



Contents lists available at ScienceDirect

Journal of Substance Abuse Treatment

journal homepage: www.elsevier.com/locate/jsat

COVID-19 and treating incarcerated populations for opioid use disorder

Christopher J. Donelan^a, Edmond Hayes^a, Ruth A. Potee^a, Levin Schwartz^a,
Elizabeth A. Evans^{b,*}

^a Franklin County Sheriff's Office, 160 Elm Street, Greenfield, MA 01301, United States of America

^b Department of Health Promotion and Policy, School of Public Health and Health Sciences, University of Massachusetts Amherst, 312 Arnold House, 715 North Pleasant Street, Amherst, MA 01003, United States of America

ARTICLE INFO

Keywords:

COVID-19
Opioid use disorder
Criminal justice settings
Buprenorphine
Methadone
Naltrexone
Medications to treat opioid use disorder (MOUD)

ABSTRACT

The Franklin County Sheriff's Office (FCSO), in Greenfield, Massachusetts, is among the first jails nationwide to provide correctional populations with access to all three medications to treat opioid use disorder (MOUD, i.e., buprenorphine, methadone, naltrexone). In response to the COVID-19 pandemic, FCSO quickly implemented comprehensive mitigation policies and adapted MOUD programming. Two major challenges for implementation of the MOUD program were the mandated rapid release of nonviolent pretrial individuals, many of whom were being treated with MOUD and released too quickly to conduct continuity of care planning; and establishing how to deliver physically distanced MOUD services in jail. FCSO implemented and adapted a hub-and-spoke MOUD model, developed telehealth capacity, and experimented with take-home MOUD at release to facilitate continuity-of-care as individuals re-entered the community. Experiences underscore how COVID-19 accelerated the uptake and diffusion of technology-infused OUD treatment and other innovations in criminal justice settings. Looking forward, to address both opioid use disorder and COVID-19, jails and prisons need to develop capacity to implement mitigation strategies, including universal and rapid COVID-19 testing of staff and incarcerated individuals, and be resourced to provide evidence-based addiction treatment. FCSO quickly pivoted and adapted MOUD programming because of its history of applying public health approaches to address the opioid epidemic. Utilizing public health strategies can enable prisons and jails to mitigate the harms of the co-occurring epidemics of OUD and COVID-19, both of which disproportionately affect criminal justice populations, for persons who are incarcerated and the communities to which they return.

1. Treating opioid use disorder in criminal justice settings

Criminal justice-involved individuals with opioid use disorder (OUD) are at high risk for overdose and other adverse health outcomes (Binswanger et al., 2013; Pizzicato et al., 2018). A key strategy to address the opioid epidemic among correctional populations is increased access to medications to treat OUD (MOUD, i.e., buprenorphine, methadone, naltrexone) (Brinkley-Rubinstein et al., 2017; Malta et al., 2019). MOUD program implementation inside correctional institutions requires significant organizational changes (Brinkley-Rubinstein et al., 2019; Grella et al., 2020; Mace et al., 2019). The Franklin County Sheriff's Office (FCSO) in Greenfield, Massachusetts, was among the first jails nationwide to offer buprenorphine and methadone, in addition to naltrexone, to treat residents with OUD.

Beginning in 2015, commitments of the sheriff and his interdisciplinary team to apply public health approaches to address the opioid

epidemic made it possible for MOUD programming to take place at FCSO (Evans et al., 2019). By March 2020, key MOUD program elements included in-jail provision of all three MOUD types, MOUD induction or continuation at entry, treatment of pretrial and sentenced individuals, evidence-based psychosocial treatment, and comprehensive re-entry programming to support community-based MOUD. The jail engaged in MOUD program refinement (under House Bill 4742, "Chapter 208"); translation of lessons learned to peer institutions (Evans et al., 2019); and rigorous evaluation of program implementation, outcomes, and costs (Friedmann & Evans, 2019), when COVID-19 significantly disrupted operations.

2. Treatment adaptations due to COVID-19

FCSO quickly implemented COVID-19 mitigation policies and adapted MOUD programming. Massachusetts declared a state of

* Corresponding author.

E-mail address: eaevans@umass.edu (E.A. Evans).

