History and epidemiology of drug use in pregnancy &
Stigma of SUD in pregnancy

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National Clinician Consultation Center, Substance Use Warmline, UCSF
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@DoLessHarm
Disclosures

- None
Psychoactive Substance Use is Ancient

Addiction is Modern Phenomena
William Hogarth’s *Gin Lane* 1751
The First Opioid Crisis
Capriciousness of mind, irritability, selfishness, restlessness, and excitability are the natural characteristics of many women, who quickly become morphinists, especially if under treatment for disorders of the generative organs. Such persons
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
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
The Current Opioid Crisis: Iatrogenic

MMWR 11/4/11
Peak Opioid MME in US 782 (2010); 2015 = 640
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 and Angus Deaton

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).

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
Substance Use and Addiction

19th Century

Medical and Public Health

Women
White
Upper SES

20th Century

Criminal Justice

Men
Non-White
Lower SES

21st Century

Medical and Public Health

Universalizing Language - Whiteness
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
Forgotten in the Intersections: Gender, Race, Addiction, and Reproduction
Gender, Reproduction, and Addiction in the Context of Racialized Drug Policy
### Behavioral Health Burden

<table>
<thead>
<tr>
<th>Diagnosis</th>
<th>Percent Reporting</th>
<th>Male</th>
<th>Female</th>
</tr>
</thead>
<tbody>
<tr>
<td>Serious Psychological Distress</td>
<td>6.0%</td>
<td>4.1%</td>
<td></td>
</tr>
<tr>
<td>(past month)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Any Mental Illness</td>
<td>26.2%</td>
<td>17.3%</td>
<td></td>
</tr>
<tr>
<td>(past year)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Serious Mental Illness</td>
<td>5.0%</td>
<td>3.0%</td>
<td></td>
</tr>
<tr>
<td>(past year)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Major Depressive Episode</td>
<td>8.5%</td>
<td>4.7%</td>
<td></td>
</tr>
<tr>
<td>(past year)</td>
<td></td>
<td></td>
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</tr>
</tbody>
</table>

### Prescription Medication

<table>
<thead>
<tr>
<th>Past Year</th>
<th>Male</th>
<th>Female</th>
</tr>
</thead>
<tbody>
<tr>
<td>Prescription psychotherapeutic drugs</td>
<td>40.9%</td>
<td>47.8%</td>
</tr>
<tr>
<td>Opioid Analgesic</td>
<td>33.9%</td>
<td>38.8%</td>
</tr>
<tr>
<td>Tranquilizers</td>
<td>11.3%</td>
<td>17.9%</td>
</tr>
<tr>
<td>Sedatives</td>
<td>5.6%</td>
<td>8.2%</td>
</tr>
<tr>
<td>Stimulants</td>
<td>6.5%</td>
<td>6.3%</td>
</tr>
</tbody>
</table>
The Changing Face of Heroin Use in the United States: A Retrospective Analysis of the Past 50 Years

Theodore J. Cicero, PhD; Matthew S. Ellis, MPE; Hilary L. Surratt, PhD; Steven P. Kurtz, PhD


Increased use of heroin as an initiating opioid of abuse
Theodore J. Cicero*, Matthew S. Ellis, Zachary A. Kasper
Washington University in St. Louis, Department of Psychiatry, Campus Box 8134, 660 S. Euclid Avenue, St. Louis, MO 63110, United States

Table 1

<table>
<thead>
<tr>
<th>Initiate Cohort, No. (%)</th>
<th>Heroin (n = 631)</th>
<th>Prescription opioid (n = 5254)</th>
<th>Sig. *</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age at survey completion</td>
<td>27.0 (0.28)</td>
<td>28.9 (0.11)</td>
<td>&lt; 0.001</td>
</tr>
<tr>
<td>Gender</td>
<td></td>
<td></td>
<td>0.82</td>
</tr>
<tr>
<td>Male</td>
<td>299 (47.8%)</td>
<td>2519 (48.3%)</td>
<td></td>
</tr>
<tr>
<td>Female</td>
<td>327 (52.2%)</td>
<td>2701 (51.7%)</td>
<td></td>
</tr>
<tr>
<td>Ethnicity</td>
<td></td>
<td></td>
<td>0.01</td>
</tr>
<tr>
<td>White</td>
<td>479 (78.0%)</td>
<td>4262 (82.2%)</td>
<td></td>
</tr>
<tr>
<td>Non-white</td>
<td>135 (22.0%)</td>
<td>922 (17.8%)</td>
<td></td>
</tr>
<tr>
<td>Urbanicity of residence</td>
<td></td>
<td></td>
<td>0.01</td>
</tr>
<tr>
<td>Urban</td>
<td>280 (51.6%)</td>
<td>2095 (46.1%)</td>
<td></td>
</tr>
<tr>
<td>Suburban/rural</td>
<td>263 (48.4%)</td>
<td>2454 (53.9%)</td>
<td></td>
</tr>
<tr>
<td>Highest completed education</td>
<td></td>
<td></td>
<td>&lt; 0.001</td>
</tr>
<tr>
<td>Some college or more</td>
<td>204 (32.7%)</td>
<td>2141 (41.0%)</td>
<td></td>
</tr>
<tr>
<td>Education lower than college</td>
<td></td>
<td>409 (65.5%)</td>
<td></td>
</tr>
<tr>
<td>None</td>
<td>11 (1.8%)</td>
<td>90 (1.7%)</td>
<td></td>
</tr>
</tbody>
</table>
A new divide in American death

