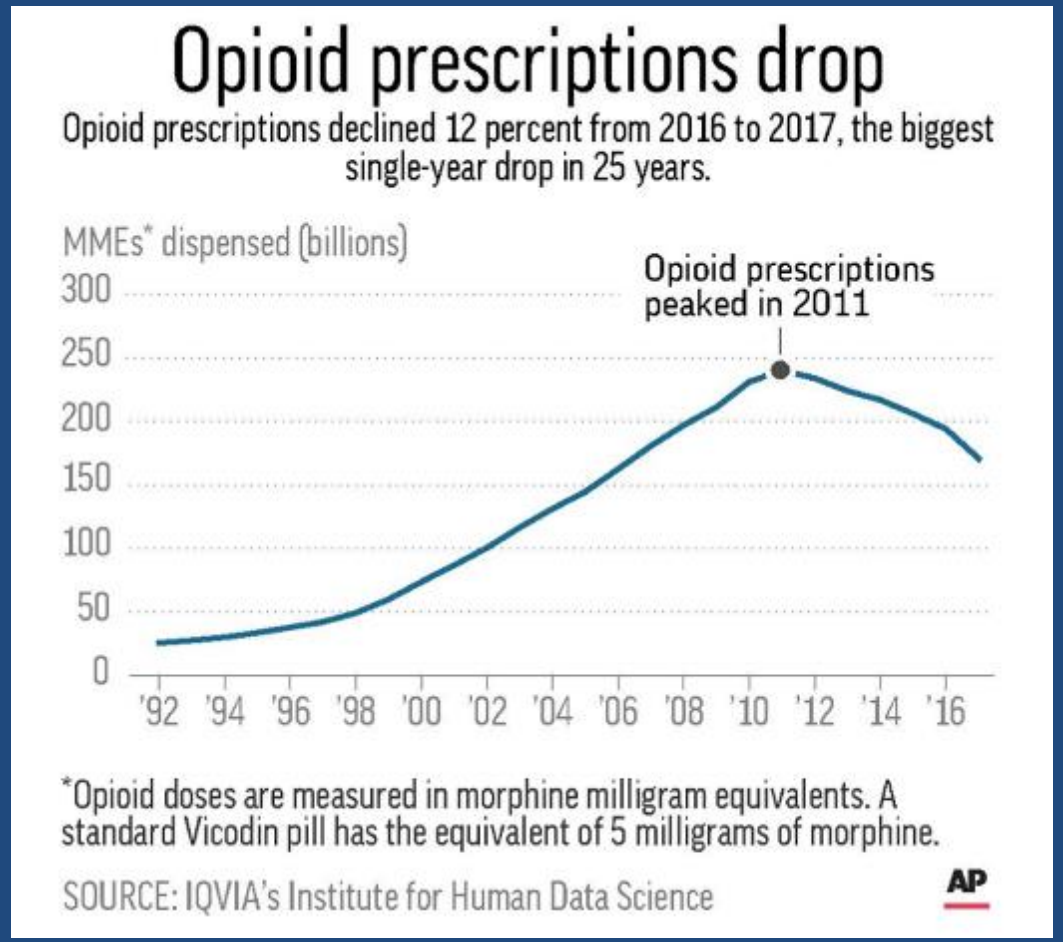
Gery P. Guy Jr., PhD[1]; Kun Zhang, PhD[1]; Michele K. Bohm, MPH[1]; Jan Losby, PhD[1]; Brian Lewis[2]; Randall Young, MA[2]; Louise B. Murphy, PhD[3]; Deborah Dowell, MD[1]

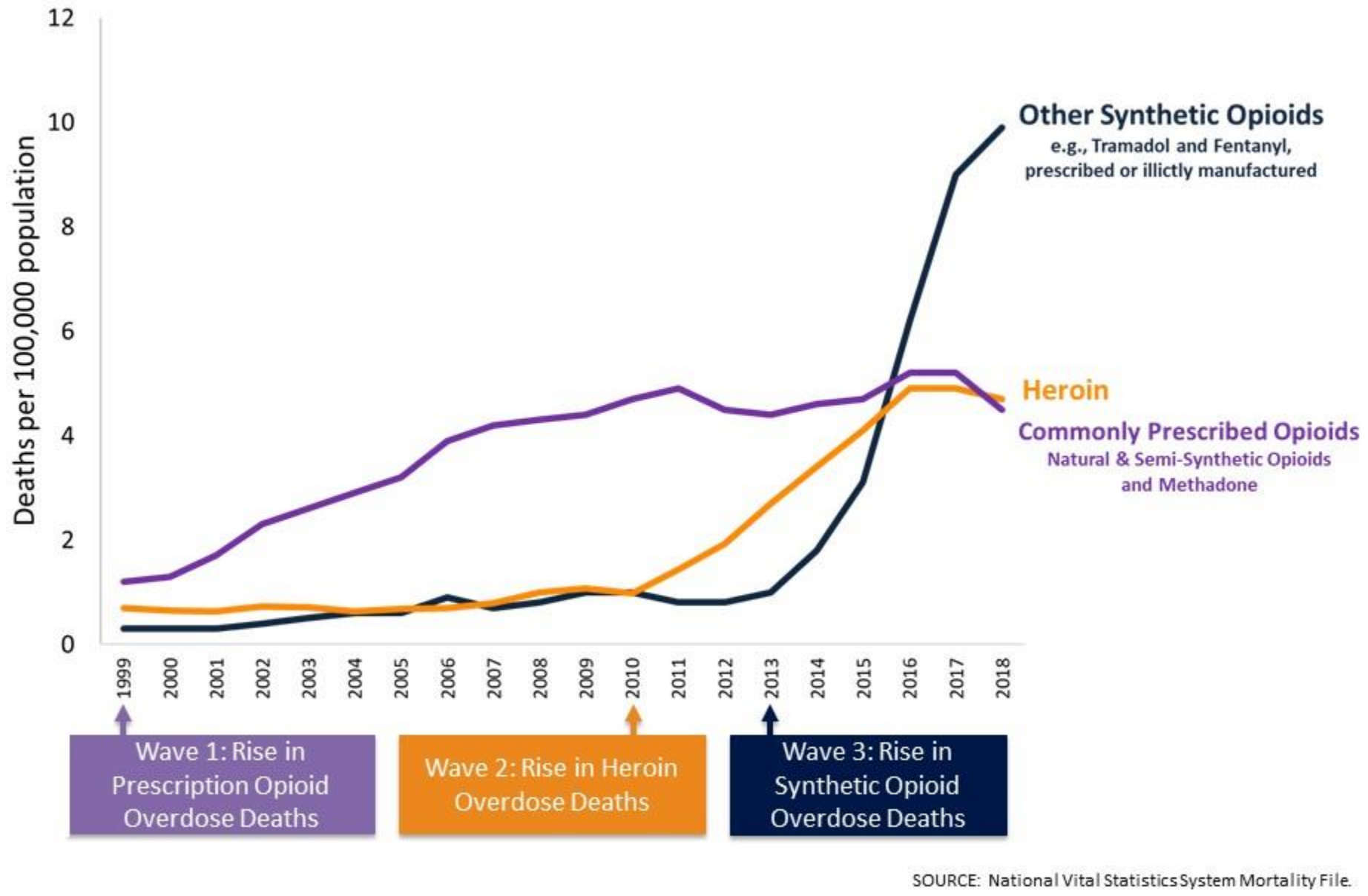
MMWR / July 7, 2017 / Vol. 66 / No. 26

Peak Opioid MME in US 782 (2010); 2015 = 640

FIGURE 2. (*Continued*) Morphine milligram equivalents (MMEs) of opioids prescribed per capita in 2015 and change in MMEs per capita during 2010–2015, by county — United States, 2010–2015







The Opioid Crisis: A Triple Wave Epidemic

Thanks to Dan Cicarrone

Rising morbidity and mortality in midlife among white non-Hispanic Americans in the 21st century

Anne Case[1] and Angus Deaton[1]

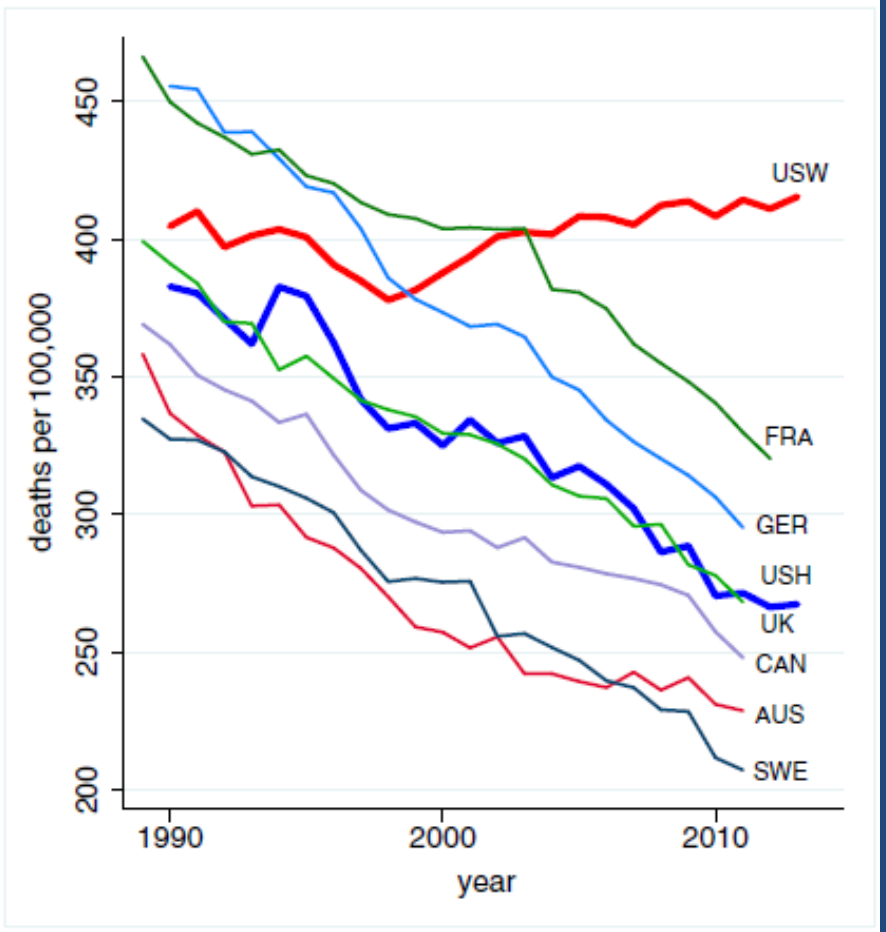


Fig. 1. All-cause mortality, ages 45–54 for US White non-Hispanics (USW), US Hispanics (USH), and six comparison countries: France (FRA), Germany (GER), the United Kingdom (UK), Canada (CAN), Australia (AUS), and Sweden (SWE).

15078–15083 | PNAS | December 8, 2015 | vol. 112 | no. 49

The New York Times

In Heroin Crisis, White Families Seek Gentler War on Drugs

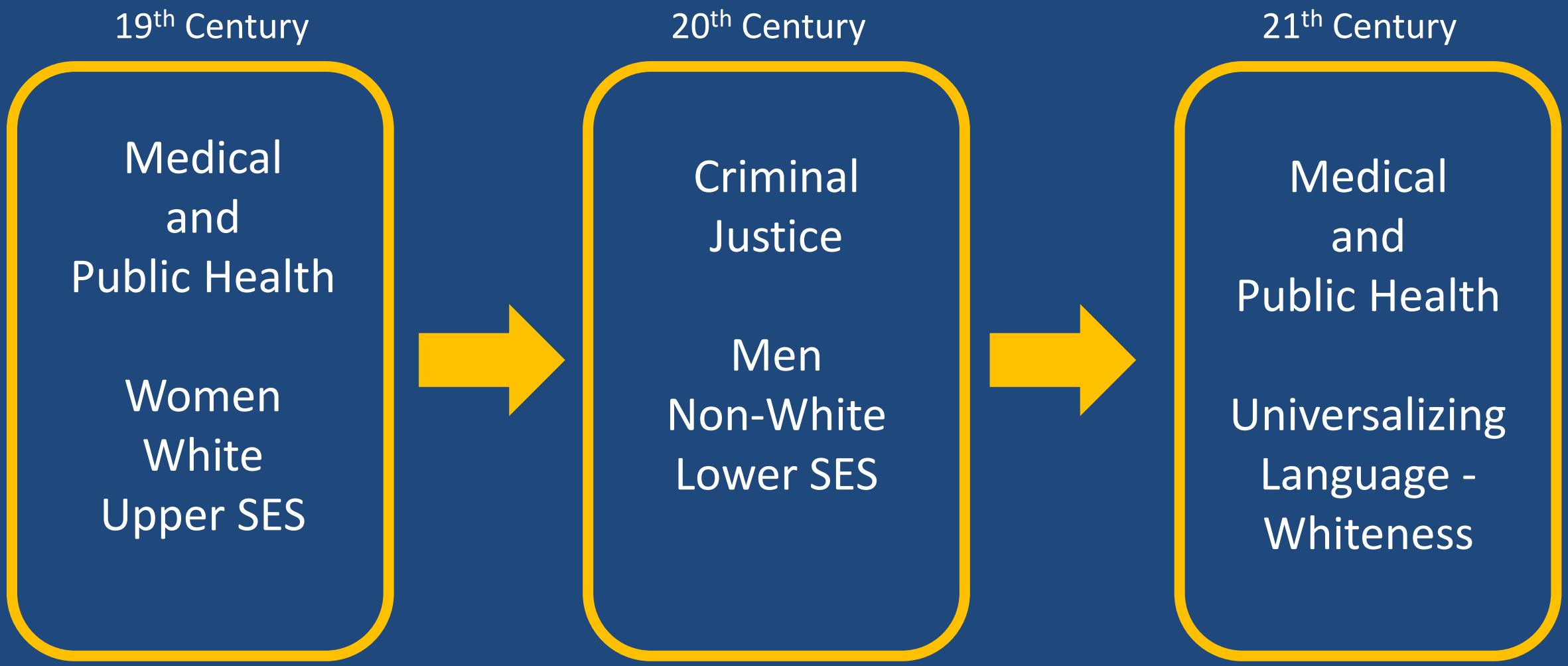
Amanda Jordan with her son Brett Honor outside a meeting for people with addictions and their families in Plaistow, N.H. Her son Christopher died of an overdose. Katherine Taylor for The New York Times

By Katharine Q. Seelye

Oct. 30, 2015

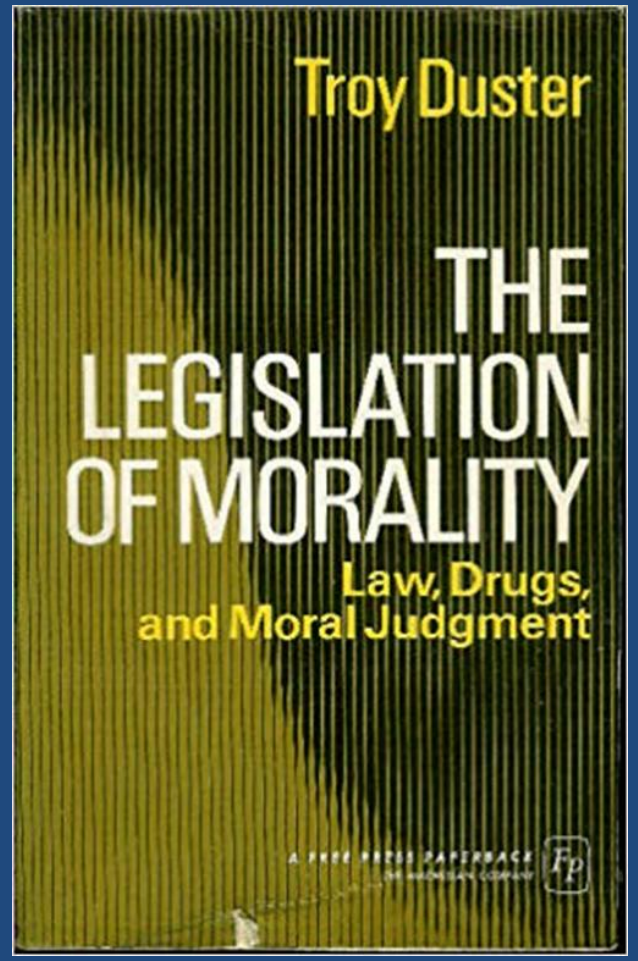
833

Substance Use and Addiction



Race, The War on Drugs, and Public Health Response

- There is a relationship between who we associate with drug use and how we view addiction
- Addiction was a medical condition – before it wasn't
  - We are (re)discovering medicine and public health in substance use and addiction
  - Although compassion and empathy predate judgment and discrimination, both are grounded in racism



Gender, Reproduction, and Addiction in the Context of Racialized Drug Policy

Behavioral Health Burden

Diagnosis	Percent Reporting	
	Female	Male
Serious Psychological Distress (past month)	**6.0%**	**4.1%**
Any Mental Illness (past year)	**26.2%**	**17.3%**
Serious Mental Illness (past year)	**5.0%**	**3.0%**
Major Depressive Episode (past year)	**8.5%**	**4.7%**

