Thoughts on M110/Drug Addiction Treatment and Recovery Act

Ricky N. Bluthenthal, PhD
Associate Dean/Professor
Department of Population and Public Health Sciences
Keck School of Medicine
University of Southern California
Why M110/DATRA?

• Five decades long prohibition on illicit substance use possession has led to:

  Mass incarceration and enormous racial disparities in arrest and incarceration

https://davebarnhart.wordpress.com/2020/06/06/lets-make-june-17-end-the-war-on-drugs-day/

Health outcomes are worsening people who use drugs
HIV outbreaks have returned

Sex work, prescription opioids, and inadequate HIV prevention in the HIV outbreak in Scott County, Indiana

Intersections of homelessness, drug injection and the HIV outbreak in Seattle, Washington

HIV outbreaks in West Virginia, Northern Kentucky, Miami, FL and Duluth, MI all related to drug injection

It is better to care and treat people than arrest and incarcerate them

**Incarceration and coercion**

- Jail/prison increase risk for overdose death (1) & disrupts housing, employment & social support (2)
- Coerced treatment increases overdose risk (3) & has mixed recovery outcomes (4)

**Treatment and harm reduction**

- Medications for opioid use disorder have good records of effectiveness (5)
- Contingency management for methamphetamine use disorder is promising (6)
- Harm reduction services associated with declines in infectious disease risk (7)

Treatment and harm reduction infrastructure require substantial investment.
Ending the HIV Epidemic Among Persons Who Inject Drugs: A Cost-Effectiveness Analysis in Six US Cities

Emanuel Krebs,1,2 Xiaoyan Zang,1,2 Benjamin Enns,1 Jeong E. Min,1 Czarina N. Behrends,1a Carlos Del Rio,4,5 Julia C. Dombrowski,4 Daniel J. Feaster,7 Kelly A. Gebo,7 Brandon D. L. Marshall,7 Shruti H. Mehta,9 Lisa R. Metsch,10 Ankur Pandya,10 Bruce R. Schackman,9 Steffanie A. Strathdee,1,9 and Bohdan Nosyk4,10
on behalf of the Localized HIV Modeling Study Group

1British Columbia Centre for Excellence in HIV/AIDS, Vancouver, British Columbia, Canada; 2Faculty of Health Sciences, Simon Fraser University, Vancouver, British Columbia, Canada; 3Department of Healthcare Policy and Research, Weill Cornell Medical College, New York City, New York, USA; 4Rollins School of Public Health, Emory University, Atlanta, Georgia, USA; 5School of Medicine, Emory University, Atlanta, Georgia, USA; 6Department of Medicine, Division of Allergy and Infectious Diseases, University of Washington, Seattle, Washington, USA; 7Department of Public Health Sciences, Leonard M. Miller School of Medicine, University of Miami, Miami, Florida, USA; 8School of Medicine, Bloomberg School of Public Health, Johns Hopkins University, Baltimore, Maryland, USA; 9School of Public Health, Brown University, Providence, Rhode Island, USA; 10Department of Epidemiology, Bloomberg School of Public Health, Johns Hopkins University, Baltimore, Maryland, USA; 11Department of Sociomedical Sciences, Mailman School of Public Health, Columbia University, New York City, New York, USA; 12Department of Health Policy and Management, Harvard T. H. Chan School of Public Health, Boston, Massachusetts, USA; and 13School of Medicine, University of California San Diego, La Jolla, California, USA

Background. Persons who inject drugs (PWID) are at a disproportionately high risk of HIV infection. We aimed to determine the highest-valued combination implementation strategies to reduce the burden of HIV among PWID in 6 US cities.

Methods. Using a dynamic HIV transmission model calibrated for Atlanta, Baltimore, Los Angeles, Miami, New York City, and Seattle, we assessed the value of implementing combinations of evidence-based interventions at optimized (drawn from best available evidence) or ideal (90% coverage) scale-up. We estimated reduction in HIV incidence among PWID, quality-adjusted life-years (QALYs), and incremental cost-effectiveness ratios (ICERs) for each city (10-year implementation; 20-year horizon; 2018 US$).

Results. Combinations that maximized health benefits contained between 6 (Atlanta and Seattle) and 12 (Miami) interventions with ICER values ranging from $94,069/QALY in Los Angeles to $146,256/QALY in Miami. These strategies reduced HIV incidence by 8.1% (credible interval [CI], 2.8%–13.2%) in Seattle and 54.4% (CI, 37.6%–73.9%) in Miami. Incidence reduction reached 16.1%–75.5% at ideal scale.

Conclusions. Evidence-based interventions targeted to PWID can deliver considerable value; however, ending the HIV epidemic among PWID will require innovative implementation strategies and supporting programs to reduce social and structural barriers to care.

Keywords. HIV; localized HIV microepidemics; interventions; cost-effectiveness; injection drug use; dynamic HIV transmission model.
**Table 1. HIV Among Persons Who Inject Drugs in 2017 and Selected HIV Treatment and Prevention Service Levels in 2015 in 6 Cities**

