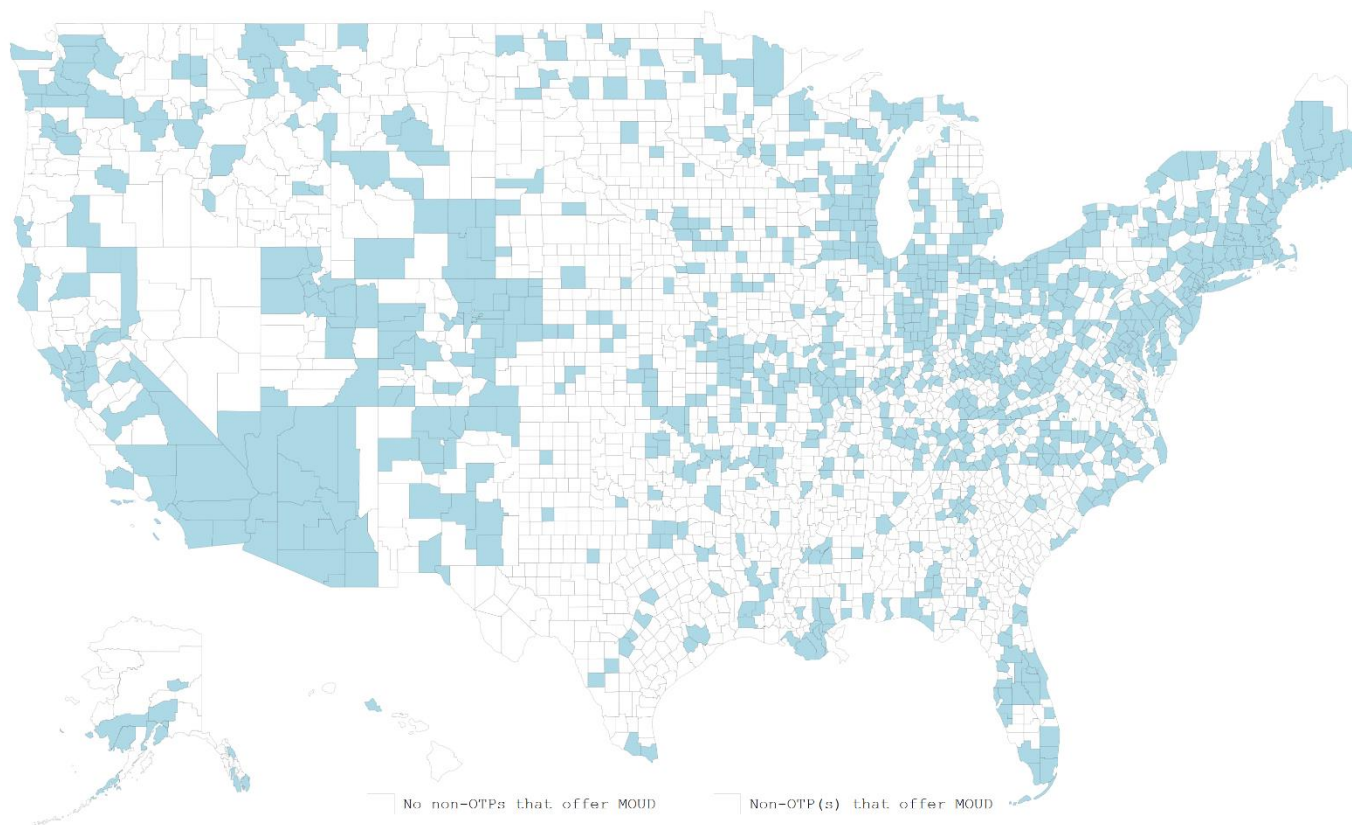


## APPENDIX



Appendix Exhibit 1: County level access to medications for opioid use disorder for Medicare beneficiaries, 2019] SOURCE Authors' analysis of data from the 2020 National Directory of Drug and Alcohol Abuse Treatment Facilities (representing survey responses for 2019). NOTES The map shows county-level access to a non-OTP that accepted Medicare and offered buprenorphine or naltrexone in 2019 before Medicare coverage of OTP services.

