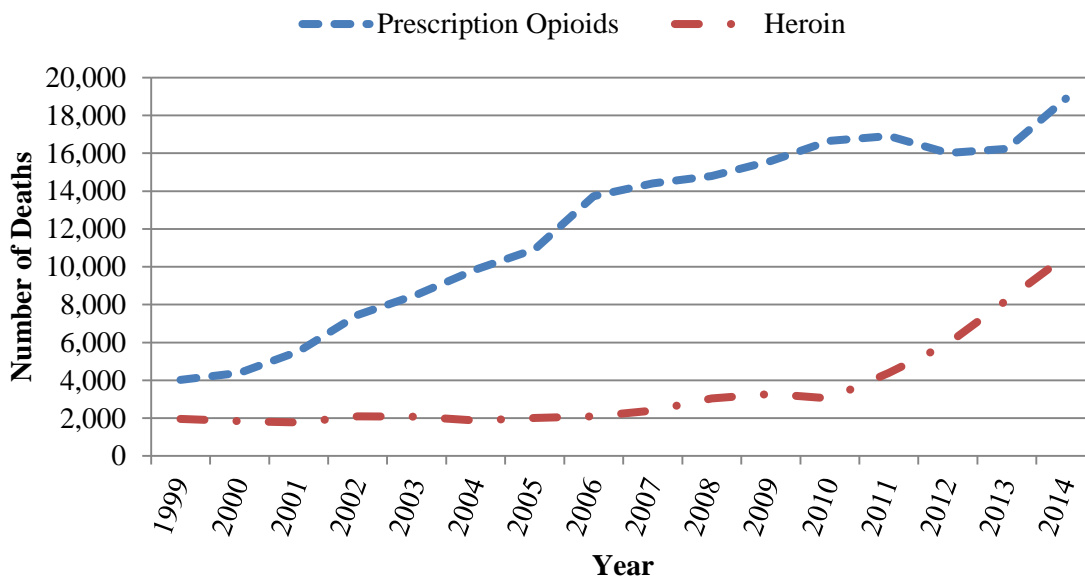


# Medication-Assisted Treatment: Buprenorphine in the HCH Community

May 2016

Heroin and prescription drug overdoses have reached epidemic levels, spurred in part by the large number of opioids prescribed for pain. In 2012, 259 million prescriptions were written for opioids in the U.S., enough to supply every American adult with their own bottle of pills.<sup>1</sup> An estimated 4.5 million people were non-medical users of prescription opioids in 2013, and an estimated 289,000 were heroin users.<sup>2</sup> Misuse of prescription opioids is a pathway to heroin use; four in five new heroin users started out misusing prescription painkillers, resulting in the rate of heroin overdose deaths nearly quadrupling from 2000 to 2013.<sup>3</sup> A 2014 survey of people in treatment for opioid addiction found that 94% of respondents had moved to heroin because prescription opioids were more expensive and harder to obtain.<sup>4</sup> The result is that drug overdose deaths have surpassed car accidents and firearms as the leading cause of injury and death in the U.S. In 2014, 47,000 Americans died of drug overdoses, more than any other year on record, and opiate overdoses accounted for more than half of those deaths, with prescription painkillers causing 18,900 deaths and heroin causing 10,600, as detailed in Figure 1.<sup>5</sup> At the same time non-lethal complications related to opioid use have resulted in increased hospitalizations. One study found that hospitalizations related to opioid abuse increased from over 301,000 in 2002 to over 520,000 in 2012<sup>6</sup>, and another study found that from 2005 to 2011, emergency department visits involving the nonmedical use of prescription opioids increased by 117%, up from just over 168,000 in 2005 to more than 365,000 in 2011.<sup>7</sup>

**Figure 1. Number of overdose deaths in the U.S. from prescription opioids and heroin, 1999-2014.**



Source: Centers for Disease Control and Prevention

For persons experiencing homelessness the crisis is even more severe. Addiction can cause and prolong homelessness, and the experience of homelessness complicates one's ability to engage in treatment. Individuals who are homeless rarely have substance use disorders alone; many have serious mental illnesses, acute and chronic physical health problems, and histories of trauma. Poor health coupled with the lack of housing means homeless persons die 30 years sooner than their housed counterparts. A Boston study found drug overdoses accounted for 17% of deaths among homeless persons, and opioids were responsible for 81% of those deaths. In addition, homeless adults aged 25 to 44 were nine times more likely to die from an opioid overdose than their housed counterparts.<sup>8</sup> These factors combined translate into persons experiencing homelessness having higher rates of substance abuse disorders, poorer health, and greater risk of mortality.

## Health Care for the Homeless Model of Care

As a part of the consolidated health center program funded through the Health Resources and Services Administration (HRSA) within the U.S. Department of Health and Human Services, HCH grantees are tasked with focusing on the complex needs of people who are homeless and providing a coordinated, comprehensive approach to health care that includes substance abuse services.<sup>9</sup> In 2014, 268 HCH projects provided care to just over 850,000 individuals.<sup>10</sup> Though local projects vary widely, the majority of people seeking care at HCH projects is non-elderly adults earning at or below the federal poverty level, identify as male, and are people of color.

