Missouri's State Targeted Response to the Opioid Crisis and Implementation of the 'Medication First' Treatment Model

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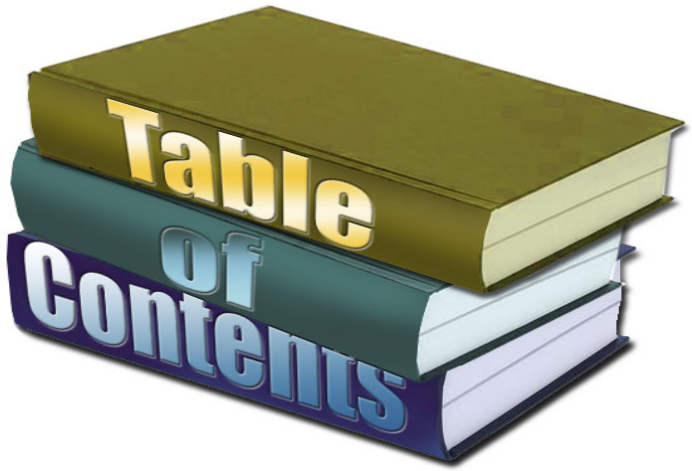
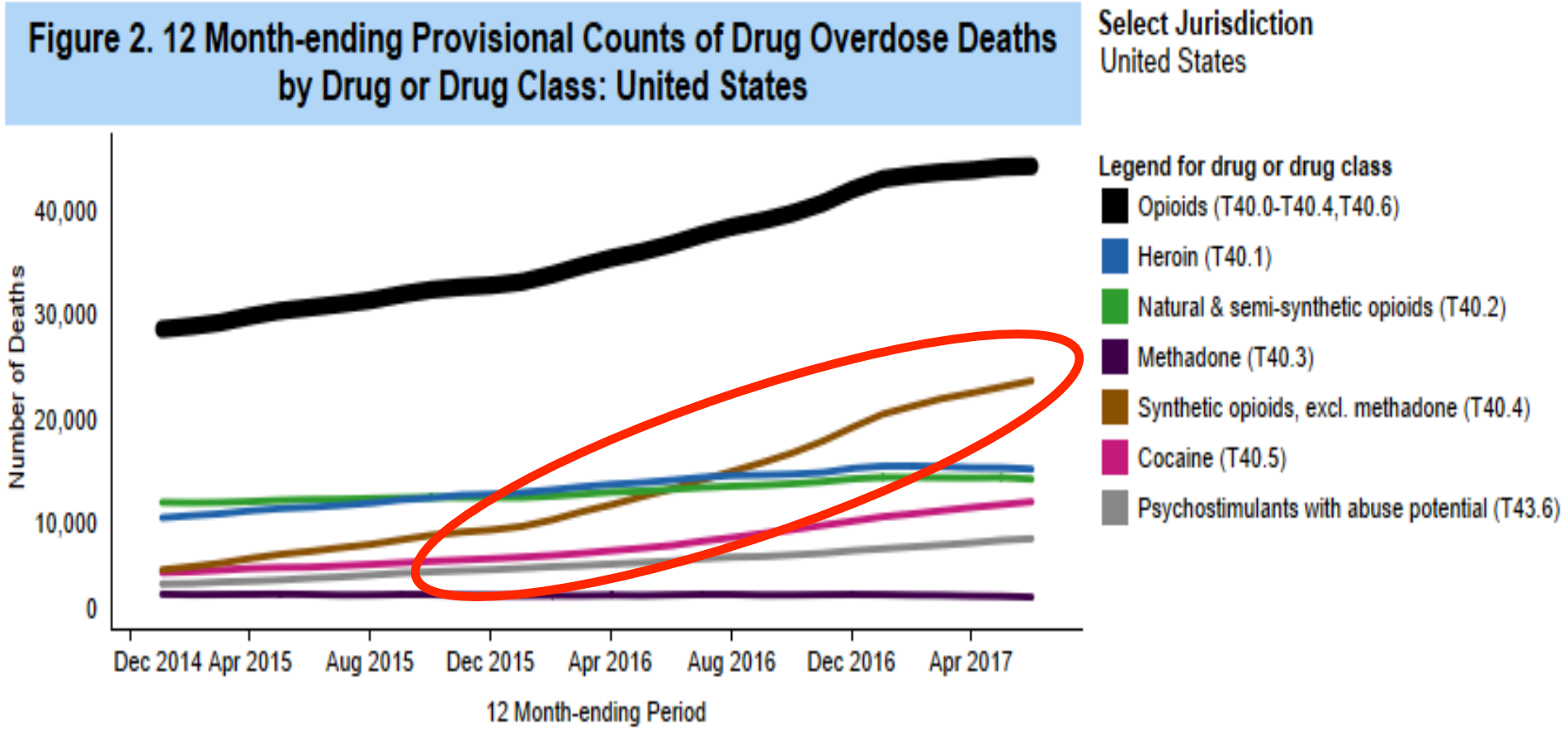


- State of the opioid crisis in MO
- The Medication First Model for OUD treatment
- Preliminary treatment findings from STR's first 6 months
- New products and developments

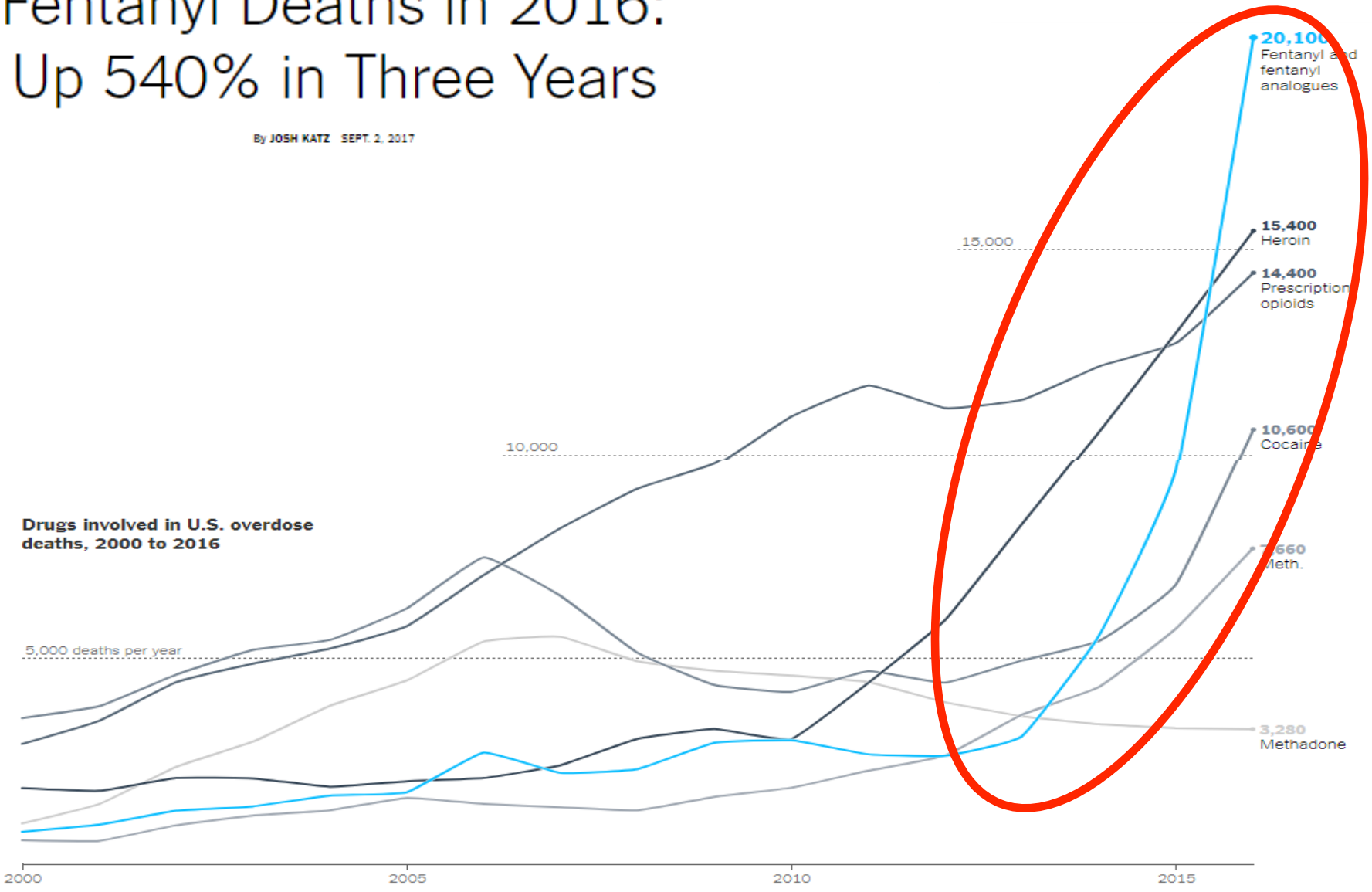
State of the opioid crisis in MO

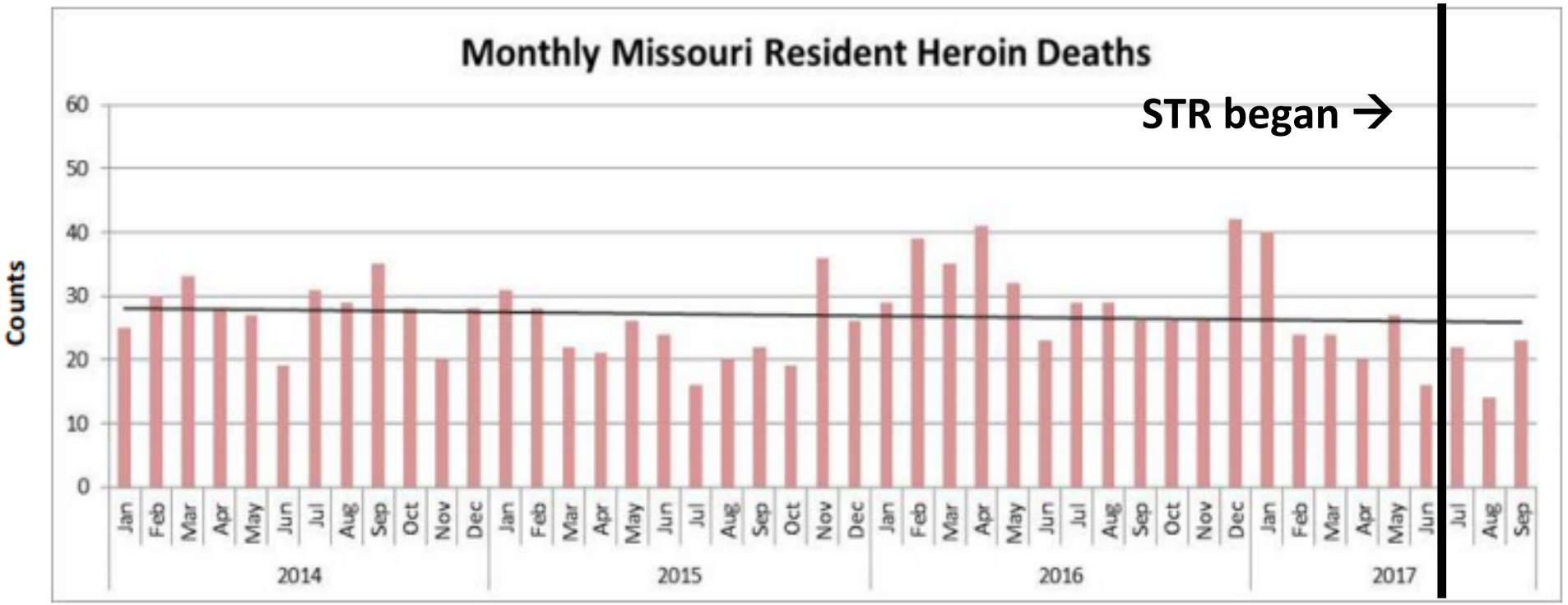
Figure 2. 12 Month-ending Provisional Counts of Drug Overdose Deaths by Drug or Drug Class: United States