Change in mortality rate, urban vs. rural

White women and men in small cities and rural areas are dying at much higher rates than in 1990, while whites in the largest cities and their suburbs have steady or declining death rates.

Since 2010
Prescription opioid overdose deaths increased
237% for men
400% for women

Source: Washington Post analysis of Centers for Disease Control and Prevention mortality data
FIGURE 2. Drug overdose deaths (unadjusted) per 100,000 women aged 30–64 years, by age group and involved drug or drug class — National Vital Statistics System (NVSS), 1999* and 2017†,§

- All drug overdoses
- Antidepressants
- Benzodiazepines
- Cocaine
- Heroin
- Prescription opioids
- Synthetic opioids

Age group (yrs) vs. Deaths per 100,000

640,000 adult patients

Women less likely to be screened:
- PCP arm OR=0.78 (0.75, 0.82)
- Non MD OR=0.82 (0.77, 0.87)

Among those screened, women less likely to receive BI/RT
- PCP arm OR=0.60 (0.48, 0.76)
- Non MD OR=0.62 (0.51, 0.77)
### Table 1: Characteristics of ED Visits Involving Drug Misuse or Abuse, DAWN 2004–2011

<table>
<thead>
<tr>
<th>Age (years)</th>
<th>Total (N = 14,245,776)</th>
<th>Men (n = 8,203,574, 57.6%)</th>
<th>Women (n = 6,042,232, 42.4%)</th>
<th>Men vs. Women*</th>
<th>Unadjusted OR</th>
<th>95% CI</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>18-20</td>
<td>12.0</td>
<td>12.3</td>
<td>11.5</td>
<td>1.08</td>
<td>1.01-1.15</td>
<td>0.022</td>
<td></td>
</tr>
<tr>
<td>21-34</td>
<td>34.6</td>
<td>35.2</td>
<td>33.8</td>
<td>1.06</td>
<td>1.02-1.10</td>
<td>0.005</td>
<td></td>
</tr>
<tr>
<td>35-54</td>
<td>42.1</td>
<td>42.3</td>
<td>41.9</td>
<td>1.02</td>
<td>0.98-1.05</td>
<td>0.318</td>
<td></td>
</tr>
<tr>
<td>55 or older</td>
<td>11.4</td>
<td>10.3</td>
<td>12.8</td>
<td>0.78</td>
<td>0.74-0.82</td>
<td>&lt;0.001</td>
<td></td>
</tr>
<tr>
<td>Race/Ethnicity</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Non-Hispanic White</td>
<td>63.0</td>
<td>59.3</td>
<td>68.2</td>
<td>0.68</td>
<td>0.63-0.73</td>
<td>&lt;0.001</td>
<td></td>
</tr>
<tr>
<td>Non-Hispanic Black</td>
<td>24.0</td>
<td>25.6</td>
<td>21.7</td>
<td>1.24</td>
<td>1.14-1.35</td>
<td>&lt;0.001</td>
<td></td>
</tr>
<tr>
<td>Hispanic</td>
<td>11.6</td>
<td>13.8</td>
<td>8.5</td>
<td>1.71</td>
<td>1.59-1.84</td>
<td>&lt;0.001</td>
<td></td>
</tr>
<tr>
<td>Other</td>
<td>1.4</td>
<td>1.3</td>
<td>1.6</td>
<td>0.87</td>
<td>0.77-0.97</td>
<td>&lt;0.016</td>
<td></td>
</tr>
<tr>
<td>Drug Misuse or Abuse Category</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Alcohol only</td>
<td>8.7</td>
<td>8.6</td>
<td>8.9</td>
<td>0.97</td>
<td>0.89-1.05</td>
<td>0.433</td>
<td></td>
</tr>
<tr>
<td>Prescription Drugs only</td>
<td>30.8</td>
<td>23.8</td>
<td>40.3</td>
<td>0.46</td>
<td>0.44-0.49</td>
<td>&lt;0.001</td>
<td></td>
</tr>
<tr>
<td>Illicit Drugs only</td>
<td>30.4</td>
<td>34.2</td>
<td>25.2</td>
<td>1.54</td>
<td>1.48-1.61</td>
<td>&lt;0.001</td>
<td></td>
</tr>
<tr>
<td>Illicit Drugs w/ Alcohol</td>
<td>14.2</td>
<td>17.8</td>
<td>9.4</td>
<td>2.10</td>
<td>1.97-2.24</td>
<td>&lt;0.001</td>
<td></td>
</tr>
<tr>
<td>Prescription Drugs w/ Alcohol</td>
<td>6.3</td>
<td>5.7</td>
<td>7.1</td>
<td>0.78</td>
<td>0.73-0.84</td>
<td>&lt;0.001</td>
<td></td>
</tr>
<tr>
<td>Illicit Drugs w/ Prescription Drugs</td>
<td>6.9</td>
<td>6.9</td>
<td>6.9</td>
<td>0.99</td>
<td>0.93-1.06</td>
<td>&lt;0.005</td>
<td></td>
</tr>
<tr>
<td>Illicit Drugs w/ Prescription Drugs &amp; Alcohol</td>
<td>2.7</td>
<td>3.0</td>
<td>2.2</td>
<td>1.34</td>
<td>1.23-1.47</td>
<td>&lt;0.001</td>
<td></td>
</tr>
</tbody>
</table>