Prescription Medication

Past Year	Male	Female
Prescription psychotherapeutic drugs	40.9%	47.8%
Opioid Analgesic	33.9%	38.8%
Tranquilizers	11.3%	17.9%
Sedatives	5.6%	8.2%
Stimulants	6.5%	6.3%

Gender and the Opioid Crisis

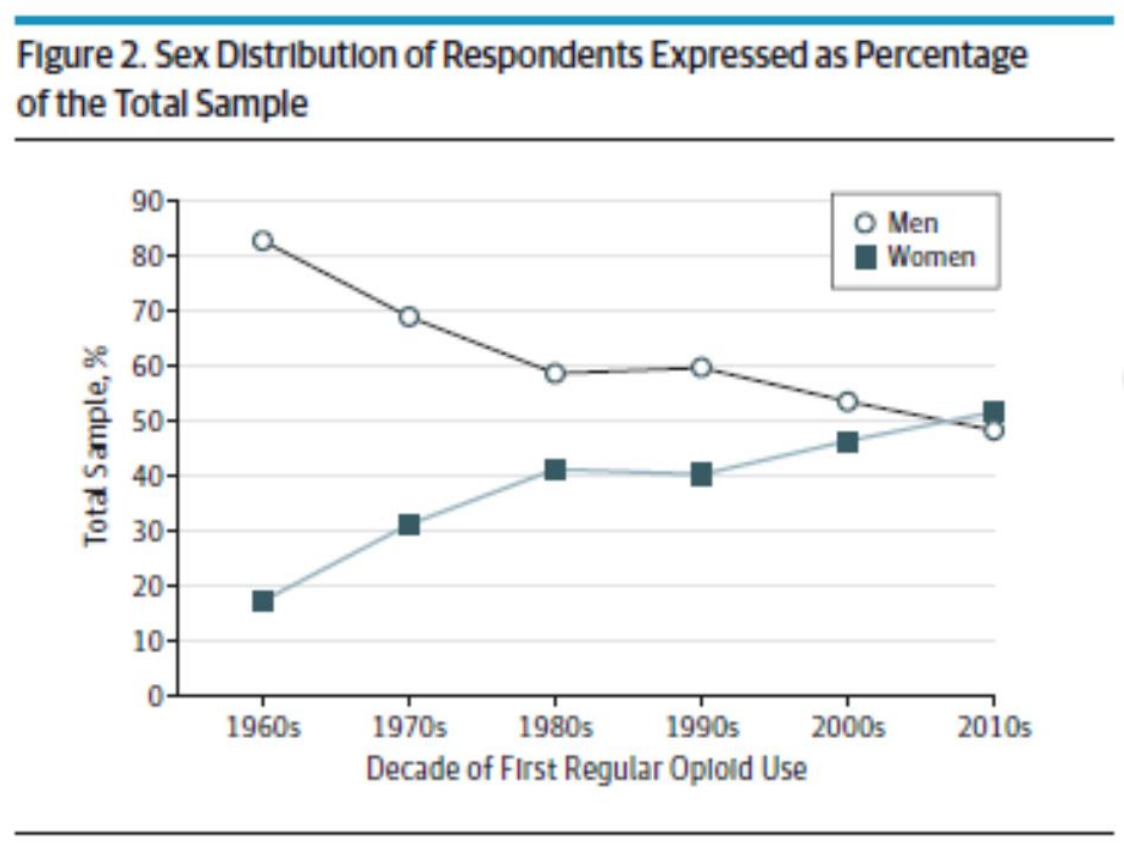


Table 1
Characteristics of heroin vs. prescription opioid initiates, 2005–2015.

	Initiate Cohort, No. (%)		
	Heroin (n = 631)	Prescription opioid (n = 5254)	Sig.[a]
Age at survey completion (SE)	27.0 (0.28)	28.9 (0.11)	< 0.001[b]
Gender			0.82
Male	299 (47.8%)	2519 (48.3%)	
Female	327 (52.2%)	2701 (51.7%)	
Ethnicity			0.01
White	479 (78.0%)	4262 (82.2%)	
Non-white	135 (22.0%)	922 (17.8%)	
Urbanicity of residence			0.01
Urban	280 (51.6%)	2095 (46.1%)	
Suburban/rural	263 (48.4%)	2454 (53.9%)	
Highest completed education			< 0.001[b]
Some college or more	204 (32.7%)	2141 (41.0%)	
Education lower than college	409 (65.5%)	2994 (57.3%)	
None	11 (1.8%)	90 (1.7%)	

Ciciero TJ, *JAMA Psychiatry*, 2014, *Addictive Behaviors* 2017

Pregnancy and the Opioid Crisis

Centers for Disease Control and Prevention
MMWR
Morbidity and Mortality Weekly Report
Weekly / Vol. 67 / No. 31
August 10, 2018

Opioid Use Disorder Documented at Delivery Hospitalization — United States, 1999–2014

Sarah C. Haight, MPH[1,2]; Jean Y. Ko, PhD[1,3]; Van T. Tong, MPH[1]; Michele K. Bohm, MPH[4]; William M. Callaghan, MD[1]

FIGURE 1. National prevalence of opioid use disorder per 1,000 delivery hospitalizations* — National Inpatient Sample (NIS),† Healthcare Cost and Utilization Project (HCUP), United States, 1999–2014

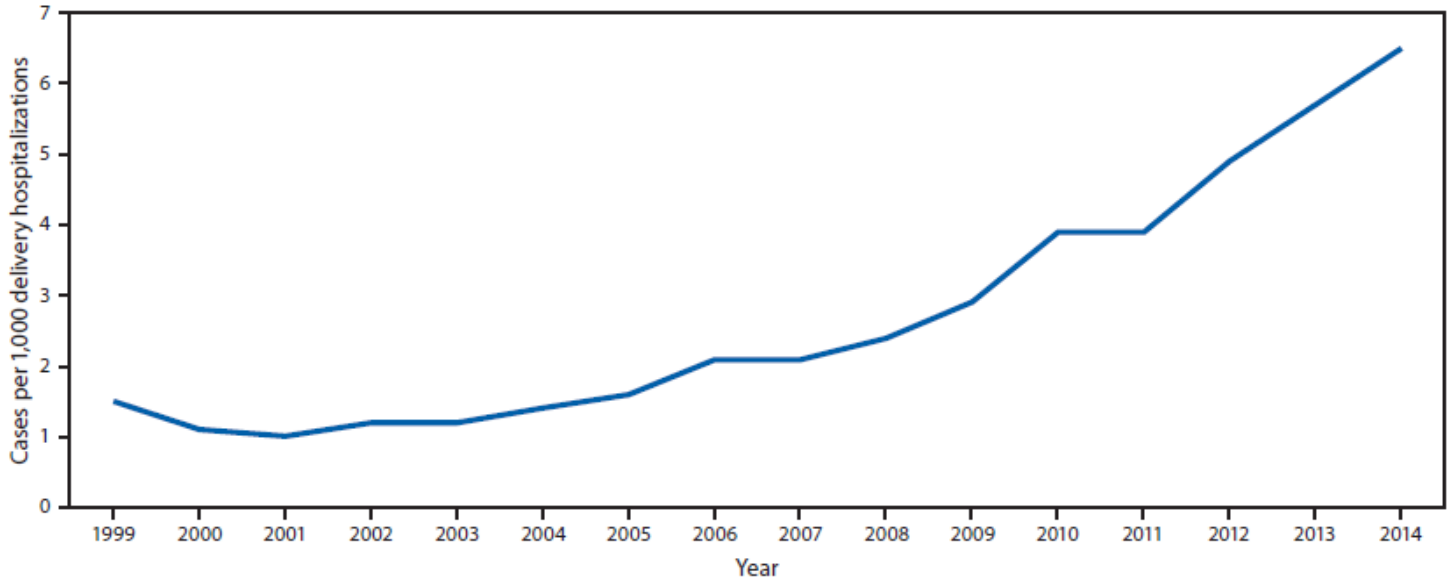
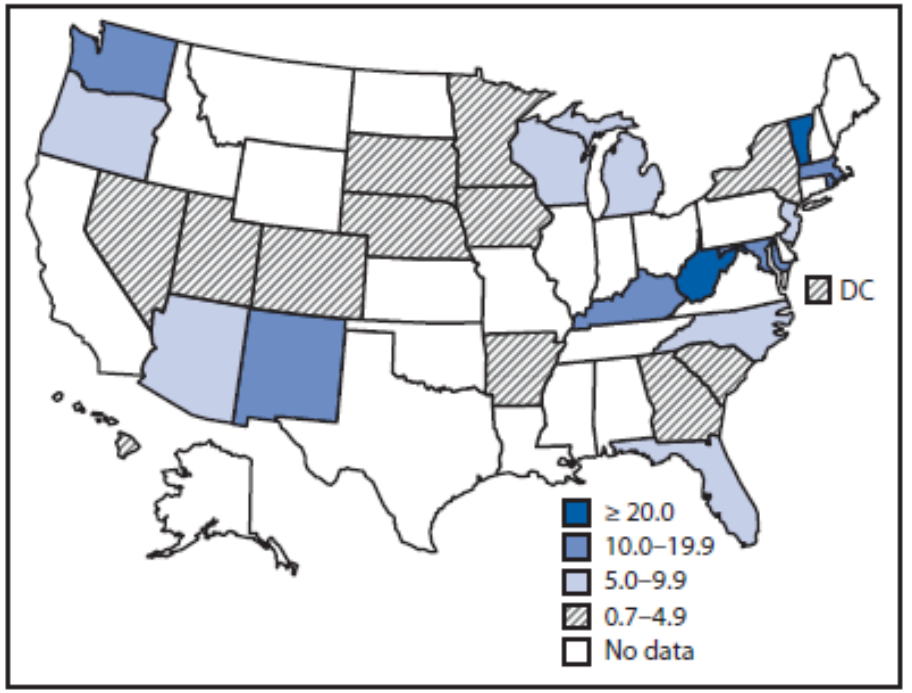
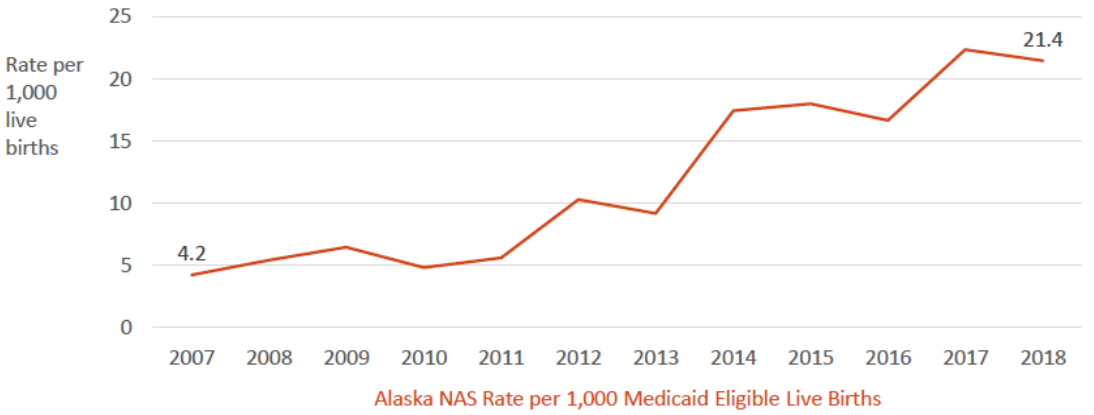


FIGURE 2. Prevalence of opioid use disorder per 1,000 delivery hospitalizations* — State Inpatient Database, Healthcare Cost and Utilization Project, 28 states, 2013–2014†



Increasing rate of Medicaid-enrolled Alaskan newborns affected by the opioid epidemic



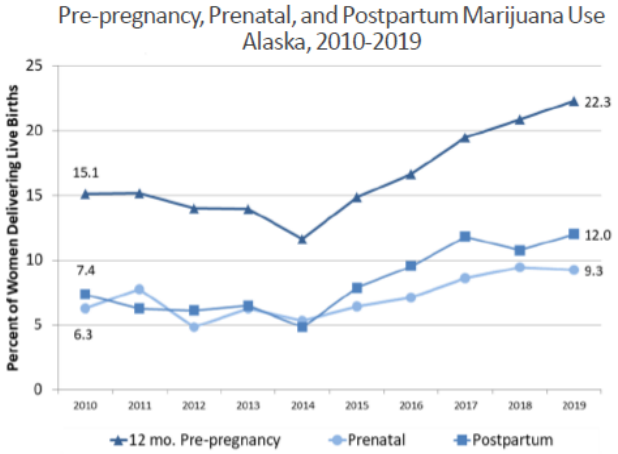
Source: Alaska Medicaid claims and Alaska Health Analytics and Vital Records

Prenatal Alcohol, Tobacco, & Marijuana Use, 2017-2019

11.0% had used **cigarettes** in last 3 months of pregnancy

9.1% had used **marijuana**

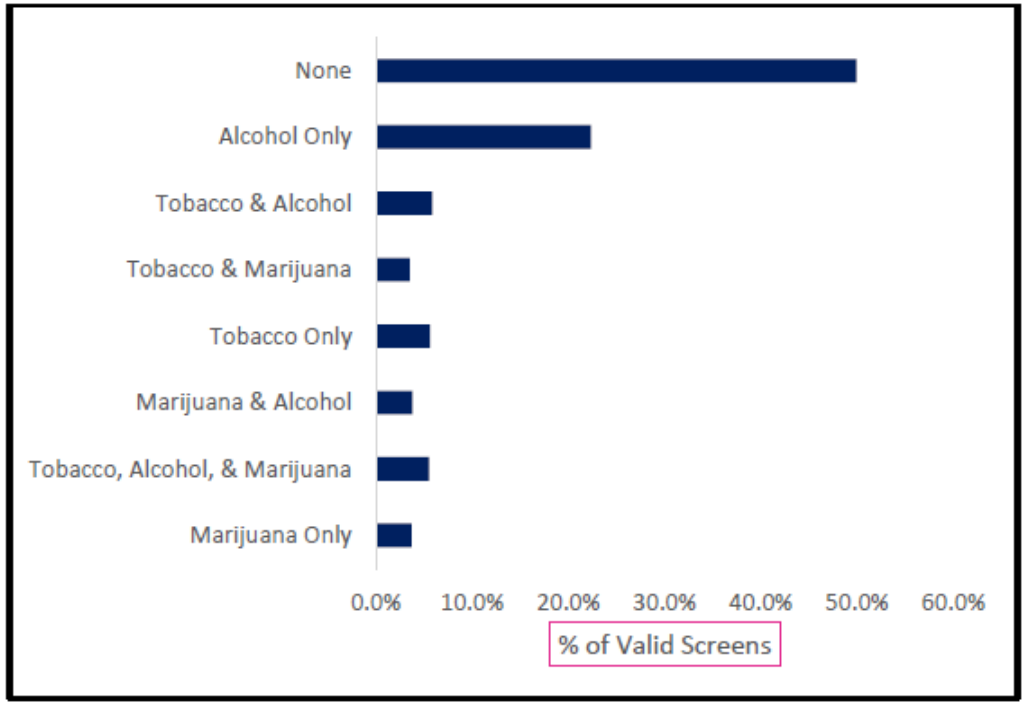
5.9% had used **alcohol** in last 3 months of pregnancy



Source: Alaska Pregnancy Risk Assessment Monitoring System

AK PRAMS Data

Figure 3. Polysubstance Use in the Month Before Knowledge of Pregnancy, Reported on 4P's Plus© Screening Questions, January 19, 2018–April 10, 2020 births, SENI (N=2,121)



Opinion

She Was Addicted and Lost Her Son. She Wants Him Back.

Lindsey Jarratt is now sober and on solid ground. Still, her child remains in foster care.

Damon Winter/The New York Times

By Jeneen Interlandi
Ms. Interlandi is a member of the editorial board.

Jan. 13, 2019

385

Lindsey Jarratt's son, Brayden, was a year old when the Child Protective Services of Dinwiddie, Va., took him to live with strangers. There are things about the months surrounding that moment that Ms. Jarratt can't remember — heroin has a way of erasing time. But this much is still etched in her mind: how he screamed and sobbed, the way his baby fists clutched at the nape of her shirt, the feel of his tiny body pressed so desperately against hers that the two had to be pried apart.

Opinion

She Was Addicted and Lost Her Son. She Wants Him Back.

Lindsey Jarratt is now sober and on solid ground. Still, her child remains in foster care.

Damon Winter/The New York Times

By Jeneen Interlandi

Ms. Interlandi is a member of the editorial board.

Jan. 13, 2019

385

Jude Parker Smith
Chicago, IL | Jan. 14

Some people should not be allowed to have children.

Pw
San Francisco | Jan. 14

Using H while pregnant is the deal breaker..
Sorry lady..

James
DC | Jan. 14

Sure, the parents love the child but do they love him more than heroin? It comes down to one or the other.

Michael Kramer
Hudson, Fl | Jan. 14

As someone in a similar situation I have no sympathy for her. You use drugs while pregnant you do not care about the child. Period.

There
Here | Jan. 14

There are consequences of being a junkie. You just don't return to life expecting all you had before.

The state needs to let the children from junkie parents as heroin is a tough addiction and one that she'll probably fail to beat based on statistics.

