USE OF THE LAW AS A TOOL TO ADDRESS THE CONSEQUENCES OF INFECTIOUS DISEASE AND ADDICTION

National Academies of Sciences, Engineering, and Medicine

WORKSHOP ON INTEGRATING INFECTIOUS DISEASE CONSIDERATIONS WITH RESPONSE TO THE OPIOID EPIDEMIC

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Overview

1. Law & its Enforcement as Structural Determinants of Drug User Health
2. The Role of Law in the Opioid Crisis
3. Translation: ID Prevention Research into Policy
4. Implementation: ID Prevention Policy into Action
Law and Innovation

- Legal and policy change started with civil disobedience
- Local experimentation ("laboratories")
- State adoption
  - Syringe exchange
  - Pharmacy reforms
  - Safe consumption facilities?
- Policy tools and legal mechanisms are critical
What’s Law Got to Do With It?

Direct impact:
- Drug laws shape access to syringes, condoms, etc. (2,4)
- Public health prevention efforts like syringe exchange programs (SEPs) and opioid agonist therapy require legal basis

Indirect impact:
- Drug laws shape drug user behavior (rushed injection, syringe sharing, overdose)
- Incarceration drives disease transmission, substance use, fatal re-entry

Normative impact:
- Criminalization = stigmatization
- Marginalization impedes public health efforts and opens door to isolation, discrimination in healthcare, law enforcement, corrections, etc.
Creating an “Enabling Environment”

- “Structural” interventions to change the environmental conditions that shape health
- Laws can be used to reduce ID risk
  - Decriminalization of syringe and drug possession
  - Authorization of syringe exchange, pharmacy sales, OAT
  - Anti-discrimination laws
  - Access to health care, health insurance, housing, wrap-around services
  - Due process and other procedural protections
1) Law on the Books: shape laws to improve drug user risk environment

2) Law on the Streets: shape how formal law is implemented at street level

Today’s Opioid Crisis

Three phases
1. Prescription drugs
2. Heroin
3. Illicitly-manufactured fentanyl

Source: New York Times (2017), National Center for Health Statistics, Centers for Disease Control and Prevention
Modal Policy Interventions

- Prescribing limits, guidelines (e.g. CDC)
- PDMPs authorizations and mandates
- Pill-mill laws and trafficking enforcement
- Prosecution of unscrupulous prescribers, dealers
- Reformulation/withdrawal of prescription drugs
- (Harm reduction: Good Samaritan, naloxone access, syringe exchange, etc.)
Law as a Driver of Injection Initiation

Figure 3. "Hooked on" prescription opioids prior to heroin use by age group n=862

Law as a Driver of Injection Initiation

Abstract
Background: Misuse of prescription opioid analgesics (POA) has increased dramatically in the US, particularly in non-urban areas. We examined injection practices among persons who inject POA in a rural area that experienced a large HIV outbreak in 2015.

Methods: Between August-September 2015, 25 persons who injected drugs within the past 12 months were recruited in Scott County, Indiana for a qualitative study. Data from in-depth, semi-structured interviews were analyzed.

Results: All 25 participants were non-Hispanic white and the median age was 33 years (range: 19–57). All had ever injected extended-release oxymorphone (Opana ER) and most (n = 20) described preparing Opana ER for multiple injections per injection episode (MIPIE). MIPIE comprised 2–4 injections during an injection episode resulting from needing >1 mL water to prepare Opana ER solution using 1 mL syringes and the frequent use of “rinse shots.” MIPIE occurred up to 10 times/day (totaling 35 injections/day), often in the context of sharing drug and injection equipment.

Conclusions: We describe a high-risk injection practice that may have contributed to the rapid spread of HIV in this community. Efforts to prevent bloodborne infections among people who inject POA need to assess for MIPIE so that provision of sterile injection equipment and safer injection education addresses the MIPIE risk environment.