### Discharge Disposition

<table>
<thead>
<tr>
<th>Discharge Disposition</th>
<th>Total</th>
<th>Men</th>
<th>Women</th>
<th>Unadjusted OR</th>
<th>95% CI</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Discharged Home</td>
<td>51.7</td>
<td>50.4</td>
<td>53.4</td>
<td>0.89</td>
<td>0.84-0.98</td>
<td>&lt;0.001</td>
</tr>
<tr>
<td>Released to Police/Jail</td>
<td>3.3</td>
<td>4.3</td>
<td>2.0</td>
<td>2.25</td>
<td>2.03-2.49</td>
<td>&lt;0.001</td>
</tr>
<tr>
<td>Referral to Outpatient</td>
<td>5.1</td>
<td>5.5</td>
<td>4.4</td>
<td>1.27</td>
<td>1.15-1.42</td>
<td>&lt;0.001</td>
</tr>
<tr>
<td>Detox/Drug Treatment</td>
<td>5.1</td>
<td>5.5</td>
<td>4.4</td>
<td>1.27</td>
<td>1.15-1.42</td>
<td>&lt;0.001</td>
</tr>
<tr>
<td>Inpatient Detox/Psychiatric Hospital Admission</td>
<td>9.0</td>
<td>9.7</td>
<td>8.2</td>
<td>1.2</td>
<td>1.07-1.35</td>
<td>&lt;0.002</td>
</tr>
<tr>
<td>General Hospital Admission</td>
<td>20.1</td>
<td>19.1</td>
<td>21.5</td>
<td>1.06</td>
<td>0.86-1.09</td>
<td>&lt;0.001</td>
</tr>
<tr>
<td>Transferred to Another Facility</td>
<td>8.8</td>
<td>8.8</td>
<td>8.7</td>
<td>1.01</td>
<td>0.92-1.10</td>
<td>0.847</td>
</tr>
<tr>
<td>Left Against Medical Advice</td>
<td>2.1</td>
<td>2.3</td>
<td>1.8</td>
<td>1.25</td>
<td>1.12-1.38</td>
<td>&lt;0.001</td>
</tr>
</tbody>
</table>

*Unadjusted logistic regression models of sample characteristics and discharge dispositions as a function of gender. Odds ratio (OR) estimates were tested using design-based t-statistics with 1433 degrees of freedom.
FOCUS ON OPIOID OVERDOSE

PREHOSPITAL EMERGENCY CARE 2016:20:220-225

USE OF NALOXONE BY EMERGENCY MEDICAL SERVICES DURING OPIOID DRUG OVERDOSE RESUSCITATION EFFORTS

Steven Allan Sumner, MD, Melissa C. Mercado-Crespo, PhD, M. Bridget Spelke, Leonard Paulozzi, MD, David E. Sugerman, MD, Susan D. Hillis, PhD, Christina Stanley, MD

**TABLE 1.** Administration of naloxone during emergency medical services resuscitation attempts by patient and scene characteristics of individuals deceased due to opioid overdose (N = 124)