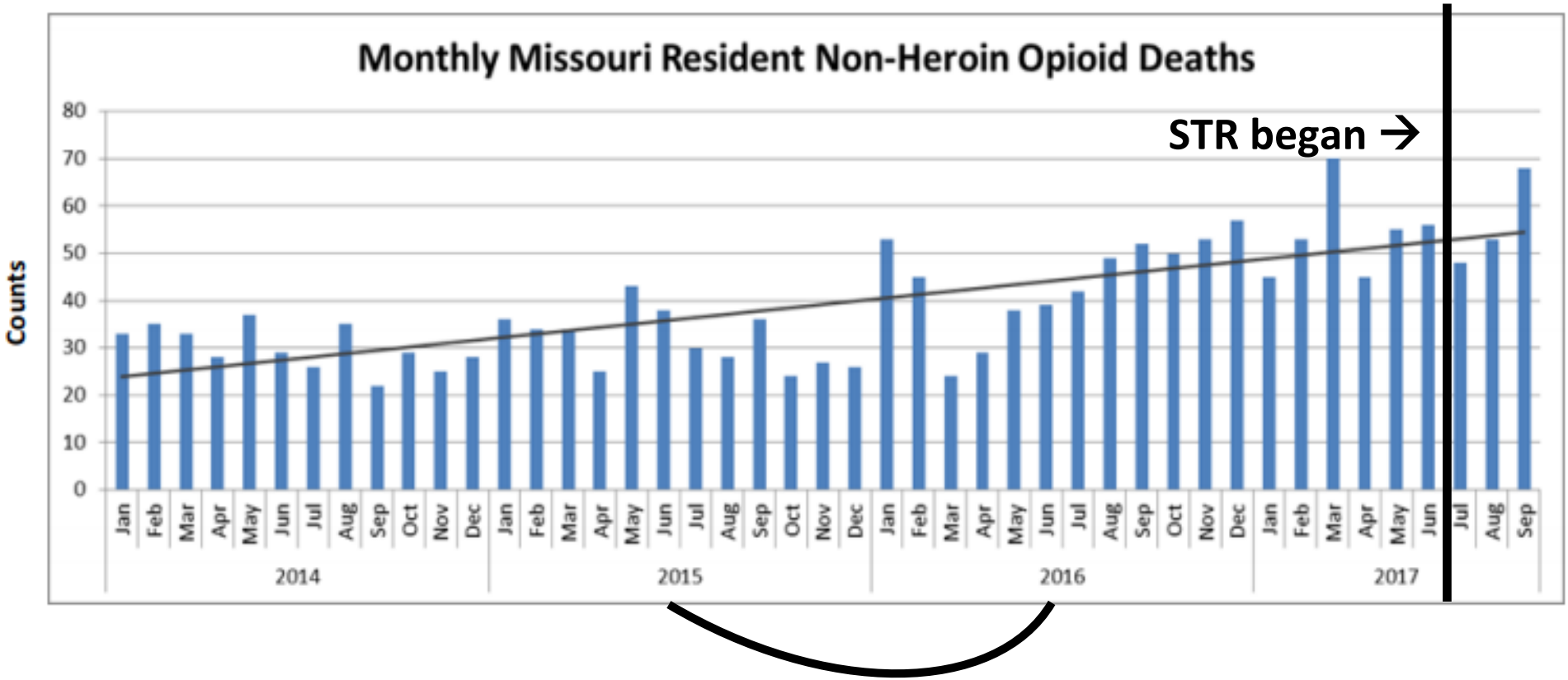


The First Count of Fentanyl Deaths in 2016: Up 540% in Three Years

By JOSH KATZ SEPT. 2, 2017

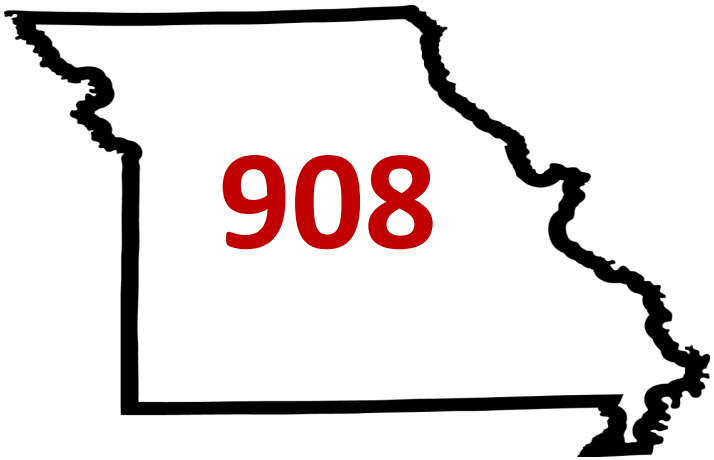


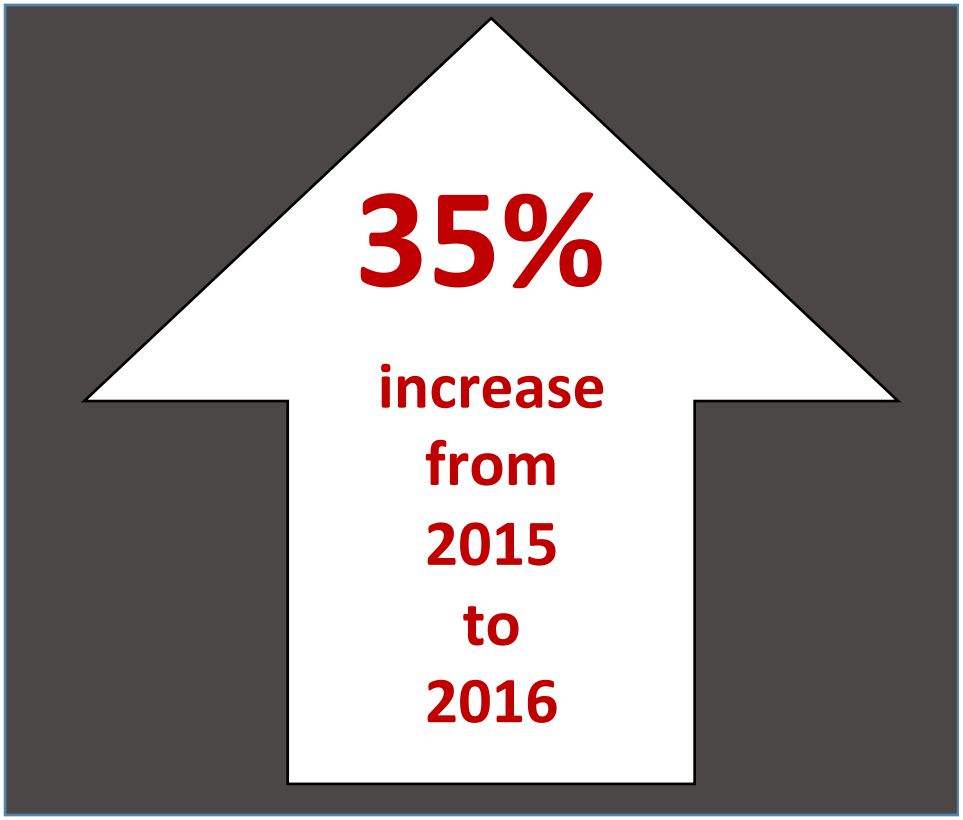

Monthly Missouri Resident Heroin Deaths
STR began →
Counts
60
50
40
30
20
10
0
Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec
2014
Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec
2015
Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec
2016
Jan Feb Mar Apr May Jun
2017
Jul Aug Sep



According to MHA, synthetic opiate deaths in Missouri tripled between 2015-2016 from 192 to 448.

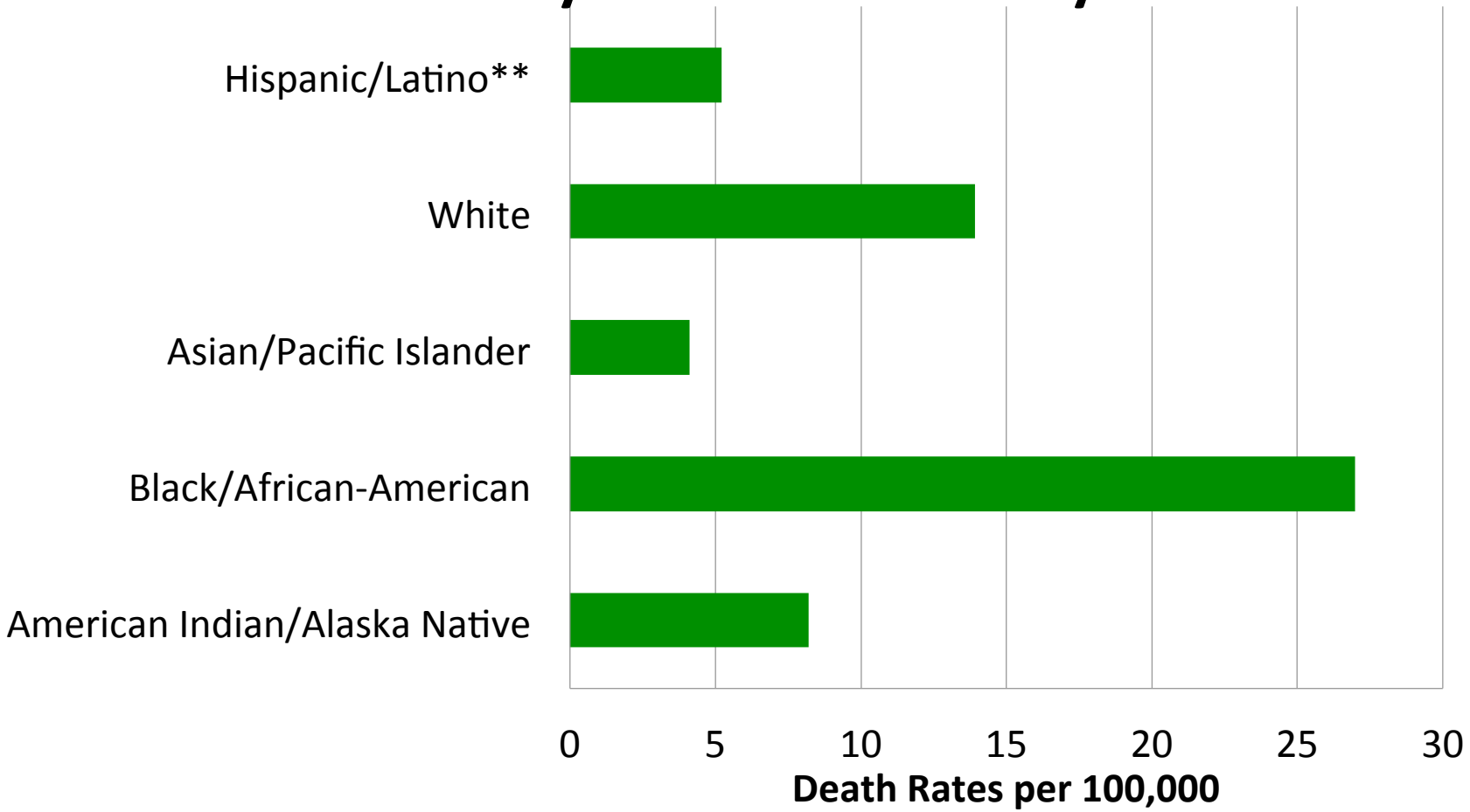
Total Number of Opioid-Related Overdose Deaths in 2016





Source: DHSS, 2017

2016 Opioid Related Death Rate in Missouri by Race and Ethnicity



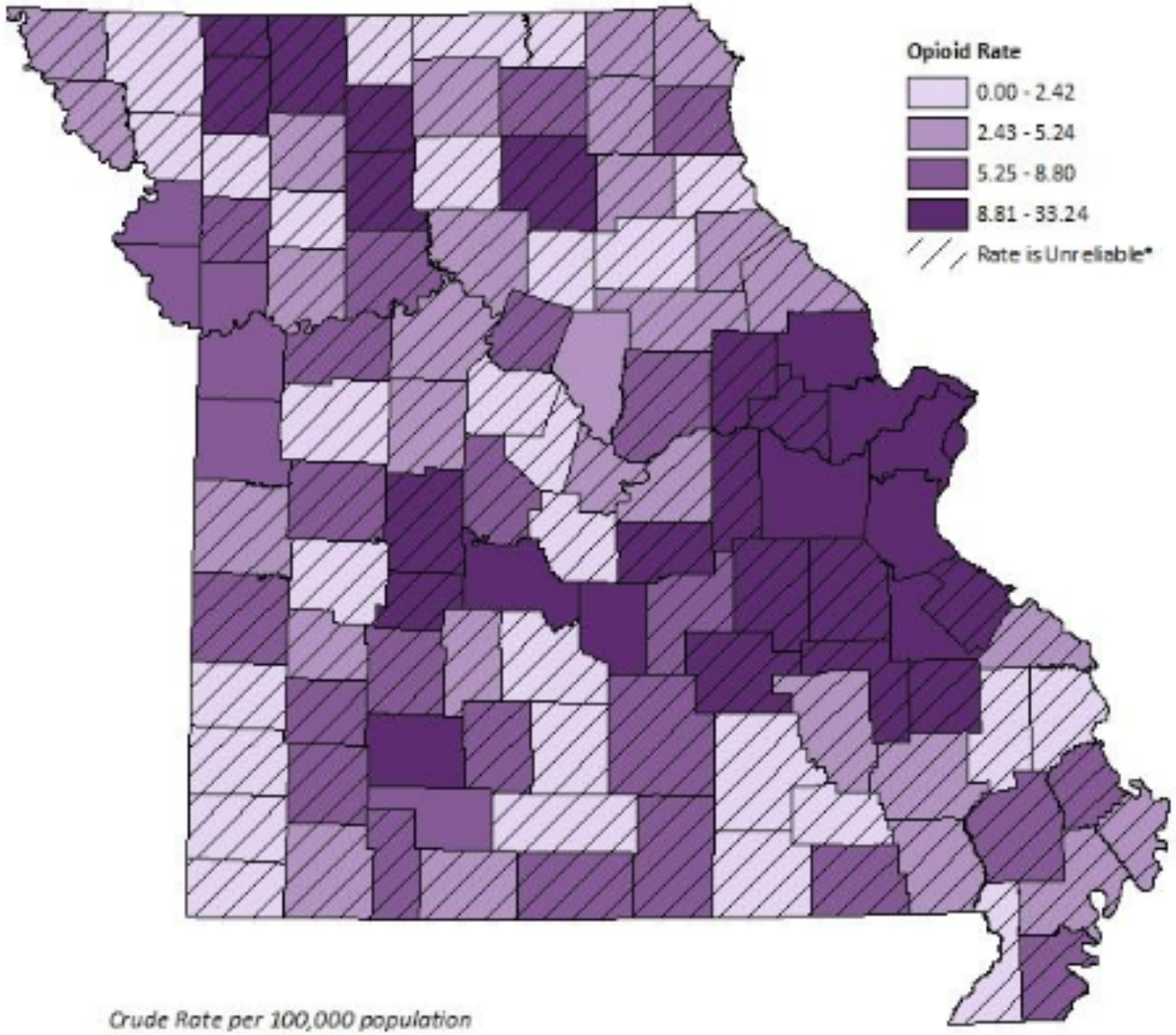
**Ethnicity is separate from race, these individuals are also included somewhere in the race counts

Data sources: Department of Health and Senior Services (2016), Bureau of Vital Statistics(2016), Missouri Census Data Center (2016)