<https://doi.org/10.1016/j.jsat.2020.108216>

Received 15 June 2020; Received in revised form 2 October 2020; Accepted 16 November 2020

Available online 2 December 2020

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

emergency on March 10, 2020, the World Health Organization declared a pandemic on March 11, and FCSO fully restricted jail access on March 12. Thus, only essential staff (i.e., staff necessary to maintain safe custody of incarcerated individuals such as security, kitchen and maintenance, and basic programming) and no visitors were allowed in the jail. Individuals incarcerated in the pre-release and minimum security buildings were moved to (or returned to) medium security to de-densify the jail setting to reduce risk of COVID-19 transmission. Additionally, the FCSO pre-release house, now emptied of incarcerated individuals, became makeshift correctional officer housing. FCSO also used resources from the Massachusetts Emergency Management Agency (MEMA, 2020) and grant funds to procure personal protective equipment (PPE) (some was also donated by nearby Hampden County Sheriff's Department and other community partners), sanitization equipment/supplies, COVID-19 test kits, and technology for work-from-home and telehealth capacity. The jail instituted protocols to test individuals with COVID-19 symptoms immediately (results are returned within 12–36 h) and to quarantine incarcerated individuals who are symptomatic or test positive. The jail housed symptomatic and positive individuals in secured spaces separated from the general population by re-purposing the space usually used for individuals under protective custody. FCSO implemented CDC-recommended precautions with on-site staff including face masks, body temperature checks, symptom self-report, and physical distancing. To implement and enforce physical distancing, FCSO educated staff and incarcerated individuals about COVID-19 and safety precautions (e.g., via materials from the [Johns Hopkins University and Medicine Coronavirus Resource Center, 2020](#)), trained staff and supervisors during usual meetings (e.g., roll call), set behavioral expectations that were reinforced with verbal reminders and signs posted throughout the facility, set and enforced limits on the number of people permitted in a room, and redesigned spaces (e.g., cafeteria, meeting spaces) for safety.

A major challenge for the implementation of the program has been the provision of in-jail OUD treatment despite COVID-19 mitigation efforts. To observe physical distancing, the jail no longer administered MOUD in groups but it provided MOUD in housing units; medically quarantined individuals received medications directly to their cell. In lieu of behavioral health groups, which the jail cancelled, staff encouraged incarcerated individuals to work on recovery independently using workbooks (e.g., see [Covington et al., 2011](#)). FCSO received permission to re-purpose existing state and federal grant funds to create technological capacity such that distressed individuals could receive individual psychosocial telehealth sessions. A second and significant challenge to MOUD program implementation given COVID-19 was the rapid release of incarcerated individuals. FCSO identified and assessed incarcerated individuals with high-risk medical conditions (e.g., cardiac or pulmonary disease and immunosuppression) for release with electronic monitoring (i.e., tracking via a GPS-enabled bracelet or other device). Also, a Massachusetts Supreme Judicial Court ruling mandated release of nonviolent pretrial individuals, resulting in rapid de-population of the jail. From March 12 to May 10, the jail's average daily count decreased from 205 to 131, a significant reduction evidenced at other Massachusetts jails ([ACLUM, 2020](#)). While FCSO's rapid releases were appropriate and necessary, about 41% were MOUD patients, many of whom were pretrial detainees with complex health and social needs (unstable housing, uninsured, unemployed). Some were released on short notice, making it difficult to arrange for continued receipt of community-based MOUD and other care-continuity planning.

Given these realities, FCSO implemented an adapted hub-and-spoke MOUD model. Telecommuting-from-home behavioral health care and social worker staff were the organizational hub and they had a daily telehuddle to track information (specific release dates, changing court dates) and make extensive health care to-do lists. Action items were handed off to the essential caseworker and clinical staff working inside FCSO. For example, these staff placed incarcerated individuals in front of the telehealth computer for engagement with FCSO caseworkers/

clinicians and community-based addiction treatment partner agencies (i.e., spokes). To facilitate access to community-based health care for criminal justice-involved populations, after advocacy from FCSO staff, the Massachusetts Medicaid system (called MassHealth) made state-wide special accommodations. For example, they changed policies such that MassHealth coverage remained active when individuals were detained, incarcerated individuals with prior MassHealth enrollments were provided with rapid MassHealth re-activation without documentation, and MassHealth navigators dedicated time to help with the increased need that FCSO's released population created. At the same time, federal and state agencies collaborated to reduce barriers to community addiction treatment for released individuals, for example by enabling FCSO and other OTPs to provide take-home doses of MOUD ([Massachusetts Department of Public Health, Bureau of Substance Addiction Services, 2020](#)) and by securing additional sober housing beds for probationers and parolees. Finally, FCSO changed postrelease re-entry programming to use telehealth options, such as Recovery Management Checkups ([Scott et al., 2005](#)); peer-recovery telehealth groups; and a mobile phone texting application to connect with, educate, and motivate individuals to access community treatment and other resources (e.g., food pantry, shelter beds). The implementation feasibility and acceptability of this telehealth capacity and other innovations are topics of investigation of ongoing evaluation and research projects ([Evans et al., 2019](#); [Friedmann & Evans, 2019](#)).

