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Original Research Article

Drug Science

Drug Science, Policy and Law
Volume 9: 1–16
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DOI: 10.1177/20503245231167407
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Decriminalization of drug possession in Oregon: Analysis and early lessons

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Abstract
In November 2020, Oregon voters approved Measure 110, a ballot initiative that decriminalized possession of small quantities of all drugs and allocated hundreds of millions of dollars annually to health services for people who use drugs. Implementation of Measure 110 is ongoing, but several effects are noticeable in the first two years since the measure passed. Among these are substantial decreases in possession of controlled substances arrests and an infusion of funding into harm reduction services that have not traditionally enjoyed a sustainable funding source. This paper analyzes the provisions of Measure 110, examines its early impacts, successes, and challenges, and outlines lessons that jurisdictions contemplating decriminalizing drug possession in the U.S. and globally should consider.

Keywords
Drugs, decriminalization, Measure 110, harm reduction

Introduction

As more people view substance use as a health issue rather than a criminal legal issue, drug policies based on criminalization and punishment have drawn increased criticism around the world. Support for decriminalization – where drug possession for personal use remains prohibited but is not subject to criminal penalties – is gaining significant ground. Drug possession has been decriminalized in Portugal for over two decades, and they are often held up as an example of how decriminalizing drug possession and investing in health services can produce significant societal benefits, including reduced rates of communicable disease transmission and overdose and increased harm reduction and treatment utilization (Slade, 2021). The United Nations committed to promoting alternatives to criminal responses to drugs, including decriminalization, in 2018 (United Nations System Chief Executives Board for Coordination, 2019). Major public health organizations support decriminalizing drug possession, including the American Public Health Association and the Global Commission on Drug Policy (American Public Health Association, 2013; Drug Policy Alliance, 2017; Global Commission on Drug Policy, 2018).

The United States is globally recognized as the primary proponent of the war on drugs, arresting more people annually for drug offenses than any other country (Sunrise House, 2019). Yet, individual states have already departed from a strict prohibitionist approach. Twenty-one states and the District of Columbia, the nation's capital, have legalized cannabis possession for recreational purposes by adults aged 21 or older, and many more have expanded medical access and/or decriminalized personal possession of the drug (Berke et al., 2022).

The voters of the state of Oregon expanded drug policy reform beyond cannabis and decriminalized the personal possession of all drugs when they approved Measure 110, the Drug Addiction Treatment and Recovery Act, in November of 2020 (Measure 110 Drug Treatment and Recovery Act 2019 (Or.)). This first-of-its-kind reform in the U.S. eliminates criminal penalties for possession of all drugs within certain limits and invests hundreds of millions of dollars in health services for people who use drugs. Recent

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polling shows that two-thirds of the American public support decriminalization, indicating reforms like Measure 110 in Oregon are likely to be introduced in other U.S. jurisdictions (American Civil Liberties Union, 2021; Dandekar, 2022). While implementation of Measure 110 is ongoing, tracking this monumental shift will help inform drug policy both inside the U.S. and globally.

This paper will summarize the criminalization of drug possession in the U.S., analyze the major provisions of Measure 110, and explore early implementation impacts, successes and challenges. This paper will conclude with lessons drawn from Oregon's experience so far and how they may inform future drug policy.

Drug-related arrests and collateral consequences in the U.S.

Drug-related offenses comprised 15% of all arrests (nearly 1.5 million arrests) in the U.S. in 2019, and almost 90% of these arrests were for the personal possession of drugs (Federal Bureau of Investigation, 2020a, 2020b). American law enforcement disproportionately targets low-income communities and people of color when enforcing drug laws, despite the fact that people of all races use drugs at similar rates (Camplain et al., 2020; Centers for Disease Control and Prevention, 2019). As a result, Black people comprise 26% of all drug-related arrests nationally even though they comprise 13% of the U.S. population (Federal Bureau of Investigation, 2020c; United States Census Bureau, 2021b).

A drug-related arrest can have lifelong impacts on an individual, even if that arrest does not ultimately result in a conviction or incarceration. An arrest record can negatively impact one's ability to pass a background check for housing or employment, impact child custody, disqualify one from securing public benefits such as food or cash assistance, lead to deportation, and much more (Drug Policy Alliance, 2021). When a drug arrest results in incarceration, it separates people from their families and communities and can disrupt access to lifesaving harm reduction services or medications for opioid use disorder, placing many at heightened overdose risk upon release from incarceration since the vast majority of jails and prisons in the nation do not provide these services (Waddell et al., 2020). These collateral consequences disproportionately fall upon communities of color and low-income people, depriving them of opportunities to advance and further entrenching them in poverty with lasting generational effects.

The criminalization of drug possession contributes to high-risk substance use practices, such as using alone or in risky situations and reusing drug equipment. It also deters many people from calling emergency services for assistance due to fear of arrest (Bowles et al., 2020). Stigma and mistreatment from healthcare providers further deter people with substance use needs from seeking healthcare and medical assistance, even in emergencies (Bergstein et al., 2021). Avoiding or delaying medical assistance can have particularly deleterious effects among this population because people with substance use disorders (SUDs) often have a higher prevalence of comorbidities and chronic diseases requiring medical treatment (e.g., hypertension, diabetes, cancer) than the general population (Wu et al., 2018). This discriminatory treatment is associated with marginalized people who use drugs having worse health outcomes than the general population (Cruz et al., 2018).

Patchwork of funding for treatment and harm reduction

To complicate matters, the U.S. does not provide universal healthcare, resulting in a disorganized, patchwork system for accessing and paying for health services (Haeder, 2017). Health insurance in the U.S. is largely tied to employment so that many full-time and some part-time employees are covered by employer-chosen private insurance plans (Pollitz et al., 2019). Medicaid and Medicare are the two large publicly funded insurance options predominantly reserved for people who are low-income, have disabilities, or are over the age of 65. Meanwhile, underemployed or self-employed people may have to independently pay for their own private insurance or go uninsured. Even among the insured, there is a wide range in the types of services that may not be fully covered, so that insured patients may still need to cover co-pays, meet deductibles out of pocket, or seek prior authorization from their insurance company to pay for services.

Medicaid is technically the largest public payer of SUD treatment in the United States; however, federal and state substance abuse block grants pay for a significant portion of these treatment costs across the nation. This is because policies for both state-run Medicaid programs and private insurance payers vary greatly from state to state, meaning many people still experience a funding gap for services. Insurance payers often differ in the types of services covered, prior authorization requirements, eligibility criteria, co-pays, and the number and types of local participating providers (Dickson-Gomez et al., 2022). As a result, treatment-related costs and barriers remain for far too many people who seek care, even when they are insured. Within this patchwork of insurance coverage, public block grant funds remain an essential funding stream in most states because they cover or supplement the costs of SUD services for both publicly and privately insured patients, as well as the uninsured (Woodward, 2016). Abstinence-only SUD treatment, where the explicit goal of treatment is to discontinue all drug and alcohol use indefinitely, is the dominant modality available in the U.S. (Lee and O'Malley, 2018).

Referrals from the criminal legal system have historically made up a quarter or more of all admissions to SUD

treatment in the U.S. (Substance Abuse and Mental Health Services Administration, 2021). The criminal legal system has assumed a growing role in SUD treatment by requiring treatment completion as part of a sentence, due to drug court participation, or as a condition of release from incarceration or community supervision. In these cases, courts also determine which treatment programs qualify to satisfy those requirements. Although insurance may cover some or all of the costs for those who are insured, the un- or underinsured often incur large expenses for court-mandated SUD treatment.

Historically, health insurance does not cover harm reduction, employment support, long-term recovery, housing, and/or peer support services. These programs primarily rely upon grants from the private sector, local or state government funds, and/or donations (National Academies of Sciences, Engineering, and Medicine, 2020). The federal government has generally eschewed funding harm reduction services, including a decades-long prohibition on using federal funds to purchase needles and other drug supplies (Oliva et al., 2021). Recently, the federal government allocated a modest, though historical, one-time infusion of $30 million for a national harm reduction grant program to fund 25 programs across the country. Those funds can be used to purchase needles and other equipment, although the general ban remains, and safer smoking equipment like pipes cannot be purchased (Department of Health and Human Services, 2021). Consistent and adequate funding remains a challenge for the majority of harm reduction programs operating across the nation.

Description of Oregon's Measure 110 & early impacts

Oregon voters' approval of Measure 110 on November 3, 2020 was the first time decriminalization for possession of controlled substances (PCS) other than cannabis advanced anywhere in the U.S. Titled the 'Drug Addiction Treatment and Recovery Act', Measure 110 represents a drastic departure from a punishment-based approach to one that is more humane and health-centered. Measure 110 redesignates possession of small amounts of drugs from a misdemeanor criminal offense to a violation punishable by a citation and fine of up to $100. The fine is waived if the individual completes a health needs screening and submits verification to the court. The measure also redirects substantial funding into health services for people who use drugs, including harm reduction services, low-barrier SUD treatment, housing, recovery, and peer support services. Measure 110 presents an alternative to the costly practice of arresting and incarcerating people for drug use and the negative consequences associated with such an approach. Instead, it offers funding to improve and expand care in the state of Oregon, which ranks near the bottom of states in the U.S. for access to services for people with substance use needs (Mental Health America, 2022).

A broad coalition of individuals and organizations organized to support Measure 110. Organizational support came from SUD treatment providers, harm reduction service providers, housing providers, and organizations that focus on civil rights, racial justice, and labor rights, among others (Oregon Secretary of State, 2020). Notably, people with lived experience with substance use needs and drug-related criminal legal system involvement helped to craft the policy, worked on the campaign, and were involved in implementation. Over 58% of voters supported Measure 110 and ensured its passage in November of 2020.