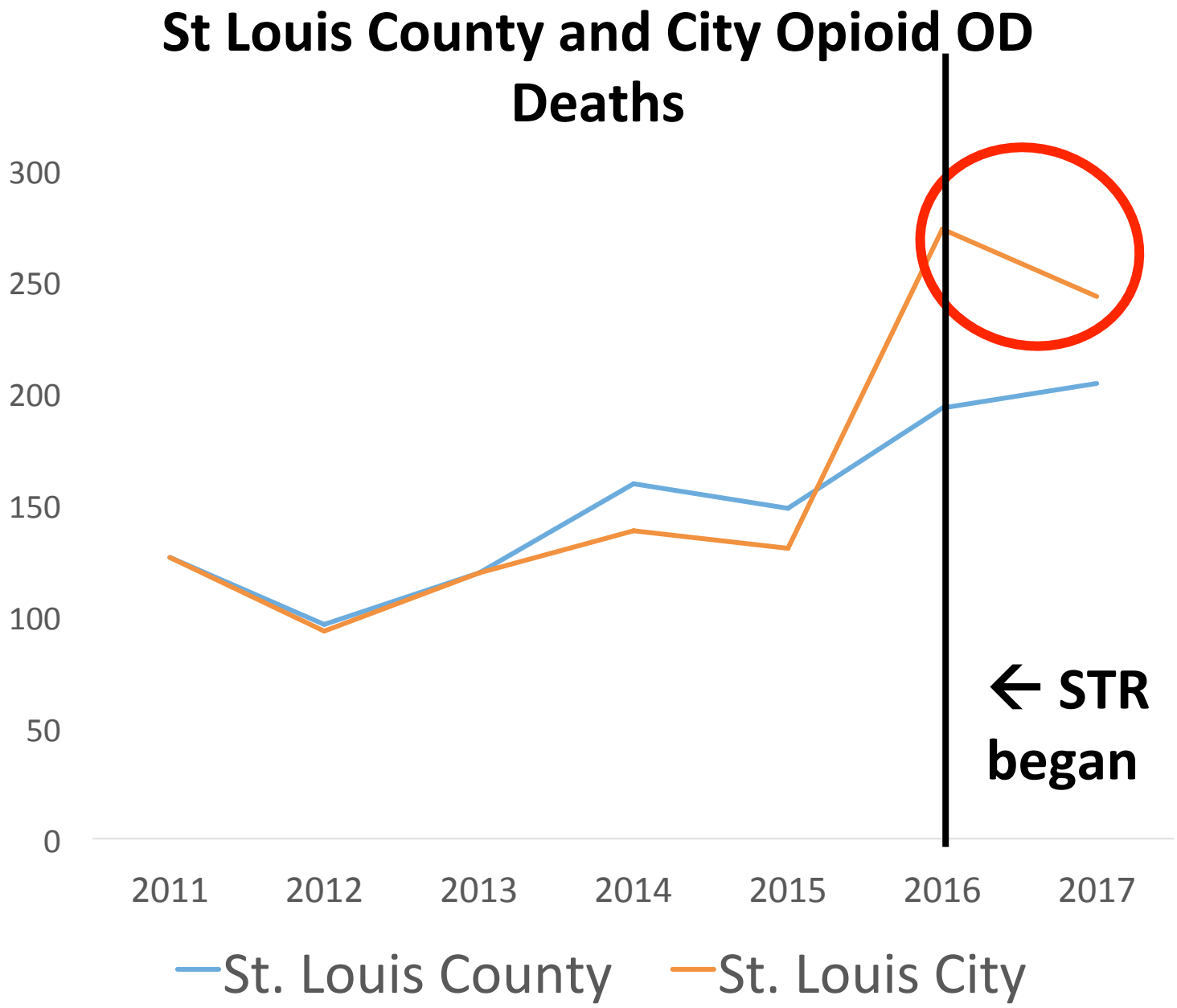
Table 3: Top 10 States with the Highest Rate of Opioid Overdose Deaths among Whites, African Americans and the General Population - 2015[xxi]

State	White	African American	General Population
West Virginia[4]	36.2	55.5	36.0
District of Columbia	NR	22.8	14.5
Wisconsin	11.3	21.9	11.2
Ohio	27.7	15.2	24.7
Maryland	25.0	14.8	17.7
Missouri	11.9	14.8	11.7
Massachusetts	27.1	13.2	23.3
Michigan	14.7	12.4	13.6
Illinois	13.1	11.6	10.7
Minnesota	6.0	10.0	6.2
United States	***13.9***	***6.6***	***10.4***

Deaths Due to Opioid Overdoses
2012-2016



Crude Rate per 100,000 population
** Numerator less than 20*


St Louis County and City Opioid OD Deaths
300
250
200
150
100
50
0
2011
2012
2013
2014
2015
2016
2017
← STR began
St. Louis County
St. Louis City

HEROIN and Opiates FATALITIES: 1/1/17 to 12/31/17

	Status	Signed	Died	ME_Number	S	A	R	Cause of Death	Occurred	Zip	PronLoc	Police	Complaint #
105	Signed	10/19/17	5/10/17	CITY-2017-1082	F	W	29	Hypoxic-Ischemic Encephalopathy Fentanyl Intoxication	S. Prairie	62087	Barnes	South Roxana Police Department	2017-000851
106	Signed	8/10/17	5/10/17	CITY-2017-1083	F	B	50	Gunshot Wound of the Head Acute Ethanol Intoxication	Wilmington Ave.	63116	Deceased's Residence	District 1	17-22195
107	Signed	9/14/17	5/10/17	CITY-2017-1088	M	B	62	Acute Fentanyl Intoxication	Goodfellow Boulevard	63136	Residence	District 6	17-22265
108	Signed	8/31/17	5/11/17	CITY-2017-1093	M	B	38	Acute Fentanyl and Heroin Intoxication	Mallinckrodt St., Apt. B		[illegible]	District 4	17-22338
109	Signed	8/3/17	5/11/17	CITY-2017-1095	M	W	48	Fentanyl, Oxycodone and Heroin Intoxication	Chippewa St.		Home [illegible] Residence	District 3	17-22367
110	Signed	8/3/17	5/13/17	CITY-2017-1111	M	B	38	Acute Fentanyl Intoxication	Olive Street Apt. 17P	63103	Residence	District 4	17-22737
111	Signed	8/22/17	5/18/17	CITY-2017-1156	M	B	37	Fentanyl and Heroin Intoxication	Wyoming Avenue	63118	[illegible]	District 3	17-23835
112	Signed	8/10/17	5/19/17	CITY-2017-1165	M	W	54	Acute Fentanyl and Ethanol Intoxication	Loughborough Ave.	63111	St. Alexius	District 1	17-023959
113	Signed	8/25/17	5/20/17	CITY-2017-1176	F	W	37	Acute Fentanyl Intoxication	North Broadway	63147	Scene	District 6	17-24190
114	Signed	8/15/17	5/23/17	CITY-2017-1200	F	B	37	Acute Fentanyl Intoxication	Miami St.	63116	SLUH	No Police Involved	None
115	Signed	9/14/17	5/24/17	CITY-2017-1213	M	W	66	Acute Heroin Intoxication	Neosho, Apt. 3		Deceased's Residence	District 1	17-24961
116	Signed	8/15/17	5/25/17	CITY-2017-1221	M	W	39	Acute Fentanyl Intoxication	Grace Ave.		[illegible] Residence	District 2	17-025132
117	Signed	8/17/17	5/26/17	CITY-2017-1232	M	W	46	Cocaine, Fentanyl and Ethanol Intoxication	N. Broadway, Room 523	63102	Hotel	District 4	17-25378
118	Signed	8/15/17	5/26/17	CITY-2017-1236	M	B	63	Fentanyl and Ethanol Intoxication	Chippewa St. #3W		Deceased's Residence	District 2	17-25387
119	Signed	8/17/17	5/27/17	CITY-2017-1246	M	B	40	Acute Fentanyl Intoxication	Idaho	63111	[illegible]	District 3	17-25505
120	Signed	8/22/17	5/27/17	CITY-2017-1247	F	B	21	Acute Fentanyl Intoxication	Benton Street		Deceased's Residence	District 4	17-25522
121	Signed	8/23/17	6/1/17	CITY-2017-1290	M	B	49	Fentanyl and Ethanol Acute Intoxication	McKean Avenue		[illegible] Residence	District 3	17-26564
122	Signed	8/23/17	6/1/17	CITY-2017-1295	M	W	29	Acute Fentanyl Intoxication	South 14th Street	63103	[illegible]	District 4	17-026585
123	Signed	8/23/17	6/2/17	CITY-2017-1296	M	W	26	Heroin and Fentanyl Intoxication	N. Euclid, Apt. 415		Deceased's Residence	District 5	17-26654
124	Signed	8/22/17	6/4/17	CITY-2017-1321	M	W	30	Acute Fentanyl Intoxication	Pennsylvania		[illegible] Residence	District 3	17-27059
125	Signed	8/22/17	6/4/17	CITY-2017-1322	F	W	54	Acute Fentanyl Intoxication	Pennsylvania		[illegible] Residence	District 3	17-27059


Opioid STR
MISSOURI DEPARTMENT OF
MENTAL
HEALTH
UMSL | MIMH
Missouri Institute of Mental Health

Missouri's Plan

NEED: To transform the system of care for OUD in Missouri

IN WHAT: Prevention, Treatment, & Recovery Support

DELIVERED HOW: Training, Consultation, & Direct Service with a Medication First treatment model

TO: SAVE LIVES.

The Medication First Model for OUD treatment


HOMELESS

Old model

- "Housing Readiness"
  - Individuals must address other issues that may have led to the episode of homelessness PRIOR to entering housing
- Housing "Levels" → progress through until reach independence

NEW model

BASICS OF HOUSING FIRST

- Housing is viewed as the foundation for life improvement – the *most critical* piece
- Prioritizes permanent housing to end homelessness and serve as a platform to pursue goals
- Does not mandate participation in services to obtain or retain housing
- Client choice is valuable in housing selection and supportive service participation
- Offering housing security builds trust

Keta's Story

- Been on the street for 20+ years
- Mental health and substance comorbidities

Case Management Theory:
"Anything necessary to keep them housed."

Does Housing First work…?

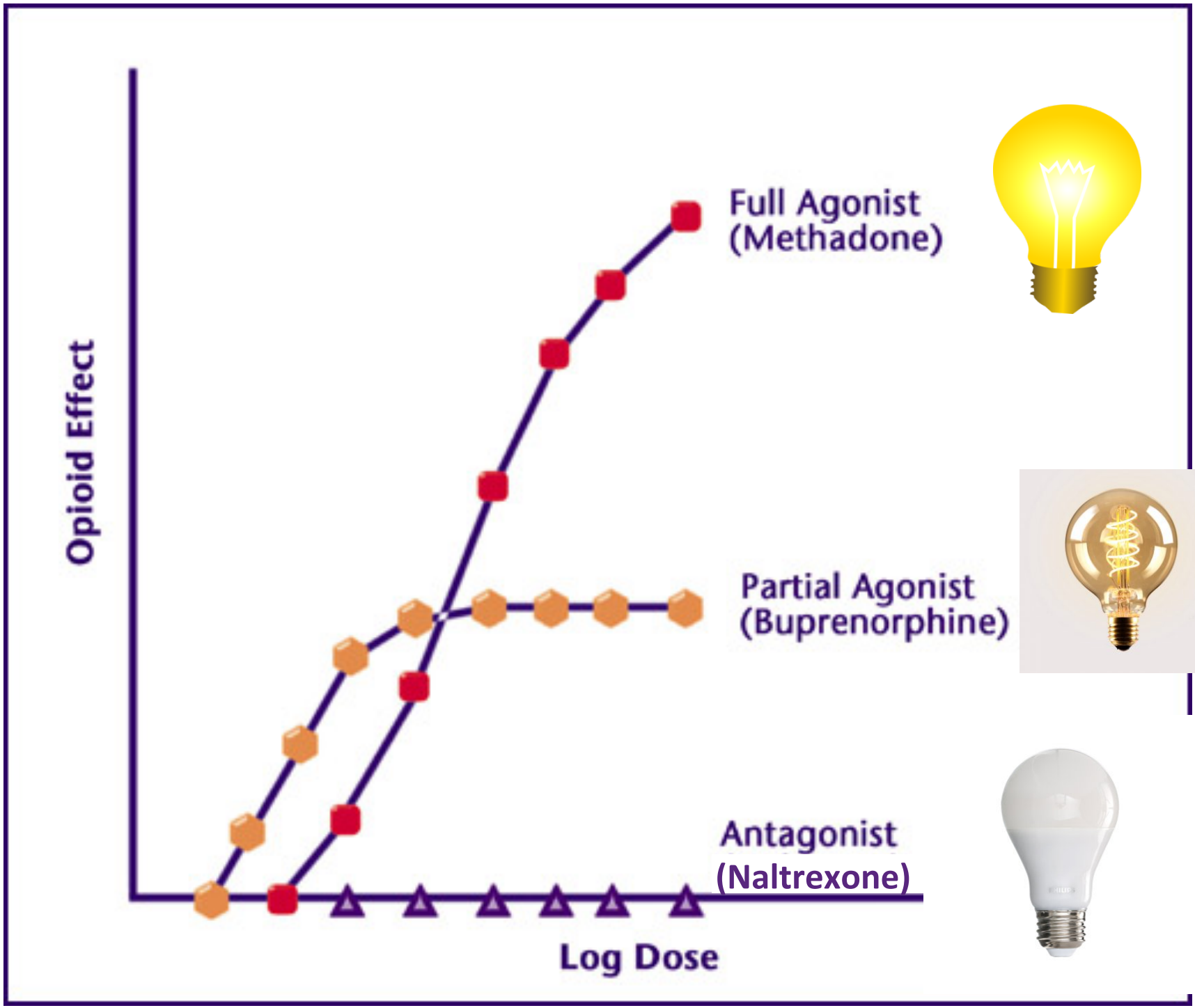
- Consumers in a Housing First model access housing faster and are more likely to remain stably housed.
  - 75%-91% remain housed at 1 year
- Increase in perceived levels of:
  - Autonomy
  - Choice
  - Control
- Majority participate in the optional supportive services → more likely to:
  - Job training programs, attend school, discontinue substance use, reduce domestic violence and hospitalization

John's story

- OD'd 3 times
- Stable on buprenorphine for 1 year
- Functioning improved dramatically
- Started testing positive for marijuana… no intention of quitting

Prior Approach to OUD Treatment

- Detoxification for Opioid Use Disorder
- Overreliance on "detox," residential and group therapy
- Approaching OUD as acute rather than chronic
- Use of agonist/partial-agonist medication such as Buprenorphine and Methadone as last resort
  - When using short time periods


Opioid Effect
Full Agonist
(Methadone)
Partial Agonist
(Buprenorphine)
Antagonist
(Naltrexone)
Log Dose

Medication First Model

1) People with OUD receive pharmacotherapy treatment as quickly as possible, prior to lengthy assessments or treatment planning sessions;

2) Maintenance pharmacotherapy is delivered without arbitrary tapering or time limits;

3) Individualized psychosocial services are offered but not required as a condition of pharmacotherapy.

Missouri's "Medication First" Model – Why?

- Provides fairly immediate relief from distress caused by withdrawal symptoms
- Stabilizes the client
- Decreases craving
- Creates mental ability for patient to engage and benefit from psychosocial treatments
- Designed to:
  - Increase retention in treatment
  - Decrease deaths from overdose

DBH Policy Expectations for the Use of Medications for Opioid Use Disorder

1. Do not initiate a taper or discontinuation of buprenorphine or methadone in response to any client "infraction" (e.g., missing therapy sessions).

