



### **The Connecticut Opioid REsponse (CORE) Initiative** Report on Funding Priorities for the Opioid Settlement Funds in the State of Connecticut

March 2024

### **Table of Contents**

Executive Summary4
Background5
Funding Priorities
Funding Priority 1: Increase Access to the Most Effective Medications (Methadone and Buprenorphine) for Opioid Use Disorder Across Diverse Settings12
Funding Priority 2: Reduce Overdose Risk and Mortality, Especially Among Individuals at Highest Risk and Highest Need with Linkage to Treatment, Naloxone, and Harm Reduction
Funding Priority 3: Improve the Collection, Analysis, Sharing, and Use of Data Across Agencies and Organizations Relevant to Addressing the Opioid Overdose Crisis
Funding Priority 4: Invest in Training and Support to Increase the Size of the Addiction Workforce and Help Non-Specialists Provide Services30
Funding Priority 5: Simultaneously Deploy and Evaluate Select Primary, Secondary, and Tertiary Prevention Strategies
Funding Priority 6: Invest in Efforts to Reduce Community Stigma Against Opioid Use Disorder and Opioid Use Disorder Treatments
Funding Priority 7: Address Social Determinants and Structural Needs of At-Risk and Impacted Populations
Appendices41
Appendix A: Model Programs for OSAC To Highly Consider Funding to Replicate in Connecticut41
Appendix B: Strategies that Should Not Receive Expanded Funding45
Appendix C: Public Comments on the November 2023 CORE Report Draft That Require Regulatory or Statutory Change
Glossary of Acronyms
Acknowledgements & Disclosures
References

### **Executive Summary**

Legal settlements with prescription opioid manufacturers and distributors will direct sizable funds to the state of Connecticut over the next several years for the purpose of opioid abatement and related activities. In 2023, the Connecticut Department of Mental Health and Addiction Services (DMHAS) commissioned the Yale Program in Addiction Medicine to revise its 2016 Connecticut Opioid REsponse (CORE) Report, to inform and guide the statutorily created Opioid Settlement Advisory Committee (OSAC), charged with distributing Opioid Settlement Funds in the state. This report describes the existing state of the opioid overdose crisis in Connecticut, summarizes the current scientific literature, and presents recommendations regarding readily fundable priorities to address opioid-related harms, including overdose deaths and addiction. These recommendations, listed below, are not exhaustive rather are focused on maximizing return on investment to save lives. They derive from available evidence, and align with available guidance on use of funds, including Exhibit E of the Opioid Litigation Settlement and Principles for the Use of Funds from the Opioid Litigation, a framework developed by a coalition of over sixty organizations.

**Mission:** To decrease the adverse impact of opioids on Connecticut residents, with an immediate emphasis on reducing overdose deaths.

**Vision:** To identify sources of current Connecticut data and to apply evidence to most urgently and efficiently guide efforts to achieve the stated mission.

Values: Evidence, timeliness, respect, access, collaboration, and measurable high-impact efforts.

### **Funding Priorities**

- 1. Increase Access to the Most Effective Medications (Methadone and Buprenorphine) for Opioid Use Disorder Across Diverse Settings
- 2. Reduce Overdose Risk and Mortality, Especially Among Individuals at Highest Risk and Highest Need with Linkage to Treatment, Naloxone, and Harm Reduction
- 3. Improve the Collection, Analysis, Sharing, and Use of Data Across Agencies and Organizations Relevant to Addressing the Opioid Overdose Crisis
- 4. Invest in Training and Support to Increase the Size of the Addiction Workforce and Help Non-Specialists to Provide Services
- 5. Simultaneously Deploy and Evaluate Select Primary, Secondary, and Tertiary Prevention Strategies
- 6. Invest in Efforts to Reduce Community Stigma Against Opioid Use Disorder and Opioid Use Disorder Treatments
- 7. Address Social Determinants and Structural Needs of At-Risk and Impacted Populations

### Background

In 2016, the Connecticut Opioid REsponse (CORE) team issued a <u>report</u> detailing a strategic plan to reduce opioid-related deaths. That document, a summation of the scientific literature at the time, provided guidance to the state alongside efforts from the Alcohol and Drug Policy Council (ADPC), a statewide stakeholder group. In the intervening years, substantial progress has been made toward enacting the recommendations of the 2016 report. Many of the outlined strategies have been implemented by various state agencies and jurisdictions. Among these strategies, increasing access to medications for opioid use disorder (MOUD), especially methadone and buprenorphine, and increasing access to naloxone have been particularly central.

### The Opioid Overdose Crisis in Connecticut Since 2016

Most of the data cited in this report are publicly reported by state agencies. As they move forward, the Opioid Settlement Advisory Committee (OSAC) can take advantage of timely updates and reports generated by the Department of Public Health (DPH) on non-prescribed opioid use, substance use disorders, and fatal and non-fatal overdoses in the state, which are publicly available.

### Estimated number of individuals at increased risk of an opioid overdose

There are few reliable estimates of the number of people in Connecticut at increased risk of an overdose. The most recent data from the National Survey on Drug Use on Health, administered yearly by the federal government, estimates that there are 118,000 Connecticut residents who report non-medical use of opioids or use of heroin or fentanyl. This number is similar to estimates from 2016, and is likely an underestimate of the true number of people in the state who use non-prescribed opioids.<sup>1,2</sup> Given widespread infiltration of the illicit drug supply with fentanyl, there are a large number of people who primarily use cocaine or fake pills, who are now unknowingly exposed to fentanyl and are at increased risk of overdose. Similar to 2016, there are approximately 250,000 people in the state with a substance use disorder (SUD). Among those with an opioid use disorder (OUD), it is estimated that only 20% received treatment in the past year.

### Number, distribution, and epidemiology of overdose deaths since 2016

Since the publication of the initial CORE report, overdose deaths in the state have continued to rise. Where in 2016 there were 931 opioid-related deaths in the state, in both 2021 and 2022 there were over 1,400 overdose deaths.<sup>3</sup> The reasons for this continued rise are multiple and interacting, but the main driver has been a changing illicit opioid market now dominated by fentanyl, fentanyl analogues, and other high potency synthetic opioids. Stimulant-related deaths are increasing and xylazine adulteration of fentanyl has become increasingly prevalent. Overdose deaths are dominated by those involving fentanyl and fentanyl analogues by themselves or in combination with other substances (over 85% in 2022), those involving a combination of opioids and stimulants (41% in 2022), and those involving a combination of opioids and stimulants (41% in 2022), and those involving a combination of opioids and stimulants (41% in 2022), and those involving a combination of opioids and stimulants (41% in 2022), and those involving a combination of opioids and stimulants (41% in 2022), and those involving a combination of opioids and stimulants (41% in 2022), and those involving a combination of opioids and stimulants (41% in 2022), and those involving a combination of opioids and stimulants (41% in 2022), and those involving a combination of opioids and stimulants (41% in 2022), and those involving a combination of opioids and stimulants (41% in 2022), and those involving a combination of opioids and stimulants (41% in 2022), and those involving a combination of opioids and stimulants (41% in 2022), and those involving a combination of opioids and stimulants (41% in 2022), and those involving a combination of opioids and stimulants (41% in 2022), and those involving a combination of opioids and stimulants (41% in 2022), and those involving a combination of opioids and stimulants (41% in 2022). While overdose deaths have occurred in all towns in the state, they are concentrated in our urban centers with those occurring in New

The demographics of overdose decedents in Connecticut have also evolved since 2016. Similar to the breakdown of race and ethnicity in the state, the majority of people dying by overdose in the state are white, non-Hispanic residents, but there are significant disparities in per-capita overdose rates. Whereas earlier in the overdose crisis, the per-capita overdose rate among white, non-Hispanic residents in the state was higher than in other racial and ethnic groups, the per-capita overdose rates among Black and Latine residents in Connecticut are now higher than those in white residents (69 per 100,000 for Black residents, 51 per 100,000 for Hispanic/Latine residents, and 37 per 100,000 for white residents in 2022).<sup>4</sup> Overdose deaths occur among people of all ages in the state, but primarily in those 25 to 64 years old, with a peak in those aged 35 to 44 years old. While opioid involved overdose and poisoning deaths do occur in children, youth, and young adults under the age of 25, these make up a small number of overdose deaths in the state.<sup>4,5</sup> Overdose deaths occur primarily in men, who comprise three quarters of all overdose decedents.

Beyond demographics, several groups are overrepresented among people experiencing overdose deaths: people returning to the community from incarceration, those experiencing homelessness, and those with certain occupations. In 2016, 44% of overdose decedents had been incarcerated by the Connecticut Department of Correction (DOC) at some point prior to their death, reflecting the extremely high risk of overdose in the month following release from incarceration.<sup>6</sup> Since 2016, the DOC has made significant efforts to improve access to methadone and buprenorphine for people while they are incarcerated and to offer naloxone to everyone being released from custody. Data from DOC pilot programs in Bridgeport and New Haven, predating efforts to substantially increase MOUD access in the DOC, demonstrated access to methadone for jail-incarcerated individuals decreased the risk of post-release overdose by half and increased the likelihood that someone would re-engage with methadone treatment in the community following release.<sup>7</sup> It is likely that the broader efforts to increase access have substantially improved overdose risk in people released from custody throughout the state. Nonetheless, there remains a disproportionate number of overdoses in this population. In 2022, 14% of overdose deaths in the state occurred among those released within the last month from institutional settings, including jails or prisons such as the DOC.

Similarly, people experiencing homelessness are over-represented among those dying from overdose. In 2022, 7% of overdose deaths occurred in people who were experiencing homelessness or housing instability. Although there is limited data specific to Connecticut on risk of overdose by profession, nationally several occupations experience higher risk of overdose. These most notably include construction, food services, and the fishing industry.<sup>8</sup> To date, overdose prevention work in the state focused on addressing higher risk in certain occupations has been limited.<sup>9</sup> Implementation of screening and interventions in the workplace seems appropriate to bolster employee assistance programs.

The context of overdose deaths in the state is also important. The majority of overdose deaths in Connecticut occur in the decedent's or someone else's residence. A majority of overdose deaths occur with a potential bystander present, but in another room or otherwise spatially separated from the decedent.<sup>4</sup> And, most overdose deaths occur in people with a history of substance use, primarily past opioid use. Having a history of a prior overdose is a common major risk factor, having occurred in 1 in 8 overdose decedents (though the previous overdose typically occurred greater than a month in the past). Over a third of overdose decedents have a history of a co-occurring mental health disorder.

It is worth noting that there has been a decrease in overdose deaths in both 2022 and 2023 compared to prior years. Whereas 2021 saw over 1,500 overdose deaths, in 2022 there were 1,464 and in 2023 there were 1,331, by preliminary estimates. The cause of this decrease is uncertain, though it may reflect efforts

by state agencies to increase access to MOUD and increase naloxone distribution. It remains to be seen if this demonstrates a robust new trend in the overdose crisis.

### Changes in opioid and benzodiazepine prescribing in Connecticut since 2016

One focus of the 2016 CORE Report was the role that opioid and benzodiazepine prescribing patterns had in driving the overdose crisis. This reflected both the surge in opioid prescribing through the mid-1990s into the mid-2010s and that most overdose deaths in the United States prior to 2015 involved a commonly prescribed opioid (e.g., oxycodone, hydrocodone, oxymorphone).<sup>10-12</sup> Already, in 2016, overdose deaths due to illicitly manufactured opioids, primarily heroin at that time and subsequently fentanyl/fentanyl analogues, were rapidly climbing and would soon overtake those involving a commonly prescribed opioid.

Opioid prescribing in Connecticut has significantly decreased since 2016,<sup>13</sup> going from 2.5 million opioid prescriptions to 1.6 million opioid prescriptions in 2022.<sup>14</sup> This change was driven by national efforts, such as the CDC's recommendations on safe opioid prescribing (first published in 2016<sup>15</sup> and updated in 2022<sup>16</sup>), and by Connecticut-based efforts and policy changes, such as increased use of the CT Prescription Monitoring and Reporting System maintained by the Department of Consumer Protection (DCP) which is both mandated by law (PA 15-198) and supported by outreach and education efforts in addition to increased point-of-care access within electronic medical records. There has also been a decrease, although less pronounced, in benzodiazepine prescribing going from 1.6 million in 2016 to 1.3 million in 2022.

Given changes in overdose epidemiology (now driven largely by fentanyl and fentanyl analogues) and opioid prescribing since 2016, we have decreased the emphasis on safer opioid prescribing in this report. This deemphasis additionally seeks to acknowledge concerns raised about unintended consequences of decreased opioid prescribing, particularly in the context of decreased use in treatment of acute pain and rapid discontinuation of opioids without adequate support for people on long-term opioid therapies.

### Naloxone use and access to methadone and buprenorphine in Connecticut since 2016

We have included an update of changes in naloxone access and MOUD (methadone and buprenorphine) access in our text on the rationale and evidence of Priorities 1 and 2.

### How This Report Was Prepared

At the request of DMHAS and in coordination with the ADPC, the CORE team was invited to issue a revised CORE report for the OSAC, summarizing the existing scientific literature and making recommendations regarding funding priorities.

To provide immediate guidance to the OSAC as they convene and plan for the initial disbursement of funds received by the state, the CORE team delivered an initial draft of this report in September 2023. Following submission of this draft, a period of public review was observed, beginning September 6, 2023 and concluding November 12, 2023. The report was made publicly available on the OSAC website and widely circulated by DMHAS, the CORE team, members of the OSAC, and various stakeholders, alongside an open-access Qualtrics survey form inviting commentary. Leading up to an throughout this period of public review, from June 2023 through February 2024, the CORE team solicited input and feedback from leadership of the ADPC subcommittees, representatives from state agencies, organizations representing the specialties of addiction medicine and addiction psychiatry, public health researchers and practitioners, community-based harm reduction, treatment and recovery service providers, people with lived and living

experience, and the Office of National Drug Control Policy, via email and by teleconference. All comments on the September draft were reviewed by the CORE team. The CORE team made efforts to incorporate commentors' recommendations and suggestions insofar as they were supported by available evidence and within the purview of this report, which is to present evidence-based, readily fundable strategies and tactics that will decrease the adverse impact of opioids on Connecticut residents, with an immediate emphasis on reducing overdose deaths.

This final report provides guidance to the members of the OSAC for immediate use of settlement funds. The priorities, strategies, and tactics outlined reflect current understanding, both via empiric research and computer-based modelling, of what interventions have the best evidence of efficacy and likelihood to reduce overdose deaths and adverse public health effects in the near, middle, and long term. We specifically identified strategies most likely to have the *greatest immediate impact* (number of overdose deaths prevented) per dollar spent. We have also included strategies that have lesser evidence to support their effectiveness. We recommend that any use of opioid settlement funds for these strategies be directly tied to rigorous evaluation to make sure their desired goals are being achieved. Given the length of time over which the settlement funds will be distributed, there is an opportunity to build evidence for strategies that are promising but currently lacking a robust evidence base.

Although not specific to Connecticut, several studies have created computer models evaluating the relative efficacy of different strategies to reduce overdose deaths.<sup>17-20</sup> These studies consistently identify strategies that reduce overdose risk especially among those at highest risk – for example, harm reduction efforts including naloxone distribution among people who use fentanyl and other drugs – as the most likely to reduce overdose deaths by the greatest magnitude in the near term. The strategies next most likely to reduce overdose deaths in the near term are those that increase access to medications, especially methadone and buprenorphine, and support treatment engagement, retention, remission, and recovery. Despite inherent uncertainty regarding the impact of various strategies, we believe funds should be distributed across diverse priority areas in a manner that reflects potential impact rather than concentrated in a few priority areas.

### Exhibit E and Principles to Guide the Use of Opioid Litigation Funds

Priorities identified in this report conform to the nine core abatement strategies identified in the Opioid Litigation Settlement (also known as Exhibit E) to address the opioid overdose crisis. The language of the settlement encouraged states to dispense funds to strategies identified within Exhibit E List of Opioid Remediation Uses, although states are ultimately given discretion on how to spend funds.

In addition, these recommendations align with the <u>Principles to Guide the Use of Opioid Litigation Funds</u> (Principles Group), endorsed by over 60 organizations including the Yale Program in Addiction Medicine, national medical societies, national public health organizations, schools of public health, and national addiction advocacy groups. The Principles are as follows:

- 1. Spend the Money to Save Lives
- 2. Use Evidence to Guide Spending
- 3. Invest in Youth Prevention
- 4. Focus on Racial Equity
- 5. Develop a Fair and Transparent Process for Deciding Where to Spending Funding

Of potential benefit to the OSAC, the Principles Group has developed <u>several resources</u> that members of the Committee should consider in their funding allocation processes.

We would like to highlight two aspects of these Principles. First, we agree with Principle 1, that funding should be allocated to maximize likelihood of reducing overdose deaths and saving lives. Second, to see the highest return on investment, in overdose deaths averted and lives saved, we recommend that distribution of funding allocations match the geographic burden of overdose deaths in the state, which is overwhelmingly concentrated in Connecticut's major cities.

### Opioid settlement funds and a focus on racial equity

We wish to emphasize the global importance of Principle 4, a focus on racial equity. People of color are disproportionately affected by adverse outcomes of substance use and SUD. As highlighted on pages 2-3 of this report, recent years have seen a rapid increase in overdose deaths in Black and Latine residents of Connecticut. They now experience a higher per capita rate of opioid overdose deaths compared to white residents. Disparities in overdose deaths are coupled with inequitable provision of evidence-based treatment services, highlighted by differences in access to and use of MOUD. Methadone, exclusively available from brick-and-mortar opioid treatment programs (OTPs) regulated by federal and state law, is often more readily available and taken by Black individuals for the treatment of OUD whereas buprenorphine, available in non-specialty settings such as primary care and dispensed in commercial pharmacies, is used disproportionately by white individuals.<sup>21,22</sup> OTPs are also predominately located in urban areas whose residents primarily comprise racialized minorities. As described under Priority #1, we strongly recommend that the state use Opioid Settlement Funds to ensure equitable access to both medications.

Furthermore, people of color shoulder a disproportionate burden of the criminalization of substance use. Reflecting a broader national trend, Black and Latine Connecticut residents are much more likely to be incarcerated on charges related to substance use.<sup>23-25</sup> Applying a racial equity lens to addressing the overdose crisis in the state necessitates our attentiveness to the role that racialized policies and practices play in perpetuating harm.

To that end, we have included tactics targeting efforts to decrease racial and ethnic disparities in multiple priorities in this report. It merits emphasis that all funding decisions made by the OSAC should incorporate a racial equity lens and funds should be allocated to address systemic racism and inclusion of diverse populations across systems designed to abate the opioid overdose crisis.

Specific attention should be given to ensure that communities that have been historically excluded or have not uniformly benefited from funding receive resources and technical assistance that foster independence and allow for provision of prevention and treatment services to diverse populations. It is essential to invest in workforce and organizational leadership development within communities most impacted by the overdose crisis. One targeted approach to addressing the increasing overdose deaths among Black, Latine, and other people of color in Connecticut is to direct resources to leaders already operating in these communities who have established trust and existing relationships, as well as towards cultivating new leaders with vision and skills to respond. This could involve investments earmarked for community training and education, community organizing, expanded service provision, capacity building, operations support, and leadership development strategies. Creating and sustaining funding opportunities to foster the next generation of these leaders and their organizations will ensure a diverse workforce pipeline able to address overdose, addiction, and other substance use issues in specific communities and contexts among future generations.

### Supplement, don't replace

The Principles Group recommends, and we agree, that funds received by the state should be used to supplement rather than replace existing funding. Current funding and programing are not meeting the needs of people who use opioids as evidenced by the high number of overdose deaths. For example, the state of Connecticut already funds a large portion of the medications used for the treatment of OUD either via reimbursement through billable services from Medicaid or grants through DMHAS. Opioid settlement funds should not be used to replace these funding streams, but to fund new initiatives to increase the number of people accessing these services.

### The use of opioid settlement funds for research and program evaluation

Exhibit E explicitly includes research activities as possible targets of funding from Opioid Litigation Settlement Funds. As it is unclear what impact on opioid overdose research activities would have, especially in the near-term, we have not included recommendations regarding funding of research activities in this report. If the OSAC determines that funding research activities is of interest, we can provide recommendations regarding research priorities.

To assess the impact of the OSAC efforts however, we highly recommend evaluation of funded interventions and allocation of funds toward efforts to measure opioid overdose trends, treatment uptake, and related metrics in the state. Evaluating the impact of programs implemented, generating knowledge on implementation barriers and facilitators, and measuring implementation fidelity can guide continued effective allocation of resources via the opioid settlement funds and other entities in the state. As such, we recommend that funded interventions be required (and funded) to measure program implementation and report outcomes, adaptions, and lessons learned in meeting the needs of targeted populations. We recommend that funded interventions implementing similar strategies (e.g., increasing access to methadone) should measure common elements to foster improved understanding of facilitators and barriers to implementing within and across sites and interventions.

We acknowledge that programs funded via the OSAC might lack capacity to engage in robust data collection and reporting activities and therefore may also benefit from training and consultation to build internal program evaluation capacity. As needed, we recommend that the OSAC consider funding these technical assistance activities, potentially in a centrally coordinated manner. Similarly, we recommend that the OSAC be cognizant that funding decisions should not hinge on the ability of entities to perform these data collection activities. Often, the entities that can most successfully engage in service provision to individuals at risk of opioid overdose do not have substantial data collection and program evaluation capacity. Instead of passing over these entities for funding, the OSAC should include funding to support capacity building of these entities.

