

Recent modifications to the US methadone treatment system are a Band-Aid—not a solution—to the nation's broken opioid use disorder treatment system

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Abstract

For 5 decades, US federal regulations have segregated methadone treatment for opioid use disorder from the rest of the health care system, confining its availability to specialty treatment programs that are highly regulated. These regulations have led to severe shortages in the availability of methadone and grave underutilization of this lifesaving medication despite a worsening overdose crisis. In this commentary, we discuss current barriers to methadone in the US opioid treatment system and how recent changes to federal regulations fall short of the reforms needed to significantly expand access to this treatment. Instead, we propose the urgent need to expand methadone to mainstream health care settings by allowing for office-based prescribing and pharmacy dispensing of methadone, the norm in many other developed countries.

Key words: methadone; health policy; substance use disorder; disparities; access; opioids; treatment; opioid treatment program; COVID-19.

Danielle always knew she hated driving 45 minutes each way across town to pick up her methadone. The unhelpful resources provided at the clinic made this time feel infinitely wasteful. When COVID changes to methadone regulations allowed her to reduce her clinic visits to once monthly, Danielle enjoyed the newfound freedom and normalcy, a reprieve from the paternalism and surveillance of the constant clinic attendance. She hadn't fully realized just how emotionally draining it was to wake up nearly every morning-for years-to stand in front of staff who looked at her with disgust and condescension as she drank her medication. Unfortunately, freedom from the specter of constant clinic attendance lasted only 6 months. When Danielle's clinic came under new management, her take-homes were rescinded and she was forced to return to a triweekly medication pick-up schedule. No longer willing to sacrifice her own freedom and dignity, Danielle quit the clinic and decided to take the risk of buying drugs on the illicit market instead.

Sadly, the experience of Danielle—one of the authors of this commentary—is not unique. It's been 60 years since groundbreaking clinical trials showed that methadone—a synthetic opioid agonist medication—was highly effective at treating opioid use disorder (OUD). Since then, hundreds of studies worldwide have demonstrated the effectiveness of methadone in reducing illicit drug use and improving a range of health outcomes, including reducing overdose risk by half.^{1,2} But the US regulatory regime that sprung up around this medical innovation could well have been locked away in a 1970's time capsule. For 5 decades, US regulations have isolated methadone treatment for OUD from the rest of the health care system by restricting its availability to specialty clinics known as opioid treatment programs (OTPs). Patients must travel to these clinics near-daily and take medication under the observation of clinic staff, a system often described by patients as "liquid handcuffs."³ The OTP system has led to tremendous stigma and striking racial inequities in OUD treatment access⁴ and has left the majority of people with OUD without access to this life-saving treatment. But despite a worsening tragedy of overdose deaths and health disparities, an entire industry of largely for-profit OTPs, represented by their trade organization the American Association for the Treatment of Opioid Dependence, continues to lobby against regulatory modernization of methadone. While other nations successfully operate more patient-centered and accessible methadone treatment systems through mainstream health care services, OTPs remain the only option for patients seeking methadone in the United States. The difficulty of accessing existing OTPs, along with the administrative burden associated with opening and maintaining new OTPs, has resulted in a disturbingly low uptake of methadone treatment in the United

Received: March 22, 2023; Revised: May 16, 2023; Accepted: May 18, 2023

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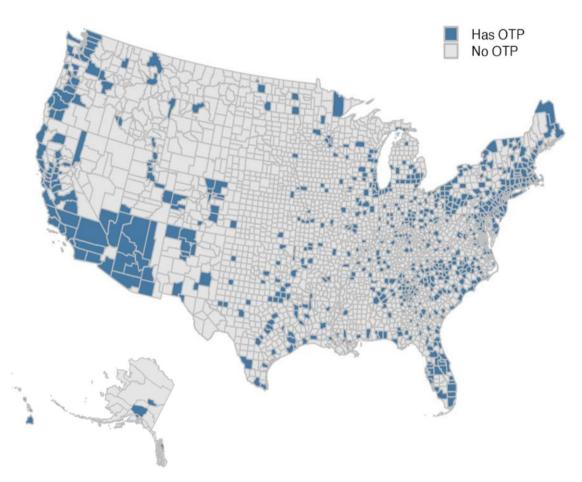


Figure 1. US counties with and without opioid treatment programs (OTPs). Data on OTP locations are derived from the Substance Abuse and Mental Health Services Administration (SAMHSA) Opioid Treatment Directory, 2022 (https://dpt2.samhsa.gov/treatment/directory.aspx; accessed December, 2022).