2. (Other side of #1) Do not mandate participation in individual or group counseling as a requirement for continued medical treatment. See #1

3. Do not set a "time limit" for maintenance medical treatment.

4. Do not encourage 'rapid' buprenorphine taper protocols with the goal of transitioning to antagonist medications or no medications at all.

5. Do not discharge a client based on positive drug test results for illicit substances

DBH expectations, continued…

6. Do not discharge a client from a residential setting without enough medication to supply them to their first outpatient visit.

7. Do not withhold medical treatment if the treatment provider does not have staffing capacity to provide psychosocial services at the time the client presents.

8. Do not switch a client from Vivitrol to oral naltrexone solely for cost saving purposes.

9. **Do individualize dose decisions based on individual client factors, particularly craving intensity and environmental support** (i.e., be wary of underdosing – most clients do best when stabilized between 16mg-24mg of buprenorphine per day).

10. **Do increase client accountability measures** (e.g., drug testing, frequency of medication/dosing visits) -- if and when adherence to treatment protocols becomes disrupted by client behaviors described above -- **without discontinuing the needed medications.** Use motivational interviewing and make clear the rationale for the recommendation of individualized psychosocial supports.


Keta


R.I.P.
TRADITIONAL
MARKETING

Preliminary treatment findings from STR's first 6 months

STR CSTAR Treatment Update

1,883

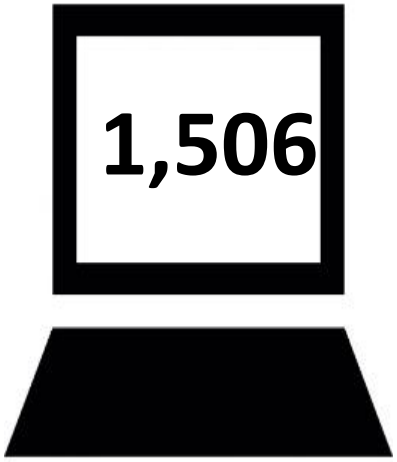
Individuals Enrolled in STR for treatment as of 5/9/18

16

Treatment agencies

44

Treatment sites



1,506

Telehealth encounters funded through STR

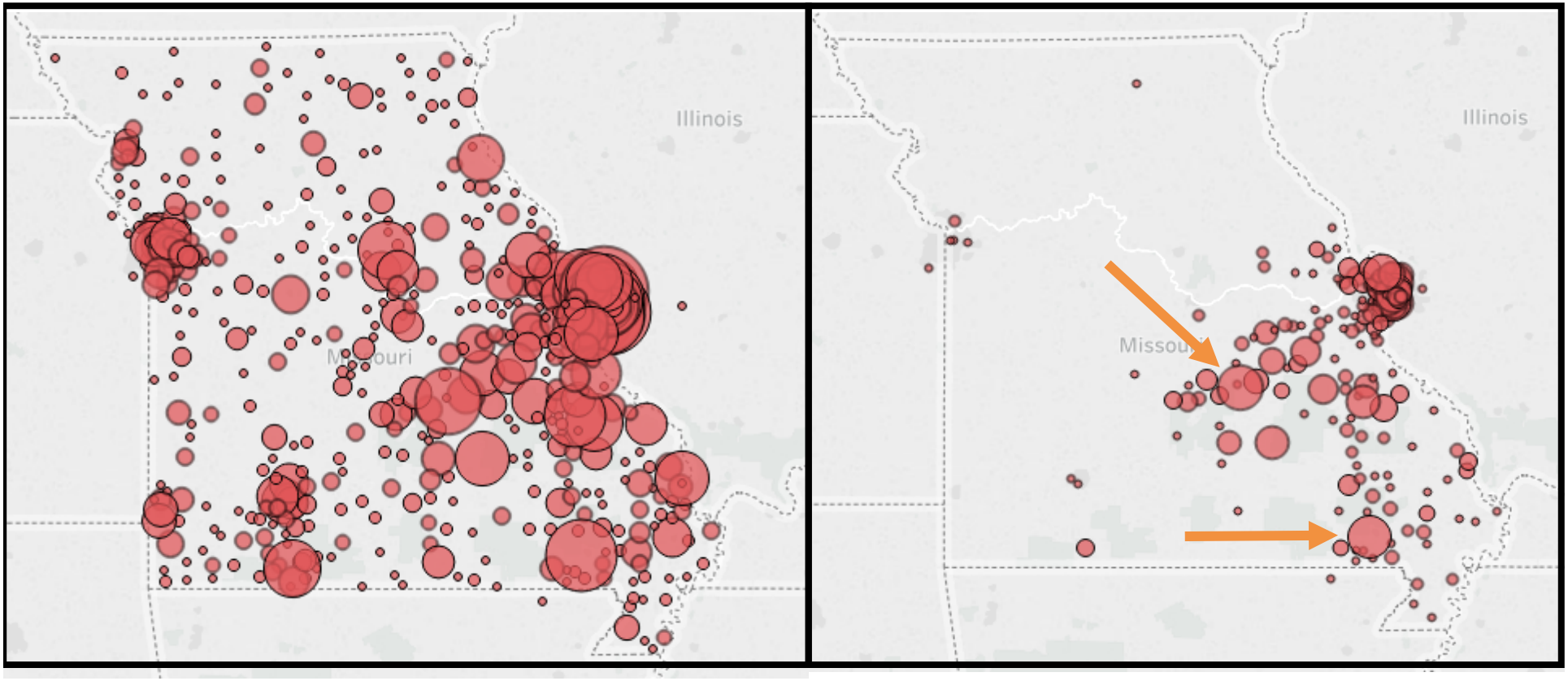
34

Telehealth units purchased for treatment agencies through STR

Treatment Admissions (first 6 months STR)

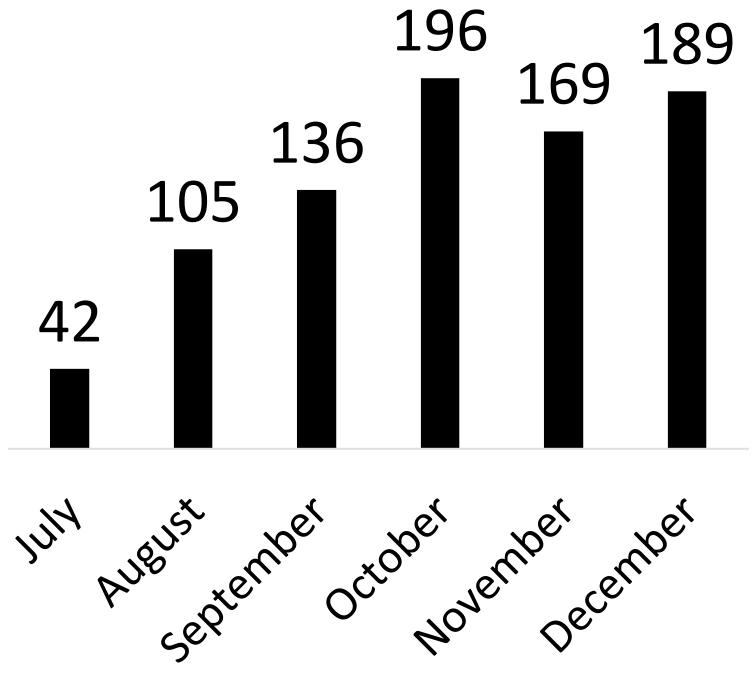
All CSTARS

STR Treatment



	Month Contract Began for STR	# of STR EOCs	% of STR EOCs	% of Baseline EOCs
SEMO	July	362	43.5%	28.3%
ARCA*	July	327	39.3%	17.5%
Center for Life	July	120	14.4%	6.0%
Queen of Peace	August	75	9%	6.6%
Westend Clinic	August	54	6.5%	3.6%
Preferred Family Healthcare	September	138	16.6%	49.6%
Gateway	October	82	9.8%	4.7%
Truman Medical	October	4	0.5%	-
Gibson	November	26	3.1%	5.1%

Overall STR Enrollment by Month (N = 837)



* Clients enrolled in ARCA are also enrolled elsewhere. Sum of percentages >100

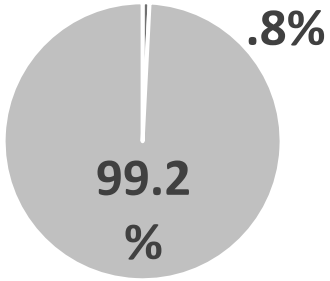
Demographics

Average Age = 35

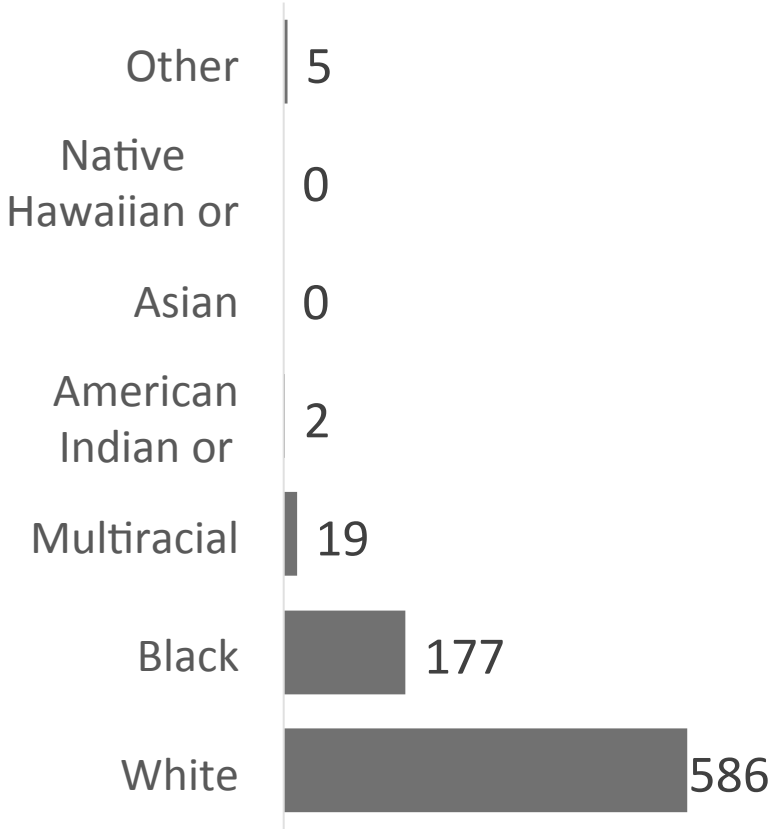
(N = 789)

