

WELCOME TO

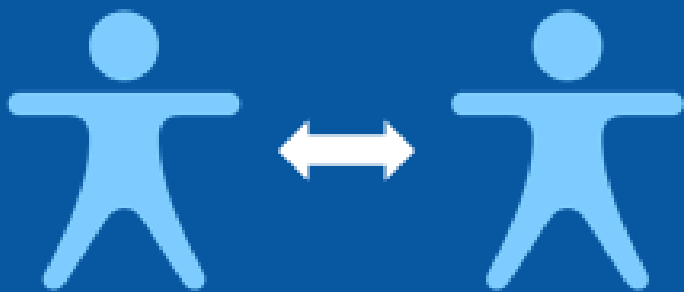
NADCP

RISE21

August 15-18, 2021 | National Harbor, MD



Masks are required for all attendees regardless of vaccination status



Social distancing is encouraged

#RISE21

Justice Community Opioid Innovation Network (JCOIN)

MAT Utilization in Problem Solving Courts: Survey of Administrators

Administrative Supplement to Parent Grant #R01DA043476

“Buprenorphine for probationers and parolees: Bridging the gap into treatment” (PI, Gordon).

<https://heal.nih.gov/research/research-to-practice/jcoin>

JUSTICE COMMUNITY OPIOID INNOVATION NETWORK



NIH • Helping to End Addiction Long-term

NIH HEAL Initiative and Helping to End Addiction Long-term are service marks of the U.S. Department of Health and Human Services.

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- Thank you to JCOIN PIs who worked with us to obtain the survey responses
- The opinions that are reported are those of the researchers and do not reflect those of any government agencies.

Study Aims and Goals

1. Survey problem-solving courts (PSC) to estimate the prevalence of access to MAT and the number of justice-involved individuals that use MAT as part of their problem-solving court experience
2. Assess the facilitators and barriers for access to and use of MAT for individuals with opioid/alcohol disorders in problem solving courts

Survey a Representative Sample of PSC (local) and State Coordinators

All Types of PSC but stratified by region and opioid disorder rates (top quartile of all counties, bottom quartile, and middle range)

Presentation Structure

- Survey about MAT Utilization
- Structural Factors that Affect Utilization
- Attitudes and Opinions about MAT that Affect Utilization

Survey Instrument

1. National Criminal Justice Treatment Practices Survey (NCJTPS) (Taxman, et al., 2007)
2. National Drug Court Survey (NDCS) (Taxman, et al., 2014)
3. National Drug Abuse Treatment System Survey (NDATSS) (D'Aunno et al., 2015)
4. National Treatment Center Survey (Roman, et al., 2014)
5. Juvenile Justice-Translational Research on Interventions for Adolescents in the Legal System (JJ-TRIALS) survey (Scott, et al., 2018)
6. Opinions About MAT survey (OAMAT) (Friedmann, et al., 2015)

Changing Court Landscape

- No reliable national directory of problem solving courts
 - American University's National Drug Court Resource Center (<https://ndcrc.org/>)
 - Directory of 3,400 PSC provided by the National Association of Drug Court Professionals (NADCP)
 - Publicly available information about PSCs through county and other government websites
- The *concept of a problem-solving court* varies
 - Varying nature (i.e. Veterans, mental health, etc.)
 - Varying courts managed by the same coordinator with the same services
- Study did not cover Juvenile PSC
- Modified sampling frame to 490 courts but added courts and modified the frame based on state coordinators responses. Resulted in 1,712 courts contacted for on-line survey

Survey Administration Challenges

- Hierarchical PSC structures
- State Coordinators (n=43; 86% response rate)
 - 13 state coordinators preferred to administer the on-line survey link to **ALL PSC** in their state
 - 6 state coordinators refused to administer the survey to any local courts
 - Remaining coordinators allowed us to directly contact targeted local courts
- Local Coordinators of varying courts (n=832 in 35 states; 76% when courts could be confirmed)
- Final sample matched target sample based on region and county opioid disorder rates