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Naloxone Administered</th>
<th>Naloxone Not Administered</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>n</td>
<td>%</td>
<td>n</td>
</tr>
<tr>
<td>Heroin present on toxicology at death</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yes (N = 60)</td>
<td>45</td>
<td>75.0</td>
<td>15</td>
</tr>
<tr>
<td>No (N = 64)</td>
<td>37</td>
<td>57.8</td>
<td>27</td>
</tr>
<tr>
<td>Age (in years)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Younger than 30 (N = 30)</td>
<td>26</td>
<td>86.7</td>
<td>4</td>
</tr>
<tr>
<td>30 to 50 (N = 52)</td>
<td>34</td>
<td>65.4</td>
<td>18</td>
</tr>
<tr>
<td>Older than 50 (N = 42)</td>
<td>22</td>
<td>52.4</td>
<td>20</td>
</tr>
<tr>
<td>Gender</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male (N = 89)</td>
<td>66</td>
<td>74.2</td>
<td>23</td>
</tr>
<tr>
<td>Female (N = 35)</td>
<td>16</td>
<td>45.7</td>
<td>19</td>
</tr>
</tbody>
</table>

**TABLE 2.** Association of patient and scene characteristics with no administration of naloxone during emergency medical services resuscitation attempts among individuals deceased due to opioid overdose (N = 124)

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Unadjusted</th>
<th>Adjusted*</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>OR 95% CI</td>
<td>p-value</td>
</tr>
<tr>
<td>Age (in years)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Younger than 30 (N = 30)</td>
<td>1 (ref)</td>
<td>1 (ref)</td>
</tr>
<tr>
<td>20 to 50 (N = 52)</td>
<td>3.4 0.9-11.3</td>
<td>2.2 0.9-11.3</td>
</tr>
<tr>
<td>Older than 50 (N = 42)</td>
<td>5.9 1.8-19.9</td>
<td>&lt; 0.01</td>
</tr>
<tr>
<td>Gender</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male (N = 89)</td>
<td>1 (ref)</td>
<td>–</td>
</tr>
<tr>
<td>Female (N = 35)</td>
<td>3.4 1.5-7.7</td>
<td>&lt; 0.01</td>
</tr>
</tbody>
</table>
Opioids and Pregnancy

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

Sarah C. Haight, MPH;2; Jean Y. Koo, PhD;2; Van T. Tong, MPH;3; 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†
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.
The “Crack Baby” Hysteria
“Crack Baby”:
Where War on Drugs and War on Abortion Collided

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.

Washington Post 1989
Stigma
Stigma: the experience of being “deeply discredited” or marked due to one’s “undesired differentness”. To be stigmatized is to be held in contempt, shunned or rendered socially invisible because of a socially disapproved status.
Gender and Social Norms

Women Smokers: “trash” “sluts”
Men Smokers: “more masculine” “attractive”
Motherhood, a Social Norm

Deviations from norms of motherhood: “Deserving” versus “Undeserving” Motherhood
Particularly Harmful Stigma

Prenatal Substance Use: Exploring Assumptions of Maternal Unfitness

Mishka Terplan1,2, Alene Kennedy-Hendricks3 and Margaret S. Chisolm4
1Behavioral Health System Baltimore, Baltimore, Maryland, USA. 2Department of Epidemiology and Public Health, University of Maryland School of Medicine, Baltimore, Maryland, USA. 3Department of Health Policy and Management, Johns Hopkins University Bloomberg School of Public Health, Baltimore, Maryland, USA. 4Department of Psychiatry and Behavioral Sciences, Johns Hopkins University School of Medicine, Baltimore, Maryland, USA.

Supplementary Issue: Harm to Others from Substance Use and Abuse

ABSTRACT: In spite of the growing knowledge and understanding of addiction as a chronic relapsing medical condition, individuals with substance use disorders (SUD) continue to experience stigmatization. Pregnant women who use substances suffer additional stigma as their use has the potential to cause fetal harm, calling into question their maternal fitness and often leading to punitive responses. Punishing pregnant women denies the integral interconnectedness of the maternal-fetal dyad. Linking substance use with maternal unfitness is not supported by the balance of the scientific evidence regarding the actual harms associated with substance use during pregnancy. Such linkage adversely impacts maternal, child, and family health by deterring pregnant women from seeking both obstetrical care and SUD treatment. Pregnant women who use substances deserve compassion and care, not stigmatization and punishment.