The measure can be divided into two primary categories: provisions removing criminal penalties for PCS and provisions to expand and improve health services. Measure 110 also requires regular financial and performance evaluations. The following sections analyze the measure as amended by the Oregon Legislature during codification of the measure into statute (Senate Bill 755 2021 (Or.)). A timeline of the key implementation milestones is presented in Figure 1.

Removal of criminal penalties

In 2017, the Oregon legislature reduced penalties for PCS in an amount below set quantities from a felony to a misdemeanor offense while retaining felony penalties for possession of greater quantities (House Bill 2355 2017 (Or.)). As of February 1, 2021, Measure 110 redesignated PCS

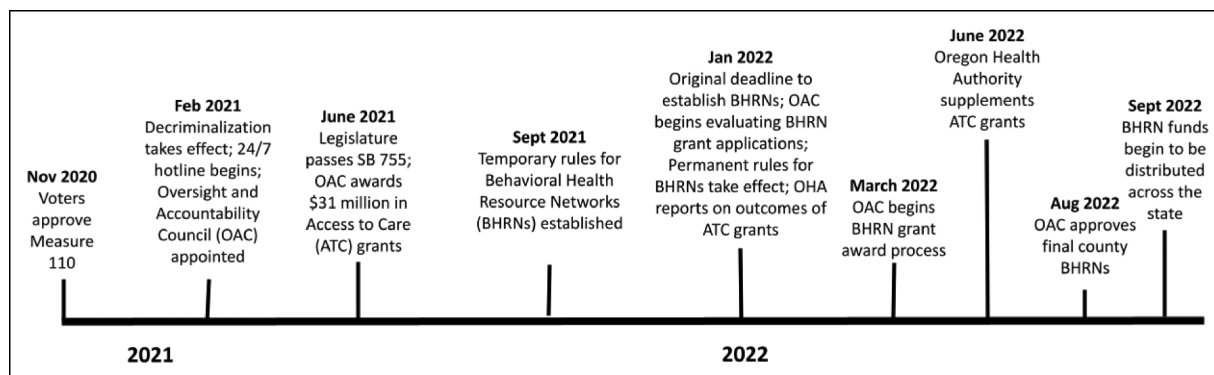

Figure 1. Measure 110 implementation timeline.

under the smaller quantities as a violation rather than a crime (quantities are listed in Table 1). Measure 110 simply maintains the threshold amounts that were established in 2017 but changes the offense classifications: PCS in an amount below the threshold is now a 'class E violation', and possession of an amount equal to or greater than the threshold amount is a misdemeanor, unless the person possesses 'a substantial quantity' of a drug (five times the minimum quantity triggering a misdemeanor offense) or the offense qualifies as a 'commercial drug offense' (requiring the presence of three or more factors ostensibly indicating possession for commercial purposes). The thresholds were carried over from prior law; thus, they were not based upon expert research or stakeholder analysis.

Since Measure 110 took effect, people who possess drugs below the specified quantities are no longer subject to arrest, conviction, incarceration, or a criminal record. Instead, law enforcement may now issue a citation for a class E violation, punishable by a presumptive fine of $100. The courts must dismiss the citation upon receiving verification that the person completed a health needs screening through a Behavioral Health Resource Network (BHRN) or the designated statewide telephone hotline (explained in the following section), or accessed an equivalent or more intensive treatment contact, within 45 days. This provides the individual with an opportunity to connect with services voluntarily. Failure to pay a fine will not result in additional penalties or incarceration, which commonly occurs when fines are unpaid in most parts of the country (Hager, 2015).

Police can no longer search an individual based only on suspicion of PCS, since PCS within the specified quantities is no longer a crime. However, they may still confiscate any drugs they discover through lawful searches (Or. Rev. Stat. s. 131A.020(1)).

Impact on drug possession arrests

To explore preliminary impacts of Measure 110 on entry into the criminal legal system, data on monthly total arrests for PCS were obtained from the Oregon Criminal Justice Commission (2022). Arrests included those occurring from January 2017 to July 2022, which resulted in the individual being fingerprinted and generating a data point in the Law Enforcement Data System. We conducted an interrupted time-series analysis to estimate whether observed levels of PCS arrests differed significantly after implementation of Measure 110 (the policy 'interruption'), relative to levels expected based on pre-implementation trends (Hartmann et al., 1980). Given the profound changes to street activity, policing, and court proceedings after the COVID-19 pandemic began, we added an additional 'interruption' to the model to account for trends associated with COVID-19 prior to decriminalization. Data were therefore divided into three distinct time periods for analysis: pre-policy and pre-pandemic (all observations prior to March 2020), pre-policy during the pandemic (March 2020-January 2021, inclusive) and post-policy implementation (February 2021 onwards). The interrupted time series model produced estimates of the change in monthly PCS arrest rates within and between each time period and tested whether there was evidence to reject the null hypothesis that PCS arrests were unchanged upon implementation of Measure 110. P-values <0.05 were considered statistically significant and all analyses were conducted in STATA S/E v. 16.

The total number of PCS arrests per month resulting in a fingerprint was analyzed from January 2017 to July 2022: 38 monthly observations pre-policy and pre-pandemic; 11 monthly observations pre-policy during the pandemic; and 18 observations post-policy implementation. Table 2 displays the mean and slope of (change in) monthly PCS arrests within each time period. During the pre-policy and pre-pandemic period, there were an average of 1244 arrests recorded per month. This decreased significantly after the onset of the pandemic to 632 arrests per month ($P < 0.001$), and again after policy implementation to 209 arrests per month ($P < 0.001$) (see Figure 2). While the trend lines within each time window appeared to be decreasing, this was only significant in the post-policy implementation period: after February 2021, mean monthly arrests have continued to decrease by approximately 10 per month ($\beta = -10.1$; $P < 0.001$).

Table 1. Offense level for possession of differing quantities of drugs in Oregon post-measure 110

Drug	Class E Violation	Misdemeanor	Felony*
Heroin	<1g	≥1 g but <5g	≥5g
Cocaine	<2g	≥2 g but <10g	≥10g
MDMA (ecstasy)	<1 g or 5 pills	≥1 g or 5 pills but <5 g or 25 pills	≥5 g or 25 pills
Methamphetamine	<2g	≥2 g but <10g	≥10g
LSD	<40 units	≥40 units but <200 units	≥200 units
Psilocybin	<12g	≥12 g but <60g	≥60g
Oxycodone	<40 pills	≥40 pills	n/a

* Possession may also be a felony if it is considered a 'commercial drug offense', requiring the presence of three or more factors ostensibly indicating possession for commercial purposes.
Source: Senate Bill 755 2021 (Or.).

Table 2. Possession of a controlled substance (PCS) arrests in Oregon, 2017 to 2022.

	Pre-policy, pre-pandemic (Jan 2017 – February 2020)		Pre-policy, pandemic (March 2020 – January 2021)		Post-policy implementation (February 2021 – June 2022)	
	Mean (SD)	B (*p*-value)	Mean (SD)	B (*p*-value)	Mean (SD)	B (*p*-value)
PCS Arrests (N/month)	1243.8 (139.0)	−4.6 (*0.076*)	632.3 (107.3)	−8.8 (*0.344*)	208.9 (63.9)	**−10.1 (<*0.001*)**

Mean and standard deviation of monthly data are shown within each time period. B-coefficients and corresponding p-values denote changes to monthly data *within* each time period. Estimates generated using interrupted time-series analysis with Newey-West standard errors. Significant values are shown in bold.
Source: Oregon Criminal Justice Commission, 2022.