State PSC Coordinators

- Region
 - 33% South
 - 30% West
 - 19% Midwestern
 - 19% Northeastern
- Coordinators are
 - 94% non-Hispanic
 - 86% white
 - 95% college educated
 - 73% women
 - 63% 35 to 54 years old
- Courts are funded by
 - 91% state
 - 70% federal
 - 70% local county
 - 67% fees for treatment and testing
- 64% required state-sponsored training, although they do use some trainings by NDCI, SAMSHA, AATOD
- Nearly all State Coordinators were involved in
 - Expanding the range of treatment services
 - Increasing court training for MAT/behavioral health treatment
 - Ensuring funding
 - Promoting strategies to increase retention
 - Clarifying treatment guidelines between court and treatment providers
- Less likely to be involved in:
 - developing new metrics for participant performance
 - consulting with treatment and public health agencies for policy needs
 - directly involved in drafting policy

Local PSC Coordinators

- Located at
 - 44% Southern
 - 26% Western
 - 22% Midwest
 - 9% Northeastern
- Characteristics of Local Coordinators
 - 93% non-Hispanic
 - 83% white
 - 87% college-educated
 - 69% women
 - 63% are 35 to 54 years
- Participants are
 - 70% white
 - 63% men
 - 91% not Hispanic
- Exclusion Criteria
 - 30% violent offenses
 - 5% use pain medications
- Barriers to PSC
 - Transportation and costs (21% each)
 - Job (14%)
 - Medical condition (14%)
 - Social Support from family (13%)
 - Frequency of hearings (8%)
 - Health insurance (7%)

Main Findings

86% (CI, 83-89)

PSCs *offer* some type of MAT
68% answered this question

MAT utilization rates vary*

Mean for SUD clients **15%** (CI, 13-17)
83% answered this question if reported using MAT

Mean for OUD clients **49%** (CI, 44-54)
63% answered this question if used MAT for any SUD

Average statewide of 228 clients receiving
MAT (based on 8 states)

*Utilization increases in Medicaid
Expansion States*

MAT and Behavioral Health Used

- Types of Medications Used:

- Naltrexone (92%)
- Buprenorphine and Naloxone film strips (64%)
- Buprenorphine pills (64%),
- Methadone (60%),
- Buprenorphine injections (36%)
- Disulfiram/Antabuse (33%)
- Acamprosate (12%)
- Buprenorphine implants (10%)

- Perception of Effectiveness

- Naltrexone/Vivitrol (67%) as most effective for treating OUD
- Methadone (49%)
- Buprenorphine (63%)
- Disulfiram/Antabuse (23%)
- Acamprosate (7%)

- Behavioral Therapy

- 62% PSC offer 6 to 8 behavioral therapies
- Favored
 - Individual Counseling
 - 12-Step Programs

Perceptions and Attitudes

86% (n=568) of local court coordinators report their court offers some type of MAT

BUT...