FCSO's COVID-19 mitigation measures were highly effective. As of September 28, FCSO has had no COVID-19 outbreaks in the incarcerated population or among staff. Three incarcerated individuals, with no COVID-19 symptoms, tested positive during booking in early June and were appropriately quarantined. Four staff tested positive in mid-March; all are now in good health and have returned to work. Since June, FCSO has had newly detained individuals test positive during the process for booking, screening, and assessment; FCSO quarantined all. There have been no COVID-19 cases among incarcerated individuals outside of the quarantine space. These impacts on the health of staff and incarcerated individuals are relatively modest compared to national experiences ([COVID Prison Project, 2020](#); [Wallace et al., 2020](#)). Additionally, all FCSO staff are now back to work on-site using PPE, physical distancing, and other precautions. FCSO continues to use telehealth capacity, for example to provide in-reach by community treatment providers and to partner with local universities to provide telehealth practitioner field labs. As of September 2020, Massachusetts is in the third phase of the state's four phase re-opening plan ([Commonwealth of Massachusetts, 2020](#)).

3. Lessons learned and future directions

COVID-19 has changed the context of in-jail OUD treatment. FCSO will continue to implement recommended mitigation strategies (see [Wurcel et al., 2020](#)), including avoiding convening groups. The jail will continue to provide MOUD in housing units, create more psychosocial addiction treatment groups to accommodate smaller class sizes, educate incarcerated individuals about OUD risks related to COVID-19 (e.g., see [Wang et al., 2020](#)), and reduce the number of residents in housing units. As a licensed opioid treatment program (OTP), the jail has explored providing "take-home" MOUD at release to facilitate continuity-of-care as incarcerated individuals re-enter the community. As a licensed OTP, FCSO is able to provide some MOUD services, including methadone, that are not possible in most other jail settings. FCSO is now training other jails on how to navigate the onerous regulatory requirements that are involved in obtaining OTP certification (e.g., [National Council of Behavioral Health, 2020](#); [O'Neill Institute, 2020](#)). COVID-19 also revealed that telehealth is a feasible method for jails to provide physically distanced collaborative health care. Smart TVs and tablets enable community partners to connect with incarcerated individuals pre-release. Texting capacity allows for safe interactions postrelease. FCSO is working now to use technology for community-based providers to

complete pre-release assessments/intakes, thereby providing warm-handoffs at release. Historically, jails and prisons have been slow to deploy technological innovations for behavioral health. COVID-19 has accelerated the uptake and diffusion of technology-infused innovations (e.g., Steinkamp et al., 2019) to treat OUD in criminal justice settings.

Looking forward, a major question is how the criminal justice system can address the opioid epidemic during the COVID-19 pandemic and afterward. To address both crises simultaneously, jails and prisons need to increase sanitization strategies and develop capacity to conduct universal and rapid COVID-19 testing of staff and incarcerated individuals. Jail- and prison-based programs need resources to provide evidence-based OUD treatment, including MOUD and behavioral health care, and transitional support postrelease, strategies that can significantly reduce opioid-related overdose deaths in criminal justice-involved populations (Macmadu et al., 2020).

Given the chronic nature of OUD (Evans & Hser, 2019; Hser et al., 2015), the opioid epidemic will likely remain even as solutions to the COVID-19 pandemic develop. COVID-19 has exposed the need for criminal justice reforms (Mukherjee & El-Bassel, 2020; Nowotny et al., 2020). Prior to COVID-19, FCSO had implemented public health approaches to treat incarcerated individuals with OUD. This model created parity, providing in-jail MOUD services similar to community-based programming, extending public health strategies for health and wellness into correctional settings. This approach also created multi-sectoral community partnerships that allowed previously siloed institutions to collaborate and solve emerging public health problems. This context enabled FCSO to quickly pivot and adapt MOUD programming in response to the new COVID-19 crisis. Using public health models within corrections ultimately means making empirically informed decisions to protect public health and safety. Public health strategies offer prisons and jails solutions to mitigate the harms of the co-occurring epidemics of OUD and COVID-19 (both of which disproportionately affect criminal justice populations), for persons who are incarcerated and the communities to which they return.