Since the 1980s, the HCH approach to care has been characterized by compassionate and persistent engagement; an emphasis on harm reduction and low-barrier access to services; an understanding of the complex needs of vulnerable people and the intersection between homelessness and poor health; a “whole person” approach to care that includes medical, behavioral and social services; a trusting and respectful relationship; and delivering comprehensive services through multi-disciplinary teams.<sup>11</sup> Given the needs of this population, HCH projects typically have integrated behavioral health and primary care services, and emphasize enabling services such as frequent and intensive street outreach and case management, as well as care coordination across multiple venues of care.<sup>a</sup> As such, the HCH provider community is particularly well-positioned to demonstrate how care integration between primary care providers, behavioral health workers, and case managers is successful in treating persons experiencing homelessness who have substance use disorders.<sup>12</sup>

## Purpose and Scope of This Policy Brief

The purpose of this brief is to identify some of the challenges to providing Medication Assisted Treatment (MAT) in a health center venue of care and suggest both clinical practice and public policy strategies to further promote access and recovery, especially among those experiencing homelessness. HCH projects are in a unique position to address these challenges as they are required to provide substance abuse disorder services in addition to primary care and other support services to a very high need population. The brief will focus on MATs (primarily buprenorphine), acknowledging that other treatment approaches play critical and complementary roles in a continuum of care.

It is also the broader hope that the information in this policy brief can help prevent further deaths from opioid addiction, inform clinical training needs, influence how communities respond to addiction treatment, improve public health, and promote a more seamless integration of addiction treatment with primary care services.

## Understanding Opioid Addiction

Opioid use disorder is a treatable chronic disease caused by changes to the structure and function of the brain. When opiates are introduced into the body they bind to and activate opioid receptors in the brain that are responsible for regulating pain, hormone release, and feelings of well-being. Opiates interfere with the body’s naturally occurring chemicals and repeated use over time changes the physical structure and physiology of the brain, creating imbalances that are not easily reversed, and that are the cause of physical dependence and withdrawal symptoms. Repeated use can result in addiction, a chronic relapsing disease that goes beyond physical dependence and is characterized by uncontrollable drug-seeking behavior no matter the consequences.<sup>13</sup>

MAT is the use of medications in combination with counseling and behavioral therapies to provide a whole-patient approach to the treatment of opioid use disorders.<sup>14</sup> MAT addresses both physical dependency and addiction by lessening the severity of withdrawal symptoms and helping a person return to normalcy in their brain function and

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<sup>a</sup> The Public Health Services Act, Section 330(b)(1)(A)(iv), defines *enabling services* as non-clinical services that do not include direct patient services that enable individuals to access health care and improve health outcomes. Enabling services include case management, referrals, translation/interpretation, transportation, eligibility assistance, health education, environmental health risk reduction, health literacy, and outreach.

behavior. For some people, medication treatment alone can be effective, while others may require a combination of treatment and therapy.

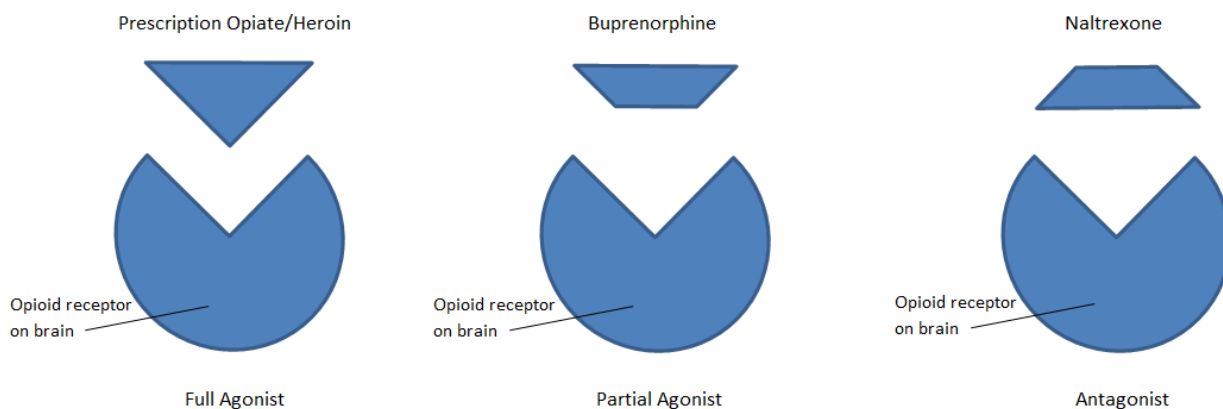
There are currently three MAT medications approved by the Food and Drug Administration (FDA) for the treatment of opioid dependence: methadone, naltrexone, and buprenorphine. Each medication works to address dependency and addiction in different ways, depending upon its effect on opioid receptors. As illustrated in Figure 2, opioid full agonists, partial agonists, and antagonists have differing effects on the opioid receptors in the brain. Full agonists fully bind to and activate the receptors, producing a pain killing effect; partial agonists bind to the receptors and partially activate it, producing a limited pain killing effect; and antagonists bind to the receptors but do not activate it, blocking any effect.<sup>15</sup> Methadone is a full opioid agonist that has been used for decades to treat heroin and opioid pain medication addictions.<sup>16</sup> While an effective MAT medication, it is limited in that it can only be administered through an opioid treatment program certified by SAMHSA and it comes with many risks, including risks for addiction and overdose. Naltrexone is an opioid antagonist. It blocks the action of opioids and helps prevent relapse to opioid use after detoxification. It is typically appropriate for persons who have gone through withdrawal and have been detoxified, and who have a short or less severe addiction history.<sup>17</sup> As such, naltrexone has been shown to have limited effectiveness when treating patients who are homeless.<sup>18</sup> Given the limitations and risks associated with methadone and the limited effectiveness of naltrexone, this brief focuses on the use of buprenorphine in MAT.