KEYWORDS: pregnancy, fetal exposure, public attitudes, public policy, pregnant women, opioid use in pregnancy, substance use in pregnancy, neonatal abstinence syndrome

SUBSTANCE ABUSE: RESEARCH AND TREATMENT 2015:9(S2)
Stigma

Discrimination and Prejudice
Discrimination and Prejudice: Common among Providers

Romisher R, Adv Neonatal Care; 2018 Apr
Schiff DM, Subst Abus; 2017; 38(4)

<table>
<thead>
<tr>
<th>Question</th>
<th>Overall</th>
<th>Medical Students</th>
<th>Interns</th>
<th>Resident</th>
</tr>
</thead>
<tbody>
<tr>
<td>I feel angry towards women who use drugs while they are pregnant</td>
<td>48%</td>
<td>55%</td>
<td>54%</td>
<td>37%</td>
</tr>
<tr>
<td>Mothers who use drugs during pregnancy should not be allowed to retain custody of their kids</td>
<td>38%</td>
<td>44%</td>
<td>34%</td>
<td>34%</td>
</tr>
<tr>
<td>Mothers who use drugs over utilize health care resources</td>
<td>46%</td>
<td>57%</td>
<td>49%</td>
<td>33%</td>
</tr>
</tbody>
</table>
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
“Whatever they do, I’m her comfort, I’m her protector.”

How the foster system has become ground zero for the U.S. drug war.

Between 1986 and 1996, the population of children removed from their homes to the foster system, like the prison population, grew steeply. Between 1996 and 2016, both the population of children in state custody and prison population have not decreased significantly.

Population of Children Removed From Their Parent’s Care to Foster System

Over 100% increase in the number of children taken from their parents and placed in foster system during the era of increased crack cocaine use

U.S. State and Federal Prison Population

Over 400% increase in number of people removed from their families and communities and caged during the era of increased crack cocaine use

From 1982 to 2002, federal funding for removing children from their homes increased by 20,000%
The U.S. CHILD WELFARE SYSTEM was not set up to meet the complex needs of families affected by substance use disorder. Recent federal changes have made improvements, but more progress & funding are needed.

From 2011 to 2017: The number of infants entering the U.S. foster care system grew by nearly 10,000.

Overall Foster Care Removals & Parental Substance Use Removals for Infants (<1 year) in the U.S. Foster System Are Growing

At least 1/2 of U.S. foster care placements for infants are associated with PARENTAL SUBSTANCE USE.

Rate of Infants (<1 year) in Foster Care per 1000 Live Births

In 2016, changes to the Child Abuse Prevention & Treatment Act (CAPTA) required “Plans of Safe Care” be inclusive of the needs of family/caregivers of substance-exposed infants.

In 2018, the SUPPORT Act amended CAPTA to provide clearer guidance and authorize a new state grant program to help implement “Plains of Safe Care.”

Clinicians should consider a more active role in shaping how these policies are implemented.
“Test and Report”: Provider Culpability

- Most reports (<1yr) come from hospitals and healthcare providers (HHS 2020)
- Positive test identifies exposure:
  - Not indication of health or ill-health in newborn
  - Not mentioned in AAP discharge criteria
  - Not injury or harm (AAP 2015)
- “Policies that require practitioners to respond to substance use and substance use disorder in a primarily punitive way, require health care providers to function as agents of law enforcement.” (ACOG 2020)

AAP 2015 https://pediatrics.aappublications.org/content/135/5/948
# State Policies on Substance Use during Pregnancy

<table>
<thead>
<tr>
<th>Policy</th>
<th>Number of States</th>
</tr>
</thead>
<tbody>
<tr>
<td>Substance Use Considered Child Abuse</td>
<td>23+DC</td>
</tr>
<tr>
<td>Substance Use Grounds for Civil Commitment</td>
<td>3</td>
</tr>
<tr>
<td>Mandatory Reporting</td>
<td>25+DC</td>
</tr>
<tr>
<td>Targeted Programs for Pregnant Women</td>
<td>19</td>
</tr>
<tr>
<td>Pregnant Women Given Priority Access</td>
<td>17+DC</td>
</tr>
<tr>
<td>Pregnant Women Protected from Discrimination</td>
<td>10</td>
</tr>
</tbody>
</table>

Guttmacher Institute January 2021
Punitive State Policies: Worse Public Health Outcomes

- 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

**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**

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 analysis of birth certificate data from 140,048,208 U.S. singleton births between 1972 and 2013. Exposures were indicators of whether the following 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, infant PCU, and normal (7+) APGAR score. Multivariable fixed-effect logistic regression 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.