States: only 20% of counties even have an OTP (Figure 1), and many have patient waitlists due to the scarcity of clinics.^{5,6} As a result, less than 5% of the estimated 7.6 million individuals with OUD receive any methadone treatment.⁷

But, in 2023, the US Substance Abuse and Mental Health Services Administration (SAMHSA) released a new rule for methadone treatment.⁸ This rule follows changes instigated by the COVID-19 pandemic, which compelled federal regulators to loosen restrictions on methadone take-home doses. A large body of research found that pandemic flexibilities in take-home doses did not jeopardize patient safety or treatment outcomes but rather were highly beneficial for patients,⁹ leading to calls to sustain these reforms in the midst of increasing fentanyl-driven overdose deaths.¹⁰ The new rule offers long-overdue modifications, most notably to permanently loosen restrictions on when patients become eligible for takehome medications.

Unfortunately, the proposed changes—while certainly welcomed and needed to alleviate many day-to-day patient burdens within the OTP system—will not suffice to meaningfully increase access to methadone and reduce overdose deaths. This is because the single biggest hurdle to methadone treatment in the United States is the OTP system itself. The new rule does not create an option for patients to receive methadone outside of OTPs and preserves the segregation of methadone treatment for OUD from the rest of the health care system. Research and experiences, such as those of Danielle's, document that, even under loosened federal restrictions on take-home doses during the pandemic, the availability of OTPs remains limited and many continue to exert burdensome requirements.^{9,10} With OTPs as the only provider of methadone for OUD, most patients—particularly those who do not respond to buprenorphine treatment that is available in other care settings—have no choice but to endure such burdens or risk their lives accessing a dangerous illicit drug supply. As OTPs were historically designed for and concentrated in racially minoritized communities,¹¹ already marginalized groups often bear the greatest burden of these oppressive practices.⁴

A true reformation of the US OUD treatment system to save lives will require integration of methadone into our health care system by making it available via prescribing from office-based medical settings and dispensing from pharmacies, which could significantly reduce treatment stigma and burden.¹² This is the norm in other countries, such as Canada, Australia, and the United Kingdom, which make methadone treatment available through a combination of physician prescribing, pharmacy dispensing, and specialty clinics.^{13,14} There is precedent for establishing such a system in the United States, with pilot office-based methadone programs demonstrating initial success and feasibility.¹⁵ Unfortunately, US federal regulations have prevented the wider adoption and implementation of such programs.

The potential of the option of office-based methadone treatment expanding access to care can be seen through the US experience with office-based buprenorphine, which, unlike methadone, has seen significant growth and uptake over the past decade (222% relative to methadone 39%).⁷ While the comparative effectiveness of buprenorphine and methadone remains a matter of debate, it is important to note that research suggests that patients receiving methadone have a heightened risk of mortality in the early weeks of methadone treatment.² Other countries have successfully mitigated such risks, particularly in the early stages of treatment, through policies that allow for a combination of supervised and takehome dosing programs from pharmacies that can be tailored to individual patient circumstances.^{14,16,17}

The idea of federal policies bringing methadone into mainstream medical settings in the United States is not a new or elusive goal. In 2022, the Office of National Drug Control Policy recommended that regulators consider methadone dispensing from pharmacies, and a bipartisan bill endorsed by the American Society of Addiction Medicine (ASAM), the National Alliance for Medication Assisted (NAMA) Recovery, and many others has been introduced by Congress to do so.^{18,19} Even the director of the National Institute on Drug Abuse (NIDA), Dr. Volkow, has stated that physicians should be allowed to prescribe methadone to patients.²⁰ In fact, expanding methadone treatment beyond OTPs in the United States does not even require immediate legislative change, as recent legal research finds that SAMHSA and the Drug Enforcement Administration have full legal authority to immediately expand methadone treatment outside the OTP system through regulation.²¹

Expanding methadone to office-based and pharmacy settings would be a game changer by making this medication more accessible for millions of individuals in a time of heightened risk of overdose from fentanyl. Indeed, patients with OUD with high tolerances due to the fentanyl drug supply have shown to continue to benefit from methadone treatment.²² Two decades of experience with buprenorphine show us how the ability to prescribe this medication in nonspecialty settings has allowed us to significantly expand its uptake across primary care practices, federally qualified health centers, specialty substance use treatment programs, emergency departments, mobile outreach, and harm-reduction programs—greatly expanding access to this life-saving treatment.^{23–26}

Lowering restrictions on methadone could also transform the ability of many institutions that interact with high-risk patients-including jails and prisons, hospitals, and skilled nursing facilities-to offer methadone as an additional treatment tool. For example, current stringent restrictions on methadone create hurdles for offering these medications at skilled nursing facilities, forcing an increasingly aging population with OUD to withdraw from treatment or forego medical care.^{27,28} Similarly, restrictions on methadone have led to low availability of methadone in jails and prisons, often forcing patients to withdraw from methadone while incarcerated, with detrimental and deadly consequences upon release.^{29,30} Changing the way we regulate methadone would be the only way to allow for a true low-threshold and patient-centered care continuum for patients who interact with multiple systems and health care touchpoints.

