Opioid Use Disorders and Criminal Justice Involvement: A Research Overview and Case Study

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Outline

• Opioid use and criminal justice involvement
• Medications for opioid use disorder
• Evidence in the criminal justice system
• Co-occurring health disorders
• What to know about addiction treatment
• Opioid overdose deaths in Hennepin County
What is Opioid Use Disorder?

• Opioids are often taken in larger amounts or over a longer period of time than intended.
• Persistent desire or unsuccessful efforts to cut down or control opioid use.
• A great deal of time is spent in activities necessary to obtain the opioid, use the opioid, or recover from its effects.
• Craving, or a strong desire to use opioids.
• Recurrent opioid use resulting in failure to fulfill major role obligations at work, school or home.
• Continued opioid use despite having persistent or recurrent social or interpersonal problems caused or exacerbated by the effects of opioids.
• Important social, occupational or recreational activities are given up or reduced because of opioid use.
• Recurrent opioid use in situations in which it is physically hazardous.
• Continued use despite knowledge of having a persistent or recurrent physical or psychological problem that is likely to have been caused or exacerbated by opioids.
• Tolerance
• Withdrawal

Mild 2-3; Moderate 4-5; Severe 6 or more
Overdose deaths 1999-2017, US

Opioids and criminal justice involvement

Criminal Justice Involvement Among Adults in the United States with Varying Levels of Opioid Use, 2015-2016

Source: Winkelman et al. (2018). All pairwise comparisons significant at p < .05.
Opioids and criminal justice involvement

Criminal Justice Involvement Among Adults in the United States with Varying Levels of Opioid Use, 2015-2016

- No opioid use
- Prescription opioid use
- Prescription opioid misuse

Source: Winkelman et al. (2018). All pairwise comparisons significant at p < .05.
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Release from Prison —
A High Risk of Death for Former Inmates

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![Graph showing mortality rates](https://example.com/graph.png)

**Figure 1.** Mortality Rates among Former Inmates of the Washington State Department of Corrections during the Study Follow-up (Overall) and According to 2-Week Periods after Release from Prison.

The dashed line represents the adjusted mortality rate for residents of the State of Washington (223 deaths per 100,000 person-years), and the solid line represents the crude mortality rate among inmates of the state prison system during incarceration (201 deaths per 100,000 inmate person-years).

Figure. Mortality rate, by week since release, for overdose and all other (nonoverdose) causes of death.


At 2-weeks, 1-year, and complete follow-up after release, the respective OOD risk among former inmates was 40 (95% confidence interval [CI] = 30, 51), 11 (95% CI = 9.5, 12), and 8.3 (95% CI = 7.8, 8.7) times as high as general NC residents; the corresponding heroin overdose death risk among former inmates was 74 (95% CI = 43, 106), 18 (95% CI = 15, 21), and 14 (95% CI = 13, 16) times as high as general NC residents, respectively.

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Treatment in jails and prisons

- 55% of prisons offer methadone
  - Most of these are for pregnant women only
- 14% of prisons offer buprenorphine
- Few jails and prisons offer all three medications for opioid use disorder (MOUD)
- 56% of drug courts offer all forms of MOUD

# Criminal justice treatment referrals

## Exhibit 2

Odds ratio of receiving opioid agonist treatment among the study population, by primary referral source

<table>
<thead>
<tr>
<th>CRIMINAL JUSTICE VERSUS NON-CRIMINAL JUSTICE</th>
<th>Receiving treatment</th>
<th>Odds ratio</th>
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<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Non-criminal justice</td>
<td>40.9%</td>
<td>Ref</td>
<td>Ref</td>
<td></td>
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<tr>
<td>Criminal justice</td>
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<td>0.07****</td>
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<td></td>
</tr>
<tr>
<td>Court</td>
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<td>0.32**</td>
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<td>5.4</td>
<td>0.51</td>
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**Source** Authors’ analysis of data for 2014 from the Treatment Episode Data Set–Admissions.