Research Paper

Multiple injections per injection episode: High-risk injection practice among people who injected pills during the 2015 HIV outbreak in Indiana

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Translation: SEP Authorization (20)
Translation: Criminalizing Syringe Possession (29)

Translation: Criminalizing Syringe Possession w/ Pub Health Exception (11)

Translation: Methadone Access

Source: amFar.org (2018)
<table>
<thead>
<tr>
<th>Research</th>
<th>Northeast (9)</th>
<th>MidWest (12)</th>
<th>South (17 + DC)</th>
<th>West (13)</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Award Amount (ave, range)</td>
<td>$20,298,075.33</td>
<td>$17,427,069.67</td>
<td>$20,398,502.35</td>
<td>$16,790,608.92</td>
<td>$18,761,960.20</td>
</tr>
<tr>
<td>Needs Assessment</td>
<td>44% (4,9)</td>
<td>42% (5,12)</td>
<td>47% (8,17)</td>
<td>69% (9,13)</td>
<td>51% (26,51)</td>
</tr>
<tr>
<td>Improve data coordination</td>
<td>22% (2,9)</td>
<td>25% (3,12)</td>
<td>41% (7,17)</td>
<td>69% (9,13)</td>
<td>41% (21,51)</td>
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<tr>
<td>Prevention</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Public awareness/training on responding to ODs</td>
<td>22% (2,9)</td>
<td>8% (1,12)</td>
<td>35% (6,17)</td>
<td>31% (4,13)</td>
<td>25% (13,51)</td>
</tr>
<tr>
<td>Take Back Programs/Proper Disposal</td>
<td>22% (2,9)</td>
<td>8% (1,12)</td>
<td>12% (2,17)</td>
<td>54% (7,13)</td>
<td>24% (12,51)</td>
</tr>
<tr>
<td>Expand naloxone for drug users or community</td>
<td>56% (5,9)</td>
<td>33% (4,12)</td>
<td>53% (9,17)</td>
<td>46% (6,13)</td>
<td>47% (24,51)</td>
</tr>
<tr>
<td>Expand naloxone for first responders</td>
<td>11% (1,9)</td>
<td>33% (4,12)</td>
<td>35% (6,17)</td>
<td>36% (5,13)</td>
<td>31% (16,51)</td>
</tr>
<tr>
<td>Monitoring Rxs/ PDMPs</td>
<td>22% (2,9)</td>
<td>33% (4,12)</td>
<td>35% (6,17)</td>
<td>31% (4,13)</td>
<td>31% (16,51)</td>
</tr>
<tr>
<td>Drug Courts</td>
<td>0% (0,9)</td>
<td>8% (1,12)</td>
<td>0% (0,17)</td>
<td>0% (0,13)</td>
<td>2% (1,51)</td>
</tr>
<tr>
<td>Treatment</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Increase MAT capacity, incl new venues</td>
<td>89% (8,9)</td>
<td>83% (10,12)</td>
<td>53% (9,17)</td>
<td>69% (9,13)</td>
<td>71% (36/51)</td>
</tr>
<tr>
<td>Hub and Spoke/ECHO model</td>
<td>22% (2,9)</td>
<td>42% (5,12)</td>
<td>6% (1,17)</td>
<td>36% (5,13)</td>
<td>14% (7,51)</td>
</tr>
<tr>
<td>Education about MAT, incl stigma</td>
<td>33% (3,9)</td>
<td>33% (4,12)</td>
<td>12% (2,17)</td>
<td>15% (2,13)</td>
<td>22% (11,51)</td>
</tr>
<tr>
<td>MAT access in correctional settings</td>
<td>22% (2,9)</td>
<td>8% (1,12)</td>
<td>18% (3,17)</td>
<td>0% (0,13)</td>
<td>12% (6,51)</td>
</tr>
<tr>
<td>Crisis response/outreach services</td>
<td>33% (3,9)</td>
<td>17% (2,12)</td>
<td>24% (4,17)</td>
<td>15% (2,13)</td>
<td>22% (11,51)</td>
</tr>
</tbody>
</table>
Several states (WI, ME, KY) now bundle PDMP and drug convictions data.

