



Criminal legal system engagement among people who use drugs in Oregon following decriminalization of drug possession

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ABSTRACT

Background: In February 2021, Measure 110 (M110) in Oregon decriminalized noncommercial possession of drugs. We examined criminal legal system (CLS) involvement of people who use drugs (PWUD) 2 years after decriminalization.

Methods: We conducted a quantitative survey of PWUD (N=468) in eight Oregon counties between March and November 2023. We ran multivariable models to examine predictors of CLS involvement and law enforcement stops.

Results: The majority of PWUD (74 %) reported any past year CLS involvement; 67 % had at least one law enforcement stop (mean of 11.4 and median of 3 law enforcement stops) and 33 % had at least one jail incarceration. Among PWUD whom law enforcement had found to possess drugs (n=101), 77 % had their drugs seized at least once, and 63 % (n=56) were taken into custody for charges that did not include drug use or possession at least once. Younger age, cisgender male identity, unstable housing, and nonurban county location were associated with a higher prevalence of any CLS involvement. PWUD who were unstably housed had 6.80 more law enforcement stops than housed PWUD (95 % CI: 4.03–9.57). PWUD in nonurban counties experienced 9.73 more law enforcement stops than those in urban areas (95 % CI: 4.90–14.56). No significant differences were found by race or ethnicity and CLS involvement. Only 13 % of PWUD were aware that all drugs had been decriminalized.

Conclusions: Despite drug decriminalization, the majority of PWUD in our study reported significant CLS engagement and limited M110 knowledge.

1. Introduction

In February 2021, the U.S. state of Oregon began implementing the 2020 Drug Addiction Treatment and Recovery Act, or Measure 110 (M110), which decriminalized possession of personal amounts of all drugs that are illegal under the federal Controlled Substances Act. At that time, Oregon not only had the second-highest rate of people aged 12 or older experiencing a substance use disorder, but it was also ranked the lowest among the 50 U.S. states for substance use disorder treatment access (Lenahan et al., 2022). The law was designed to use revenue from cannabis taxes to fund increased substance use disorder treatment, harm

reduction, and housing assistance services. M110 was also passed with the goal of reducing the racial inequities in Oregon's criminal legal system (CLS), given the stark racial disparities for possession of controlled substances (PCS) arrests and convictions (Oregon Criminal Justice Commission, 2020).

Although the drug decriminalization component of M110 was implemented in February 2021, funding for treatment, harm reduction, and housing services faced delays beyond the law's stated disbursement goal to reach the state's 36 counties, as the Oregon Health Authority navigated the grant-making process outlined in the measure (Oregon Health Authority, 2023). According to a December 2023 audit, M110's

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Oversight and Accountability Council awarded more than \$260 million to the county-level Behavioral Health Resource Networks (BHRNs) in the first contracts (Oregon Health Authority, 2023).

Early evaluations of M110 have largely focused on its decriminalization aspects due to the delays in funding services and the standard delays in availability of healthcare and vital statistics data (e.g., mortality data). One study showed a significant reduction in arrests for PCS after M110, with 83 % fewer average monthly PCS arrests after M110 took effect compared with pre-pandemic levels and 67 % fewer PCS arrests compared with the pre-M110 policy COVID-19 pandemic period (Russoniello et al., 2023). Similarly, Davis et al. (2023) compared arrest data before and after M110 implementation in Oregon with data from Colorado, Idaho, Montana, and Nevada. They found that M110 resulted in reductions in arrests for PCS and no evidence of a concurrent rise in violent crimes in Oregon. Notably, this study also showed potential evidence of a net-widening effect in Oregon, wherein arrests for other lower-level crimes (e.g., quality-of-life crimes, such as loitering) increased after M110's implementation (Davis et al., 2023).

Two separate qualitative studies of Oregon's law enforcement community provide additional context for how drug decriminalization was implemented (Henderson et al., 2023; Smiley-McDonald et al., 2023). Both studies were consistent in their findings that police generally perceived an increase in crime and lawlessness after M110's implementation, that M110 had resulted in a "no-consequences" culture in which police had "no teeth," a loss in key investigative tools to build cases (e.g., loss of probable cause to search, loss of ability to use low-level drug offenses to coerce informants to identify drug sellers or traffickers), a lack of statewide guidance around the issuance of the M110 citations, resulting in a wide variation of department-specific policies and a general perception that these citations are not taken seriously by PWUD (Henderson et al., 2023; Smiley-McDonald et al., 2023). Henderson et al. (2023) additionally noted law enforcement's view that their policing was less proactive and more reactive given the state's lack of interest in drug crimes. Smiley-McDonald et al. (2023) found that law enforcement reported routinely seizing drugs and drug equipment during their encounters with PWUD, even when the incident involved drug use alone. In addition, law enforcement described how Oregon's legacy community corrections population could still be coerced to build and investigate cases, because these populations often have a "no substance use stipulation" as a condition of their release (Smiley-McDonald et al., 2023).