#### How to Read This Report

### Organization of each funding priority section

For each funding priority, we have identified a primary goal, strategies targeting that goal, along with potential tactics for the OSAC to fund. The key provided below supports navigation of these components.

Component	Description
Priority	Overarching funding category supporting a specific goal and encompassing
	one or more strategies and several tactics.

Goal	The summary target outcome for a given funding priority.
Strategy	A specific approach belonging to a stated strategy to achieve a stated goal.
Tactic	A specific action that may be funded to implement a strategy.

Tactics included are not exhaustive. We anticipate other initiatives or approaches may be proposed by others that target the same the goals. Included in this report are four appendices. Appendix A outlines several model programs from other states that have demonstrated success in achieving one or more of the priorities laid out in this report and that we suggest the OSAC consider funding in Connecticut. Appendix B describes initiatives that we explicitly caution against the OSAC funding, due to current sufficient funding, demonstrated inefficacy, or a paucity of evidence. Appendix C summarizes recommendations received during the comment period observed between the issuance of the report draft and this final version that involve regulatory or statutory change. While important to capture and discuss, these recommendations fall outside the primary scope of this report (readily fundable interventions that do not require intermediate policy steps).

### **Funding Priorities**

# Funding Priority 1: Increase Access to the Most Effective Medications (Methadone and Buprenorphine) for Opioid Use Disorder Across Diverse Settings

### Rationale

Medications for opioid use disorder (MOUD), particularly methadone and buprenorphine, are the most effective form of treatment for opioid use disorder (OUD). MOUD is endorsed by entities ranging from the World Health Organization, the White House Office of National Drug Control Policy, the National Institutes of Health, the National Academies of Science, Engineering and Medicine, and numerous other bodies because of its ability to decrease rates of substance use, overdose deaths, transmission of viral infections, and criminal behavior.<sup>26,27</sup> There is strong evidence that OUD treatments that do not use methadone or buprenorphine are inferior to those that do and result in more deaths.<sup>26,28,29</sup> In data from Connecticut (Figure 1), individuals receiving OUD treatment with either methadone or buprenorphine reduced their risk of fatal overdose compared to those not receiving any addiction treatment (39% reduction with methadone, 34% reduction with buprenorphine).<sup>1</sup> These results are consistent with analyses in other states<sup>28,30</sup>, other countries, and within high-risk subpopulations.<sup>31-33</sup> Treatment with MOUD is also cost-effective.<sup>34,35</sup> Thus, Opioid Settlement Funds should be used to fund initiatives that increase the proportion of people with OUD who initiate treatment with methadone or buprenorphine and are retained on these medications.





Data source: Heimer R, Black A, Lin H, Grau LE, Fiellin DA, Howell BA, Hawk K, D'Onofrio G, Becker WC. Receipt of opioid use disorder treatments prior to fatal overdoses and comparison to no treatment in Connecticut, 2016–17. Drug Alcohol Depend. 2024; 254 (111040).

Consistent access to MOUD for people with OUD is a crucial tool for reducing overdoses in the state, but people confront several barriers when attempting to initiate or maintain treatment with MOUD, including:

- Limited access to clinicians and treatment programs offering same-day provision of MOUD
- Inadequate numbers of clinicians who accept certain insurances, including Medicaid

- Lack of routine initiation of patients with untreated OUD on MOUD by clinicians in ambulatory (outpatient) care sites, including emergency departments (EDs) and primary care
- Inadequate number of clinicians and treatment programs offering MOUD to adolescents
- Challenges with transportation to treatment settings
- Pharmacies that opt to not dispense buprenorphine (as initiated by prescription) or have limits on dispensing<sup>36-38</sup>

Funding should be directed to decreasing all potential barriers to accessing MOUD and improving retention in MOUD treatment.

### Evidence

Evidence regarding the efficacy of methadone<sup>29</sup> and buprenorphine<sup>26</sup> to improve outcomes for people with OUD is overwhelming, particularly with respect to reduction in risk of overdose. Both medications have been demonstrated to reduce the risk of overdose by as much as 50% in clinical trials and in real world clinical practice.

### Methadone and buprenorphine use in Connecticut since 2016

Since 2016, several state agencies, including DMHAS, DCP, the Department of Children and Families (DCF), Department of Social Services (DSS), and DOC, have made efforts to increase the number of individuals initiating and engaging in methadone or buprenorphine treatment, including efforts to lower barriers to accessing methadone, increase capacity to prescribe buprenorphine and methadone, and increase access to methadone and buprenorphine for incarcerated people with OUD.<sup>39</sup>

The number of individuals receiving methadone increased in the state substantially between 2012 (14,000) and 2017 (21,000), but there have been minimal increases since that time. (Figure 2) Similarly, the estimated number of individuals receiving buprenorphine increased in the state substantially between 2015 (21,000) and 2020 (30,000), with only modest increases since that time. There is less data on the proportion of people who are retained on either methadone or buprenorphine long-term. There are no reliable estimates of the number of people in the state at risk for overdose who would benefit from treatment with MOUD. Nonetheless, the rising number of opioid overdoses indicates there is an unmet need for these treatments in the state. This unmet need includes individuals who use opioids or have OUD and are at risk of overdose but have not initiated MOUD as well as individuals who have initiated MOUD but were not retained in treatment.

Figure 2. Unduplicated Recipients of Medications for Opioid Use Disorder (Methadone or Buprenorphine) in the State of Connecticut, 2012-2021



Data Sources: Methadone treatment data displayed in this figure is sourced from the ADPC 2022 Substance Use Triennial Report and Hsiu-Ju Lin, PhD (DMHAS, University of Connecticut School of Social Work). Buprenorphine treatment data reflects an estimate based on DEA Automated Reports and Consolidated Orders (ARCOS) reporting of buprenorphine shipments to the state. Some percentage of unduplicated recipients of buprenorphine may reflect diagnoses or applications other than OUD (e.g., pain management).

#### Methadone and buprenorphine access in Connecticut since 2016

There are geographic, socioeconomic, and racial disparities in access to methadone and buprenorphine within the state. Methadone access is limited to federally certified opioid treatment programs (OTPs) that are largely concentrated in our state's urban centers. Given the number and location of these facilities, there is inequitable access to methadone treatment. The location of OTPs in Connecticut, their limited service hours, the fact that many individuals with OUD are reliant on mass-transit for their transportation needs, and policies governing methadone administration pose in combination a significant logistical burden for individuals to engage in methadone treatment. This logistical burden makes it harder for individuals in methadone treatment to achieve other important goals, such as gainful employment. Of note, this is an area of evolving federal regulation. Historically, regulations required 6 day a week, inperson dosing of methadone for the first 90 days of treatment, but during the COVID-19 pandemic, and only recently extended, SAMHSA loosened these regulations<sup>40</sup> increasing the ability OTPs to provide takehome doses to stable patients, as determined by clinical judgement of the OTP even within the first 14 days of treatment.<sup>40</sup>

In preparing this report, we conducted an analysis of transportation access to OTPs in the state. In this analysis we estimated both the average weekday morning car-based and the mass transit (bus or train) travel time to at least one OTP from all points in the state. The results of this analysis are presented in Figure 3. In these maps, the gradations in color (yellow-to-red) represent cut-offs for travel time (i.e., 0-15 mins, 15-30 mins, etc.). In the map representing mass transit travel times, the bulk of the state is represented in gray, which reflects locations in the state that do not have ready access to mass transit. There are markers for each OTP in the state (blue mark) and overdose deaths (black dots) in the state. The overdose deaths have been geo-masked to obscure the actual location of the fatality.

### Figure 3. Access as Measured by Travel Time, Driving (a) or Mass Transit (b), to At Least One Opioid Treatment Program in the State of Connecticut



Data Source: Maps generated in ArcGIS<sup>TM</sup> by Junghwan Kim, PhD (Virginia Tech). Data on average weekday morning travel time via driving and mass transit to OTP locations generated from Google Distance Matrix Applied Programming Interface (API) and General Transit Feed Specification (GFTS) datasets, respectively.

To account for density of unmet need for methadone treatment, we also estimated the average car-based and mass-transit based travel time from the location of all 1,018 opioid-involved overdose fatalities that occurred in 2019 to at least one OTP. This analysis demonstrated relatively good car-based access to OTPs, with the average travel time from the location of an overdose fatality to at least one OTP being 9 minutes and the vast majority of overdose locations (83%) being less than 15 minutes from an OTP. Mass-transit based access was much worse. The average mass-transit travel time to at least one OTP was 75 minutes and OTPs were inaccessible by mass-transit (no mass transit options at all) from one quarter of locations. Among locations with any mass-transit access, the majority (71%) were over 30 minutes of travel time by mass transit away from at least one OTP.

Due to differing federal regulations, access to buprenorphine is fundamentally different than access to methadone. Whereas methadone dispensing is limited to OTPs, any pharmacy can dispense buprenorphine. Given the distribution of pharmacies in the state, buprenorphine is therefore (theoretically) accessible throughout the state if an individual can locate a provider to prescribe buprenorphine. Following passage of the MAT Act by U.S. Congress in 2022, federal law changed allowing for buprenorphine to be prescribed by any DEA-licensed prescriber in the state. Although all prescribers can prescribe buprenorphine, not all prescribes do prescribe<sup>41</sup>, and there are no publicly available means to identify prescribers who are actively prescribing buprenorphine in the state.

The best estimates of geographic variation in buprenorphine prescribing in Connecticut come from yearly data from the Drug Enforcement Agency (DEA) reporting system on shipments of buprenorphine<sup>42</sup> and publicly reported data from the DCP from the Connecticut Prescription Monitoring and Reporting System (CPMRS), otherwise known as the Connecticut Prescription Drug Monitoring Program (PDMP).<sup>43</sup> In our

analysis of the DEA data, we found that shipments of buprenorphine to the state increased throughout the state from 2016 to 2022, but increases were unevenly distributed. Zip codes in the greater New Haven area and those in the eastern part of the state around New London and Norwich receive more buprenorphine per capita than other regions of the state. There have also been larger year-over-year increases in shipments of buprenorphine to the New London/Norwich area than in any other part of the state. This variation is reflected in publicly reported PDMP data from the DCP (Figure 3). These data demonstrate higher per capita buprenorphine prescription rates in the eastern part of the state, but also highlight towns in Litchfield County with similarly high per capita buprenorphine prescription rates. Data from the DEA and DCP should be interpreted with the understanding that buprenorphine can also be prescribed for the treatment of pain. We cannot distinguish in these datasets between receipt of buprenorphine for the treatment of OUD versus pain.



Figure 4. Partial Opioid Agonist Rate Per 1,000 Connecticut Residents, Quarter 3, 2023

Data Source: Map generated by Junghwan Kim, PhD (Virginia Tech), from data generated by <u>the DCP PDMP</u> for buprenorphine dispensed in Quarter 3, 2023.

There are long-standing variations in the demographics of who can access methadone or buprenorphine. Nationally, there are racial and ethnic disparities in buprenorphine prescribing, with prescribing concentrated in areas that are predominately non-Hispanic White, and less prescribing in areas that are predominately non-Hispanic White, and less prescribing in areas that are predominately non-Hispanic White, and less prescribing in areas that are predominately non-Hispanic White, and less prescribing in areas that are predominately non-Hispanic White, and less prescribing in areas that are predominately non-Hispanic Black.<sup>44</sup> In contrast, methadone access is concentrated in areas with higher percentages of Black and Hispanic residents.<sup>45</sup> Other populations with population-specific risk factors for overdose, for whom barriers to methadone and buprenorphine access have been documented, include adolescents and the elderly, pregnant and post-partum individuals, those with co-occurring psychiatric, developmental, or medical conditions, and those engaged in high-risk professions such as sex work. Heightened risk for overdose among the unhoused and recently incarcerated is discussed in prior sections

and will be revisited in sections to follow. MOUD access is further mediated by the influence of intersecting identities including race, ethnicity, gender, and sexual orientation.

Building on substantial data supporting the efficacy of MOUD for a range of outcomes, there is evidence that programs can improve engagement in MOUD treatment by providing:

- MOUD in a range of care settings, including EDs<sup>46,47</sup>, hospitals, telehealth, and via mobile delivery services.
- Specialty addiction consult services in general medical hospitals.
- Time-limited or "bridge" treatment between clinical settings.<sup>48</sup>
- Broad access to low threshold MOUD treatment initiation and retention, including,
  - providing MOUD on the same day as presentation to treatment
  - reducing logistical and financial hurdles to receiving MOUD, and
  - o avoiding discharging patients from care for ongoing substance use.<sup>47,49</sup>
- Provision of dedicated technical support for Connecticut clinicians with state-focused initiatives such as Providers Clinical Support System, Project ECHO, California Bridge, the Maryland Addiction Consultation Service, and Project ASSERT (see Appendix A for further details).
- "Medication first" models and interim MOUD (i.e., models providing MOUD without required counseling).<sup>50,51</sup>
- Tailored interventional strategies for underserved and marginalized populations listed above.

### **Potential Impact**

The potential impact of increased use of MOUD would be immediate, and retention of individuals in treatment is possible with near- and long-term continuing investment.<sup>19</sup> Overall, the risk of overdose, death, and other significant medical and mental health complications can be substantially reduced with the increased use of MOUD.

### Strategies

**Strategy #1:** Strategically expand access to and improve retention on methadone and buprenorphine via federally certified OTPs.

**Goal:** Ensure geographically strategic, equitable, and timely access to methadone and buprenorphine in OTPs; lower barriers to MOUD initiation and continuation provided through OTPs.

- Tactic #1: Fund increased access at existing OTPs including expanded OTP service hours, sameday medication initiation, expanded use of take-home doses, and provision of supportive behavioral health services (such as Cognitive Behavioral Therapy (CBT) and Contingency Management<sup>52</sup>).
- **Tactic #2:** Fund initiatives that provide linkage to wraparound support services (emphasizing

transportation, housing, insurance enrollment, vocational training, employment support, and childcare) for individuals engaged in MOUD via OTPs to support initiation and retention in treatment.

- **Tactic #3:** Fund initiatives that expand and support existing efforts to provide direct integration of behavioral health and psychiatric comorbidity treatment into existing OTPs and otherwise facilitate access to methadone for individuals with co-occurring psychiatric disorders.
- **Tactic #4:** Fund initiatives to develop, implement, and sustain substance use navigator services embedded in OTPs and general medical settings, who are trained to support MOUD initiation, specifically of methadone or buprenorphine, apply harm reduction principles, and collaborate with clinician oversight and quality review.
- **Tactic #5:** Fund initiatives that advance mobile provision of methadone and buprenorphine. Funding should focus on start-up costs (i.e., costs of purchasing and outfitting needed vehicles) and incentivizing the provision of mobile services.
- Tactic #6: Fund initiatives to standardize provision of and access to methadone via OTPs in Connecticut, including efforts that facilitate sharing of knowledge and best practices among OTPs within the state and from other states.
- **Tactic #7:** Fund recovery support services that foster the use of MOUD through OTPs.
- **Tactic #8:** Fund initiatives that provide office-based methadone in line with current federal regulations and pilot programs under exemptions from current regulations.<sup>53-55</sup>

# **Strategy #2:** Increase provision of MOUD for people with OUD who are interacting with emergency departments (EDs) and hospitals, and improve transitions for ongoing care.

**Goal:** Equip all Connecticut EDs and hospitals to initiate MOUD, provide harm reduction strategies, and develop pathways for ongoing care. Increase access to such services via first responders.

- Tactic #1: Fund initiatives that support ED and hospital initiation and continuation of MOUD, inclusive of clinician training and development of clinical pathways, to ensure widespread adoption of screening/identification, brief intervention and referral to treatment (SBIRT), overdose prevention and provision of naloxone upon discharge, and development of collaborations between community addiction providers and hospital-based providers.<sup>56,57</sup> This may include efforts to disseminate protocols, knowledge, and best practices across all Connecticut EDs and hospitals on MOUD initiation or continuation, treatment of psychiatric comorbidity, pain with acute and chronic illnesses or injuries, and plans for OUD treatment during the perioperative period for elective and emergent surgeries.
- **Tactic #2**: Fund initiatives that support first responders' linkage of patients to evidence-based treatment and harm reduction for persons with OUD.
- Tactic #3: Fund initiatives to develop and sustain hospital-based addiction specialist consult services to address hospital-based care of individuals with opioid use and OUD across the lifespan (i.e., including hospitalized infants, children, adolescents, pregnant/birthing people and the elderly).<sup>58</sup>

- Tactic #4: Fund initiatives to expand, where existing, and implement, where currently not existing, recovery support and substance use navigator services in EDs and hospitals who work in collaboration with clinicians, highlight the benefits of MOUD, and collaborate with community partners such as in the Project ASSERT model (see Appendix A for further details).<sup>59</sup>
- **Tactic #5:** Fund initiatives to develop and implement recovery support and substance use navigator services in pediatric EDs and hospitals focused on engaging with adolescents and youth at risk for opioid overdose, including the development of family-focused treatment plans.
- **Tactic #6:** Fund initiatives to ensure provision of MOUD in skilled nursing facilities by addressing barriers and coordination of treatment across transitions of care.
- Tactic #7: Fund initiatives to monitor and develop statewide reporting (e.g., dashboards) for Emergency Medical Services (EMS), ED, and hospital-based responses to the opioid overdose crisis, including universal adoption of standardized policies and practices focused on screening/identification, initiation of MOUD, referral to continuing treatment, overdose education, and provision of naloxone.

**Strategy #3:** Increase availability of buprenorphine in office-based settings of primary care and behavioral health, federally qualified health centers, hospital-based clinics, recovery support services, and harm reduction services.

**Goal:** Timely, convenient access to buprenorphine in all parts of the state, especially for underserved and marginalized populations, regardless of insurance status. Lower barriers to buprenorphine treatment initiation and continuation.

- Tactic #1: Fund initiatives that train clinicians throughout the state to effectively screen for OUD, address and lower barriers to prescribing buprenorphine, support retention of patients on buprenorphine, and connect patients to wraparound support services (see Appendix A for a description of Maryland Addiction Consult Service (MACS), CA Bridge, PCSS, and ECHO models).
- Tactic #2: Fund initiatives to expand access to buprenorphine in office-based settings that are tailored to engage patients with co-occurring psychiatric disorders, pregnant and parenting people, adolescents, and other populations with inequitable access to buprenorphine. Initiatives targeting pregnant and parenting people or adolescents should include support for training and implementation of family care plans.
- **Tactic #3:** Fund initiatives that integrate recovery support and substance use navigators and other wraparound support services into MOUD treatment across office-based and general medical settings.
- Tactic #5: Fund expanded access to select, evidence-based behavioral health interventions such as Motivational Enhancement Therapy, drug counseling, Contingency Management or CBT for patients receiving buprenorphine in office-based settings.<sup>52</sup>

**Strategy #4:** Ensure access to all FDA-approved medications for OUD for people incarcerated in and transitioning out of DOC.

**Goal:** All individuals incarcerated in DOC should be screened for OUD and have access to all three FDA-approved MOUD options at time of entry to and exit from DOC.

- **Tactic #1:** Fund efforts to expand access to all FDA-approved MOUD in all DOC facilities. Funding can be allocated for clinical or security staffing, facilities, or medication costs otherwise not currently funded by the DOC budget to support the MOUD program.
- Tactic #2: Fund initiatives to ensure timely connection to and retention on MOUD following release from DOC, including support for comprehensive discharge planning and expansion of guest-dosing of methadone at all OTPs in state for people released from DOC.
- Tactic #3: Fund initiatives to increase referral to, use of, and retention on evidence-based opioid use prevention and treatment services for youth involved in the criminal legal system.<sup>60,61</sup>
  Currently, there is limited evidence on best practices for treatment and prevention of opioid use in youth involved in the criminal legal system and funded initiatives should be directly tied to evaluation of effectiveness to inform future funding and best practices.

### **Strategy #5:** Ensure access to methadone or buprenorphine for people engaging in inpatient or residential addiction treatment services.

Receipt of inpatient or residential addiction treatment services should not preclude treatment with MOUD. Historically, there was significant variation in whether individuals seeking treatment for OUD in inpatient and residential addiction treatment facilities would be offered MOUD or, if already initiated, could be continued while receiving treatment in those facilities. The recently implemented DSS Section 1115 Demonstration Waiver for Substance Use Disorder (SUD) Treatment<sup>62</sup>, which greatly expanded the ability of Medicaid to pay for inpatient and residential SUD treatment services, included provisions that required treatment providers of inpatient and residential addiction treatment services to offer MOUD, either via initiation or continuation, to all individuals accessing treatment in those facilities.

**Goal:** All individuals accessing inpatient or residential addiction treatment services should be offered MOUD initiation, be able to continue MOUD while engaging in services, and be supported to continue MOUD at discharge from these facilities.

Tactic #1: Fund initiatives that provide technical support to clinicians in inpatient or residential addiction treatment settings and facilitate development of best practices for the provision of MOUD in these settings. MOUD, as standard of care, should be offered by OSAC-funded inpatient and residential treatment initiatives and the use (or non-use) of medications should be driven by informed choice on the part of the patient, not by policies, protocols, or systems barriers that exclude MOUD as an option. Funded initiatives can provide technical support for transitions in care models prompted by the above mentioned 1115 demonstration waiver.

