One-Year Association of Drug Possession Law Change With Fatal Drug Overdose in Oregon

Spruha Joshi, PhD, MPH
Assistant Professor
Department of Epidemiology
School of Public Health
University of Michigan
One-Year Association of Drug Possession Law Change With Fatal Drug Overdose in Oregon and Washington

Spruha Joshi, PhD, MPH; Bianca D. Rivera, MPH; Magdalena Cerdá, DrPH, MPH; Gery P. Guy Jr, PhD, MPH; Andrea Strahan, PhD, MPP; Haven Wheelock, MPH; Corey S. Davis, JD, MSPH
Measure 110

November 2020
Voters approve M110 by a 17-point margin

May 2021
Legislature approves immediate investment of $20 million for M110 services

September 2021
Temporary rules for BHRNs established.

March 2022
BHRN grant award process begins

2020

February 1, 2021
- Decriminalization provision goes into effect.
- 24/7 hotline established.
- Oversight & Accountability Council appointed.

June 2021
- First round of grants awarded
- Legislature passes SB 755
- Legislature allocates $13 million to fully fund approved grants.

September 2022
BHRN grants finalized

2021

2022
Objective

How did a law that decriminalized small amounts of any drugs for personal use in Oregon and impact fatal drug overdose rates one-year post-implementation?
Study Design

We used a quasi-experimental design, the synthetic control method (SCM), to compare post-policy drug overdose mortality rates between Oregon and its estimated counterfactual comparison groups.

Oregon
2/1/2021

- Pre: January 2018 – January 2021
- Post: February 2021 – March 2022
Synthetic control method

- Counterfactual = weighted average of “donor” (control) states
  - Also called a synthetic control
  - We created a synthetic Oregon and compare to observed rates in Oregon
Data

We used death certificate data from the Centers for Disease Control and Prevention’s National Vital Statistics System and population data from the American Community Survey to calculate monthly mortality rates.

*Final* restricted use data was used for *2018-2021*. *Provisional* data was used for *Jan-March 2022*. 
Research Design: Optimizing Control Match

We tested whether inclusion of a combination of various sociodemographic and policy covariates improved fit beyond inclusion of matching pre-policy period outcomes alone.

For our models, including covariates did not improve fit in any model.

Final models presented include pre-policy monthly overdose rate only for the creation of the counterfactual synthetic control
Results

### Rates of overdose per 100,000 state population

<table>
<thead>
<tr>
<th>Month</th>
<th>Oregon</th>
<th>Synthetic Oregon</th>
<th>Rate difference^\text{b}</th>
</tr>
</thead>
<tbody>
<tr>
<td>2021</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Feb</td>
<td>1.66</td>
<td>1.69</td>
<td>-0.02</td>
</tr>
<tr>
<td>Mar</td>
<td>2.26</td>
<td>2.11</td>
<td>0.14</td>
</tr>
<tr>
<td>Apr</td>
<td>2.66</td>
<td>2.25</td>
<td>0.41</td>
</tr>
<tr>
<td>May</td>
<td>2.71</td>
<td>2.34</td>
<td>0.37</td>
</tr>
<tr>
<td>Jun</td>
<td>2.52</td>
<td>1.93</td>
<td>0.59</td>
</tr>
<tr>
<td>Jul</td>
<td>2.47</td>
<td>2.15</td>
<td>0.32</td>
</tr>
<tr>
<td>Aug</td>
<td>2.28</td>
<td>2.38</td>
<td>-0.09</td>
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<tr>
<td>Sep</td>
<td>2.57</td>
<td>2.07</td>
<td>0.49</td>
</tr>
<tr>
<td>Oct</td>
<td>2.42</td>
<td>1.85</td>
<td>0.57</td>
</tr>
<tr>
<td>Nov</td>
<td>2.02</td>
<td>1.88</td>
<td>0.14</td>
</tr>
<tr>
<td>Dec</td>
<td>2.09</td>
<td>2.08</td>
<td>0.01</td>
</tr>
<tr>
<td>2022</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Jan</td>
<td>2.42</td>
<td>2.08</td>
<td>0.34</td>
</tr>
<tr>
<td>Feb</td>
<td>2.50</td>
<td>2.01</td>
<td>0.49</td>
</tr>
<tr>
<td>Mar</td>
<td>2.47</td>
<td>2.48</td>
<td>-0.01</td>
</tr>
</tbody>
</table>

^\text{b} Rate differences are adjusted for covariates and baseline differences.
Legal change to decriminalize small amounts of any drugs for personal use in Oregon was not significantly associated with changes in fatal drug overdose
Limitations

Because of data limitations at the time of publication, we used provisional data for 2022 and only examined 12-months of follow up.

However, our continued monitoring shows similar results.

The impact of treatment provisions and criminal legal system involvement may be cumulative and attenuated, such that reductions in fatal drug overdose might be lagged.

We were unable to evaluate impacts by race, ethnicity, and sex/gender.
Conclusion

In the first year after policy implementation, this study found no evidence that Measure 110 significantly impacted fatal overdose rates.

Because some aspects of these laws may take time to be associated with fatal drug overdoses, it is important to evaluate the medium- and long-term consequences of these laws when more data become available.
Collaborators and Funding

Center of Opioid Epidemiology and Policy, NYU
Magdalena Cerdá, DrPH, MPH
Bianca Rivera, MPH
Corey Davis, JD

Centers for Disease Control and Prevention
Andrea Strahan, PhD, MPP
Gery P. Guy Jr, PhD, MPH

Outside In
Haven Wheelock, MPH

Funding was provided by the Centers for Disease Control and Prevention under contract number 75D30121P12160

The findings and conclusions in this report are those of the authors and do not necessarily represent the official position of the Centers for Disease Control and Prevention
Thank you!

• Questions?

Contact:

Spruha Joshi, PhD, MPH
spruha@umich.edu
• EXTRA SLIDES IF NEEDED AFTER THIS
Results


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<table>
<thead>
<tr>
<th>Variable</th>
<th>Oregon</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean postdecriminalization rate difference</td>
<td>0.268</td>
</tr>
<tr>
<td>Pre-RMSPE</td>
<td>0.154</td>
</tr>
<tr>
<td>Post-RMSPE</td>
<td>0.365</td>
</tr>
<tr>
<td>Post pre-RMSPE ratio(^a)</td>
<td>2.369</td>
</tr>
<tr>
<td>Permutation ratio result(^b)</td>
<td>13 of 50</td>
</tr>
<tr>
<td>Probability, %</td>
<td>26</td>
</tr>
</tbody>
</table>

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\(^a\) Post-RMSPE ratio adjusted for baseline differences

\(^b\) Permutation ratio result with 50 permutations