



States' Adoption of Evidence-Based Treatment for Opioid Use Disorder Varies by Medicaid Expansion Status

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INTRODUCTION

Between 1998 and 2018, 450,000 Americans have died of overdose from opioid use disorder (OUD).¹ In wake of the pandemic, there was a 42% increase in opioid overdoses in May 2020, compared with May 2019.² The annual cost to society of prescription drug use disorder is estimated at \$74 billion dollars.³ Despite the significant fiscal and societal burden of this disease, access to evidence-based treatments as outlined Federal Code 42 and the American Society of Addiction Medicine remains limited.⁴

Of those who sought treatment for OUD in 2016, 38% were covered by Medicaid, while 20% were uninsured.⁵ In 2017, there were 2.3 million Americans with OUD, yet there was a 25% decrease in OUD treatment.⁶ By 2019, less than 17% of patient diagnosed with OUD received treatment.⁷ Given state variation in Medicaid coverage of OUD treatment and the most important barrier to treatment is inadequate insurance coverage, understanding state adoption policies for OUD treatment is crucial to addressing this public health crisis.⁷⁻⁸

HYPOTHESES

1. States with Medicaid expansion provide more insurance coverage options for evidence-based OUD treatments compared with states that not expanded Medicaid.
2. Limits on insurance coverage of OUD treatments are associated with higher death rates from opioid overdose.

METHODS

The Arizona State University IRB deemed the research was not human subjects research. Using secondary database analyses, data from 2018 were culled from the Kaiser Family Foundation, the Centers for Disease Control and Prevention, and the U.S. Census Bureau to examine Medicaid expansion and insurance coverage for OUD treatments. Relationships between OUD treatment coverage limits and overdose deaths from semisynthetic opioids (prescription opioids), synthetic opioids (Fentanyl), methadone and heroin were examined. Descriptive and non-parametric statistics (χ^2 , Pearson correlation, Mann Whitney U, and η^2 analyses) were used to characterize the results.

RESULTS

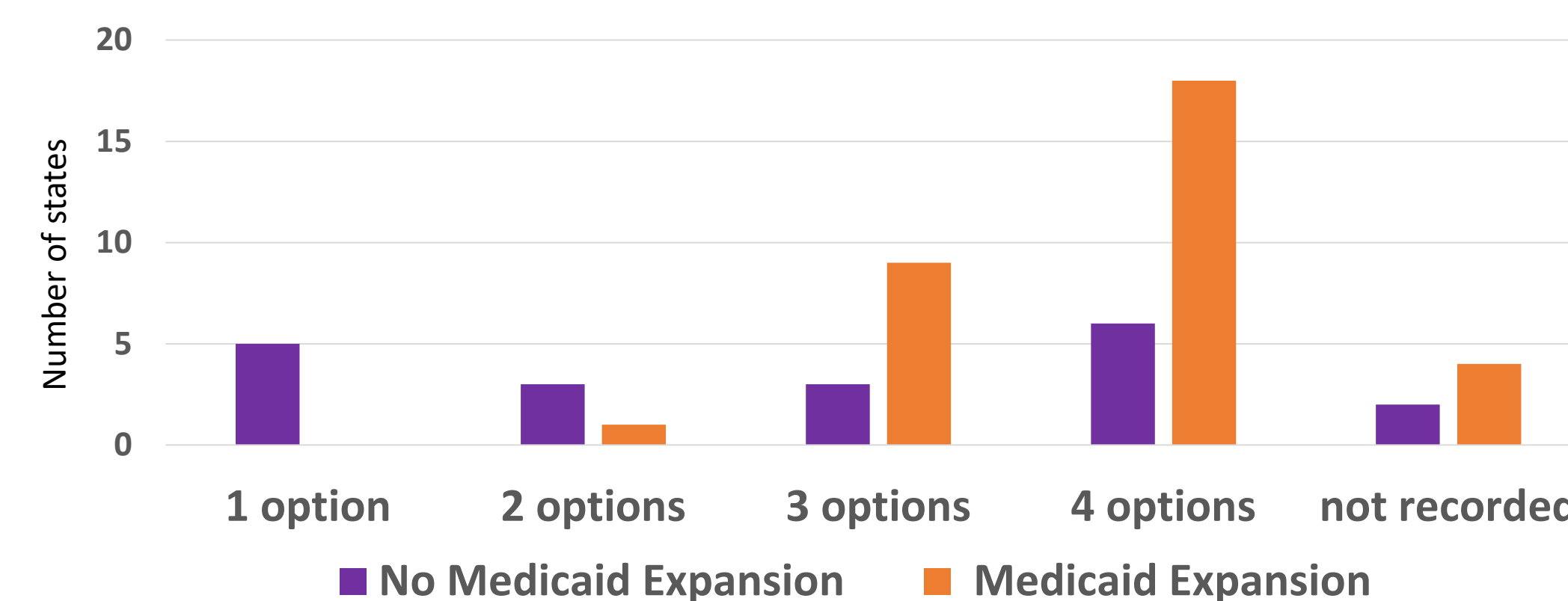
Inpatient coverage was the most prevalent treatment available in all states (n=43, 84.3%). Outpatient coverage, in the forms of intensive therapy ($\chi^2=5.21, p=.04$) and long-term therapy ($\chi^2=10.93, p=.001$), was more likely in states with Medicaid expansion. There were no differences in coverage of inpatient and residential therapies between states with and without Medicaid expansion as noted in Table 1.