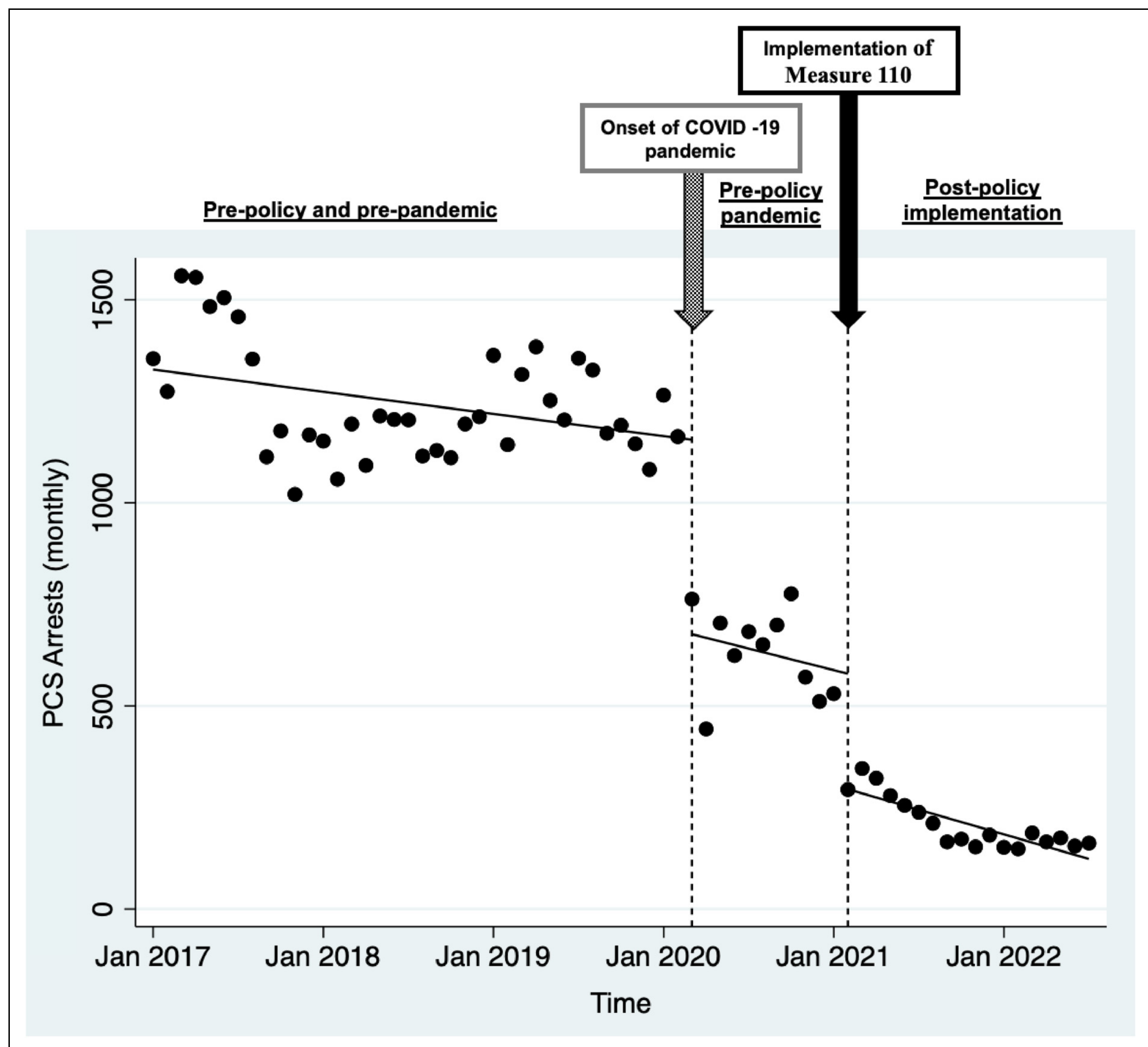

Figure 2. Interrupted time series analysis of drug possession arrests in Oregon, 2017–2022. Figure depicts monthly PCS arrests in Oregon prior to and following the implementation of Measure 110. Pre-policy observations are partitioned by whether they occurred before or after the onset of the COVID-19 pandemic. Graph exhibits significant reductions in monthly arrests following the onset of the pandemic, and a further significant reduction after implementation of Measure 110. Following policy implementation, mean monthly arrests continued to decline significantly.
Source: Oregon Criminal Justice Commission, 2022.

Impact on class E violations

Citation data were made publicly available by the Oregon Judicial Department. In the first 13 months that Measure 110 was in effect (February 1, 2021 to February 28, 2022), 2008 cases involving a class E violation for PCS were filed (see Table 3) (Oregon Judicial Department, 2022). The majority of those cases, 1536 (76%), resulted in the imposition of a fine, largely due to failure to appear in court or submit verification of a health needs screening. Most citation recipients were males and 85% of citation recipients were between the ages of 21 and 49. While over 16% of race and ethnicity data on citations is unavailable or missing, the available data suggests that at least 77% of citations were issued to white people in the first year of implementation (whites comprise 86% of the total population in Oregon) (Oregon Judicial Department, 2022; United States Census Bureau, 2021a).

Health services provisions

Measure 110 established the Oversight and Accountability Council (OAC) to administer the health service provisions of the measure. The OAC is assisted by the Oregon Health Authority (OHA), the state agency tasked with implementation and oversight of Oregon's Medicaid plan and various health programs. Measure 110 requires that the OAC contains significant representation from people with lived experience, including three individuals from communities that have been disproportionately impacted by drug law enforcement, two individuals with a current or past SUD, and two recovery peers. The remaining 14 individual members are SUD experts, service providers and a representative from an SUD nonprofit advocacy group. The OAC was formed on February 1, 2021.

Table 3. Class E drug possession violation citations, February 1, 2021 to February 28, 2022

	Count (Percentage)
Total	2008 (100)
Status	
Imposition of a fine	1536 (76.49)
Dismissed	149 (7.42)
Pending resolution	323 (16.09)
Sex	
Male	1458 (72.61)
Female	477 (23.75)
Missing	73 (3.64)
Race	
Asian, Native Hawaiian, or Other Pacific Islander	13 (0.65)
Black	48 (2.39)
Indigenous	26 (1.29)
Other	34 (1.69)
White	1556 (77.49)
Unavailable or Missing	331 (16.48)
Ethnicity	
Latinx	83 (4.1)
Age	
<18	16 (0.80)
18–20	57 (2.84)
21–29	514 (25.60)
30–39	802 (39.94)
40–49	399 (19.87)
50–59	160 (7.97)
60+	50 (2.49)
Missing	10 (0.50)

Source: Oregon Judicial Department, 2022.

Measure 110 expands services for people who use drugs through two mechanisms, both administered by the OAC in coordination with OHA: 1) by establishing BHRNs where people receive health needs triage, screening, assessments, and referrals to services; and 2) by funding Access to Care (ATC) grants to increase treatment, recovery, harm reduction, peer support, and housing services. Measure 110 also establishes a 24-h statewide telephone hotline to provide health needs screenings and referrals to services.

State tax revenues from cannabis sales are the primary source of funding for the health service provisions of Measure 110. All quarterly revenues in excess of $11,250,000 will be allocated to the Drug Treatment and Recovery Services Fund, which pay for BHRN services and the ATC grants program to increase community-based services for people with substance use needs. Cannabis sales tax revenues for fiscal year 2020 were over $178 million, and they are expected to increase in subsequent fiscal years (Associated Press, 2021; Oregon Department of Revenue, 2021). For the fiscal 2021–23 biennium, the Oregon legislature allocated a total of nearly $305 million to fund Measure 110 services (plus an additional $11 million for tribal organizations), averaging to over $150 million per year (Gemei, 2022b). Other funding sources for the Drug Treatment and Recovery Services Fund include 1) savings from reduced criminal legal system costs associated with Measure 110, 2) any additional allocations from the legislature, and 3) all other funds dedicated to Measure 110 from any source.

All services funded by Measure 110 (those provided by BHRNs and recipients of ATC grant funding) are to be made available at no cost to any individual regardless of ability to pay, immigration status, or involvement in the criminal legal system. Further, all services must be 'evidence-informed, trauma-informed, culturally specific, person-centered, and non-judgmental'. Providers can seek reimbursement through any insurance provider, including Medicaid, but cannot directly charge the service recipient. Combined, these provisions represent a dramatic departure from how services were otherwise funded and delivered in Oregon and how they continue to operate elsewhere in the U.S.

Behavioral Health Resource Networks

BHRNs will provide crisis care, service referrals, and health screenings, including a SUD screening by a qualified health professional. After completing the screening, interested individuals can work with a case manager to develop an individualized intervention plan to address various health needs, which can include goals and steps to secure SUD treatment, treatment for coexisting health problems, housing, employment and training, childcare and other services. The case manager will connect the individual with services and maintain contact to facilitate access to care as needed. BHRNs will also proactively engage people in services through mobile or virtual outreach. In alignment with research on the efficacy of peer-delivered services (Bassuk et al., 2016), all of the services will utilize peers with lived experience of substance use to engage people and enhance service delivery.

The Legislature allocated $265 million for the fiscal 2021–23 biennium to establish at least one BHRN in every county across the state, with an additional $11 million set aside for tribal governments (Oregon Health Authority, 2022a). BHRNs were to begin providing services available 24 h a day, every day of the year by January 1, 2022, but bureaucratic challenges in the grant decision process resulted in delays (Gemei, 2022b). The OAC approved final funding allocations for a total of 234 organizations in 44 BHRNs covering the 36 counties on August 31, 2022, nearly nine months after all decisions were slated to be complete (Oregon Health Authority, 2022c). OHA developed and maintains an online dashboard detailing the allocations of BHRN funding, participating organizations and services to be provided in each county (Oregon Health Authority, 2022a, 2022b).

Access to Care grants

ATC grants were developed to create and expand services for people who use drugs. These grants fund low-barrier SUD treatment, recovery support, harm reduction, peer support, and housing services, including permanent supportive housing, for people with substance use needs. Both community-based organizations and local governments may receive funding, though government entities must ensure grants are not used to replace funding already in use for services.

In the spring of 2021, the Oregon Legislature approved an initial $31.4 million ahead of schedule to fund ATC grants, and they were granted to 67 community-based and 11 tribal organizations in June of 2021 (Hawa, 2022). As of July 2022, this amount increased to approximately $41.6 million to fund more services (Oregon Health Authority, 2022d). These funds totalled roughly 13% of the total funds allocated for Measure 110 implementation to date, meaning that 87% of monies intended for implementation had not been approved or released within the first year of the measure being in effect (see Figure 3).

OHA published preliminary information about organizations funded through ATC grants, tribal set-aside funds, and direct amended contracts. They also provided preliminary information about the types of services provided to individuals through this funding.

OHA reported that over 16,000 people accessed services funded by the initial $31.4 million already allocated to community-based and tribal organizations across Oregon (Hawa, 2022). Participants primarily engaged in harm reduction services (59.7%), followed by assistance with housing needs (15.5%), peer support (11.7%), screening or clinical assessment (11.3%), SUD treatment (<1%), supported employment (<1%), and peer doula support (<1%). More recently, OHA announced that, as of September 30, 2022, the number of people who had accessed services funded by Measure 110 (both through ATC grants and BHRNs) had increased to over 60,000 (Oregon Health Authority, 2023). Legislative budget negotiations to determine funding allocations for the 2023-25 biennium are in process.