### The Use of Buprenorphine in MAT

Buprenorphine was approved for clinical use by the FDA in 2002 and was the first medication to treat opioid dependency that was permitted to be prescribed or dispensed in physician offices. It is a partial opioid agonist, which produces a euphoric effect that levels off after a moderate dose, even with further dose increases. When used properly, buprenorphine helps suppress symptoms of opioid withdrawal, decreases cravings, and lowers the risk of misuse, dependency, and negative side effects.<sup>19</sup> There are number of FDA-approved buprenorphine products. Subutex is buprenorphine in the pill or tablet form. Suboxone®, Bunavail®, and Zubslov® are combinations of buprenorphine and naloxone provided through either a pill or dissolvable film; naloxone is added to the buprenorphine to deter people from diversion or misuse of the drug. When taken properly, the absorption of naloxone is minimal, so the effect of buprenorphine is uninhibited. However, if crushed or injected, the naloxone effect can block the effect of the buprenorphine and can also produce opioid withdrawal symptoms.

Buprenorphine has demonstrated efficacy in eliminating withdrawal symptoms and reducing cravings, with most patients not experiencing any withdrawal after two to three days of taking the drug.<sup>20</sup> Additionally, this drug carries a lower risk of overdose compared to methadone, making it a potentially safer treatment option.<sup>21</sup> The use of buprenorphine in MAT has been shown to be effective for persons experiencing homelessness, with no differences in treatment outcomes between persons who are homeless and their housed counterparts.<sup>22</sup>

**Figure 2. Effects of opioid full agonists, partial agonists, and antagonists on opioid receptors on the brain.**



## Challenges to Treatment

Using buprenorphine as a treatment for opioid use disorder does not come without its challenges. Some of these challenges include:

- **Limit on providing ‘on demand’ treatment.** Guidelines for providing treatment outline a number of preliminary steps before treatment can begin, and insurance plans often require obtaining a prior authorization before approving reimbursement for treatment and/or coverage for filling a buprenorphine prescription. In addition, many physicians’ offices and treatment programs have inflexible systems that cannot provide treatment to a patient on the same day they present for care, oftentimes offering appointments several weeks out. Seeking treatment is a big step for patients who suffer from addiction, and requiring a patient to wait before receiving treatment increases the risk of them not entering treatment.
- **Restrictions on who can prescribe and patient caps.** Prescribing buprenorphine for the treatment of opioid addiction is currently limited by law to qualified physicians who receive a waiver from the Drug Enforcement Agency (DEA) to treat patients who are addicted to opioids (specifically barring nurse practitioners, physician assistants and other prescribers from participating in this treatment modality). In addition, physicians are limited to treating 30 patients in their first year and 100 annually thereafter. This drastically limits access to treatment, especially in rural areas where fewer physicians exist and in non-physician led primary care venues.
- **High costs and different insurance coverage benefits.** Buprenorphine is five times more costly than methadone, and differing public and private health insurance coverage benefits and other requirements can make it difficult to afford and/or access. In states that have yet to expand Medicaid, access is even further limited as many low-income people have no insurance to cover costs.
- **Diversion and misuse of prescribed medication.** Buprenorphine is ranked among the least-abused or misused opioid in the U.S., and the potential for negative outcomes from diversion are much less severe than from other opioid drugs.<sup>23</sup> However, concerns over diversion still exist. High demand for limited treatment space, patient caps on providers, high cost of treatment and lack of access to insurance creates a market for diverted drugs. As a result, diverted buprenorphine is sometimes purchased on the street to provide self-treatment, and to prevent withdrawal or control withdrawal symptoms.<sup>24</sup>
- **Lack of training.** Many primary care physicians and other clinicians lack adequate training to provide substance use disorder treatment, and as a result substance use disorders often go undiagnosed and untreated.<sup>25</sup> A lack of training is a barrier to providing MAT as many physicians do not feel comfortable in managing the components of MAT and/or engaging in screening and brief interventions for substance use disorders (SUDs).<sup>26</sup>