Racism and the Legacy of the“Crack Baby”: Where War on Drugs and War on Abortion Collided

Washington Post 1989

Crack Babies: The Worst Threat Is Mom Herself

By Douglas J. Besharov

LAST WEEK in this city, Greater Southeast Community Hospital released a 7-week-old baby to her homeless, drug-addicted mother even though the child was at severe risk of pulmonary arrest. The hospital's explanation: "Because [the mother] demanded that the baby be released."

The hospital provided the mother with an apnea monitor to warn her if the baby stopped breathing while asleep, and trained her in CPR. But on the very first night, the mother went out drinking and left the child at a friend's house—without the monitor. Within seven hours, the baby was dead. Like Dooney Waters, the 6-year-old living in his mother's drug den, whose shocking story was reported in The Washington Post last week, this child was all but abandoned by the authorities.

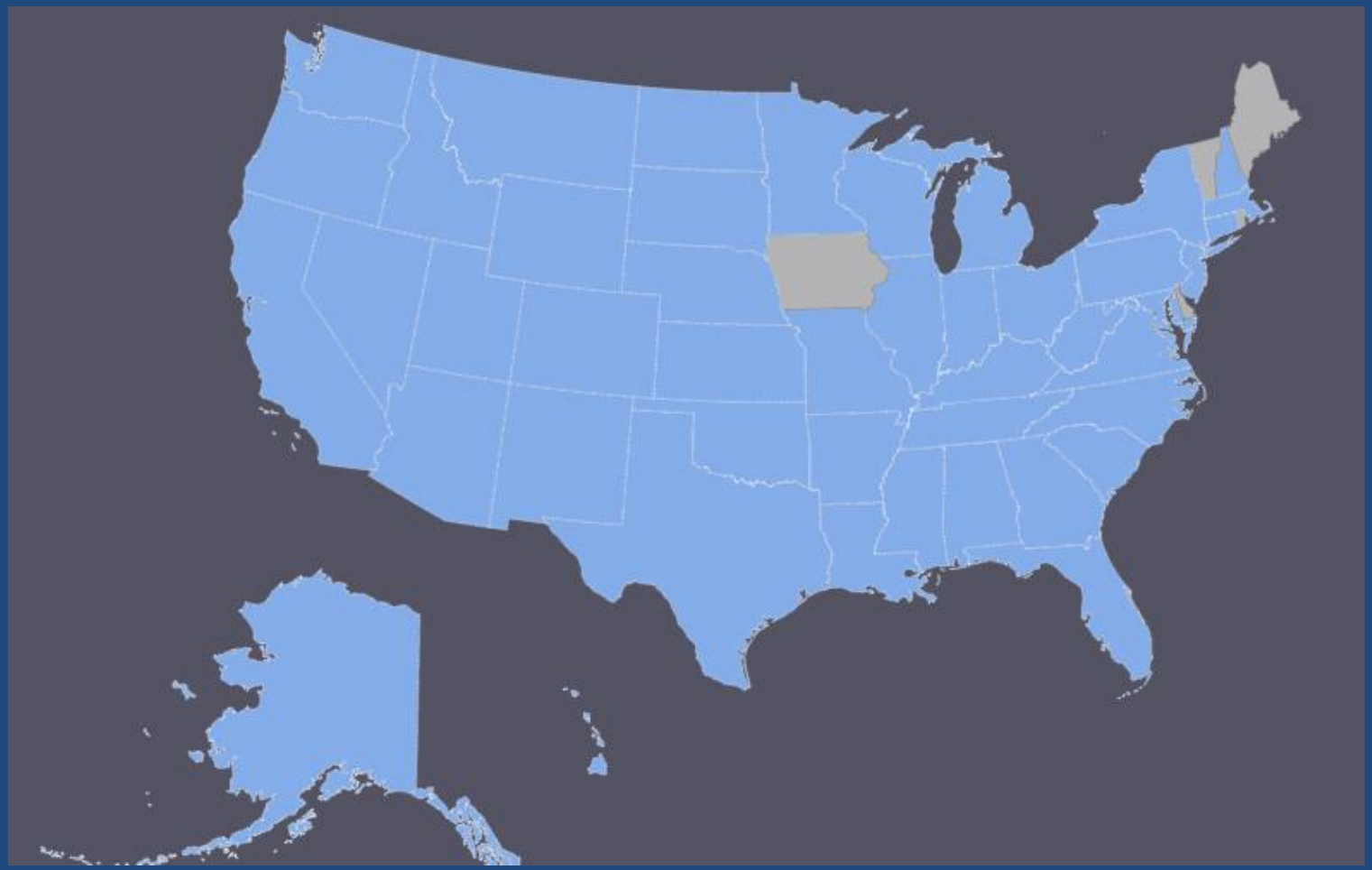
Stigma

Discrimination and Prejudice

Punishment

States where pregnant people have been prosecuted for drug use

The first known indictment of an American woman for drug use in pregnancy was in California in 1977



Women prosecuted for drug use during pregnancy in all states but:
DE, IO, ME, RI, VT

https://projects.propublica.org/graphics/maternity-drug-policies-by-state

State Policies on Substance Use during Pregnancy

Policy	Number of States
Substance Use Considered Child Abuse	23+DC
Substance Use Grounds for Civil Commitment	3
Mandatory Reporting	25+DC
Targeted Programs for Pregnant Women	19
Pregnant Women Given Priority Access	17+DC
Pregnant Women Protected from Discrimination	10

Guttmacher Institute January 2021

Punitive State Policies: Worse Public Health Outcomes

Alcoholism: Clinical and Experimental Research
Vol. 42, No. 8
August 2018

Associations Between State-Level Policies Regarding Alcohol Use Among Pregnant Women, Adverse Birth Outcomes, and Prenatal Care Utilization: Results from 1972 to 2013 Vital Statistics

Meenakshi S. Subbaraman, Sue Thomas, Ryan Treffers, Kevin Delucchi, William C. Kerr, Priscilla Martinez, and Sarah C.M. Roberts

Background: Policies regarding alcohol use during pregnancy continue to be enacted and debated in the United States. However, no study to date has examined whether these policies are related to birth outcomes—the outcomes they ultimately aim to improve. Here, we assessed whether state-level policies targeting alcohol use during pregnancy are related to birth outcomes, which has not been done comprehensively before.

Methods: The study involved secondary analyses of birth certificate data from 148,048,208 U.S. singleton births between 1972 and 2013. Exposures were indicators of whether the following 8 policies were in effect during gestation: Mandatory Warning Signs (MWS), Priority Treatment for Pregnant Women, Priority Treatment for Pregnant Women/Women with Children, Reporting Requirements for Data and Treatment Purposes, Prohibitions Against Criminal Prosecution, Civil Commitment, Reporting Requirements for Child Protective Services Purposes, and Child Abuse/Child Neglect. Outcomes were low birthweight (<2,500 g), premature birth (<37 weeks), any prenatal care utilization (PCU), late PCU, inadequate PCU, and normal (≥7) APGAR score. Multivariable fixed-effect logistic regressions controlling for both maternal- and state-level covariates were used for statistical analyses.

Results: Of the 8 policies, 6 were significantly related to worse outcomes and 2 were not significantly related to any outcomes. The policy requiring MWS was related to the most outcomes: specifically, living in a state with MWS was related to 7% higher odds of low birthweight ($p < 0.001$); 4% higher odds of premature birth ($p < 0.004$); 18% lower odds of any PCU ($p < 0.001$); 12% higher odds of late PCU ($p < 0.002$); and 10% lower odds of a normal APGAR score ($p < 0.001$) compared to living in a state without MWS.

Conclusions: Most policies targeting alcohol use during pregnancy do not have their intended effects and are related to worse birth outcomes and less PCU.

Key Words: Alcohol, Pregnancy, Policy, Birth Outcomes, Vital Statistics.

- Mandatory Warning Signs and Child Abuse/Neglect designation:
  - Increase odds of low birth weight and premature delivery
  - Decrease odds of any prenatal care and APGAR 7+
- CPS Reporting Requirement:
  - No effect of low birth weight, premature delivery, prenatal care or APGAR score

Punitive Policies and Increased NAS

JAMA Network Open

Original Investigation | Pediatrics

Association of Punitive and Reporting State Policies Related to Substance Use in Pregnancy With Rates of Neonatal Abstinence Syndrome

Laura J. Faherty, MD, MPH, MS; Ashley M. Kranz, PhD; Joshua Russell-Fritch, MS; Stephen W. Patrick, MD, MPH, MS; Jonathan Cantor, PhD; Bradley D. Stein, MD, PhD

Abstract

IMPORTANCE Despite the rapidly changing policy environment regarding substance use during pregnancy, information is lacking on the association of state policies with neonatal abstinence syndrome (NAS).

OBJECTIVE To determine if punitive or reporting state policies related to substance use during pregnancy are associated with NAS rates.

DESIGN, SETTING, AND PARTICIPANTS This repeated cross-sectional study used retrospective, difference-in-difference analysis of live births in the State Inpatient Databases from 8 US states in varying years between January 1, 2003, and December 31, 2014. States without punitive or reporting policies were compared with states with policies before and after policy enactment using logistic regression models adjusted for individual and county-level factors and state and year fixed effects. Analyses were conducted from April 10, 2019, to July 30, 2019.

EXPOSURES Time since enactment of state policies related to substance use in pregnancy, county-level rurality and unemployment, and presence of specialized treatment programs for pregnant and postpartum women in a county.

MAIN OUTCOME AND MEASURES Rates of NAS.

RESULTS Among 4 567 963 live births, 23 377 neonates (0.5%) received a diagnosis of NAS. Among neonates with NAS, 3394 (14.5%) lived in counties without any treatment programs specifically for pregnant and postpartum women, 20 323 (86.9%) lived in metropolitan counties, and 8135 (34.8%) lived in counties in the highest unemployment quartile. In adjusted analyses among neonates in states with punitive policies, odds of NAS were significantly greater during the first full calendar year after enactment (adjusted odds ratio, 1.25; 95% CI, 1.06-1.46; $P = .007$) and more than 1 full year after enactment (adjusted odds ratio, 1.33; 95% CI, 1.17-1.51; $P < .001$). After regression adjustment, the annual NAS rate was 46 (95% CI, 43-48) neonates with NAS per 10 000 live births in states without punitive policies; 57 (95% CI, 48-65) neonates with NAS per 10 000 live births in states with punitive policies during the first full year after enactment; and 60 (95% CI, 56-65) neonates with NAS per 10 000 live births in states with punitive policies in effect for more than 1 full year. There was no association between reporting policies and odds of NAS.

CONCLUSIONS AND RELEVANCE In this repeated cross-sectional analysis of 8 states, states with punitive policies were associated with greater odds of NAS immediately and in the longer term, but there was no association between NAS and states with reporting policies.

JAMA Network Open. 2019;2(11):e1914078. doi:10.1001/jamanetworkopen.2019.14078

Key Points

Question Are state punitive or reporting policies related to substance use during pregnancy associated with rates of neonatal abstinence syndrome (NAS)?

Finding In this repeated cross-sectional study of nearly 4.6 million births in 8 states, policies that criminalized substance use during pregnancy, considered it grounds for civil commitment, or considered it child abuse or neglect were associated with significantly greater rates of NAS in the first full year after enactment and more than 1 full year after enactment. Policies requiring reporting of suspected prenatal substance use were not associated with rates of NAS.

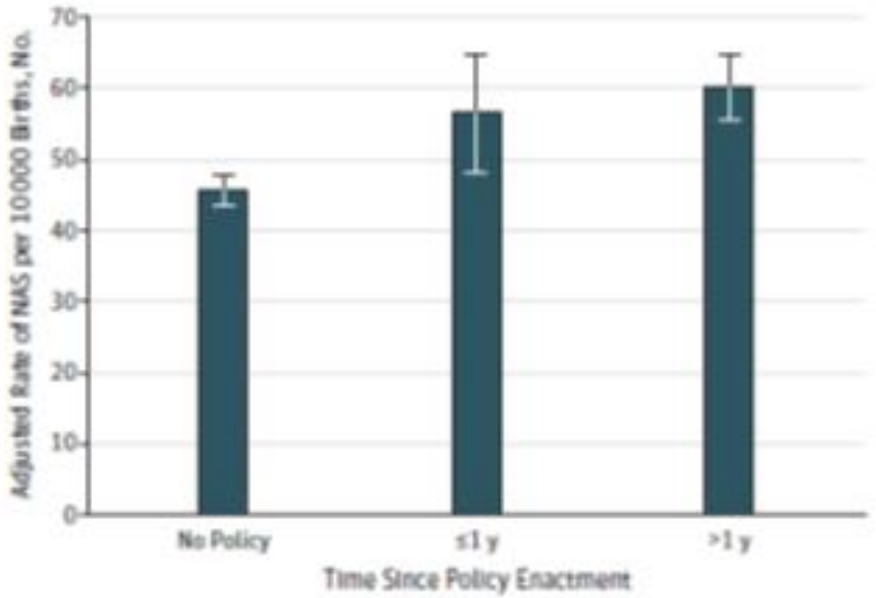
Meaning Policy makers seeking to reduce NAS rates may wish to consider approaches favored by public health experts that focus on primary prevention.

+ Invited Commentary

+ Supplemental content

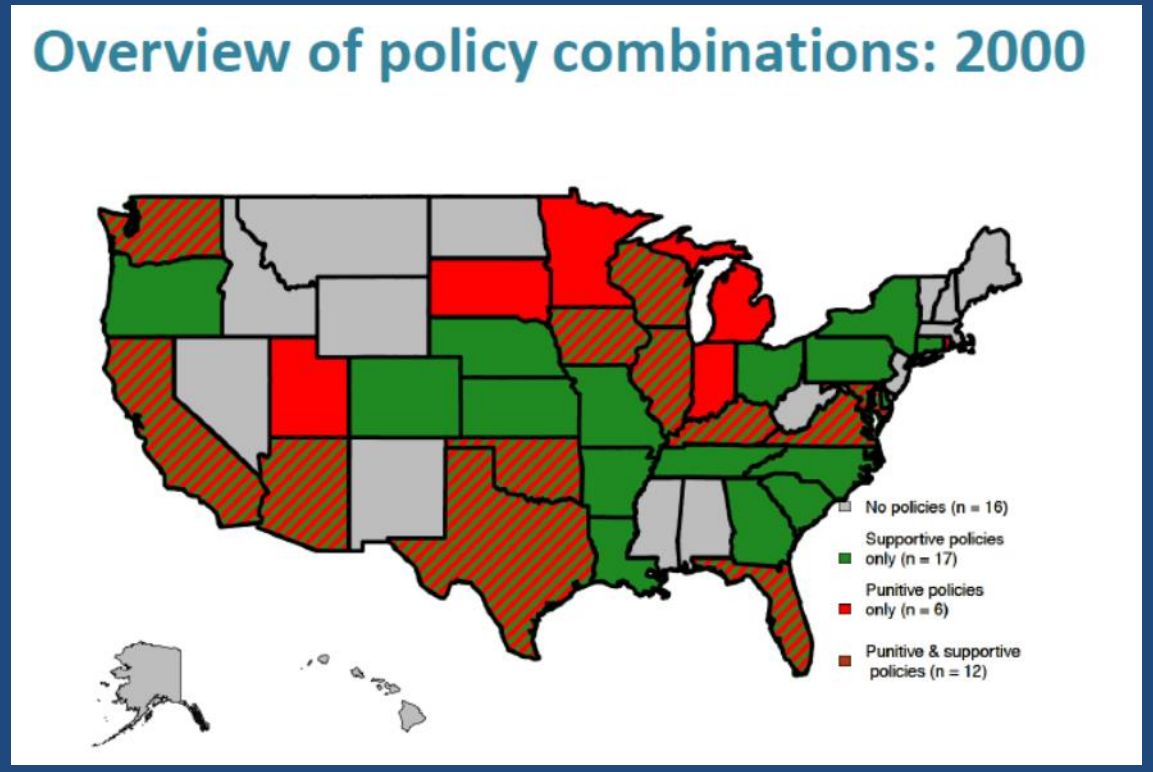
Author affiliations and article information are listed at the end of this article.