*Driving under the influence or driving while intoxicated. **p < 0.05 ***p < 0.01 ****p < 0.001

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Treatment of opioid use disorders
Guideline-based care

MEDICATION-ASSISTED TREATMENT (MAT) IN THE CRIMINAL JUSTICE SYSTEM: BRFWS GUIDANCE TO THE STATES

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WHAT IS THE ISSUE?
Across the U.S., opioid use and overdose deaths are at epidemic proportions. In 2017, 2.1 million people in the United States had an opioid use disorder (OUD) and nearly 46,000 overdose deaths involved opioids. Individuals reporting opioid use are significantly more likely to be involved in the criminal justice system compared to people with no opioid use, and the level of justice involvement increases with the level of opioid use. Within the criminal justice sector, nearly 10 percent of justice-involved individuals self-report heroin use. "Estimates indicate that about half of drug court offenders who engage in additional drug use have an opioid use disorder." Among individuals sentenced to jail and state prison, regular use of opioids was reported at 17 and 39 percent, respectively.11

Opioid overdose deaths have reduced the expected life span of justice-involved people in the U.S., largely due to the risks associated with community reentry following incarceration. Justice-involved individuals are more likely to die of an opioid overdose compared to the general population.114 Opioid overdose is among the leading causes of death for individuals reentering the community, with a majority of these overdose involving opioids.115 The field of criminal justice has been slow to incorporate FDA-approved pharmacotherapy for opioid use disorders, also called medication-assisted treatment (MAT). A recent study found that only 55 percent of drug court programs allowed MAT medications as part of their participants’ treatment.116 Treatment courts are reluctant for participants to begin MAT after they have enrolled during an incarceration. Many jails require complete withdrawal from all opioids, including prescribed MAT medications. However, an estimated 77 percent of formerly incarcerated individuals with an OUD have opiate use within three months of release even after participating in a counseling program while incarcerated.117

State governments have long been recognized as critical players in fostering the use of medication to treat substance use disorders (SUD) and increasing the availability of affordable, evidence-based treatments.118 "In the midst of the opioid epidemic, states should consider the use of federal and state funding to create or expand evidence-based treatments, including MAT, in criminal justice settings."

SAMHSA
Substance Abuse & Mental Health Services Administration

SAMHSA’s mission is to reduce the impact of mental illness and substance abuse on America’s communities.
Medications for Opioid Use Disorder (MOUD)

- Methadone
- Buprenorphine (e.g., Suboxone)
- Naltrexone (e.g., Vivitrol)

Russolillo et al. 2018; Sordo et al. 2017
Methadone

- Only available in highly regulated specialty clinics
  - Taken orally daily
  - Mandated attendance rules
  - 42 CFR Part 2 privacy protection

- Opioid full agonist
  - Easily started
  - Treats withdrawal
  - Eases craving
  - Prevents relapse
  - Blocks effect of other opioids

- Side effects
  - Constipation
  - Sedation when mixed with benzodiazepines, some psych meds, alcohol
  - Sexual dysfunction complaints (men)
Buprenorphine

• Available in specialty clinics or by providers with a DEA “X-waiver”
  • Taken under tongue daily; although every other day is possible
  • New 1x/wk and 1x/month under skin injection formulations available
  • May be 42 CFR Part 2 protected

• **Opioid partial agonist**
  • Patient must be in withdrawal or off opioids to start
  • Treats withdrawal
  • Eases craving
  • Prevents relapse
  • Blocks effect of other opioids

• **Side effects**
  • Constipation
  • Sedation when mixed with benzodiazepines, some psych meds, alcohol
  • Sexual dysfunction complaints (men) less than methadone
Naltrexone

• Any provider can prescribe
  • Intramuscular injection every 28 days
  • May be CFR 42 Part 2 protected

• Opioid antagonist
  • Patient must be over withdrawal and off opioids to start
  • Will not treat withdrawal
  • Reduces craving
  • Blocks effect of other opioids

• Side effects
  • Injection site discomfort
  • Nausea
If they are so effective why do people avoid them?