*“I bought buprenorphine on the street because I didn’t have insurance and didn’t know where to go for a program— it helped me get through withdrawal and become stable enough to seek treatment” MAT Patient, HCH Baltimore*

There are even greater challenges in providing buprenorphine MAT to persons experiencing homelessness. Some of these challenges include:

- **Difficulties faced by those experiencing homelessness.** Residential instability, prioritizing basic daily needs (such as food, safety and shelter), limited income, lack of social supports, lack of transportation and/or health coverage and other financial resources make adherence to a daily medication and frequent therapy regimen more difficult.
- **High rate of comorbidities.** Persons experiencing homelessness are disproportionately affected by all health conditions and have high rates of comorbidities. Cognitive impairments such as traumatic brain injury, mental illness, and developmental disabilities can reduce the ability to understand and/or adhere to a treatment plan.

Higher rates of substance use and other chronic medical illnesses associated with acute and chronic pain can also compromise engagement in care as well as complicate the effectiveness of any MAT treatment.

- **Negative experiences with the health care system.** Persons experiencing homelessness may have been denied care in the past because they were stereotyped as ‘drug seeking,’ ‘difficult,’ or ‘non-compliant’ by other health care providers; a health care provider may have been reluctant to use MAT due to bias or assumptions that it doesn’t work when treating persons experiencing homelessness; and negative experiences may have arrived from past treatment that took an abstinence-only approach, requiring an individual to go through withdrawal and be stably housed before beginning treatment therapies.

## Strategies to Promote Access & Recovery – Provider Practices

To overcome the challenges of treating patients experiencing homelessness for an opioid addiction, care providers should consider the following strategies:

- **Establish stability.** Stable housing is central to attaining treatment goals as it provides patients with stability, a sense of safety, an increased ability to meet basic needs and an opportunity to have increased control over their lives and environment. Securing stable housing as early as possible is key to the treatment and recovery process.
- **Address comorbidities using integrated care.** Untreated medical and/or other behavioral health conditions may complicate MAT. The most successful interventions are provided through integrated care models of interdisciplinary teams made up of medical, mental health, substance use, and social service providers. Each discipline should not only be co-located, but should work collaboratively as a team with multiple services offered in the same visit.
- **Treat the whole person.** Substance use disorders cannot be treated apart from addressing the needs of the whole person in the context of his or her environment. In addition to addressing comorbidities, assistance in accessing food, clothing, shelter/housing, financial assistance, counseling, job training, employment services, and other needs as identified must be included alongside MAT.
- **Take a harm reduction approach.** Harm reduction therapy is an evidence-based practice that supports and respects a person’s experience and treats them with dignity, which is especially important for persons experiencing homelessness who regularly interact with systems and situations that limit self-determination and lack respect. Harm reduction therapy relies on collaboration, respect, and stage-based interventions that acknowledge self-defined positive change. Harm reduction therapy focuses on client-defined priorities and acknowledges that any improvement that reduces harm is beneficial. The key to harm reduction therapy is low barrier, integrated care that is trauma informed and respectful of the collaborative therapeutic relationship.<sup>27</sup>
- **Utilize evidence based best practices.** In addition to harm reduction, using other evidence-based best practices such as the use of peer specialists, motivational interviewing, and individual and group therapy can help patients maintain recovery and have successful treatment outcomes.
- **Be patient centered.** Building trust and developing relationships is essential to providing high-quality care and achieving good health outcomes. Engaging in patient centered care based on a patient’s individual needs, strengths, goals, and timeframe rather than on a pre-determined benchmark for outcomes is one way to build relationships and empower patients in the process. Patients should be actively involved in setting goals and planning their treatment.
- **Be flexible.** There is no one-size-fits-all treatment that will work for all patients. While MAT recommends a combination of medication and behavioral health therapy, treatment should be flexible and individualized to the patient’s needs, especially the frequency/schedule for therapy. For some, medication alone and regular consultation with a primary care provider is enough to maintain and recover from addiction, while others may need the additional supports provided by behavioral health therapy.