**Strategy #6:** Provide services to improve access to MOUD (methadone or buprenorphine) and retention in MOUD across all settings via provision of community-tailored, culturally responsive, and trauma informed models, especially for populations with unique needs (e.g., psychiatric comorbidity) and those

at high risk for overdose but not currently engaging in MOUD treatment, and particularly where evidence demonstrates that tailored services improve outcomes such as retention and mortality.

**Goal:** Ensure that all individuals accessing MOUD treatment, especially those with unique needs or those at high risk for overdose, are able to access community-tailored, culturally responsive, and trauma-informed models of care.

- **Tactic #1:** Fund initiatives that provide community-tailored, culturally responsive and racially concordant initiatives to increase methadone and buprenorphine initiation and retention among racialized minorities.
- **Tactic #2:** Fund initiatives that support increased methadone and buprenorphine initiation and retention for youth with OUD, including provision of wraparound support services, recovery support, behavioral treatments, and family-involved models such as the Adolescent Community Reinforcement Approach (A-CRA).
- **Tactic #3:** Fund initiatives that provide community-tailored, culturally responsive interventions to educate, correct misconceptions, and improve community perceptions around the use of MOUD (methadone or buprenorphine) for the treatment of OUD.
- Tactic #4: Fund initiatives to advance technology-based solutions with strong evidence of improving MOUD (methadone or buprenorphine) treatment engagement, retention, and substance use outcomes that provide 24/7 recovery support, including telehealth and digital delivery of CBT such as CBT4CBT.
- **Tactic #5:** Fund efforts to identify and characterize locations and populations currently with unmet need for MOUD and novel tailored methods to meet the needs of these populations.

### **Strategy #7:** Improve analysis, linkage and timely reporting of existing data pertinent to provision of MOUD in the state.

**Goal:** Create timely reported metrics on MOUD provision in the state via merging and linking relevant existing data from treatment providers, state agencies, and other entities in the state. Metrics can be used by stakeholders and policymakers to guide funding, policy, and agency efforts to improve MOUD provision.

- **Tactic #1:** Fund the generation of reports on access to methadone and buprenorphine via federally certified OTPs, office-based practices, hospitals, EDs, and other treatment settings with focus on geographic, socio-economic, and racial disparities in MOUD access.
- **Tactic #2:** Fund efforts to generate and support the timely reporting of metrics on the number of overdose survivors in the state who access methadone or buprenorphine within one month of a non-fatal overdose.
- Tactic #3: Fund initiatives to track the percentage of people incarcerated in DOC screened for OUD, the percentage with OUD receiving MOUD, and the percentage successfully linked to MOUD following release into the community.

# Funding Priority 2: Reduce Overdose Risk and Mortality, Especially Among Individuals at Highest Risk and Highest Need with Linkage to Treatment, Naloxone, and Harm Reduction

### Rationale

Although opioid-involved non-fatal overdoses in Connecticut have been recorded in the thousands and every municipality in the state except for two have experienced fatalities, the burden falls mostly heavily on specific cities and specific underserved and marginalized groups of Connecticut residents. Reviewing the scientific literature and state-specific data, we conclude that efforts to reduce overdoses will have the greatest possible impact if strategies are focused on individuals who:

- have recently experienced a non-fatal overdose
- use opioids alone
- have a history of OUD and have lost tolerance to opioids
- are opioid-naïve or have low opioid tolerance and are purchasing stimulants, anxiolytics, or other non-prescribed drugs from the illicit market, inclusive of counterfeit medications, that are contaminated with fentanyl
- are unhoused or marginally housed

There are a significant number of people who fall into one or more of these groups residing in the state. Recommendations in this section focus on how to reduce overdoses among these groups beyond increased access to MOUD, as addressed in Priority 1.

The substantial impact of the criminal legal system on people who use opioids and those with OUD presents a formidable barrier to preventing overdose fatalities when considering these high-risk groups. People who are arrested, incarcerated, or otherwise exposed to the criminal legal system often find that opportunities to increase their wellbeing are diminished by restrictions of community supervision and repeated incarceration.<sup>63</sup> Return to substance use often precipitates re-incarceration, prompting concealment of use and using alone, resulting in unwitnessed, potentially fatal overdoses. Since return to use frequently occurs shortly after release from custody, people in the month after their release have demonstrably high overdose mortality.<sup>64</sup>

The unregulated stimulant (i.e., cocaine and methamphetamine) supply is increasingly contaminated with fentanyl, leading to overdoses in people who use stimulants (and not opioids). Harm reduction programs can offer fentanyl test strips or other forms of drug checking to alert stimulant users to fentanyl-contaminated drugs. It is important to fund programs that link at-risk individuals to naloxone, drug supply testing, syringe service programs, and education about fentanyl contamination of the stimulant supply.

Housing instability exacerbates an individual's risk of overdose in myriad ways that are compounded by de jure criminalization of substance use and de facto criminalization of homelessness. Programs and initiatives that recognize low-barrier, stable housing as a critical measure to reduce harm and promote treatment engagement and retention have the potential to address a litany of overdose risk factors among people who use drugs and those with a SUD.

### Evidence

Connecticut currently has several community-based organizations (CBOs) that have extensive experience implementing harm reduction services, engaging with people who use drugs, and collaboration with state and municipal government to produce harm reduction-focused activities. DMHAS, DPH, and DCP have made significant efforts to increase distribution of naloxone in the state including direct distribution of naloxone to CBOs<sup>65</sup> and, since 2015, efforts to support naloxone prescribing by pharmacists who have received training through a program operated by the DCP.<sup>66</sup> Importantly, in 2023, the FDA approved sale of naloxone without a prescription (aka "over the counter"), a promising step towards expanding naloxone access. The ability of the DCP to accurately track pharmacy sales will be limited moving forward, given uncertainty in how much naloxone will be dispensed via prescription versus over the counter.

Since 2016, DOC has also increased efforts to provide naloxone to people released from prisons and jails. The Connecticut legislature has also made several changes to increase naloxone access and, in the latest legislative session, a law (Public Act No. 23-97) was enacted to pilot harm reduction centers in the state.<sup>67,68</sup> This logistical and policy environment puts Connecticut in an advantageous position to implement and enhance harm reduction efforts.

Public Act No. 23-97 does not include language on provision of overdose prevention centers (OPCs), locations where a person can use their drug(s) of choice under supervision of trained personnel, within these harm reduction centers. Given current interpretation of state and federal statute that would prohibit provision of OPCs, our report does not include recommendations to fund them. However, if state or federal statute, or their interpretation, were to change, these types of interventions should be considered given growing evidence on their efficacy in preventing overdose deaths. Two overdose prevention sites opened in New York City in November 2021 and have since witnessed thousands of substance use episodes and more than 700 potentially fatal overdoses without a single fatality. OPCs operate in other countries, without experiencing a single fatal overdose to date.<sup>69</sup> The legality of these services in the United States is evolving as a lawsuit within the federal judicial system is currently pending regarding provision of these services in Philadelphia. Rhode Island and Minnesota have passed legislation aimed at opening OPCs and Rhode Island has allocated opioid settlement funds to support these services.<sup>70</sup> These examples demonstrate efficacy of this unique, pragmatic if controversial approach to reducing overdose mortality. They also provide a blueprint for what might be offered in Connecticut harm reduction centers beyond supervised consumption, as OPC models typically offer expedited addiction treatment access, other medical services, and wraparound support services.

### **Potential Impact**

Improving access to services that reduce overdose risk in individuals at the highest risk via linkage to treatment, naloxone, and harm reduction services has significant potential to reduce overdose deaths in the near term. Several models comparing different community-based interventions to address the overdose crisis have demonstrated that increased naloxone access has the greatest potential and is the most cost-effective intervention to reduce overdose deaths.<sup>17-20</sup> As noted above, the recent change making naloxone available over the counter complicates tracking and reporting on distribution since there is no formal or informal monitoring system for over the counter drugs. Efforts to determine if the state is achieving naloxone saturation will need to include novel methods to estimate over the counter naloxone sales.

### Strategies

**Strategy #1:** Increase use of naloxone, drug supply testing, and syringe service programs by people at high risk of overdose.

**Goal:** All at-risk individuals using opioids and those near them will have to access naloxone, drug supply testing, syringe service programs.

- Tactic #1: Fund initiatives that directly distribute naloxone to high-risk individuals or people around them including families, friends, and caregivers. This can include community groups that work directly with people who use drugs (e.g., harm reduction, substance use treatment and behavioral health programs, NA/AA groups) or who interact with those who are experiencing an overdose (e.g., EMS, police officers, crisis response teams), targeted outreach interventions for people who use opioids specifically, or novel naloxone distribution methods such as vending machines.
- Tactic #2: Fund targeted naloxone distribution in high-risk locations (public locations associated with opioid use or past overdoses) and other efforts to ensure at-risk individuals using opioids are near someone who can administer naloxone if needed. Mechanisms to expand access at such locations could include those listed under Tactic #1, posted QR codes to link to digital harm reduction information, or vending machines in court houses.
- **Tactic #3:** Fund outreach, education, and harm reduction service linkage efforts targeting people who are inadvertently exposed to illicit fentanyl when seeking other substances (e.g., stimulants, benzodiazepines).
- Tactic #4: Fund initiatives that provide community-tailored, culturally responsive, socially and racially concordant initiatives to increase access to and use of harm reduction services in populations at high risk of overdose who are currently accessing harm reduction services at lower rates. This should include a focus on funding organizations that have a proven track record of reaching these populations.
- Tactic #5: Fund initiatives to create and track metrics on naloxone provision, use of naloxone to reduce overdoses, and geographic access to naloxone in the state reported in a timely fashion via merging and linking relevant existing data from treatment providers, pharmacies, state agencies, and other entities. Metrics can be used by stakeholders and policymakers to guide funding, policy, and agency efforts to improve naloxone provision.
- Tactic #6: Fund initiatives that support near real-time reporting of fatal and non-fatal overdoses that include geographic, contextual, and other granular data and partner with jurisdictions to support targeted public health responses to reduce overdoses.<sup>71-73</sup>

### **Strategy #2:** Create harm reduction centers that provide ancillary support services for people using drugs.

There is evidence that centers that provide a range of harm reduction services reduce overdose death and other complications of opioid use from studies in Canada, Western Europe, Australia, and most recently in New York City.<sup>74</sup> During the 2023 legislative session Public Act No. 23-97 was enacted which allows the establishment of three harm reduction centers in Connecticut municipalities.<sup>75</sup> The final bill did not

include language allowing for the provision of supervised consumption or overdose prevention centers. As such, we do not recommend funding of services not legal under current interpretation of federal and state statute in this report. Nevertheless, we do recommend that Connecticut learn from model overdose prevention centers (OPCs) regarding what and how *other* services can be provided in these harm reduction centers. The facilities will also supplement currently DMHAS and otherwise state-supported harm reduction services. The following tactics are recommended to ensure that the centers have the greatest chance of reducing overdose mortality and can more broadly inform provision of harm reduction services in the state.

Goal: All individuals at-risk of an opioid overdose will have to access harm reduction centers.

- **Tactic #1:** Fund initiatives that develop, create guidance for, and facilitate community consensus on a minimum package of services for harm reduction centers and the staffing needs to deliver services.
- **Tactic #2:** Fund needs assessment activities, education, and consensus-building efforts to support selection of harm reduction center locations that are acceptable to both people who use drugs and other community stakeholders.
- **Tactic #3:** Fund the establishment of harm reduction centers in all areas where the density of drug use maximizes their impact.
- Tactic #4: Fund evaluation of the performance and effectiveness of harm reduction centers. This can include generating metrics and analyzing data for harm reduction centers to assess volume of use, overdose fatalities averted, referrals to and entry into treatment for substance use disorders, referrals to and utilization of medical and social services, and changes in community attitudes regarding the harm reduction centers. Evaluation should be linked to demonstrable process improvement.
- **Tactic #5:** Fund initiatives to assess and respond to community attitudes regarding OPCs, akin to those being run in New York City and proposed in Rhode Island and Minnesota, in anticipation of changes in federal or state statutes.

### Strategy #3: Reduce solitary opioid use.

Individuals who use drugs alone are at greatest risk for fatal overdose since there is no one around to recognize and respond to the overdose, either by summoning help or administering naloxone. Reducing solitary drug use can greatly reduce opioid overdose deaths, but this will require tactics that promote informing others when using.

Goal: Decrease the number of individuals using drugs alone.

- Tactic #1: Fund creation and evaluation of initiatives designed to decrease the number of individuals using drugs alone such as a safe drug use hotline. Components needed would include a 24-hour telephone or smartphone accessible service that will monitor callers while they use and send help if not alerted that the caller is fine.<sup>76,77</sup>
- **Tactic #2**: Fund community education about the risks of using alone. Such efforts need to focus on destigmatizing drug use and promoting safer use strategies.

While Tactic #1 is promising given evidence that a high percentage of overdose deaths occur during solitary opioid use<sup>78,79</sup>, evidence for specific interventions to address this issue is scant. Existing hotlines have not been evaluated, and people's willingness to use a system that keeps tabs on them while in the act of using has not been formally assessed.<sup>80</sup> Efforts to determine the benefits of promoting use of such services are worth funding as a near-term tactic. Changing community attitudes around substance use and reducing stigma (Tactic #2) are long-term undertakings.

### Strategy #4: Reduce unanticipated exposure to opioids among opioid-naïve individuals who use drugs.

Fake prescription opioid pills that contain high potency synthetic opioids such as fentanyl are increasingly prevalent. Opioid-naïve individuals are at high risk for fatal and non-fatal overdoses if they use these illicitly manufactured pills. In addition, the unregulated stimulant (i.e., cocaine and methamphetamine) supply is increasingly contaminated with fentanyl. Drug testing services, a growing presence in the state, are reporting cases of cocaine mixed with high potency fentanyl and occasionally other synthetic opioids. As a result, Connecticut has witnessed multiple clusters of fatal stimulant-involved opioid overdoses with survivors claiming that they were seeking cocaine, not opioids. Drug testing can reduce exposure to unwanted contaminants and has seen some limited effectiveness in preventing the consumption of adulterated drugs.<sup>81,82</sup> A recent study in Connecticut found that among those who sought to consume cocaine but not opioids, only 13% used a fentanyl test strip in the last year while 45% felt that the risk of contaminants in their cocaine was always a possibility.<sup>83</sup> Reaching these at-risk individuals will require expanding the harm reduction work force and this, too, should be supported with settlement funds.

Goal: Decrease fatal and non-fatal overdose among opioid-naïve individuals

- Tactic #1: Fund provision of real-time testing of opioids, including fake opioid pills and stimulants, as the drug supply and the technology for point-of-use testing evolves. Current approaches to consider include using fentanyl testing strips or supporting more sophisticated technology like Fourier transform infrared spectroscopy.
- **Tactic #2:** Fund expansion of harm reduction outreach staff who are trained to inform people who use drugs, as well as parents and guardians of youth who use drugs, of the prevalence and persistence of fentanyl in opioids, including fake opioid pills and stimulants, and instruct on appropriate harm reduction measures.
- **Tactic #3:** Fund efforts to collect, report, and disseminate real time data on the drug supply in Connecticut. Potential data sources can include overdose events, drug seizures, or voluntary testing of drugs. Dissemination might include local efforts to engage and report to communities or networks of people who use drugs on status of the illicit drug supply.
- Tactic # 4: Fund initiatives to examine and address overdose risk among youth including infants. These efforts should be commensurate with the documented prevalence of these events and relative risk compared to other poisonings. Specific caution should be taken to avoid disincentives for parents who use drugs interacting with treatment or social service organizations.

### Funding Priority 3: Improve the Collection, Analysis, Sharing, and Use of Data Across Agencies and Organizations Relevant to Addressing the Opioid Overdose Crisis

### Rationale

The COVID-19 pandemic has demonstrated the need for and value of a rapid and efficient process of collecting, accessing, analyzing, and reporting data for a coordinated public health response. The same approach is needed to address the opioid overdose crisis. Important data relevant to addressing opioid overdoses includes existing data collected by state agencies and other entities (e.g., admissions into addiction treatment, opioid prescribing, use of harm reduction services, fatal and non-fatal overdoses). However, these data are collected in separate, siloed data systems. Confidentially tracking how people at risk of opioid overdose are interacting with various systems and subsequent overdose outcomes can only be achieved by linking and merging these data. A robust data infrastructure accessible to policy makers, public health professionals, clinicians, and researchers able to produce reliable metrics pertinent to preventing overdoses can support evaluation of existing and novel programs and in so doing ensure effective, data-driven funding allocation.

In addition to current data siloes, use of available data is presently constrained by insufficient support for data management and regulations protecting personal identifiable information and personal health information. Funding sufficient support at all relevant agencies and establishing processes and frameworks, as endorsed by the <u>National Governor's Association</u>, that facilitate breaking down barriers between data systems, linking relevant datasets, and addressing these regulatory burdens is crucial to maximizing the use of existing data to inform policy decisions. Connecticut has developed some processes, including existing collaborations between relevant state agencies and the Office of Policy and Management's P20 WIN system, which have the potential to provide a roadmap and platform for optimizing the use of existing data in the state to reduce opioid overdose deaths.

Beyond optimizing the use of *existing data* there are opportunities to use opioid settlement funds to generate *new data* to inform the state's response to the opioid overdose crisis. This includes data generated from programs receiving funding from the opioid settlement, improved data collection to address racial inequities in opioid overdose-related outcomes, and collection of data highlighting the experience and needs of communities and individuals with lived and living experience of opioid use. In particular, development of shared metrics, data collection, and public reporting of these metrics and data from programs receiving funding from the opioid settlement will provide transparency, oversight, and accountability in the use of funds to address the overdose crisis. This is consistent with Principle #5 of the Principles for the Use of Funds from the Opioid Litigation.

### Evidence

Connecticut has made significant progress in improving publicly reported data pertinent to the overdose crisis since 2016. This includes a DPH-developed publicly accessible dashboard of overdose data, monthly reports from DPH on overdose data, treatment data reported by DMHAS and DSS, DCP reporting of controlled substance, buprenorphine and naloxone prescriptions<sup>84</sup>, efforts to link DCP data from the PDMP with overdose deaths by DPH, among other efforts.<sup>85</sup> The DPH has also developed a system of near-real time reporting of EMS responses to non-fatal overdoses in the state (Statewide Opioid Reporting Directive, aka SWORD) which has already shown benefits in alerting the state to incidents of fentanyl-contaminated stimulant supply. In addition to these cross-sectional and longitudinal reports, in response to the 2016 CORE recommendations, there has been successful linkage of data across multiple state

agencies.<sup>1,86-88</sup> These linkages have demonstrated key features of the overdose crisis in Connecticut, including the low proportion of overdose survivors that engage in addiction treatment within 30 days of their non-fatal overdose, the nearly 50% improvement in survival rate of individuals with non-fatal overdose who receive methadone or buprenorphine treatment, and the decreasing impact of prescription opioids on the overdose crisis in the state.<sup>87,88</sup> Despite progress with these one-time linkages, there remain missed opportunities for the state to improve its data infrastructure to address the evolving crisis and inform the state's response.

There are several examples of data linkages worth emulating from other states. Following the Chapter 55 legislation passed in 2015, the Massachusetts Department of Public Health developed and manages a data platform merging 10 datasets from five different government agencies as mandated by statute.<sup>89</sup> These data are available to state agencies but also vetted researchers who have generated a wealth of near real-time, relevant epidemiological data to guide targeted public health responses.<sup>30,90</sup> Similar efforts have taken place in Rhode Island<sup>91,92</sup>, Vermont<sup>93</sup>, Maryland<sup>94,95</sup>, Minnesota<sup>96</sup>, Kentucky<sup>97</sup>, among many other states.

### Strategies

**Strategy #1:** Develop and report in a public, timely fashion high-priority metrics pertinent to reducing overdoses and overdose mortality in Connecticut, especially around provision of MOUD and distribution of naloxone, with special focus on at-risk populations.

**Goal:** Create and maintain publicly accessible dashboards where specific metrics along the OUD cascade of care<sup>98,99</sup> and pertinent to reducing overdoses in the state, are regularly reported.

- Tactic #1: Fund efforts to estimate the number of people at risk of overdose in the state including those with at risk opioid use and OUD. These efforts should include estimation of those at risk in sub-populations of special interest (e.g., racialized minorities, pregnant people, adolescents, people engaged in care in EDs or hospitals for opioid-related issues, people being released from jails and prisons).
- Tactic #2: Fund initiatives to improve statewide reporting of addiction treatment engagement and retention, especially methadone and buprenorphine, and subsequent outcomes, with special attention to people at high risk or other vulnerable populations such as those mentioned under Tactic #1.

### **Strategy #2:** Improve access to, analysis of, and timely reporting of existing data pertinent to reducing overdoses in the state.

**Goal:** Create a data platform linking relevant existing data accessible to agencies, policy makers, healthcare providers, and researchers.

 Tactic #1: Fund initiatives that support existing data collection and reporting efforts relevant to addressing the opioid overdose crisis. This can include initiatives to support and optimize systems like the PDMP, Office of Chief Medical Examiner post-mortem investigations, realtime surveillance efforts collecting data from the Poison Control Center, hospitals, emergency medical services, and drug testing/checking.