Danielle and thousands of other patients not being properly served by the US methadone system deserve a more humane, effective, and accessible system of care. Just last year, the United States lost over 100,000 precious lives to overdose. Let's not wait for another round of echoing cries and

Acknowledgments

The authors thank Rafael Charris Dominguez and Victoria Jent for their contributions to the manuscript figure. Dr. Krawczyk was supported by the National Institute on Drug Abuse of the National Institutes of Health under award number K01DA055758. The content is solely the responsibility of the authors and does not necessarily represent the official views of the National Institutes of Health.

Supplementary material

Supplementary material is available at *Health Affairs Scholar* online.

Conflicts of interest

Please see ICMJE form(s) for author conflicts of interest. These have been provided as supplementary materials.

N.K. is involved in ongoing opioid litigation. D.R. accepts payment from Gilead. All authors participate in a grassroots community group known as the National Coalition to Liberate Methadone.

Notes

- Santo T, Clark B, Hickman M, et al. Association of opioid agonist treatment with all-cause mortality and specific causes of death among people with opioid dependence. *JAMA Psychiatry*. 2021;78(9):979–993.
- Sordo L, Barrio G, Bravo MJ, et al. Mortality risk during and after opioid substitution treatment: systematic review and meta-analysis of cohort studies. *BMJ*. 2017;357:j1550.
- Frank D, Mateu-Gelabert P, Perlman D, Walters SM, Curran L, Guarino H. "It's like 'liquid handcuffs": The effects of take-home dosing policies on Methadone Maintenance Treatment (MMT) patients' lives. *Harm Reduction Journal*. 2021; 8(1):1–0.
- 4. Netherland J, Hansen H. White opioids: pharmaceutical race and the war on drugs that wasn't. *Biosocieties*. 2017;12(2):217–238.
- 5. Joudrey PJ, Adams ZM, Bach P, et al. Methadone access for opioid use disorder during the COVID-19 pandemic within the United States and Canada. *JAMA Netw Open.* 2021;4(7):e2118223.
- Gryczynski J, Schwartz R, O'Grady K, Jaffe J. Treatment entry among individuals on a waiting list for methadone maintenance. *Am J Drug Alcohol Abuse*. 2009;35(5):290–294.
- Krawczyk N, Rivera BD, Jent V, Keyes KM, Jones CM, Cerdá M. Has the treatment gap for opioid use disorder narrowed in the U.S.? A yearly assessment from 2010 to 2019. *Int J Drug Policy*. 2022;110:103786.
- Substance Abuse and Mental Health Services Administration (SAMHSA). RIN 0930-AA39: Notice of Proposed Rulemaking to update 42 CFR Part 8: Medications for the Treatment of Opioid Use Disorder [Internet]. Office of the Secretary 42 CFR Part 8 Department of Health and Human Services; 2022. Accessed February 20, 2023. https://public-inspection.federalregister.gov/ 2022-27193.pdf
- 9. Krawczyk N, Rivera BD, Levin E, Dooling BCE. Synthesising evidence of the effects of COVID-19 regulatory changes on methadone