• Stigma
  • Employers
  • CJ system
  • Family
  • Medical and mental health providers
  • Peer support networks

• Lack of easy access

• Fear of forced withdrawal upon incarceration
Evidence in the criminal justice system

Mortality rates among individuals with heroin use disorder

- 8.8 deaths / 1000 person-years among those who started treatment in prison and continued at 4 weeks post discharge
- 36.7 deaths / 1000 person-years without treatment

- Methadone continuation vs. forced withdrawal: 96% vs. 78% returned to treatment after release

Evidence in the criminal justice system

Among a commercially insured population:

• Buprenorphine associated with significant overdose reduction (HR 0.40 [0.35-0.49])

• Extended-release naltrexone not associated with significant overdose reduction (HR 0.74 [0.42-1.31])
  • Nor was oral naltrexone (HR 0.93 [0.71-1.22])

Evidence in the criminal justice system

Randomization to 3 types of in-prison treatment:
- Counseling only
- Counseling + transfer
- Counseling + methadone

At 6 months post-release
- More likely to be retained in treatment
- Less heroin use (vs. CO)
- Less criminal activity (vs. CO)

Evidence in the criminal justice system

Randomization to 3 types of in-prison treatment:
• Counseling only
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  • More likely to be retained in treatment
  • Less heroin use (vs. CO)
  • Less criminal activity (vs. CO)

• At 12 months post-release
  • Days in treatment:
    • Counseling: 23.1
    • Counseling + transfer: 91.3
    • Counseling + methadone: 166.0
    • Fewer opioid and cocaine + urine

Evidence in the criminal justice system

• Buprenorphine vs. methadone
  • No difference in self-reported relapse, criminal activity

• Buprenorphine vs. counseling
  • More likely to enter community treatment upon release (47.5% vs. 33.7%)

• Naltrexone vs. counseling + referral
  • Lower relapse at 24 weeks (43% vs 64%), no difference 1 year after treatment

Evidence summary

1. Forced withdrawal reduces treatment entry after release

2. Starting medication during incarceration is superior to community referral or counseling

3. Results are similar for buprenorphine and methadone

4. Naltrexone is effective compared to placebo, but may not be cost effective

Case Study- Rhode Island

• Unified prison and jail system
• Implemented opioid screening treatment in 2016
• Assessed post-release mortality

Green TC, et al. JAMA Intern Med. 2018
Case Study- Rhode Island

• 60% reduction in post-release mortality

• 12% statewide reduction in opioid overdose deaths (179 to 157)

• Number needed to treat: 11
Health profile

• Co-occurring health issues among individuals with OUD are the norm

• STIs – 4 times more common

• Hep C and HIV - 4-8 times more common

• COPD, diabetes, asthma, and heart disease

• Severe mental illness – 7 times more common (3% vs. 21%)

Break
Hennepin County as a case study
Hennepin County
Opioid Strategic Framework

Julie Bauch MS, RN, PHN
Opioid Response Coordinator
I combined comments from the two framework slides ...

Maria E Baca, 11/16/2018
✓ Board approved Opioid Prevention Framework in January 2018

✓ Opioid Planning Committee doing continuous work on Framework 2017-18

✓ Opioid Coordinator hired in May 2018

✓ Opioid Steering Committee commenced August 2018

✓ Focus is to advance the Framework, knowing impact on SUD more broadly
Primary prevention
Prevent further spread of the opioid crisis

Response
Avert overdose deaths

Treatment and recovery
Provide evidence-based treatment and recovery services
Collaboration across lines of business
Multi-level collaboration
Criminal justice system as point of intervention to prevent opioid-related deaths

Tyler Winkelman, MD, MSc
Clinician-Investigator, Hennepin Healthcare
Staff Physician, Hennepin County Jail

Julie Bauch, MS, RN, PHN
Opioid Coordinator
Hennepin County
Data and scope

• Linked mortality data with jail and prison data across Minnesota from 2015/2016

• Impact on Hennepin County residents

• Impact of Hennepin County facilities on all Minnesota residents
Opioid deaths in Hennepin County

- One-third of opioid deaths in MN occurred in Hennepin County (252/775)
- 30% of deaths (71) occurred within 12 months of release from prison or jail
- Among deaths that occurred after release, most were within three months (53%)
Hennepin County Impact

