



Since January 2020 Elsevier has created a COVID-19 resource centre with free information in English and Mandarin on the novel coronavirus COVID-19. The COVID-19 resource centre is hosted on Elsevier Connect, the company's public news and information website.

Elsevier hereby grants permission to make all its COVID-19-related research that is available on the COVID-19 resource centre - including this research content - immediately available in PubMed Central and other publicly funded repositories, such as the WHO COVID database with rights for unrestricted research re-use and analyses in any form or by any means with acknowledgement of the original source. These permissions are granted for free by Elsevier for as long as the COVID-19 resource centre remains active.



COVID-19 innovations in medication for addiction treatment at a Skid Row syringe exchange

Rolando Tringale^a, Andrew M. Subica^{b,*}

^a Homeless Health Care Los Angeles, Los Angeles, CA, United States of America

^b University of California, Riverside School of Medicine, United States of America

ARTICLE INFO

Keywords:

Syringe exchange
Medication-assisted treatment
Homelessness
COVID-19

ABSTRACT

Syringe exchange patients in Los Angeles' Skid Row endure conditions such as deep poverty, polysubstance use, underlying health problems, and living on the streets or in homeless encampments/shelters that make them uniquely vulnerable to acquiring and dying from COVID-19. In this commentary, we discuss two essential changes that Homeless Health Care Los Angeles (HHCLA) made to modify existing medication for addiction treatment (MAT) services to address the specific treatment needs of this high-risk population during COVID-19. First, HHCLA implemented a novel "telephone booth" model that allowed socially distanced on-site "face-to-face" treatment of syringe exchange patients; this model helped us to overcome the inherent challenges of using traditional telemedicine approaches (e.g., video, mobile telephone) with this disadvantaged patient population. Second, HHCLA transitioned from on-site direct dispensing of MAT medications in our providers' offices to a less contact- and time-intensive "coordinated pharmacy" model that allowed patients the freedom to obtain MAT medications off-site from participating pharmacies. Our data indicate that implementing these COVID-19-related changes effectively maintained patient enrollment and engagement in MAT—illuminating new, potentially effective models for delivering MAT that meet the critical health and safety needs of syringe exchange patients following COVID-19.

COVID-19 poses a grave health threat to persons experiencing homelessness (Tsai & Wilson, 2020; Lima et al., 2020), who bear numerous risk factors for COVID-19 infection and mortality, including unsheltered congregate living (e.g., shelters, encampments), poor access to hygiene and health care facilities, and high prevalence of substance use disorders and underlying health conditions (Lima et al., 2020; Wood et al., 2020). For persons using syringe exchanges in Los Angeles' Skid Row—most of whom are unsheltered—their COVID-19 risk is compounded by additional factors, including high rates of polysubstance use; serious mental illness; recent incarceration; and weakened immune systems resulting from HIV, Hepatitis C, and other injection drug-related infections. It is in this context that Homeless Health Care Los Angeles (HHCLA) clinicians and staff were faced with the unprecedented challenge of adapting current medication for addiction treatment (MAT) services to ensure treatment continuity for persons who use syringe exchanges in Skid Row during the COVID-19 pandemic.

Pre-pandemic, clinicians primarily delivered MAT services at HHCLA (Tringale et al., 2020) face-to-face to enrolled patients of syringe

exchanges using a direct dispensing model that required patients to receive, and often consume, MAT medications (i.e., buprenorphine) on-site in front of staff to (1) bolster engagement among first-time patients hesitant to stop using opioids; (2) prevent diversion; and (3) avoid medication gaps, which can lead to relapse, overdose, and death. Accordingly, COVID-19 forced us to rethink our entire service delivery strategy to protect vulnerable patients and staff from exposure using social distancing.

Within the emerging literature, MAT providers treating other opioid-using populations have responded to COVID-19 by employing telemedicine approaches that utilize videoconferencing or mobile phones to deliver MAT through outreach workers/addiction specialists (Dunlop et al., 2020; Harris et al., 2020; Leppa & Gross, 2020; Samuels et al., 2020). But for persons living on Skid Row, we deemed telemedicine approaches infeasible due to difficulties in accessing and retaining these technologies (e.g., phone, computer access) on the streets.

Consequently, to ensure continuity of care and social distancing, we devised two novel changes to HHCLA's syringe exchange. First, we

* Corresponding author at: University of California Riverside, Department of Social Medicine, Population, and Public Health, School of Medicine, 900 University Ave, Riverside, CA 92521, United States of America.

E-mail address: subica@gmail.com (A.M. Subica).

<https://doi.org/10.1016/j.jsat.2020.108181>

Received 14 June 2020; Received in revised form 11 August 2020; Accepted 13 October 2020

Available online 21 October 2020

0740-5472/© 2020 Elsevier Inc. All rights reserved.