Educational Attainment

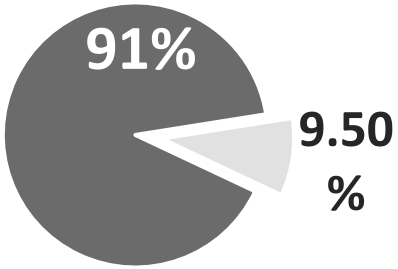
Ethnicity



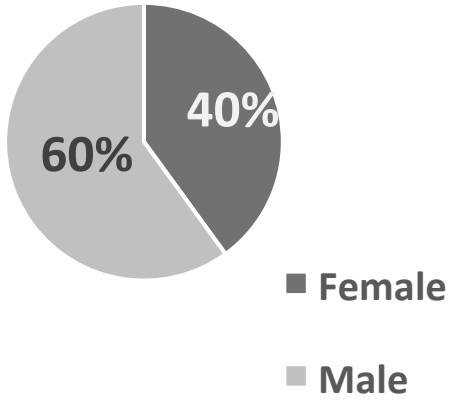
About ¾ of STR consumers are White

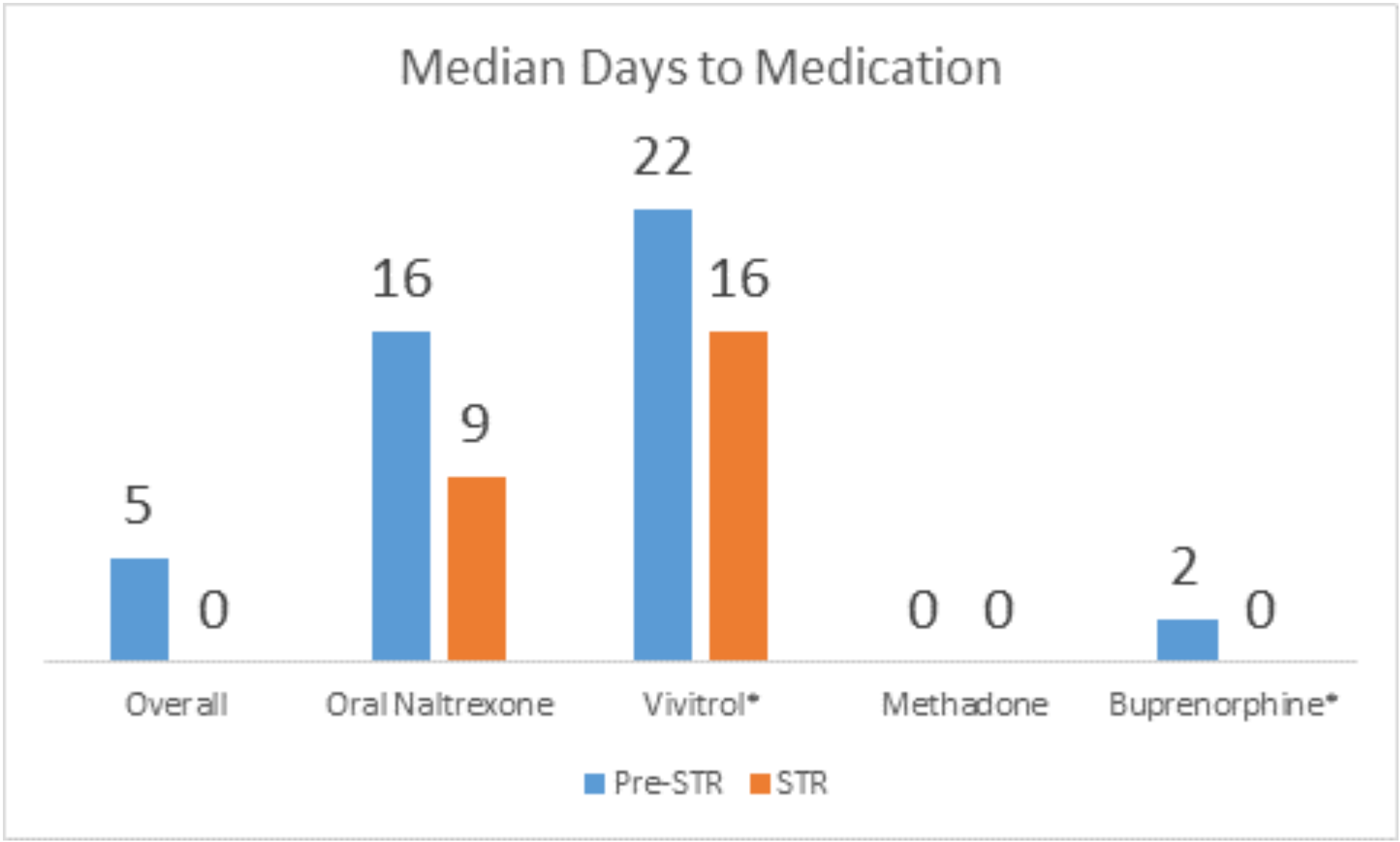


Ever Homeless



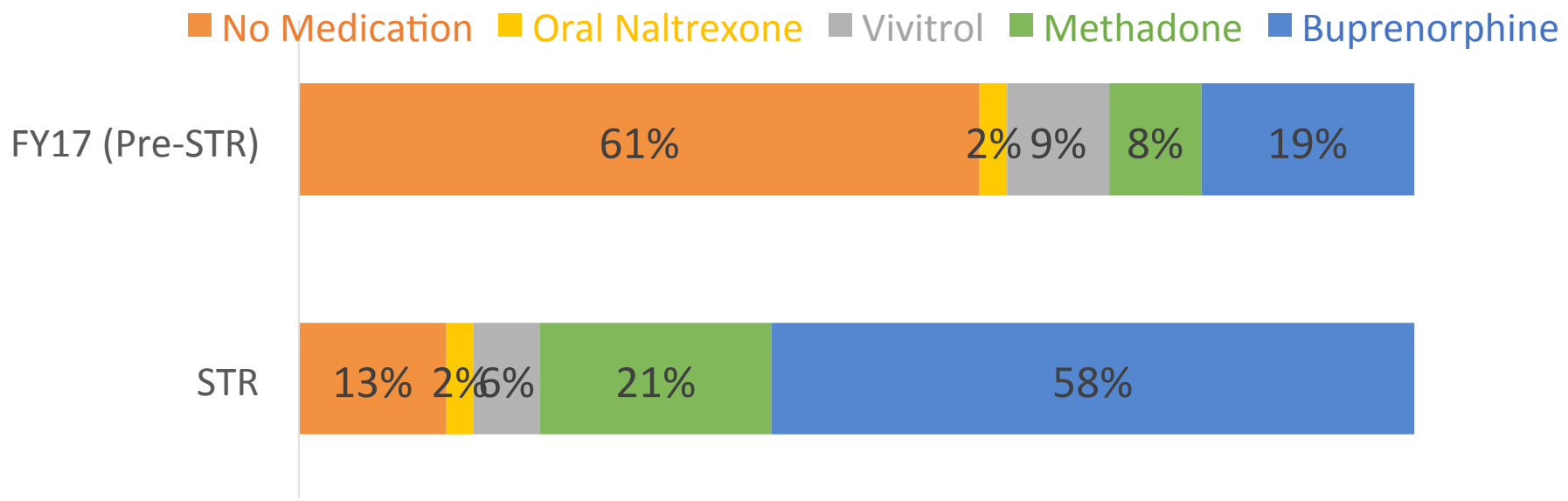
Sex



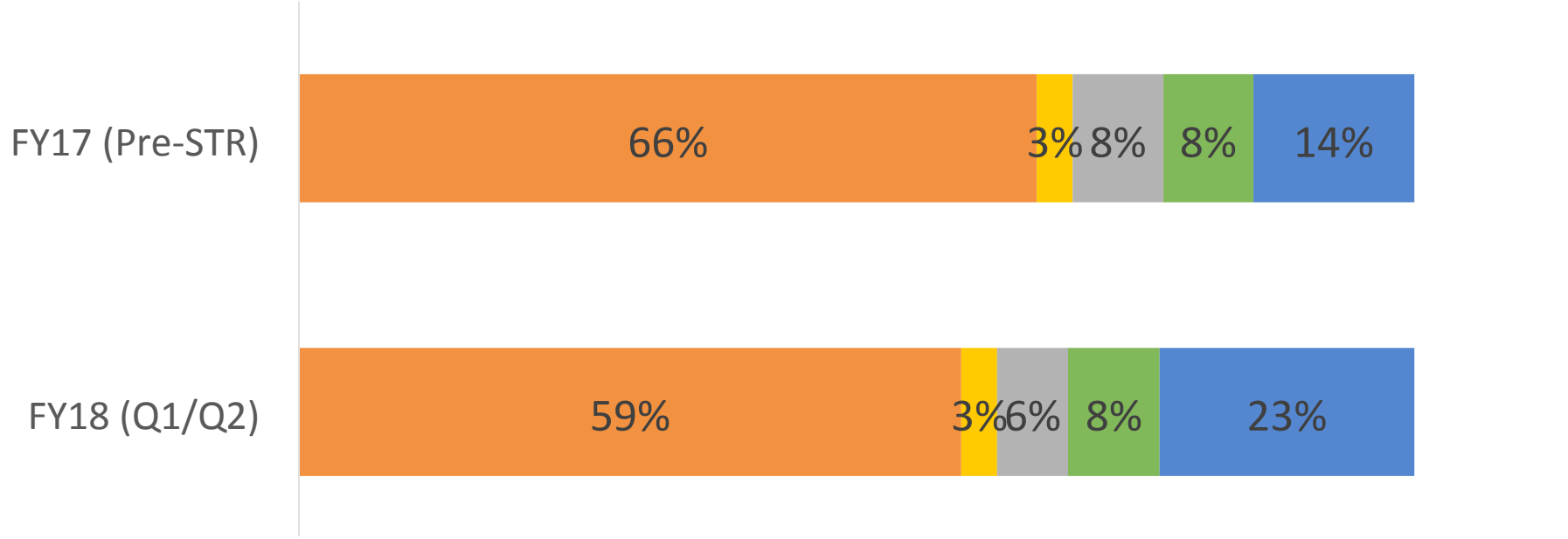


Note: Time to Vivitrol specifically is later than time to *first medication* in the Vivitrol group

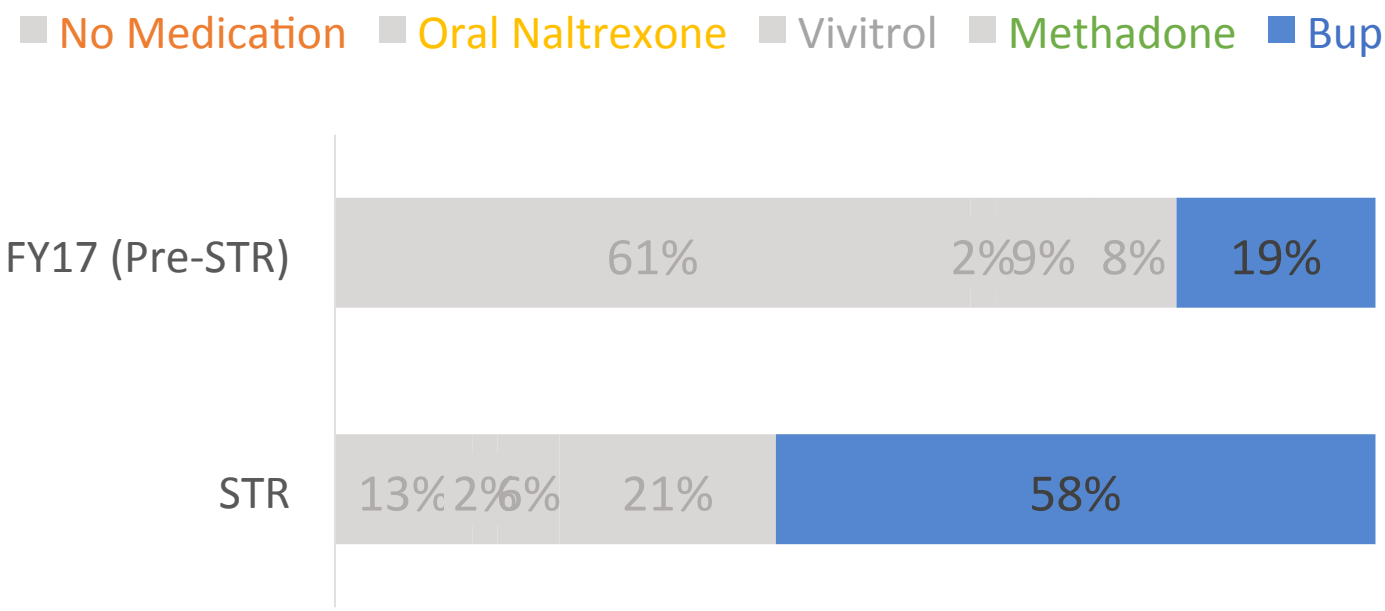
STR Agencies Only (N=7)



All CSTARS

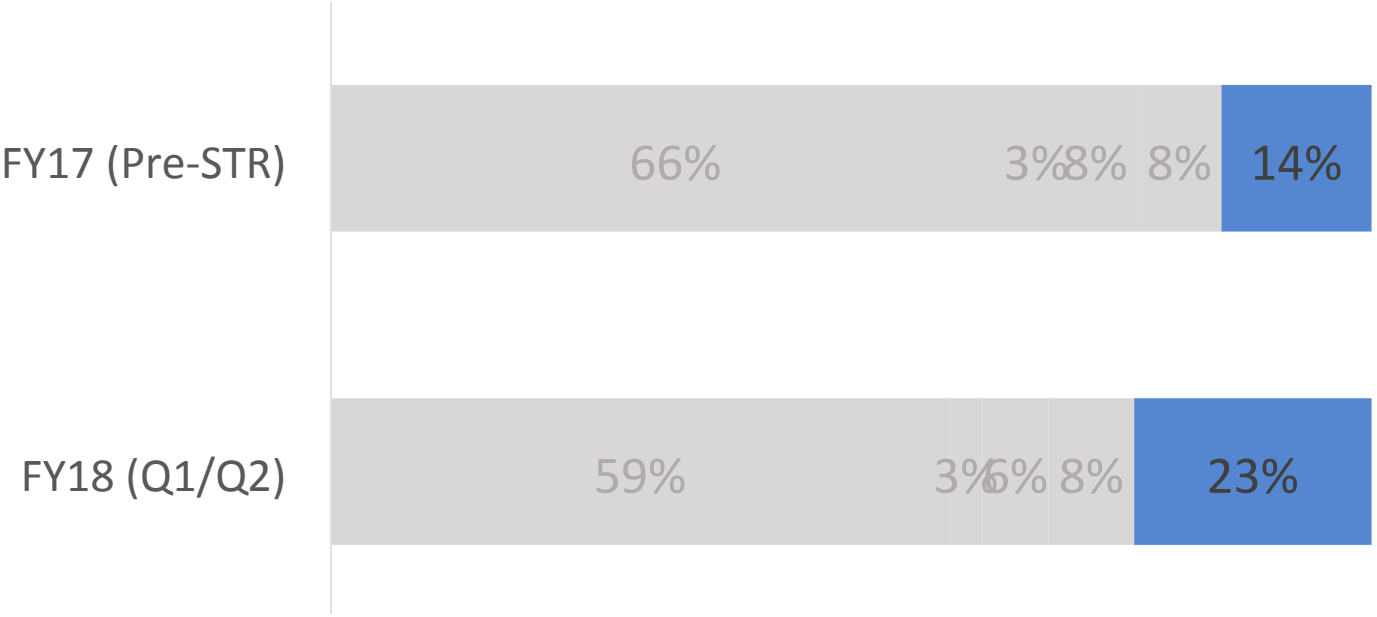


STR Agencies Only (N=7)



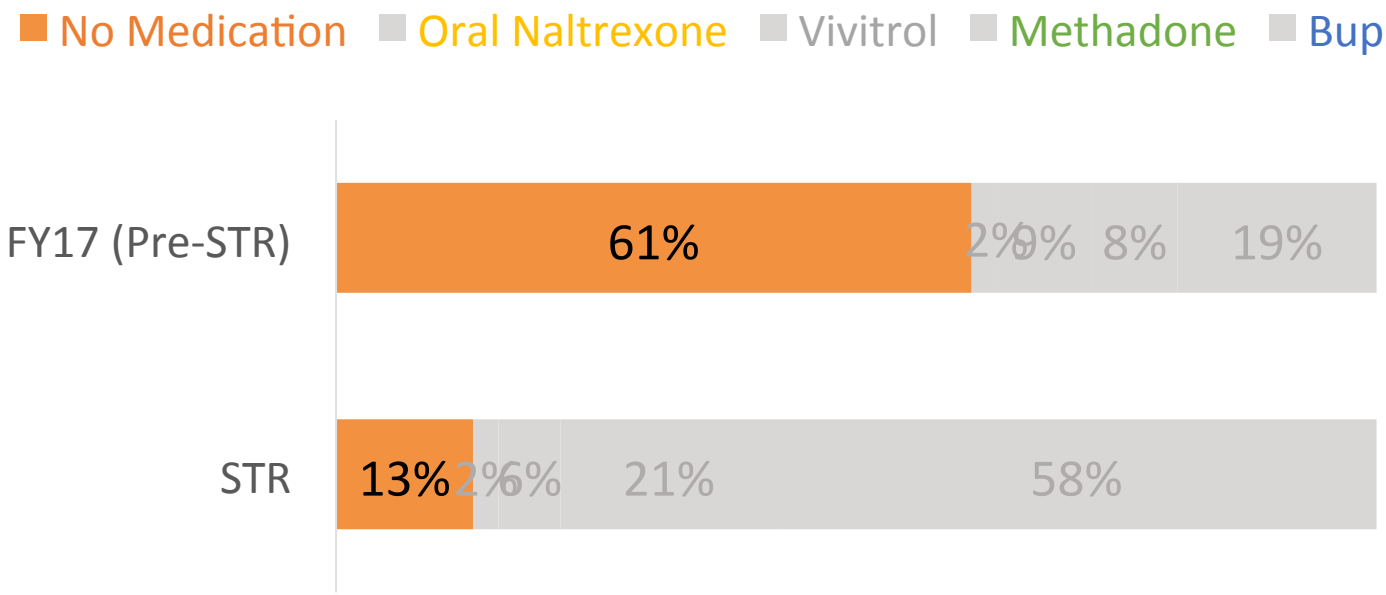
39% increase for EOCs with buprenorphine for **STR Agencies**