## Strategies to Promote Access and Recovery – Policy Opportunities

### ➤ *Current Public Policy Initiatives*

**Federal Administration:** Since 2010, when the Obama Administration released its first National Drug Control Strategy,<sup>28</sup> the Administration has been taking steps to address the opioid crisis. Most recently, the Administration’s FY2017 Budget proposed discretionary and mandatory funding totaling nearly \$1.1 billion to expand access to MATs, improve prescribing practices; and expand the use of naloxone, a drug that reverses the effects of overdose (sometimes known by the brand name Narcan®).<sup>29</sup> The Centers for Disease Control and Prevention issued their first-ever guidelines for clinicians on appropriate prescribing and treatment maintenance of opioids,<sup>30</sup> and the Department of Health and Human Services released additional funding totaling nearly \$100 million to increase access to substance abuse treatment at Health Centers, to include Health Care for the Homeless grantees.<sup>31</sup>

**Congress:** Legislative vehicles introduced during the 114<sup>th</sup> Congress to address the opioid crisis include creating an interagency task force to lead national efforts; expanding education to prevent abuse (particularly aimed at youth); expanding access to MATs and increasing funding for other evidence-based interventions; reducing stigma and educating the public about addiction as a disease; and reducing overdose deaths by increasing access to naloxone and providing training in its use.<sup>32 33</sup> In addition, other legislation includes measures to reform the criminal justice system by reducing or eliminating mandatory minimum sentencing for drug crimes; expanding treatment alternatives to incarceration; and expanding treatment options for individuals who are incarcerated.<sup>34 35</sup>

**States:** Nearly every state has strengthened its prescription drug monitoring program to reduce overprescribing of opioids and has expanded substance abuse treatment. Some states have passed syringe exchange programs and have initiated drug take-back programs for unused medication. States have also increased access to naloxone, authorizing law enforcement and first responders to carry the drug, and allowing sales of the drug without a prescription. Several states have also passed ‘Good Samaritan laws’, which are laws that provide immunity from prosecution for certain offenses, assuaging fears of contacting authorities and encouraging people to call 911 or seek medical attention in response to an overdose. States have also passed laws to create jail diversion programs, including creating drug courts and treatment as alternatives to incarceration, and some states have lowered penalties for the possession of small amounts of drugs.<sup>36</sup> In Massachusetts and Maine, prescriptions for opioids have started to have greater time limitations.<sup>37 38</sup>

### ➤ *Further Policy Considerations/Possibilities*

To overcome a number of systematic challenges of providing buprenorphine MAT, the following policy approaches should be considered:

- **Remove the cap on the number of patients a physician can treat with buprenorphine.** Existing limits are arbitrary and create barriers to accessing treatment. While put in place to mitigate diversion, cap limits may inadvertently aid diversion by limiting the supply of MAT, leading to individuals pursuing self-treatment by purchasing diverted drugs. Ironically, there are no limits to the number of patients a physician can prescribe other opioid drugs that present a much greater risk of causing addiction, overdose, and death (e.g., Methadone, Oxycodone, Hydrocodone, and Fentanyl). Removing the caps will allow providers to determine the number of patients they are able to treat based on the capacity of their practice and other factors, thereby increasing access to treatment.
- **Expand prescribing rights to all clinicians who are eligible to prescribe Class III, IV, and V CDS drugs.** Limiting prescribing rights to physicians creates an additional barrier to accessing treatment and is

*“As a physician, I can only see so many patients a day and I have many other patients with other needs – having others on my team be able to prescribe buprenorphine would be a huge help.” Physician at HCH Baltimore*

incongruent with the existing scope of many clinical practices. Expanding prescribing rights to Nurse Practitioners, Physicians Assistants, and other clinicians who are authorized to prescribe Class III, IV, and V CDS drugs will expand treatment opportunities and decrease barriers to care. Clinicians who can prescribe opioids for pain should also be able to prescribe buprenorphine to treat the addictions that sometimes result.

- **Require training to prescribe all opioids, not just buprenorphine.** Specialized training is required to prescribe buprenorphine, but no other drug (opioid or otherwise) requires this as a condition of practice. Given the lower risks associated with diversion of buprenorphine, and the elevated risk associated with many opiates that can be prescribed with few restrictions, training should be extended to the prescribing of any opioid and focus on administering and monitoring prescriptions and understanding the nature of addiction. In addition prescribers should have greater access to technical assistance and resources to develop plans to identify and avoid diversion.
- **Enforce parity laws.** Substance abuse treatment and other behavioral health services should be just as easy to access as primary care services. Parity laws are in place to ensure insurance plans treat these services equally, and should be enforced. Health insurance practices that require prior authorizations for opioid treatment should be scrutinized, especially when they create barriers to behavioral health care that do not exist for primary care. Just as there are no prior authorizations required for opioid drugs prescribed for pain management, there should be no prior authorizations required for MAT. Addiction is a time-sensitive condition to treat, and presenting for treatment is a big step for patients; even a delay of one day can be the difference in someone getting treatment or not.
- **Reduce stigma and treat addiction as a disease.** The main barrier to any type of treatment for persons experiencing homelessness is a lack of stable housing. In addition, drug screens are often required when accessing housing, and employers often require drug screens for employment. Landlords and employers need to accept buprenorphine prescribed as part of a MAT plan as a medical treatment process, and not have it count negatively against a person by including it as a prohibited substance. Addiction needs to be seen as a disease and not a moral failing, and engagement in MATs as a health care intervention should not be a liability to accessing housing or employment.
- **Train all health care disciplines on addiction.** Expanding awareness of addiction and providing substance abuse education for medical students, residents, practicing physicians, and all other health care providers is essential. Curricula which treat substance use conditions similarly to other chronic disorders and provide more adequate basic preparation need to be implemented. In addition, continuing education opportunities to learn about evidence based practices for the treatment of SUDs need to be provided, and programs to support the adoption of MAT, screening, brief intervention and referral to treatment need to be identified and implemented.