- Tactic #2: Fund state efforts to create a data platform to merge and link relevant existing data from state agencies, first responders, health departments, and health care providers (including hospitals, emergency medical services) which allow for generation of metrics relevant to reducing opioid overdose deaths. The data platform should include processes accounting for data security and privacy and allow for access by agencies, policy makers, and researchers relevant to reduce opioid overdose deaths.
- Tactic #3: Fund staffing and organizational infrastructure within or across relevant agencies (DMHAS, DSS, DCP, DPH, DCF, OPM, DOC, OCME), health departments, and health care providers (including hospitals, emergency medical services) to improve and expedite data sharing and analysis relevant to the opioid overdose crisis. Activities can include implementing systems and processes for data sharing and protection, hiring staff to perform and support data analysis activities, timely analysis, development of timely metrics, and development of public-facing dashboards reporting timely data.
- **Tactic #4:** Fund collaborations between state agencies and academic partners to develop novel, timely epidemiological reporting systems and program evaluation efforts related to the opioid overdose crisis and initiatives funded via the opioid settlement funds.

### **Strategy #3:** Develop metrics, benchmarks, and reporting systems for programs that are focused on reducing overdose deaths in the state, especially those funded by opioid settlement funds.

**Goal:** Develop common metrics for reporting efficacy that are reliable, reproducible, and timely to inform policy decisions for programs targeting opioid overdoses throughout the state. Metric development and data collection should include participation from community members and people who use funded programs, with an emphasis on addressing potential racial biases in data collection and interpretation. Require initiatives funded with opioid settlement dollars to employ these metrics.

- Tactic #1: Fund initiatives that create and track opioid overdose metrics within an existing state agency to support evaluation of OSAC-funded programs and decision-making by the OSAC and state policy makers.
- Tactic #2: Fund initiatives that create an open, public-facing platform to share data and metrics generated by OSAC-funded programs, to improve transparency and consistency of reporting across these programs in line with public reporting in other states.<sup>100</sup>
- Tactic #3: Fund initiatives that provide technical assistance and training to entities funded by the OSAC, especially those providing direct services to high need populations, to improve data collection and reporting on services provided. A secondary benefit of these efforts will be to develop the capacity in these organizations for data collection and reporting.

### Rationale

Reducing opioid overdoses in Connecticut requires an adequately trained and well-supported addiction workforce. In particular, the ability of the state to focus on the priorities laid out in this report, such as increasing engagement with MOUD and harm reduction services, is directly tied to the ability of providers in the state to recruit, hire, and retain a range of staff with the needed skills and knowledge related to substance use and addiction. Currently, there is a shortage of clinicians and non-clinicians in the state with specialty training in addiction across the spectrum of the addiction workforce.<sup>101</sup> This shortage exists in a range of roles within the addiction workforce including specialty addiction-trained clinicians treating addiction, professionals who do not primarily treat addiction but engage with people who use drugs, and individuals who can serve as substance use navigators or in other non-clinical roles. Besides an insufficient quantity of adequately trained individuals in these roles, there is also insufficient infrastructure in the state to support this workforce, disseminate best practices, and offer continuing training as the overdose crisis evolves.

### Evidence

Increasing the number of addiction specialty trained clinicians is associated with increased provision of evidence-based treatments. Also, enhancing the skills of non-addiction focused clinicians improves the likelihood that individuals at risk for overdose will be identified, counseled, and referred to treatment regardless of the clinical setting where they present. CORE team faculty helped establish national programs supporting MOUD provision in primary care and EDs.<sup>102,103</sup> In addition, several states have implemented programs to ensure that clinicians in non-addiction focused clinical settings, most often primary care<sup>104</sup> and EDs, which have seen an increase in the number of referrals and addiction treatment engagement in people with opioid use disorder, receiving training and support.<sup>47,57,104,105</sup> Also, given the shortfall of specialty addiction trained clinicians in the state in combination with changes in training requirement needed for the provision of buprenorphine, non-specialist prescribing clinicians (doctors, PAs, and APRNs) can be utilized to quickly increase the number of MOUD prescribers in Connecticut. Sufficient systems of support for non-specialist clinicians that can provide referral services for more complicated cased are needed to maximize the potential of the non-specialist workforce.

In addition to the specialist and non-specialist clinician workforce, addiction specialty training and certification is available for nurses, social workers, counselors, and other health professionals. Several of our priorities also highlight, as was echoed in many of our conversations with providers and other stakeholders in the state, the need for an adequately trained non-clinician workforce inclusive of substance use navigators and the harm reduction workforce.

Connecticut agencies, including DMHAS, DCP, and DPH, have already committed resources to supporting addiction workforce development in the state. DMHAS supports addiction and mental health care providers, DCP provides education of clinicians and pharmacists on the use of the prescription drug monitoring program, and DPH supports harm reduction providers in the state.

### **Potential Impact**

An increase in the number of clinical and non-clinical addiction specialists (nursing, social work, counselors, physicians, etc.) will have an immediate impact on access to and the quality of treatment for Connecticut residents. Programs to train and support non-specialist clinicians should provide timely improvements, too, particularly with respect to provision of MOUD in general medical settings.

### Strategies

### **Strategy #1:** Grow the addiction specialty workforce in Connecticut.

**Goal:** Improve access for people with OUD to credentialed addiction specialists providing evidencebased treatments.

- Tactic #1: Fund initiatives that grow the addiction specialty workforce working with patients across the lifespan (in childhood, adolescence, adulthood, and/or old age) by providing specialty training in addiction to nurses, social workers, advanced practice providers (e.g., PAs and APRNs), pharmacists, psychologists, harm reduction interventionists, recovery support specialists, substance use navigators, and physicians.
- **Tactic #2:** Fund initiatives that increase representation of affected populations within the addiction specialty workforce via targeted efforts to recruit and retain racially, ethnically, socioeconomically, and experientially diverse candidates.

**Strategy #2:** Improve non-specialist addiction training within the medical, mental health, and behavioral health care workforce.

**Goal:** All clinicians and non-clinicians in medical, mental health, and behavioral health settings should provide or support screening, treatment, and linkage to evidence-based addiction treatments.

- Tactic #1: Fund provision of non-specialist training and support in addiction to *prescribing clinicians* who care for individuals with substance use and/or substance use disorder in non-addiction focused medical (e.g. primary care, pediatrics, ob-gyn) and behavioral health settings to improve overall knowledge, skills, and attitudes regarding addiction.
- **Tactic #2:** Fund provision of non-specialist training and support in addiction to *non-prescribing clinicians,* including psychologists and clinical social workers, to improve overall knowledge, skills, and attitudes regarding addiction in the health care workforce.
- Tactic #3: Fund initiatives to train and support substance use navigators, addiction-focused community health workers, and recovery support specialists who work in non-addiction focused medical and behavioral health settings. This should include efforts to train and support individuals with lived and living experience of addiction, especially those currently on methadone or buprenorphine.

**Strategy #3:** Increase the harm reduction workforce in Connecticut.

**Goal:** Entities that provide harm reduction services have access to an appropriately trained and adequately supported workforce.

- **Tactic #1:** Fund initiatives to train and support non-clinicians who provide harm reduction services (e.g. syringe service program staff, harm reduction center staff).
- **Tactic #2:** Fund expansion and continuing support of technical assistance to harm reduction service providers to develop and support the capacity of these entities to collect data, competitively apply for grants, process and issue contracts, coordinate with community partners, and manage logistics of service delivery.

# Funding Priority 5: Simultaneously Deploy and Evaluate Select Primary, Secondary, and Tertiary Prevention Strategies

### Rationale

Public health efforts to address the opioid overdose crisis can be categorized as primary, secondary, or tertiary prevention. Preventive efforts can be considered across the lifespan, from youth through old age. In general, primary prevention focuses on averting development of harms or disease and, in the case of the opioid overdose crisis, targets initiation of nonprescribed opioid use. Secondary prevention targets initiation among the highest risk groups or progression to more regular use or riskier use patterns. This can include early identification of people at risk for injury, efforts to prevent progression of use of nonprescribed opioids to OUD, or early treatment for people with diagnosed OUD prior to experiencing opioid-related harms. Tertiary prevention attempts to attenuate the consequences of disease and, in the context of the opioid overdose crisis, can include efforts to reduce the fatality of overdose events, mitigate other harms related to opioid use, and provide low barrier treatment for OUD. Where primary prevention involves universal interventions, secondary prevention interventions are targeted, and tertiary prevention interventions are even more selective. Primary prevention efforts are appealing for their prospective longterm benefits, but they require targeting a large number of individuals without OUD to effectively reduce overdose risk downstream. Secondary and tertiary efforts are appealing because they target the small number of people who are at highest risk of overdose, but often require a larger per-person investment of resources to be effective.

### Evidence

### **Primary Prevention**

Prevention, especially among youth, can have important long-term benefits.<sup>106</sup> However, as highlighted by the National Institute on Drug Abuse (NIDA), unfortunately, there are few scientifically valid programs that specifically prevent prescription opioid, heroin, or fentanyl initiation among youth. Some commonly used programs do not work and most prevention programs have focused on preventing initiation of other substances (e.g., alcohol, tobacco or cannabis), not opioids.<sup>107,108-112</sup> Risk and protective factors for nonopioid substance use have been identified that might provide guidance for preventing opioid initiation<sup>113</sup> and universal prevention shows promise.<sup>114</sup> NIDA acknowledges "there is a gap in the evidence for interventions and strategies to prevent non-medical use of opioids and OUD in the transition from adolescence to young adulthood." A recent scoping review of prescription opioid misuse among youth and emerging adults concluded that, importantly, few evidence-based prevention or early intervention programs were identified.<sup>115</sup> Because of this, the Principles recommend that "jurisdictions should be sure that the programs that they are funding are supported by a solid evidence base. Jurisdictions should also fund long-term evaluations of youth prevention programs to ensure that they are having their desired effect." Strategies to consider, that require ongoing evaluation to demonstrate efficacy, include identifying and treating comorbid mental health in youth, trauma prevention, and treatment and education regarding the dangers of polysubstance use (e.g., in school and community settings). Safe opioid prescribing can limit diversion of prescription opioids and minimize transitions to OUD in individuals receiving chronic long-term opioids.<sup>116</sup> Addressing social determinants (as discussed under Priority 6) and community mental health can further decrease opioid initiation and progression to OUD.

DMHAS currently supports a range of primary prevention efforts including public-facing educational and media efforts (e.g., <u>Change the Script</u>), college and school-based awareness campaigns (e.g., <u>Connecticut</u>

Healthy Campus Initiative, <u>State Educational Resource Center</u>), community coalition-based interventions and SAMHSA's <u>Strategic Prevention Framework</u>, and parent-targeted education campaigns (e.g., Governors Prevention Partnership). In addition, DMHAS and DPH have supported efforts to educate prescribers on safer opioid prescribing practices via academic detailing. Evidence on the effectiveness of these efforts should inform the OSAC's decisions regarding funding primary prevention efforts. Primary prevention efforts implemented in the state that are evidence-based and have demonstrated success via rigorous evaluation should be considered for additional financial support.

### Secondary Prevention

There is evidence to support programs designed to prevent progression of nonprescribed opioid use among those who have started, provide MOUD treatment and harm reduction where indicated – especially among high-risk populations (overdose survivors, pregnant and parenting people, hospitalized patients, people leaving carceral or non-medication-based treatment settings, individuals with psychiatric comorbidities) – and, where indicated, provide multi-modal evidence-based chronic pain treatment. Abrupt tapering of long-term opioid treatment for chronic pain can increase risk for overdose and should be avoided.<sup>117-120</sup>

### **Tertiary Prevention**

There are effective interventions that decrease risk for injection-related infections such as <u>endocarditis</u>, <u>Hepatitis C</u>, and <u>HIV</u>. There is, additionally, robust evidence to support naloxone, syringe services, and other harm reduction services (discussed under Priority 2) for the prevention of harms associated with opioid use and OUD.

#### **Potential Impact**

The impact of efforts to prevent overdose deaths in youth will not be immediate. One computer modeling analysis found that, across strategies designed to 1) prevent prescription opioid misuse, 2) reduce heroin initiation, 3) decrease the number of people receiving a prescription, and 4) decrease the rate of development of OUD, no strategy achieves more than a 2% reduction in overdose by 2032; however, impact grows over time.<sup>20</sup> Reducing heroin initiation (and by extension, fentanyl initiation) should have a more immediate and meaningful impact on overdose deaths than reducing prescription opioid initiation.

#### Strategies

#### **Primary Prevention**

### **Strategy #1:** Fund primary prevention of opioid use among youth.

Goal: Reduce the number of Connecticut youth who initiate opioids.

- Tactic #1: Fund initiatives to increase access to interventions with high levels of evidence ratings such as those listed by the <u>Blueprints for Healthy Youth Development</u> or the <u>SAMHSA Evidence-based Practices Resource Center</u>.
- Tactic #2: Fund rigorous simultaneous and long-term evaluations of primary prevention programs that are initiated to assure these interventions are meaningfully decreasing opioid initiation and producing other anticipated outcomes. These could be implemented and evaluated in a variety of settings including school, afterschool, summer, extracurricular, and

community-based settings. Given the association between childhood trauma and mental health with substance use, particular attention should be paid to these comorbid or antecedent events such as preventing adverse childhood experiences (ACEs).

**Strategy #2:** Expand access to programs that address social determinants of health and community mental health to decrease opioid initiation and progression to OUD (see Funding Priority 6 for tactics).

**Strategy #3:** Support safe opioid prescribing, limit diversion of prescription opioids, and decrease the transition to OUD in those receiving chronic long-term opioids.

**Goal:** Decrease any adverse personal and public health impact of opioid prescribing for acute and chronic pain.

- Tactic #1: Fund initiatives that support prescribing clinicians to embed the Prescription Drug Monitoring Program into the electronic medical record systems of all Connecticut prescribers. Facilitating access to the PDMP in prescriber workflow when they may write prescriptions for controlled substances increases the likelihood that this information will be used to inform clinical decisions. Currently, several large health care systems in the state have done this, but not all Connecticut prescribers, especially ones outside of large systems, have access to these enhanced electronic medical record systems to track controlled substance prescribing.
- Tactic #2: Fund initiatives that provide training on safe and effective opioid prescribing and multimodal treatment of acute and chronic pain (including buprenorphine for acute pain), especially efforts that reduce unnecessary opioid prescriptions following common acute painful conditions (e.g., dental procedures<sup>121,122</sup>, minor musculoskeletal injuries<sup>123,124</sup>).

#### **Secondary Prevention**

**Strategy #4:** Expand access to MOUD treatment with special attention to access for youth and young adults and individuals with co-occurring psychiatric disorders (see Funding Priority 1 for tactics).

### **Strategy #5:** Provide multimodal chronic pain treatment.

Goal: Increase access to multimodal chronic pain treatment.

• **Tactic #1:** Fund programs to expand access to multimodal chronic pain treatments and CBT for chronic pain in the community and general medical settings.

#### **Strategy #6:** Prevent injection-related infections.

Goal: Reduce infectious complications of injection drug use.

• **Tactic #1:** Fund initiatives that expand access to services demonstrated to help prevent injection-related infections (e.g., distribution of sterile syringes and injection equipment) across community-based, general medical (hospitals, EDs, primary care), behavioral health, carceral, specialty addiction treatment, and harm reduction settings.

### **Tertiary Prevention**

**Strategy #7:** Expand access to naloxone, syringe services, and other harm reduction services (see Funding Priority 2 for tactics relevant to this strategy).

# Funding Priority 6: Invest in Efforts to Reduce Community Stigma Against Opioid Use Disorder and Opioid Use Disorder Treatments

### Rationale

Opioid use, OUD, and MOUD are heavily stigmatized.<sup>125-128</sup> Inadequate education and frank misinformation are threats to improving public understanding of the medical basis of OUD, manifestations, and effective treatments, resulting in missed opportunities to improve and expand treatment access.<sup>129-131</sup> A recent survey of Connecticut residents conducted by Shatterproof demonstrates that Connecticut residents are less willing on average, when compared to a national sample, to want someone with OUD to marry into their family, be a close friend, or spend an evening with them socializing.<sup>132</sup> Education initiatives to confront stigma and promote accurate information about opioid use, OUD, treatment, and harm reduction targeting the general public are needed. Besides the general public, targeted education addressing stigma for individuals in professional roles that interact with people who use drugs and those with SUD<sup>133-135</sup>, including first responders and health professionals<sup>136</sup>, are also needed. Professions that interact with people who use drugs and those sponts for harm reduction and MOUD.

### Evidence

The language used to describe people with OUD can have a profound effect on attitudes held by the public and health professionals.<sup>137</sup> Interventions that directly aim to reduce public and provider stigma have demonstrated mixed results.<sup>138,139</sup> A widely cited New England Journal of Medicine commentary details the need for an evidence-base for anti-stigma campaigns, yet acknowledges that measurement of these programs' effectiveness is challenging.<sup>140</sup> The authors point to three attributes that tend to contribute to successful anti-stigma campaigns: 1) use of person-first language; 2) emphasizing solutions and the benefits of treatment; and 3) use of sympathetic narratives — stories that humanize people with addiction. Recognizing that the stories we see and hear about addiction are often told by media, in 2016, the <u>CORE initiative</u> provided dedicated training designed to increase knowledge and address stigma to media professionals in Connecticut. The ADPC Prevention Subcommittee has <u>hosted several similar events</u> <u>focused on the media</u>. Additionally, DMHAS has launched the <u>Live LOUD</u> campaign to address stigma in the state.

### **Potential Impact**

Awareness of and education about OUD among health professionals and the public have not been tied directly to lives saved or cost-effectiveness. However, as above, they are generally considered essential components of successful public health campaigns and may drive long-term improvements in treatment initiation, retention, and acceptability.

### Strategies

**Strategy #1:** Expand educational efforts regarding substance use, OUD, MOUD, and harm reduction strategies, to increase dissemination of accurate, evidence-based, non-stigmatizing information among health professionals and the public. Educational efforts should address the causes and manifestations of, as well as treatments and harm reduction strategies for OUD, including MOUD.

**Goal:** Improve understanding of and decrease stigma toward OUD and its treatments.

- Tactic #1: Fund initiatives that increase dissemination of accurate, evidence-based, nonstigmatizing information on OUD causes, manifestations, MOUD, and harm reduction strategies to clinical and non-clinical audiences. These efforts should be based on evidencebased best practices for public health messaging.<sup>141,142</sup>
- **Tactic #2:** Fund initiatives that disseminate accurate information about the risks of high potency synthetic opioids such as fentanyl.

**Strategy #2:** Increase targeted educational efforts regarding substance use, OUD, and MOUD, and harm reduction to increase dissemination of accurate, evidence-based, non-stigmatizing information for individuals who interact with PWUD and those with SUD, including, but not limited to, health professionals (doctors, nurses, pharmacists, etc.) and first responders (police officers, fire fighters, EMS).

**Goal:** All interactions in the state between PWUD and service professionals will be non-stigmatizing, grounded in accurate information, and will facilitate entry into evidence-based treatment and/or uptake of harm reduction interventions.

- Tactic #1: Fund initiatives to provide targeted education of health care professionals (doctors, nurses, pharmacists, etc.) to reduce stigma related to opioid use, OUD, MOUD, and harm reduction. Efforts should focus on dissemination of accurate, evidence-based, nonstigmatizing information.
- Tactic #2: Fund initiatives to provide targeted education of first responders (police officers, fire fighters, EMS) to promote accurate information on risks of high potency synthetic opioids such as fentanyl and harm reduction with goal to reduce stigma related to opioid use, OUD, MOUD, and harm reduction.

# Funding Priority 7: Address Social Determinants and Structural Needs of At-Risk and Impacted Populations

### Rationale

Disparities in social, economic, and environmental determinants of health exacerbate adverse outcomes of substance use, including overdose mortality, and create barriers to addiction treatment, pointing to a need for interventions that address these determinants.<sup>143,144</sup> In Connecticut, the largest number of deaths and greatest burden of opioid-related morbidity is in urban centers and disproportionately falls on racially and ethnically minoritized communities; the unhoused, unemployed, uninsured; and recently incarcerated individuals. Additional disparities in care access and outcomes are mediated by barriers introduced by the urban-rural service divide, by age, sexual orientation and gender identity, developmental and physical ability, as well as culture, language, and citizenship status. Applying a health equity lens to addressing the overdose crisis, recognizing the intersectional nature of individual- and community-level risk environments, and prioritizing upstream solutions can meaningfully reduce morbidity and mortality, improve access to and retention in treatment, and be cost-effective.

### **Potential Impact**

Funding interventions to address social determinants of health constitutes an investment in ameliorating the structural drivers of illicit substance use, SUD, and related harms including overdose. Positive benefits of such interventions may be observed in the short-, intermediate-, and long-term, reflecting the compounding nature of these interventions. For example, taking action to expand access to affordable and safe housing may reap immediate benefits by providing shelter and a place to securely store medications and belongings, intermediate benefits by facilitating the stability needed to gain and maintain financial capital through employment and public benefits; and, long-term benefits by aiding establishment of supportive community connections, social networks, and place-based identity.<sup>145-147</sup> Lack of access to stable housing and other basic needs such as transportation, food, and childcare, are cited by many Connecticut-based community organizations, clinicians, and by people who use drugs as the primary barrier to initiation of and retention in treatment for OUD.

Given the multiyear timeframe for the disbursement of opioid settlement funds, tactics outlined below are a productive use of the funds with the potential to promote individuals' well-being and decrease community disorder in a longitudinal manner with return on investment for primary, secondary, and tertiary prevention (see Funding Priority 5).