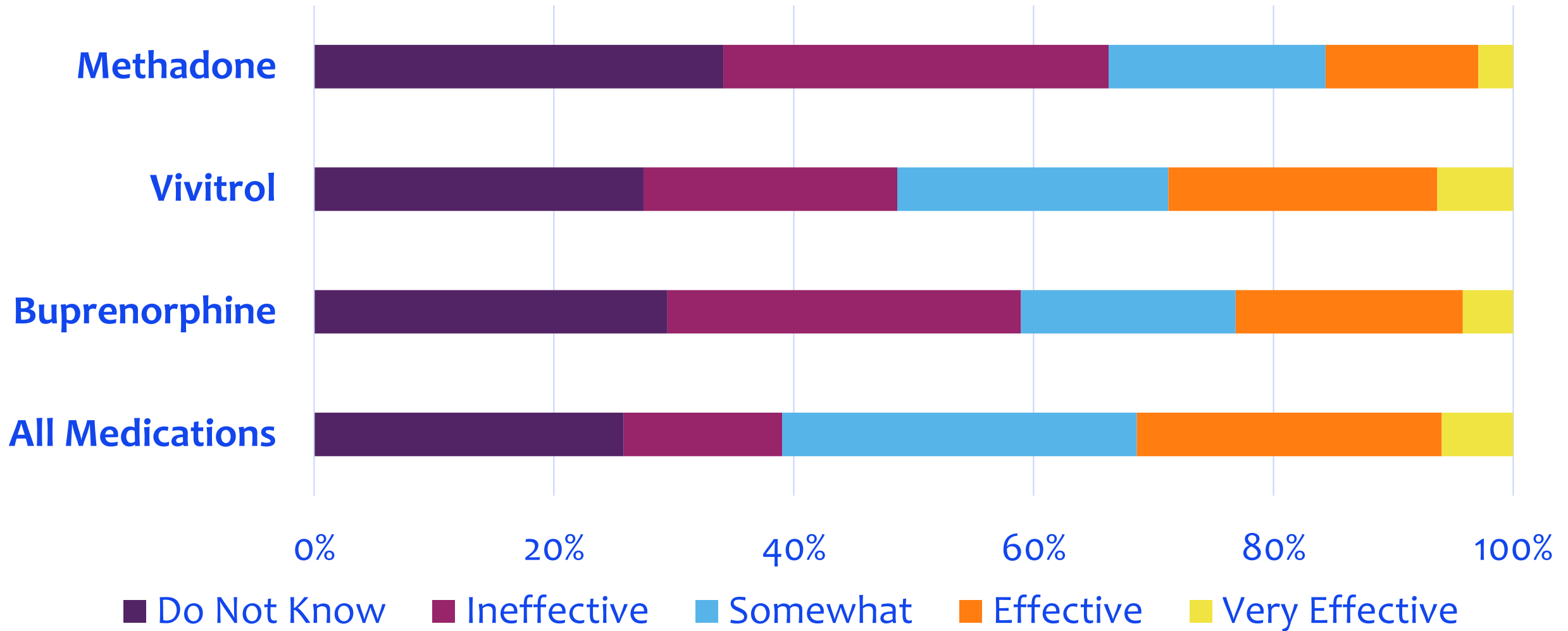
- 36% believe MAT services are effective, varies depending on medications
- 47% believe that MAT medications reduce criminal activity
- 43% believe MAT medications should be offered as lifelong treatment

EXCLUSIONS...

- 30% report that participants are excluded if known to misuse medications
- 58% report participants are excluded based on conviction offense

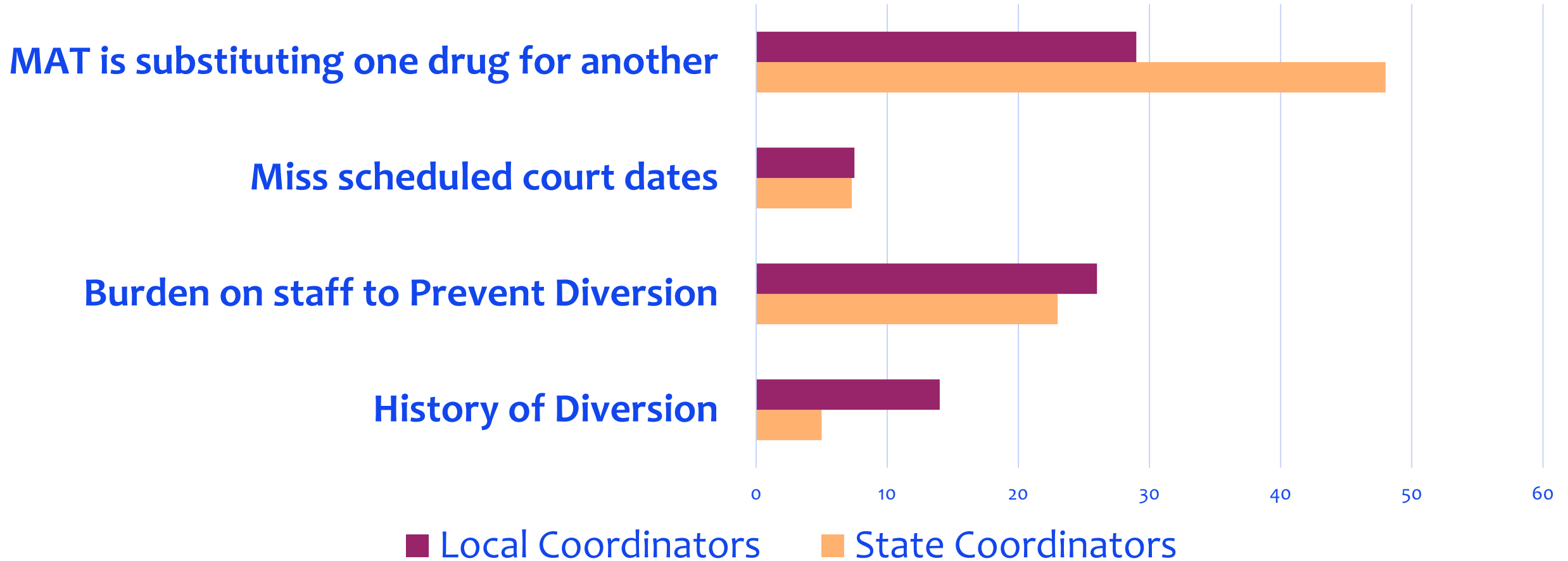
Perceptions	State Coordinators Agree	Local Coordinators Agree
If someone misses a scheduled court date, they shouldn't be allowed to continue MAT	7%	8%
If participants have a history of diverting their medication, participants should not be prescribed MAT	5%	17%
The frequency of treatment services makes no-shows more likely	22%	16%
MAT burdens court staff to ensure participants are not diverting their medication	25%	26%
There is a perception in the courts that MAT is "just substituting one drug for another"	49%	30%