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

Keywords: Alcohol, Pregnancy, Policy, Birth Outcomes, Vital Statistics.
Punitive Policies and Increased NAS
State Policies related to drug use during pregnancy have become increasingly punitive.
Number of states with alcohol and pregnancy policies increased from 1 (1974) to 43 (2013)

Punitive policies increasing over time

No association between either supportive or punitive policies and Alcohol Policy Effectiveness Scores

Punitive policies, however, associated with state restrictions on reproductive rights

“Punitive policies are associated with efforts to restrict women’s reproductive rights rather than policies that effectively curb alcohol-related public health harms.”
Freedom from Discrimination is a Human Right
Discrimination is Rooted in Ignorance

• Ignorance of Addiction as a Disease
• Ignorance of Addiction Treatment
• Ignorance of Recovery
• Ignorance regarding Risks to Newborn of Substance Exposure

Discrimination is Rooted in Intention

• Intentional Punishment of People Deemed Unworthy
In place of punishment:
Questions to ask ourselves

• Why would a pregnant person use drugs?

• Are there alternatives to punishment?

• How can we do less harm?
In place of punishment:
Questions to ask ourselves

• Why would a pregnant person use drugs?

• Are there alternatives to punishment?

• How can we do less harm?
What happens when people who use drugs get pregnant?

National Survey Drug Use and Health 2015/2016 Past Month Use Data
All pregnant people are motivated to maximize their health and that of their baby-to-be.

Those who can’t quit or cut back – likely have a substance use disorder.

Continued use in pregnancy is pathognomonic for addiction.
The Pregnancy Box

Addiction Life Course

Reproductive Health Life Course
Punishment of Pregnant People Who Use Drugs

- **Punishment for Addiction**
  - Unethical, immoral and ineffective to punish people for the illness of addiction

- **Punishment for Reproduction**
  - Pregnancy increases the likelihood of prosecution, and enhances the penalty upon conviction
  - Drug use is misdemeanor while distribution/child abuse is felony
  - Pregnant women receive harsher sentences men or non-pregnant women for drug-related convictions
In place of punishment:
Questions to ask ourselves

• Why would a pregnant people use drugs?

• Are there alternatives to punishment?

• How can we do less harm?
Heroin Addiction—A Metabolic Disease

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

The methadone maintenance program 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 methadone treatment.

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.
Volkow and Koop, Lancet Psychiatry, 2017
Pharmacokinetic Goals of MOUD

<table>
<thead>
<tr>
<th>Target</th>
<th>Methadone Dose</th>
<th>Buprenorphine Plasma Conc</th>
<th>MOR Binding</th>
</tr>
</thead>
<tbody>
<tr>
<td>Withdrawal</td>
<td>30-40mg</td>
<td>&gt;1ng/ml</td>
<td>&gt;50%</td>
</tr>
<tr>
<td>Craving</td>
<td>&gt;60mg</td>
<td>&gt;2ng/ml</td>
<td>&gt;70%</td>
</tr>
<tr>
<td>Opioid Blockade</td>
<td>&gt;85 mg</td>
<td>&gt;3ng/dl</td>
<td>&gt;80%</td>
</tr>
<tr>
<td>Restoration of Reward Pathway</td>
<td></td>
<td></td>
<td>Time = 18+ months</td>
</tr>
</tbody>
</table>

There is a positive correlation between medication dose and treatment response.
Alternative to Punishment: Treatment

Methadone maintenance during pregnancy: Pregnancy, birth, and neonate characteristics

M. E. Strauss, Ph.D.
M. Andresko, M.A.
J. C. Stryker, M.D.
J. N. Wardell, M.D.
L. D. Dunkel, B.A.
Detroit, Michigan

The records of 72 pregnant methadone addicts and 72 nonaddicted gravidas, all receiving prenatal care, were examined to determine the degree of obstetric risk associated with low dose methadone maintenance and dimensions of difference between addicted and nonaddicted newborn infants. Rates of pregnancy illness, pregnancy complications, as well as labor and delivery characteristics, did not differ between groups. Low birth weight (< 2,500 grams) was not more common among addicted infants, although neonatal weight loss was greater in this group. Most addicted newborns were symptomatic, but pharmacologic treatment was required in only 30 per cent of the cases. Low-dose methadone maintenance in conjunction with comprehensive prenatal care appears to reduce obstetric risk to a level comparable with that of nonaddicted women of similar sociomedical circumstances.