In the context of their engagement with law enforcement, research shows that PWUD are often unaware of local and state drug laws, such as Good Samaritan Laws (Ackermann et al., 2022; Evans et al., 2016; Latimore and Bergstein, 2017; Moallem and Hayashi, 2021; Rouhani et al., 2021; Schneider et al., 2020), drug laws in general (Brochu et al., 2011), and statutes that decriminalize drugs (Beletsky et al., 2016; Greer et al., 2024; MacCoun et al., 2009). Regarding drug decriminalization specifically, the Beletsky et al. (2016) study showed that only 11 % of PWUD were aware of Mexico's 2009 drug decriminalization law in the years immediately after implementation. In British Columbia, Canada, Greer et al. (2024) documented that although 63 % of PWUD knew about Canada's 3-year exemption to its Controlled Drugs and Substances Act, which decriminalized personal possession of amounts of certain illegal drugs, PWUD lacked knowledge of the legal protections afforded under this exemption, such as substances included and threshold amounts. Feder et al. (2023) showed that only 28 % of a sample of PWUD were aware of a 2021 Vermont law removing all criminal penalties for possessing 224 milligrams or less of the opioid use disorder medication buprenorphine 1 year after the law went into effect.

Notably, there is no published scientific literature on the population that is most directly impacted by drug decriminalization from M110 in Oregon: PWUD. As such, our study presents the first quantitative data from a survey of PWUD in Oregon 2 years after M110's implementation to assess PWUD's involvement with the CLS and knowledge of drug possession laws after M110.

2. Material and Methods

2.1. Data Collection Procedures

The findings reported in this article are part of a large multicomponent, mixed-methods study evaluating Oregon's M110. In this study, data were collected using a cross-sectional study design in which respondents completed a one-time quantitative survey, conducted face-to-face by trained interviewers who read questions aloud and entered answers directly into a computer-assisted personal interviewing program (Blaise, Statistics Netherlands, The Hague, Netherlands). Participants were recruited in collaboration with partner agencies that provide supportive services to PWUD or through direct outreach by the study team to homeless encampments or other locations frequented by PWUD (e.g., community recycling centers). Surveys were conducted in private spaces outdoors at parks or encampments or indoors at partner agencies when space was available. All locations were welcoming of and convenient for study participants.

The 20- to 40-minute survey included questions about participant demographics, substance use, overdose experiences, CLS involvement, and M110 knowledge. Data collection occurred between March and November 2023. Participants were remunerated \$20 for completing the survey. RTI International's Institutional Review Board approved all study procedures.

2.2. Sample

The sample consisted of 468 PWUD who were recruited across eight counties in Oregon (Coos, Douglas, Jackson, Josephine, Lane, Multnomah, Umatilla, and Union). Oregon is a geographically large state in the U.S. Pacific Northwest and has a population of 4.2 million. Study eligibility included (1) being 18 or older, (2) being able to provide informed consent before data collection, and (3) having used any drugs that were affected by M110 (cocaine/crack, fentanyl, heroin, LSD, MDMA, methadone, methamphetamine, opioid pills, or psilocybin) in the 30 days before the interview, as verified through a brief screening process. All participants provided informed consent before data collection. No one who presented at the field data collection sites and was eligible to participate refused to participate.

For this analysis, we present descriptive statistics for all participants, when available. Of the 468 PWUD interviewed, 5 were missing a key classification across the CLS involvement questions and were not included. Of the remaining 463 participants, 15 were missing data on other sociodemographic characteristics and were excluded. Thus, our analytic sample size was 448 participants.

2.3. Study Measures

2.3.1. Outcomes

The CLS measures are summarized in Appendix Table 1. We created a variable for "any criminal legal system involvement" (yes/no) by grouping participants who responded affirmatively to any of the following: in the last 12 months, they were (1) stopped or questioned by law enforcement at least once (Question E1), (2) on any type of community supervision (Question E9), or (3) sent to jail at least once (Question E16). We also examined the number of times law enforcement stopped or questioned participants. Among those who were stopped or questioned, we also examined any experiences of law enforcement searches in the last 12 months. For those who reported being sent to jail in the past 12 months, we include the number of nights spent in jail and whether the time that they spent in jail included any drug possession charges. We summarized all other questions related to law enforcement interactions.

We also assessed participant knowledge of M110 with the following questions:

Table 1

Sample characteristics among people who use drugs, stratified by criminal legal system involvement, Oregon (n=448).