Financial support

Dr. Evans is supported by the Substance Abuse and Mental Health Services Administration (SAMHSA), Center for Substance Abuse Treatment (CSAT) Grant No. 1H79T1081387-01, the Greenwall Foundation, and the National Institute on Drug Abuse (NIDA) UG3 DA0044830-02S1 and 1UG1DA050067-01.

Declaration of competing interest

The authors report no conflicts of interest.

References

- American Civil Liberties Union of Massachusetts (ACLU). (2020). Tracking COVID-19 in Massachusetts prison and jails. Available at <https://data.aclum.org/sjc-12926-tracker/>. (Accessed 12 June 2020).
- Binswanger, I. A., Blatchford, P. J., Mueller, S. R., & Stern, M. F. (2013). Mortality after prison release: Opioid overdose and other causes of death, risk factors, and time trends from 1999 to 2009. *Annals of Internal Medicine*, 159(9), 592–600. <https://doi.org/10.7326/0003-4819-159-9-201311050-00005>.
- Brinkley-Rubinstein, L., Cloud, D. H., Davis, C., Zaller, N., Delany-Brumsey, A., Pope, L., ... Rich, J. D. (2017). Addressing excess risk of overdose among recently incarcerated people in the USA: Harm reduction interventions in correctional settings. *International Journal of Prisoner Health*, 13(1), 25–31. <https://doi.org/10.1108/IJPH-08-2016-0039>.
- Brinkley-Rubinstein, L., Peterson, M., Clarke, J., Macmadu, A., Truong, A., Pognon, K., ... Rich, J. D. (2019). The benefits and implementation challenges of the first state-wide comprehensive medication for addictions program in a unified jail and prison setting. *Drug and Alcohol Dependence*, 205, 107514. <https://doi.org/10.1016/j.drugalcdep.2019.06.016>.
- Commonwealth of Massachusetts. (2020). Reopening Massachusetts. <https://www.mass.gov/info-details/reopening-massachusetts>. (Accessed 2 October 2020).
- COVID Prison Project. (2020). Testing, positives, and deaths of COVID-19 in US carceral systems. www.covidprisonproject.com. (Accessed 2 October 2020).
- Covington, S., Griffin, R., & Dauer, R. (2011). *Helping men recover: A program for treating addiction. Facilitator's guide and Participant's workbook*. Hoboken, NJ: Wiley. <https://www.stephaniecovington.com/helping-men-recover-a-program-for-treating-addiction1.php>.
- Evans, E., Harrington, C., Delorme, E., & Cyr, K. (2019). *The medication assisted treatment and re-entry initiative - year 1 report. Submitted to the Franklin County Sheriff's Office. Substance Abuse and Mental Health Services Administration (SAMHSA), Center for Substance Abuse Treatment (CSAT) Grant No. 1H79T1081387-01*.
- Evans, E., & Hser, Y. I. (2019). The natural history, clinical course, and long-term recovery from opioid use disorders. In *In Kelly and Wakeman (editors), treating opioid addiction*. Springer International: Humana Press. https://doi.org/10.1007/978-3-030-16257-3_9.
- Friedmann, P., & Evans, E. (2019). *Massachusetts justice community opioid innovation network (mass JCOIN). Funded by the NIH National Institute on Drug Abuse (NIDA). Grant No. 1UG1DA050067-01*.
- Grella, C. E., Ostile, E., Scott, C. K., Dennis, M., & Carnavale, J. (2020). A scoping review of barriers and facilitators to implementation of medications for treatment of opioid use disorder within the criminal justice system [published online ahead of print, 2020 May 20]. *International Journal of Drug Policy*, 81, 102768. <https://doi.org/10.1016/j.drugpo.2020.102768>.
- Hser, Y. I., Evans, E., Grella, C., Ling, W., & Anglin, D. (2015). Long-term course of opioid addiction. *Harvard Review of Psychiatry*, 23(2), 76–89. <https://doi.org/10.1097/HRP.0000000000000052>.
- Johns Hopkins University, & Medicine. (2020). Coronavirus resource center. <https://coronavirus.jhu.edu/covid-19-basics/understanding-covid-19>. (Accessed 2 October 2020).
- Mace, S., Siegler, A., Wu, K. C., Latimore, A., & Flynn, H. (2019). Medication-assisted treatment for opioid use disorder in jails and prisons: A planning & implementation toolkit. The National Council. Available at https://www.thenationalcouncil.org/wp-content/uploads/2020/01/19_CDC_MAT_Jails-and-Prisons_Toolkit_011420.pdf?d4f=375ate1bd56. (Accessed 12 June 2020).