All CSTARS



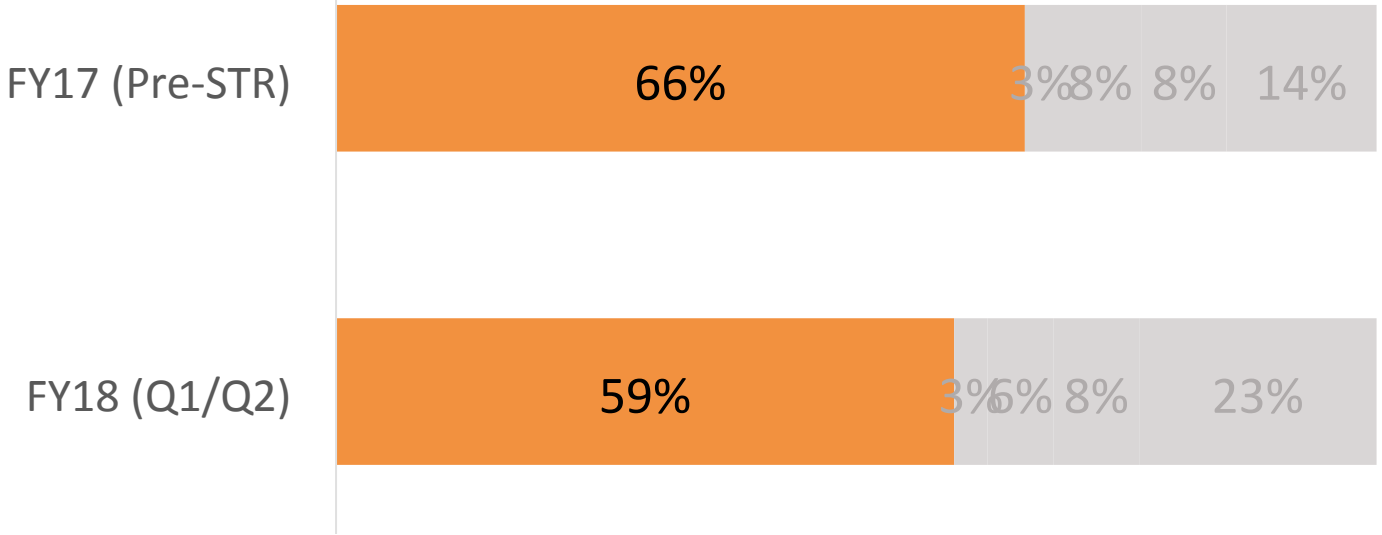
9% increase for EOCs with buprenorphine for **ALL STARS**

STR Agencies Only (N=7)



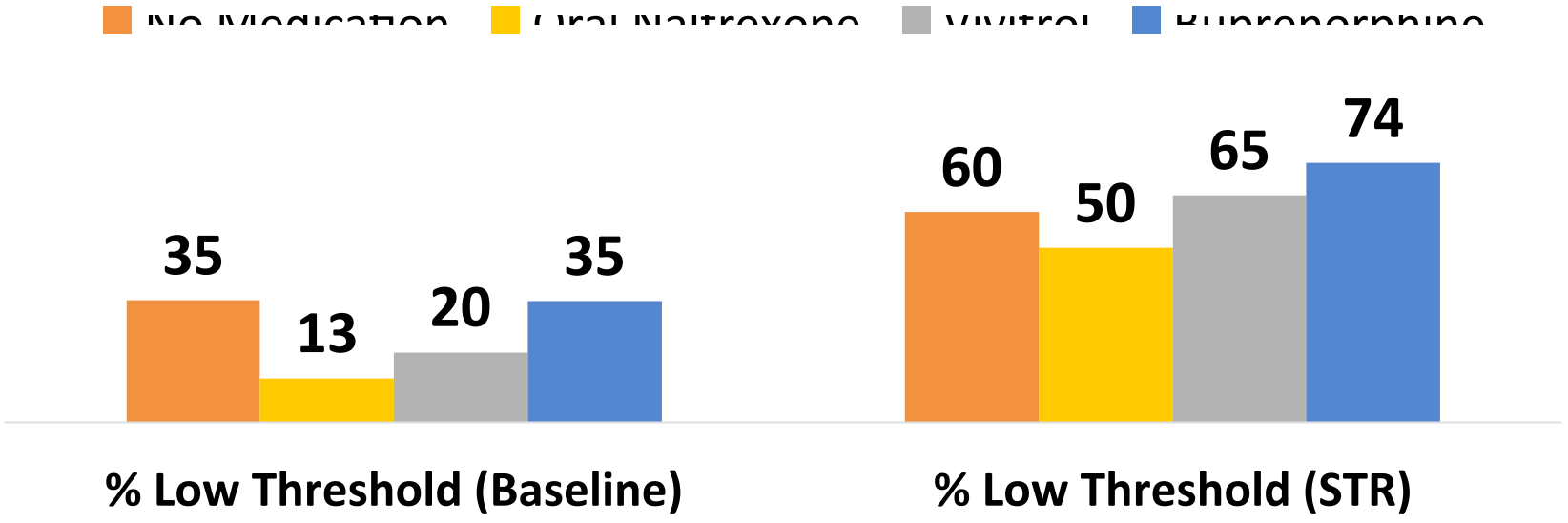
48% decrease for EOCs with no medication for **STR Agencies**

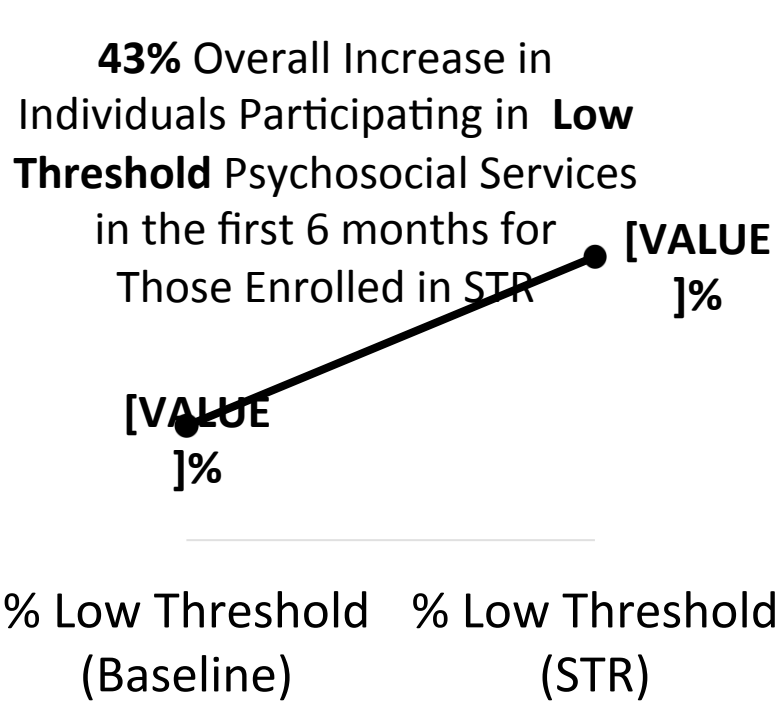
All CSTARS

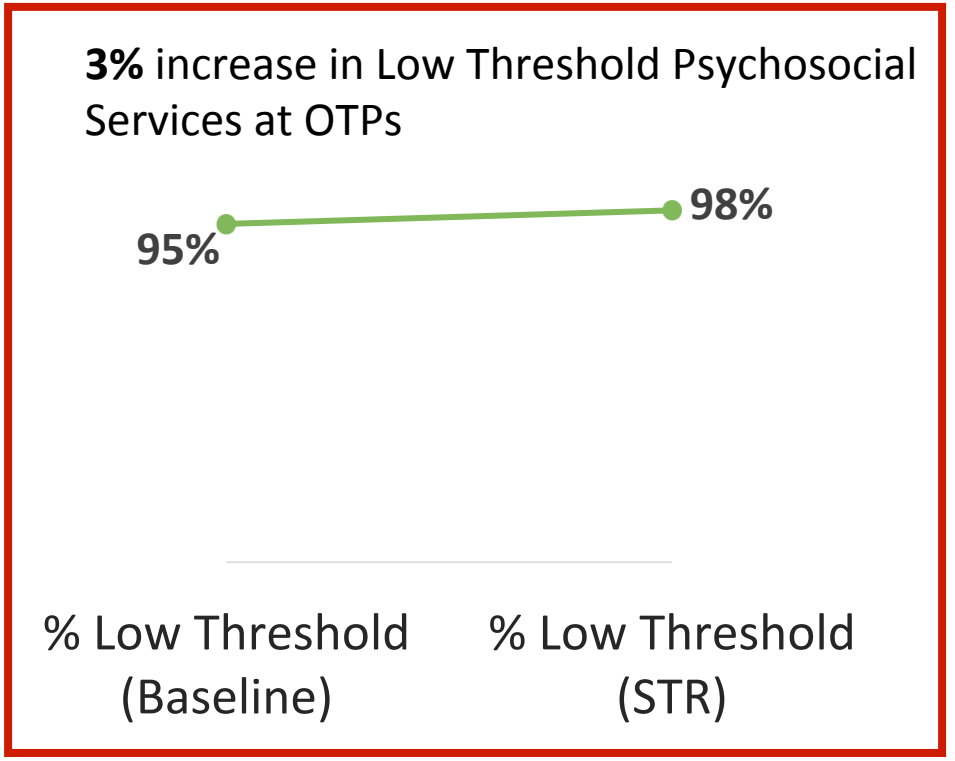


7% decrease for EOCs with no medication for **ALL CSTARS**

Percent of Individuals in Low Threshold Psychosocial Services By Medication







Association between psychosocial treatment and retention

For the baseline comparison group (7 agencies with comparable STR data):

- Treatment retention @ 1 month: r = -.19, p < .001
- Treatment retention @ 3 month: r = -.15, p <.001
- Length of episode: r = -.15, p <.001

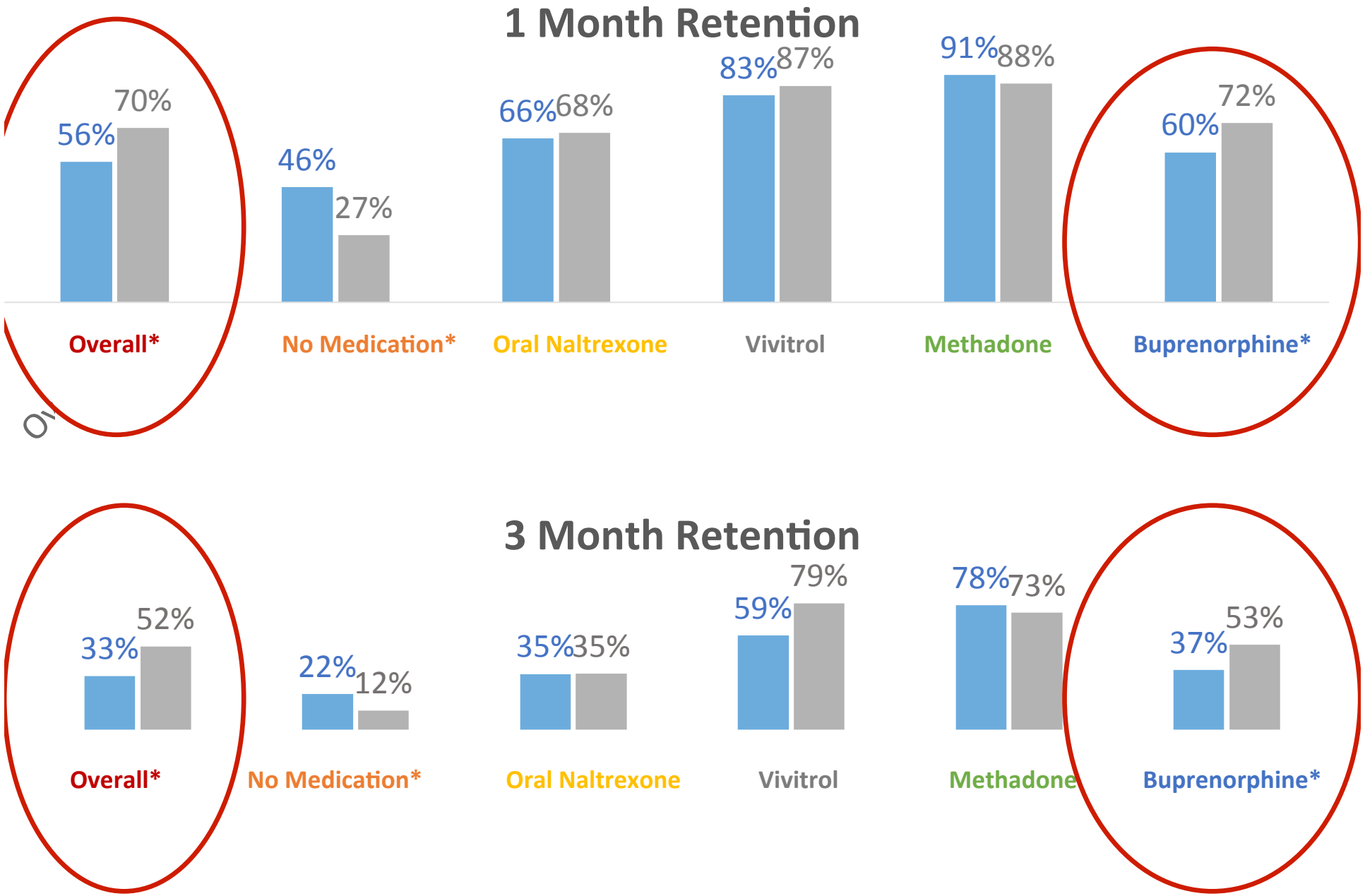
For STR EOCs:

- Treatment retention @ 1 month: r = -.08, p = .019
- Treatment retention @ 3 month r = -.05, *ns*
- Length of episode: r = -.09, p =.013

Peer Support Services:

12% of STR EOCs received peer support services within the first 30 days of treatment.

Hours per day of peer support services in the first 30 days of treatment was modestly and **positively associated with the length of the episode of care** (r = .14, p < .001) **and retention at 1 and 3 months** (r = .10, p = .004; r = .13, p = .003, respectively).