Deeper Dive: Perception of Effectiveness About MAT



Perception of Eligibility for MAT

% Agree with the Statements Affecting Eligibility



Generalized Linear Mixed Models

- Generalized Linear Mixed Models (GLMMs) examined the relationship between MAT usage and various court, county, and state level factors
 - Ordinary Least Squares (OLS) regression may produce misleading results when observations are not independent from one another
 - e.g. courts in the same county/state are more likely to be similar to one another than to courts in different counties/states
- GLMMs can account for the statistical dependencies associated with nested data by assigning each level in the data hierarchy its own statistical model (i.e. an intercept, regression coefficients, and error term)
- Local PSC court responses were considered nested within counties which were nested within states

Outcome Variables

- Model 1: Whether or not court offers MAT
 - Modelled using a Hierarchical Logistic Regression
 - No = 0; Yes = 1
- Models 2a-b: Number of people in the court on MAT
 - Modelled using a Hierarchical Poisson Regression
 - Controlled for variation in the number of people who could have used MAT by including an offset variable
 - Offset is a factor with a fixed regression coefficient of 1
 - Offset was based on the number of people in the court with a SUD

Model Hypotheses

- The purposes of Models 1 & 2a are to examine the relationship between structural factors and MAT availability or uptake, respectively.
- Model 2b is a follow-up to our initial investigation. Examines the relationship between attitudes regarding the ‘Big 3’ MOUDs: Buprenorphine, Methadone, & VIVITROL.

Data Structure and Predictor Variables

Level 1 Responses from Individual Courts

PSC Court Type, <i>n</i> (%)	1 = SUD Court; 0 = Other	403 (79.64)* 232 (80.28) ⁺
Perception in the court that MAT is 'just substituting one drug for another', <i>M</i> (<i>SD</i>)	1 – 4 (Strongly Disagree – Strongly Agree)	2.22 (0.83)*
Most participants in our court are not interested in MAT services, <i>M</i> (<i>SD</i>)	1 – 4 (Strongly Disagree – Strongly Agree)	2.39 (0.70)*
PSC participants are given a choice over which MAT to receive, <i>M</i> (<i>SD</i>)	1-4 (Never – Always)	3.04 (1.12) ⁺

Level 2 County Demographics

Percent of population that is opioid dependent, <i>M</i> (<i>SD</i>)	SAMSHA 2014	2.72 (0.38)* 2.73 (0.37) ⁺
Drug overdose mortality rate, <i>M</i> (<i>SD</i>)	Deaths/100k population	19.96 (9.76)* 20.34 (10.83) ⁺

Level 3 Responses from State MAT Coordinator + State Demographics

Medicaid expansion state, <i>n</i> (%)	1 = Yes; 0 = No	27 (77.14)* 23 (71.88) ⁺
State mandates types of treatment program and services, <i>n</i> (%)	1 = Yes; 0 = No	17 (48.57)*
State mandates MAT training for court staff, <i>n</i> (%)	1 = Yes; 0 = No	11 (34.34) ⁺
State mandates eligibility criteria for participants to PSC, <i>n</i> (%)	1 = Yes; 0 = No	21 (65.63) ⁺

* Model 1; *n* courts = 506, *n* counties = 413, *n* states = 35 ⁺ Model 2; *n* courts = 289, *n* counties = 253, *n* states = 32

Model 1: Does Court Offer MAT?

