ANALYSIS OF MINNESOTA CRIMINAL JUSTICE REFERRALS ODDS OF RECEIVING MEDICATION-ASSISTED TREATMENT FOR OPIOID USE FOR 2000-2017

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INTRODUCTION

People involved in the criminal justice system are at increased risk for opioid use disorder (OUD) but less likely to receive medication-assisted treatment (MAT).[1] Despite MAT being the recommended and most effective treatment[2,3]. In an effort to reduce recidivisms and overdose deaths in the state, the Minnesota state agencies, created a goal to improve access to MAT[4]. However the amount of admissions from criminal justice settings in Minnesota that receive MAT in their treatment plan is unknown.
Research Question: What are the odds admissions criminal justice referrals to opioid treatment receive MAT compared to other referral sources from 2000-2017?

METHODOLOGY

This study used the 2000-2017 Treatment Episode Data Set Admissions (TEDS-A) from the Substance Abuse and Mental Health Services Administration (SAMHSA) for Minnesota. The population of interest was admissions to treatment facilities in Minnesota for adults (age 18 years or older) with an opioid reported as their primary substance used. I used a logistic regression and margins effect analysis on the interaction between year and referral source to test the odds/probability criminal justice referrals received MAT to the odds/probability of non-criminal justice referrals received MAT for 2000-2017. I controlled for race ethnicity, age, gender, education level, living arrangement, employment status, and frequency of opioid use.

	Criminal Justice		Non-Criminal Justice	
	Number	Percent	Number	Percent
MAT in treatment				
Yes	1,961	14.54	43,700	46.49
No	11,525	85.46	50,295	53.51

Table 1 Planned medication assisted treatment for criminal justice and non-criminal justice referrals to opioid use treatment in Minnesota from 2000-2017. The sample population was adults admitted to treatment facilities with an opioid reported as their primary substance in Minnesota from 2000-2017.

RESULTS

From 2000-2017 less than half of non-criminal justice admissions and under 15 percent of criminal justice admissions received MAT in their treatment plans from 2000-2017 (Table 1). Criminal justice referrals had less than a quarter of the odds of receiving MAT compared to non-criminal justice referrals (OR=0.22, CI [0.207 0.231], p-value < 0). From 2000-2015 criminal justice referrals had lower or equal odds of receiving MAT compared non-criminal justice referrals in 2000. From 2000-2017 the probability criminal justice referrals receive MAT is lower than non-criminal justice referrals (Figure 1). The highest probability for both referral sources was in 2017, 60 percent and 34 percent for non-criminal justice referral and criminal justice referrals

Criminal justice referrals are 10-15 years behind non-criminal justice referrals in MAT prescriptions for opioid use.

CONCLUSIONS

Criminal justice referrals are over a decade behind non-criminal justice referrals in receiving MAT for opioid use. It took 15 years for criminal justice referrals to have equal odds of receiving MAT to non-criminal justice referrals in 2000. In Figure 1, the probability criminal justice referrals received MAT is about equal to the probability of non-criminal justice referrals in 2007. The evolving Opioid Epidemic combined with the increased risk for opioid use within the criminal-justice population and treatment inequities requires public health attention. Future research needs to be done to further explore why criminal justice referrals are less likely to receive MAT in Minnesota.
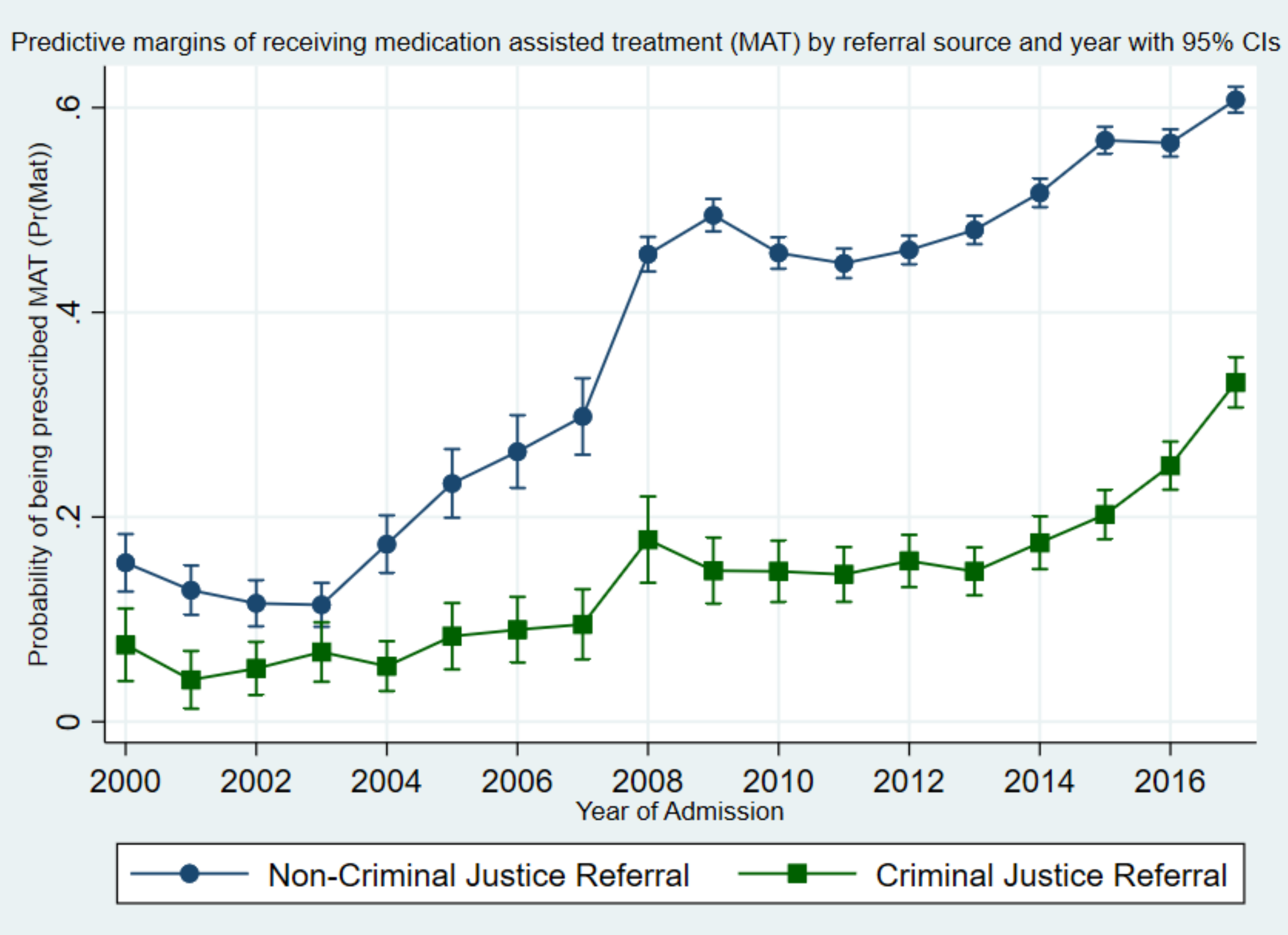

Figure 1 Predictive margins of receiving medication assisted treatment (MAT) by referral source and year with 95% Confidence Intervals. Marginal analysis for probability of receiving MAT by referral source with a referral source and year interaction term.

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ACKNOWLEDGMENTS

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