- Simon C, Vincent L, Coulter A, et al. The methadone manifesto: treatment experiences and policy recommendations from methadone patient activists. *Am J Public Health*. 2022;112(S2): S117–S122.
- Goedel WC, Shapiro A, 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.
- Joudrey PJ, Chadi N, Roy P, et al. Pharmacy-based methadone dispensing and drive time to methadone treatment in five states within the United States: a cross-sectional study. *Drug Alcohol Depend*. 2020;211:107968.
- 13. Calcaterra SL, Bach P, Chadi A, et al. Methadone matters: what the United States can learn from the global effort to treat opioid addiction. *J Gen Intern Med*. 2019;34(6):1039–1042.
- Pew Charitable Trusts. International Methadone Models, 2023. Accessed May 20, 2023. https://www.pewtrusts.org/en/researchand-analysis/articles/2023/05/17/how-can-patients-access-methadonein-other-countries?utm_campaign=LM+-+SUPTI+-+Methadone +Factsheets+- +May+2023&cutm_medium=email&cutm_source=Pew&c subscriberkey=0030e00002Q12JMAAZ
- Merrill JO, Jackson TR, Schulman BA, et al. Methadone medical maintenance in primary care. An implementation evaluation. *J Gen Intern Med.* 2005;20(4):344–349.
- Government of British Columbia. Guideline for the Clinical Management of Opioid Use Disorder. Victoria, BC; British Columbia Centre on Substan,ce Use and British Columbia Ministry of Health, 2017. Accessed April 16 2023. https://www. bccsu.ca/wp-content/uploads/2017/06/BC-OUDGuidelines_June2017. pdf.
- 17. Chaar BB, Hanrahan J, Day C. Provision of opioid substitution therapy services in Australian pharmacies. *Australas Med J*. 2011;4(4):210.
- 18. Sens. Markey, Paul and Reps. Norcross, Bacon introduce modernizing opioid treatment access act to reach more Americans suffering from opioid use disorder as annual overdoses surpass 100,000 across U.S. Senator Ed Markey. 2023. Accessed May 14, 2023. https:// www.markey.senate.gov/news/press-releases/sens-markey-paul-an d-reps-norcross-bacon-introduce-modernizing-opioid-treatment-acc ess-act-to-reach-more-americans-suffering-from-opioid-use-disorder -as-annual-overdoses-surpass-100000-across-us
- Senators Markey and Paul introduce bipartisan legislation to modernize, improve methadone treatment amid skyrocketing opioid overdoses and deaths. 2022. Accessed February 22, 2022. https:// www.markey.senate.gov/news/press-releases/senators-markey-and

-paul-introduce-bipartisan-legislation-to-modernize-improve-meth adone-treatment-amid-skyrocketing-opioid-overdoses-and-deaths

- Facher L. Top U.S. addiction researcher calls for broad deregulation of methadone. STAT News, 2022 Nov 16. Accessed April 16, 2023. https://www.statnews.com/2022/11/16/nora-volkow-nida-broadderegulationmethadone/#:~:text=Top%20U.S.%20addiction% 20researcher%20calls%20for%20broad%20deregulation%20of %20methadone&text=BOSTON%20%E2%80%94%20The% 20U.S.%20government's,to%20treat%20opioid%20use%20disorder
- Dooling BCE, Stanley L. Unsupervised use of opioid treatment medications. 2021. Accessed July 24, 2022. https://regulatorystudies. columbian.gwu.edu/unsupervised-use-opioid-treatment-medications
- 22. Stone AC, Carroll JJ, Rich JD, Green TC. Methadone maintenance treatment among patients exposed to illicit fentanyl in Rhode Island: safety, dose, retention, and relapse at 6 months. *Drug Alcohol Depend*. 2018;192:94–97.
- Taylor JL, Wakeman SE, Walley AY, Kehoe LG. Substance use disorder bridge clinics: models, evidence, and future directions. *Addict Sci Clin Pract*. 2023;18(1):23.
- Jakubowski A, Norton BL, Hayes BT, et al. Low-threshold buprenorphine treatment in a syringe services program: program description and outcomes. J Addict Med. 2022;16(4):447–453.
- 25. Whiteside LK, D'Onofrio G, Fiellin DA, et al. Models for implementing emergency department–initiated buprenorphine with referral for ongoing medication treatment at emergency department discharge in diverse academic centers. *Ann Emerg Med.* 2022;80(5): 410–419.
- Barry DT, Moore BA, Pantalon MV, et al. Patient satisfaction with primary care office-based buprenorphine/naloxone treatment. J Gen Intern Med. 2007;22(2):242–245.
- Gregg JL. Dying to access methadone. *Health Aff (Millwood)*. 2019;38(7):1225–1227.
- 28. US Attorney's Office District of Massachusetts. Four skilled nursing facility entities agree to resolve allegations of Americans with Disabilities Act violations. US Attorney's Office District of Massachusetts. 2021 Sep 27. Accessed May 14, 2023. https:// www.justice.gov/usao-ma/pr/four-skilled-nursing-facility-entitiesagree-resolve-allegations-americans-disabilities
- Rich JD, McKenzie M, Larney S, et al. Methadone continuation versus forced withdrawal on incarceration in a combined US prison and jail: a randomised, open-label trial. *Lancet*. 2015;386(9991): 350–359.
- 30. Maradiaga JA, Nahvi S, Cunningham CO, Sanchez J, Fox AD. I kicked the hard way. I got incarcerated." Withdrawal from methadone during incarceration and subsequent aversion to medication assisted treatments. J Subst Abuse Treat. 2016;62: 49–54.