## Conclusion

Opioid addiction and subsequent overdose deaths have reached crisis levels in this country. Persons experiencing homelessness are at an even greater risk; homeless persons are more likely to develop a substance use disorder and experience an overdose that results in death. However, opioid addiction is a treatable disease from which people can recover. Medication Assisted Treatment (MAT) is an evidence-based treatment model that helps individuals recover from addiction and improve health and stability. The use of buprenorphine in MAT has been shown to be just as successful for treating persons experiencing homelessness as for their housed counterparts, although challenges to treatment exist. Some of these challenges include limitations on prescribers and caps on the number of patients for whom they can prescribe buprenorphine; high costs, lack of insurance or restrictive insurance requirements to receive treatment; comorbidities with other health conditions; and the reality of homelessness. Numerous policy solutions should be considered to promote access to treatment and recovery, to include eliminating patient caps and expanding prescriber rights; enforcing parity laws within insurance plans; and providing treatment to persons experiencing homelessness that is patient centered, integrated, and takes a harm reduction approach.

## Additional Resources:

- Adapting Your Practice: Recommendations for the Care of Homeless Patients with Opioid Use Disorders: [http://www.nhchc.org/wp-content/uploads/2014/03/hch-opioid-use-disorders\\_adapting-your-practice-final-to-post.pdf](http://www.nhchc.org/wp-content/uploads/2014/03/hch-opioid-use-disorders_adapting-your-practice-final-to-post.pdf).
- Providing Treatment for Homeless People with Substance Use Disorders: Case Studies of Six Programs: <http://www.nhchc.org/wp-content/uploads/2011/09/CA05RCASESTUDIES-FINAL5.pdf>.
- A Treatment Improvement Protocol: Behavioral Health Services for People who are Homeless: <http://store.samhsa.gov/shin/content/SMA13-4734/SMA13-4734.pdf>.

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## References

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<sup>1</sup>Centers for Disease Control and Prevention. (2014, July 1). *Opioid painkiller prescribing: Where you live makes a difference*. Retrieved from: <http://www.cdc.gov/vitalsigns/opioid-prescribing/>

<sup>2</sup>U.S. Department of Health and Human Services. (2016, March 11). *HHS awards \$94 million to health centers to help treat the prescription opioid abuse and heroin epidemic in America* [Press Release]. Retrieved from: <http://www.hhs.gov/about/news/2016/03/11/hhs-awards-94-million-to-health-centers.html>

<sup>3</sup>Hedegaard, H., Chen, L., & Warner, M. (2015). Drug-poisoning deaths involving heroin: United States, 2000-2013. *National Center for Health Statistics Data Brief*. 2015:190,1-8.

<sup>4</sup>Cicero, T.J., Ellis, M.S., Surratt, H.L., & Kurtz, S.P. (2014). The changing face of heroin use in the United States: a retrospective analysis of the past 50 years. *JAMA Psychiatry*. 2014;71(7), 821-826.

<sup>5</sup>Centers for Disease Control and Prevention. (2014). *Number and age-adjusted rates of drug-poisoning deaths involving opioid analgesics and heroin: United States, 2000-2014*. Retrieved from: [http://www.cdc.gov/nchs/data/health\\_policy/AADR\\_drug\\_poisoning\\_involving\\_OA\\_Heroin\\_US\\_2000-2014.pdf](http://www.cdc.gov/nchs/data/health_policy/AADR_drug_poisoning_involving_OA_Heroin_US_2000-2014.pdf)

<sup>6</sup>Ronan, M.V., & Herzig, S. J. (2016). Hospitalizations related to opioid abuse/dependence and associated serious infections increased sharply, 2002-12. *Health Affairs*, No. 5, 832-837.

<sup>7</sup>Crane, E. H. (2015). *The CBHSQ Report: Emergency Department Visits Involving Narcotic Pain Relievers*. Rockville, MD: Substance Abuse and Mental Health Services Administration, Center for Behavioral Health Statistics and Quality. Retrieved from: [http://www.samhsa.gov/data/sites/default/files/report\\_2083/ShortReport-2083.html](http://www.samhsa.gov/data/sites/default/files/report_2083/ShortReport-2083.html)

<sup>8</sup>Baggett, T.P., Hwang, S.W., O'Connell, J.J., Porneala, B.C., Stringfellow, E.J., Orav, E.J., Singer, D.E. & Rigotti, N.A. (2013). Mortality among homeless adults in Boston: Shifts in causes of death over a 15 Year Period. *JAMA Intern Med*. 2013;173(3), 189-195.