Statewide telephone hotline

A statewide telephone hotline was established on February 1, 2021 (the same date that criminal penalties for possession of small amounts of drugs were removed) to provide 24/7 screening and referral services for people with citations while the state establishes the regional BHRNs. According to media reports (the only publicly available data on hotline calls), 111 people had completed the health needs screening by May of 2022 (Myerly and Gemei, 2022).

State-Driven evaluation

Measure 110 requires regular audits to evaluate its finances, funding recipient performance and criminal legal impacts. The Oregon Secretary of State will audit the Drug Treatment and Recovery Services Fund to determine where monies were allocated, the effectiveness of BHRNs and services provided by grant recipients, and access to treatment and other services made available by Measure 110. The Secretary of State must also analyze data on the citations for drug possession, including the number and race of recipients.

Discussion

The results presented here are preliminary. It is too soon to determine the overall effectiveness of Measure 110, especially considering that service providers have not been given the requisite time to implement programming since the funding was made available. Understanding the extent of Measure 110's impacts will require careful evaluation

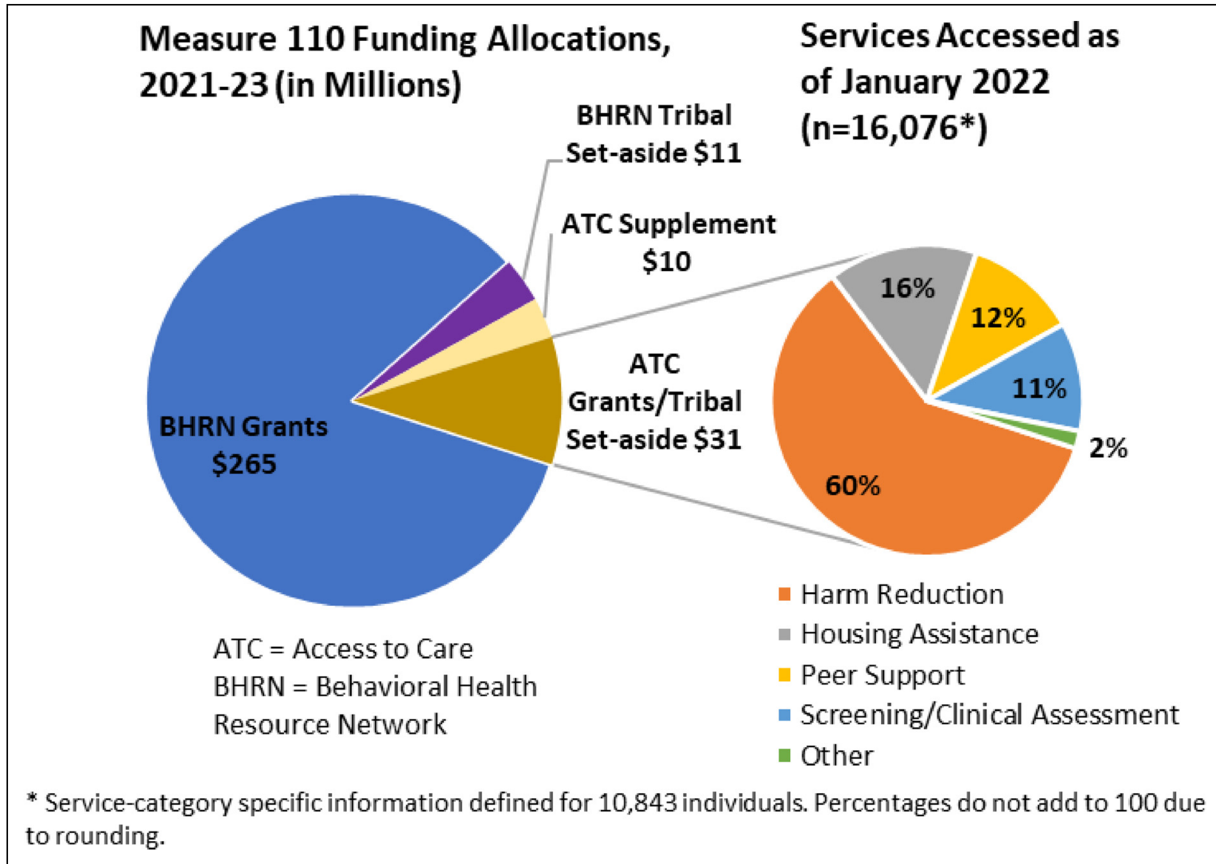

Figure 3. Measure 110 funding allocations, 2021–23 (in millions) and services accessed as of January 2022. Source: Hawa, 2022; Oregon Health Authority, 2022a, 2022d.

over the coming years. Moreover, there are a number of potential confounding factors, such as the COVID-19 pandemic, delayed disbursement of funds, and changes in drug supply affecting overdose risk (e.g., an increase in the presence of fentanyl). However, some immediate developments are noteworthy.

Successes

Preliminary data suggest that Measure 110 has resulted in significant reductions in PCS arrests, even after accounting for decreases during the initial year of the COVID-19 pandemic. There were 83% fewer average monthly PCS arrests after Measure 110 took effect compared to pre-pandemic and 67% fewer compared to the pre-policy during the pandemic period. Since Measure 110 took effect, average monthly PCS arrests continue to trend downward. These data suggest Measure 110 has been very effective in reducing PCS arrests. Arrests are the first point of exposure to the criminal legal system for many people who use drugs and result in deleterious health and social consequences even if they do not advance any farther through the legal system; reducing these exposures in and of itself is a goal for public health and racial equity. Further, fewer people arrested for PCS likely translates into fewer people progressing to prosecution, sentencing, incarceration, probation and receiving a criminal conviction record for PCS. Those who may have had prior convictions for PCS or other offenses avoided the potential compounding effects a misdemeanor PCS offense could have had on their records for the rest of their lives.

Although reductions in PCS arrests do not translate directly to issuances of citations for class E violations, data concerning the recipients of citations provides some clues as to which populations may have been especially impacted by Measure 110. The 2,008 citations given in the first 13 months of implementation were predominantly issued to young adults and middle-aged people, who may have been arrested and received a criminal record for PCS prior to Measure 110. This is particularly important, as the lifelong repercussions of a criminal record may especially impact younger people by excluding them from economic opportunities early in their careers and preventing advancement opportunities. Unable to build employment skills and experience, the effects can compound as the record follows these people throughout their lives.

The OAC is a unique, innovative component of Measure 110. By creating a body comprised of people with lived experience, experts in drug policy, and service providers to determine where grant funding should be directed, the OAC represents a groundbreaking approach to longstanding issues concerning drug use and access to services. Even though the deadline for establishing the OAC was ambitious, OHA met this deadline, and the OAC was seated on schedule. Although the operations of the OAC have not been without challenges (see the following section), the OAC was able to quickly review and approve ATC grant funding to 67 community-based and 11 tribal organizations. This funding provided a lifeline to some service providers who had been negatively financially impacted by the COVID-19 pandemic and allowed others to expand service provision (Langendorf, 2022).

While the bulk of the funding for health services for people who use drugs has only recently been approved, data from services accessed by the ATC grants shows promising results. Over 16,000 people accessed services with the initial $31 million allocated for Measure 110 services. Nearly 60% of the services accessed with this funding were harm reduction services. Given that harm reduction services have traditionally not had stable funding sources, this may be evidence that Measure 110 is succeeding in providing a needed funding stream where one did not previously exist or was unable to match the demand for services.

Challenges and threats

Measure 110 included an ambitious implementation timeline. Major systems changes typically take several years to implement, but deadlines for major provisions of Measure 110 were set for between three months and a little over one year after passage. Further, Measure 110 was passed and implementation occurred during the ongoing COVID-19 pandemic, a major disruptive force and primary concern among policymakers. The pandemic affected and continues to affect nearly every aspect of daily living. Research will continue to evaluate the impacts the COVID-19 pandemic has had for many years to come. The pandemic complicated implementation of Measure 110 because OHA, tasked with implementing the health services provisions of Measure 110, was and remains responsible for the state's response to the pandemic. Establishing the working relationship between the newly-formed OAC and OHA further complicated implementation. Perhaps unsurprisingly, the state has experienced delays in allocating and disbursing the funds for health services, even after quickly and successfully disbursing the initial ATC grants.

The OAC finalized allocations for the $265 million for the 2021–23 biennium to establish BHRNs at the end of August, 2022, nearly nine months after they were supposed to be awarded. Bureaucratic delays stemming from lack of institutional support for the OAC appear to have been responsible, and in response, community pressure ramped up to ensure the funds were distributed as quickly as possible (Green, 2022). The failure to meet the measure's ambitious deadlines have resulted in critiques of the reforms more broadly (Gemei, 2022a), even though hundreds of millions of dollars annually will allow many more service providers to expand and provide new services and allow for coordination of services through established BHRNs.

Although the funding decisions are now finalized, and the money is on its way to service providers, there will still be a preparation period prior to the full level of services being available. Providers must hire and train new staff, purchase equipment, make necessary changes to their facilities, and possibly in some cases, purchase or lease new facilities. Hiring new staff will present a particular challenge for many providers because Oregon, like all other regions of the U.S., is experiencing a major shortage of behavioral health workers. The causes of this workforce shortage are largely structural factors outside the purview of Measure 110 and will likely require additional action from Oregon policymakers to address them (Zhu et al., 2022). Strategies to increase and retain peer service providers, envisioned as a central component of Measure 110 services, will likely be particularly vital. It is critical that these delays and disruptions be accounted for in forthcoming evaluation efforts so that ultimate impacts are not biased to the null by implementation challenges.

