

## COMMENTARY

### Improving methadone access for rural communities in the USA: lessons learned from COVID-19 adaptations and international models of care

#### AUTHORS



Jamey J Lister<sup>1</sup> PhD, Assistant Professor \*



Holly H Lister<sup>2</sup> PhD, Clinical Psychologist

#### CORRESPONDENCE

\*Asst Prof Jamey J Lister [jlister@ssw.rutgers.edu](mailto:jlister@ssw.rutgers.edu)

#### AFFILIATIONS

<sup>1</sup> School of Social Work, Rutgers, The State University of New Jersey, 120 Albany Street, Tower One - Suite 200, New Brunswick, NJ 08901, USA

<sup>2</sup> Behavioral Research and Training Institute, Rutgers University Behavioral Health Care, 151 Centennial Avenue, Piscataway, NJ 08854, USA

#### PUBLISHED

10 November 2021 Volume 21 Issue 4

#### HISTORY

RECEIVED: 21 March 2021

REVISED: 17 August 2021

ACCEPTED: 16 September 2021

#### CITATION

Lister JJ, Lister HH. Improving methadone access for rural communities in the USA: lessons learned from COVID-19 adaptations and international models of care. *Rural and Remote Health* 2021; 21: 6770. <https://doi.org/10.22605/RRH6770>

#### ETHICS APPROVAL

This commentary did not involve research procedures or human subjects and therefore did not require approval from the university's Institutional Review Board.

This work is licensed under a [Creative Commons Attribution 4.0 International Licence](https://creativecommons.org/licenses/by/4.0/)

## ABSTRACT:

**Context:** The COVID-19 pandemic led to several changes to methadone treatment protocols at federal opioid treatment programs in the USA.

**Issue:** Protocol changes were designed to reduce transmission of COVID-19 while allowing for continuity of care, but those changes

also demonstrated that many policies surrounding opioid use disorder care in the USA cause unnecessary burdens to patients. In this commentary, we describe how current policies create and maintain fatal barriers to methadone treatment for people in rural communities who have opioid use disorder, and highlight how

COVID-19 adaptations and more flexible methadone models in other countries can better allow for effective and accessible care. Reasons and ways to address these issues to create lasting solutions for rural communities are discussed.

**Lessons learned:** We focus on three lessons: (1) methadone dispensing and take-home schedules during COVID-19, (2) telehealth services during COVID-19, and (3) international models in use prior to COVID-19. We then outline recommendations for each lesson to improve access to methadone treatment long term for rural communities in the USA. There is an urgent need to

**Keywords:**

COVID-19, methadone, opioid use disorder, treatment access, USA.

## FULL ARTICLE:

### Context

People in rural communities who have opioid use disorder experience significant barriers to methadone treatment in the USA. These barriers are due in part to stringent protocols at federally regulated opioid treatment programs (OTPs). The COVID-19 pandemic necessitated a range of adaptations to methadone protocols to ensure that patients were able to continue receiving services while reducing risk of infectious disease transmission<sup>1</sup>. These adaptations, particularly to requirements for in-person visits, provide an opportunity to reconsider the assumptions and policies surrounding methadone treatment in the USA<sup>2</sup>. These requirements and other methadone regulations are particularly burdensome compared to requirements in countries experiencing similar opioid epidemics (eg Australia, Canada and the UK)<sup>3</sup>. As a result, there is a substantial shortage of accessible OTPs where rural residents in the USA can receive methadone treatment<sup>4</sup>.

Currently, methadone treatment in the USA is delivered only at federally certified OTPs. However, just 4% of OTPs are located in rural areas<sup>3</sup>. Using one state as an example, research by the first author (JL) identified three OTPs in Michigan's 57 rural counties, compared to 39 OTPs in the state's 26 urban counties<sup>5</sup>. Barriers to accessing methadone are particularly prominent for residents of Michigan's Upper Peninsula, a remote rural area, with drive times to the nearest OTP of 2–10 hours<sup>6</sup>. This distance creates an implausible situation, both in rural residents' ability to initially access methadone and to stay in treatment while being stabilized and maintained on methadone. As illustration, one risk factor for treatment dropout at an urban OTP in Michigan was residing more than 8 km (5 mi) from the clinic<sup>7</sup>, suggesting that residing several hours away would present an even greater risk for treatment dropout.