<sup>9</sup>U.S. Department of Health and Human Services, Health Resources & Services Administration. (N.D.). *HRSA health center program: Special populations*. Retrieved from: <http://bphc.hrsa.gov/qualityimprovement/supportnetworks/specialpopulations/>



- 
- <sup>10</sup> U.S. Department of Health and Human Services, Health Resources & Services Administration. (N.D.). *2014 health center data: National health care for the homeless program grantee data*. Retrieved from: <http://bphc.hrsa.gov/uds/datacenter.aspx?fd=ho>.
- <sup>11</sup> Boyer, C. F. (2011). *Key elements of integrated care for persons experiencing homelessness: A guide for health care for the homeless providers*. Nashville: National Health Care for the Homeless Council, Inc. Available at: <http://www.nhchc.org/wp-content/uploads/2011/10/Key-Elements-of-Integrated-Care.pdf>.
- <sup>12</sup> Kraybill, K., Zerger, S.(2003). *Providing treatment for homeless people with substance use disorders: Case studies of six programs*. Nashville: National Health Care for the Homeless Council, Inc. Retrieved from: <http://www.nhchc.org/wp-content/uploads/2011/09/CA05RCASESTUDIES-FINAL5.pdf>.
- <sup>13</sup> Kreek, M.J., Levran, O., Reed, B., Schlussman, S.D., Zhou, Y., & Buteleman, E.R. (2012). Opiate addiction and cocaine addiction: Underlying molecular neurobiology and genetics. *The Journal of Clinical Investigations*, 2012 October; 122(1), 3387-3393.
- <sup>14</sup> Substance Abuse and Mental Health Services Administration. (2016, January 7). *Programs & campaigns: Medication-assisted treatment (MAT)*. Retrieved from: <http://www.samhsa.gov/medication-assisted-treatment>.
- <sup>15</sup> Center for Substance Abuse Treatment. (2004). Clinical guidelines for the use of buprenorphine in the treatment of opioid addiction. *Treatment Improvement Protocol (TIP) Series 40. DHHS Publication No. (SMA) 04-3939*. Rockville, MD: Substance Abuse and Mental Health Services Administration.
- <sup>16</sup> Substance Abuse and Mental Health Services Administration. (2015, September 28). *Programs & campaigns: Medication-assisted treatment: Medication and Counseling Treatment: Methadone*. Retrieved from: <http://www.samhsa.gov/medication-assisted-treatment/treatment/methadone>.
- <sup>17</sup> Substance Abuse and Mental Health Services Administration. (2015). Clinical use of extended-release injectable naltrexone in the treatment of opioid use disorder: A brief guide. *HHS Publication No. (SMA) 14-4892R*. Rockville, MD: Substance Abuse and Mental Health Services Administration.
- <sup>18</sup> The American Society of Addiction Medicine. (2013). Advancing access to addiction medications: Implications for opioid addiction treatment. Retrieved from: [http://www.asam.org/docs/default-source/advocacy/aaam\\_implications-for-opioid-addiction-treatment\\_final](http://www.asam.org/docs/default-source/advocacy/aaam_implications-for-opioid-addiction-treatment_final).
- <sup>19</sup> Substance Abuse and Mental Health Services Administration. (2015, September 28). *Programs & campaigns: Medication-assisted treatment: Medication and Counseling Treatment: Buprenorphine*. Retrieved from: <http://www.samhsa.gov/medication-assisted-treatment/treatment/buprenorphine>.
- <sup>20</sup> Mege, D., Zevin, B., Cookson, E., Bascelli, L., Denning, P., Little, J., Doe-Simkins, M., Wheeler, E., Watlov Phillips, S., Bhalla, P., Nance, M., Cobb, G., Tankanow, J., Williamson, J., & Post, P. (Ed.). (2014). *Adapting your practice: Recommendations for the care of homeless patients with opioid use disorders*. 102 pages. Nashville: Health Care for the Homeless Clinicians' Network, National Health Care for the Homeless Council, Inc. Available at: [http://www.nhchc.org/wp-content/uploads/2014/03/hch-opioid-use-disorders\\_adapting-your-practice-final-to-post.pdf](http://www.nhchc.org/wp-content/uploads/2014/03/hch-opioid-use-disorders_adapting-your-practice-final-to-post.pdf).
- <sup>21</sup> Substance Abuse and Mental Health Services Administration, Center for Behavioral Health Statistics and Quality. (2013, January 29). *The DAWN Report: Emergency Department Visits Involving Buprenorphine*. Rockville, MD.
- <sup>22</sup> Alford, D.P., LaBelle, C.T., Richardson, J.M., O'Connell, J.J., Hohl, C.A., Cheng, D.M., & Samet, J.H. (2007). Treating homeless opioid dependent patients with buprenorphine in an office-based setting. *Journal of General Internal Medicine*, 2007 February; 22(2), 171-176.
- <sup>23</sup> Yokell, M.A., Zaller, N.D., Green, T.C., & Rich, J.D. (2011). Buprenorphine and buprenorphine/naloxone diversion, misuse, and illicit use: An international review. *Current Drug Abuse Reviews*, 2011 March 1: 4(1), 28-41.
- <sup>24</sup> Alford, D.P., LaBelle, C.T., Kretsch, N., Bergeron, A., Winter, M., Botticelli, M., & Samet, J.H. (2012). Five year experience with collaborative care of opioid addicted patients using buprenorphine in primary care. *Archives of Internal Medicine*. 2011 March 14: 171(5), 425-431.
- <sup>25</sup> The National Center of Addiction and Substance Abuse. (2000, May). *Missed opportunity: National survey of primary care physicians and patients on substance abuse*. Retrieved from: <http://www.centeronaddiction.org/addiction-research/reports/national-survey-primary-care-physicians-patients-substance-abuse>.
- <sup>26</sup> Dilonardo, J. (2011). *Workforce issues related to: Physical and behavioral healthcare integration, specifically substance use disorders and primary care*. Retrieved from: [http://www.integration.samhsa.gov/clinical-practice/ondcp\\_framework\\_paper.pdf](http://www.integration.samhsa.gov/clinical-practice/ondcp_framework_paper.pdf).
- <sup>27</sup> Logan, D.E., & Marlatt, G. A. (2010). Harm reduction therapy: A practice-friendly review of research. *Journal of Clinical Psychology*, 2010 February; 66(2), 201-214.
- <sup>28</sup> United States. (2010). *National drug control strategy*. Washington, D.C.: Office of National Drug Control Policy, Executive Office of the President.