Even before all the funding for the first cycle of Measure 110 was allocated, let alone dispersed and utilized by service providers, there were three separate attempts to pass legislation to redirect some of these funds to law enforcement efforts to stop unsanctioned cannabis grows (House Bill 4016 2022 (Or.); Senate Bill 1541 2022 (Or.); Senate Bill 1587 2022 (Or.)). Thanks to an outpouring of community opposition, these bills were defeated or the provisions that would redirect funding were amended out. However, renewed efforts to redirect Measure 110 funds in the next legislative session present a serious and realistic threat (House Bill 2089 2023 (Or.); House Bill 3431 2023 (Or.). The attacks may prevent providers, government officials, and advocates from focusing all their energy on implementation.

Measure 110 may face more direct legislative attacks in the near future. Two of the three candidates for governor in the 2022 election stated that, if elected, they would have taken action to repeal or alter Measure 110 (Gemei, 2022a). Notably, neither of these candidates won, and the incoming governor has expressed support for Measure 110 (VanderHart, 2022). Despite this, some organizations are preparing to push legislation in the upcoming legislative session that would repeal part or all of Measure 110 or frustrate current implementation efforts (League of Oregon Cities, 2022).

Oregon, like nearly every other state in the U.S., has experienced elevated levels of overdose deaths over the past two decades, with significant increases in the past two years (Ahmad et al., 2022; Oregon Health Authority, 2022e). The predicted number of overdose deaths increased by nearly 34% in Oregon in 2021 (Effinger, 2022). The COVID-19 pandemic and related shutdowns, which increased isolation and disrupted access to health services, is a major compounding factor (Oregon Health Authority, 2022e). Further, there have been significant increases in fentanyl, a highly potent synthetic opioid, in the drug supply in the entire western part of the U.S., in which Oregon is located (Shover et al., 2020). Overdose deaths involving fentanyl have correspondingly dramatically increased, similar to previous patterns seen in the eastern parts of the U.S. (Ahmad et al., 2022; Oregon Health Authority, 2022e). The increases in percentage of overdose deaths in Oregon are comparable to those in Washington and less than those seen in Idaho and Alaska, all states in the western region where criminal penalties for possession are imposed (Ahmad et al., 2022). Yet, critics have blamed Measure 110 for the increase in overdose deaths (Selsky, 2022), despite the lack of any research to date implicating Measure 110. Should this narrative gain traction, it could impede implementation efforts, threatening the funding for health services (including overdose prevention services) that are intended to address the negative impacts of substance use. Advocates for Measure 110 argue that Measure 110 is one policy among many to address overdose and that it is unrealistic to expect a rapid reversal from the drug war policies of the past 50 years, especially when the funding for health services has not been fully utilized and the measure has not been fully implemented (Miller et al., 2022).

Measure 110 is similarly being blamed for increases in crime and homelessness in Oregon, particularly in the state's urban centers (Gutierrez, 2022). As with overdose deaths, there have been no evaluations to date linking Measure 110 to any such increases. In contrast, recent research found that emergency calls for service in Portland, Oregon's largest city, did not change significantly after Measure 110 took effect and tracked very closely with data from comparison cities outside of Oregon (RTI International, 2022). Measure 110 did not affect criminal penalties for any conduct other than PCS. Increases in violent crime in Oregon align with trends seen across the U.S., signaling that factors other than Measure 110 are likely responsible (Manfield, 2022). However, the growing nationwide unease regarding public safety has been channeled by critics of recent criminal legal system reforms to support rollbacks, as seen with the recall of progressive district attorney Chesa Boudin in San Francisco, California (White, 2022). In Oregon, critics of Measure 110 may similarly channel this unease toward repeal efforts or other means that would frustrate implementation, even if unsupported by evidence.

Despite these challenges, Oregonians continue to support Measure 110. Recent polling shows a strong majority of Oregon voters continue to believe Measure 110 should remain in place and support treating substance use as a public health issue rather than a criminal legal issue (Dandekar and Fairclough, 2022). Majority support was found in all areas of the state. Further, individual provisions of Measure 110, including removal of criminal penalties and investing in health services, were popular among voters. This polling demonstrates that Oregonians believe Measure 110 is a positive reform and one the state should retain even as challenges in implementation may present themselves.

Lessons from Oregon

It has only been two years since Oregon voters approved Measure 110 and implementation remains ongoing, but there are several lessons to learn from Oregon's trailblazing approach to drug policy. First, voters are ready to endorse alternatives to criminalization, and this message can resonate in other jurisdictions across the U.S. and globally. Strong majority support for Measure 110 remains in Oregon nearly two years after passing (Dandekar and Fairclough, 2022). Across the U.S., a majority of people similarly support decriminalization (American Civil Liberties Union, 2021; Dandekar, 2022). Oregon residents supported a health-focused approach and acknowledged that criminal penalties for drug possession hinder access to services and cause harm. Other states have taken notice; legislation to decriminalize all drugs has been introduced in at least 11 states and at the federal level since Measure 110 passed (Drug Policy Alliance, 2022).

In addition to reducing the total number of PCS arrests, an independent analysis conducted by the Oregon Criminal Justice Commission (OCJC) (2020) estimated that Measure 110 would dramatically reduce the total number of misdemeanor and felony PCS convictions by 90% across the state. This is because Measure 110 would increase the thresholds needed to trigger a misdemeanor offense and also limit the ability to charge PCS as a felony based on the individual's prior convictions. The OCJC analysis estimated that 86% of misdemeanor PCS offenses would no longer be misdemeanors after Measure 110 was implemented, and 95% of felony PCS offenses would no longer be felonies. Since Black and Indigenous people were historically overrepresented among those convicted for PCS offenses, the OCJC analysis estimated that misdemeanor and felony PCS drug convictions among Black and Indigenous people would decline by almost 95%, and that Measure 110 would also dramatically reduce convictions among all other racial/ethnic groups by 83% or more.

Removing criminal penalties for drug possession may be an important step to reducing rampant racial disparities in the criminal legal system. Unfortunately, due to limited

availability of data and a substantial percentage of missing race data for citations, we were not able to draw any conclusions about Measure 110's impact on racial disparities at this time. Quality and availability of criminal legal data, including accurate race designations, represents an ongoing challenge for accountability and evaluation efforts, and disparate enforcement of violations for drug possession and criminal enforcement of other drug offenses remain concerns. Regular audits required by Measure 110 to evaluate racial disparities and impact on criminal legal system involvement of people with SUDs will hopefully provide insight into data challenges and an impetus to improve measurement of racial equity in exposure to the criminal legal system and related health outcomes.

Although people now receive citations rather than being arrested and criminally prosecuted, each citation still represents a contact with law enforcement, which research suggests can result in negative health outcomes for people who use drugs (Friedman et al., 2021). The presumptive $100 fine can present an economic hardship for many even if there is a mechanism to have the citation dismissed by completing a health needs screening, since three-quarters of class E violations have still resulted in imposition of a fine. A law enforcement agency may choose to prioritize enforcement of citations against people who use drugs as a punitive measure, or they may see issuing citations as a beneficial means of referring people to health services. Conversely, agencies may choose to deprioritize issuance of class E violations because they do not see the value or because they believe other public sectors are better equipped to respond to drug use. Ideally, future evaluation will explore regional differences and impacts on services and legal system functionality, as well as whether the increase in health services funded by Measure 110 impacts the number of citations and interactions with law enforcement.

While implementation of the citation process is still new, the low number of people completing health needs screenings through the state hotline raises both practical and policy questions. On the logistical side, if future efforts include a statewide hotline, policymakers should consider making the hotline available to anyone looking for services, and relevant agencies should engage in a robust public education campaign to let potential callers know about the hotline. Agencies and organizations responsible for operating a hotline should also consider publicly publishing call data to help inform analysis and bolster efforts to increase utilization. Beyond practical concerns, future efforts should consider whether citations are an appropriate mechanism to connect people with services at all or if efforts should concentrate on expanding outreach and mobile service provision to reach individuals in need.

Measure 110 may also indirectly result in less lengthy incarceration sentences for other offenses because class E violations for possession of a decriminalized amount of drugs can no longer be counted as a prior offense and used to enhance sentences. Further, possession of an amount now punishable as a misdemeanor, which would have been punished as a felony prior to Measure 110, will result in a lower score on the sentencing grid and a shorter incarceration sentence (Or. Admin. R. 213-004-001 et seq.). Further research should explore Measure 110's impact on incarceration length.

Involving people who have been directly impacted and a broad coalition of stakeholders is crucial to success. The campaign included people who had past or current substance use needs or prior criminal legal system involvement, and several served as key spokespeople. Measure 110 also builds lived experience into the composition of the OAC, the body responsible for administration and selection of funding recipients for service provision, to ensure that money is going to services that people with substance use needs desire and will utilize. In addition, the campaign demonstrated that a wide coalition of health, harm reduction, treatment, housing, civil rights, racial justice, labor and other organizations can be united in support of decriminalization efforts.