Narcotic Dependency in Pregnancy

Methadone Maintenance Compared to Use of Street Drugs

Barry Stimmel, MD, Karlis Adamsons, MD, PhD
1976

- The course of pregnancy and delivery in 28 women under closely supervised methadone maintenance (group 1) was compared with that of 57 women using heroin or methadone under less controlled circumstances (group 2) and with that of 30 women free of mood-altering medications (group 3). Women in group 1 had the lowest incidence of coexisting medical problems (P = .025), with an incidence of fetal distress not statistically different from that of women in group 3. Infants born to women in group 2 had the highest incidence of fetal distress ($P < .05$), with four congenital defects, one stillbirth, and one neonatal death. Symptoms characteristic of narcotic withdrawal occurred with similar frequency in group 1 and 2 infants, appearing earlier in children whose mothers were users of heroin.

These findings indicate that maintenance of the pregnant addict under closely supervised methadone therapy is compatible with an uneventful pregnancy and birth of a healthy infant whose withdrawal symptoms in the neonatal period are readily controllable.

*(JAMA* 235:1121-1124, 1976)*
<table>
<thead>
<tr>
<th></th>
<th>No Addiction</th>
<th>Treated Addiction</th>
<th>Untreated Addiction</th>
</tr>
</thead>
<tbody>
<tr>
<td>Preterm Birth</td>
<td>8.7%</td>
<td>10.1%</td>
<td>19.0%</td>
</tr>
<tr>
<td>Low Birthweight</td>
<td>5.5%</td>
<td>7.8%</td>
<td>18.0</td>
</tr>
<tr>
<td>Fetal Death</td>
<td>0.4%</td>
<td>0.5%</td>
<td>0.8%</td>
</tr>
<tr>
<td>Neonatal Mortality</td>
<td>0.4%</td>
<td>0.4%</td>
<td>1.2%</td>
</tr>
<tr>
<td>Post Neonatal Mortality</td>
<td>0.05%</td>
<td>0.03%</td>
<td>0.1%</td>
</tr>
</tbody>
</table>

Core Principle of PNC: Optimize maternal health via chronic disease management
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)
Most People Receive no Treatment in Pregnancy

<table>
<thead>
<tr>
<th>Substance use disorder diagnosis</th>
<th>Total a</th>
<th>Not pregnant nor parenting</th>
<th>Pregnant b</th>
<th>Parenting</th>
<th>P values c</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>1st trimester</td>
<td>2nd trimester</td>
<td>3rd trimester</td>
</tr>
<tr>
<td>Any past year substance use disorder treatment need d</td>
<td>9.3% (8.4–10.2)</td>
<td>8.8% (7.7–9.8)</td>
<td>12.8% (8.7–16.9)</td>
<td>12.5% (7.3–17.7)</td>
<td>9.4% (4.7–14.0)</td>
</tr>
<tr>
<td>Alcohol use disorder</td>
<td>7.4% (6.6–8.3)</td>
<td>6.8% (5.9–7.7)</td>
<td>11.8% (7.2–16.5)</td>
<td>11.7% (5.8–17.6)</td>
<td>9.0% (3.3–14.7)</td>
</tr>
<tr>
<td>Illicit drug use disorder</td>
<td>17.1% (15.5–18.7)</td>
<td>17.0% (14.8–19.2)</td>
<td>21.8% (13.9–29.6)</td>
<td>26.0% (15.1–36.8)</td>
<td>13.2% (5.7–21.3)</td>
</tr>
<tr>
<td>Opioid use disorder</td>
<td>23.6% (18.9–28.2)</td>
<td>31.1% (27.0–35.1)</td>
<td>34.7% (20.7–48.7)</td>
<td>54.2% (30.2–78.1)</td>
<td>20.0% (3.5–36.5)</td>
</tr>
</tbody>
</table>
Treatment Gap is Greater for Women

- 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)
Only half of pregnant people in treatment for OUD receive medication.
OBGYN Lacks Capacity to Treat OUD

<table>
<thead>
<tr>
<th>Year</th>
<th>N (%) X Waivered OBGYNs in US</th>
</tr>
</thead>
<tbody>
<tr>
<td>2012</td>
<td>181 (0.4%)</td>
</tr>
<tr>
<td>2020</td>
<td>560 (1.8%)</td>
</tr>
</tbody>
</table>

Comprehensive treatment and medication are rare and unavailable for most pregnant people with OUD.
Treatment and Punishment
In place of punishment:
Questions to ask ourselves

- Why would a pregnant woman use drugs?
- Are there alternatives to punishment?
- How can we do less harm?
Do Less Harm:

1. Language is Important

- Counter de-humanizing discourse with humanizing language

- Language: Evidence-based and Person-centered

- The words we use influence how others conceptualize addiction and public health
Language to Counter Stigma and Discrimination:

Pay attention to how we speak and write

Language that:

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
Do Less Harm:
2. Center on the Dyad

“There is no such thing as a baby ... If you set out to describe a baby, you will find you are describing a baby and someone. A baby can not exist alone, but is essentially part of a relationship”
(D.W. Winnicott 1966)
If it is not Dyad it is a Disaster

• The Big Horn County Attorney’s Office is announcing an immediate crackdown policy of civilly prosecuting any expecting mothers found to be using dangerous drugs or alcohol.