Characteristic	Total 448 (100.0 %)	Any criminal legal system involvement in last 12 months*		Test statistic, p- value**
		Yes 330 (73.7 %)	No 118 (26.3 %)	
Age (median, IQR)	40, 31–51	39, 31–49	45, 33–54	z=3.13, 0.002
Age categories				$\chi^2=11.73$, 0.008
18–34	160 (35.7 %)	129 (80.6 %)	31 (19.4 %)	
35–44	119 (26.6 %)	91 (76.5 %)	28 (23.5 %)	
45–54	87 (19.4 %)	54 (62.1 %)	33 (37.9 %)	
55+	82 (18.3 %)	56 (68.3 %)	26 (31.7 %)	
Gender				$\chi^2=12.78$, 0.002
Cisgender women	149 (33.3 %)	99 (66.4 %)	50 (33.6 %)	
Cisgender men	286 (63.8 %)	225 (78.7 %)	61 (21.3 %)	
Gender minorities (nonbinary, transgender, two-spirit)	13 (2.9 %)	6 (46.2 %)	7 (53.9 %)	
Race/ethnicity				$\chi^2=6.526$, 0.51
White	298 (66.5 %)	223 (74.8 %)	75 (25.2 %)	
Multiracial***	65 (14.5 %)	51 (78.5 %)	14 (21.5 %)	
Black	31 (6.9 %)	21 (67.7 %)	10 (32.3 %)	
Hispanic/Latinx	23 (5.1 %)	15 (65.2 %)	8 (34.8 %)	
Native American or Alaska Native	19 (4.2 %)	13 (68.4 %)	6 (31.6 %)	
Native Hawaiian or Pacific Islander	5 (1.1 %)	2 (40.0 %)	3 (60.0 %)	
Other	5 (1.1 %)	4 (80.0 %)	1 (20.0 %)	
Asian	2 (0.4 %)	1 (50.0 %)	1 (50.0 %)	
Race/ethnicity				$\chi^2=0.63$, 0.43
White alone	298 (66.5 %)	223 (74.8 %)	75 (25.2 %)	
Non-White or Multiracial	150 (33.5 %)	107 (71.3 %)	43 (28.7 %)	
Currently homeless or unstably housed				$\chi^2=26.43$, <0.001
No	65 (14.5 %)	31 (47.7 %)	34 (52.3 %)	
Yes	383 (85.5 %)	299 (78.1 %)	84 (21.9 %)	
Urban county				$\chi^2=7.08$, 0.008
Urban	269 (60.0 %)	186 (69.1 %)	83 (30.9 %)	
Non-urban	179 (40.0 %)	144 (80.5 %)	35 (19.6 %)	
Knowledge of M110 Aware that possession of drugs for personal use has been decriminalized	357 (79.7 %)	265 (74.2 %)	92 (25.8 %)	$\chi^2=0.29$, 0.59
Aware all drugs were decriminalized	58 (12.9 %)	48 (82.8 %)	10 (17.2 %)	$\chi^2=2.84$, 0.092

* Criminal legal system involvement was defined as any law enforcement stops, community supervision, or time spent in jail. ** Bivariate tests were conducted by any criminal legal involvement. Wilcoxon rank-sum tests were performed for continuous variables and chi-square tests were performed for

categorical variables. *** The most common multiracial categories were Native and White, Hispanic/Latinx and White, and Black and White.

- True or false: Possession of drugs for personal use has been decriminalized in Oregon.
- Are you aware of which drugs were decriminalized as part of M110, and could you tell me which ones they are? (fentanyl, heroin, methamphetamine, cocaine, MDMA, LSD, psilocybin, oxycodone; all drugs)

2.3.2. Independent Variables

The sociodemographic variables used in this analysis include age, gender, race/ethnicity, housing status, and the county in which the interview was conducted. We categorized age into the following groups: 18–34, 35–44, 45–54, and 55 or older. We asked participants to self-report their race/ethnicity and gender. We operationalized the county of the interview by grouping the participants into two categories, with “Urban” county to indicate that the participant was interviewed in Multnomah or Lane Counties. We refer to Coos, Douglas, Jackson, Josephine, Umatilla, and Union as “Non-urban” counties. The question “Do you currently consider yourself homeless or unstably housed?” measured housing status and included a yes/no response option.

2.4. Data Analysis

Statistical analyses were conducted in Stata, version 18 (StataCorp LLC, College Station, Texas). Descriptive statistics, including percentages, medians, and means, provide an overview of the sociodemographic characteristics, CLS involvement, and knowledge of M110 among PWUD. We conducted bivariate analyses and multivariable generalized linear models to explore the relationships between sociodemographic characteristics and CLS involvement. We examined three outcomes: any CLS involvement in the last 12 months (yes/no), the number of times PWUD were stopped by law enforcement, and any law enforcement searches among those who were stopped. For any CLS involvement and any law enforcement searches, we conducted modified Poisson models with robust standard errors (as the log-binomial model did not converge). For the number of times PWUD were stopped, we conducted a negative binomial model with robust standard errors (given violations of the assumption of a Poisson model that the mean and variance are equal). We included all sociodemographic characteristics and estimated average marginal effects and 95 % confidence intervals. Given small sample sizes, we were unable to examine specific racial/ethnic or gender minority disparities. Therefore, we grouped non-White and multiracial individuals and compared non-White participants with people who identified as White alone. We also grouped women and gender minorities and compared cisgender men with cisgender women or gender minorities.

3. Results

3.1. Sample Characteristics

In our sample of 448 PWUD, the median age was 41 years (standard deviation [SD]=12.7) (Table 1). About two thirds of PWUD identified as cisgender men (64 %), and 60 % were interviewed in an urban county. The most common racial/ethnic group in the sample was White (67 %), followed by multiracial (15 %) and Black (7 %). Among those who identified as multiracial, American Indian or Alaska Native, and White composed the majority (45 %, n=29), followed by Hispanic/Latinx and White (15 %, n=10) and Black and White (8 %, n=5) (data not shown). For context, the U.S. Census Bureau reports that Oregon’s population of 4.2 million people includes people who are 62 % White alone, 12 % Black alone, 19 % Hispanic/Latinx, 6 % Asian alone, 1 % American Indian or Alaska Native alone, 0.2 % Native Hawaiian or Other Pacific Islander alone, 8 % some other race alone, and 10 % of two or more

racial groups (U.S. Census Bureau, 2021). Over 85 % of PWUD reported they were currently homeless or unstably housed at the time of the interview. Bivariate analyses showed significant differences for age, gender, urban county, and housing status.