Measure 110 seeks to institutionalize harm reduction in a manner as of yet unseen in the U.S. Traditionally excluded from ongoing healthcare funding streams such as Medicaid, harm reduction services are explicitly centered in the measure and supported by cannabis tax revenues. Effort should be taken to educate policymakers and the public on the need for a variety of supportive services for people who use drugs, including harm reduction, and the ability to combine funding sources to pay for services that are reimbursable by public and private insurance. Without this, there is a risk of misunderstanding the use of Measure 110 funds born out of the narrow, yet widely-held view of clinical SUD treatment (often residential treatment) as the appropriate service for all people who use drugs. Proponents should explore the best means for communicating why and how funding should be available for an expansive range of services for people who use drugs. Policymakers and advocates in Oregon and in other jurisdictions considering decriminalization should further assess if regulation of drug paraphernalia, restrictions on opioid agonist treatment such as methadone, and other factors persist as barriers to service access and require reform.

Some critics have pointed to the low number of calls to the statewide telephone hotline as evidence that Measure 110 is not working as intended (VanderHart, 2021). However, this is just one component of a broad systemic change and should not be the determining factor of Measure 110's effectiveness. Further evaluation may reveal that people are accessing services through means other than the hotline. Calls to the statewide hotline should also be considered in the context of the hotline's implementation. Most importantly, the state has limited

the hotline only to people who have received citations and can provide their citation number and thus has not undertaken a robust public awareness campaign to encourage people to use this resource. In addition, the state has not yet provided law enforcement agencies with a uniform citation form that clearly provides officers and individuals guidance on how and why to contact the hotline for help. As was discussed, the bulk of the funding for community-based services has only just been allocated, and increases in funding for outreach may encourage access to services, through the hotline or otherwise. There has not yet been reliable systematic and public reporting of the number of health needs screenings that were completed and resulted in dismissal of drug possession violations, but media outlets have reported low rates (VanderHart, 2021).

Similarly, critics have pointed out that a small percentage of the services funded by the ATC grants supported people entering SUD treatment. There are several potential reasons for this. ATC funds were not intended to be used for services that could be billed to insurance, including Medicaid; rather, they were intended to pay for supportive services that are not currently reliably financed. However, ATC funds could be used to pay for treatment for individuals who did not qualify for insurance due to their immigration status or who were otherwise uninsured. In addition, outcomes reported here only relate to about 10% of funding allocated under Measure 110 to date. Most ATC grants were awarded to entities that explicitly stated that they would use grant funds to cover services other than SUD treatment costs. In addition, ATC fund utilization should not be viewed as the only indicator of treatment engagement since the implementation of M110. Treatment may be financed by other sources, including Medicaid, Medicare, private insurance, Substance Abuse Prevention and Treatment Block Grants, and other public sources which were beyond the scope of the analysis for this paper. It is possible that some have accessed services funded by Measure 110 (e.g., harm reduction services) but then engage in treatment funded by another funding source. These factors may help explain why the overall amount of ATC funding attributed directly to treatment is low and present the possibility that small amounts of Measure 110 funding directly for treatment does not necessarily translate to low numbers of treatment engagement. This is an important area for future study and evaluation.

As noted earlier, harm reduction services, housing navigation services, and peer support have not enjoyed a consistent source of funding in the same manner as treatment, and this could explain why the bulk of funds increased access to these services. Several of the service providers reported that the funding received from Measure 110 provided a lifeline during a period where they were considering limiting or shuttering services due to financial stressors brought on by the pandemic (Langendorf, 2022). Future evaluation is expected to examine participant preferences regarding types of services and the impact of Measure 110 on health outcomes and connection to various health and social services, including drug treatment.

It remains to be seen whether the current decriminalized drug threshold quantities will have the desired impact. They are similar to the thresholds employed in Portugal, where they were based on how the federal government had previously defined the personal possession of a 10 days' supply (Portaria 94/96 [Ordinance 94/96], art. IV(9), map, Diário da República de 26.3.1996 (Port.)). Some Portuguese drug users have decried these thresholds as too low (Madden et al., 2021). Oregon's thresholds were not determined by expert analysis, consultation with people who use drugs, or with consideration of average use or possession quantities or regional differences in drug use patterns. They were simply the existing thresholds for misdemeanors in the state. As shown in Table 1, they vary widely from drug to drug. Other jurisdictions seeking to set decriminalized thresholds may consider a more evidence-based and inclusive approach in collaboration with people who use drugs to setting thresholds based on actual use patterns and practices.

We should learn more about Measure 110's impact on criminal legal system operations and access to health services in the coming years as the Secretary of State completes its required evaluations. However, understanding if, how, and why Measure 110 succeeds will require in-depth evaluations far beyond what is mandated by the law. Researchers and people directly impacted by the measure crafted a series of principles and measures for an effective evaluation, including more than 75 metrics for assessing the measure's effectiveness (Netherland et al., 2022). Their recommendations included: ensuring that people on the ground are deeply involved in any evaluations, creating studies that account for the context in which implementation is taking place (or failing to take place), and accounting for key confounders, such as COVID-19, potential net-widening by law enforcement, and the rapid increase of fentanyl in the drug supply.

The temptation to quickly judge the success or failure of such a substantial policy change should be avoided. There are some early lessons and data to analyze, but passing judgement on Measure 110 based on one or two factors and before full implementation is ill advised. Policymakers, including the agencies tasked with implementation, should help to manage expectations about the pace of systems change, especially in the context of a massively disruptive global pandemic. Equally important, however, is pressure from the public to ensure that implementation proceeds as intended and on schedule. Implementation of a major policy shift is often just as important as enacting the policy itself.

The challenges and threats Measure 110 implementation faces can serve as useful examples of what opposition other jurisdictions considering decriminalization may encounter. Two years after Oregonians voted for Measure 110, critical

narratives decrying bureaucratic delays, bemoaning low health screening verification numbers, and attempting to tie (without supporting evidence) the reform to overdose deaths, homelessness, and crime have created implementation obstacles. Future jurisdictions can be better prepared to address these concerns thanks to Oregon taking the lead.

Finally, it should be acknowledged that while the decriminalization of personal possession of drugs is an essential drug policy reform to reduce the harms of criminalization and to move towards a health-based approach to drug use, it does not address drug market dynamics or the quality and safety of the drug supply. Consideration of reforms to laws severely punishing drug selling is warranted, especially given the significant overlap of people who use drugs and people who sell drugs (Stanforth et al., 2016). Decriminalization is an important policy step to dismantle the war on drugs, yet there are still additional policy changes that must be considered to eventually address the drug trade and supply – including legalization and regulation.

Despite the promise of Measure 110, its success will depend on implementation with fidelity to the intent of the law and the ability to do so in the midst of the COVID-19 pandemic, an alarming increase nationwide in opioid overdoses involving fentanyl, and a drastic shortage of substance use and mental health service providers. A rapid and large-scale mobilization of resources to create accessible BHRNs and to update and improve upon the existing treatment infrastructure may take time, and the culture shift among law enforcement to alter practices must be monitored.

Conclusion

Oregon became the first state in the U.S. to remove criminal penalties for all drug possession within established thresholds after voters overwhelmingly approved Measure 110, the Drug Addiction Treatment and Recovery Act. Measure 110 rebukes the dominant law enforcement approach to drug policy in favor of eliminating criminal penalties and promoting a health-centered approach focused on providing services to people with substance use needs. Early data indicates that Measure 110 has significantly reduced PCS arrests and is beginning to fill a substantial gap in funding for harm reduction services. As the bulk of the funding makes its way into the hands of service providers to establish BHRNs, Measure 110 is likely to transform the delivery of health services for people who use drugs. Forthcoming evaluations are expected to examine impacts on racial disparities in drug law enforcement, service availability, and health-related outcomes. Though some components of Measure 110 are still in the implementation phase, jurisdictions looking for more productive means of responding to the needs of people with SUDs can gain several key insights from Oregon's innovative approach.

Declaration of conflicting interests

The author(s) declared the following potential conflicts of interest with respect to the research, authorship, and/or publication of this article: Drug Policy Alliance is a nonprofit organization advocating for drug policy reform, including decriminalization of drug possession, across the United States. Drug Policy Action, the sister political organization of the Drug Policy Alliance, was the primary funder in support of Measure 110. Haven Wheelock was a chief petitioner of Measure 110. Outside In is a recipient of grant funding made available through Measure 110. The Health Justice Recovery Alliance is an advocacy organization dedicated to ensuring Measure 110 is successfully implemented in a way centering the needs of the communities most impacted by the war on drugs: Black, Latino, Indigenous, Tribal and other communities of color.

Funding

The author(s) received no financial support for the research, authorship and/or publication of this article.

References

Ahmad F, Cisewski J, Rossen L, et al. (2022) Provisional drug overdose death counts. Available at: https://www.cdc.gov/nchs/nvss/vsrr/drug-overdose-data.htm (accessed 18 October 2022).

American Civil Liberties Union (2021) Poll results on American attitudes toward War on Drugs. Available at: https://www.aclu.org/other/poll-results-american-attitudes-toward-war-drugs (accessed 18 October 2022).

American Public Health Association (2013) Defining and implementing a public health response to drug use and misuse. Available at: https://www.apha.org/policies-and-advocacy/public-health-policy-statements/policy-database/2014/07/08/08/04/defining-and-implementing-a-public-health-response-to-drug-use-and-misuse (accessed 18 October 2022).

Associated Press (2021) Oregon marijuana sales soared in 2020, topping $1B. 7 January 2021. Available at: https://apnews.com/article/business-coronavirus-pandemic-oregon-marijuana-b08fe949276ae844d4e5181f31affbc7#:~:text=Total%20marijuana%20sales%20in%20Oregon,the%20year%20that%20just%20ended.&text=State%20tax%20revenue%20from%20marijuana,and%20programs%20to%20address%20addiction (accessed 18 October 2022).