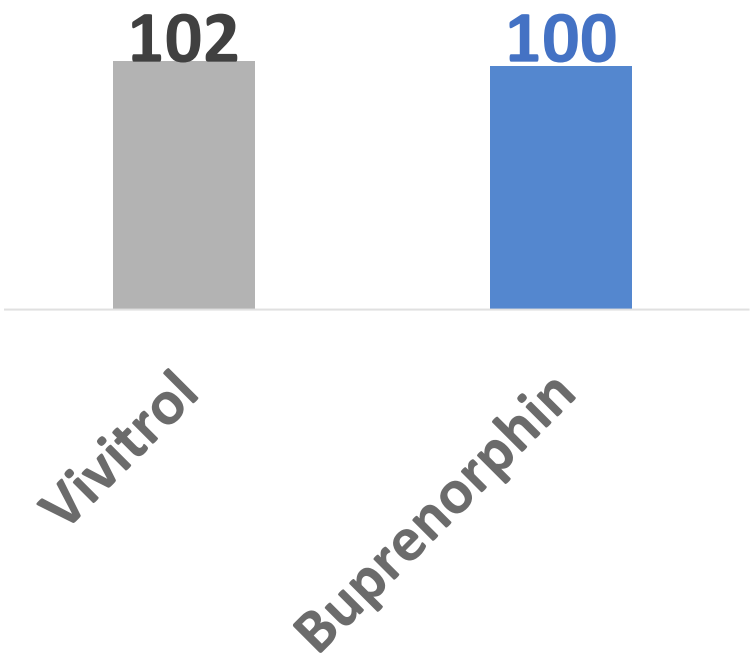

1 Month Retention
56%
70%
46%
27%
66%
68%
83%
87%
91%
88%
60%
72%
Overall*
No Medication*
Oral Naltrexone
Vivitrol
Methadone
Buprenorphine*
3 Month Retention
33%
52%
22%
12%
35%
35%
59%
79%
78%
73%
37%
53%
Overall*
No Medication*
Oral Naltrexone
Vivitrol
Methadone
Buprenorphine*
3 Months (Pre-STR)
3 Months (STR)

Matched Buprenorphine and Vivitrol Groups

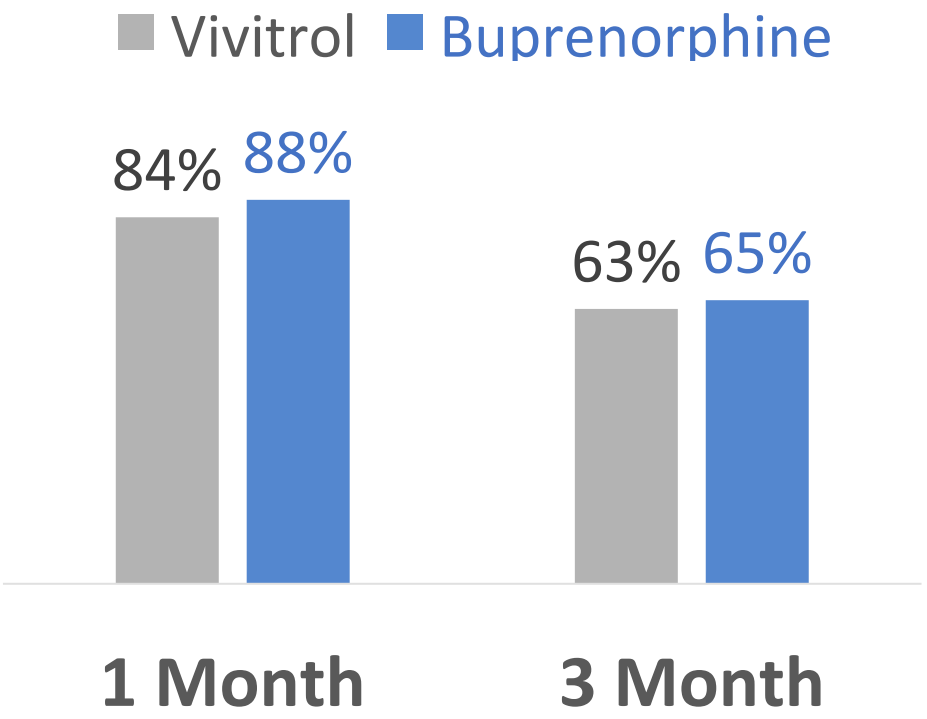
- **Buprenorphine**: Billed bup days > 8, (N=776)
- **Vivitrol**: (N=265)
- All CSTAR EOCs FY18 (July-December)
- Both groups had to be in Tx for at least 14 days

No significant differences were found between groups

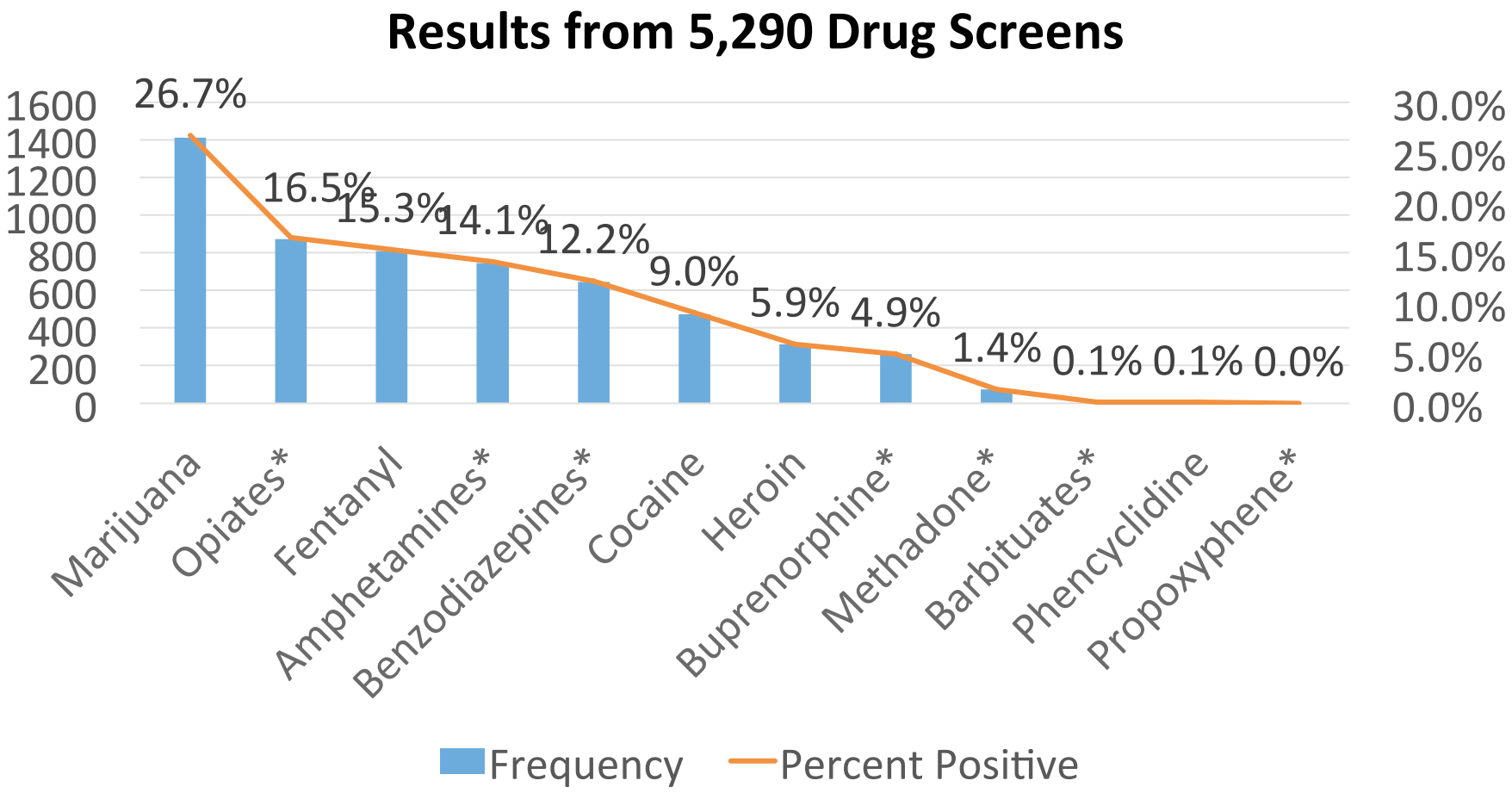
Median Days in Treatment

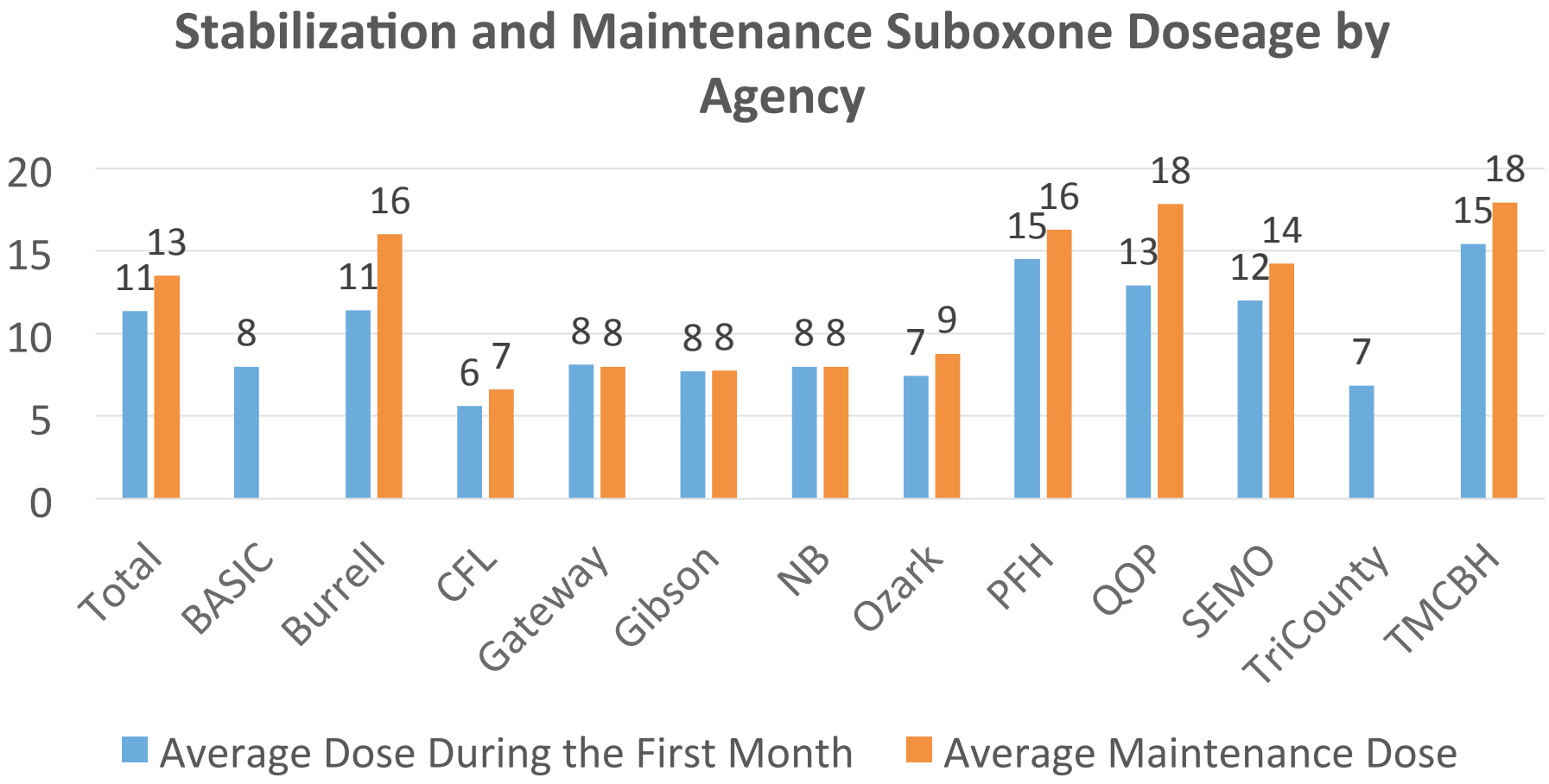


Treatment Retention



*These estimates exclude EOCs in which bup or viv were billed through a Medicaid pharmacy claim


Results from 5,290 Drug Screens
1600
1400
1200
1000
800
600
400
200
0
30.0%
25.0%
20.0%
15.0%
10.0%
5.0%
0.0%
26.7%
16.5%
15.3%
14.1%
12.2%
9.0%
5.9%
4.9%
1.4%
0.1%
0.1%
0.0%
Marijuana
Opiates*
Fentanyl
Amphetamines*
Benzodiazepines*
Cocaine
Heroin
Buprenorphine*
Methadone*
Barbituates*
Phencyclidine
Propoxyphene*
Frequency
Percent Positive


Stabilization and Maintenance Suboxone Doseage by Agency
20
15
10
5
0
11
13
8
11
16
6
7
8
8
8
8
8
8
7
9
15
16
13
18
12
14
7
15
18
Total
BASIC
Burrell
CFL
Gateway
Gibson
NB
Ozark
PFH
QOP
SEMO
TriCounty
TMCBH
Average Dose During the First Month
Average Maintenance Dose

STR Success Stories…..just a few

“One consumer comes in monthly now to receive medication for opioid addiction that stated suboxone saved their life and marriage." - Gibson

“A client came in for services because she saw someone she knew "from the streets" who "always looked bad". Now he looked great! So she asked what happened and he said he had been coming to the STR program at Gateway.” - Gateway

“A consumer told his therapist that he was so thankful for the STR program, that it has helped him so much to get his head on straight so he can take care of his family and obligations.” - Ozark

The take-aways

Individuals enrolled in STR are more likely to…

New products and developments

Probuphine Implant

- Created to *increase* convenience and treatment retention, and *decrease* opioid use and diversion
- Used in persons who are already stable on low-to-moderate dosages of oral buprenorphine.