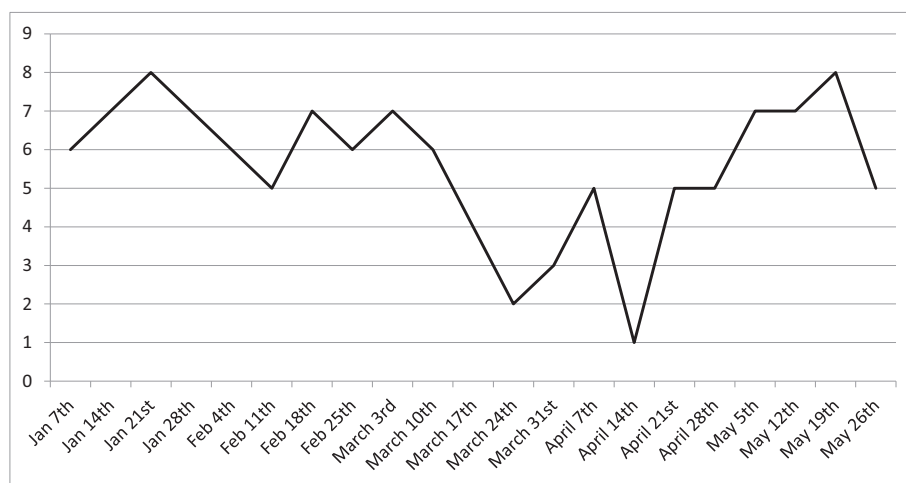


Fig. 1. Unique patient visits per week to the Skid Row medication-assisted treatment program.

developed an innovative on-site “telephone booth” model that emulated the COVID-19 telemedicine-enabled social distancing that other MAT providers have used (Dunlop et al., 2020; Harris et al., 2020; Samuels et al., 2020), while accommodating the unique needs of patients of syringe exchanges experiencing homelessness. To our surprise, these needs included increased requests for MAT services to prevent withdrawal symptoms that COVID-19-related disruptions caused to Los Angeles’ opioid black market. In this new model, patients are directed to enter one of two privacy-frosted glass telephone booths—which staff sanitize before and after each patient visit—situated near the main entry of HHCLA. Each booth contains a desk, chair, computer, and telephone to communicate with an on-site physician and counselor/social worker during their visit; we used this procedure to protect patients and staff from viral transmission while facilitating the close contact, safety, and relationship-building necessary to attract and retain patients using syringe exchanges in MAT.

The success of this syringe exchange-tailored MAT delivery model is displayed in Fig. 1. Specifically, from January to March 12, before California’s COVID-19 shelter-in-place order, our twice-weekly MAT program served approximately 5–8 patients per week (44% were unique patients from January 7–March 12). After COVID-19 shelter-in-place began, patient demand, new intakes, and MAT utilization dramatically decreased in March and April to a low of 1 patient per week. But as patients and staff became accustomed to the “booth,” patient demand and intakes surged back to pre-pandemic levels in May (69% were unique patients from March 17–May 28) despite reducing MAT services to once per week. Therefore, HHCLA data indicate that this model effectively supported MAT delivery during COVID-19.

The second COVID-19-related change involved transitioning from on-site direct dispensing of buprenorphine to a “coordinated pharmacy” model. Previously, HHCLA perceived direct dispensing as essential to delivering effective MAT because it eliminated patients’ time needed to fill buprenorphine from a pharmacy—which could increase likelihood for noncompliance—and helped them to avoid pharmacies’ standard dispensing barriers (e.g., requiring current identification cards, insurance). But due to COVID-19, we created a “coordinated pharmacy” option in which HHCLA contracted workarounds with pharmacies within a 5-block radius to provide buprenorphine to HHCLA-referred patients who lacked current identification cards or insurance. Social workers and substance use counselors coordinated this option; they referred patients to the pharmacies, monitored urine drug tests, responded to pharmacy requests for identification when patients picked up their prescriptions, and could review the CURES (Controlled Substance Utilization Review and Evaluation System) database to monitor appropriate prescribing as needed (e.g., maximum two-weeks medication per prescription).

To illustrate the drastic shift in dispensing models, 86% of patients in February received buprenorphine through direct dispensing. By April and May, 89% of patients received buprenorphine through coordinated pharmacies—confirming the feasibility and acceptability of using a socially distanced “coordinated pharmacy” model to engage and retain patients in MAT.