Bassuk E, Hanson J, Greene N, et al. (2016) Peer-delivered recovery support services for addictions in the United States: A systematic review. *Journal of Substance Abuse Treatment* 63: 1–9.

Bergstein R, King K, Melendez-Torres G, et al. (2021) Refusal to accept emergency medical transport following opioid overdose, and conditions that may promote connections to care. *International Journal of Drug Policy* 97: 103296.

Berke J, Gal S and Lee Y (2022) 2 new states voted to legalize marijuana in the 2022 elections. See a list of every state where cannabis is legal. *Business Insider*, 9 November. Available at: https://www.businessinsider.com/legal-marijuana-states-2018-1 (accessed 28 March 2023).

Bowles J, Smith L, Verdugo S, et al. (2020) "Generally, you get 86′ed because you're a liability": An application of

Integrated Threat Theory to frequently witnessed overdoses and social distancing responses. *Social Science & Medicine* 260: 113190.

Camplain R, Camplain C, Trotter R, et al. (2020) Racial/ethnic differences in drug- and alcohol-related arrest outcomes in a southwest county from 2009 to 2018. *American Journal of Public Health* 110(51): S85–S92.

Centers for Disease Control and Prevention (2019) Table 20: Use of selected substances in the past month among persons aged 12 years and over, by age, sex, and race and Hispanic origin: United States, selected years 2002–2018. Available at: https://www.cdc.gov/nchs/data/hus/2019/020-508.pdf (accessed 18 October 2022).

Cruz CCE, Salom S, Maravilla J, et al. (2018) Mental and physical health correlates of discrimination against people who inject drugs: A systematic review. *Journal of Studies on Alcohol and Drugs* 79(3): 350–360.

Dandekar A (2022) Bipartisan majority of voters support harm reduction measures and decriminalizing small amounts of drug possession. Data for Progress, 20 April. Available at: https://www.dataforprogress.org/blog/2022/4/20/bipartisan-majority-of-voters-support-harm-reduction-measures-and-decriminalizing (accessed 18 October 2022).

Dandekar A and Fairclough T (2022) Oregon voters want measure 110 to remain in place. Data for Progress, 12 September. Available at: https://www.dataforprogress.org/blog/2022/9/12/oregon-voters-want-measure-110-to-remain-in-place (accessed 18 October 2022).

Department of Health and Human Services (2021) SAMHSA announces unprecedented $30 Million harm reduction grant funding opportunity to help address the nation's substance use and overdose epidemic. 8 December. Available at: https://www.hhs.gov/about/news/2021/12/08/samhsa-announces-unprecedented-30-million-harm-reduction-grant-funding-opportunity-help-address-nations-substance-use-overdose-epidemic.html (accessed 18 October 2022).

Dickson-Gomez J, Weeks M, Green D, et al. (2022) Insurance barriers to substance use disorder treatment after passage of mental health and addiction parity laws and the affordable care act: A qualitative analysis. *Drug and Alcohol Dependence Reports* 3: 100051.

Drug Policy Alliance (2017) It's time for the U.S. to decriminalize drug use and possession. Available at: https://drugpolicy.org/sites/default/files/documents/Drug_Policy_Alliance_Time_to_Decriminalize_Report_July_2017.pdf (accessed 18 October 2022).

Drug Policy Alliance (2021) Uprooting the drug war. Available at: https://uprootingthedrugwar.org/ (accessed 18 October 2022).

Drug Policy Alliance (2022) State-by-state laws. Available at: https://drugpolicy.org/decrim/laws (accessed 18 October 2022).

Effinger A (2022) Overdose deaths rose 33.6% in Oregon last year. *Willamette Week*, 13 May 2022. Available at: https://www.wweek.com/news/2022/05/13/overdose-deaths-rose-336-in-oregon-last-year/ (accessed 18 October 2022).

Federal Bureau of Investigation (2020a) Crime in the United States, Table 29: Estimated number of arrests. Available at: https://ucr.fbi.gov/crime-in-the-u.s/2019/crime-in-the-u.s.-2019/topic-pages/tables/table-29 (accessed 18 October 2022).

Federal Bureau of Investigation (2020b) Crime in the United States, arrest table: Arrests for drug abuse violations. Available at: https://ucr.fbi.gov/crime-in-the-u.s/2019/crime-in-the-u.s.-2019/tables/arrest-table.xls (accessed 18 October 2022).

Federal Bureau of Investigation (2020c) Crime in the United States, Table 43A: Arrests by race & ethnicity, 2019. Available at: https://ucr.fbi.gov/crime-in-the-u.s/2019/crime-in-the-u.s.-2019/tables/table-43 (accessed 18 October 2022).

Friedman J, Syvertsen JL, Bourgois P, et al. (2021) Intersectional structural vulnerability to abusive policing among people who inject drugs: A mixed methods assessment in California's central valley. *International Journal of Drug Policy* 87: 102981.

Gemei C (2022a) Oregon gubernatorial candidates weigh in on Measure 110, their plans if elected. *KPIC 4*, 6 July. Available at: https://kpic.com/news/local/oregon-gubernatorial-candidates-thoughts-on-measure-110-and-what-they-would-do-if-elected-betsy-johnson-christine-drazan-tina-kotek-governor-race (accessed 18 October 2022).

Gemei C (2022b) Ripple effect: Why OHA still has not used Measure 110's $265 million. *KTVL*, 22 April. Available at: https://ktvl.com/news/ripple-effect/ripple-effect-why-measure-110-still-has-not-used-265-million-in-funding-drugs-cannabis-meth-cocaine-treatment-recovery-bhrn-funding (accessed 18 October 2022).

Global Commission on Drug Policy (2018) Regulation - The responsible control of drugs. Available at: https://www.globalcommissionondrugs.org/reports/regulation-the-responsible-control-of-drugs (accessed 18 October 2021).

Green E (2022) 'People are dying' while state bureaucracy holds up Oregon treatment dollars, say Measure 110 proponents. *OPB*, 16 April. Available at: https://www.opb.org/article/2022/04/16/oregon-measure-110-decriminalize-drug-possesion-drug-treament-alcohol-addicition-recovery/#:~:text=April%2016%2C%202022%205%20a.m.,recovery%20services%20across%20the%20state (accessed 18 October 2022).

Gutierrez S (2022) Some in local law enforcement say Measure 110 is backfiring. *Fox 12*, 15 July. Available at: https://www.kptv.com/2022/07/15/some-local-law-enforcement-say-measure-110-is-backfiring/ (accessed 18 October 2022).

Haeder S (2017) US health care system: A patchwork that no one likes. *Salon*, 24 October. Available at: leehttps://www.salon.com/2017/10/24/us-health-care-system-a-patchwork-that-no-one-likes_partner/ (accessed 18 October 2022).

Hager E (2015) Debtor's prisons, then and now: FAQ. *The Marshall Project*, 24 February. Available at: https://www.themarshallproject.org/2015/02/24/debtors-prisons-then-and-now-faq (accessed 18 October 2022).

Hartmann DP, Gottman JM, Jones RR, et al. (1980) Interrupted time-series analysis and its application to behavioral data. *Journal of Applied Behavior Analysis* 13(4): 543–559.

Hawa O (2022) Access to care: Reporting outcomes. *Oregon Health Authority*. Available at: https://drugpolicy.org/sites/default/files/access_to_care_reporting_outcomes_non_anonymized_final_003.pdf (accessed 18 October 2022).

Langendorf J (2022) Decriminalization in Oregon, one year on. *Treatment Magazine*, 8 February. Available at: https://treatmentmagazine.com/decriminalization-in-oregon-one-year-on/ (accessed 18 October 2022).

League of Oregon Cities (2022) LOC board approves 2023 legislative priorities. 26 August. Available at: https://www.orcities.

org/resources/communications/bulletin/loc-board-approves-2023-legislative-priorities (accessed 18 October 2022).

Lee H and O'Malley D (2018) Abstinence-only: Are you not working the program or is the program not working for you? *Journal of Social Work Practice in the Addictions* 18(3): 289–304.

Madden A, Tanguay P and Chang J (2021) Drug decriminalisation: Progress or political red herring? *International Network of People who Use Drugs*, March. Available at: https://inpud.net/wp-content/uploads/2022/01/INPUD_Decriminalisation-report_online-version-1.pdf (accessed 18 October 2022).

Manfield L (2022) As violent crime rises in Portland and across the nation, should progressive reforms bear the blame? *Willamette Week*, 16 July. Available at: https://www.wweek.com/news/courts/2022/07/16/as-violent-crime-rises-in-portland-and-across-nation-should-progressive-reforms-bear-the-blame/ (accessed 18 October 2022).

Mental Health America (2022) Ranking the states 2022. Available at: https://mhanational.org/issues/2022/ranking-states (accessed 18 October 2022).

Miller D, Mongeau Hughes L and Sabatier J (2022) Is Oregon's Measure 110 working? An advocate says yes, and asks for patience. *Oregon Public Broadcasting*, 24 August. Available at: https://www.opb.org/article/2022/08/24/advocate-says-have-patience-oregon-drugs-measure-110-is-working/ (accessed 18 October 2022).

Myerly T and Gemei C (2022) Ripple Effect: Measure 110 funding, shortfalls and the OAC's visions. *News 10*, 30 May. Available at: https://ktvl.com/news/ripple-effect/ripple-effect-measure-110-funding-shortfalls-and-the-oacs-vision (accessed 18 October 2022).