- 
- <sup>29</sup> The White House, Office of the Press Secretary. (2016). *Fact sheet: President Obama proposed \$1.1 billion in new funding to address the prescription opioid abuse and heroin use epidemic* [Press Release]. Retrieved from: <https://www.whitehouse.gov/the-press-office/2016/02/02/president-obama-proposes-11-billion-new-funding-address-prescription>.
- <sup>30</sup> Centers for Disease Control and Prevention. (2016, March 16). *CDC guidelines for prescribing opioids for chronic pain*. Retrieved from: <http://www.cdc.gov/drugoverdose/prescribing/guideline.html>.
- <sup>31</sup> U.S. Department of Health and Human Services. (2016, March 11). *HHS awards \$94 million to health centers to help treat the prescription opioid abuse and heroin epidemic in America* [Press Release]. Retrieved from: <http://www.hhs.gov/about/news/2016/03/11/hhs-awards-94-million-to-health-centers.html>.
- <sup>32</sup> Comprehensive Addiction and Recovery Act of 2016, S. 524, 114<sup>th</sup> Congress. (2016). Retrieved from: <https://www.govtrack.us/congress/bills/114/s524/text>.
- <sup>33</sup> Recovery Enhancement for Addiction Treatment Act, S. 1455, 114<sup>th</sup> Congress. (2015). Retrieved from: <https://www.govtrack.us/congress/bills/114/s1455/text>.
- <sup>34</sup> Mental Health and Safe Communities Act of 2015, S. 2002, 114<sup>th</sup> Congress. (2015). Retrieved from: <https://www.govtrack.us/congress/bills/114/s2002/text/is>.
- <sup>35</sup> Second Chance Reauthorization Act, S. 1513, 114<sup>th</sup> Congress. (2015). Retrieved from: <https://www.govtrack.us/congress/bills/114/s1513/text/is>.
- <sup>36</sup> Hoback, J. (2016). *Legislators from both sides of the aisle are working together to fight the widespread, deadly abuse of heroin and prescription painkillers*. State Legislatures Magazine, April 2016. Retrieved from: <http://www.ncsl.org/bookstore/state-legislatures-magazine/overdosed-on-opioids.aspx>.
- <sup>37</sup> Townley, C. (2016). Massachusetts becomes first state to pass statewide cap on first-time opioid prescriptions. *National Academy for State Health Policy, State Health Policy Blog*. 2016, March 15. Retrieved from: <http://www.nashp.org/massachusetts-becomes-first-state-to-pass-statewide-cap-on-first-time-opioid-prescriptions/>.
- <sup>38</sup> Townley, C. (2016). New law to curb opioid abuse and diversion passed in Maine, strengthens prescription drug monitoring program. *National Academy for State Health Policy, State Health Policy Blog*. 2016, April 20. Retrieved from: <http://www.nashp.org/new-law-to-curb-opioid-abuse-and-diversion-passed-in-maine-strengthens-prescription-drug-monitoring-program/>.