### Strategies

**Strategy #1:** Ensure that all individuals at risk for overdose have access to comprehensive social wraparound services including transportation, insurance, employment services, and childcare.

**Goal:** Address key social determinants of overdose risk and addiction treatment access and engagement.

 Tactic #1: Fund initiatives embedded within OTPs and other addiction treatment settings that directly provide or facilitate linkage to wraparound services addressing social determinants, including transportation, insurance, employment, and childcare. This should include linkage to wraparound service as part of comprehensive hospital discharge planning and discharge planning from prisons and jails.

- **Tactic #2:** Fund initiatives that provide low-barrier community-located wraparound services for people who use drugs regardless of treatment engagement status.
- Tactic #3: Fund initiatives the provide wraparound services, in treatment settings and in the community, offering services tailored to the unique needs and interests of underserved and marginalized groups. Recognizing identity, culture, and faith as important mediators of connection and engagement, this can include targeted provision of culturally and racially concordant services, services administered in faith-based settings, multicultural and multilingual services. Funded services should support evidence-based OUD treatment.

**Strategy #2:** Ensure that individuals at risk of overdose engaging in addiction treatment have access to behavioral health services including low-barrier psychiatric care.

**Goal:** People engaging in treatment will have co-occurring mental health needs impacting overall health, wellness, and retention addressed.

- Tactic #1: Fund initiatives that provide low-barrier psychiatric interventions including walk-in psychiatric assessment, street psychiatry teams and mobile behavioral health services.<sup>148</sup>
- **Tactic #2:** Fund initiatives aimed at expanding access to evidence-based psychiatric services embedded in all OUD treatment settings.<sup>149,150</sup>
- Tactic #3: Fund initiatives that provide trauma-informed psychiatric care for adults and adolescents addressing comorbidities demonstrated to exacerbate lifetime overdose risk including but not limited to ACEs, depression, anxiety, bipolar disorder, and posttraumatic stress disorder.

**Strategy #3:** Provide affordable supportive and transitional housing for people with SUD; increase access to "Housing First" models and other models of affordable, supportive, and transitional housing to unhoused people with or at high risk for OUD.

The cure for homelessness is housing, and housing dominates the list of needs reported by people with OUD. As part of the Opioid Settlement Agreement, the provision of housing to people with OUD appears in several sections of Exhibit E.

Goal: All individuals with or at high risk of OUD will have same-day access to housing.

- **Tactic #1:** Fund initiatives that identify, obtain possession of, retrofit, and maintain existing housing units that provide shelter for unhoused or marginally housed individuals with OUD without regard to their engagement in OUD treatment or harm reduction services.
- **Tactic #2:** Fund initiatives to support residential housing that contain a substantial portion of units reserved for individuals with OUD.

- **Tactic #3:** Fund initiatives that provide essential behavioral health services, including crisis stabilization, and harm reduction services for individuals housed in the units created by Tactics #1 and #2.
- Tactic #4: Fund initiatives that increase the capacity of transitional homes, shelters, and other temporary housing to adopt harm-reduction and treatment-supportive policies and practices and reduce discrimination towards and punitive actions against individuals who use opioids, those with OUD, and those receiving MOUD.

### **Appendices**

# Appendix A: Model Programs for OSAC To Highly Consider Funding to Replicate in Connecticut

### (listed in alphabetical order)

**CA Bridge Model of low-barrier buprenorphine treatment in emergency departments**<sup>47,151</sup> (**Priority 1**) Emergency department-based interventions that promote initiation of effective, evidence-based treatment for opioid use disorder (OUD), especially buprenorphine, and continuation of MOUD following discharge, have several advantages. First, people with OUD often present to EDs for medical reasons associated with opioid use (overdose, infection). Second, EDs are geographically dispersed through the state and provide twenty-four-hour access to assessment and treatment for OUD. Third, use of ED services for people with OUD is a marker of a high overdose risk and is associated with a high risk of mortality.

Yale researchers developed and refined the initial implementations of ED-initiated buprenorphine.<sup>46,152,153</sup> This work has led to replication nationally. Despite this, ED-initiated buprenorphine is not the norm in Connecticut-based EDs. In California, the Public Health Institute in collaboration with the California Department of Health implemented the CA Bridge Model supporting low-barrier buprenorphine treatment in 85% of the state's EDs.<sup>46,151</sup> The basic elements of the CA Bridge model include low-barrier buprenorphine treatment, active patient navigation from ED to outpatient treatment, and provision of harm reduction interventions. Early results from this program have been encouraging. Of all the patients with OUD presenting to participating EDs, 60% were provided buprenorphine during their ED or hospital visit, 45% received a buprenorphine prescription, and 40% attended at least one follow-up visit following discharge. Given the need for broad implementation of ED-initiated buprenorphine in Connecticut, the broad reach of the CA Bridge program and its proven effectiveness, we recommend the OSAC highly consider funding an intervention mirroring CA Bridge in Connecticut.

### Life skills Training and Project Toward no Drug Abuse (Priority 5)

The <u>Blueprints for Healthy Youth Development</u> lists only one (Lifeskills Training) program that achieves its highest "Model Plus" rating. However, it should be recognized that there is no scientific evidence to date that this intervention decreases initiation of opioids among youth. A second program, Project Toward no Drug Abuse, achieves a "Model" rating and reports a "hard drug use" outcome. We recommend consulting the Blueprint database, or similar databases such as the <u>California Evidence-based Clearinghouse for Child</u> <u>Welfare</u>, for details of these programs or similar prevention programs supported by evidence. We also recommend if funds are used to support programs currently lacking evidence that they require rigorous simultaneous evaluations to assure these interventions are meaningfully in decreasing opioid initiation and producing other anticipated outcomes. These could include primary prevention models with more evidence regarding effectiveness of reducing youth alcohol and other (non-opioid) drug use initiation that should be evaluated for their efficacy related to reducing youth opioid use.

### Maryland Addiction Consultation Service/MACS<sup>154,155</sup> (Priorities 1 & 4)

Increased access to buprenorphine is contingent on increasing the number of prescribers who are actively prescribing buprenorphine. Historically, prescribing buprenorphine required a special waiver from the DEA (aka "X-waiver") of which, nationally, only 6% of DEA-licensed prescribers pursued with very few among them actively prescribing. Prescribers, especially those practicing in general medical settings (e.g., primary care) regularly cite limited training in OUD assessment and treatment, lack of institutional

support, insufficient referral options, burdensome regulatory procedures, and prescribing stigma as barriers to increased buprenorphine prescribing. In 2023, Congress passed the <u>MAT Act</u>, which eliminated the need for a special waiver to prescribe buprenorphine, but without addressing these barriers to increase prescribing we are skeptical that, by itself, this change in law will drastically improve the rate of buprenorphine prescribing.

To support increased buprenorphine prescribing in their state, the Maryland Addiction Consultation Service (MACS) model was developed and launched by the University of Maryland School of Medicine in collaboration with the Maryland Department of Health Behavioral Health Administration. The model is tailored to address prescriber-identified barriers to prescribing buprenorphine and included a warmline consultation staffed Monday-Friday/9am-5pm, targeted statewide outreach, diverse prescriber-tailored training offerings, and real-time connection to individualized patient resources and referrals. Early evidence from this model have demonstrated increased geographic penetration of buprenorphine throughout the state of Maryland.

### Massachusetts Chapter 55 Public Health Data Warehouse (Priority 3)

Responding to a lack of actionable data in the state to target efforts to address the opioid overdose crisis and the structural barriers to data sharing, in 2015 the Massachusetts Legislature passed a law (aka "Chapter 55") which mandated that the Massachusetts Department of Health analyze and maintain a data set linking individual level data from 10 data sets held by state agencies. The law also obligated DPH to generate a report analyzing seven key questions pertinent to addressing the overdose crisis. This data revealed several insights (e.g., economic costs of OUD, prevalence of OUD, demographic differences of treatment use) that have directly informed the response by policy makers in the state. This process has led to biannual data briefs, legislative reports, and 25 scientific publications. Among these are publications that document the high rate of death among Massachusetts opioid overdose survivors which is 5% within 12 months. Massachusetts data demonstrates that this death rate can be cut in half if overdose survivors receive methadone or buprenorphine. Similar data linkages in Connecticut have been conducted and reveal opportunities to target interventions in the state. We recommend that OSAC fund such efforts.

### Multidimensional Family Therapy Helping Youth and Parents Enter Recovery Treatment Model (MDFT-HYPE Recovery)<sup>156-159</sup> (Priority 1)

Early intervention for youth with problems related to opioid use is an important target for secondary prevention. Currently supported by DCF, MDFT-HYPE Recovery is an in-home family-focused substance use treatment program for youth with opioid use problems. The model incorporates the use of MOUD and Multidimensional Family Therapy (MDFT) for a period of intensive treatment followed by recovery monitoring and support for up to 6 months after the focused treatment period ends. This model is supported by evidence to improve substance use and social functioning in youth. Opioid settlement funds could be used to supplement, not replace, those already committed by DCF to expand this youth focused treatment model. Similarly, DCF has significant experience supporting other programs focused on addressing issues of youth substance use or caregiver substance use (e.g., Multisystemic Therapy – Building Stronger Families (MST-BSF)<sup>160</sup>, Community Reinforcement Approach<sup>161</sup> models) and we recommend the OSAC rely on their expertise when considering using funds targeting these domains or supporting these efforts. We recommend if funds are used to support these programs that rigorous simultaneous evaluations be used to assure these interventions decrease adverse opioid-related outcomes.

### **OnPoint NYC<sup>162</sup> (Priority 2)**

Building on evidence generated by international models<sup>163</sup>, New York City opened the first two sanctioned overdose preventions sites in the United States. This model, which allows for consumption of substances

on-site under direct supervision of medically trained professionals, has demonstrated to reduce overdose deaths. In addition to a space for supervised consumption, OnPoint, the model implemented in New York City, also serves as a no-barrier drop-in center providing access to food and showers, harm reduction services, health and wellness services, and case managers that facilitate linkage to mental health services, counseling, and public benefits navigation. These sites also offer screening for HIV and HCV, wound care, and rapid connection to MOUD and other addiction treatment programs for individuals who are interested.<sup>164,165</sup> As Connecticut moves towards its own model of harm reduction centers, as mandated in Public Act No. 23-97, we support the OSAC funding services for these centers in line with lessons learned about provision of a range of services from New York City's models, as feasible within the present scope and interpretation of Connecticut law. If in the future Connecticut or federal statue, or interpretation thereof, were to change to allow provision of safe consumption center services, we also recommend that OSAC fund those efforts.

### Physician Clinical Support System – Medications for Opioid use Disorder (PCSS MOUD) (Priorities 1 & 4)

<u>PCSS-MOUD</u> is a program funded by the Substance Abuse and Mental Health Services Administration (SAMHSA) created in response to the opioid overdose epidemic to train primary care providers in the evidence-based prevention and treatment of opioid use disorders (OUD) and treatment of chronic pain. The project is geared toward primary care providers who wish to treat OUD. Through a variety of trainings and a clinical mentoring program, PCSS-MOUD's mission is to increase healthcare providers' knowledge and skills in the prevention, identification, and treatment of substance use disorders with a focus on opioid use disorders.<sup>103</sup>

### Project ASSERT<sup>59,166</sup> (Priorities 1 & 6)

Project ASSERT (Alcohol and Substance Abuse Services, Education, and Referral to Treatment) is an innovative program which is embedded in EDs to help patients access drug treatment services. First launched and developed in the Yale-New Haven Hospital emergency department in 1999, it uses health promotion advocates, who are integrated into the ED and directly collaborate with healthcare providers, to screen, provide brief interventions, and directly refer patients to specialty substance use treatment. The Project ASSERT model has been effectively deployed on the Yale Addiction Medicine Consult Service at Yale-New Haven Hospital.

### Project ECHO (Priorities 1 & 4)

<u>Project ECHO</u> is a model of education in which participants engage in a virtual community with their peers where they share support, guidance and feedback. ECHO models have been successfully implemented in a variety of jurisdictions to improve adherence to opioid prescribing guidelines and the use of MOUD.<sup>104</sup>

### **Recovery Support Services (Priority 1)**

Recovery Support Services refer to a broad range of interventions that aim to establish and maintain environments supportive of recovery; remove personal and environmental obstacles; enhance linkage to and participation in local recovery communities; and increase the hope, motivation, confidence, relationships, and skills needed to initiate and sustain the long-term work of recovery. Two of the most widely implemented such services have been peer recovery support services and recovery community centers. Recovery Support Services are increasingly used in general medical settings such as EDs, hospitals, and primary care. Recovery Support Services are consistent with MOUD, although historically have discouraged MOUD or not been tailored to those receiving MOUD. Recovery community centers such as the <u>Yale Program for Community Health</u> are entities designed specifically to help provide this growth in recovery capital and enhance remission and quality of life. Additional information is available from SAMHSA and the <u>Recovery Research Institute</u> at Harvard.

### U.S. Department of Veterans Affairs (VA) Housing First initiatives (Priority 7)

Housing First is an evidence-based permanent supportive housing approach for vulnerable individuals that emphasizes immediate, rapid access to supportive housing without preconditions such as treatment engagement or abstinence from substance use. Housing First programs often emphasize provision of community-based, client-centered services and have been shown to be able to accommodate and achieve housing stability for many, including individuals with serious mental illness and severe substance use disorders. Since 2011, the VA has implemented Housing First nationally with significant success in housing high risk veterans throughout the country including Connecticut.<sup>167,168</sup> There is strong evidence that Housing First can achieve housing stability, some evidence that it reduces health care utilization costs, especially ED and inpatient hospitalizations<sup>169</sup>, but currently no evidence that it improves substance use disorder symptoms.<sup>170</sup> If OSAC funds initiatives to improve housing stability in people at risk of opioid overdose, we recommend they be based on Housing First principles and be tied to rigorous evaluation of their effectiveness in reducing overdose risk.

### Vermont Hub and Spoke Model (Priority 1)

<u>Vermont has implemented a system of hubs and spokes</u> for treating OUD and offering MOUD. Nine Regional Hubs offer daily support for patients. At over 75 local Spokes, doctors, nurses, and counselors offer ongoing OUD treatment that is integrated with general healthcare and wellness services. This framework uses MOUD for treatment and efficiently deploys OUD expertise to help expand access to OUD treatment those in the state.

### Appendix B: Strategies that Should Not Receive Expanded Funding

### Increasing the proportion of individuals with OUD exclusively receiving "detoxification" or inpatient and residential services as a treatment for OUD

There is little evidence to support the initial treatment of OUD using detoxification or residential services (rehabilitation) alone without connection to long-term treatment, especially MOUD, regardless of duration.<sup>171,172</sup> A recent study in Connecticut demonstrated that more opioid overdose deaths occurred in those who only received detoxification or rehabilitation and not MOUD<sup>1</sup>. Detoxification procedures are associated with a high rate of relapse and increase the risk of overdose because individuals lose their physical tolerance to opioids.<sup>173,174</sup> Inpatient or residential treatments that initiate or continue MOUD are often clinically indicated and needed `in individuals who are not able to benefit from outpatient or intensive outpatient services, especially those meeting clinical indication for higher levels of care.<sup>172</sup> Compared to detoxification or extended inpatient treatment, initial treatment with MOUD has the most scientific support and is an approach endorsed by state, federal and international entities.<sup>172</sup>

### Increasing the number of programs that exclusively or preferentially treat people with naltrexone (instead of methadone or buprenorphine)

Naltrexone is FDA-approved for the treatment of OUD. However, naltrexone does not prevent symptoms of withdrawal or address opioid craving. Initial treatment with naltrexone requires a period of opioid abstinence of up to 7 days, which is difficult for many individuals with OUD to attain. Also, in both clinical trials and epidemiological data, naltrexone's efficacy for preventing relapse is lower than methadone and buprenorphine.<sup>30,175</sup> There is also less data indicating it decreases overdose death, human immunodeficiency virus (HIV) or hepatitis C virus (HCV) transmission, or other adverse consequences associated with opioid use as compared to methadone and buprenorphine. In programs that offer all three FDA-approved medications, a minority of individuals opt for naltrexone and the overwhelming majority opt for treatment with methadone or buprenorphine. Therefore, given both its relative inferiority compared to methadone and buprenorphine as well as patient preferences, we recommend against funding initiatives that exclusively or preferentially offer naltrexone for the treatment of opioid use disorder. Instead, we recommend funding initiatives that offer access to all three FDA-approved medications or those that prioritize methadone or buprenorphine.

### Enhancing criminal legal efforts to reduce illicit drug supply

Historically, criminal justice efforts to reduce opioid supply – increased policing, harsher penalties, increased rates of imprisonment – have often been the default intervention of federal and local governments to address the harms of drug use in the United States. We do not recommend funding these strategies as they have proven ineffectual in reducing overdose death (in fact are associated with increased risk of overdose death)<sup>6,176,177</sup>, do not center addiction as a medical condition, increase stigma related to opioid use and treatment seeking behaviors<sup>178,179</sup>, and come with high rates of collateral consequences including disparate impacts on minoritized populations.<sup>180,181</sup> This does not preclude funding of interventions – such as diversion programs or interventions to increase access to treatment, naloxone, and harm reduction services via criminal justice entities.

### Increasing use of mandated addiction treatment or civil commitment

Involuntary civil commitment is a legal provision that allows for forcible addiction treatment of individuals typically in some form of detention facility. Jurisdictions throughout the country have increasingly directed resources to the use these provisions to address the opioid overdose crisis. Under <u>current</u> <u>Connecticut statute</u> (Conn. Gen. Stat. § 17a-685(a)) there are provisions allowing for commitment of

individuals with substance use disorders for up-to-180 days of involuntary detention providing the individual is determined to be a danger to self, danger to others, intoxicated, or gravely disabled, although to our knowledge this provision is rarely utilized. We do not recommend that the OSAC fund increased use of this legal provision given the ethical concerns and the limited data on its efficacy for preventing overdose deaths. Available evidence demonstrates that civil commitment is likely associated with increased risk of non-fatal overdoses<sup>182</sup> and infectious disease transmission<sup>183</sup>, and that it reinforces negative perceptions of addiction treatment in people who use drugs making them less likely to access treatment in the future.<sup>184</sup>

#### Increasing investment in novel formulations or new medications to reverse opioid overdoses

In response to the ongoing overdose crisis, pharmaceutical companies have developed several expensive novel opioid antagonists (either new methods of administering naloxone or development of non-naloxone compounds) to reverse opioid overdoses. To date there is no evidence that these opioid antagonist formulations provide superior efficacy or effectiveness in reversing opioid overdoses even in an era when the drug supply is dominated by fentanyl and fentanyl analogues. In addition, newly approved, non-generic medications carry a price often several times higher than prior formulations of naloxone. Given lack of superior efficacy and higher cost, we do not recommend the OSAC fund investment in these new formulations until they are proven to be more cost-effective than naloxone.<sup>185</sup>

### Funding primary prevention programs targeting youth substance use that are not based on evidence of efficacy or are not tied to ongoing rigorous evaluation

Given concerns about opioid use initiation and the rising number of overdoses in children and adolescents, there is natural motivation to fund public health campaigns that decrease youth substance use. By far the best known recent historical example is the D.A.R.E. program which, at its peak, was the country's largest school-based prevention program and received three quarter of a billion dollars of federal funding annually despite evidence that it was ineffective in preventing youth substance use.<sup>186</sup> Unfortunately, although there is growing evidence for primary prevention programs that might impact youth substance use initiation. Those with evidence supporting them are outlined under Priority #4.<sup>108-112</sup> Use of opioid settlement funds on ineffective prevention programs will have no effect on reducing overdoses in the near, intermediate, or long term. As such we recommend that any opioid settlement funds that are used for primary prevention of their efficacy, and we do not recommend the OSAC fund youth substance use prevention programs that are not evidence-based.

### Funding public health programs that are not based on evidence of efficacy

The use of public communication or media campaigns to educate, promote awareness, reduce stigma, or achieve other goals is a common strategy employed in public health. Despite their popularity, there is relatively little research to guide the design of these campaigns to address topics around substance use, harm reduction, stigma, or other opioid-related topics.<sup>187-189</sup> There is also little evidence they are effective in achieving important outcomes around reducing opioid use, reducing stigma, increasing treatment engagement, and, importantly, reducing overdose rates. In some cases, poorly designed and thought-out public communication or media campaigns have been associated with increased stigma around opioid use or opioid use disorder. As such, if OSAC decides to fund public communication or media campaigns, we recommend that they be well-designed with input from people with lived experience, based on strong public health principles, and designed with a focus on reducing stigma and driving demand for effective evidence-based treatments.<sup>187,190</sup>

# Appendix C: Public Comments on the November 2023 CORE Report Draft That Require Regulatory or Statutory Change

The current report includes only those strategies and tactics considered feasible under the current regulations and laws, whether at the state or federal level, that currently govern Connecticut. This does not preclude potential changes to statute or regulation, supported by strong evidence, which may help achieve the priorities laid out in this report and may require funding. Public comments received on the initial draft of this report included several recommendations that would require a regulatory or statutory change. In this appendix, we have summarized those recommendations and our assessment of the current evidence to support these changes.

### **Regulatory and Statutory Change to Improve Methadone Access**

### Background

As noted in our report and highlighted under Priority 1, the evidence-based interventions most likely to reduce overdose deaths in Connecticut are those focused on increasing the use of the most effective medications for opioid use disorder (methadone and buprenorphine) across diverse settings.