In addition to access barriers, stigma about methadone treatment has been challenging independent of the COVID-19 pandemic. People with opioid use disorder experience significant stigma related to seeking and engaging in methadone treatment from friends, family and healthcare providers, as well as from peers with opioid use disorder who have negative perceptions of methadone<sup>8</sup>. This stigma is then systematically reinforced by policies that limit access to care.

implement recommendations that maintain flexible approaches and address methadone treatment barriers in the rural USA. To achieve lasting health policy change and combat stigma about addiction and methadone treatment, there is a need for advocacy efforts that give voice to rural residents impacted by inequitable access to methadone treatment and rural-tailored educational initiatives that promote the evidence base for methadone. We hope opioid treatment program directors, regulatory authorities, and health policymakers consider our recommendations.

To address these concerns, this commentary focuses on improving access to methadone by outlining ways to sustain COVID-19 adaptations beyond the pandemic. We also use lessons learned from international models to guide recommendations for improving access to methadone for rural communities in the USA long term. We focus on methadone expansion in the rural USA specifically, given the literature has largely ignored the value of methadone treatment in the rural USA, focusing almost exclusively on buprenorphine expansion<sup>4</sup>. Furthermore, we direct this commentary to changes needed for the treatment system in the USA because there are significant differences between the healthcare system in the USA and those of other nations. This commentary is urgently needed to promote rural health equity in the USA.

### Issue

Given extensive barriers to methadone access, medication treatment expansion efforts in the USA have championed buprenorphine, another evidence-based medication used to treat opioid use disorder<sup>9</sup>. While buprenorphine has expanded access for rural residents<sup>10</sup>, similar gaps in buprenorphine treatment exist and persist in rural communities<sup>11</sup>. Although the Biden administration recently modified buprenorphine practice guidelines in an effort to increase medication treatment access, guidelines remain complex and require practitioners to earn a waiver, limit the number of patients that they see, and necessitate non-physician practitioners to conduct care under the supervision or collaboration of a licensed physician<sup>12</sup>. Thus, the significance of the impact of these new guidelines on medication treatment access is unclear, considering many rural practitioners are hesitant to deliver buprenorphine based on negative attitudes about addiction, concerns about diversion, and time and staffing constraints<sup>4</sup>, none of which are directly mitigated by the new practice guidelines. Furthermore, we contend that people living in rural communities of the USA should have the ability to choose methadone over buprenorphine as a healthcare right, even if buprenorphine expansion alone were sufficient. This would parallel standards observed in Scotland<sup>13</sup>, a country experiencing an opioid epidemic similar to that in the USA.

The lack of medications available in the rural USA to treat opioid use disorder is an urgent public health issue given that, prior to the

pandemic, rural overdose deaths were continuing to increase<sup>14</sup>. During the COVID-19 pandemic, rates of substance use and overdose have risen<sup>15,16</sup>, coupled with rural health crises of overburdened health care systems, COVID-related deaths, and diminished economic opportunities<sup>17</sup>. To address this issue, we describe three lessons learned from COVID-19 adaptations and international models of care in use prior to the pandemic. We then provide three recommendations as long-term strategies to improve methadone access for rural communities in the USA based on lessons learned. While maintaining these adaptations holds similar value for patients facing socioeconomic disadvantage and related travel burdens in urban areas of the USA, for the purpose of this commentary we focus on the longstanding barriers that rural populations in the USA have faced when accessing methadone treatment.

## Lessons learned

**1. Methadone dispensing and take-home schedules during COVID-19:** Prior to the pandemic, methadone was dispensed onsite at OTPs, and take-home doses were allowed only after a sustained period of abstinence. During the COVID-19 pandemic, doses were allowed for pick-up by a 'trustworthy, patient-designated, uninfected member of the household'<sup>18</sup>. Similarly, take-home schedules were afforded greater flexibility by federal guidelines, with clinics able to request waivers for 28-day take-homes for patients deemed 'stable' and 14-day take-homes for those deemed 'less stable' but able to handle and store take-home doses safely<sup>1</sup>. These take-home schedules represent a significant adaptation, as patients were previously required to maintain abstinence for several years before receiving similar flexibilities. Not surprisingly, the number of take-home doses increased during the COVID-19 pandemic and, contrary to concerns about diversion, few patients sold their take-home doses<sup>19</sup>. It should be noted, however, that the possibility for diversion may increase if methadone becomes more widely available as in countries of the UK<sup>20</sup>.