3.2. Knowledge of M110 Law

Almost 80 % of PWUD were aware that some possession of drugs for personal use had been decriminalized (Table 1). However, only 13 % were aware that M110 decriminalized all drugs (Table 1 and Fig. 1). By specific drug, the most common drugs that PWUD knew were decriminalized as part of M110 were methamphetamine (56 %), heroin (37 %), and cocaine (29 %). Only 19 % of PWUD understood fentanyl to be decriminalized.

3.3. Nature of CLS Involvement

Overall, 330 PWUD (74 %) had some CLS involvement in the last 12 months. Among those with any CLS involvement, there was a mean of 11.4 and median of 3 (SD=23.0) law enforcement stops in the last 12 months (Table 2). Among PWUD with any CLS involvement, over 90 % were stopped or questioned at least once by law enforcement, and over one third (39.1 %) reported being stopped or questioned between 3 and 10 times. Furthermore, 44 % had been jailed at least once in the last 12 months, 21 % were on probation, and 13 % were on post-prison supervision or parole. Among those who had been jailed (n=145), 40 % spent between 1 and 7 nights in jail, 24 % spent more than a week and less than a month, and 32 % spent more than a month and 20 % reported being sent to jail with a drug possession charge at least once.

3.4. Consequences of Law Enforcement Stops

Of the 300 PWUD who were stopped or questioned by law enforcement in the last 12 months, over half (54 %; n=161) had their person, car, or possessions searched at least once (Table 3). One third (34 %, n=101) reported that law enforcement had found drugs in their possession at least once, and over half (52 %, n=155) had been arrested and booked at least once. Among PWUD who had drugs found in their possession (n=101), 77 % had their drugs seized by law enforcement at least once, 68 % received no legal consequences, and 63 % were taken into custody for charges that did not include drug use or possession. Of those who had their drugs seized in the last 12 months (n=76), 20 % reported this happening twice, and 38 % reported this happening three or more times (data not shown).

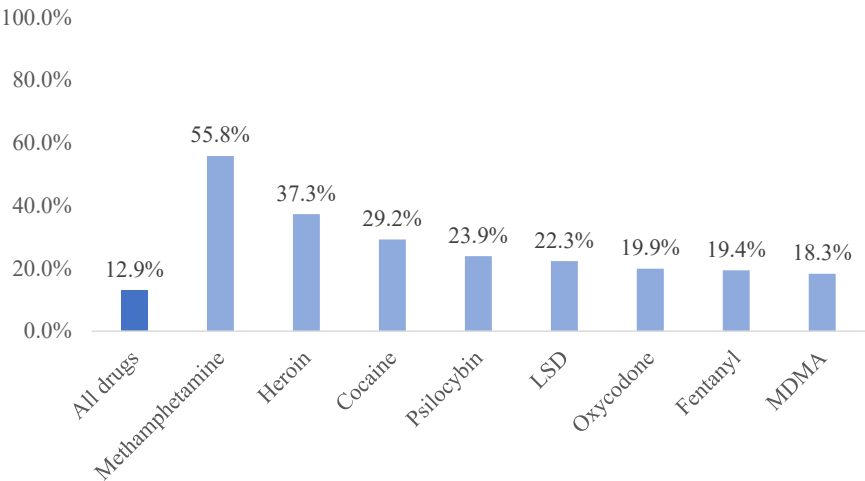


Fig. 1. Knowledge of drugs decriminalized by M110, Oregon (n=448). LSD = lysergic acid diethylamide; MDMA = 3,4-methylenedioxymethamphetamine.

Table 2
Criminal legal system involvement experiences among people who use drugs, Oregon (n=330).

Criminal legal system experience	Criminal legal system involvement (n=330)
Number of law enforcement stops (mean, median, SD)	11.4, 3, 23.0
At least once	300 (90.9 %)
1	59 (17.9 %)
2	46 (13.9 %)
3–10	129 (39.1 %)
11+	66 (20.0 %)
Types of community supervision	
Probation	68 (20.6 %)
Post-prison supervision/parole	43 (13.0 %)
Supervised release/other community supervision	19 (5.8 %)
Times sent to jail	
At least once	145 (43.9 %)
1	71 (21.5 %)
2	33 (10.0 %)
3+	41 (12.4 %)
Nights spent in jail	n=145
None	5 (3.5 %)
1–7 nights	58 (40 %)
7–29 nights	35 (24.1 %)
30 or more nights	47 (32.4 %)
Times sent to jail that included a drug possession charge	
None	116 (80.0 %)
At least once	29 (20.0 %)

3.5. Predictors of Criminal Legal System Involvement

In a multivariable regression analysis, people who were younger, cisgender men, unstably housed, or interviewed in non-urban counties were statistically significantly associated with any CLS involvement (Fig. 2, Appendix Table 2). There were no statistically significant differences by race/ethnicity (non-White vs. White: 0.98 [0.90–1.06]).

We estimated mean differences in the number of times PWUD were stopped or questioned by law enforcement in the last 12 months (Fig. 3, Appendix Table 3). PWUD who were currently homeless or unstably housed and PWUD interviewed in non-urban counties had more law enforcement stops than their housed and urban counterparts, about 7 and 9 more stops, respectively. There were no statistically significant differences by gender or race/ethnicity.

Among participants who were stopped or questioned by law enforcement (n=300), multivariable analyses revealed cisgender men and non-White or Multiracial participants independently experienced an

Table 3

Consequences of law enforcement stops or questioning in last 12 months, Oregon (n=300).