The provision of methadone for the treatment of opioid use disorder (OUD) is regulated by federal and state agencies.<sup>191</sup> Currently, under federal law, methadone can only be dispensed for the treatment of OUD from opioid treatment programs (OTPs) regulated at the federal level by the Drug Enforcement Agency (DEA), under standards enforce by Substance Abuse and Mental Health Services Administration (SAMHSA). The Connecticut Department of Mental Health and Addiction Services (DMHAS) serves as the State Opioid Treatment Authority (SOTA) in Connecticut and provides Connecticut-specific oversight. SAMHSA requires in-person physicals before initiation of methadone, daily in-person dosing early on in treatment, and the frequency of counseling services. These regulations limit the provision of methadone in a variety of circumstances and represent barriers for treatment initiation and retention for people with OUD. States and other jurisdictions can, additionally, adopt regulations dictating operations, clinical care, and staffing of their OTPs.<sup>192</sup> The Connecticut SOTA has some flexibility in providing exemptions from SAMHSA regulations.

Individuals engaging in methadone treatment are often required to travel to an OTP daily during the first months of treatment, a burden that is compounded by geographic distribution of OTPs in the state (see Figure 2 on pg. 14) and the fact that many patients rely on mass transit.<sup>193</sup> These regulations also place burdens on OTPs that limit their ability to expand hours. The requirement that patients have an examination by a clinician (recently expanded from requiring a physician to allow nurse practitioners and physician assistants to serve this role<sup>194</sup>) prior to the prescription of methadone for OTP dispensing restricts the provision of same day (and seven day a week) initiation of methadone due to limited clinician supply. As a consequence, many programs limit hours of methadone dosing to morning hours and intake appointments to a few days of the week, further limiting accessibility.

Regulations in the U.S. were temporarily modified during the COVID-19 pandemic to improve access and continuity of treatment under pandemic conditions. In January 2024, SAMHSA made these COVID-19 changes to the rules governing OTPs permanent. For example, prior to the pandemic, individuals engaged in methadone treatment were required to have their methadone administered in-person six days a week for the first 90 days of treatment. After that point, OTPs have discretion to allow methadone to be dispensed to an individual for multiple days of treatment (aka "take-home doses").<sup>195</sup> Take-home doses

provide significantly more freedom to patients as they are no longer required to travel to an OTP on a daily basis. During the COVID-19 pandemic, SAMSHA provided guidance allowing for increased discretion to lower thresholds for OTPs to provide take-home doses.<sup>196</sup> Connecticut OTPs did not all apply these modifications uniformly.<sup>197</sup> Data has demonstrated that the rapid increase in access to methadone take-home doses as a result of this regulatory change occurred without a measurable change in methadone poisonings or methadone-associated deaths.<sup>195,197-199</sup>

Finally, the regulatory framework governing methadone access in the United States is different than those in other countries, where primary care/office-based prescribing with pharmacy dispensing of methadone is more common.

### Strategy: Update federal and state regulations to enable and fund provision of mobile methadone

The pandemic has catalyzed policy change and regulations governing methadone provision are already evolving to address OUD treatment gaps and improve access to methadone, as evidenced by the adoption of mobile methadone.<sup>200</sup> Mobile methadone units are appropriately outfitted vehicles that travel to different locations to provide medical services filling in geographic access gaps to methadone. In 2021, SAMHSA updated their rules governing OTPs to increase access to mobile methadone clinics and published guidance that states should adopt regulations allowing for the provision of mobile methadone.<sup>201</sup> Currently, Connecticut agencies are actively implementing regulations in line with SAMHSA's guidance that will dictate the provision of mobile methadone in the state. Several OTPs in the state have already expressed interest in supporting mobile methadone programs and our recommendations (Priority 1, Strategy #1, Tactic #5) highlight our endorsement of the use of OTPs to support the ramp up of these programs once the regulatory building blocks are in place.

# *Strategy: Update federal and state regulations to facilitate pharmacy- and primary-care based methadone prescribing*

A model of primary care/office-based methadone in Connecticut that has demonstrated feasibility, safety and good patient outcomes.<sup>53</sup> In 1997 the Connecticut legislature 48 authorized a pilot program to assess the feasibility of methadone maintenance, the Connecticut Methadone Medical Maintenance Pilot Project. We recommend that OSAC review the results of this pilot and consider funding similar strategies.

Further regulatory change is needed and, therefore, we recommend that Connecticut policymakers review legislation being considered in the United States Congress to improve access to methadone (S.644 – Modernizing Opioid Treatment Access Act aka MOTAA<sup>202</sup>) by allowing for pharmacy prescribing and similar innovations like primary care-based dispensing. If federal law is passed allowing for pharmacy prescribing or primary care-based dispensing, we recommend that the DMHAS, DCP, DPH, DSS and other state agencies work proactively to develop the payment, licensure and state regulatory changes needed to implement this model in Connecticut. If this statutory change were to occur, the evidence supports the use of opioid settlement funds to support these efforts.<sup>54</sup>

# Strategy: Update regulations to address restrictions and limitations around take-home doses, staffing, and counseling requirements

Notwithstanding changes to federal law that would allow for pharmacy-based dispensing of methadone, we also recommend that Connecticut legislators and policymakers advocate that SAMHSA uses its agency discretion to change rules governing OTPs with an eye towards lowering barriers to methadone initiation, lowering barriers to take-home doses, and loosening rules about staffing or counseling requirements.

### Strategy: Organize and fund technical assistance and best practices dissemination for Connecticut OTPs

In addition, we endorse the use of opioid settlement funds to develop and distribute best practices for OTPs in the state and, if needed, support programs to adopt them to promote uniform and low-barrier (e.g., same day) access to methadone throughout the state. We also would have the OSAC consider tying any funding to OTPs to adoption of best practices that promote uniform and low-barrier access to methadone.

### **Overdose Prevention Centers**

### Background

We received a number of public comments requesting that Connecticut use Opioid Settlement funds to implement overdose prevention centers (OPC) in the state. Overdose prevention centers, sometimes called supervised consumption sites or supervised injection facilities, are facilities that allow individuals to use pre-obtained drugs in a hygienic environment under direct supervision. If an overdose occurs in an OPC, they can be quickly recognized, medical support can be provided, naloxone administered if needed, and emergency services alerted. In addition, OPCs can provide sterile syringes and other supplies, education, basic medical care, referral to health and mental health services, and rapid referral to addiction treatment. OPCs have been successfully implemented in 16 countries including Canada, Australia, and several European countries. They are also supported by evidence that they likely reduce risk of overdose morbidity and mortality and improve access to care (including addiction treatment), while not increasing crime or public nuisance in the surrounding community.<sup>163</sup>

Under current interpretation of federal and state statutes OPCs cannot currently be implemented. Therefore, we do not recommend funding in our report.

In the United States, officially sanctioned OPCs historically have not been implemented due to threat of federal prosecution under the "crack house" statute and, often, significant local resistance to their adoption. This status quo has been slowly changing with the opening of the first officially sanctioned OPCs in New York City. The experience of New York City has been noted by a large number of overdoses reversed without an overdose death. Initial evaluations have shown no increase in crime or other nuisance complaints in the surrounding community associated with the opening of these two OPCs.<sup>74,165</sup> Following the lead of New York City, both Rhode Island<sup>203,204</sup> and Minnesota<sup>205</sup> have passed legislation to implement the OPC model. Of note, Rhode Island<sup>206</sup> has expressly used opioid settlement funds to support the implementation of an OPC model there.

### Strategy: Update state regulations and statutes to enable and implement OPCs in Connecticut

Given evidence supporting OPCs, we support the adoption of statutory and regulatory change in Connecticut to allow for the adoption of OPCs and evaluation of their efficacy in preventing overdose deaths in the context of opioid use epidemiology in Connecticut. If requisite statutory and regulatory changes were to happen, we would support the use of opioid settlement funds to support the implementation of these innovations.

### Insurance Reimbursement and Billing Codes from Medicaid and Other Insurers

#### Background

Health care systems, including both those that are focused substance use treatment service providers and those that provide more general medical care, provide services in response to both the demand for those services but also the ability to be reimbursed adequately for those services. Therefore, there are evidence-based health care services that are not offered or readily available to individuals in the state that might reduce opioid overdose or otherwise improve outcomes for people at risk of an overdose. We received several comments in our stakeholder meetings and via public comments about ways that reimbursement could be changed to address the overdose crisis.

### Strategy: Revisit and revise reimbursement policies and billing codes for substance use and SUD related services

Several comments were specific to the use of billing codes and reimbursement for treatment services related to certain subpopulations (e.g., allowing hospitals to bill for inpatient medically supervised withdrawal for children). Other comments were more general regarding the ability to bill for services by non-clinicians (e.g., screening, peer-provided services, addiction counselors), differences in Medicaid reimbursement for services compared to other insurers, and the ability to bill for different services by the same provider on the same day.

Addressing changes in reimbursement or billing practices, often under the purview by individual insurance providers and overseen by a mix of state and federal agencies, regulations, and statutes is beyond the scope of our report, but we acknowledge the role that these changes might have to improve outcomes and achieve the priorities and goals laid out in our report.

#### Treatment and service provider practices

We received several comments recommending that Connecticut should use its regulatory or statutory power to mandate practices or services provided by health care or other service providers in the state to address the opioid overdose crisis. Examples of these types of recommendations include requiring hospitals to connect individuals at risk of overdose to OUD treatment prior to discharge, mandates on provider education on OUD tied to licensure, and mandates around providing evidence-based OUD treatment or harm reduction services in entities that receive state funding and provide services to people at risk of overdose (e.g., transitional housing/halfway homes, sober homes). We agree with efforts that support the increased provision of MOUD and harm reduction services (see *Priority #1* and *Priority #2*) though do not have particular insight or recommendations into the efficacy of these type of regulatory changes or their use to achieve that goal.

### **Glossary of Acronyms**

Acronym	Definition
ACE	Adverse Childhood Experience
ADPC	Alcohol and Drug Policy Committee
APRN	Advanced Practice Registered Nurse
СВО	Community Based Organization
CBT	Cognitive Behavioral Therapy
CORE	Connecticut Opioid REsponse Initiative
CPMRS	Connecticut Prescription Monitoring and Reporting System
DCF	Connecticut Department of Children and Families
DCP	Connecticut Department of Consumer Protection
DEA	U.S. Drug Enforcement Administration
DMHAS	Connecticut Department of Mental Health and Addiction Services
DOC	Connecticut Department of Correction
DPH	Connecticut Department of Public Health
DSS	Connecticut Department of Social Services
ED	Emergency Department
EMS	Emergency Medical Services
FDA	U.S. Food and Drug Administration
HCV	Hepatitis C Virus
HIV	Human Immunodeficiency Virus
MDFT	Multidimensional Family Therapy
MOUD	Medications for Opioid Use Disorder
MST-BSF	Multisystemic Therapy – Building Stronger Families
NIDA	National Institute on Drug Abuse
OCME	Connecticut Office of the Chief Medical Examiner
OPC	Overdose Prevention Center
OPM	Connecticut Office of Policy and Management
OSAC	Opioid Settlement Advisory Committee
OTP	Opioid Treatment Program
OUD	Opioid Use Disorder
PA	Physician Assistant/Associate
PDMP	Prescription Drug Monitoring Program
PWUD	People Who Use Drugs
SAMHSA	Substance Abuse and Mental Health Services Administration
SBIRT	Screening, Brief Intervention, and Referral to Treatment
SOTA	State Opioid Treatment Authority
SUD	Substance Use Disorder
SWORD	Statewide Opioid Reporting Directive

### **Acknowledgements & Disclosures**

#### **Report Authors**

Benjamin Howell, MD, MPH, MHS David A. Fiellin, MD Emma T. Biegacki, MPH Robert Heimer, PhD Gail D'Onofrio, MD, MS William Becker, MD Kimberly Sue, MD, PhD

### Disclosures

Dr. Fiellin's wife is founder of Playbl, which disseminates videogames for preventing unhealthy substance use.

### Acknowledgements

The authors wish to acknowledge DMHAS and the ADPC for their commissioning of this report and their support, along with that of the OSAC, of this team's activities on behalf of the state. They additionally acknowledge Junghwan Kim, PhD, for his consultation on mapping MOUD access data, as well as the time, expertise, and contributions of representatives and individuals from the following entities:

Alliance for Living **APT Foundation** Brown University School of Public Health Carelon Behavioral Health of Connecticut **CHESS Health** Child Health and Development Institute Community Health Resources (CHR) Connecticut Alcohol and Drug Policy Council (ADPC) **Prevention Subcommittee Treatment Subcommittee** Recovery and Health Management Subcommittee Criminal Justice Subcommittee **Connecticut Alliance for Recovery Residencies** Connecticut Chapter of the American Society of Addiction Medicine Connecticut Chapter of the American Academy of Addiction Psychiatry Connecticut Department of Children and Families (DCF) Connecticut Department of Consumer Protection (DCP) Connecticut Department of Correction (DOC) Connecticut Department of Mental Health and Addiction Services (DMHAS) Center for Prevention Evaluation and Statistics (CPES) Connecticut Department of Public Health (DPH) Downtown Evening Soup Kitchen (DESK) Connecticut Harm Reduction Alliance (CTHRA)

**Connecticut Nurses Association Connecticut Poison Control Center** Cornell Scott Hill Health Center (CSHHC) Greater Bridgeport Area Prevention Program (GBAPP) **Liberation Programs** Ledge Light Health District (LLHD) Love146 Maryland Addiction Consultation Service (MACS), University of Maryland School of Medicine MDFT International, Inc. New England High Intensity Drug Trafficking Area Training Initiative (NEHIDTA) New Haven Health Department New London Office of Human Services Recovery Network of Programs (RNP) SAS Institute State of Connecticut Office of the Child Advocate The Village of Families and Children University of Connecticut School of Medicine Department of Public Health Sciences University of Connecticut School of Social Work Yale School of Medicine **Department of Internal Medicine** Department of Psychiatry **Department of Pediatrics Department of Emergency Medicine** Yale School of Public Health Department of Epidemiology of Microbial Diseases Department of Social and Behavioral Sciences Global Health Justice Partnership (Yale GHJP)

### References

- 1. Heimer R BA, Lin H, Grau LE, Fiellin DA, Howell BA, Hawk K, D'Onofrio G, Becker WC. . Receipt of opioid use disorder treatments prior to fatal overdoses and comparison to no treatment in Connecticut, 2016–17. *Drug Alcohol Depend.* 2024;254(111040).
- Keyes KM RC, Hamilton A, Barocas JA, Gelberg KH, Mueller PP, Feaster DJ, El-Bassel N, Cerdá M. . What is the prevalence of and trend in opioid use disorder in the United States from 2010 to 2019? Using multiplier approaches to estimate prevalence for an unknown population size. . Drug Alcohol Depend. 2022;3(100052).
- Clinton H. Drug Overdose Deaths in Connecticut Data Dashboard, 2015 to 2023. Connecticut Department of Public Health. <u>https://public.tableau.com/app/profile/heather.clinton/viz/SUDORS\_Dashboard\_final2/Overdos</u> eDashboard. Published 2023. Accessed2023.
- State Unintentional Drug Overdose Reporting System (SUDORS). Final Data. Centers for Disease Control and Prevention, US Department of Health and Human Services. <u>https://www.cdc.gov/drugoverdose/fatal/dashboard/index.html</u>. Published 2023. Updated December 26, 2023. Accessed.
- 5. Bechtel K. *Infant and Toddler Fatality Report.* Connecticut Office of the Child Advocate; July 25, 2023 2023.
- 6. Binswanger IA BP, Mueller SR, Stern MF. Mortality After Prison Release: Opioid Overdose and Other Causes of Death, Risk Factors, and Time Trends from 1999 to 2009. *Annals of Internal Medicine*. 2013;159(9):592-600.
- 7. Haas A VA, Doernberg M, Barbour R, Tong G, Grau LE, Heimer R. Post-incarceration outcomes for individuals who continued methadone treatment while in Connecticut jails, 2014–2018. . *Drug Alcohol Depend.* 2021;227(108937).
- Billock RMS, Andrea L.; Miniño, A.; Drug Overdose Mortality by Usual Occupation and Industry: 46 U.S. States and New York City, 2020. *National Vital Statistics Reports*. 2023;72(7).
- 9. A Public Health Approach to Protecting Workers from Opioid Use Disorder and Overdose Related to Occupational Exposure, Injury, and Stress [press release]. American Public Health Association, October 24, 2020 2020.
- Guy Jr GP ZK, Bohm MK, Losby J, Lewis B, Young R, Murphy LB, Dowell D. . Vital signs: changes in opioid prescribing in the United States, 2006–2015. *Morbidity and Mortality Weekly Report*. 2017;66(26):697.
- 11. D. C. The triple wave epidemic: supply and demand drivers of the US opioid overdose crisis. *International Journal of Drug Policy.* 2019;71:183-188.
- 12. Understanding the Opioid Overdose Epidemic. Centers for Disease Control and Prevention, U.S. Department of Health and Human Services. <u>https://www.cdc.gov/opioids/basics/epidemic.html</u>. Published 2023. Accessed.
- 13. Stein BD TE, Sheng F, Dick AW, Vaiana M, Sorbero M. Change in per capita opioid prescriptions filled at retail pharmacies, 2008–2009 to 2017–2018. *Annals of Internal Medicine.* 2022;175(2):299-302.
- 14. *Prescription Monitoring Program: Snapshot of Legal Controlled Substance Prescription Usage Throughout Connecticut.* Connecticut Department of Consumer Protection;2022.
- 15. Dowell D HT, Chou R. . CD Guidekine for Prescribing Opioids for Chronic Pain United States, 2016. *JAMA*. 2016;315(15):624-645.
- 16. Dowell D RK, Jones CM, Baldwin GT, Chou R. . CDC clinical practice guideline for prescribing opioids for pain—United States, 2022. . *MMWR Recommendations and Reports.* 2022;71(3).

- 17. Ballreich J MO, Hu E, Chingcuanco F, Pollack HA, Dowdy DW, Alexander GC. . Modeling mitigation strategies to reduce opioid-related morbidity and mortality in the US. *JAMA Network Open.* 2020;3(11):e2023677.
- 18. Linas BP SA, Madushani RW, Wang J, Yazdi GE, Chatterjee A, Walley AY, Morgan JR, Epstein RL, Assoumou SA, Murphy SM. Projected estimates of opioid mortality after community-level interventions. *JAMA Network Open.* 2021;4(2):e2037259.
- 19. Rao IJ HK, Brandeau ML. Effectiveness of policies for addressing the US opioid epidemic: a model-based analysis from the Stanford-Lancet Commission on the North American Opioid Crisis. *The Lancet Regional Health Americas.* 2021;3:100031.
- 20. Stringfellow EJ LT, Humphreys K, DiGennaro C, Stafford C, Beaulieu E, Homer J, Wakeland W, Bearnot B, McHugh RK, Kelly J. Reducing opioid use disorder and overdose deaths in the United States: A dynamic modeling analysis. *Science Advances.* 2022;8(25):eabm8147.
- 21. Hansen HB SC, Case BG, Bertollo DN, DiRocco D, Galanter M. Variation in use of buprenorphine and methadone treatment by racial, ethnic, and income characteristics of residential social areas in New York City. *Journal of Behavioral Health Services & Research*. 2013;40:367-377.
- 22. Lagisetty PA RR, Bohnert A, Clay M, Maust DT. . Buprenorphine treatment divide by race/ethnicity and payment. *JAMA Psychiatry*. 2019;76(9):979-981.
- 23. Connecticut Profile. Prison Policy Initiative. <u>https://www.prisonpolicy.org/profiles/CT.html</u>. Published 2023. Accessed.
- 24. Rosenberg A GA, Blankenship KM. Black and White drug offenders: Implications for racial disparities in criminal justice and reentry policy and programming. *Journal of Drug Issues*. 2017;47(1):132-192.
- 25. Camplain R CC, Trotter RT, Pro G, Sabo S, Eaves E, Peoples M, Baldwin JA. . Racial/ethnic differences in drug-and alcohol-related arrest outcomes in a southwest county from 2009 to 2018. . *AJPH*. 2020;110(S1):S85-92.
- 26. Mattick RP BC, Kimber J, Davoli M. . Buprenorphine maintenance versus placebo or methadone maintenance for opioid dependence. *Cochrane Database of Systematic Reviews* 2014(2).
- 27. Fullerton CA KM, Thomas CP, Lyman DR, Montejano LB, Dougherty RH, Daniels AS, Ghose SS, Delphin-Rittmon ME. Medication-assisted treatment with methadone: assessing the evidence. *Psychiatric Services.* 2014;65(2):146-157.
- 28. Wakeman SE LM, Omid A, Chaisson CE, McPheeters JT, Crown WH, Azocar F, Sanghavi DM. Comparative Effectiveness of Different Treatment Pathways for Opioid Use Disorder. *JAMA Netw Open.* 2020;3(2):e1920622.
- 29. Mattick RP BC, Kimber J, Davoli M. Methadone Maintenance Therapy Versus No Opioid Replacement Therapy for Opioid Dependence. *Cochrane Database of Systematic Reviews*. 2009;3:CD0002209.
- 30. Larochelle MR BD, Land T, Stopka TJ, Wang N, Xuan Z, Bagley SM, Liebschutz JM, Walley AY. . Medication for opioid use disorder after nonfatal opioid overdose and association with mortality: a cohort study. . *Annals of Internal Medicine*. 2018;169(3):137-145.
- Green TC CJ, Brinkley-Rubinstein L, Marshall BD, Alexander-Scott N, Boss R, Rich JD. .
  Postincarceration fatal overdoses after implementing medications for addiction treatment in a statewide correctional system. *JAMA*.75(4):405-407.
- 32. Hadland SE AM, Akgül S, Alinsky RH, Bruner A, Chadi N, Galagali PM, Kreida EC, Robinson CA, Wilson JD. . Medication for adolescents and young adults with opioid use disorder. *Journal of Adolescent Health.* 2021;68(3):632.
- 33. Krans EE KJ, Chen Q, Rothenberger SD, James III AE, Kelley D, Jarlenski MP. . Outcomes associated with the use of medications for opioid use disorder during pregnancy. . *Addiction*. 2021;116(12):3504-3514.