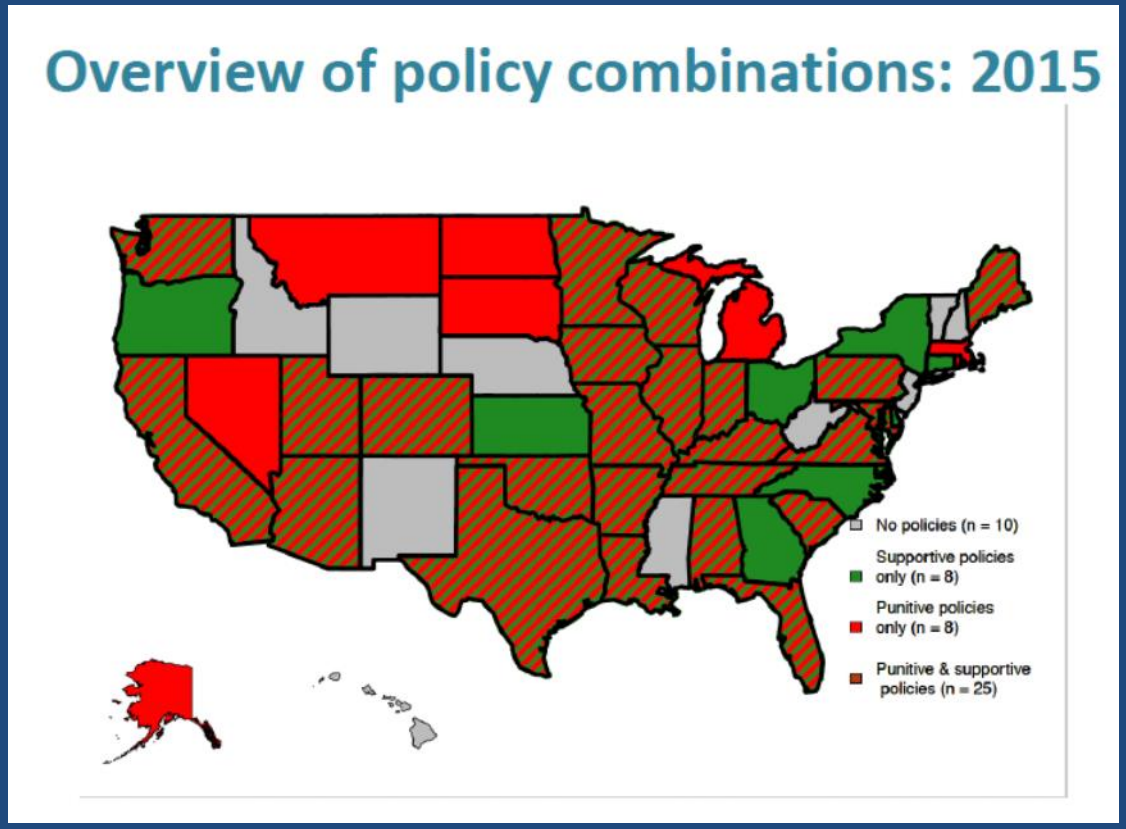
Figure. Annual Rates of Neonatal Abstinence Syndrome (NAS) per 10 000 Live Births Stratified by State Punitive Policies



The adjusted rate of NAS per 10 000 live births for neonates was estimated from the regression model conditional on residing in states without punitive policies, during the first full calendar year after punitive policies went into effect, and with punitive policies in effect for more than 1 full calendar year, while keeping all other covariates at their original values. Error bars indicate 95% CI.

State Policies related to drug use during pregnancy have become increasingly punitive





Presentation Dr Faherty, Academy Health Annual Research Conference, June 3 2019

Learning Objectives

1) We will review the history and current epidemiology of substance use and use disorder in pregnancy.
2) Evidence-based care and care principles will be reviewed with particular emphasis on the postpartum period.
3) The role of discrimination and public policy will be detailed and concrete strategies to resist prejudice will be provided.

ASAM American Society *of* Addiction Medicine

Definition of Addiction

Addiction is a treatable, chronic medical disease involving complex interactions among brain circuits, genetics, the environment, and an individual's life experiences. People with addiction use substances or engage in behaviors that become compulsive and often continue despite harmful consequences.

Prevention efforts and treatment approaches for addiction are generally as successful as those for other chronic diseases.

Adopted by the ASAM Board of Directors September 15, 2019

Addiction as Chronic Disease

Drug Dependence, a Chronic Medical Illness

Implications for Treatment, Insurance, and Outcomes Evaluation

A. Thomas McLellan, PhD
David C. Lewis, MD
Charles P. O'Brien, MD, PhD
Herbert D. Kleber, MD

The effects of drug dependence on social systems has helped shape the generally held view that drug dependence is primarily a social problem, not a health problem. In turn, medical approaches to prevention and treatment are lacking. We examined evidence that drug (including alcohol) dependence is a chronic medical illness. A literature review compared the diagnoses, heritability, etiology (genetic and environmental factors), pathophysiology, and response to treatments (adherence and relapse) of drug dependence vs type 2 diabetes mellitus, hypertension, and asthma. Genetic heritability, personal choice, and environmental factors are comparably involved in the etiology and course of all of these disorders. Drug dependence produces significant and lasting changes in brain chemistry and function. Effective medications are available for treating nicotine, alcohol, and opiate dependence but not stimulant or marijuana dependence. Medication adherence and relapse rates are similar across these illnesses. Drug dependence generally has been treated as if it were an acute illness. Review results suggest that long-term care strategies of medication management and continued monitoring produce lasting benefits. Drug dependence should be insured, treated, and evaluated like other chronic illnesses.

JAMA. 2000;284:1689-1695 www.jama.com

MANY EXPENSIVE AND DISturbing social problems can be traced directly to drug dependence. Recent studies[1-4] estimated that drug dependence costs the United States approximately $67 billion annually in crime, lost work productivity, foster care, and other social problems.[2-4] These expensive effects of drugs on all social systems have been important in shaping the public view that drug dependence is primarily a social problem that requires interdiction and law enforcement rather than a health problem that requires prevention and treatment.

This view is apparently shared by many physicians. Few medical schools or residency programs have an adequate required course in addiction. Most physicians fail to screen for alcohol or drug dependence during routine examinations.[5] Many health professionals view such screening efforts as a waste of time. A survey[6] of general practice physicians and nurses indicated that most believed no available medical or health care interventions would be "appropriate or effective in treating addiction." In fact, 40% to 60% of patients treated for alcohol or other drug dependence return to active substance use within a year following treatment discharge.[7-9] One implication is that these disappointing results confirm the suspicion that drug dependence is not a medical illness and thus is not significantly affected by health care interventions. Another possibility is that current treatment strategies and outcome expectations view drug dependence as a curable, acute condition. If drug dependence is more like a chronic illness, the appropriate standards for treatment and outcome expectations would be found among other chronic illnesses.

To explore this possibility, we undertook a literature review comparing drug dependence with 3 chronic illnesses: type 2 diabetes mellitus, hypertension, and asthma. These examples were selected because they have been well studied and are widely believed to have effective treatments, although they are not yet curable. Our review searched all English-language medical and health journals in MEDLINE from 1980 to the present using the following key words: *heritability*, *pathophysiology*, *diagnosis*, *course*, *treatment*, *compliance*, *ad-*

Author Affiliations: The Treatment Research Institute, Philadelphia, Pa (Dr McLellan); The Penn/VA Center for Studies of Addiction at the Veterans Affairs Medical Center and the University of Pennsylvania, Philadelphia (Drs McLellan and O'Brien); The Brown University Center for Alcohol and Addiction Studies, Providence, RI (Dr Lewis); and The National Center on Addiction and Substance Abuse at Columbia University, New York, NY (Dr Kleber).
Corresponding Author and Reprints: A. Thomas McLellan, PhD, The Treatment Research Institute, 150 S Independence Mall W, Suite 600, Philadelphia, PA 19106-3475 (e-mail: tmclellan@treasearch.org).

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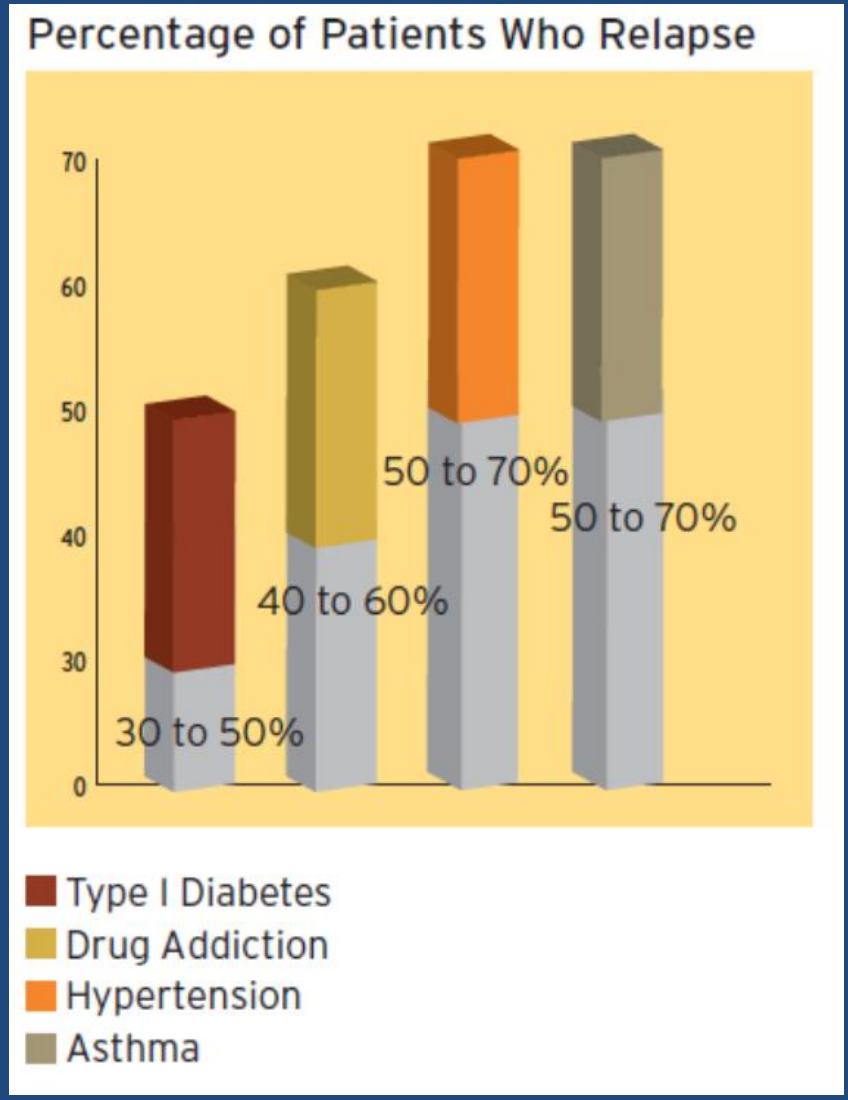
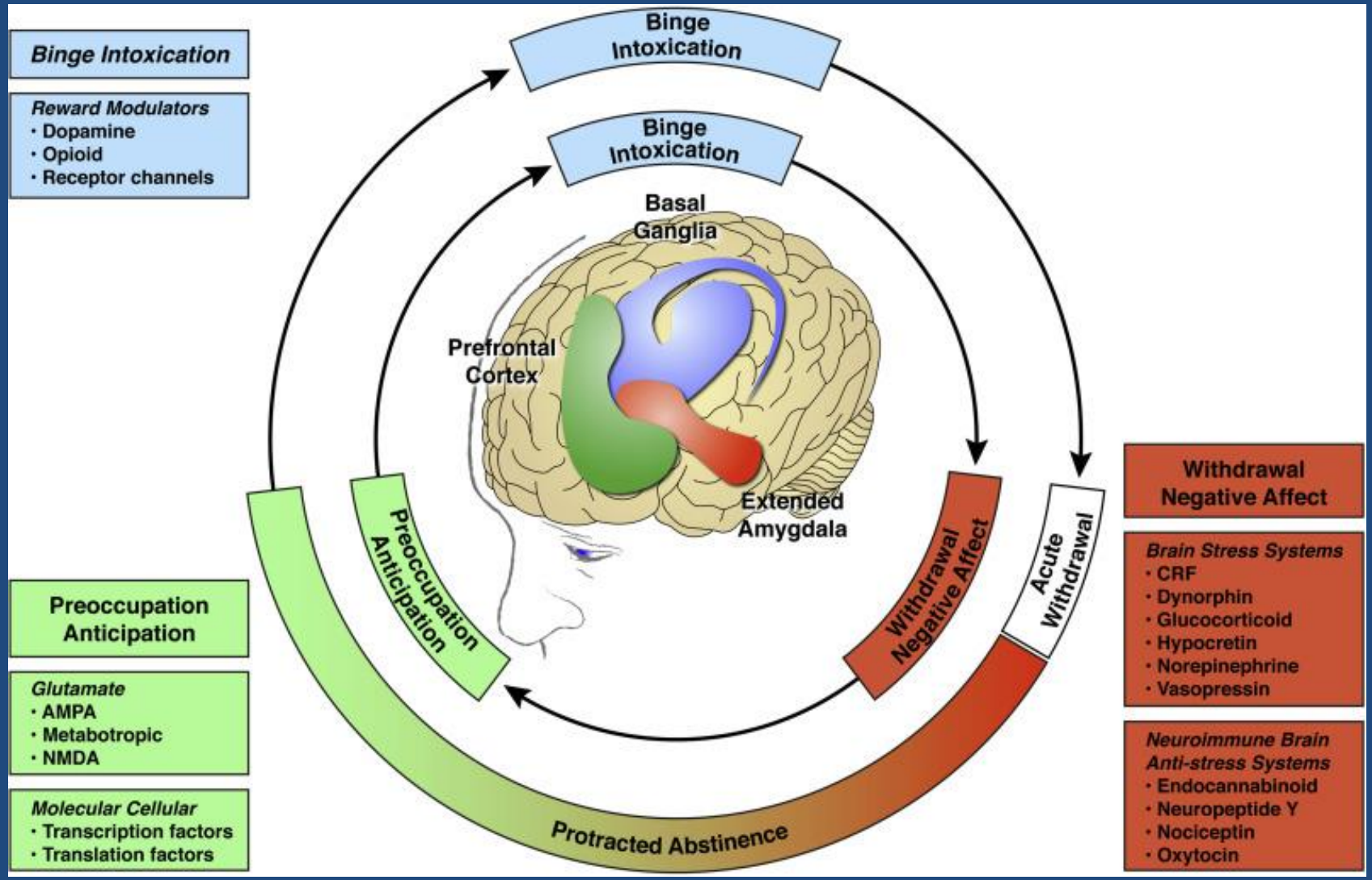


Neurobiology of Addiction: Neurocircuitry and Transmitters



Volkow and Koop, Lancet Psychiatry, 2017

Addiction: From Reward Seeking to Relief Seeking

Heroin Addiction—A Metabolic Disease

Vincent P. Dole, MD, and Marie E. Nyswander, MD, New York

THE METHADONE Maintenance Research Program[1-3] began three years ago with pharmacological studies conducted on the metabolic ward of the Rockefeller University Hospital. Only six addict patients were treated during the first year, but the results of this work were sufficiently impressive to justify a trial of maintenance treatment of heroin addicts admitted to open medical wards of general hospitals in the city.

Methadone therapy was started in low dosage (10 to 20 mg/day in divided portions) and increased slowly over a period of four to six weeks to avoid narcotic effects. After the patients had reached the stabilization level (80 to 120 mg/day) it was possible to maintain them with a single, daily, oral ration, without further increase in dose. At the end of the six weeks of hospitalization the patients were discharged to outpatient clinics where they received their daily

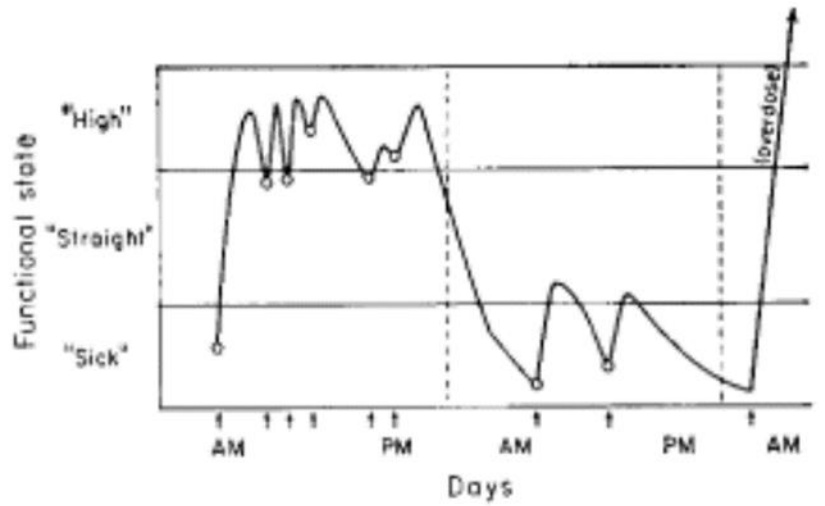


Fig 1.—Diagrammatic summary of functional state of typical "mainline" heroin user. *Arrows* show the repetitive injection of heroin in uncertain dose, usually 10 to 30 mg but sometimes much more. Note that addict is hardly ever in a state of normal function ("straight").

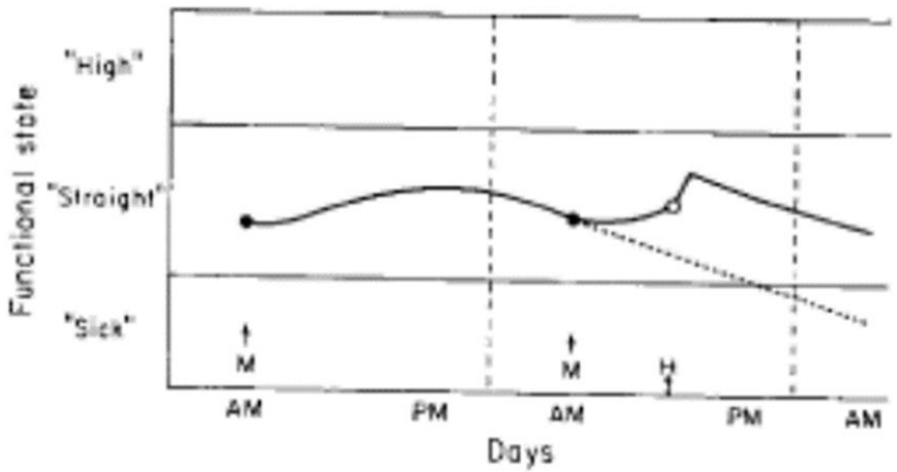


Fig 2.—Stabilization of patient in state of normal function by blockade treatment. A single, daily, oral dose of methadone prevents him from feeling symptoms of abstinence ("sick") or euphoria ("high"), even if he takes a shot of heroin. *Dotted line* indicates course if methadone is omitted.