1. WI provides access to drug charge data, not just convictions.
2. Not clear what “decision support” function these data are supposed to have.
Law: Sometimes Necessary, Rarely Sufficient

- Progress, but
  1. Many states still lack laws, or laws not optimal
  2. Laws may sunset or be repealed
  3. Many programs still not up to scale
  4. Laws not being implemented on street level
Implementation: SEP Coverage

*As of Jan. 6, 2017

- County with at least one Needle Exchange Program
- County at high risk for HIV or HepC outbreak, no NEP

Sources: CDC, Kentucky Department for Public Health, Center for Community Solutions, North American Syringe Exchange Network

Map by Alexandra Kanik
Implementation: OAT Access

Figure KEY2.1: Engagement in Opioid Agonist Treatment by Month Following a Nonfatal Opioid-Related Overdose (2013-2014).
Harm Reduction, Law & Law Enforcement

- encounters with police (arrest, syringe or condom confiscation) associated with risk behavior and increased levels of infectious disease
- police interference with public health programs reduces their impact, fueling epidemics
- police can, do facilitate harm reduction, e.g. by providing security and referring clients to services

Maryland State Drug Paraphernalia Law protects SEP card carriers in Baltimore City.
SEP is run by a City agency allowing for collaboration.
BPD policy specifically protects SEPs and clients.
Syringe confiscation, other harassment reported by SEP clients; uninvited appearances.
Security concerns.
Harmonization needed.

Police Encounters Among Needle Exchange Clients in Baltimore: Drug Law Enforcement as a Structural Determinant of Health

Leo Beletsky, JD, MPH, Jess Cochrane, JD, MPH, Anne L. Sawyer, MPH, Chris Serio-Chapman, BA, Marina Smelyanskaya, MPH, Jennifer Han, MPH, Natanya Robinowitz, MPH, and Susan G. Sherman, PhD, MPH
Police Encounters: Monroe & Ramsay

Number of Stops
Southern Study Area

- 1 - 3.9
- 4 - 6.7
- 6.8 - 9.6
- 9.7 - 12.4
- 12.5 - 15.3
- 15.4 - 18.1
- 18.2 - 21

Baltimore, MD
Study Area

Monroe St.
Wilkins Ave.
Ramsay St.
Police Encounters: Freemont & Riggs
Implementation: Police Education Program (PEP)

- Annual in-service
- Instructors: police & public health
- Three modules:
  1. Occupational Safety
  2. Drug Policy
  3. Public Health Rationale and Programming

1. Role-play
2. Video component

Photo: Jaime Arredondo, 2014
Police Education Program (ESCUDO)

- In partnership with Tijuana Police academy (ICAP)
  - Train the trainers model.
  - Pilot training to refine intervention.
  - Saturday classes 40-50 officers.
  - Culturally adapted by the instructors.

- 3-hour PEP course divided in three modules:
  - Basic epidemiology, prevention and treatment of HIV, HCV, and tuberculosis.
  - Relevant national and state drug policies (“Narcomenudeo” law).
  - General elements of harm reduction; drug use and public health perspective.
Eligibility and Recruitment
- Tijuana police (2,000) (18 or older, High school education)
- Part of refresher in-service training for all officers
- 5 year longitudinal cohort (730)
  - Follow-up questionnaires at 3, 6, 12, 18 and 24 months
  - stepped wedge design
Survey Design

- Survey was designed using previous studies with police officers (Chan, 2012; Beletsky, 2012).
- Translated from English to Spanish with the participation of officers.
- Self-administered paper survey immediately before and after the PEP.
- Approved by US and Mexican institutions
  - All information is private and there are no consequences of decision to participate
  - Incentive (movie tickets) for the completing surveys.

<table>
<thead>
<tr>
<th>Survey Framework</th>
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<tr>
<td><strong>Pre Survey</strong></td>
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<tr>
<td>Study ID</td>
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<tr>
<td>Demographics</td>
</tr>
<tr>
<td>Basic Disease knowledge (HIV, HCV)</td>
</tr>
<tr>
<td>Occupational Safety Knowledge</td>
</tr>
<tr>
<td>Law knowledge</td>
</tr>
<tr>
<td>Harm Reduction Knowledge</td>
</tr>
<tr>
<td>Law Attitudes</td>
</tr>
<tr>
<td>Harm Reduction Attitudes</td>
</tr>
<tr>
<td>Past Behavior: Occupational Risk (last 6 months)</td>
</tr>
<tr>
<td>Past Behavior: Drug Law enforcement (last 6 months)</td>
</tr>
<tr>
<td>Self-efficacy, support, norms and motivation</td>
</tr>
</tbody>
</table>
## Descriptive Statistics (N=1751)