1 in 10 opioid deaths across MN occurred after release from Hennepin County ADC

African-American and Native Americans were disproportionately represented

Most ADC stays prior to death were longer than 24 hours
Enacting recommendations

1. Universal screening for opioid use disorders during incarceration

2. Continue or start treatment for opioid use disorders during incarceration

3. Linkage to community treatment upon discharge
Hennepin County Jail Opioid Program

• Began treating opioid use disorders end of January 2019

• Team includes:
  • X-waivered physicians - 2
  • Intake nurses
  • Nurse care coordinator
  • Day nursing staff

• Patients can be continued or inducted on buprenorphine during their jail stay. Naltrexone recently began to be offered.
Hennepin County Jail Opioid Program

- Patients must meet criteria for moderate or severe OUD to be inducted at the jail

- Starting dose of 8 mg buprenorphine and can be titrated to 24 mg

- Buprenorphine (Subutex) is crushed to reduce diversion and dissolve time

- Referrals made to:
  - Hennepin Healthcare Addiction Medicine
  - Community Clinics
  - Residential treatment centers
Patients assessed for opioid withdrawal
Patients receiving buprenorphine
Clinical protocol

• Full history and physical
• Individuals given 4 mg buprenorphine, followed by 4 mg 30 minutes later
• PDMP reviewed
• Hepatic panel, HIV ab, and Hep C ab with each induction
• Contract signed, primarily as an educational tool
• EPIC list auto-populated to manage panel
• 1 week script on discharge
Jail opioid treatment statistics

- 47 patients have received treatment
  - 39 patients continued on buprenorphine
  - 8 patients started on buprenorphine

- 8 patients transferred to post-sentencing Hennepin County jail
ADC opioid treatment statistics

- 29 patients remain in treatment

- 11 patients no longer in treatment
  - Most went to other counties that did not continue treatment

- At least 73% of patients with opioid use disorder and treated while in jail have continued with treatment after release
Ongoing efforts

• Nursing education

• Community outreach and partnership development with community clinics

• State grant funding to expand treatment team (social worker, nurse practitioner, peer recover specialist, additional nurse care coordinator)
Ongoing efforts

• Telemedicine visits to reduce time to induction

• Contracting with OTP to continue individuals on methadone

• Education for public defenders, county attorneys, and other law enforcement officials
Tips for success

• Partner with key county partners
  • Assist with navigating cross-sector relationships
  • Understanding of county budgets, resources, and org structure

• Use local data to inform decisions (and local media)

• Sheriff Office endorsement

• Find experienced physicians to help with protocol development

• Care coordination!

• Medicaid enrollment post release
Engaging the Sheriff’s Office

• Collaborate with partners who work with the Sheriff

• Identify what’s important to the Sheriff’s Office

• Frame the addiction as a public health problem and MOUD as standard of care

• Support elected officials who will engage health professionals and best practices
Conclusion 6:
Medication-based treatment is effective across all treatment settings studied to date. Withholding or failing to have available all U.S. Food and Drug Administration-approved classes of medication for the treatment of opioid use disorder in any care or criminal justice setting is denying appropriate medical treatment.
Opioid FAQ

• Addiction is a chronic disease
  • Medications are needed to treat many chronic diseases
  • Medications prevent return to addiction
  • Medications help normalize brain functions disrupted by opioid addiction

• Addiction is uncontrolled drug use with biopsychosocial consequences
  • Use of medications ≠ uncontrolled drug use
  • Use of medications decreases consequences
• Just as not all attorneys/judges etc. provide the best service, not all treatment providers are the same
• Patients starting MOUD are often starting other medical AND psychiatric care
  • Lots of appointments
  • Lots of side effects (don’t jump to conclusions that it is the MOUD)
• MOUD do not necessarily
  • Make you a better citizen
  • Decrease use of non-opioid drugs (e.g., methamphetamine, alcohol, etc.)
Conclusions

• Criminal justice involvement is common among individuals with OUD
• Release from jail and prison is associated with a very high risk of overdose deaths
• OUD treatment in the criminal justice system is effective
• Treatment programs in jails and prison require significant communication and collaboration
• Resources to help with transition from jail to community are critical
Thank you

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