- 34. Krebs E EB, Evans E, Urada D, Anglin MD, Rawson RA, Hser YI, Nosyk B. . Cost-effectiveness of publicly funded treatment of opioid use disorder in California. . *Annals of Internal Medicine*. 2018;168(1):10-19.
- 35. Fairley M HK, Joyce VR, Bounthavong M, Trafton J, Combs A, Oliva EM, Goldhaber-Fiebert JD, Asch SM, Brandeau ML, Owens DK. Cost-effectiveness of treatments for opioid use disorder. . JAMA Psychiatry. 2021;78(7):767-777.
- 36. Kazerouni NJ AI, Levander XA, Geddes J, Johnston K, Gostanian CJ, Mayfield BS, Montgomery BT, Graalum DC, Hartung DM. Pharmacy-related buprenorphine access barriers: An audit of pharmacies in counties with high opioid overdose burden. *Drug Alcohol Depend.* 2021;224.
- 37. Qato DM WJ, Clark KJ. Federal and State Pharmacy Regulations and Dispensing Barriers to Buprenorphine Access at Retail Pharmacies in the USq. *JAMA Health Forum.* 2022;3(9):e222839.
- 38. Weiner SG QD, Faust JS, Clear B. Pharmacy Availability of Buprenorphine for Opioid Use Disorder Treatment in the US. *JAMA Netw Open.* 2023;6(5).
- 39. *State of Connecticut Department of Mental Health and Addiction Services Triennial State Substance Use Plan.* Connecticut Department of Mental Health and Addiction Services 2022.
- 40. Methadone Take-Home Flexibilities Extension Guidance. Substance Abuse and Mental Health Services Administration (SAMHSA). <u>https://www.samhsa.gov/medications-substance-use-</u> <u>disorders/statutes-regulations-guidelines/methadone-guidance</u>. Published 2024. Updated January 23, 2024. Accessed March 3, 2024, 2024.
- 41. Cabreros I GB, Saloner B, Gordon AJ, Kerber R, Stein BD. . Buprenorphine prescriber monthly patient caseloads: An examination of 6-year trajectories. . *Drug Alcohol Depend.* 2021;228(109089).
- 42. ARCOS Retail Drug Summary Reports. U.S. Drug Enforcement Agency Diversion Control Division. <u>https://www.deadiversion.usdoj.gov/arcos/retail\_drug\_summary/arcos-drug-summary-reports.html</u>. Published 2023. Accessed.
- 43. PMP Statistics. Connecticut Department of Consumer Protection. <u>https://portal.ct.gov/DCP/Prescription-Monitoring-Program/CTPMP-Statistics</u>. Published 2023. Updated September 2023. Accessed.
- 44. Schuler MS DA, Stein BD. . Growing racial/ethnic disparities in buprenorphine distribution in the United States, 2007-2017. . *Drug Alcohol Depend.* 2021;223(108710).
- 45. Goedel WC SA, Cerdá M, Tsai JW, Hadland SE, Marshall BDL. . Association of Racial/Ethnic Segregation With Treatment Capacity for Opioid Use Disorder in Counties in the United States. JAMA Netw Open. 2020;3(4):e203711.
- 46. D'Onofrio G OCP, Pantalon MV, Chawarski MC, Busch SH, Owens PH, Bernstein SL, Fiellin DA. Emergency department–initiated buprenorphine/naloxone treatment for opioid dependence: a randomized clinical trial. . *JAMA*. 2015;313(16):1636-1644.
- 47. Snyder H KM, Moulin A, Campbell A, Goodman-Meza D, Padwa H, Clayton S, Speener M, Shoptaw S, Herring AA. . Rapid adoption of low-threshold buprenorphine treatment at California emergency departments participating in the CA bridge program. *Annals of Emergency Medicine*. 2021;78(6):759-772.
- 48. Taylor JL WS, Walley AY, Kehoe LG. Substance use disorder bridge clinics: models, evidence, and future directions. *Addict Sci Clin Pract.* 2023;18(1):1-3.
- 49. Jakubowski A FA. Defining Low-threshold Buprenorphine Treatment. *J Addict Med.* 2020;14(2):95-98.
- 50. Winograd RP PN, Stringfellow E, Wood C, Horn P, Duello A, Green L, Rudder T. The case for a medication first approach to the treatment of opioid use disorder. *Am J Drug Alcohol Abuse*. 2019;45(4):333-340.
- 51. McCarty D CB, Bougatsos C, Grusing S, Chou R. Interim Methadone Effective But Underutilized: A Scoping Review. *Drug Alcohol Depend.* 2021;225(108766).

- 52. Bolivar HA KE, Coleman SRM, DeSarno, M, Skelly JM, Higgins ST. Contingency Management for Patients Receiving Medication for Opioid Use Disorder: A Systematic Review and Meta-analysis. *JAMA Psychiatry*. 2021;78(10):1092-1102.
- 53. Fiellin DA OCP, Chawarski M, Pakes JP, Pantalon MV, Schottenfeld RS. Methadone maintenance in primary care: a randomized controlled trial. *JAMA*. 2001;286(14):1724-1731.
- 54. McCarty D BC, Chan B, Hoffman KA, Priest KC, Grusing S, Chou R. Office-Based Methadone Treatment for Opioid Use Disorder and Pharmacy Dispensing: A Scoping Review. *Am J Psychiatry*. 2021;178(9):804-817.
- 55. Wu LT JW, Morse ED, Adkins S, Pippin J, Brooner RK, Schwartz RP. Opioid treatment program and community pharmacy collaboration for methadone maintenance treatment: results from a feasibility clinical trial. *Addiction*. 2022;117(2):444-456.
- 56. Hawk K HJ, Ketcham E, LaPietra A, Moulin A, Nelson L, Schwarz E, Shahid S, Stader D, Wilson MP, D'Onofrio G. . Consensus recommendations on the treatment of opioid use disorder in the emergency department. Annals of emergency medicine. *Annals of Emergency Medicine*. 2021;78(3):434-442.
- 57. Monico LB OM, Smith S, Mitchell SG, Gryczynski J, Schwartz R. . One million screened: scaling up SBIRT and buprenorphine treatment in hospital emergency departments across Maryland. *American Journal of Emergency Medicine*.38(7):1466-1469.
- 58. Weinstein ZM WS, Nolan S. Inpatient addiction consult service: expertise for hospitalized patients with complex addiction problems. *Medical Clinics.* 2018;102(4):587-601.
- 59. D'Onofrio G DL. Integrating Project ASSERT: a screening, intervention, and referral to treatment program for unhealthy alcohol and drug use into an urban emergency department. *Academic Emergency Medicine*. 2010;17(8):903-911.
- 60. Ahrens K BN, Aalsma M, Haggerty K, Kelleher K, Knight DK, Joseph E, Mulford C, Ryle T, Tolou-Shams M. . Prevention of opioid use and disorder among youth involved in the legal system: innovation and implementation of four studies funded by the NIDA HEAL Initiative. . *Prevention Science.* 2023;24(1):99-110.
- 61. White LM AM, Salyers MP, Hershberger AR, Anderson VR, Schwartz K, Dir AL, McGrew JH. . Behavioral health service utilization among detained adolescents: A meta-analysis of prevalence and potential moderators. *Journal of Adolescent Health*. 2019;64(6):700-708.
- 62. Section 1115 Demonstration Waiver for Substance Use Disorder (SUD) Treatment. CT.gov. https://portal.ct.gov/DSS/Health-And-Home-Care/Substance-Use-Disorder-Demonstration-Project. Accessed March 3, 2024, 2024.
- 63. Marotta P HA, Viera M, Doernberg M, Barbour R, Grau LE, Heimer R. Technical violations and infractions are drivers of disengagement from methadone treatment among people with opioid use disorder discharged from Connecticut jails 2014-2018. *Substance Abuse Treatment, Prevention, and Policy.* 2023.
- 64. Seaman SR BR, Gore SM. . Mortality from overdose among injecting drug users recently released from prison: database linkage study. . *BMJ.* 1998;316:426-428.
- 65. Opioid Overdose Prevention/Naloxone (Narcan) Initiative. Connecticut Department of Mental Health and Addiction Services <u>https://portal.ct.gov/DMHAS/Programs-and-Services/Opioid-Treatment/Naloxone</u>. Published 2024. Accessed.
- 66. Naloxone Prescribing By Pharmacists. Connecticut Department of Consumer Protection. https://portal.ct.gov/DCP/Drug-Control-Division/Drug-Control/Naloxone-Prescribing-By-Pharmacists. Published 2024. Accessed.
- 67. N D. *Connecticut's Opioid Drug Abuse Laws.* Connecticut General Assembly;2022.
- 68. T H. CT bill takes aim at opioid crisis and fentanyl overdose deaths by supporting plan for 'harm reduction centers. *The Hartford Courant*. May 31, 2023, 2023.

- 69. J. I. One Year Inside a Radical New Approach to America's Overdose Crisis. *The New York Times.* February 2, 2022, 2023.
- 70. *Opioid Settlement Funded Project Annual Report.* Executive Office of Health and Human Services, State of Rhode Island; December 27, 2023 2023.
- 71. Davis CS GT, Hernandez-Delgado H, Lieberman AJ. . Status of US state laws mandating timely reporting of nonfatal overdose. . *AJPH.* 2018;108(9):1159-1161.
- 72. BE. H. Opioid overdose surveillance: improving data to inform action. *Public Health Rep.* 2021;136(S1):5S-8S.
- 73. Canning P DS, Ali S, Logan SB, Alter A, Hart K, Coler R, Kamin R, Wolf SC, Soto K, Whiteman L. . Using surveillance with near–real-time alerts during a cluster of overdoses from fentanylcontaminated crack cocaine, Connecticut, June 2019. *Public Health Rep.* 2021;136(S1):18S-23S.
- 74. Chalfin A dPB, Mitre-Becerril D. Overdose prevention centers, crime, and disorder in New York City. *JAMA Netw Open.* 2023;6(11):e2342228.
- 75. An Act Concerning Health and Wellness for Connecticut Residents. In. Committee PH, trans. 2023 ed2023.
- 76. Park JN GT, Rich JD. . Overdose Detection Technologies—A New Frontier in Preventing Solitary Drug Overdose Deaths. *JAMA Psychiatry.* 2023;80(7):657-659.
- 77. Lombardi AR AR, Rosen JG, Thompson E, Welwean R, Tardif J, Rich JD, Park JN. . Overdose detection technologies to reduce solitary overdose deaths: a literature review. . *International Journal of Environmental Research and Public Health*. 2023;20(2).
- 78. JM. W. Dying alone: The sad irrelevance of naloxone in the context of solitary opiate use. *Addiction.* 2019;114(3):574-575.
- 79. Mattson CL ODJ, Kariisa M, Seth P, Scholl L, Gladden RM. . Opportunities to prevent overdose deaths involving prescription and illicit opioids, 11 states, July 2016-June 2017. . *MMWR Morb Mortal Wkly Rep.* 2018;67(34):945.
- 80. Loverock A MT, Viste D, Safi F, Rioux W, Sedaghat N, Kennedy M, Ghosh SM. . Electronic harm reduction interventions for drug overdose monitoring and prevention: A scoping review. *Drug Alcohol Depend.* 2023(110878).
- 81. Betzler F HJ, Viohl L, Ernst F, Roediger L, Gutwinski S, Ströhle A, Köhler S. Drug Checking and Its Potential Impact on Substance Use. *Eur Addict Res.* 2020;27(1):25-32.
- 82. Fregonese M AA, Covino C, Gili A, Bacci M, Nicoletti A, Gambelunghe C. Drug Checking as Strategy for Harm Reduction in Recreational Contests: Evaluation of Two Different Drug Analysis Methodologies. *Front Psychiatry*. 2021;12:596895.
- 83. Quijano TAG CJ, Eggert K, Clark K, Grau L, Heimer R. . Xylazine in the drug supply: emerging threats and lessons learned in areas with high levels of adulteration. . *International Journal of Drug Policy*.120(104154).
- 84. CT Department of Consumer Protection Prescription Monitoring Program. Connecticut Department of Consumer Protection. <u>https://data.ct.gov/stories/s/a2js-37an/</u>. Published 2024. Accessed.
- Canning P DS, Ali S, Logan SB, Alter A, Hart K, Coler R, Kamin R, Wolf S, Soto K, Whiteman L, Jenkins M. Using Surveillance with Near-Real-Time Alerts During a Cluster of Overdoses from Fentanyl-Contaminated Crack Cocaine, Connecticut, June 2019. *Public Health Rep.* 2021;136:18S-23S.
- 86. Becker WC HR, Dormitzer CM, Doernberg M, D'Onofrio G, Grau LE, Hawk K, Lin HJ, Secora AM, Fiellin DA. Merging statewide data in a public/university collaboration to address opioid use disorder and overdose. *Addict Sci Clin Pract.* 2021;16(1).
- 87. Haas A VA, Doernberg M, Barbour R, Tong G, Grau LE, Heimer R. Post-incarceration outcomes for individuals who continued methadone treatment while in Connecticut jails, 2014–2018. . *Drug Alcohol Depend.* 2021;227:108937.

- 88. Howell BA BA, Grau LE, Lin HJ, Greene C, Lee H, Heimer R, Hawk KE, D'Onofrio G, Fiellin DA, Becker WC. . Concordance between controlled substance receipt and post-mortem toxicology in opioid-detected overdose deaths: A statewide analysis. *Drug Alcohol Depend.* 2023;1(244):09788.
- 89. The Massachusetts Opioid Epidemic: A Data Visualization of Findings from the 2016 Chapter 55 Report. Massachusetts Department of Public Health. <u>https://chapter55.digital.mass.gov/</u>.
   Published 2016. Accessed.
- 90. Barocas JA WL, Wang J, Walley AY, LaRochelle MR, Bernson D, Land T, Morgan JR, Samet JH, Linas BP. Estimated prevalence of opioid use disorder in Massachusetts, 2011–2015: a capture– recapture analysis. . *American Journal of Public Health*. 2018;108(12):1675-1681.
- 91. RIDOH's Drug Overdose Surveillance Data Hub. Rhode Island Department of Health Drug Overdose Surveillance Data Hub. <u>https://ridoh-overdose-surveillance-rihealth.hub.arcgis.com/</u>. Accessed.
- 92. Marshall BD YJ, Goyer J, Green TC, Koziol JA, Alexander-Scott N. . Development of a statewide, publicly accessible drug overdose surveillance and information system. *American Journal of Public Health*. 2017;107(11):1760-1763.
- 93. Daly ER DK, Swenson DJ, Lakevicius P, Metcalf E, Chan BP. Use of emergency department data to monitor and respond to an increase in opioid overdoses in New Hampshire, 2011-2015. *Public Health Reports*. 2017;132(1):73S-79S.
- 94. Cherico-Hsii S BA, Singal P, Horon I, Beane E, Casey M, Rebbert-Franklin K, Sharfstein J. Sharing overdose data across state agencies to inform public health strategies: a case study. *Public Health Reports*. 2016;131(2):258-263.
- 95. Krawczyk N EM, Schneider KE, Richards TM, Lyons BC, Jackson K, Ferris L, Weiner JP, Saloner B. . Predictors of overdose death among high-risk emergency department patients with substancerelated encounters: a data linkage cohort study. . *Annals of Emergency Medicine* 2020;75(1):1-2.
- 96. Drug Overdose Dashboard. Minnesota Department of Health. <u>https://www.health.state.mn.us/communities/opioids/opioid-dashboard/index.html</u>. Published 2023. Updated January 13, 2023. Accessed.
- 97. Freeman PR MJ, Dasgupta N, Oyler DR, Slavov K, Collins C, Hargrove S, Freeman E, Miracle D, Slavova S. Drugs involved in Kentucky drug poisoning deaths and relation with antecedent controlled substance prescription dispensing. *Subst Abus Treat Prev Policy.* 2023;18(1):53.
- 98. *States Should Measure Opioid Use Disorder Treatment to Improve Outcomes.* Pew Charitable Trusts; October 18, 2022 2022.
- 99. Williams AR NE, Bisaga A, Levin FR, Olfson M. . Development of a cascade of care for responding to the opioid epidemic. . *American Journal of Drug and Alcohol Abuse.* 2019;45(1).
- 100. Opioid Epidemic Response Spending Dashboard. Minnesota Management and Budget. https://mn.gov/mmb/impact-evaluation/projects/opioid-epidemic-response/spendingdashboard/. Published 2024. Accessed.
- 101. Behavioral Health Workforce Projections. Health Resources and Services Administration. <u>https://bhw.hrsa.gov/data-research/projecting-health-workforce-supply-demand/behavioral-health</u>. Published 2023. Updated October 2023. Accessed.
- 102. E-QUAL Opioid Toolkits. American College of Emergency Physicians <u>https://www.acep.org/administration/quality/equal/emergency-quality-network-e-qual/e-qual-opioid-initiative/e-qual-opioid-toolkit</u>. Published 2024. Accessed.
- 103. Egan JE CP, Gartenmann T, Martin J, McCance-Katz EF, Netherland J, Renner JA, Weiss L, Saxon AJ, Fiellin DA. The Physician Clinical Support System-Buprenorphine (PCSS-B): A novel project to expand/improve buprenorphine treatment. *J Gen Intern Med.* 2010;25(9):936-941.
- 104. Komaromy M DD, Metcalf A, Carlson C, Kalishman S, Hayes L, Burke T, Thornton K, Arora S. Project ECHO (Extension for Community Healthcare Outcomes): A new model for educating

primary care providers about treatment of substance use disorders. *Subst Abus.* 2016;37(1):20-24.

- 105. Brooklyn JR SS. Vermont hub-and-spoke model of care for opioid use disorder: development, implementation, and impact. *Journal of Addiction Medicine.* 2017;11(4):286.
- 106. Compton WM JC, Baldwin GT, Harding FM, Blanco C, Wargo ER. Targeting Youth to Prevent Later Substance Use Disorder: An Underutilized Response to the US Opioid Crisis. *American Journal of Public Health.* 2019;109(S3):S185-S189.
- 107. Ramos C C-CL, Samuel-Jakubos H, Basurto L. *Evidence-Based Interventions for Adolescent Opioid Use Disorder: What Might Work for High-Risk Ohio Counties?* Washington, DC.: Urban Institute;2018.
- 108. Stockings E HW, Lynskey M, Morley KI, Reavley N, Strang J, Patton G, Degenhardt L. Prevention, Early Intervention, Harm Reduction, and Treatment of Substance Use in Young People. *Lancet Psychiatry.* 2016;3(3):280-296.
- 109. Strang J VN, Degenhardt L, Hickman M, Johnson K, Koob GF, Marshall BD, Tyndall M, Walsh SL. . Opioid Use Disorder. *Nature Reviews Disease Primers*. 2020;6(1):3.
- 110. Faggiano F MS, Versino E, Buscemi D. Universal school-based prevention for illicit drug use. *Cochrane Database of Systematic Reviews.* 2014;12.
- 111. MacArthur GJ HS, Caldwell DM, Hickman M, Campbell R. . Peer-led interventions to prevent tobacco, alcohol, and/or drug use among young people aged 11-21 years: A systematic review and meta-analysis. *Addiction*. 2016;111(3):391-407.
- 112. Foxcroft DR TA. Universal Alcohol Misuse Prevention Programmes for Children and Adolescents: Cochrane Systematic Reviews. *Perspectives in Public Health*. 2012;132(3):128-134.
- 113. Griffin KW BG. Evidence-Based Interventions for Preventing Substance Use Disorders in Adolescents. *Child Adolesc Psychiatr Clin N Am.* 2010;19(3):505-526.
- 114. Spoth R TL, Shin C, Ralston E, Redmond C, Greenberg M, Feinberg M. Longitudinal Effects of Universal Preventive Intervention on Prescription Drug Misuse: Three Randomized Controlled Trials With Late Adolescents and Young Adults. *AJPH*. 2013;103(4):665-672.
- 115. Bonar EE CL, Roche JS, Philyaw-Kotov ML, Bixler EA, Sinelnikow S, Kolosh A, Cihak MJ, Cunningham RM, Walton MA. Prescription Opioid Misuse among Adolescents and Emerging Adults in the United States: A Scoping Review. *Prev Med.* 2021;132(105972).
- 116. DiPrete B RS, Maierhofer CN, Fulcher N, Chelminski PR, Ringwalt CL, Ives TJ, Dasgupta N, Go VF, Pence BW. Association of Opioid Dose Reduction With Opioid Overdose and Opioid Use Disorder Among Patients Receiving High-Dose, Long-term Opioid Therapy in North Carolina. *JAMA Netw Open.* 2022;5(4):e339191.
- Agnoli A XG, Tancredi DJ, Megnan E, Jerant A, Fenton JJ. Association of Dose Tapering With Overdose or Mental Health Crisis Among Patients Prescribed Long-term Opioids. JAMA. 2021;326(5):411-419.
- 118. Oliva EM BT, Manhapra A, Kertez S, Hah JM, Henderson P, Robinson A, Paik M, Sandbrink F, Gordon AJ, Trafton JA. Associations between stopping prescriptions for opioids, length of opioid treatment, and overdose or suicide deaths in US veterans: observational evaluation. *BMJ*. 2020;368(283).
- 119. Binswanger IA SS, Xu S, Narwaney KJ, McClure DL, Rinehart DJ, Nguyen AP, Glanz JM. Opioid Dose Trajectories and Associations With Mortality, Opioid Use Disorder, Continued Opioid Therapy, and Health Plan Disenrollment. *JAMA Netw Open.* 2022;5(10):e2234671.
- 120. Larochelle MR LS, Shapei Y, Clothier BA, Goldsmith ES, Bohnert, ASB. Comparative Effectiveness of Opioid Tapering or Abrupt Discontinuation vs No Dosage Change for Opioid Overdose or Suicide for Patients Receiving Stable Long-term Opioid Therapy. *JAMA Netw Open.* 2022;5(8):e2226523.