MANAGEMENT OF PREGNANT DRUG-DEPENDENT WOMEN

Loretta P. Finnegan

Department of Pediatrics
Thomas Jefferson University
Philadelphia, Pennsylvania 19107

1978

TABLE 2

OBSTETRICAL COMPLICATIONS IN 367 DRUG-DEPENDENT WOMEN AND 215 CONTROLS; FAMILY CENTER PROGRAM, 1969–1976

Groups	No. of Patients	Average no. of Prenatal Visits	Obstetrical Complications %	LBW Incidence %	Pre-eclampsia %
A	65	0	36.9	47.7	9.2
B	109	1.9	32.1	35.5	2.8
C	193	8.2	33.7	19.7	4.7
D	93	0	32.3	19.4	8.6
E	122	9.2	32.0	13.9	8.2

LOW BIRTH WEIGHT	PNC	No PNC
No drug use	14%	19%
Drug Use	19%	**48%**

Treated vs Un-Treated Addiction

Optimizing Maternal Health = Core Principle of Care

Matern Child Health J (2017) 21:893–902
DOI 10.1007/s10995-016-2190-y

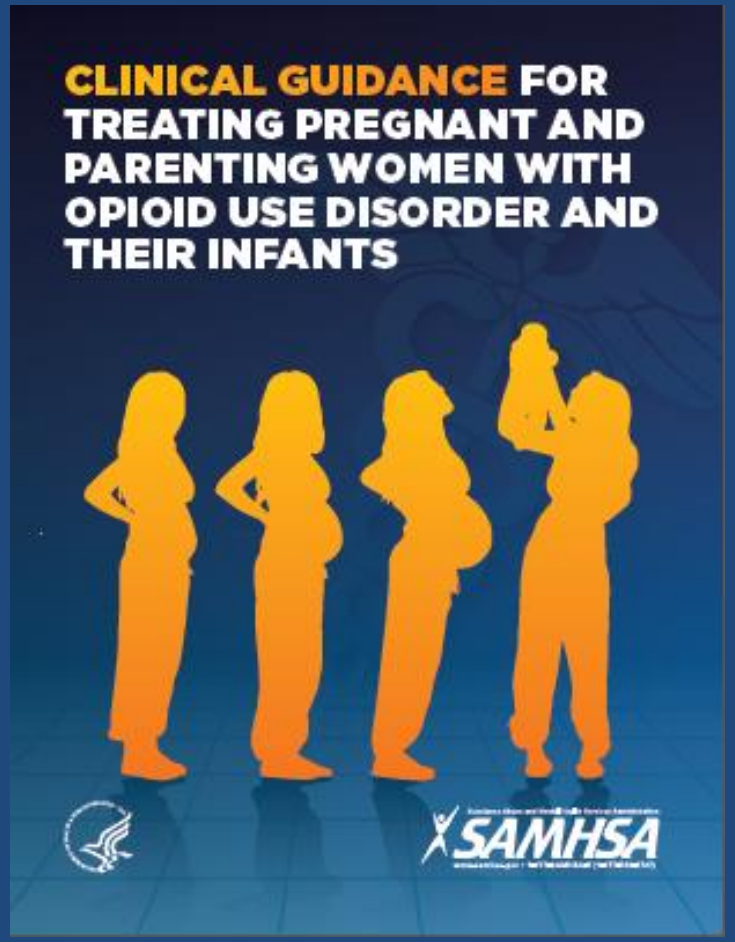
The Prevalence and Impact of Substance Use Disorder and Treatment on Maternal Obstetric Experiences and Birth Outcomes Among Singleton Deliveries in Massachusetts

Milton Kotelchuck[1] · Erika R. Cheng[2] · Candice Belanoff[3] · Howard J. Cabral[3] · Hermik Babakhanlou-Chase[4] · Taletha M. Derrington[5] · Hafsatou Diop[6] · Stephen R. Evans[3] · Judith Bernstein[3]

	No Addiction	Treated Addiction	Untreated Addiction
Preterm Birth	8.7%	10.1%	19.0%
Low Birthweight	5.5%	7.8%	18.0%
Fetal Death	0.4%	0.5%	0.8%
Neonatal Mortality	0.4%	0.4%	1.2%
Post Neonatal Mortality	0.05%	0.03%	0.1%

SAMHSA Recommendations

- Buprenorphine and methadone are the safest medications for managing OUD during pregnancy
- Transitioning from methadone to buprenorphine or from buprenorphine to methadone during pregnancy is not recommended
- Medically supervised withdrawal is not recommended during pregnancy



Medications for opioid use disorder in pregnancy

Maternal

- 70% reduction in overdose related deaths
- Decrease in risk of HIV, HBV, HCV acquisition/transmission
- Increased engagement in prenatal care and recovery treatment
- Treatment is platform for delivery of other services

Fetal

- Reduces fluctuations in maternal opioid levels; reducing fetal stress
- Decrease in intrauterine fetal demise
- Decrease in intrauterine growth restriction
- Decrease in preterm delivery

Pharmacokinetic Goals of MOUD

Target	Methadone Dose	Buprenorphine Plasma Conc	MOR Binding
Withdrawal	30-40mg	>1ng/ml	>50%
Craving	>60mg	>2ng/ml	>70%
Opioid Blockade	>85 mg	>3ng/dl	>80%
Restoration of Reward Pathway	Time = 18+ months		

Pregnant People: A Priority Population

- “Because it is crucial that pregnant women engage in treatment for their addictions, OTPs should give priority to admitting pregnant patients at any point during pregnancy and providing them with all necessary care, including adequate dosing strategies as well as referrals for prenatal and follow-up postpartum services.” (Federal Guidelines for Opioid Treatment Programs, 2015)

- Pregnant people – don’t need to meet DSM criteria for use disorder to receive medication for OUD (TIP 43)

Drug and Alcohol Dependence 206 (2020) 107679

Contents lists available at ScienceDirect

Drug and Alcohol Dependence

journal homepage: www.elsevier.com/locate/drugalcdep

Full length article

Unmet substance use disorder treatment need among reproductive age women

Caitlin E. Martin[a,*], Anna Scialli[b], Mishka Terplan[b,c]

[a] Department of Obstetrics and Gynecology & Institute for Drug and Alcohol Studies, Virginia Commonwealth University School of Medicine, 1250 E. Marshall St, Richmond, VA, 23298, USA
[b] Department of Obstetrics and Gynecology, Virginia Commonwealth University School of Medicine, 1250 E. Marshall St, Richmond, VA, 23298, USA
[c] Friends Research Institute, 1040 Park Ave Suite 103, Baltimore, MD, 21202, USA

Table 3

Past year substance use disorder treatment receipt among reproductive age women in need of treatment.

Substance use disorder diagnosis	Total[a]	Not pregnant nor parenting	Pregnant[†]			Parenting	P values[‡]
			1st trimester	2nd trimester	3rd trimester		
Any past year substance use disorder treatment need[§]	9.3% (8.4–10.2)	8.8% (7.7–9.8)	12.8% (8.7–16.9) 12.5% (7.3–17.7)	9.4% (4.7–14.0)	18.7% (5.5–32.0)	9.9% (8.5–11.4)	0.063 0.246
Alcohol use disorder	7.4% (6.6–8.3)	6.8% (5.9–7.7)	11.8% (7.2–16.5) 11.7% (5.8–17.6)	9.0% (3.3–14.7)	16.2% (2.6–29.9)	8.2% (6.6–9.9)	0.021 0.505
Illicit drug use disorder[‖]	17.1% (15.5–18.7)	17.0% (14.8–19.2)	21.8% (13.9–29.6) 26.0% (15.1–36.8)	13.2% (5.1–21.3)	29.2% (8.5–49.9)	16.5% (13.7–19.3)	0.439 0.187
Opioid use disorder[¶]	23.6% (18.9–28.2)	31.1% (27.0–35.1)	34.7% (20.7–48.7) 54.2% (30.2–78.1)	20.0% (3.5–36.5)	31.1% (0.0–63.7)	23.6% (18.9–28.2)	0.033 0.152

Treatment Gap is Great

- GAO (2015): “the program gap most frequently cited was the lack of available treatment programs for pregnant women…”
- Overall provision of women-centered services declined 43%-40% (p<0.001)
- Services for pregnant or postpartum women declined 19%-13% (p<0.001)

Women-Centered Drug Treatment Services and Need in the United States, 2002–2009

Mishka Terplan, MD, MPH, Nyaradzo Longinaker, MS, and Lindsay Appel, MD

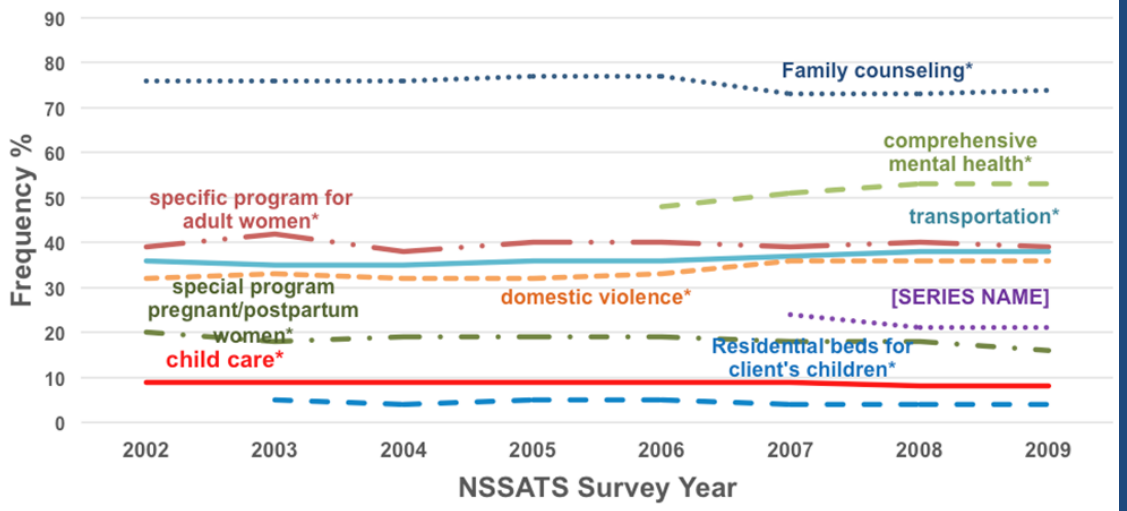
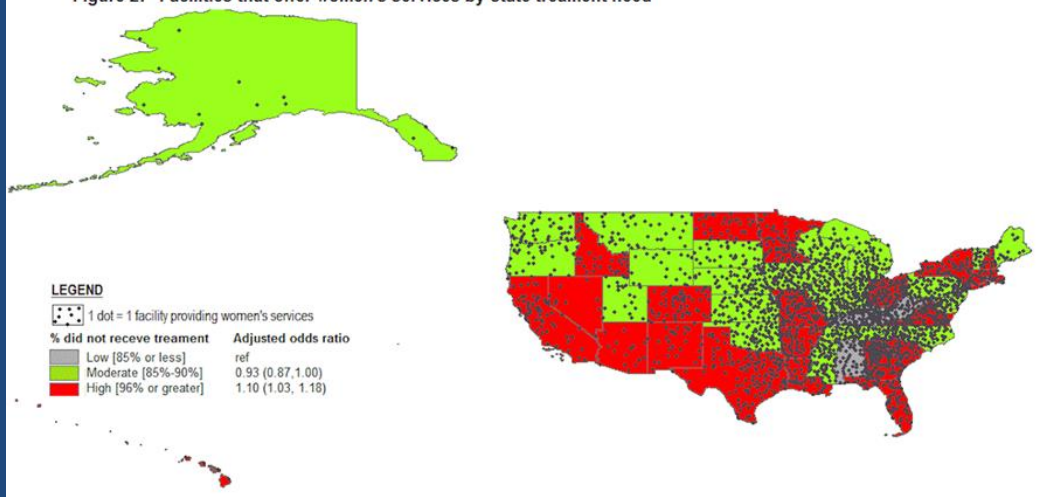


Figure 2. Facilities that offer women's services by State treament need



Journal of Substance Abuse Treatment 89 (2018) 67–74

Contents lists available at ScienceDirect

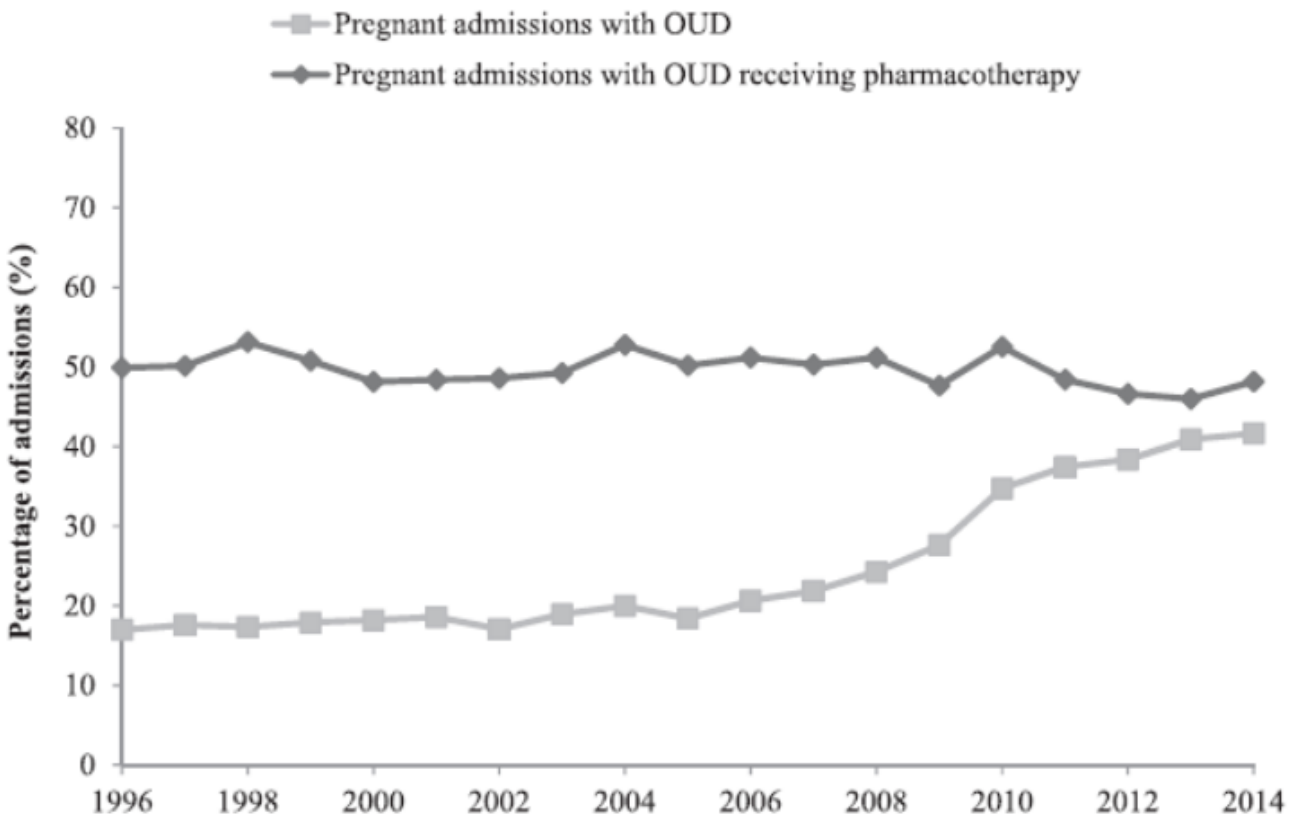
Journal of Substance Abuse Treatment

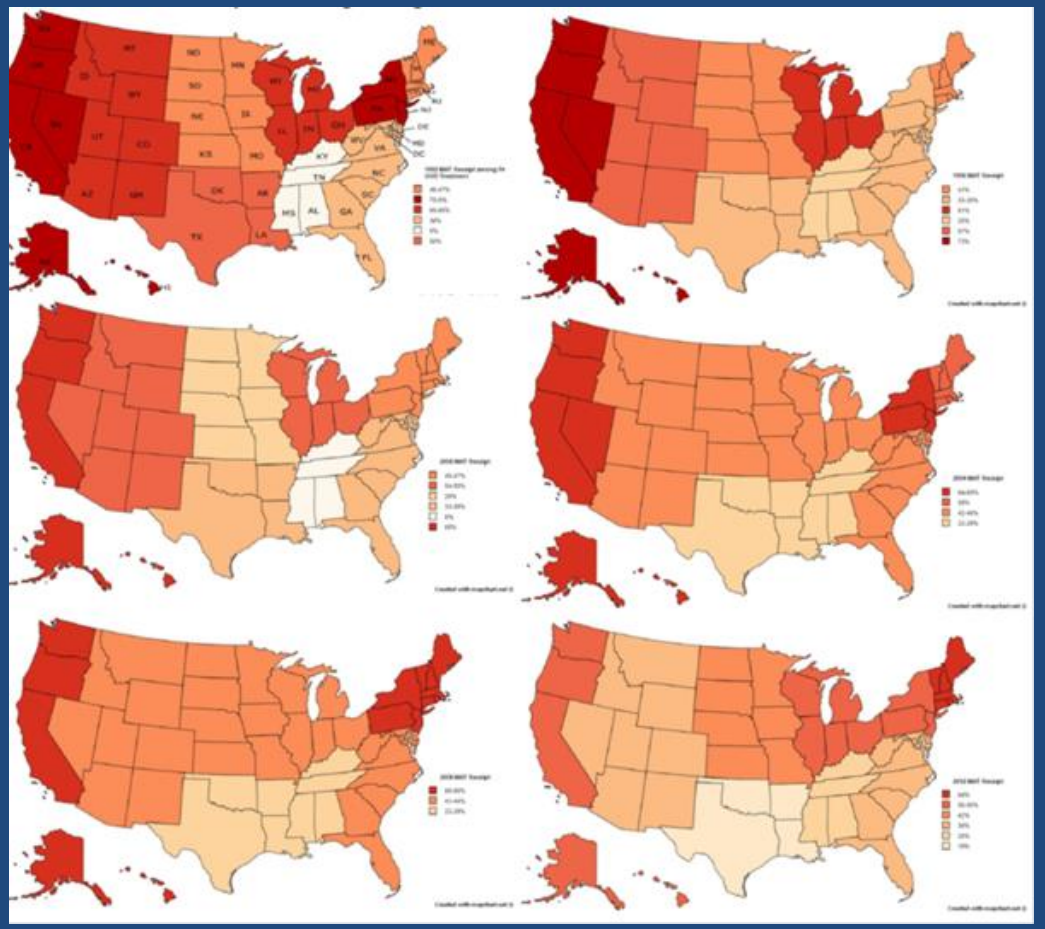
journal homepage: www.elsevier.com/locate/jsat