For the field of substance use treatment, our success in implementing these innovative MAT delivery models to meet the complex needs of patients in the COVID-19 era has several implications for enhancing MAT delivery to syringe exchange and other high-risk, hard-to-reach populations. The “telephone booth” model demonstrated utility in facilitating social distancing while maintaining patients’ familiarity, comfort, and physical contact with the syringe exchange; this suggests that this approach may be scalable to other social, medical, and psychological programs with patients who require privacy but lack mobile phone/telemedicine access. We anticipate benefits of selectively continuing this model after social distancing restrictions are lifted to be reduced staff contact with potentially contagious patients with tuberculosis and other viral illnesses, and reduced risk among immunocompromised patients in acquiring infectious diseases during MAT treatment. HHCLA has permanently transitioned to a blended approach to dispensing buprenorphine, combining direct dispensing and coordinated pharmacy options, as patients have responded well to the freedoms that obtaining medications through coordinated pharmacies affords them. “Coordinated pharmacy” models may be scalable to other medical programs serving hard-to-reach patients with disabilities, experiencing homelessness, or lacking identification cards in need of services to fill prescriptions.

Due to COVID-19’s recency, our sample size and data regarding the long-term durability of these changes are limiting; these limits necessitate additional longitudinal research. One practical limitation of the “coordinated pharmacy” model is that we had to ensure that MAT patients picked up their prescriptions off-site as they previously received prescriptions directly on-site. Further research is needed to examine whether our model (1) differs from other COVID-19 pharmacy-based models, and (2) possesses similar efficacy to direct dispensing in attracting and retaining MAT patients. At the same time, we believe a blended approach represents the future of MAT services at HHCLA and other syringe exchange sites, as it offers patients more choices for receiving MAT while decreasing the workload and regulatory burden on direct dispensing programs and providers.

Persons who use syringe exchanges are highly vulnerable to COVID-19 infection (Tsai & Wilson, 2020), rendering it vital to design treatment services that address their urgent substance use needs while minimizing infection risk. For HHCLA, this crisis has played a significant role in

driving the implementation of beneficial changes to our MAT services that were newly innovated (telephone booth) or previously not enacted (coordinated pharmacies). We anticipate that these changes will endure, potentially providing the field of substance use with impactful models for delivering safe, cost-effective MAT services to persons who use syringe exchanges in the post-COVID-19 environment.

Acknowledgements

We would like to thank Mark Casanova, Director of Homeless Health Care Los Angeles, for his leadership and support of our syringe exchange and medication-assisted treatment programs, including the COVID-19 adaptations reported here. We would also like to thank Elena Besbris and Sylvia Meza for making this work possible through their hard work and effort in these programs.

Role of funding source

Dr. Subica's work was supported by funding from the National Institute on Drug Abuse (R34 DA049989), National Institute on Alcohol Abuse and Alcoholism (R21 AA026689), and the City of Hope (KL2 Impact Career Development Award). The content is solely the responsibility of the authors and does not represent the official views of the National Institute on Drug Abuse, National Institute of Alcohol

Abuse and Alcoholism, City of Hope, or any other funding entities.

References

- Dunlop, A., Lokuge, B., Masters, D., et al. (2020). Challenges in maintaining treatment services for people who use drugs during the COVID-19 pandemic. *Harm Reduction Journal*, 17(1). <https://doi.org/10.1186/s12954-020-00370-7>.
- Harris, M., Johnson, S., Mackin, S., Saitz, R., Walley, A. Y., & Taylor, J. L. (2020). Low barrier tele-buprenorphine in the time of COVID-19: A case report. *Journal of Addiction Medicine*, 14(4), e136–e138.
- Leppla, I. E., & Gross, M. S. (2020). Optimizing medication treatment of opioid use disorder during COVID-19 (SARS-CoV-2). *Journal of Addiction Medicine*. <https://doi.org/10.1097/ADM.0000000000000678>.
- Lima, N. N. R., de Souza, R. I., Feitosa, P. W. G., Moreira, J. L.d. S., da Silva, C. G. L., & MLR, N. (2020). People experiencing homelessness: Their potential exposure to COVID-19. *Psychiatry Research*, 288. <https://doi.org/10.1016/j.psychres.2020.112945>.
- Samuels, E. A., Clark, S. A., Wunsch, C., et al. (2020). Innovation during COVID-19: Improving addiction treatment access. *Journal of Addiction Medicine*. <https://doi.org/10.1097/ADM.0000000000000685>.
- Tringale, R., Subica, A. M., Danielian, A., & Kaplan, C. (2020). The stepped treatment engagement protocol for homeless, needle exchange heroin-dependent patients. *Journal of Addiction Medicine*, 9(2), 163–164.
- Tsai, J., & Wilson, M. (2020). COVID-19: A potential public health problem for homeless populations. *The Lancet Public Health*, 5(4), e186–e187. [https://doi.org/10.1016/S2468-2667\(20\)30053-0](https://doi.org/10.1016/S2468-2667(20)30053-0).
- Wood, L. J., Davies, A. P., & Khan, Z. (2020). COVID-19 precautions: Easier said than done when patients are homeless. *Medical Journal of Australia*, 212(8). <https://doi.org/10.5694/mja2.50571>.