Consequence of law enforcement interaction	N (%)
Among participants who were stopped or questioned, law enforcement...	n=300
Searched them, their car, or their possessions at least once	161 (53.7 %)
Found drugs in their possession at least once	101 (33.8 %)
Arrested and booked them for breaking the law at least once	155 (52.4 %)
Among those who had drugs found in their possession, participants...	n=101
Had drugs or drug equipment confiscated by law enforcement at least once	76 (76.8 %)
Had no legal consequences at least once	65 (67.7 %)
Taken into custody and charged for something other than drug use/possession at least once	56 (62.9 %)
Received a drug-related citation at least once	36 (36.0 %)
Taken into custody on charges including drug use/possession at least once	27 (27.0 %)
Sanctioned or violated probation or post-prison supervision at least once	22 (22.2 %)
Among those who received a drug citation, participants...	n=36
Did nothing	25 (69.4 %)
Let probation or post-prison supervision officers know	9 (25.0 %)
Paid the citation fee	7 (19.4 %)
Contacted law enforcement	5 (13.9 %)
Called the hotline to get the fee waived	3 (8.3 %)

increased prevalence of any law enforcement searches in the last 12 months (Fig. 4, Appendix Table 4). Older age and non-urban county were independently associated with a decreased prevalence of any law enforcement searches.

4. Discussion

Previous studies showed that Oregon law enforcement perceived that drug decriminalization had eroded the rule of law (Smiley-McDonald et al., 2023) and restricted proactive policing (Henderson et al., 2023). Yet our findings show that PWUD in Oregon were heavily policed despite Oregon's drug decriminalization law, particularly among those who were unstably housed or unhoused and those located in non-urban areas. Nearly three quarters of our sample of PWUD reported past year CLS involvement; of these, over 90 % were stopped or questioned at least once, and over one third were stopped or questioned between 3 and

10 times in the past year, and over two in five participants with CLS involvement had spent at least one night in jail. Notably, Henderson and colleagues used trend data to show that police contacts were declining in the months leading up to the COVID-19 lockdown, stabilized post-M110, and then began to increase in 2022 (Henderson et al., 2024). The trend of increased police contacts Henderson and colleagues show roughly aligns with the reference period of our survey (i.e., participants were asked to report on the past 12 months). The high amount of jail time and CLS involvement may also reflect that 130 participants reported to be on some type of community supervision, which could elevate the risk for police involvement and nights spent in jail since drug possession could violate probation or parole conditions. Moreover, our findings may echo those of other drug decriminalization studies showing concurrent decreases in possession arrests and increases in other types of stops (i.e., net-widening practices) after drug decriminalization in Mexico (Arredondo et al., 2018; Gaines et al., 2017) and cannabis decriminalization in the District of Columbia and Los Angeles (Joshi et al., 2023), England and Wales (Shiner, 2015), and Australia (Shanahan et al., 2016), and drug possession decriminalization in and around sanctioned drug consumption sites in Denmark (Kammersgaard et al., 2024). The substantially higher rate of CLS involvement among participants without stable housing could suggest that they were more heavily policed for loitering, vagrancy, and sleeping or camping in public spaces. For example, the increased policing that people who are homeless or unhoused experience is exemplified by the U.S. Supreme Court's recent *Grants Pass vs. Johnson* case, where the court upheld Oregon's city of Grants Pass' laws which target people who are encamped, unhoused, or homeless with criminal penalties. Grants Pass is located in Josephine County where some of our interviews took place.

The high level of being policed among our sample of PWUD may also reflect other research that shows American law enforcement generally disagree with drug decriminalization laws and favor punitive responses for PWUD (Jorgensen, 2018; Petrocelli et al., 2013; Stanton et al., 2022) and perceive and exercise considerable and wide discretion on scene with PWUD (del Pozo et al., 2021a, 2021b; Greer et al., 2024). These sentiments may be particularly salient in light of Oregon law enforcement reporting that they lacked training about M110 when it was implemented (Smiley-McDonald et al., 2023). Major policy initiatives, such as M110, could be necessary to unwind the United States' carceral approach to addressing drug use but are insufficient without additional dissemination and implementation supports. Governments considering drug decriminalization laws should consider ensuring appropriate

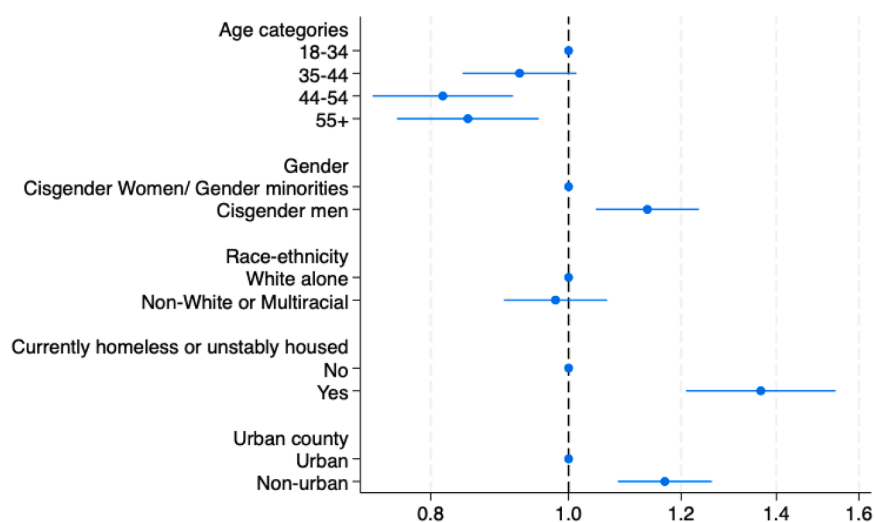


Fig. 2. Average marginal associations with any criminal legal system involvement in the last 12 months (n=448). Note: We conducted a modified Poisson regression model to estimate prevalence ratios and 95 % confidence intervals between sociodemographic characteristics and any criminal legal system involvement in the last 12 months.