- Macmadu, A., Goedel, W. C., Adams, J. W., Brinkley-Rubinstein, L., Green, T. C., Clarke, J. G., ... Marshall, B. (2020). Estimating the impact of wide scale uptake of screening and medications for opioid use disorder in US prisons and jails. *Drug and Alcohol Dependence*, 208, 107858. <https://doi.org/10.1016/j.drugalcdep.2020.107858>.
- Malta, M., Varatharajan, T., Russell, C., Pang, M., Bonato, S., & Fischer, B. (2019). Opioid-related treatment, interventions, and outcomes among incarcerated persons: A systematic review. *PLoS Medicine*, 16(12), Article e1003002. <https://doi.org/10.1371/journal.pmed.1003002>.
- Massachusetts Department of Public Health, Bureau of Substance Addiction Services. (2020). Alert regarding COVID-19 for opioid treatment programs. Issued March 18, 2020.
- Massachusetts Emergency Management Agency. (2020). COVID-19 information. <https://www.mass.gov/orgs/massachusetts-emergency-management-agency>. (Accessed 2 October 2020).
- Mukherjee, T. I., & El-Bassel, N. (2020). The perfect storm: COVID-19, mass incarceration and the opioid epidemic. *International Journal of Drug Policy*, 11, 102819. <https://doi.org/10.1016/j.drugpo.2020.102819> Epub ahead of print.
- National Council of Behavioral Health. (2020). Medication assisted treatment for opioid use disorder in jails and prisons. <https://www.thenationalcouncil.org/medication-assisted-treatment-for-opioid-use-disorder-in-jails-and-prisons/> Accessed 2 October 2020.
- Nowotny, K., Bailey, Z., Omori, M., & Brinkley-Rubinstein, L. (2020). COVID-19 exposes need for progressive criminal justice reform. *American Journal of Public Health*, 110(7), 967–968. <https://doi.org/10.2105/AJPH.2020.305707>.
- O'Neil Institute. (2020). Challenges & Opportunities in Implementing Medication-Based Treatment for Opioid Use Disorder in Rural and Mid-Sized County Jails. Webinar provided June 29, 2020. <https://oneil.law.georgetown.edu/event/challenges-opportunities-in-implementing-medication-based-treatment-for-opioid-use-disorder-in-rural-and-mid-sized/>. (Accessed 2 October 2020).
- Pizzicato, L. N., Drake, R., Domer-Shank, R., Johnson, C. C., & Viner, K. M. (2018). Beyond the walls: Risk factors for overdose mortality following release from the Philadelphia Department of Prisons. *Drug and Alcohol Dependence*, 189, 108–115. <https://doi.org/10.1016/j.drugalcdep.2018.04.034>.
- Scott, C. K., Dennis, M. L., & Foss, M. A. (2005). Utilizing recovery management checkups to shorten the cycle of relapse, treatment reentry, and recovery. *Drug and Alcohol Dependence*, 78(3), 325–338. <https://doi.org/10.1016/j.drugalcdep.2004.12.005>.
- Steinkamp, J. M., Goldblatt, N., Borodovsky, J. T., LaVertu, A., Kronish, I. M., Marsch, L. A., & Schuman-Olivier, Z. (2019). Technological interventions for medication adherence in adult mental health and substance use disorders: A systematic review. *JMIR Mental Health*, 6(3), Article e12493. <https://doi.org/10.2196/12493>.
- Wallace, M., Hagan, L., Curran, K. G., Williams, S. P., Handanagic, S., Bjork, A., ... Marlow, M. (2020). COVID-19 in correctional and detention facilities - United States, February–April 2020. *Morbidity and Mortality Weekly Report*, 69(19), 587–590. <https://doi.org/10.15585/mmwr.mm6919e1>.
- Wang, Q. Q., Kaelber, D. C., Xu, R., & Volkow, N. D. (2020). COVID-19 risk and outcomes in patients with substance use disorders: Analyses from electronic health records in the United States. *Molecular Psychiatry*. <https://doi.org/10.1038/s41380-020-00880-7>. Epub ahead of print.
- Wurcel, A. G., Dauria, E., Zaller, N., Nijhawan, A., Beckwith, C., Nowotny, K., & Brinkley-Rubinstein, L. (2020). Spotlight on jails: COVID-19 mitigation policies needed now. *Clinical Infectious Diseases: an official publication of the Infectious Diseases Society of America*, ciaa346. Advance online publication. doi:<https://doi.org/10.1093/cid/ciaa346>.