- 121. Schroeder AR DM, Newman TB, Bentley JP, Park KT. Association of opioid prescriptions from dental clinicians for US adolescents and young adults with subsequent opioid use and abuse. *JAMA Intern Med.* 2019;179(2):145-152.
- 122. Chua KP KB, Waljee JF, Brummett CM, Nalliah RP. Dental opioid prescriptions and overdose risk in patients and their families. *American Journal of Preventive Medicine*. 2021;61(2):165-173.
- 123. Jones CM DR, Koes BW, Latimer J, Maher CG, McLachlan AJ, Billot L, Shan S, Lin CW, McLachlan H, Webb M. Opioid analgesia for acute low back pain and neck pain (the OPAL trial): A randomized placebo-controlled trial. *Lancet.* 2023.
- 124. Finney FT GT, Hu HM, Waljee JF, Brummett CM, Walton DM, Talusan PG, Holmes JR. Rate of opioid prescriptions for patients with acute ankle sprain. *Annals of Internal Medicine*. 2019;171(6):441-443.
- 125. Dickson-Gomez J SA, Weeks M, Galletly C, McDonald M, Green Montaque HD. "You're not supposed to be on it forever": medications to treat opioid use disorder (MOUD) related stigma among drug treatment providers and people who use opioids. . *Substance Abuse: Research and Treatment*. 2022;16(11782218221103859).
- 126. Olsen Y SJ. Confronting the stigma of opioid use disorder—and its treatment. . *JAMA*. 2014;311(14):1393-1394.
- 127. Wakeman SE RJ. Barriers to medications for addiction treatment: How stigma kills. . *Substance Use & Misuse.* 2018;53(2):330-333.
- 128. SE. W. Medications for addiction treatment: Changing the language to improve care. *Journal of Addiction Medicine*. 2017;11(1):1-2.
- 129. N V. Stigma and the toll of addiction. *N Engl J Med.* 2020;382:1289-1290.
- 130. Garett R YS. The role of misinformation and stigma in opioid use disorder treatment uptake. . *Substance Use & Misuse.* 2022;57(8):1332-1336.
- 131. EF. M. Intervention stigma: How medication-assisted treatment marginalizes patients and providers. *Soxcial Science & Medicine*. 2019;232:324-331.
- 132. *The Power of Media*. Shatterproof, Inc. ; February 10, 2023 2023.
- 133. Bielenberg J SG, Lembke A, Haug NA. A systematic review of stigma interventions for providers who treat patients with substance use disorders. *Journal of Substance Abuse Treatment.* 2021;131(108486.).
- 134. McLean K MJ, Kruis N. . "I think we're getting better but we're still not there": Provider-based stigma and perceived barriers to care for people who use opioids (PWUO). . *Journal of Substance Use and Addiction Treatment*. 2024;59(209270).
- 135. Bessen S MS, Saunders EC, Moore SK, Meier A, McLeman B, Walsh O, Marsch LA. Barriers to naloxone use and acceptance among opioid users, first responders, and emergency department providers in New Hampshire, USA. International Journal of Drug Policy. 2019;74:144-151.
- 136. Kennedy-Hendricks A ME, Summers A, Krenn S, Fingerhood MI, Barry CL. Effect of exposure to visual campaigns and narrative vignettes on addiction stigma among health care professionals: a randomized clinical trial, *JAMA Netw Open*. 2022;5(2):e2146971.
- 137. Kelly JF WC. Does it matter how we refer to individuals with substance-related conditions? A randomized study of two commonly used terms. *Int J Drug Policy*. 2010;21(3):202-207.
- 138. Broady TR BL, Horwitz R, Cama E, Treloar C. Reducing stigma towards people living with HIV and people who inject drugs using social norms theory: An online study with Australian health care worker. *Drug Alcohol Depend*. 2023;249(109953).
- 139. Hooker SA CA, LaFrance AB, Kane S, Fokuo JK, Bart G, Rossom RC. A randomized controlled trial of an intervention to reduce stigma toward people with opioid use disorder among primary care clinicians. *Addict Sci Clin Pract.* 2023;18.
- 140. McGinty EE BC. Stigma reduction to combat the addiction crisis—developing an evidence base. . *N Engl J Med.* 2020;382(14):1291-1292.

- 141. Bonnevie E KÖ, Whipple CR, Kensinger WS, Stefanko M, McKeon C, Mendell G, Smyser J. Life unites us: A novel approach to addressing opioid use disorder stigma. . *Health Education Journal*. 2022;81(3):312-324.
- 142. Lefebvre RC CR, Helme DW, Kerner R, Mann S, Stein MD, Reynolds J, Slater MD, Anakaraonye AR, Beard D, Burrus O. . Health communication campaigns to drive demand for evidence-based practices and reduce stigma in the HEALing communities study. . *Drug Alcohol Depend*. 2020;217:108338.
- 143. Kariisa M DN, Kumar S, Seth P, Mattson CL, Chowdhury F, Jones CM. Vital Signs: Drug Overdose Deaths, by Selected Sociodemographic and Social Determinants of Health Characteristics – 25 States and the District of Columbia, 2019-2020. MMWR Morb Mortal Wkly Rep. 2022 71(29):940-947.
- 144. Hansen H JA, Plough A, Alegria M, Cunningham C, Ostrovsky A. . Lessons for the Opioid Crisis Integrating Social Determinants of Health into Clinical Care. *American Journal of Public Health*. 2022;112:S109-S111.
- 145. Tsai W KWR. Alcohol and drug use disorders among homeless veterans: prevalence and association with supported housing outcomes. *Addict Behav.* 2014;39(2):455-460.
- 146. Edens EL MA, Tsai J. Rosenhack RA. Does active substance use at housing entry impair outcomes in supported housing for chronically homeless persons? *Psychiatric Services*. 2011;62(2):171-178.
- 147. Doran KM FC, Maguire M. Overdose and Homelessness: Why We Need to Talk About Housing. *JAMA Netw Open.* 2022;5(1):e2142685.
- 148. Lo E LB, Buelt EC, Balasuriya L, Steiner JL. . Implementing the Street Psychiatry Model in New Haven, CT: Community-Based Care for People Experiencing Unsheltered Homelessness. . *Community Mental Health Journal*. 2021;57(8):1427-1234.
- 149. Grella CE KM, Warda US, Niv N, Moore AA. Gender and Comorbidity Among Individuals with Opioid Use Disorders in the NESARC Study. *Addict Behav* 2009;34(6-7):498-504.
- 150. Zhu Y ML, Yoo C, Evans EA, Kelleghan A, Saxon AJ, Curtis ME, Hser YI Psychiatric comorbidity and treatment outcomes in patients with opioid use disorder: Results from a multisite trial of buprenorphine-naloxone and methadone. . *Drug Alcohol Depend*. 2021;228(108996).
- 151. Transforming Addiction Treatment Through 24/7 Access in Emergency Departments. CA Bridge. https://bridgetotreatment.org/addiction-treatment/ca-bridge/. Published 2023. Accessed.
- 152. Busch SH, Fiellin DA, Chawarski MC, et al. Cost-effectiveness of emergency department-initiated treatment for opioid dependence. *Addiction*. 2017;112(11):2002-2010.
- 153. D'Onofrio G EE, Hawk KF, Chawarski MC, Pantalon MV, Owens PH, Martel SH, Rothman R, Saheed M, Schwartz RP, Cowan E, Richardson L, Salsitz E, Lyons MS, Freiermuth C, Wilder C, Whiteside L, Tsui JI, Klein JW, Coupet E, O'Connor PG, Matthews AG, Murphy SM, Huntley K, Fiellin DA. Implementation Facilitation to Promote Emergency Department-Initiated Buprenorphine for Opioid Use Disorder. JAMA Netw Open. 2023;6(4):e235439.
- 154. Sweeney S CK, Connors E, Rebbert-Franklin K, Welsh C, Weintraub E. Program development and implementation outcomes of a statewide addiction consultation service: Maryland Addiction Consultation Service (MACS). . *Subst Abus.* 2021;42(4):595-602.
- 155. Maryland Addiction Consultation Service (MACS)
- . University of Maryland School of Medicine. <u>https://marylandmacs.org</u>. Published 2023. Accessed July 1, 2023, 2023.
- 156. Multidimensional Family Therapy (MDFT-HYPE). Wheeler Clinic. <u>https://www.wheelerclinic.org/services/wheeler-services/multidimensional-family-therapy-</u> <u>mdft-hype</u>. Published 2024. Accessed.
- 157. Helping Youth and Parents Enter (HYPE) Recovery Fact Sheet. In: Families CDoCa, ed2022.

- 158. Liddle HA DG, Parker K, Diamond GS, Barrett K, Tejeda M. . Multidimensional family therapy for adolescent drug abuse: Results of a randomized clinical trial. . *American Journal of Drug and Alcohol Abuse.* 2001;27(4):651-688.
- 159. van der Pol TM HM, Noom MJ, Stams GJ, Doreleijers TA, van Domburgh L, Vermeiren RR. . Research Review: The effectiveness of multidimensional family therapy in treating adolescents with multiple behavior problems–a meta-analysis. *Journal of Child Psychology and Psychiatry*. 2017;58(5):532-545.
- 160. Schaeffer CM SC, Powell JS. . Multisystemic Therapy-Building Stronger Families (MST-BSF): Substance misuse, child neglect, and parenting outcomes from an 18-month randomized effectiveness trial. *Child Abuse & Neglect*. 2021;122(105379).
- 161. Meyers RJ RH, Smith JE. . The community reinforcement approach: an update of the evidence. . *Alcohol Res Health.* 2011;33(4):380-388.
- 162. OnPoint NYC. OnPoint NYC. <u>https://onpointnyc.org</u>. Published 2021. Accessed.
- 163. Levengood TW YG, Davoust MJ, Ogden SN, Marshall BD, Cahill SR, Bazzi AR. . Supervised injection facilities as harm reduction: A systematic review. *American Journal of Preventive Medicine*. 2021;61(5):738-749.
- 164. Giglio RE MS, Harocopos A, Saha N, Reilly J, Cipriano C, Kennelly M, Landau L, McRae M, Chokshi DA. The Nation's First Publicly Recognized Overdose Prevention Centers: Lessons Learned in New Your City. *Journal of Urban Health.* 2023:1-10.
- 165. Harocopos A GB, Saha N, McRae MT, See K, Rivera S, Chokshi DA. . First 2 months of operation at first publicly recognized overdose prevention centers in US. *JAMA Netw Open*. 2022;5(7):e2222149.
- 166. Martin A BK, Chavez T, Herring A, Wakeman S, Hayes BD, Raja A. Beyond buprenorphine: models of follow-up care for opioid use disorder in the emergency department. *West J Emerg Med.* 2020;21(6):257.
- 167. Montgomery AE HL, Kane V, Culhane DP. Housing chronically homeless veterans: Evaluating the efficacy of a Housing First approach to HUD-VASH. *Journal of Community Psychology*. 2013;41(4):505-514.
- 168. Kertesz SG AE, Holmes SK, DeRussy AJ, Van Deusen Lukas CL, Pollio DE. Housing first on a large scale: Fidelity strengths and challenges in the VA's HUD-VASH program. *Psychological Services*. 2017;14(2):118.
- 169. Hanson D GS. 'Housing First'Increased Psychiatric Care Office Visits And Prescriptions While Reducing Emergency Visits: Study examines the Housing First intervention's on impact on health care use, Medicaid enrollment, and mortality among people experiencing chronic homelessness. *Health Affairs*.43(2).
- 170. J. T. Is the housing first model effective? Different evidence for different outcomes. *American Journal of Public Health.* 2020;110(9):1376.
- 171. Walley AY LS, Li Y, Bernson D, Babakhanlou-Chase H, Land T, Larochelle MR. Association between mortality rates and medication and residential treatent after in-patient medically managed opioid withdrawal: A cohort analysis. *Addiction.* 2020;115(8):1496-1508.
- 172. Cunningham C EM, Fishman M, Gordan AJ, Jones HE, Langleben D, Femino J. The ASAM national practice guideline for the treatment of opioid use disorder: 2020 focused update. *J Addict Med.* 2020;14(2S Suppl 1):1-91.
- 173. Wines Jr. JD SR, Horton NJ, Lloyd-Travaglini C, Samet JH. Overdose after detoxification: A prospective study. *Drug Alcohol Depend*. 2007;89(2-3):161-169.
- 174. Larochelle MR BD, Land T, Stopka TJ, Rose AJ, Bharel M, Liebschutz JM, Walley AY. . Touchpoints
  Opportunities to Predict and Prevent Opioid Overdose: A Cohort Study. *Drug Alcohol Depend*. 2019;204(107537).

- 175. Lee JD NE, Novo P, Bachrach K, Bailey GL, Bhatt S, Farkas S, Fishman M, Gauthier P, Hodgkins CC, King J. . Comparative effectiveness of extended-release naltrexone versus buprenorphinenaloxone for opioid relapse prevention (X: BOT): a multicentre, open-label, randomised controlled trial. *The Lancet.* 2018;169(3):137-145.
- 176. Gan WQ KS, Nicholls TL, Xavier CG, Urbanowski K, Greiner L, Buxton JA, Martin RE, McLeod KE, Samji H, Nolan S. Risk of overdose-related death for people with a history of incarceration. *Addiction.* 2021;116(6).
- 177. Mital S WJ, Carroll JJ. . The relationship between incarceration history and overdose in North America: A scoping review of the evidence. *Drug Alcohol Depend.* 2020;213(108088).
- 178. Howell BA EV, Garcia M, Taylor A, Martin K, Fox AD. . The stigma of criminal legal involvement and health: A conceptual framework. *Journal of Urban Health*. 2022:1.
- 179. Finlay BA ME, Stimmel M, Taylor E, Timko C, Harris AH, Smelso29n D, Yu M, Blue-Howells J, Binswanger IA. . Barriers to Medications for Opioid Use Disorder Among Veterans Involved in the Legal System: A Qualitative Study. *Journal General Internal Medicine*. 2020;35(2529-36).
- 180. Kirk DS WS. Collateral consequences of punishment: A critical review and path forward. *Review* of Criminology 2018;1:171-194.
- 181. Brinkley-Rubinstein L ZN, Martino S, Cloud DH, McCauley E, Heise A, Seal D. . Criminal justice continuum for opioid users at risk of overdose. . *Addict Behav.* 2018;86:104-110.
- 182. Rafful C OR, Rangel G, Davidson P, Werb D, Beletsky L, Strathdee SA. Increased non-fatal overdose risk associated with involuntary drug treatment in a longitudinal study with people who inject drugs. *Addiction*. 2018;113(6):1056-1063.
- 183. Vo AT MC, Hickman M, Borquez A, Beletsky L, Martin NK, Cepeda JA. Assessing HIV and Overdose Risks of People Who Use Drugs Exposed to Compulsory Drug Abstinence Programs (CDAP): A Systematic Review and Meta-Analysis. Int J Drug Policy. 2021;96(103401).
- 184. Slocum S PC, Walley AY, Pollini RA. Civil commitment perspectives and experiences among friends and family of people who use illicit opioids in Massachusetts, USA. *Int J Drug Policy*. 2023;117(104074).
- 185. Arizona Attorney General's Office Announces \$400,000 in Community Grants to Educate Youth on Opioid Abuse

[press release]. Arizona Attorney General Kris Mayes, June 22, 2018 2018.

- 186. West SL ONK. Project D.A.R.E Outcome Effectiveness Revisited. *American Journal of Public Health.* 2004:1027-1029.
- 187. Frkovich J HH, Anakaraonye AR, Bornkessel A, Lefebvre RC. . Opioid-related public health communication campaigns: An environmental scan. . *American Journal of Health Promotion*. 2022;36(6):913-919.
- 188. Furlan AD CN, Irvin E, Van Eerd D, Munhall C, Kim J, Li CM, Hamad A, Mahood Q, MacDonald S. . A systematic review of strategies to improve appropriate use of opioids and to reduce opioid use disorder and deaths from prescription opioids. *Canadian Journal of Pain.* 2018;2(1):218-235.
- 189. Ending discrimination against people with mental and substance use disorders: The evidence for stigma change. National Academies of Sciences, Engineering, and Medicine; September 3, 2016 2016.
- 190. Lefebvre RC CR, Helme DW, Kerner R, Mann S, Stein MD, Reynolds J, Slater MD, Anakaraonye AR, Beard D, Burrus O. . Health communication campaigns to drive demand for evidence-based practices and reduce stigma in the HEALing communities study. . *Drug Alcohol Depend*. 2020;217(108338).
- 191. Methadone Treatment for Opioid Use Disorder: Improving Access Through Regulatory and Legal Change: Proceedings of a Workshop. Paper presented at: Methadone Treatment for Opioid Use Disorder: Examining Federal Regulations and Laws; July 15, 2022, 2022; Washington, D.C. .

- 192. Jackson JR HC, Silverman RD, Simon K, Menachemi N. . Characterizing variability in state-level regulations governing opioid treatment programs. . *Journal of Substance Abuse Treatment*. 2020;115(108008).
- 193. Joudrey PJ EE, Wang EA. . Methadone for opioid use disorder—decades of effectiveness but still miles away in the US. *JAMA Psychiatry*. 2020;77(11):1105-1106.
- 194. The 42 CFR Part 8 Final Rule Table of Changes. Substance Abuse and Mental Health Services Administration. <u>https://www.samhsa.gov/medications-substance-use-disorders/statutes-</u> <u>regulations-guidelines/42-cfr-part-8/final-rule-table-</u> <u>changes#:~:text=The%20final%20rule%20updates%20criteria,like%20diversion%20control%20pr</u> <u>ocedures%20remain</u>. Published 2024. Updated January 31, 2024. Accessed March 3, 2024, 2024.
- 195. Amram O AS, Thorn EL, Lutz R, Joudrey PJ. . Changes in methadone take-home dosing before and after COVID-19. . *Journal of Substance Abuse Treatment*. 2022;133(108552).
- 196. Methadone Take-Home Flexibilities Extension Guidance. SAMHSA. <u>https://www.samhsa.gov/medications-substance-use-disorders/statutes-regulations-guidelines/methadone-guidance</u>. Published 2024. Updated January 23, 2024. Accessed.
- 197. Brothers S VA, Heimer R. Changes in methadone program practices and fatal methadone overdose rates in Connecticut during COVID-19. *Journal of Substance Abuse Treatment*. 2021;131(108449).
- 198. Amram O AS, Panwala V, Lutz R, Joudrey PJ, Socias E. . The impact of relaxation of methadone take-home protocols on treatment outcomes in the COVID-19 era. . *The American Journal of Drug and Alcohol Abuse.* 2021;47(6):722-729.
- 199. Figgatt MC SZ, Day E, Vincent L, Dasgupta N. . Take-home dosing experiences among persons receiving methadone maintenance treatment during COVID-19. . *Journal of Substance Abuse Treatment*. 2021;123(108276).
- 200. Gibbons JB SE, Saloner B. . Methadone on wheels—a new option to expand access to care through mobile units. . *JAMA Psychiatry*. 2022;79(3):187-188.
- 201. K N. Letter to OTP Directors, SOTAs and State Directors. In: SAMHSA; 2021.
- 202. Modernizing Opioid Treatment Access Act. In. (D-MA) SEJM, trans. S.644. 2023-2024 ed2023.
- 203. Rhode Island's Harm Reduction Center Pilot Program: Preventing Overdoses, Saving Lives. In: RI PO, ed: State of Rhode Island Department of Health; n.d.
- 204. Harm reduction center pilot program to combat overdose deaths becomes law [press release]. State of Rhode Island General Assembly, July 7, 2021 2021.
- 205. J. M. Minnesota Legalisation Supports Overdose Prevention Centers. 2023. https://wjon.com/overdose-prevention-centers-minnesota/. Published May 30, 2023.
- 206. *Opioid Settlement Funded Project Overview as of October 20, 2023.* Executive Office of Health and Human Services, State of Rhode Island; October 20, 2023 2023.