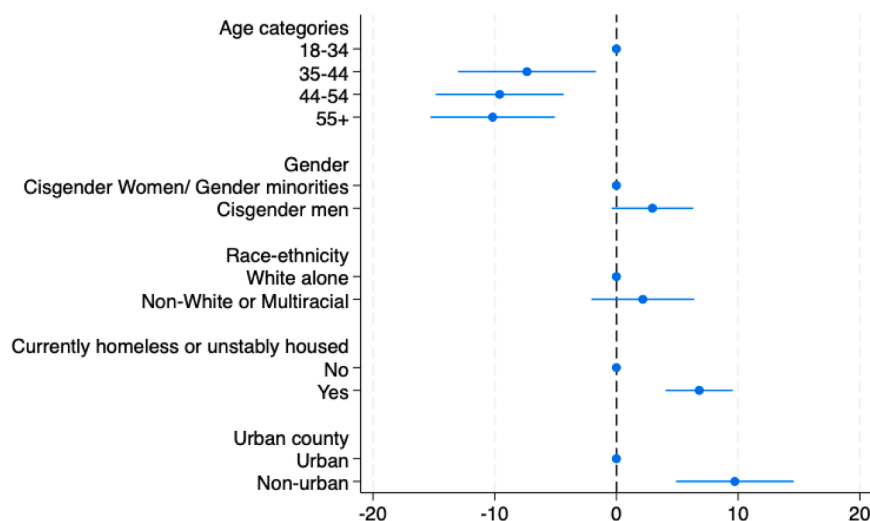


Fig. 3. Average marginal associations with the number of law enforcement stops in the last 12 months (n=448). Note: We conducted a negative binomial model to estimate mean differences and 95 % confidence intervals in the number of stops by law enforcement.

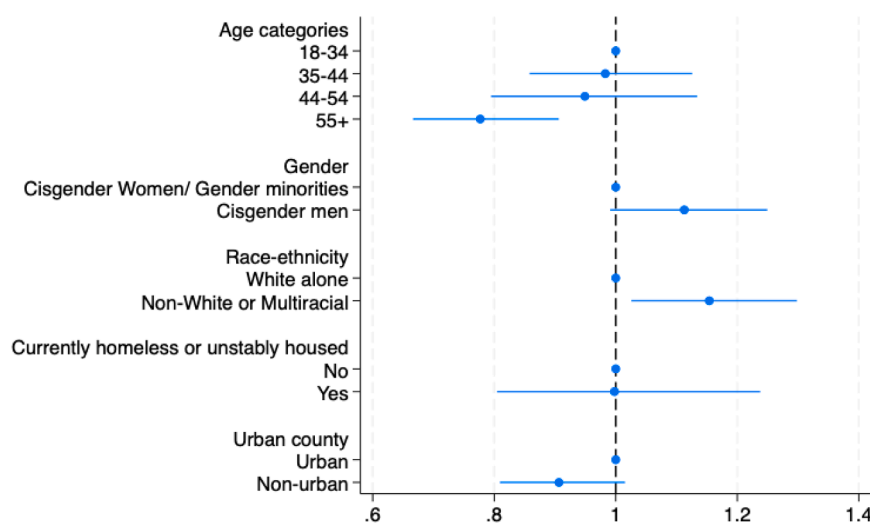


Fig. 4. Average marginal associations with any law enforcement searches in the last 12 months (n=300). Note: We conducted a modified Poisson regression model to estimate prevalence ratios and 95 % confidence intervals between sociodemographic characteristics and any law enforcement searches in the last 12 months.

training and guidelines for law enforcement to prevent net-widening practices so that the intended health-related goals of these drug policy changes can be fully actualized.

A substantial proportion of our sample of PWUD reported having their drugs seized by law enforcement after a stop and search. This practice, even when resulting in no arrest, has been documented in the context of drug policy changes in Oregon (Smiley-McDonald et al., 2023), Vancouver (Hayashi et al., 2023), and Denmark (Kammersgaard et al., 2024). Although Oregon law enforcement can lawfully seize drugs and drug use equipment (Oregon Revised Statute 131 A.020), law enforcement crackdowns and drug and drug use equipment seizure practices are linked to increased harms (e.g., Kerr et al., 2005), including injection drug use initiation (Melo et al., 2018), rushed injections (Aitken et al., 2002; Kerr et al., 2005; Small et al., 2006) elevated risk of subsequent overdoses and death (Cano et al., 2024; Ray et al., 2023), HIV/AIDS (DeBeck et al., 2017) and other infectious diseases (Cooper et al., 2005), and increases in violence and crime (Aitken et al., 2002; Werb et al., 2011). The potential harms that the extant literature illuminates about drug seizures are compounded by our finding that PWUD interviewed in non-urban counties were more commonly stopped and

searched by law enforcement. These counties have more limited harm reduction and substance use disorder treatment resources (e.g., (Lipira et al., 2021; Seaman et al., 2021)) and health and treatment infrastructure (Rural Health Information Hub, 2022), making PWUD in non-urban populations more vulnerable and at higher risk for health issues and overdoses.