Trends and disparities in receipt of pharmacotherapy among pregnant women in publically funded treatment programs for opioid use disorder in the United States

Vanessa L. Short[a,*], Dennis J. Hand[a,b], Lauren MacAfee[c], Diane J. Abatemarco[a], Mishka Terplan[d]

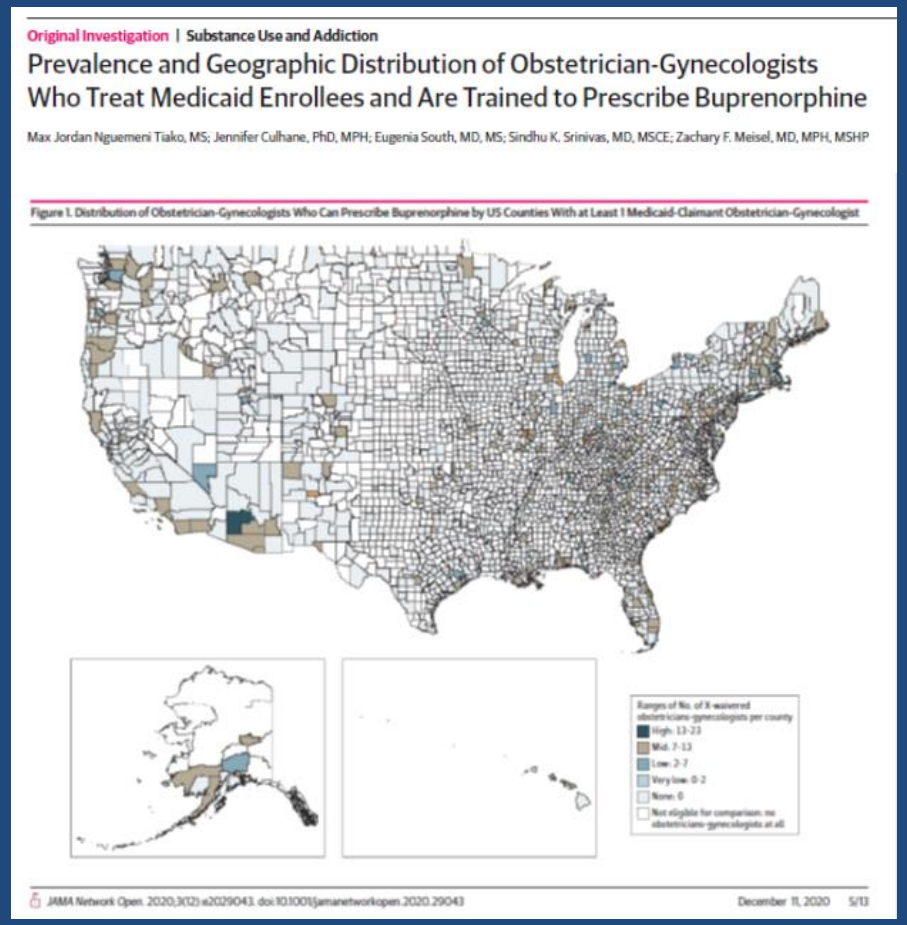
[a] Department of Obstetrics and Gynecology, Thomas Jefferson University, 1233 Locust St. Suite 401, Philadelphia, PA 19107, USA





Only half of pregnant people in treatment for OUD receive medication

MOUD Capacity in OBGYN is Lacking



Original Investigation | Substance Use and Addiction

Prevalence and Geographic Distribution of Obstetrician-Gynecologists Who Treat Medicaid Enrollees and Are Trained to Prescribe Buprenorphine

Max Jordan Nguemeni Tiako, MS; Jennifer Culhane, PhD, MPH; Eugenia South, MD, MS; Sindhu K. Srinivas, MD, MSCE; Zachary F. Meisel, MD, MPH, MSHP

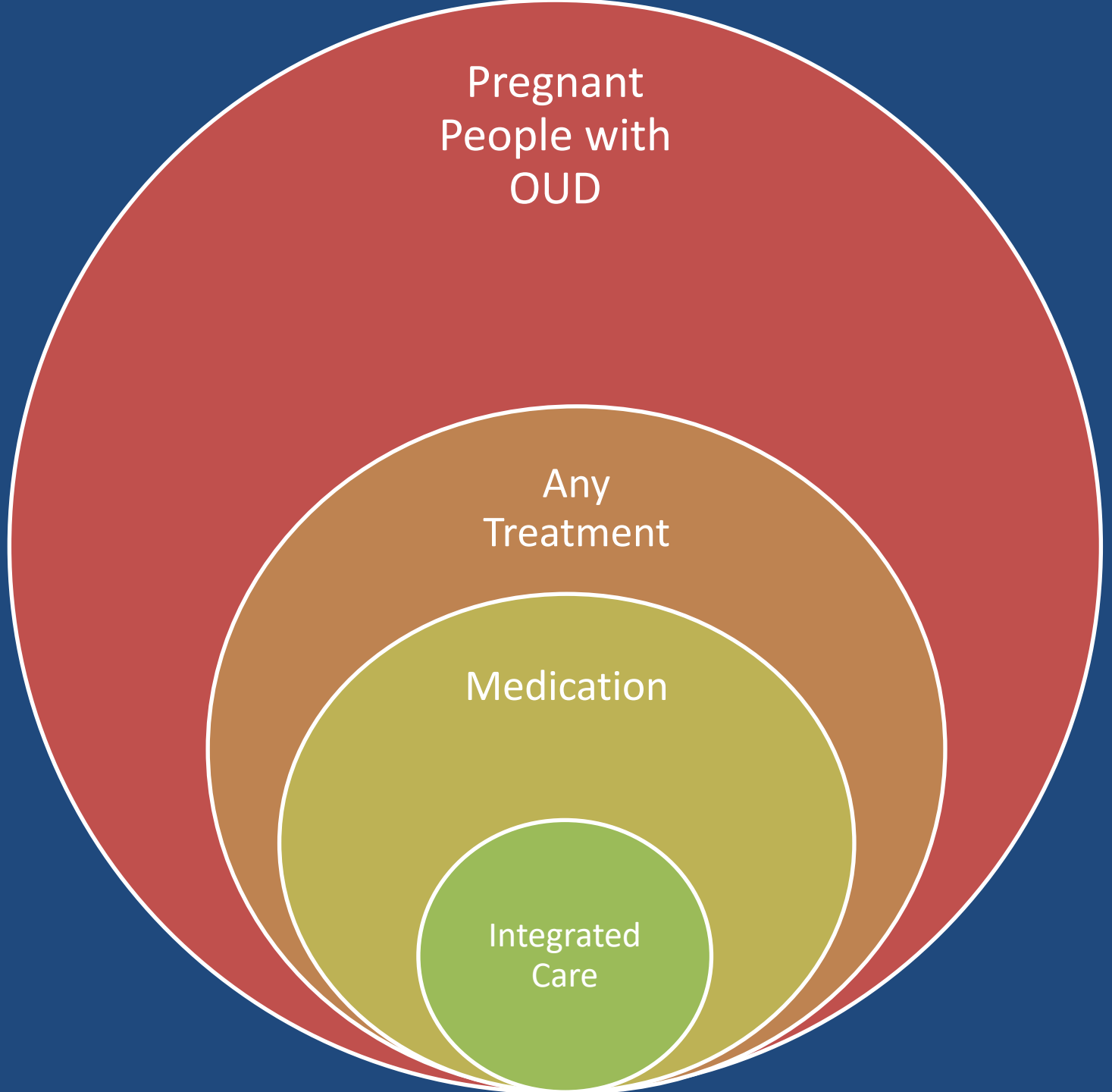
Figure 1. Distribution of Obstetrician-Gynecologists Who Can Prescribe Buprenorphine by US Counties With at Least 1 Medicaid-Claimant Obstetrician-Gynecologist

JAMA Network Open. 2020;3(12):e2029043. doi:10.1001/jamanetworkopen.2020.29043 December 11, 2020 5/13

	N (%) X Waivered OBGYNs in US
2012	181 (0.4%)
2020	560 (1.8%)

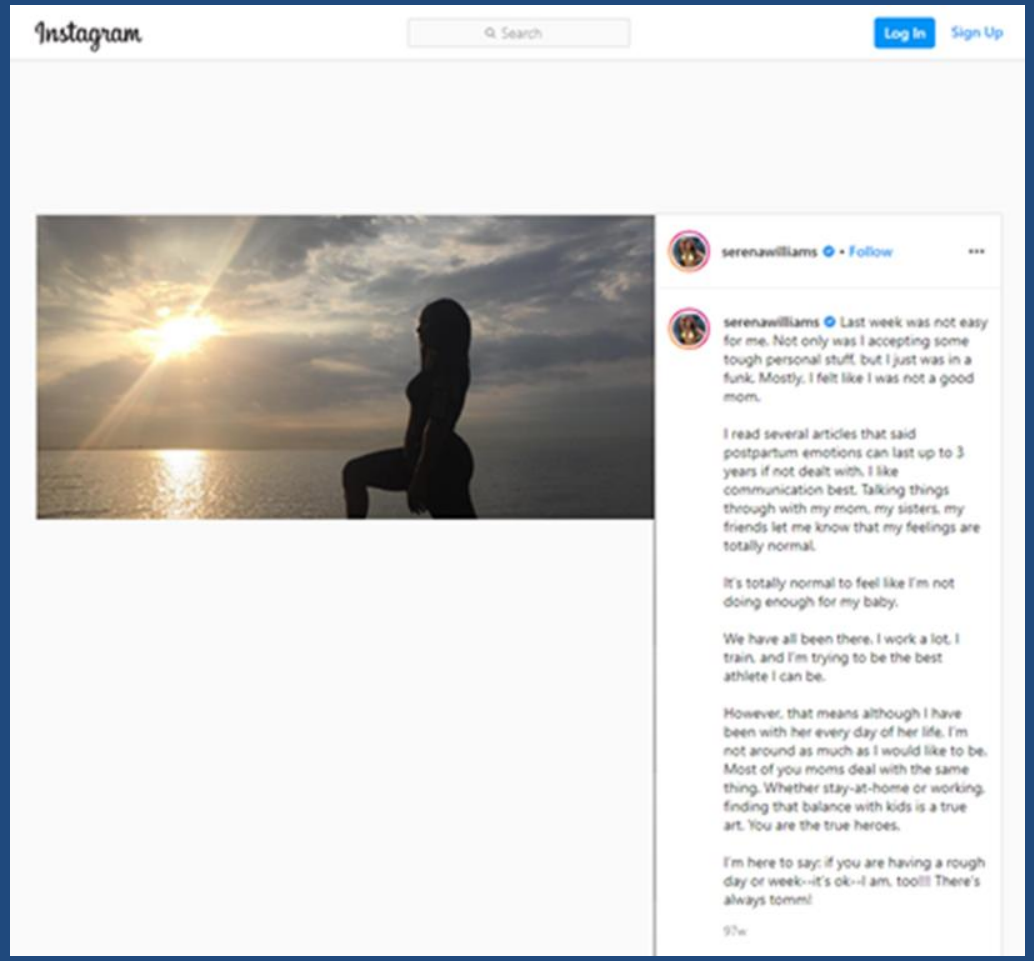
Nguemeni_Tiako MJ et al, *JAMA Network Open*, 2020
Rosenblatt RA et al, *AFM*, 2015

Comprehensive treatment and medication are rare and unavailable for most pregnant people with OUD