<table>
<thead>
<tr>
<th>Officer Demographics</th>
<th></th>
</tr>
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<tbody>
<tr>
<td>Age</td>
<td>38 (32-43)</td>
</tr>
<tr>
<td>Male</td>
<td>1150 (87.4)</td>
</tr>
<tr>
<td>At least high school education</td>
<td>876 (79.9)</td>
</tr>
<tr>
<td>Number of years working as police</td>
<td>11.4 (8.6 – 18.3)</td>
</tr>
<tr>
<td>Currently stationed in Zona Centro</td>
<td>204 (15.6)</td>
</tr>
</tbody>
</table>
Alignment with Public Health Goals

- Syringe exchange programs increase the risk of needle stick injuries among police (Agree)
- 62.23%
- It is the role of police to refer drug users to health and social services (Agree)
- 46.86% 47.60%
- If I wanted to refer a drug user to the health program, I would know how (Agree)
- 89.22% 82.40%
- 93.70% 88.20%
- Methadone maintenance programs help reduce criminal activity
- 60.96% 30.80%
- 87.10% 75.80%

* All results significant at p<0.01
Behavior Change, 3mo Follow-up

- Confiscated needles or syringes (all the time, sometimes): Before training 43.60%, 3m Follow up 37%
- Referred drug users to social and health programs (all the time, sometimes): Before training 35.90%, 3m Follow up 44.20%
- Arrested someone for heroin possession (all the time, sometimes): Before training 40.40%, 3m Follow up 29.10%

* All results significant at p<0.01
# Replication costs for police force in Mexico

<table>
<thead>
<tr>
<th>Item</th>
<th>Replication cost small police force (USD)</th>
<th>Replication cost medium police force (USD)</th>
<th>Replication cost large police force (USD)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of officers</td>
<td>200</td>
<td>950</td>
<td>1,800</td>
</tr>
<tr>
<td>Planning and Development</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Meetings with senior city officials</td>
<td>348</td>
<td>348</td>
<td>348</td>
</tr>
<tr>
<td>Personnel</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Research assistants</td>
<td>10,525</td>
<td>10,525</td>
<td>10,525</td>
</tr>
<tr>
<td>Investigators</td>
<td>9,551</td>
<td>9,551</td>
<td>9,551</td>
</tr>
<tr>
<td>974</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Video production</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Equipment/materials</td>
<td>735</td>
<td>735</td>
<td>735</td>
</tr>
<tr>
<td>Implementation</td>
<td>2,653</td>
<td>10,782</td>
<td>18,627</td>
</tr>
<tr>
<td>Building space</td>
<td>333</td>
<td>1,444</td>
<td>2,111</td>
</tr>
<tr>
<td>Equipment/materials</td>
<td>735</td>
<td>735</td>
<td>735</td>
</tr>
<tr>
<td>Officer time</td>
<td>1,585</td>
<td>8,603</td>
<td>15,781</td>
</tr>
<tr>
<td>(low – high range)</td>
<td>(1,188 – 2,142)</td>
<td>(6,446 – 11,628)</td>
<td>(11,812 – 21,308)</td>
</tr>
<tr>
<td>Total cost (low – high range)</td>
<td>13,526</td>
<td>21,655</td>
<td>29,499</td>
</tr>
<tr>
<td>Cost per officer trained</td>
<td>68</td>
<td>23</td>
<td>16</td>
</tr>
<tr>
<td>(66 – 70)</td>
<td>(21-26)</td>
<td>(14 – 19)</td>
<td></td>
</tr>
</tbody>
</table>
1. Law Reform
2. Changes in institutional policies/guidelines
3. Police trainings
4. Collaboration structures to bridge sectors
5. Changing incentives
6. Surveillance and Monitoring

Recommendations

- Plan Law
- Enact Law
- Identify Gaps and Remedies
- Translate Law into Standards and Procedures
- Monitor and Evaluate Implementation
- Communicate Standards and Procedures
Summary

1. Laws can both enable and hamper infectious disease prevention in context of current crisis
2. Effective translation and implementation are critical in achieving public health goals
3. Better systematic and episodic monitoring and surveillance needed
Research, experts: ending needle exchange won't make problems disappear
Acknowledgments

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- Participants
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- Transcriptionists and translators
- Funding: opinions expressed are solely my own and do not reflect the views of the funders.
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References


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