Notably, one of the driving forces for the passage of M110 was to address the racial inequities associated with police stops of minorities and the disproportionate number of Black people, Indigenous people, and people of color involved in Oregon's CLS. Neither our bivariate or multivariable analyses suggest that race/ethnicity was statistically significant for CLS involvement, and our null finding for race/ethnicity and police stops suggests M110 may have some early success in helping reduce racial and ethnic disparities. Our bivariate and multivariable analyses suggest CLS involvement was associated with urban location and housing status. With Davis et al.'s (2023) finding that in the first year of decriminalization racial disparities in PCS arrests decreased but remained high post-M110 implementation, it is clear that more research will be needed to examine longitudinal arrest and incarceration data in the future.

A small minority of our sample of PWUD was aware that all drugs were decriminalized, which aligns with research studies elsewhere showing PWUD are often unaware of key aspects of new drug policies (e.g., Rouhani et al. 2021), including drug decriminalization (Beletsky et al., 2016; Greer et al., 2024; MacCoun et al., 2009). Although it has been documented elsewhere that PWUD in Oregon were aware that fentanyl was flooding the drug supply (LaForge et al., 2022; Shin et al., 2022) at about the same time M110 was being implemented, fewer than 2 of 10 PWUD in this study were aware that fentanyl had been decriminalized. The lack of knowledge about drug decriminalization has critical implications for understanding decision-making about and consequences of drug use among PWUD and elevates concerns about civil liberties, given the high rate of law enforcement stops. Although M110 opponents, including law enforcement (e.g., Henderson et al., 2023; Smiley-McDonald et al., 2023) and state leadership (e.g., Kubeisy, 2024; Smith, 2023), have attempted to assign many of the challenges with regard to drug use in Oregon to decriminalization, such wide-ranging impacts on drug use practices cannot occur in the context of limited knowledge of the measure among PWUD. Our findings point to the general importance of proactively correcting information gaps as laws like M110 are implemented, particularly because PWUD have been shown to be largely uninformed of local and state drug decriminalization laws (Beletsky et al., 2016; Feder et al., 2023; Greer et al., 2024; MacCoun et al., 2009). BHRNs, which are now operating in each of Oregon's 36 counties, can be instrumental in educating PWUD about relevant new and evolving drug laws and policies. However, notably, before BHRNs were established, more public outreach campaigns through trusted sources (e.g., harm reduction organizations) and the state's investment in a full-scale educational campaign may be beneficial, because the enactment and outreach of state laws should not have to depend on local priorities of organizations like BHRNs.

Our results should be considered in light of potential limitations of our study. First, the data were self-reported and may be subject to reporting bias. Additionally, this was a cross-sectional survey and causal relationships cannot be established. Future longitudinal studies that examine CLS data before and after drug decriminalization would be invaluable to understand policy effects like M110. Finally, although our study sample included PWUD in eight Oregon counties, participants were not randomly selected. PWUD are difficult to randomly sample, given drug use is illegal in most settings and heavily stigmatized. Our study team relied on partner organizations to identify potential participants, which included recruitment at homeless encampments and in public locations where PWUD congregate. There may be some selection bias because such a high proportion of our sample was unhoused or homeless and thus had a higher level of visibility to law enforcement. Nonetheless, M110 was designed to decriminalize all personal amounts of drugs, regardless of housing status.

Finally, our measure of participant knowledge of drug decriminalization under Measure 110 may have introduced some bias due to the survey question design. For example, some participants may have thought that they should only endorse some, but not all, drugs on the list since they were asked which drugs were decriminalized under Measure 110. In addition, M110 notably decriminalized personal amounts of drugs. The survey question did not mention any type of quantity of drugs that were decriminalized, which may have further compounded participant confusion around this survey item. However, despite these potential biases, the lack of knowledge of Oregon's drug policy herein among our surveyed PWUD is echoed in other drug decriminalization studies (Beletsky et al., 2016; Greer et al., 2024; MacCoun et al., 2009).

5. Conclusions

The passage of M110 in 2020 signaled that Oregon voters preferred a

public health approach to people with substance use disorders over criminal legal sanctioning. Our research shows that Oregonians who use drugs were significantly involved with the CLS 2 years after drug possession was decriminalized. Notably, in March 2024, Oregon repealed drug decriminalization under M110 with House Bill 4002 (HB 4002), enacted on September 1, 2024. HB 4002 recriminalizes possession of controlled substances to misdemeanor offenses, which are punishable up to 180 days in jail. The law encourages the use of deflection programs to provide alternatives to arrest and prosecution. While it remains to be seen how recriminalization will be implemented, it should be underscored that when people are criminalized for drug use, significant social and economic harms quickly follow, including barriers to employment and educational opportunities and added harms related to housing, physical health, mental health, social well-being, among many other negative outcomes. In turn, this results in a hostile and adverse environment for people to access healthcare, behavioral health, housing, and other needed services, which runs counter to the intention behind M110. Ongoing research is needed to monitor the experience of PWUD in Oregon as drug policy continues to evolve after M110 and after the enactment of HB 4002, and as other states look to Oregon as a model for their own drug policies.