National Academies of Sciences, Engineering, and Medicine, Health and Medicine Division, Board on Population Health and Public Health Practice, Committee on the Examination of the Integration of Opioid and Infectious Disease Prevention Efforts in Select Programs (2020) Barriers to integration, in: *Opportunities to Improve Opioid Use Disorder and Infectious Disease Services: Integrating Responses to a Dual Epidemic*. Washington, DC: National Academies Press, 23 January.

Netherland J, Kral A, Ompad D, et al. (2022) Principles and metrics for evaluating Oregon's innovative drug decriminalization measure. *Journal of Urban Health* 99(2): 328–331.

Oliva J, El-Sabawi T, Canzater S, et al. (2021) Defending syringe services programs. *Health Affairs Blog*, 23 August. Available at: https://www.healthaffairs.org/do/10.1377/forefront.20210817.592015 (accessed 18 October 2022).

Oregon Criminal Justice Commission (2020) IP 44 racial and ethnic impact statement supplemental document. 5 August. Available at: https://www.theskanner.com/images/stories/2020/August/IP44-REI-Statement-Supplement.pdf (accessed 18 October 2021).

Oregon Criminal Justice Commission (2022) Data request briefing 22 August 2022. Available at: https://drugpolicy.org/sites/default/files/ocjc_-_drug_possession_arrest_conviction_race_stats_8-22-22.pdf (accessed 20 October 2022).

Oregon Department of Revenue (2021) Oregon marijuana tax statistics: Accounting information. 5 April. Available at: https://www.oregon.gov/dor/programs/gov-research/SiteAssets/Pages/research-marijuana/Financial-reporting-receipts-public.pdf (accessed 18 October 2022).

Oregon Health Authority (2022a) Measure 110 Behavioral Health Resource Network (BHRN) Dashboard. Available at: https://app.powerbigov.us/view?r=eyJrIjoiMTA1MGZkYjYtNjVhNy00Y2VlLWE1ZmMtZGI2YWIzN2VhZjFkIiwidCI6IjY1OGU2M2U4LThkMzktNDk5Yy04ZjQ4LTEzYWRjOTQ1MmY0YyJ9 (accessed 3 January 2023).

Oregon Health Authority (2022b) Measure 110 BHRN Grantees 2022. Available at: https://app.smartsheet.com/b/publish?EQBCT=daa407edd645460ba9d0a727eda67690 (accessed 18 October 2022).

Oregon Health Authority (2022c) Measure 110 Oversight and Accountability Council approves final Oregon county for drug treatment and recovery services funding. 2 September. Available at: https://content.govdelivery.com/accounts/ORDHS/bulletins/32af7fe (accessed 18 October 2022).

Oregon Health Authority (2022d) Measure 110 Oversight and Accountability Council has now approved BHRNs in 29 counties for drug treatment and recovery services. Available at: https://content.govdelivery.com/accounts/ORDHS/bulletins/3248a3c (accessed 3 January 2023).

Oregon Health Authority (2022e) Unintentional drug overdose in Oregon: The current and potential impacts of the COVID-19 pandemic. *CD Summary* 71(2). Available at: https://www.oregon.gov/oha/PH/DISEASESCONDITIONS/COMMUNICABLEDISEASE/CDSUMMARYNEWSLETTER/Documents/2022/ohd7102.pdf (accessed 18 October 2022).

Oregon Health Authority (2023) Combined Measure 110 providers served more than 60,000 people during early implementation, preliminary reporting shows. 1 February. Available at: https://content.govdelivery.com/accounts/ORDHS/bulletins/3465dc9 (accessed 28 March 2023).

Oregon Judicial Department (2022) Measure 110: Class E Violations Through 2-28-2022. Available at: https://drugpolicy.org/sites/default/files/bm_110_cases_through_february_2022.pdf (accessed 20 October 2022).

Oregon Secretary of State (2020) Voters' Pamphlet: Oregon General Election November 3, 2020. Available at: http://records.sos.state.or.us/ORSOSWebDrawer/RecordView/7610651 (accessed 18 October 2022).

Pollitz K, Neuman T, Tolbert J, et al. (2019) What's the role of private health insurance today and under medicare-for-all and other public option proposals? *Kaiser Family Foundation*, 30 July. Available at: https://www.kff.org/health-reform/issue-brief/whats-the-role-of-private-health-insurance-today-and-under-medicare-for-all-and-other-public-option-proposals/ (accessed 18 October 2022).

RTI International (2022) Building the evidence: Understanding the impacts of drug decriminalization in Oregon. 12 October. Available at: https://www.rti.org/impact/oregon-drug-decriminalization#:~:text=Enacted%20in%20February%202021%2C%20Ballot,established%20Behavioral%20Health%20Resource%20Networks (accessed 18 October 2022).

Selsky A (2022) Oregon botched drug treatment plan tied to decriminalization. *Associated Press*, 2 June. Available at: https://apnews.com/article/health-oregon-government-and-politics-drug-addiction-05269fb778d33e0355db17bb8539c34c (accessed 18 October 2022).

Shover CL, Falasinnu TO, Dwyer CL, et al. (2020) Steep increases in fentanyl-related mortality west of the Mississippi River: Recent evidence from county and state surveillance. *Drug & Alcohol Dependence* 216: 108314.

Slade H (2021) *Drug Decriminalisation in Portugal: Setting the Record Straight. Transform Drugs*, 13 May. Available at: https://transformdrugs.org/assets/files/PDFs/Drug-decriminalisation-in-Portugal-setting-the-record-straight.pdf (accessed 18 October 2022).

Stanforth ET, Kostiuk M and Garriott PO (2016) Correlates of engaging in drug distribution in a national sample. *Psychology of Addictive Behaviors* 30(1): 138–146.

Substance Abuse and Mental Health Services Administration, Center for Behavioral Health Statistics and Quality (2021) Treatment Episode Data Set (TEDS) 2019 (Revised): Admissions to and Discharges From Publicly Funded Substance Use Treatment. Rockville, MD: Substance Abuse and Mental Health Services Administration, June. Available at: https://www.samhsa.gov/data/sites/default/files/reports/rpt35314/2019_TEDS_3-1-22.pdf (accessed 18 October 2022).

Sunrise House (2019) Drug Arrest Statistics Worldwide. 6 June. Available at: https://sunrisehouse.com/blog/drug-arrest-statistics-worldwide/ (accessed 18 October 2022).

United Nations System Chief Executives Board for Coordination (2019) Second regular session of 2018 Manhasset, New York, 7 and 8 November 2018: Summary of Deliberations. 18 January. Available at: https://unsceb.org/sites/default/files/imported_files/CEB-2018-2-SoD.pdf (accessed 18 October 2022).

United States Census Bureau (2021a) Quick Facts: Oregon. Available at: https://www.census.gov/quickfacts/OR (accessed 18 October 2022).

United States Census Bureau (2021b) Quick Facts: United States. Available at: https://www.census.gov/quickfacts/fact/table/US/PST045221 (accessed 18 October 2022).

VanderHart D (2021) Oregon's pioneering drug law raises more questions than answers in early months. *Oregon Public Broadcasting*, 27 October. Available at: https://www.opb.org/article/2021/10/27/oregon-pioneering-drug-law-raises-more-questions-than-answers-early-months/ (accessed 18 October 2022).

VanderHart D (2022) In their words: How Oregon's governor candidates would handle measure 110. *Oregon Public Broadcasting*, 3 October. Available at: https://www.opb.org/article/2022/10/03/how-oregons-governor-candidates-would-handle-measure-110s-sloppy-rollout/ (accessed 22 December 2022).

Waddell EN, Baker R, Hartung DM, et al. (2020) Reducing overdose after release from incarceration (ROAR): study protocol for an intervention to reduce risk of fatal and non-fatal opioid overdose among women after release from prison. *Health & Justice* 8(1): 18.

White JB (2022) San Francisco district attorney ousted in recall election. *Politico*, 8 June. Available at: https://www.politico.com/news/2022/06/08/chesa-boudin-san-francisco-district-attorney-recall-00038002 (accessed 18 October 2022).

Woodward A (2016) The substance abuse prevention and treatment block grant is still important even with the expansion of medicaid. In *The CBHSQ Report*. Substance Abuse and Mental Health Services Administration (US). http://www.ncbi.nlm.nih.gov/books/NBK355360/.

Wu L-T, Zhu H and Ghitza UE (2018) Multicomorbidity of chronic diseases and substance use disorders and their association with hospitalization: Results from electronic health records data. *Drug and Alcohol Dependence* 192: 316–323.

Zhu JM, Howington D, Hallett E, et al. (2022) Behavioral Health Workforce Report to the Oregon Health Authority and State Legislature. *Center for Health Systems Effectiveness*, 1 February. Available at: https://www.oregon.gov/oha/ERD/SiteAssets/Pages/Government-Relations/Behavioral%20Health%20Workforce%20Wage%20Study%20Report-Final%20020122.pdf (accessed 18 October 2022).

Laws, Legislation, Regulations, and Initiatives Referenced

House Bill 2355 2017 (Or.).

House Bill 4016 2022 (Or.).

House Bill 2089 2023 (Or.)

House Bill 3431 2023 (Or.)

Measure 110 Drug Treatment and Recovery Act 2019 (Or.).

Portaria 94/96 [Ordinance 94/96], art. IV(9), map, Diário da República de 26.3.1996 (Port.).

Or. Admin. R. 213-004-001 et seq.

Or. Rev. Stat. s. 131A.020(1).

Senate Bill 755 2021 (Or.).

Senate Bill 1541 2022 (Or.).

Senate Bill 1587 2022 (Or.).