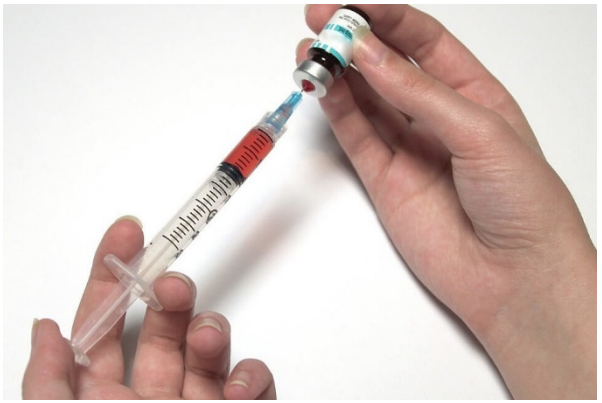
Benefits of Probuphine:

- Lower risk of diversion
- Greater adherence
- Additional option for medical treatment
- No need for daily administration
- Fewer office visits

Cons to Probuphine

- Cost
  - $4,950 for the six-month treatment
  - …$825 a month
- Provider must be certified through Probuphine REMS program
- Injection site side effects
- Must be stabilized on 8mg or less prior to procedure

Sublocade Injectable



- *Like the implant…*
- Created to *increase* convenience and treatment retention and *decrease* opioid use and diversion
- Used in persons who have been stabilized on oral buprenorphine for at least 7 days.
- ATRIGEL technology delivers the buprenorphine at a sustained rate (300mg or 100mg)
  - a solid deposit of buprenorphine is formed following injection under skin and is released as the deposit biodegrades
- Very similar pros/cons as the Implant

Changes in MO HealthNet

Since September 2017:

- Removed requirement for PA desk/consultant to check status of prescriber SAMSHA waiver
- Updated Benzo's criteria to allow co-prescribing with BUP if same prescriber (claim previously STOPPED for all co-prescribing)
- Removed requirement to initiate/attempt dosage taper (reduced dosage criteria) at 180 days
- Set dosing limit for BUP at 24mg/day
- Updated criteria to allow 14-day supply of preferred BUP product (Suboxone) without diagnosis

Understanding the Edit:

- Suboxone® brand-name product is PREFERRED
- Participants may access NON-PREFERRED (including generic) products after trial/failure of ONE Preferred product
- Vivitrol® Injection is preferred (requires 7-day opioid-free period prior to use)
- MHD covers PROBUPHINE (Buprenorphine 90-day Implant); must be stabilized on BUP 8mg/day or less
- Only pregnant persons may use Buprenorphine-only product
- Suboxone + Benzo from 2 different prescribers will generate warning/advisory warning
- No approval for age under 16

In Year 1 of STR…

- **1,783 individuals** have received evidence-based medical treatment for opioid use disorder (OUD)
- **4,318 naloxone kits** have been distributed to at-risk individuals and their loved ones, and clinicians who work with at-risk populations
- **4,061 individuals** have received training on what to do in the event of an opioid overdose
- **3,066 bed nights** of recovery housing have been provided
- **Over 1,100 individuals** have received recovery services at the four Recovery Community Centers (RCCs) across the state
- **Over 1,000 individuals** have received peer-based post-overdose outreach in emergency rooms through the Engaging Patients in Care Coordination (EPICC) Project
- **4,633 youth** have been engaged through the Generation Rx program, which increases public awareness about prescription medication misuse
- **Over 10,000 individuals** have received training at **62 agencies** through **85 trainings and consultations** on topics across the spectrum of treatment, prevention and recovery. Trainings took place at a variety of settings including DMH facilities, state-funded agencies, hospitals, schools and universities, pharmacies, recovery houses, conferences, and more
- **29 total Chronic Pain Management and Opioid Use Disorder ECHO sessions** were held, reaching **208 unique participants**
- **98 individuals** received training to obtain their Certified Peer Specialist (CPS) credential

Resources: Making best practices easy to do

- MissouriOpioidSTR.org
- Opioid STR listserv
- Bi-weekly statewide "Office Hours"
- Pain and opioid brochures with DSS
- Med First webinar series
- Agency STR reports

Health Literate Patient Brochure

What is medical treatment for opioid use disorder (OUD)?

Medical treatment for OUD is when your doctor gives you medicine to help you stop craving opioids. Heroin, OxyContin©, and Percocet© are examples of opioids. Nurse practitioners, physician assistants, and physicians can all prescribe this medicine.

How do I talk to my doctor about treatment?

Talking to your doctor about medical treatment for OUD can be hard. Here are some questions you can ask:

- How can medicine help my recovery?
- What medicine do you think is best for me? Why is it the best for me?
- What other steps can I take to help

Implementation Guide for the Medical Treatment of OUD

New endeavors in Year 2

- Better Family Life
  - Ground Zero naloxone distribution
  - Neighborhood canvassing
  - Pulpits to Porches church awareness
- Expanding trainings & outreach in faith communities
- Primary Care partnerships
- PDMP "What next?" Clinical guidance
  - Pharmacist perspective
  - Physician perspective
- Trauma-informed Overdose Document
- Addressing medical school curricula

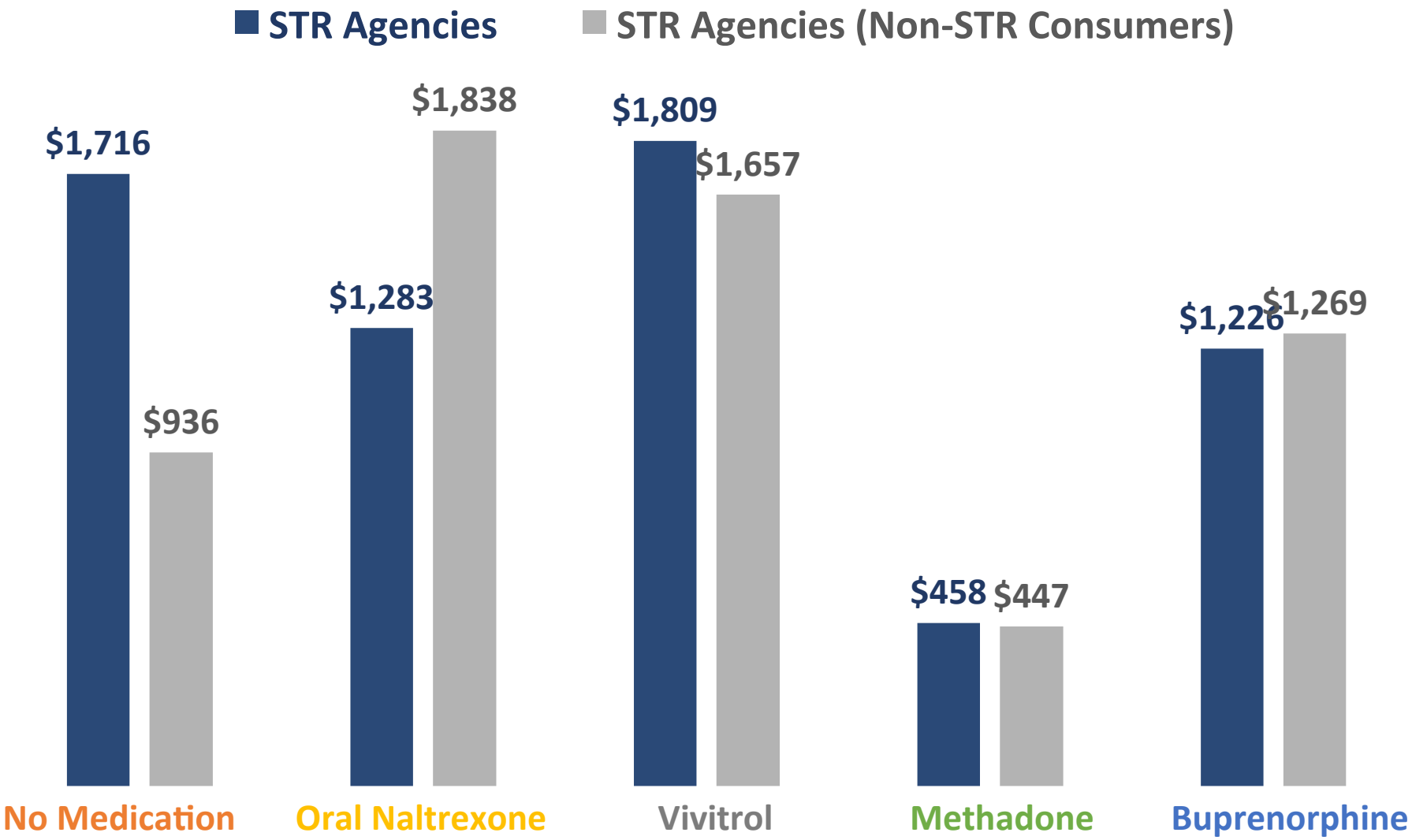
If we get more funding… this list will be much longer

Questions?

Visit www.missouriopioidstr.org to learn more and sign up for our statewide listserv!

Median Price by Medication

Overall Price of Treatment by Medication for STR Consumers and Non-STR Consumers



Sublocade Injectable

- Once-monthly, evidence-based, and FDA-approved injectable formula of buprenorphine to help treat moderate to severe opioid use disorder. It is an extended-release formulation, and ATRIGEL technology delivers the buprenorphine at a sustained rate throughout the month. According to the FDA, a solid deposit of buprenorphine is formed following injection under skin, and buprenorphine is released as the deposit biodegrades.
- Approval was based on two studies, showing Sublocade superior compared to the placebo in patients' number of opioid free weeks, as well as Sublocade's efficacy in blocking the drug-liking effects of hydromorphone.
- **Dosing**
- Sublocade is available in two strengths, 100 mg/0.5 mL and 300 mg/1.5 mL buprenorphine, each in a prefilled syringe to be injected in the abdominal region. Stabilization on a sublingual dose of buprenorphine for at least seven days is required before induction, and the recommended dose of Sublocade is 300 mg for the first two months, and then a monthly maintenance dose of 100 mg.
- **Adverse Reactions**
- Adverse reactions commonly associated (in ≥5% of subjects): constipation, headache, nausea, injection site pruritus, vomiting, increased hepatic enzymes, fatigue, and injection site pain.
- **Pricing & Availability**
- Wholesale acquisition cost: $1,580 for both the 100 mg and 300 mg doses.
- Indivior announced that they will offer co-pay assistance programs that may drop costs to $5/month for eligible patients. The monthly retail cost of Suboxone may be anywhere from $300-800/month. No other announcements have been made regarding insurance coverage.
- Indivior will launch the drug sometime in the first quarter of 2018. Distribution will be through a restricted distribution system to help prevent direct distribution to a patient and the risk of serious harm or death from improper self-administration. Sublocade will be available only under the Sublocade Risk Evaluation and Mitigation Strategy (REMS) Program, which requires any healthcare settings that order and dispense Sublocade to be certified and have established procedures for proper dispensing.

Original Investigation

ONLINE FIRST

May 14, 2018

Weekly and Monthly Subcutaneous Buprenorphine Depot Formulations vs Daily Sublingual Buprenorphine With Naloxone for Treatment of Opioid Use Disorder

A Randomized Clinical Trial

Michelle R. Lofwall, MD[1]; Sharon L. Walsh, PhD[1]; Edward V. Nunes, MD[2]; et al

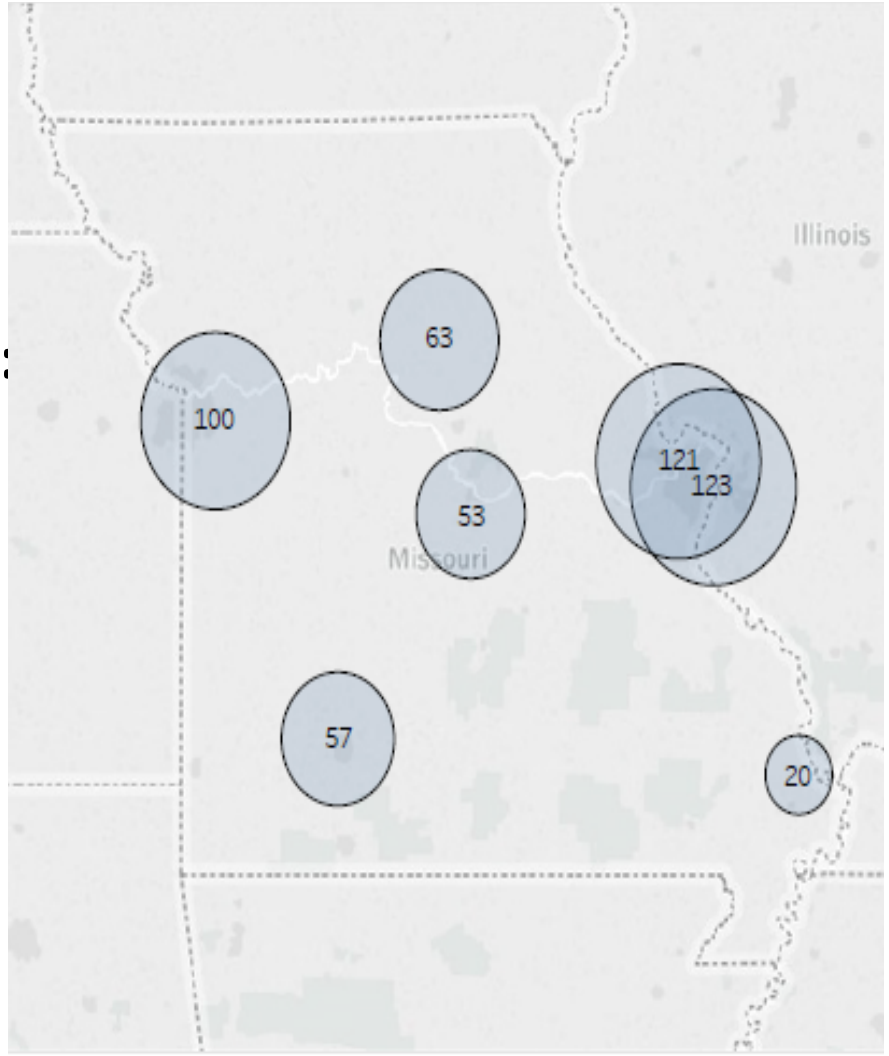
» Author Affiliations

JAMA Intern Med. Published online May 14, 2018. doi:10.1001/jamainternmed.2018.1052

Opioid Crisis Management Trainings

540

Individuals attended OCMT trainings in 7 cities



Attended by these professionals:

- Mental Health clinical staff
- Medical providers
- Administrators
- Peer recovery support specialists
- Community and support service providers
- Government employees
- People in recovery

Primary Care Trainings

99

Individuals trained through the primary care expansion effort

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Organizations engaged:

AFFINIA HEALTHCARE
Inspired by the Patients We Serve

JORDAN VALLEY COMMUNITY HEALTH CENTER

CoxHealth

NORTHWEST HEALTH SERVICES

places for people

BARNES-JEWISH Hospital
BJC HealthCare

PCSS Providers Clinical Support System

Waiver Trainings

- 5 held
- 74 providers trained
- 50 submitted waiver for reimbursement