• The state will seek an order of protection restraining a pregnant female from any non-medically prescribed use of drug or alcohol, and the state can seek incarceration to detain her.

• Harris says "It is simply not satisfactory to our community that the protection of innocent, unborn children victimized in this manner and subject to a potential lifetime of disability and hardship relies exclusively on social workers removing the child from the custody of the mother at birth. This approach is not timely and has not proven a sufficient deterrent."
Do Less Harm:
3. Focus on Medicine/Public Health as Practice

Evidence-Based

AND

People-Centered
Evidence-Based Care: Data that Reflects Science not Stigma

Prescribed Medication  Legal Substances  Illegal Substances

Known Teratogens: ACE-Inhibitors, Alcohol, Carbamazepine, Diethylstilbetrol (DES), Isotretinoin, Phenytoin, Tobacco, Valproic Acid (partial list)

HARM
Children With In Utero Cocaine Exposure Do Not Differ From Control Subjects on Intelligence Testing

Hallam Hurt, MD; Elsa Malmud, PhD; Laura Betancourt; Leonard E. Braitman, PhD; Nancy L. Brodsky, PhD; Joan Giannetta

Inner-city Achievers

Who Are They?

Hallam Hurt, MD; Elsa Malmud, PhD; Leonard E. Braitman, PhD; Laura M. Betancourt, BA; Nancy L. Brodsky, PhD; Joan M. Giannetta, BA

Substance and Development: Evidence of Nurture

Table 5. Home Observation for Measurement of the Environment*

<table>
<thead>
<tr>
<th>Measurement</th>
<th>IQ≥90 (n=24)</th>
<th>IQ&lt;90 (n=104)</th>
<th>P Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Learning Stimulation</td>
<td>9 (5-11)</td>
<td>7 (1-11)</td>
<td>&lt;.001</td>
</tr>
<tr>
<td>Language Stimulation</td>
<td>7 (6-7)</td>
<td>7 (4-7)</td>
<td>.03</td>
</tr>
<tr>
<td>Physical Environment</td>
<td>6 (5-7)</td>
<td>6 (0-7)</td>
<td>.25</td>
</tr>
<tr>
<td>Warmth and Affection</td>
<td>6 (2-7)</td>
<td>5 (0-7)</td>
<td>.01</td>
</tr>
<tr>
<td>Academic Stimulation</td>
<td>5 (4-5)</td>
<td>5 (1-5)</td>
<td>.006</td>
</tr>
<tr>
<td>Modeling</td>
<td>4 (2-5)</td>
<td>4 (0-5)</td>
<td>.05</td>
</tr>
<tr>
<td>Variety in Experience</td>
<td>8 (6-9)</td>
<td>7 (4-9)</td>
<td>&lt;.001</td>
</tr>
<tr>
<td>Acceptance</td>
<td>4 (3-4)</td>
<td>4 (0-4)</td>
<td>.06</td>
</tr>
<tr>
<td>Total</td>
<td>48.5 (40-53)</td>
<td>43 (20-53)</td>
<td>&lt;.001</td>
</tr>
</tbody>
</table>

*Values are expressed as median (range). See Caldwell and Bradley for more information on HOME.10
People-Centered Care: Empathy

- 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
People-Centered Care: 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
Do Less Harm

- **Evidence-Based**: Grounded in Science
  - Harms of illicit substances exaggerated; Effects of licit substances minimized
  - Overstate the importance of intrauterine exposure; Neglect the role of the care-giving environment

- **Person-Centered**: Ethical and Grounded in Human Rights
  - Reproductive Health as a Human Right - Right to determine whether and when to become pregnant, and raise children in safe environments
  - Support autonomy and maternal subjectivity in decision making surrounding pregnancy
  - Remain attuned to the unique demands we place on pregnant and parenting people, their bodies and their minds
Thank You

CLINICIAN CONSULTATION CENTER
National rapid response for HIV management and bloodborne pathogen exposures.

Substance Use Warmline
Peer-to-Peer Consultation and Decision Support
10 am – 6 pm EST Monday - Friday
855-300-3595

Free and confidential consultation for clinicians from the Clinician Consultation Center at San Francisco General Hospital focusing on substance use in primary care

mterplan@friendsresearch.org