**2. Telehealth services during COVID-19:** Prior to the COVID-19 pandemic, OTPs were allowed to conduct individual, group and medication management sessions via telehealth<sup>2</sup>; however, remote sessions became more commonplace during the pandemic<sup>21</sup>. Televisits, whether for medication management or for psychiatric and therapy visits, are a promising and low-risk adaptation for rural patients given their feasibility, acceptability and cost-effectiveness<sup>22,23</sup>. In addition, clinics sought to reduce in-person visits by adapting urine drug testing approaches<sup>24</sup>. While offsite urine drug testing and reduced frequency of required tests were both allowable before the COVID-19 pandemic, these strategies were prioritized during the pandemic<sup>25</sup>.

**3. International models in use prior to the COVID-19 pandemic:** In addition to COVID-19 adaptations, lessons can be learned from pre-COVID models of methadone treatment in other countries experiencing opioid epidemics similar to that in the USA<sup>26</sup>. We focus on those in use in Australia, the UK and Canada. In Australia, methadone is initially dispensed at specialty clinics as it is in the USA, but thereafter the medication can be accessed at

local pharmacies using a prescription from the overseeing medical provider. This model has been highlighted as increasing access for rural communities<sup>27</sup>. In the UK, methadone is prescribed by a substance misuse specialist, who then oversees induction and stabilization on the medication. In contrast to the USA, the patient's methadone prescription and clinical care can thereafter be transitioned to a general practitioner, and the patient's methadone is eligible for dispensing at pharmacies<sup>3</sup>. In Canada, methadone can be dispensed by accredited pharmacies for daily dosing following a prescription from a physician; the medication can also be dispensed by a physician, their delegate or in a clinic<sup>28</sup>.

## Recommendations

**1. Create flexible methadone dispensing and take-home schedules for rural patients:** We recommend OTPs continue to identify ways to dispense and deliver methadone with greater flexibility. This includes continuing to allow trusted members of a patient's network to pick up doses for reasons other than infectious disease control. We also suggest policy changes that allow for methadone dispensing at pharmacies and primary care clinics. Until those policy changes occur, we encourage OTPs to maintain the increased number of take-home doses for patients traveling from rural areas, using federal<sup>29</sup> or state definitions of rurality. This flexibility alone has the potential to make methadone a more realistic and sustainable treatment option for rural populations, as it reduces travel hours and out-of-pocket expenses – factors that drastically improve the ability for rural patients to stay in treatment. In the instance that studies demonstrate that greater dispensing flexibility post-pandemic leads to greater diversion, home delivery and supervised administration of methadone doses could increase access for rural populations while mitigating diversion.

**2. Enable and reimburse telehealth services for rural patients:** We recommend that, until methadone can be dispensed at locations other than OTPs, telemedicine sessions should be used after in-person inductions to methadone. Further, we recommend that telehealth be continued for psychiatric and therapy visits to reduce both in-person visits and stigma-related barriers, including concerns about being seen attending treatment. Barriers related to social determinants (eg transportation, time away from work) and stigma about visiting addiction treatment clinics were common obstacles observed by the second author (HL) while providing health services to rural patients in primary care settings prior to the pandemic. We also advise allowing and reimbursing telehealth visits by phone, at comparable rates to video sessions when patients from rural areas are unable to access private, video-enabled devices. We encourage OTPs increasingly to look to smartphones to deliver telehealth given the inequitable access to personal computers and private Wi-Fi among lower socioeconomic and rural populations. When rural patients do have video-enabled devices, OTPs should consider using barcoded oral swabs observed remotely instead of in-person urine drug tests. Last, given that rural patients come from scattered rural areas, OTPs should serve as 'hubs' and identify partner agencies in rural 'spoke' communities that can serve as centralized and proximal locations for telemedicine visits.

### 3. Adapt protocols in line with international models in use prior to COVID-19 to expand access for rural patients:

Previously described international models of care use similar approaches as the USA during the early phases of methadone induction. Thus, we recommend that models in the USA continue to require in-person visits during methadone induction at OTPs. However, we recommend that after induction rural patients be allowed to receive their methadone dose at primary care clinics or pharmacies while maintaining telemedicine sessions with their overseeing provider at the OTP. Once stabilization is achieved, we recommend allowing increased take-home doses for pick-up at pharmacies, while transitioning care to rural-located prescribing providers (physicians, physician assistants and nurse practitioners) qualified to prescribe medication treatment. Both of these adaptations should increase access given that there are considerably more pharmacies and primary care clinics than there are OTPs in rural areas<sup>30,31</sup>. While this model shares elements of each of the international approaches, it most closely aligns with components of models used in the nations of the UK<sup>32</sup>. For example, in Scotland<sup>13</sup>, community pharmacies dispense and supervise methadone after induction at opioid-specialty clinics. While their model also allows induction of methadone in primary care, we believe an innovative yet more conservative adaptation in the USA, wherein induction takes place at OTPs but subsequent dispensing can occur at primary care and community pharmacies, may be resisted less by stakeholders concerned about diversion or loss of reimbursement for care

historically initiated at OTPs.