<table>
<thead>
<tr>
<th>Treatments and Services</th>
<th>Atlanta, GA</th>
<th>Baltimore, MD</th>
<th>Los Angeles, CA</th>
<th>Miami, FL</th>
<th>New York City, NY</th>
<th>Seattle, WA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Persons who inject drugs who are living with HIV (%)</td>
<td>31% (11.1)</td>
<td>47% (12.3)</td>
<td>55% (10.8)</td>
<td>24% (9.3)</td>
<td>13% (10.5)</td>
<td>8% (12.9)</td>
</tr>
<tr>
<td>Prevalence (%)</td>
<td>67 (2.1)</td>
<td>50 (11.4)</td>
<td>13 (18.9)</td>
<td>27 (5.2)</td>
<td>64 (5.3)</td>
<td>17 (15.8)</td>
</tr>
<tr>
<td>HIV prevention program services levels</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Estimated annual number of syringes distributed per PWID</td>
<td>2</td>
<td>20</td>
<td>16</td>
<td>24</td>
<td>196</td>
<td></td>
</tr>
<tr>
<td>Coverage of medication for opioid use disorder among PWID, %</td>
<td>3.0</td>
<td>9.4</td>
<td>15.7</td>
<td>7.1</td>
<td>9.9</td>
<td></td>
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<tr>
<td>HIV testing levels among PWID/MOSMIVD</td>
<td></td>
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<tr>
<td>Percent receiving an HIV test in the past year</td>
<td>30% (15)</td>
<td>11 (12)</td>
<td>40 (25)</td>
<td>16 (15)</td>
<td>9 (41)</td>
<td>43 (51)</td>
</tr>
<tr>
<td>HIV treatment engagement among PWID/MOSMIVD</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Percent of diagnosed initiating ART</td>
<td>44% (9)</td>
<td>55 (14)</td>
<td>51 (14)</td>
<td>48 (11)</td>
<td>38 (14)</td>
<td>51 (14)</td>
</tr>
<tr>
<td>Percent discontinuing ART</td>
<td>29 (25)</td>
<td>11 (18)</td>
<td>14 (13)</td>
<td>24 (21)</td>
<td>11 (18)</td>
<td>5 (4)</td>
</tr>
<tr>
<td>Percent reintroducing ART</td>
<td>42 (44)</td>
<td>28 (29)</td>
<td>23 (20)</td>
<td>43 (46)</td>
<td>31 (2)</td>
<td>49 (6)</td>
</tr>
</tbody>
</table>

*Percentages are from the 2017 city surveillance reports, except for Los Angeles who were new diagnoses as of 2016, or from the Centers for Disease Control and Prevention’s Surveillance HIV Surveillance Supplemental Report.

**Table 2. Description, Effectiveness, and Scale-up Implementation Scenarios for the Evidence-Based HIV Prevention Programs and Care Interventions Included in Analysis**

<table>
<thead>
<tr>
<th>Intervention</th>
<th>Source, Evidence Level*</th>
<th>Study Design</th>
<th>Study Setting</th>
<th>Description and Effectiveness†</th>
<th>Scale-up Implementation Scenarios*</th>
</tr>
</thead>
<tbody>
<tr>
<td>SSP</td>
<td>Aspinall et al 2014 [11], 2a</td>
<td>Meta-analysis</td>
<td>SSP</td>
<td>Clean injection equipment reduces the risk of parenteral HIV transmission by 58%</td>
<td>Optimistic, % 200 syringes/PWID/year 90</td>
</tr>
<tr>
<td>MOUD with buprenorphine</td>
<td>MacArthur et al 2012 [37], 2a</td>
<td>Meta-analysis</td>
<td>Primary care and OTP</td>
<td>Office-based MOUD reduces the number of shared injections by 54% for PWID with OUD 29†</td>
<td>Ideal, % 90‡</td>
</tr>
<tr>
<td>MOUD with methadone</td>
<td>MacArthur et al 2012 [37], 2a</td>
<td>Meta-analysis</td>
<td>Primary care and OTP</td>
<td>Opioid treatment program-based MOUD reduces the number of shared injections by 54% for PWID with OUD 29‡</td>
<td>Additional scale-up of 17</td>
</tr>
<tr>
<td>Full-time PEP</td>
<td>Liu et al 2016 [27], 1b</td>
<td>RCT substudy and cohort study</td>
<td>Primary care</td>
<td>Protective level adherence to PEP (4 doses/week) reduces the risk of HIV infection by 60%</td>
<td>50 90</td>
</tr>
</tbody>
</table>

*Percentages are from the 2017 city surveillance reports, except for Los Angeles who were new diagnoses as of 2016, or from the Centers for Disease Control and Prevention’s Surveillance HIV Surveillance Supplemental Report.

†Coverage is among the 72.7% of PWID estimated to have an opioid use disorder [23].

‡While the model runs in monthly cycles, we have converted these figures to yearly probabilities for ease of interpretation.

- Only Seattle close to reaching consensus on syringes per year
- No city is close to reaching MOUD threshold
What M110 & Senate Bill 755 does

• Decriminalize possession of small amounts of illicit substances as of Feb. 1, 2021
  • Possession of small quantity of an illicit substance results in a $100 fine that can be forgiven if recipient completes health assessment (available through a 24 hours hotline)

• Provided new funding for substance use ($302 million from cannabis sales tax) as of September 2022

• Senate Bill 755 established Behavioral Health Resources Networks (BHRNs) at the county & Tribal area level throughout the state.
  • Establishes Oversight and Accountability Council to determine how funds will be distributed

• BHRNs provide trauma-informed and culturally & linguistically specific services
Concluding thoughts

• M110 is a bold and imaginative approach
  • Decriminalization with growing investments in treatment and care systems is novel

• Building out a public health approach and improving availability and quality of substance use disorder treatment will take time
Presentations today address processes and preliminary outcomes of M110

- Panel 1 provides information on overdose rates and responses to overdose deaths post-M110

- Panel 2 addresses impacts on substance use disorder treatment

- Panel 3 explores processes and outcomes related to housing, family and harm reduction services

- Panel 4 examines changes in police encounters/arrest since M110 started