Appendix Exhibit 2. Characteristics of all counties, counties with at least one OTP that accepted Medicare, and counties without an OTP that accepted Medicare, 2021

	All counties		Counties with no OTPs that accept Medicare		Counties with at least one OTP that accepts Medicare		T-tests	
	%/Mean	N/(SD)	%/Mean	N/(SD)	%/Mean	N/(SD)	Difference	p-values
County has at least one OTP	18.78	590	2.93	77	100.00	513	-97.07	<.001
County had at least one non-OTP that accepted Medicare and offered buprenorphine or naltrexone in 2019	32.81	1031	24.72	650	74.27	381	-49.54	<.001
County has at least one OTP that accepts Medicaid	17.09	537	1.41	37	97.47	500	-96.06	<.001
Northeast	6.91	217	4.00	105	21.83	112	-17.84	<.001
Midwest	33.59	1055	36.53	960	18.52	95	18.01	<.001
South	45.27	1422	45.89	1206	42.11	216	3.79	0.12
West	14.23	447	13.58	357	17.54	90	-3.96	0.02
Percent rural population	58.66	(31.50)	65.36	(28.62)	24.29	(21.61)	41.07	<.001
Percent White population age 65+	85.12	(16.61)	86.09	(16.38)	80.16	(16.86)	5.92	<.001
Percent uninsured	9.27	(4.99)	9.54	(5.13)	7.86	(3.95)	1.68	<.001
Percent in poverty	13.21	(5.01)	13.46	(5.12)	11.88	(4.11)	1.58	<.001
Percent in labor force	46.51	(7.39)	46.22	(7.74)	47.98	(4.95)	-1.76	<.001

Illicit drug use other than marijuana in the past month, 2018-2020	3.17	(0.52)	3.14	(0.43)	3.30	(0.85)	-0.16	<.001
Age-adjusted opioid overdose death rate, 55+, 2018-2020	8.98	(4.71)	8.50	(4.24)	11.38	(5.99)	-2.89	<.001
Percent fee-for-service Medicare beneficiaries	66.45	(15.89)	68.04	(15.66)	58.43	(14.55)	9.61	<.001
Average Medicare beneficiary age	71.85	(1.47)	71.87	(1.48)	71.75	(1.37)	0.13	0.07
Percent female Medicare beneficiaries	53.14	(2.20)	52.88	(2.20)	54.44	(1.67)	-1.56	<.001
Percent dual eligible beneficiaries	18.45	(8.32)	18.49	(8.38)	18.27	(8.06)	0.23	0.58
Average HCC score	0.96	(0.11)	0.95	(0.11)	1.00	(0.09)	-0.04	<.001
Observations	3142		2629		513		3142	

SOURCE: Sample means/percentages and Ns/standard deviations of select study variables were calculated using data from the National Directory of Drug and Alcohol Abuse Treatment Facilities for 2022 and 2020 (representing survey responses from 2021 and 2019), the Medicare Geographic Variation File, the Census Bureau, the Area Health Resource File, the Centers for Disease Control and Prevention's WONDER database, and the Substance Abuse and Mental Health Services Administration's (SAMHSA) National Survey on Drug Use and Health (NSDUH).

NOTES: Results are from two-sided t-tests comparing counties with at least one OTP that accepted Medicare insurance as payment in 2021 to counties without any OTPs that accepted Medicare insurance as payment in 2021.

Appendix Exhibit 3. Multivariable logistic regression results examining the odds of a county having at least one OTP that accepts Medicare, adjusting for county-level characteristics

	OR	p	[95% CI]
Northeast (referent)			
Midwest	0.15****	<.001	[0.09,0.23]
South	0.26****	<.001	[0.16,0.43]
West	0.42***	<.001	[0.23,0.75]
Percent rural population	0.96****	<.001	[0.95,0.97]
Percent White population age 65+	0.99	0.28	[0.98,1.01]
Percent uninsured	1.02	0.36	[0.98,1.06]
Percent in poverty	0.98	0.45	[0.94,1.03]
Percent in labor force	0.99	0.36	[0.96,1.02]
Illicit drug use other than marijuana in the past month, 2018-2020	1.31	0.06	[0.99,1.73]
Age-adjusted opioid overdose death rate, 55+, 2018-2020	1.09****	<.001	[1.06,1.13]
County had at least one non-OTP that accepted Medicare and offered buprenorphine or naltrexone in 2019	2.72****	<.001	[2.07,3.57]
Percent fee-for-service Medicare beneficiaries	0.98****	<.001	[0.97,0.99]
Average Medicare beneficiary age	0.78****	<.001	[0.68,0.89]
Percent female Medicare beneficiaries	1.21****	<.001	[1.09,1.34]
Percent dual eligible beneficiaries	0.98	0.08	[0.95,1.00]
Average HCC score	1.08	0.95	[0.11,10.62]
Observations	2983		

SOURCE: Data are taken from the National Directory of Drug and Alcohol Abuse Treatment Facilities for 2022 and 2020 (representing survey responses from 2021 and 2019), the Medicare Geographic Variation File, the Census Bureau, the Area Health Resource File, the Centers for Disease Control and Prevention's WONDER database, and the Substance Abuse and Mental Health Services Administration's (SAMHSA) National Survey on Drug Use and Health (NSDUH).] NOTES: Odds ratios from logistic regression analysis results estimating factors associated with a county having at least one OTP that accepted Medicare insurance. 95% confidence intervals are reported in brackets. \*\* p<.05, \*\*\* p<.01, \*\*\*\* p<.001.