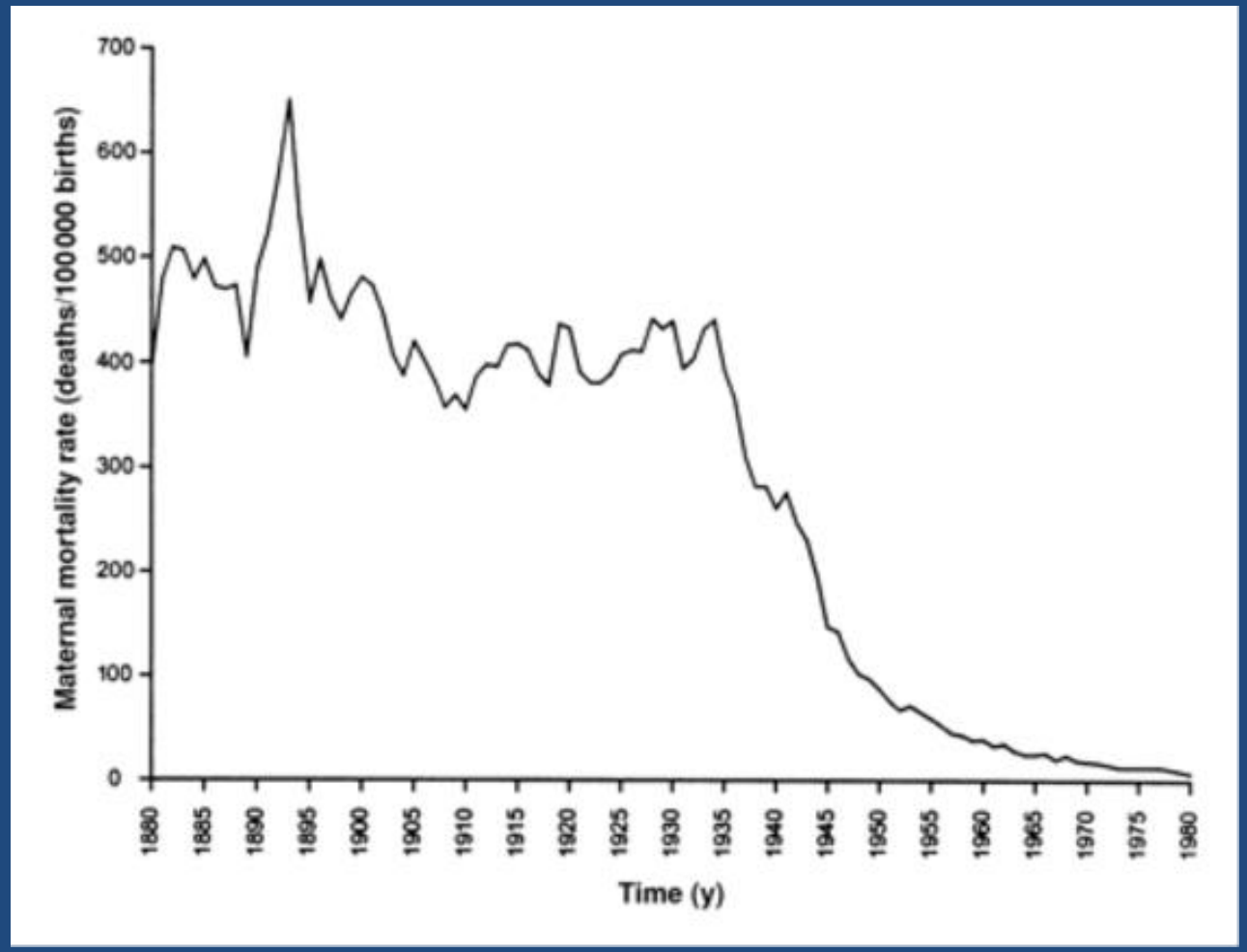


The 4th Trimester - Postpartum

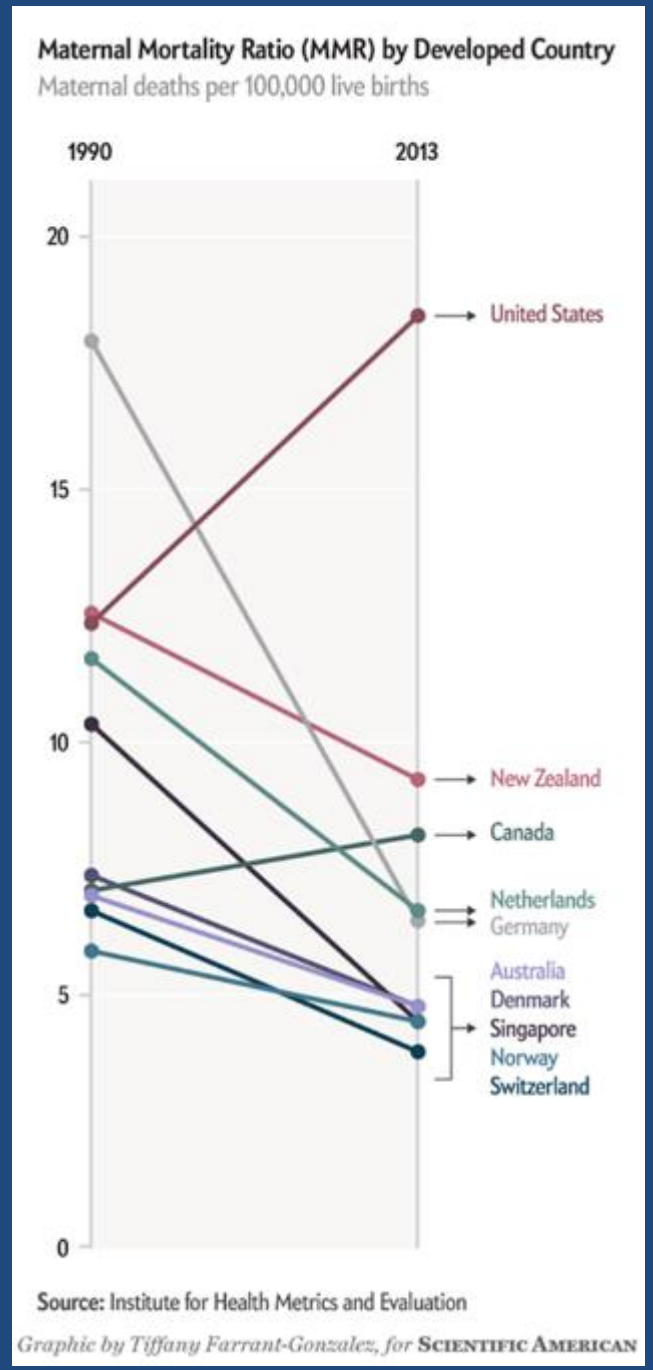
- Critical Period
  - Newborn care, breastfeeding, maternal/infant bonding
  - Mood changes, sleep disturbances, physiologic changes
  - Cultural norms, “the ideal mother” in conflict with what it is like to have a newborn
  - Insurance and welfare realignment
- Neglected Period
  - Care shifts from frequent to infrequent
  - From Mom-focused (PNC provider) to Baby-focused (Pediatrician)
  - From “medical” to “social” (WIC)
  - Continuity of Care: Addiction Provider



The 4th Trimester: Maternal Mortality



Maternal mortality in the past and its relevance to developing countries today
Am J Clin Nutr. 2000;72(1):241S-246S. doi:10.1093/ajcn/72.1.241S



PERIOPERATIVE MEDICINE

Opioid Abuse and Dependence during Pregnancy

Temporal Trends and Obstetrical Outcomes

Ayumi Maeda, M.D., Brian T. Bateman, M.D., M.Sc., Caitlin R. Clancy, B.A., Andreea A. Creanga, M.D., Ph.D., Lisa R. Leffert, M.D.

Table 2. Associations between Opioid Abuse or Dependence during Pregnancy and Obstetrical Outcomes: United States, 2007–2011

	Delivery Hospitalizations with Opioid Abuse or Dependence n (%)	Delivery Hospitalizations without Opioid Abuse or Dependence n (%)	Multivariable Odds Ratio* (95% CI)
Total	60,994	20,456,485	
Died during hospitalization	20 (0.03)	1,311 (0.006)	**4.6 (1.8–12.1)**
Cardiac arrest	24 (0.04)	1,873 (0.01)	**3.6 (1.4–9.1)**
Intrauterine growth restriction	4,157 (6.8)	431,032 (2.1)	**2.7 (2.4–2.9)**
Placental abruption	2,315 (3.8)	215,057 (1.1)	**2.4 (2.1–2.6)**
Length of stay >7 days	1,837 (3.0)	235,738 (1.2)	**2.2 (2.0–2.5)**
Preterm	10,538 (17.3)	1,506,941 (7.4)	**2.1 (2.0–2.3)**
Oligohydramnios	2,736 (4.5)	564,410 (2.8)	**1.7 (1.6–1.9)**
Transfusion	1,205 (2.0)	208,073 (1.0)	**1.7 (1.5–1.9)**
Stillbirth	727 (1.2)	124,607 (0.6)	**1.5 (1.3–1.8)**
Premature rupture of membranes	3,499 (5.7)	778,157 (3.8)	**1.4 (1.3–1.6)**
Cesarean delivery	22,130 (36.3)	6,768,679 (33.1)	**1.2 (1.1–1.3)**
Severe preeclampsia or eclampsia	722 (1.2)	289,668 (1.4)	**0.8 (0.7–0.9)**
Anesthesia complications	20 (0.03)	3,123 (0.02)	2.1 (0.8–5.3)
Cerebrovascular complications	37 (0.06)	5,079 (0.02)	2.0 (0.9–4.4)
Sepsis	273 (0.4)	79,169 (0.4)	1.3 (1.0–1.7)
Postpartum hemorrhage	1,866 (3.1)	589,811 (2.9)	1.1 (0.9–1.2)

Research Article

Maternal Opioid Drug Use during Pregnancy and Its Impact on Perinatal Morbidity, Mortality, and the Costs of Medical Care in the United States

Valerie E. Whiteman,[1] Jason L. Salemi,[2] Mulubrhan F. Mogos,[3] Mary Ashley Cain,[1] Muktar H. Aliyu,[4] and Hamisu M. Salihu[1,2]

TABLE 2: Rates[a] of selected clinical outcomes by opioid use status and odds ratios and 95% confidence intervals for the association between opioid use and each outcome among pregnancy-related discharges, NIS, 1998–2009.

Outcomes	Rate[a] of outcome		OR (95% CI)		
	Opioid users	Nonopioid users	Model 1[b]	Model 2[c]	Model 3[d]
Maternal					
Threatened preterm labor	30.1	22.3	1.36 (1.24–1.49)	1.34 (1.22–1.47)	1.32 (1.19–1.45)
Early onset delivery	124.0	65.2	2.03 (1.88–2.20)	1.92 (1.77–2.07)	1.72 (1.59–1.85)
PROM	38.5	35.4	1.10 (1.00–1.20)	1.12 (1.03–1.23)	1.06 (0.98–1.16)
Wound infection	7.0	5.0	1.41 (1.18–1.68)	1.19 (1.00–1.42)	1.17 (0.98–1.40)
Acute renal failure	2.1	0.5	4.10 (3.11–5.41)	2.78 (2.09–3.72)	2.84 (2.11–3.84)
Postpartum depression[f]	24.7	2.1	12.04 (10.83–13.40)	2.09 (1.79–2.44)	1.75 (1.49–2.05)
Hospital stay >5 days[e]	133.4	29.9	5.00 (4.16–6.02)	4.83 (4.10–5.69)	4.02 (3.41–4.74)
In-hospital maternal mortality	0.8	0.1	5.89 (3.74–9.28)	3.63 (2.32–5.68)	3.69 (2.32–5.87)
Fetal					
Poor fetal growth	35.9	15.9	2.31 (2.10–2.55)	2.21 (2.00–2.44)	1.61 (1.46–1.77)
Stillbirth	10.0	6.3	1.60 (1.39–1.83)	1.41 (1.23–1.62)	1.32 (1.15–1.51)

Original Research

OBSTETRICS & GYNECOLOGY

Maternal Deaths From Suicide and Overdose in Colorado, 2004–2012

VOL. 128, NO. 6, DECEMBER 2016

Torri D. Metz, MD, MS, Polina Rovner, MD, M. Camille Hoffman, MD, MSc, Amanda A. Allshouse, MS, Krista M. Beckwith, MSPH, and Ingrid A. Binswanger, MD, MPH, MS

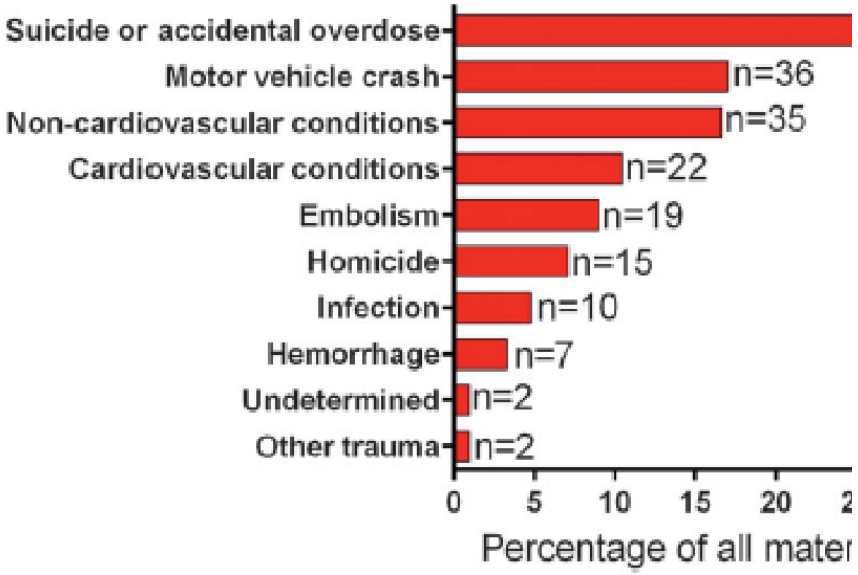


Fig. 1. Maternal deaths in Colorado from 20 (N=211) classified by cause. The x-axis del percentage of maternal deaths in each categor the y-axis with the frequency in each category the end of each bar. Classifications are mutuall

Metz. Maternal Deaths From Self-Harm in Colorado. O 2016.

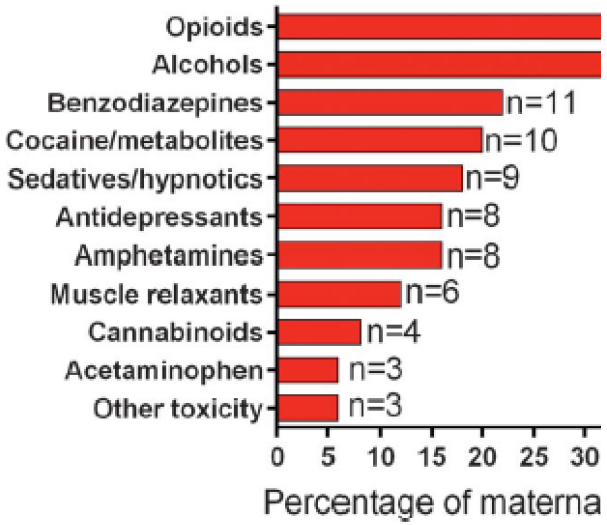


Fig. 2. Frequency of drugs and pharma on toxicology testing during autopsy (testing not performed in n=9). Toxicolo find any positive results for anesthetic barbiturates, or phencyclidine. Opioids i pharmaceutical opioids (including meth cies in figure are not mutually exclusive.

Metz. Maternal Deaths From Self-Harm in Colo 2016.

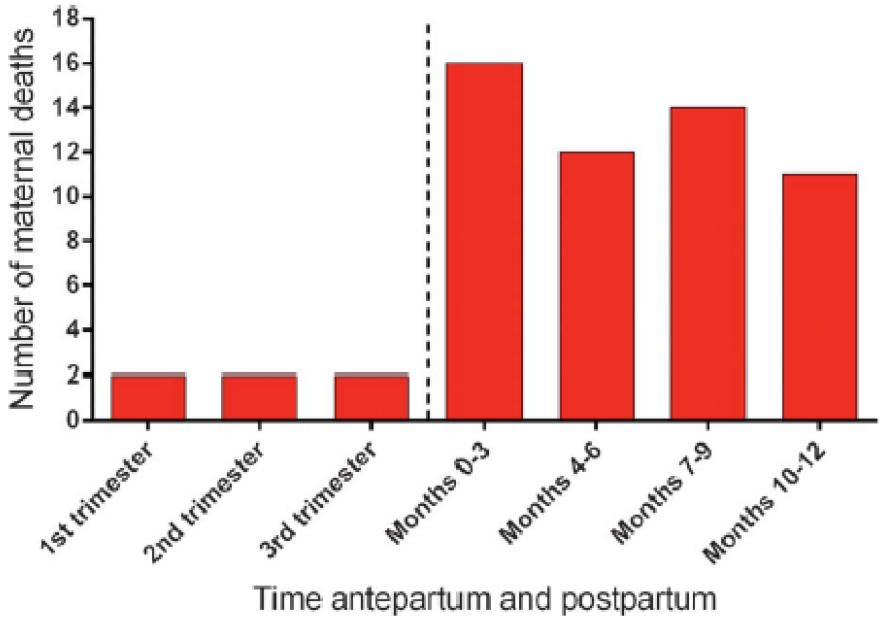


Fig. 3. Temporal distribution of maternal deaths from self-harm by trimester of pregnancy and number of months postpartum. Relatively few cases occurred during the pregnancy.

Metz. Maternal Deaths From Self-Harm in Colorado. Obstet Gynecol 2016.