### Conclusion

There is an urgent need to identify rural-specific strategies to expand access to methadone treatment for opioid use disorder in the USA. Lessons learned from COVID-19 adaptations and international models provide a roadmap for improving access to methadone, a historically underutilized treatment for rural populations in the USA. Enacting the above-outlined recommendations beyond the pandemic will require policy change, initiated by advocacy efforts that amplify the perspectives of rural residents impacted by barriers to methadone treatment for opioid use disorder. Long-term changes will also benefit from educational and training initiatives tailored to community members and providers in the rural USA that promote the evidence base for methadone, and actively combat stigma about addiction and seeking treatment. Future studies should evaluate how these innovative models of care influence access and outcomes of methadone treatment for rural populations in the USA. We hope OTPs, treatment and regulatory authorities, and federal agencies guiding methadone policies, strongly consider these recommendations.

### Acknowledgements

We thank Joseph Urbiel and Katrina BeShears for their input on federal guidance to opioid treatment programs during COVID-19.

## REFERENCES:

- 1 Substance Abuse and Mental Health Services Administration. *Opioid treatment program (OTP) guidance*. 2020. Available: [web link](#) (Accessed 20 March 2021).
- 2 Substance Abuse and Mental Health Services Administration. *Federal guidelines for opioid treatment programs*. HHS Publication No. (SMA) PEP15-FEDGUIDEOTP. Rockville, MD: Substance Abuse and Mental Health Services Administration, 2015.
- 3 Calcaterra SL, Bach P, Chadi A, Chadi N, Kimmel SD, Morford KL, et al. Methadone matters: what the United States can learn from the global effort to treat opioid addiction. *Journal of General Internal Medicine* 2019; **34(6)**: 1039-1042. DOI link, PMID:30729416
- 4 Lister JJ, Weaver A, Ellis JD, Himle JA, Ledgerwood DM. A systematic review of rural-specific barriers to medication treatment for opioid use disorder in the United States. *The American Journal of Drug and Alcohol Abuse* 2020; **46(3)**: 273-288. DOI link, PMID:31809217
- 5 Lister JJ, Weaver A, Ellis JD, Molfenter T, Ledgerwood DM, Himle JA. Shortages of medication-assisted treatment for opioid use disorder in underserved Michigan counties: examining the influence of urbanicity and income level. *Journal of Health Care for the Poor and Underserved* 2020; **31(3)**: 1291-1307. DOI link, PMID:33416695
- 6 Lister JJ. *The opioid crisis is at its worst in rural areas. Can telemedicine help?* 2017. Available: [web link](#) (Accessed 20 March 2021).
- 7 Lister JJ, Greenwald MK, Ledgerwood DM. Baseline risk factors for drug use among African-American patients during first-month induction/stabilization on methadone. *Journal of Substance Abuse Treatment* 2017; **78**: 15-21. DOI link, PMID:28554598
- 8 Earnshaw V, Smith L, Copenhaver M. Drug addiction stigma in the context of methadone maintenance therapy: an investigation into understudied sources of stigma. *International Journal of Mental Health and Addiction* 2013; **11(1)**: 110-122. DOI link, PMID:23956702
- 9 Wakeman SE, Laroche MR, Ameli O, Chaisson CE, McPheeters JT, Crown WH, et al. Comparative effectiveness of different treatment pathways for opioid use disorder. *JAMA Network Open* 2020; **3(2)**: e1920622-e1920622. DOI link, PMID:32022884
- 10 Sigmon SC. Access to treatment for opioid dependence in rural America: challenges and future directions. *JAMA Psychiatry* 2014; **71(4)**: 359-360. DOI link, PMID:24500040
- 11 Dick AW, Pacula RL, Gordon AJ, Sorbero M, Burns RM, Leslie DL, et al. Increasing potential access to opioid agonist treatment in US treatment shortage areas. *Health Affairs* 2015; **34(6)**: 1028-1034. DOI link, PMID:26056209
- 12 US Department of Health and Human Services. *HHS releases new buprenorphine practice guidelines, expanding access to treatment for opioid use disorder*. 2021. Available: [web link](#) (Accessed 16 August 2021).
- 13 The Scottish Government. *Medication assisted treatment (MAT)*

standards: access, choice, support. 2021. Available: [web link](#) (Accessed 16 August 2021).

