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Driving Distance From US Jails to Opioid Treatment Programs

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Introduction

Providing medications for opioid use disorder (MOUD) in carceral facilities is associated with markedly decreased postrelease overdose risk.[1] Starting MOUD during incarceration is challenging particularly in jails, where lengths of stay are short and often unpredictable. Only half of all jails offer MOUD.[2] Buprenorphine, the most commonly offered MOUD, is less regulated than other medications and is effective for many patients. Methadone is the least commonly offered MOUD: only 3% of jails offer methadone to all qualified persons.[2] Methadone remains an important choice, especially for patients who used it before incarceration or do not respond well to buprenorphine. Jails offering methadone typically rely on federally licensed opioid treatment programs (OTPs) in the community to provide prepoured doses that can be transported on-site. Travel distance is likely to be a barrier to OTP partnerships in many communities.

Methods

This cross-sectional study examined the driving distance between all nonfederal US jails (excluding tribal and juvenile facilities) and the nearest OTP using datasets from the US Departments of Homeland Security and Health and Human Services accessed in August 2025. We followed the STROBE guideline. The study used publicly available non–human participant data and was exempt from ethical review per 45 CFR §46.

Using ArcGIS,[3] we conducted an origin destination cost matrix network analysis that calculated driving distance, factoring in the best path based on how roads are connected to one another and taking into account driving patterns. If an OTP shared an address with a jail, we categorized the OTP as on-site to the jail. For the jail county, we added characteristics on the drug overdose rate per 100 000 residents averaged from 2020 to 2024 (low, <20; medium, 20-30; or high, >30) and the urbanicity of the jail county (large urban, suburban, midsized or small urban, or rural). We calculated the mean (SD) and median (IQR) for driving distance overall and global *F* statistics for differences across categories. SAS version 9.4 was used for analysis; 2-sided $P < .05$ indicated significance.

Results

There were 3228 jails and 2096 OTPs in the datasets, including 36 on-site OTPs. For the remaining jails, mean (SD) driving distance to an OTP was 54.6 (361.7) minutes; median was 30.9 (IQR, 12.1-57.2) minutes (**Table**). Of sampled jails, 1661 (51.5%) were located more than 30 minutes from an OTP; 1697 (52.6%) were in rural areas. Mean (SD) driving distance was significantly different by the urbanicity of the jail county: large urban, 10.7 (9.0) minutes; suburban, 20.3 (14.7) minutes; small or midsized urban, 23.8 (30.7) minutes; and rural, 85.3 (496.4) minutes ($P < .001$). Driving distance did not significantly differ by county overdose death rate category. Jails with the greatest driving distance to OTPs were located in the most rural regions of the country, particularly the Great Plains, Nevada, and Alaska (**Figure**).

+ Supplemental content

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Discussion

In this study, 51.5% of US jails were located more than a 30-minute drive from an OTP, a distance that makes it difficult to establish an OTP partnership for people in custody. A study limitation is a measurement based on nearest jail distance to an OTP could overstate access because OTPs may decline to collaborate with a nearby jail or jails may decline to enter into these partnerships. A total of 56.2% of jails in the sample and 22.5% of the US jail population were housed in rural areas, where OTPs are commonly located at least a 1-hour drive from the jail.[4]

Table. Driving Distance From US Jails to the Nearest OTP in the US

Characteristic	Jails, No. (%)[a]	Driving time to nearest OTP, min[b]		*P* value[c]
		Mean (SD)	Median (IQR)	
All	3228 (100)	54.6 (361.7)	30.9 (12.1-57.2)	NA
Urban-rural continuum[d]				
Large urban	272 (8.4)	10.7 (9.0)	8.7 (5.9-13.5)	<.001
Suburban	415 (12.9)	20.3 (14.7)	16.3 (8.3-28.0)	
Small or midsized urban	843 (26.1)	23.8 (30.7)	16.3 (7.9-30.4)	
Rural	1697 (52.6)	85.3 (496.4)	52.0 (33.0-84.2)	
County opioid overdose death rate[e]				
Lower (<20)	1096 (33.8)	59.8 (54.9)	46.3 (26.3-75.3)	.47
Middle (20-30)	890 (27.6)	61.8 (576.8)	30.08 (10.5-53.7)	
Higher (>30)	1242 (38.5)	44.7 (314.8)	21.8 (8.3-42.8)	

Abbreviations: NA, not applicable; OTP, opioid treatment program.

[a] Source: Department of Homeland Security Homeland Infrastructure Foundation-Level Data.