Level 1 Responses from Individual Courts

PSC Court Type, <i>n</i> (%)	1 = SUD Court; 0 = Other	403 (79.64)* 232 (80.28) ⁺
Perception in the court that MAT is 'just substituting one drug for another', <i>M</i> (<i>SD</i>)	1 – 4 (Strongly Disagree – Strongly Agree)	2.22 (0.83)*
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State mandates eligibility criteria for participants to PSC, <i>n</i> (%)	1 = Yes; 0 = No	21 (65.63) ⁺

* Model 1; *n* courts = 506, *n* counties = 413, *n* states = 35 ⁺ Model 2a; *n* courts = 289, *n* counties = 253, *n* states =

Model 2a: How Many Participants Receiving MAT?

Level 1
Responses from
Individual Courts

PSC Court Type, <i>n</i> (%)	1 = SUD Court; 0 = Other	403 (79.64)* 232 (80.28) ⁺
Perception in the court that MAT is 'just substituting one drug for another', <i>M</i> (<i>SD</i>)	1 – 4 (Strongly Disagree – Strongly Agree)	2.22 (0.83)*
Most participants in our court are not interested in MAT services, <i>M</i> (<i>SD</i>)	1 – 4 (Strongly Disagree – Strongly Agree)	2.39 (0.70)*
PSC participants are given a choice over which MAT to receive, <i>M</i> (<i>SD</i>)	1-4 (Never – Always)	3.04 (1.12) ⁺

Level 2
County Demographics

Percent of population that is opioid dependent, <i>M</i> (<i>SD</i>)	SAMSHA 2014	2.72 (0.38)* 2.73 (0.37) ⁺
Drug overdose mortality rate, <i>M</i> (<i>SD</i>)	Deaths/100k population	19.96 (9.76)* 20.34 (10.83) ⁺

Level 3
Responses from State
MAT Coordinator +
State Demographics

Medicaid expansion state, <i>n</i> (%)	1 = Yes; 0 = No	27 (77.14)* 23 (71.88) ⁺
State mandates types of treatment program and services, <i>n</i> (%)	1 = Yes; 0 = No	17 (48.57)*
State mandates MAT training for court staff, <i>n</i> (%)	1 = Yes; 0 = No	11 (34.34) ⁺
State mandates eligibility criteria for participants to PSC, <i>n</i> (%)	1 = Yes; 0 = No	21 (65.63) ⁺

* Model 1; *n* courts = 506, *n* counties = 413, *n* states = 35 ⁺ Model 2a; *n* courts = 289, *n* counties = 253, *n* states =

Model 2b: How Many Participants Receiving MAT?

Level 1
Responses from
Individual Courts

PSC Court Type, n (%)	1 = SUD Court; 0 = Other	190 (81.55)
How effective are the following medications for treating participants with opioid use disorder? (mean buprenorphine, methadone, vivitrol)	1 – 4 (Strongly Disagree – Strongly Agree)	2.96 (0.62)
The following medications should be available as a lifelong treatment option. (mean buprenorphine, methadone, vivitrol)	1 – 4 (Strongly Disagree – Strongly Agree)	2.72 (0.94)
The following medications reduce addicts' criminal activities. (mean buprenorphine, methadone, vivitrol)	1 – 4 (Strongly Disagree – Strongly Agree)	2.94 (0.69)

Level 2
County Demographics

Drug overdose mortality rate, <i>M</i> (<i>SD</i>)	Deaths/100k population	20.08 (10.56)
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Level 3
Responses from State
MAT Coordinator +
State Demographics

Medicaid expansion state, n (%)	1 = Yes; 0 = No	23 (71.88)
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Model 1 Results: Does Court Offer MAT?