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Declaration of Competing Interest

None

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Appendix

Appendix Table 1

Criminal legal system engagement questions and response options.

Question	Response Options
E1. In the last 12 months, how many times did law enforcement stop you or question you?	No. of times
E2. In the last 12 months, how many times did law enforcement search you, your car, or your stuff?	No. of times
E3. In the last 12 months, how many times did law enforcement find drugs in your possession?	No. of times
E4. Of the (fill from E1) times you were stopped in the last 12 months, how many times were you...	No. of times
A. Given a drug-related citation (ticket)	
B. Taken into custody on charges that included drug use or possession	
C. Sanctioned or violated on your probation or post-prison supervision because of drug use or drug possession	
D. Given no legal consequences related to drug use or possession	
E. Taken into custody on charges that DID NOT include drug use or possession	
E7. In the last 12 months, how many times did law enforcement confiscate your drugs and/or drug equipment?	No. of times
E8. Of the (fill from E1) times you were stopped in the last 12 months, how many times have you been arrested and booked for breaking the law? Do not include minor traffic violations. By "booked," we mean that you were taken into custody and processed, even if you were released after that or if the arrest was in error.	No. of times
E9. Were you on any of the following types of community supervision at any time in the last 12 months? Check all that apply.	1 Probation 2 Post-prison supervision/ parole 3 Supervised release 4 Other community supervision
E10. Are you currently on any of the following types of community supervision? Check all that apply.	1 Probation 2 Post-prison supervision/ parole 3 Supervised release 4 Other community supervision
E16. How many times have you been sent to jail in the last 12 months? Not just booked and released; the times you were dressed down and moved to one of the housing units.	No. of times

Appendix Table 2

Average marginal associations with any criminal legal system involvement in the last 12 months (n=448).

Characteristic	Unadjusted		Adjusted	
	PR	95 % CI	PR	95 % CI
Age categories				
18–34	ref	-	ref	-
35–44	0.96	0.87–1.06	0.93	0.84 – 1.01
45–54	0.83	0.74–0.94	0.82	0.73 – 0.91
55+	0.88	0.79–0.99	0.85	0.76 – 0.96
Gender				
Cisgender women / Gender minorities	ref	-	ref	-
Cisgender men	1.15	1.05–1.25	1.14	1.05 – 1.23
Race/ethnicity				
White alone	ref	-	ref	-
Non-White or Multiracial	0.97	0.88–1.05	0.98	0.90 – 1.06
Currently homeless or unstably housed				
No	ref	-	ref	-
Yes	1.35	1.19–1.54	1.37	1.21 – 1.54
County				
Urban	ref	-	ref	-
Non-urban	1.12	1.03–1.21	1.17	1.08 – 1.26

Note: Prevalence ratios (PR) and 95 % CIs are presented from a modified Poisson model with robust standard errors. Adjusted models included all covariates in one model.

Appendix Table 3

Average marginal associations with number of law enforcement stops in the last 12 months (n=448).

Characteristic	Unadjusted		Adjusted	
	MD	95 % CI	MD	95 % CI
Age categories				
18–34	ref	-	ref	-
35–44	-4.65	-9.85–0.56	-7.35	-13.02 – -1.68
45–54	-6.70	-11.92 – -1.48	-9.60	-14.85 – -4.34
55+	-7.95	-12.65 – -3.25	-10.17	-15.29 – -5.04
Gender				

(continued on next page)

Appendix Table 3 (continued)

Characteristic	Unadjusted		Adjusted	
	MD	95 % CI	MD	95 % CI
Cisgender women / Gender minorities	ref	-	ref	-
Cisgender men	0.46	-3.56–4.48	2.96	-0.39 – 6.31
Race/ethnicity				
White alone	ref	-	ref	-
Non-White or Multiracial	1.61	-2.67–5.88	2.17	-2.05 – 6.39
Currently homeless or unstably housed				
No	ref	-	ref	-
Yes	5.59	1.78–9.40	6.80	4.03 – 9.57
County				
Urban	ref	-	ref	-
Non-urban	7.19	2.97–11.41	9.73	4.90 – 14.56

Note: A negative binomial regression was conducted with all factors included. Predicted mean differences (MD) in number of stops and 95 % CI are presented. Adjusted models included all covariates in one model.

Appendix Table 4

Average marginal associations with any law enforcement searches in the last 12 months (n=300).

Characteristic	Unadjusted		Adjusted	
	PR	95 % CI	PR	95 % CI
Age categories				
18–34	ref	-	ref	-
35–44	1.01	0.88–1.16	0.98	0.86 – 1.13
45–54	0.94	0.79–1.11	0.95	0.79 – 1.13
55+	0.79	0.67–0.92	0.78	0.67 – 0.91
Gender				
Cisgender women / Gender minorities	ref	-	ref	-
Cisgender men	1.09	0.96–1.23	1.11	0.99 – 1.25
Race/ethnicity				
White alone	ref	-	ref	-
Non-White or Multiracial	1.16	1.03–1.30	1.15	1.03 – 1.30
Currently homeless or unstably housed				
No	ref	-	ref	-
Yes	1.06	0.87–1.29	1.00	0.80 – 1.24
County				
Urban	ref	-	ref	-
Non-urban	0.88	0.79–0.99	0.91	0.81 – 1.02

Note: Prevalence ratios (PR) and 95 % CIs are presented from a modified Poisson model with robust standard errors. Adjusted models included all covariates in one model.

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