MOUD Postpartum and Overdose

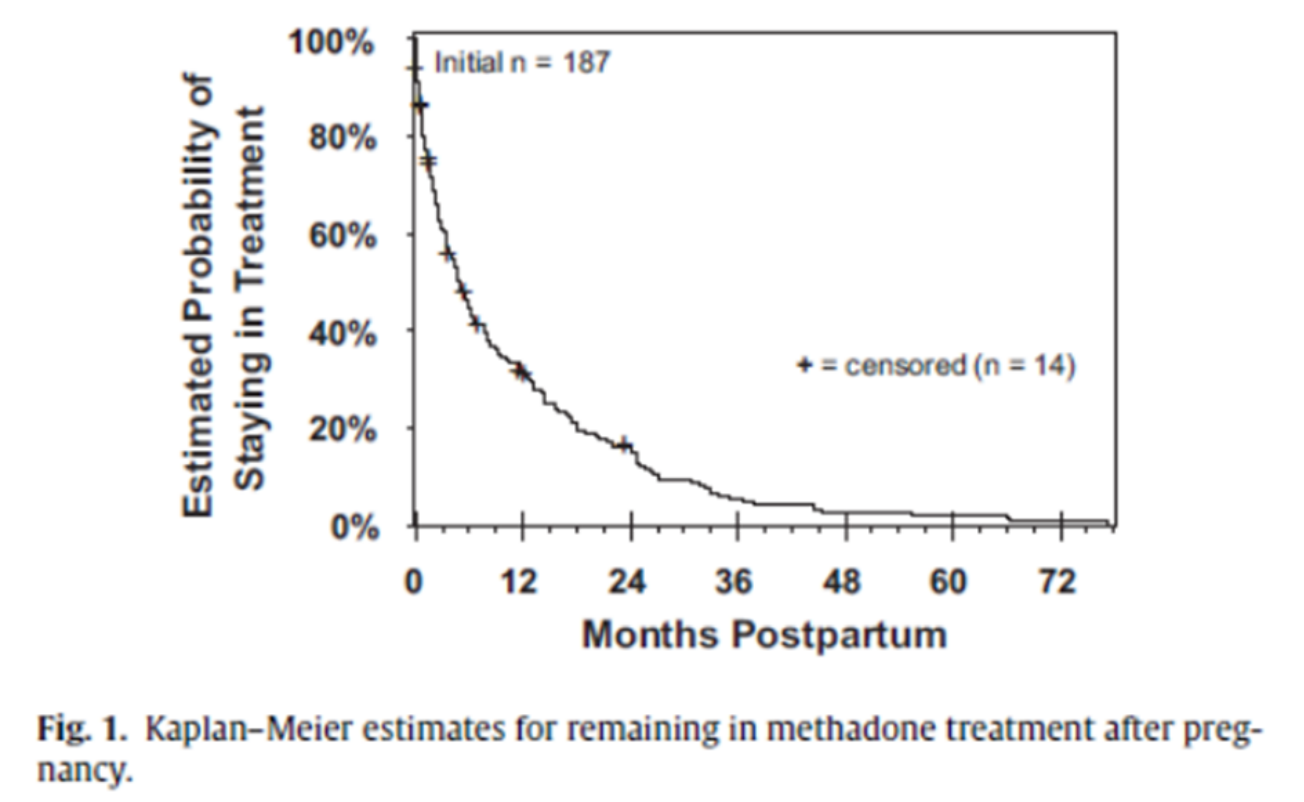
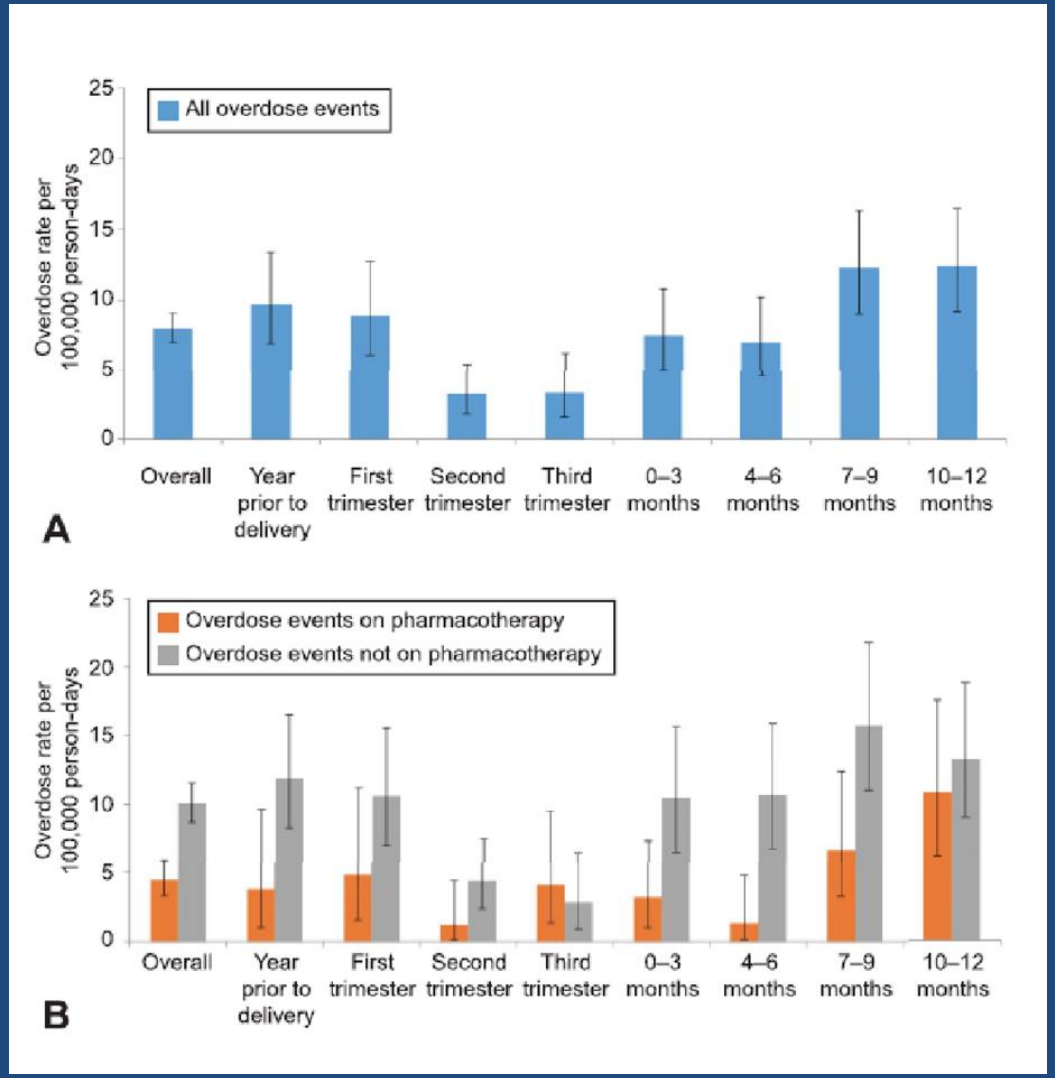


Fig. 1. Kaplan–Meier estimates for remaining in methadone treatment after pregnancy.

Wilder C et al, *DAD*, 2015



Schiff DM et al, *O&G*, 2019

Improving Care Improves Outcomes

Evidence-Based

AND

People-Centered

J Addict Med • Volume 10, Number 1, January/February 2016

EDITORIAL

International Statement Recommending Against the Use of Terminology That Can Stigmatize People

Richard Saitz, MD, MPH, FACP, DFASAM

Key Words: addiction, alcohol, author, drugs, editor, language, stigma, terminology

(J Addict Med 2016;10: 1–2)

Journal of Addiction Medicine has been encouraging the use of precise and non-stigmatizing terminology (Saitz, 2015 and http://journals.lww.com/journaladdictionmedicine/Pages/informationforauthors.aspx#languageandterminologyguidance). As a member journal of the International Society of Addiction Journal Editors (ISAJE), we endorse the statement made by ISAJE regarding the use of terminology that stigmatizes that appears below, here http://www.parint.org/isajewebsite/ (the ISAJE website), and may be published simultaneously in a number of member journals. The statement, verbatim, is as follows:

"The International Society of Addiction Journal Editors recommends against the use of terminology that can stigmatize people who use alcohol, drugs, other addictive substances or who have addictive behavior.

Rationale: Terms that stigmatize can affect the perception and behavior of patients/clients, their loved ones, the general public, scientists, and clinicians (Kelly et al., 2010; Broyles et al., 2014; Kelly et al., 2015). For example, Kelly and Westerhoff (2010) found that the terms used to refer to individuals with substance-related conditions affected clinician perceptions. Clinicians who read a clinical vignette about "abuse" and an "abuser" agreed more with notions of personal culpability and an approach that involved punishment than did those who read an identical vignette that replaced "abuse" and "abuser" with "substance use disorder" and "person with a substance use disorder."

The International Society of Addiction Journal Editors is aware that terminology in the addiction field varies across cultures and countries and over time. It is thus not possible to give globally relevant recommendations

"Abuse" and "abuser" or equivalent words

be avoided, unless there is particular scie

justification of the use of "abuse" is when

Diagnostic and Statistical Manual of Menta

DSM-IV-TR; American Psychiatric Associa

be said to have "alcohol abuse". Another e

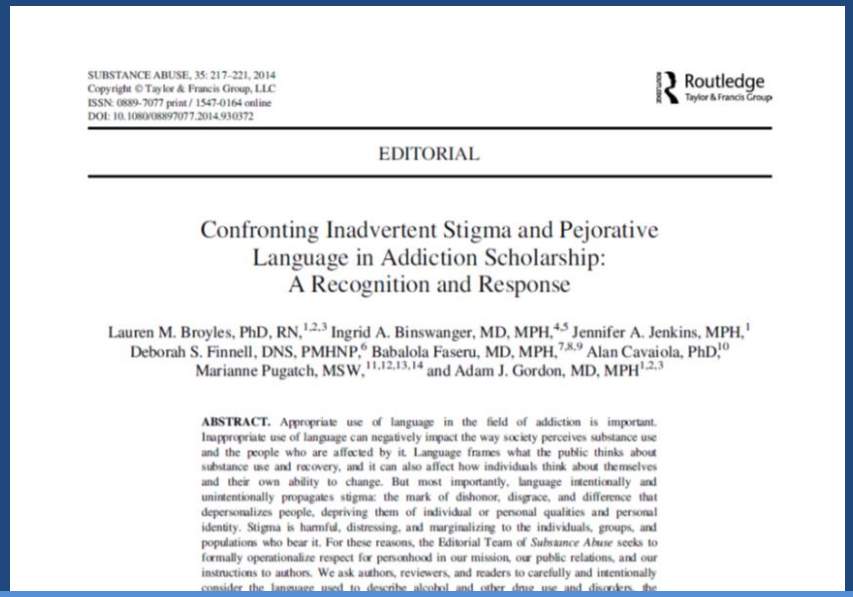
people as "dirty" (or "clean") because of a

of a drug (Kelly et al., 2015). Instead, the

described."

The above was approved by the Interna

its 2015 annual meeting (Budapest, Hungar



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EDITORIAL

Confronting Inadvertent Stigma and Pejorative Language in Addiction Scholarship: A Recognition and Response

Lauren M. Broyles, PhD, RN,[1,2,3] Ingrid A. Binswanger, MD, MPH,[4,5] Jennifer A. Jenkins, MPH,[1] Deborah S. Finnell, DNS, PMHNP,[6] Babalola Faseru, MD, MPH,[7,8,9] Alan Cavaiola, PhD,[10] Marianne Pugatch, MSW,[11,12,13,14] and Adam J. Gordon, MD, MPH[1,2,3]

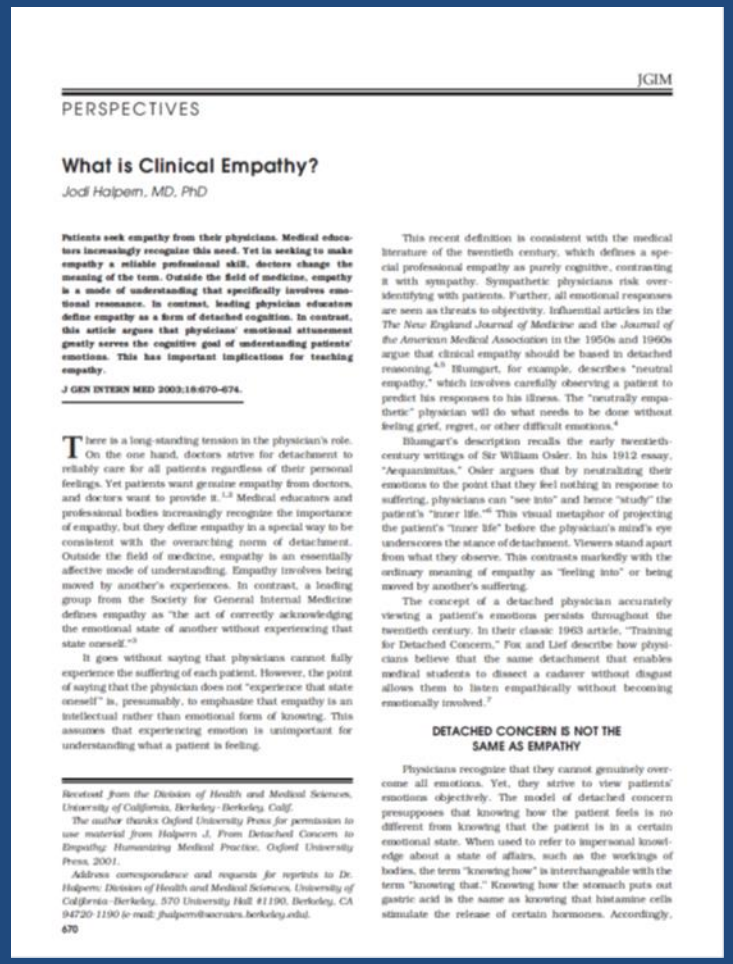
ABSTRACT. Appropriate use of language in the field of addiction is important. Inappropriate use of language can negatively impact the way society perceives substance use and the people who are affected by it. Language frames what the public thinks about substance use and recovery, and it can also affect how individuals think about themselves and their own ability to change. But most importantly, language intentionally and unintentionally propagates stigma: the mark of dishonor, disgrace, and difference that depersonalizes people, depriving them of individual or personal qualities and personal identity. Stigma is harmful, distressing, and marginalizing to the individuals, groups, and populations who bear it. For these reasons, the Editorial Team of *Substance Abuse* seeks to formally operationalize respect for personhood in our mission, our public relations, and our instructions to authors. We ask authors, reviewers, and readers to carefully and intentionally consider the language used to describe alcohol and other drug use and disorders, the

Language of Empathy vs Shame

Language to Counter Stigma and Discrimination:

1. Respects the worth and dignity of all persons – "People-first language"
2. Focuses on the medical nature of SUD and treatment
3. Promotes the recovery process
4. Avoids perpetuating negative stereotypes and biases through use of slang and idioms

People-Centered Care: Empathy



JGIM

PERSPECTIVES

What is Clinical Empathy?

Jodi Halpern, MD, PhD

Patients seek empathy from their physicians. Medical educators increasingly recognize this need. Yet in seeking to make empathy a reliable professional skill, doctors change the meaning of the term. Outside the field of medicine, empathy is a mode of understanding that specifically involves emotional resonance. In contrast, leading physician educators define empathy as a form of detached cognition. In contrast, this article argues that physicians' emotional attunement greatly serves the cognitive goal of understanding patients' emotions. This has important implications for teaching empathy.

J GEN INTERN MED 2003;18:670–674.

There is a long-standing tension in the physician's role. On the one hand, doctors strive for detachment to reliably care for all patients regardless of their personal feelings. Yet patients want genuine empathy from doctors, and doctors want to provide it.[1,2] Medical educators and professional bodies increasingly recognize the importance of empathy, but they define empathy in a special way to be consistent with the overarching norm of detachment. Outside the field of medicine, empathy is an essentially affective mode of understanding. Empathy involves being moved by another's experiences. In contrast, a leading group from the Society for General Internal Medicine defines empathy as "the act of correctly acknowledging the emotional state of another without experiencing that state oneself."[3]

It goes without saying that physicians cannot fully experience the suffering of each patient. However, the point of saying that the physician does not "experience that state oneself" is, presumably, to emphasize that empathy is an intellectual rather than emotional form of knowing. This assumes that experiencing emotion is unimportant for understanding what a patient is feeling.

Received from the Division of Health and Medical Sciences, University of California, Berkeley–Berkeley, Calif.

The author thanks Oxford University Press for permission to use material from Halpern J. From Detached Concern to Empathy: Humanizing Medical Practice. Oxford University Press, 2001.

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This recent definition is consistent with the medical literature of the twentieth century, which defines a special professional empathy as purely cognitive, contrasting it with sympathy. Sympathetic physicians risk overidentifying with patients. Further, all emotional responses are seen as threats to objectivity. Influential articles in the *The New England Journal of Medicine* and the *Journal of the American Medical Association* in the 1950s and 1960s argue that clinical empathy should be based in detached reasoning.[4,5] Blumgart, for example, describes "neutral empathy," which involves carefully observing a patient to predict his responses to his illness. The "neutrally empathetic" physician will do what needs to be done without feeling grief, regret, or other difficult emotions.[4]

Blumgart's description recalls the early twentieth-century writings of Sir William Osler. In his 1912 essay, "Aequanimitas," Osler argues that by neutralizing their emotions to the point that they feel nothing in response to suffering, physicians can "see into" and hence "study" the patient's "inner life."[6] This visual metaphor of projecting the patient's "inner life" before the physician's mind's eye underscores the stance of detachment. Viewers stand apart from what they observe. This contrasts markedly with the ordinary meaning of empathy as "feeling into" or being moved by another's suffering.

The concept of a detached physician accurately viewing a patient's emotions persists throughout the twentieth century. In their classic 1963 article, "Training for Detached Concern," Fox and Lief describe how physicians believe that the same detachment that enables medical students to dissect a cadaver without disgust allows them to listen empathically without becoming emotionally involved.[7]

DETACHED CONCERN IS NOT THE SAME AS EMPATHY

Physicians recognize that they cannot genuinely overcome all emotions. Yet, they strive to view patients' emotions objectively. The model of detached concern presupposes that knowing how the patient feels is no different from knowing that the patient is in a certain emotional state. When used to refer to impersonal knowledge about a state of affairs, such as the workings of bodies, the term "knowing how" is interchangeable with the term "knowing that." Knowing how the stomach puts out gastric acid is the same as knowing that histamine cells stimulate the release of certain hormones. Accordingly,

- Empathy involves associative reasoning: appreciate the personal meanings of patients' words
- Emotions help guide and hold attention on what is humanly significant: nonverbal attunement
- Empathy facilitates trust and disclosure and can be directly therapeutic: empathy directly enhances therapeutic efficacy
- Empathy makes being a physician more meaningful and satisfying

How To Practice Empathy

- Use people’s names
- Smile
- Listen
- Don't interrupt people
- Tune in to non-verbal communication (the "93% rule“)
- Be fully present when you are with people
- Take a personal interest in people

Conclusion 1:
Drug Policy, Pregnancy, and Discrimination

- Drug Policy is Rooted in Racism – punitive policies reinforce discrimination – compound racial inequities

- Drug policies target use – don't capture use disorder – therefore don't identify those that need treatment

- Drug policies target illicit use – don't reflect true substance harms to a population

Conclusion 2:
Drug Policy, Pregnancy, and Discrimination

- Need to resist punitive policies, emphasize treatment and recovery
- Address race, class, and reproduction from a structural perspective: how society produces vulnerabilities
- “Center on the most marginalized”
- Reproductive Justice: Human right to maintain bodily autonomy, have children, not have children, and parent the children in safe and sustainable communities

Loretta Ross & Rickie Solinger, 2017, Reproductive Justice; www.sistersong.net

Thank You

Mishka.Terplan@ucsf.edu @do_less_harm

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