- Courts in states with Medicaid expansion 2.6x as likely to offer MAT services to participants
- Court staff perceptions that MAT was just substituting one drug for another were significantly, negatively associated with the likelihood of offering MAT

Table 4 Does the court offer MAT? (1 = yes; 0 = no)

Parameter	<i>b</i>	Odds Ratio	Standard Error	<i>z</i>	<i>P</i>
Intercept	4.89	--	0.82	5.98	<0.001
PSC Type	-0.14	0.87	0.47	-0.30	0.76
Medicaid Expansion	0.97	2.63	0.41	2.35	0.02
State Mandates Types of Tx Services	-0.77	0.46	0.43	-1.78	0.08
Court Perception: MAT is substituting one drug for another	-0.91	0.40	0.23	-3.91	<0.001

Model 2a Results: Number of People on MAT

- Greater county drug overdose mortality rates were associated with greater uptake of MAT services
- State mandated eligibility criteria for receiving MAT was associated with fewer court participants receiving MAT services
- Allowing more choice in type of MAT available was associated with more court participants enrolled in MAT services

Table 5 Number of court participants receiving MAT (counts)

Parameter	<i>b</i>	Rate Ratio	Standard Error	<i>z</i>	<i>p</i>
Intercept	-3.07	--	0.33	-9.20	<0.001
PSC Type	0.04	1.04	0.11	0.35	0.73
Medicaid Expansion	0.21	1.24	0.25	0.84	0.40
Drug Overdose Mortality Rate (deaths/100k pop.)	0.02	1.02	0.01	2.82	0.005
State Mandates Eligibility Criteria	-0.67	0.51	0.23	-2.90	0.004
Participants Choose which MAT to Receive	0.28	1.33	0.05	5.24	<0.001

Model 2b Results: Number of People on MAT

- Greater county drug overdose mortality rates were associated with greater uptake of MAT services
- Local court staff’s beliefs about the effectiveness of MOUDs and their suitability as lifelong treatment options were strongly associated with uptake of MAT services. More favorable attitudes linked with higher uptake.
- Could not include all 3 attitudinal items because of a high degree of collinearity (staff who thought MOUDs were effective also believed they reduced criminal activity and vice versa).

Number of court participants receiving MAT (counts)

Parameter	b	Odds Ratio	Standard Error	z	p
Intercept	-5.09	--	0.50	-10.23	<0.001
PSC Type	0.15	1.18	0.14	1.01	0.31
Medicaid Expansion	0.30	1.35	0.27	1.12	0.26
Drug Overdose Mortality Rate <i>(deaths/100k pop.)</i>	0.03	1.03	0.01	2.91	0.004
MOUD Effectiveness	0.50	1.64	0.13	3.91	<0.001
MOUD Lifelong Treatment	0.24	1.28	0.07	3.34	0.001

COVID & PSC Operations (n=96)

- Location

- 70% in Medicaid Expansion States
- 56% in West, 27% South

- 75% Adult PSC, MH, Veteran's

- Court Operations

- 75% shifted to virtual or telephone format(s)
- 40% reduced frequency of court visits

- Drug Testing

- 25% stopped drug testing
- 50% relied on self-report to report drug use

- Medications Availability

- 22% had participants pick up MAT at a pharmacy/provider
- 6% increased take-home medications
- 5% delivered medication to the home
- 4% used central place to pick up medications

We have increased court contact during COVID as our judge/team feel that the increased contact is more supportive to participants at this time

We are requesting increased drug testing from providers to make up for our inability to do our own testing

Limitations and Challenges

- State coordinators:
 - Lack information on number of PSC participants at the local court level (40%)
 - Lack information on the characteristics of the PSC participant population (50%)
- Local coordinators reveal that they could not provide information on:
 - Length of time to complete the PSC (29%)
 - Graduation rate of participants (36%)
 - Number of participants prescribed MAT (43%)
 - Number of participants with an SUD diagnosis (44%) or OUD diagnosis (64%)
 - Lack information on the demographic characteristics of participants (50%)

Findings & Future Directions

- Funding enhances availability of MAT but utilization rates vary considerably
 - Not generally tracked
 - Information is generally with prescriber, not court
 - Court-treatment relationships often affect use of MAT
- Current models examined structural features, attitudes, and perceptions
 - Coordinators are aware of MAT but still lack knowledge of its utility
 - Coordinators perceive this as a treatment issue, less of a court issue
 - Issue is less about training but more about quality improvement processes

Overall Findings

- Survey data are observational (no random assignment) therefore causality between predictor variables and outcomes cannot be established
- Causal inferences can be performed by creating matched samples using propensity scores.
 - create a matched sample of courts in states that have implemented Medicaid expansion and courts in states that have not
 - Compare the matched samples on the likelihood of offering MAT & the number of people receiving MAT to estimate the effect of Medicaid expansion