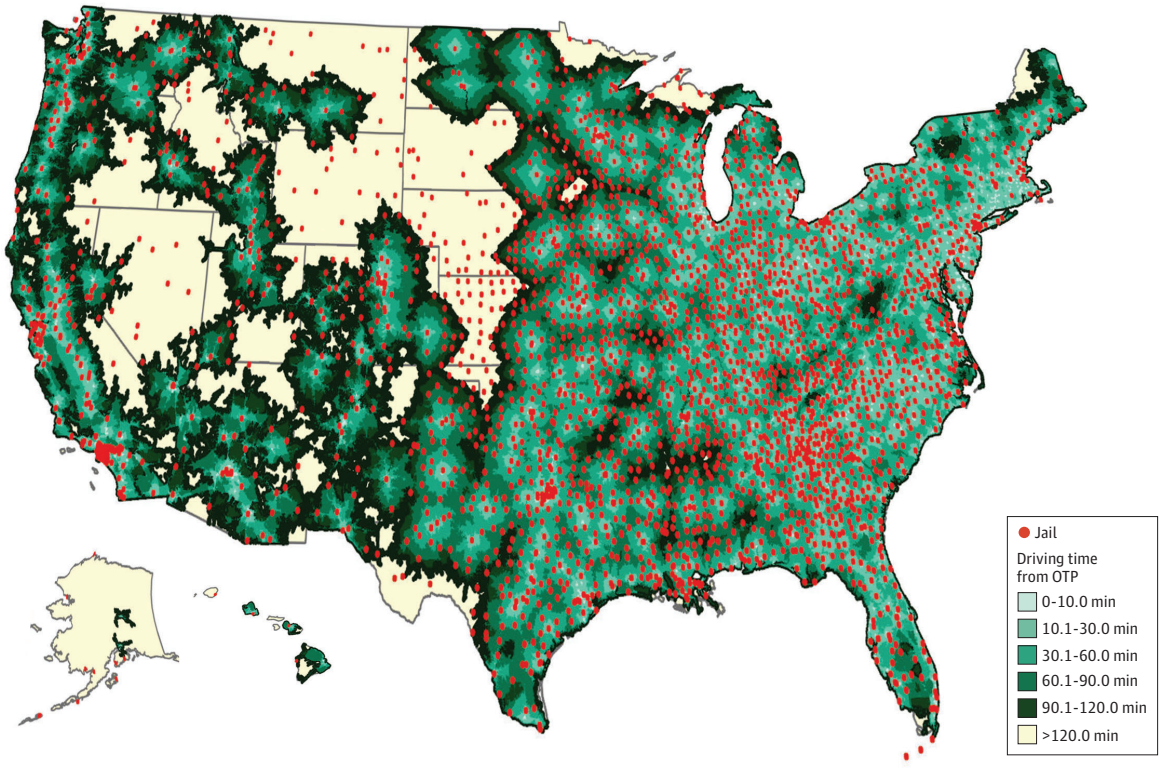
[b] Source: Substance Abuse and Mental Health Services Administration Treatment Locator for Opioid Treatment Programs.

[c] Calculated as an *F* statistic for global difference within each category.

[d] Source: NCHS Urban-Rural Classification Scheme for Counties.

[e] Source: CDC Wonder Underlying Cause of Death.

Figure. Map of Driving Time From Opioid Treatment Programs (OTP) to Jails in the US



Sources were Esri; the US Department of Commerce, US Census Bureau; the US Department of Commerce, National Oceanic and Atmospheric Administration, National Ocean Service, National Geodetic Survey; the Jails Department of Homeland Security Homeland Infrastructure Foundation Level Data; and the Opioid Treatment Program Substance Abuse and Mental Health Services Administration Treatment Locator.

Universal accessibility of methadone in jails is likely to require alternatives to partnerships with OTPs. Federal regulations recently clarified an alternative pathway that permits correctional facilities registered as hospitals or clinics to dispense methadone to patients who have another non–substance use chronic health condition without requiring an OTP.[5] Stocking methadone on-site could expand methadone availability when OTPs are located far away or there are other logistical or cost barriers to these partnerships if the patient has access to a community OTP after release.

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REFERENCES

1. Cates L, Brown AR. Medications for opioid use disorder during incarceration and post-release outcomes. *Health Justice*. 2023;11(1):4. doi:10.1186/s40352-023-00209-w

2. Flanagan Balawajder E, Ducharme L, Taylor BG, et al. Factors associated with the availability of medications for opioid use disorder in US jails. *JAMA Netw Open*. 2024;7(9):e2434704. doi:10.1001/jamanetworkopen.2024.34704

3. *ArcGIS Pro*. Version 3.6.1. Environmental Systems Research Institute. Accessed February 13, 2026. https://www.esri.com/en-us/arcgis/products/arcgis-pro/overview

4. Kang-Brown J, Zhang J. *People in Jail and Prison in 2024*. Vera Institute of Justice; 2024. Accessed February 13, 2026. https://www.vera.org/publications/people-in-jail-and-prison-in-2024

5. Medications for the treatment of opioid use disorder. *Fed Regist*. 2024;89(23):7528-7563.

SUPPLEMENT.
Data Sharing Statement