Table 1.

Medicaid Expansion and Treatment Coverage by Type				
Treatment Type	Chi-Square Results		Correlation Results	
Inpatient	Chi-square	3.44	Pearson correlation	0.277
	df	1	N	45
	Sig. (2-tailed)*	0.13	Sig. (2-tailed)	0.06
Intensive outpatient	Chi-square	5.21**	Pearson correlation	.337**
	df	1	N	46
	Sig. (2-tailed)*	0.04	Sig. (2-tailed)	0.02
Outpatient	Chi-square	10.93***	Pearson correlation	.487***
	df	1	N	46
	Sig. (2-tailed)*	0.001	Sig. (2-tailed)	0.001
Residential	Chi-square	3.82	Pearson correlation	0.228
	df	1	N	46
	Sig. (2-tailed)	0.05	Sig. (2-tailed)	0.05

* Fisher's exact
** Significant at the level of 0.05 (2-tailed)
*** Significant at the level of 0.01 (2-tailed)

Medicaid expansion conferred coverage of more OUD treatment options. Figure 2. Number of OUD treatment options by Medicaid Expansion



Coverage limits on intensive outpatient coverage were associated with higher death rates from synthetic opioids (H(2) = 6.47, p=.039) and heroin (H(2)= 6.09, p=.048). The effect size identified a medium effect ($\eta^2= 0.17$) on availability of outpatient treatment and deaths from synthetic (Fentanyl) opioids.

DISCUSSION

- Inpatient coverage is more prevalent than coverage for intensive outpatient and outpatient treatment in all states.
- Medicaid expansion is positively correlated with access to outpatient OUD therapies. This is important because inpatient treatment is 2.3 times more costly than outpatient care.⁹
- Medicaid expansion is associated with more options for OUD treatment.
- Limits on treatment coverage for OUD treatment is associated with higher death rates from synthetic opioids (Fentanyl) and heroin.

LIMITATIONS AND FURTHER RESEARCH

As is true with secondary database analyses, data definitions may change over time making longitudinal comparisons difficult. Data reported on states' death certificates may list other etiologies of death, rather than opioid overdose, which may limit the generalizability of the study. Some states did not report deaths and or all treatment options. Given that there are 50 states (small sample size) the effect of Medicaid expansion on access to treatment had to be large in order show a statistical differences in overdose death rates. Further research should study of the limits related to medication coverage to inform policy future policies.

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