**14** Hedegaard H, Miniño AM, Warner M. *Urban-rural differences in drug overdose death rates, by sex, age, and type of drugs involved, 2017*. NCHS data brief, no. 345. Hyattsville, MD: National Center for Health Statistics, 2019.

**15** Czeisler MÉ, Lane RI, Petrosky E, Wiley JF, Christensen A, Njai R, et al. Mental health, substance use, and suicidal ideation during the COVID-19 pandemic – United States, June 24–30, 2020. *Morbidity and Mortality Weekly Report* 2020; **69(32)**: 1049-1057. DOI link, PMID:32790653

**16** Slavova S, Rock P, Bush HM, Quesinberry D, Walsh SL. Signal of increased opioid overdose during COVID-19 from emergency medical services data. *Drug and Alcohol Dependence* 2020; **214**: 108176. DOI link, PMID:32717504

**17** Mueller JT, McConnell K, Burow PB, Pofahl K, Merdjanoff AA, Farrell J. Impacts of the COVID-19 pandemic on rural America. *Proceedings of the National Academy of Sciences* 2021; **118(1)**: 2019378118. DOI link, PMID:33328335

**18** Substance Abuse and Mental Health Services Administration. *OTP guidance for patients quarantined at home with the coronavirus*. 2020. Available: [web link](#) (Accessed 20 March 2021).

**19** Figgatt MC, Salazar Z, 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. DOI link, PMID:33612201

**20** van Amsterdam J, van den Brink W, Pierce M. Explaining the differences in opioid overdose deaths between Scotland and England/Wales: implications for European opioid policies. *European Addiction Research* 2021; **27**: 399-412. DOI link, PMID:33965949

**21** Hughto JM, Peterson L, Perry NS, Donoyan A, Mimiaga MJ, Nelson KM, et al. The provision of counseling to patients receiving medications for opioid use disorder: telehealth innovations and challenges in the age of COVID-19. *Journal of Substance Abuse Treatment* 2021; **120**: 108163. DOI link, PMID:33298301

**22** Ho C, Argaez C. *Telehealth-delivered opioid agonist therapy for the treatment of adults with opioid use disorder: review of clinical effectiveness, cost-effectiveness, and guidelines*. Ottawa, ON:

Canadian Agency for Drugs and Technologies in Health (CADTH), 2018.

**23** Morin KA, Parrotta MD, Eibl JK, Marsh DC. A retrospective cohort study comparing in-person and telemedicine-based opioid agonist treatment in Ontario, Canada, using administrative health data. *European Addiction Research* 2021; **27**: 268-276. DOI link, PMID:33706309

**24** Pytell JD, Rastegar DA. Down the drain: reconsidering routine urine drug testing during the COVID-19 pandemic. *Journal of Substance Abuse Treatment* 2021; **120**: 108155. DOI link, PMID:33298297

**25** American Society of Addiction Medicine. *Caring for patients during the COVID-19 pandemic: adjusting drug testing protocols*. 2020. Available: [web link](#) (Accessed 20 March 2021).

**26** Digital Health Interventions in Addiction Services. *Seminar delivering medication assisted treatment for addictions via telehealth*. 2021. Available: [web link](#) (Accessed 16 August 2021).

**27** Chaar BB, Hanrahan JR, Day C. Provision of opioid substitution therapy services in Australian pharmacies. *The Australasian Medical Journal* 2011; **4(4)**: 210. DOI link, PMID:23393513

**28** College of Physicians and Surgeons of Ontario Methadone Program. *Methadone maintenance treatment program standards and clinical guidelines*. Toronto: College of Physicians and Surgeons of Ontario, 2011.

**29** Health Services & Resource Administration. *Defining rural population*. Available: [web link](#) (Accessed 16 August 2021).

**30** Joudrey PJ, Chadi N, Roy P, Morford KL, Bach P, Kimmel S, et al. Pharmacy-based methadone dispensing and drive time to methadone treatment in five states within the United States: a cross-sectional study. *Drug and Alcohol Dependence* 2020; **211**: 107968. DOI link, PMID:32268248

**31** Samet JH, Botticelli M, Bharel M. Methadone in primary care – one small step for Congress, one giant leap for addiction treatment. *New England Journal of Medicine* 2018; **379(1)**: 7-8. DOI link, PMID:29972744

**32** Clinical Guidelines on Drug Misuse Dependence Update 2017 Independent Expert Working Group. *Drug misuse and dependence: UK guidelines on clinical management*. London: Department of Health, 2017.