



Providers
Clinical Support
System

The OUD Cascade of Care: Tailoring Pathways for Buprenorphine Treatment

Arthur Robin Williams MD MBE FAPA
Columbia University Department of Psychiatry
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Educational Objectives

At the conclusion of this presentation, participants should be able to:

- Identify strategies to increase patient engagement and retention in MOUD treatment
- Differentiate risk levels for patients entering care for buprenorphine treatment at treatment intake
- Describe changes to the system of care for OUD that would reduce overdose death

Funding for Presentation Today

- SAMHSA Opioid Response Network TI-18-004 (Williams, sub-PI)
- NIDA R01 DA0 DA059042-01 (Williams, PI)
“The OUD Cascade of Care and Critical Outcomes: Longitudinal Linkage with Opioid Use
- NIDA K23 DA044342-01 (Williams, PI)
“Improving the treatment cascade of MAT initiation and retention for opioid use disorder”
- NIDA R01 DA057566-01 (Williams, Hadland, MPis)
“Identifying Disparities in the Cascade of Care for Medicaid-Enrolled Youth with Opioid Use Disorder”
- NIDA R01 DA047347-01 (Williams, Co-I)
“Opioid Overdoses among Medicaid Beneficiaries: Predictors, Outcomes, and State Policy Effects”
- AHRQ R18 HS03258, U19 HS021112, and R18HS02346 (Drs. Olfson and Crystal)
- CTSA UL1TR003017 (Crystal, PI)

Straw Poll

- **Do you ever have patients ask when they can “stop” buprenorphine?**

Straw Poll

- Do you ever have patients ask when they can “stop” buprenorphine?
- **How long is long enough for continuous maintenance treatment?**

Straw Poll

- Do you ever have patients ask when they can “stop” buprenorphine?
- How long is long enough for continuous maintenance treatment?
- **Do you have different care pathways based on patient presentation and response to treatment?**

Background

- ~7.6 million with OUD in US
- Buprenorphine/MOUD reduces death ~ 60-80%
 - This is a very large effect size
 - Studies do not show requiring therapy/groups add marginal benefits
- MOUD **Initiation** and **Retention** are critical
 - Yet only ~20% receive MOUD per year
 - And most patients discontinue early/within a few weeks or months
- NQF endorsed a 180-day continuous MOUD measure
 - Not empirically based
- Longitudinal studies very difficult to conduct
 - Especially for multi-year episodes of care
 - Often cannot account for patterns of drug use while in care

OUD Cascade of Care

- **OUD Cascade of Care:**

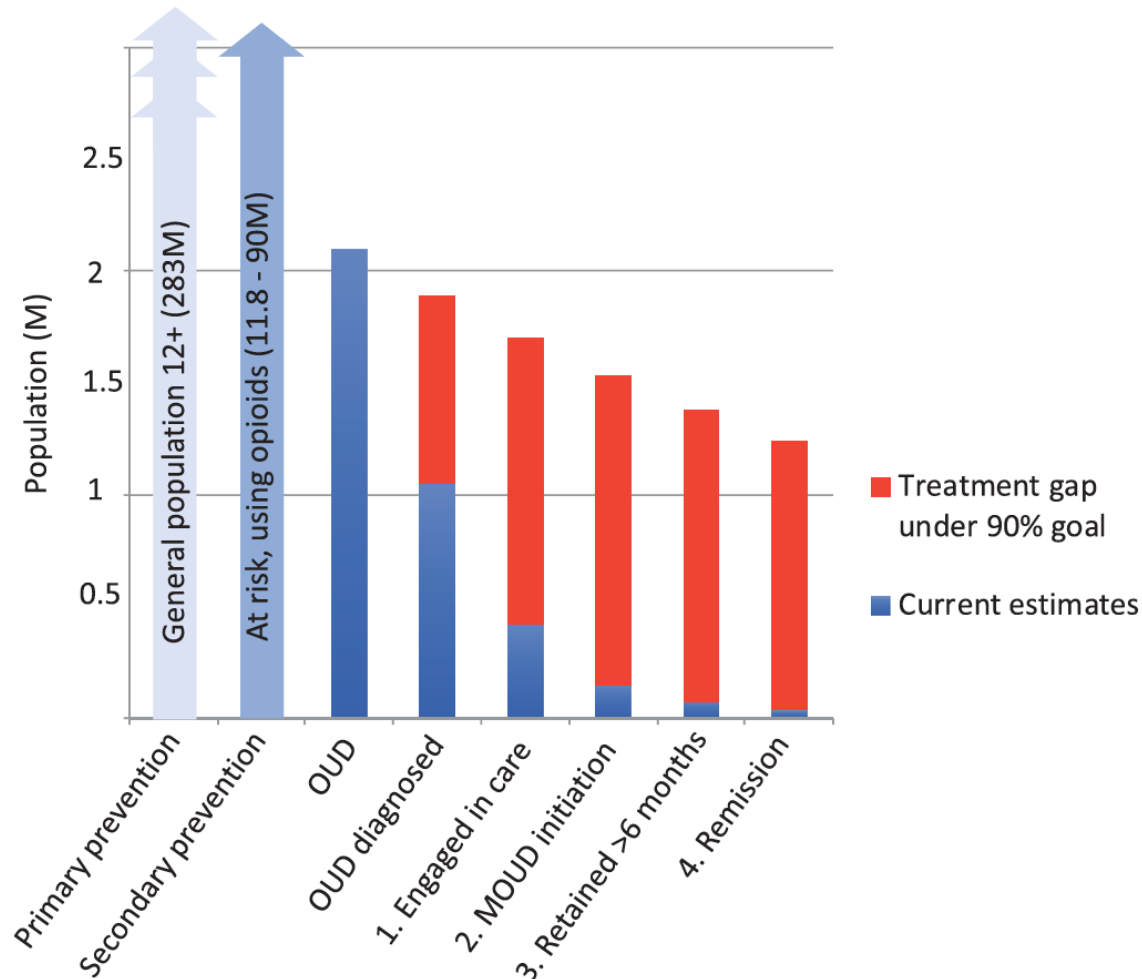
- The Cascade of Care is a public health framework that originated for HIV
- Goal is to improve delivery of care and ability to monitor outcomes
- The OUD “Cascade” is defined by sequential stages of evidence-based treatment
- There is an emphasis on MOUD initiation and MOUD retention

- The HIV Cascade emphasized antiretroviral initiation, retention, and viral suppression

- The 90-90-90 goal refers to 90% success at each subsequent stage

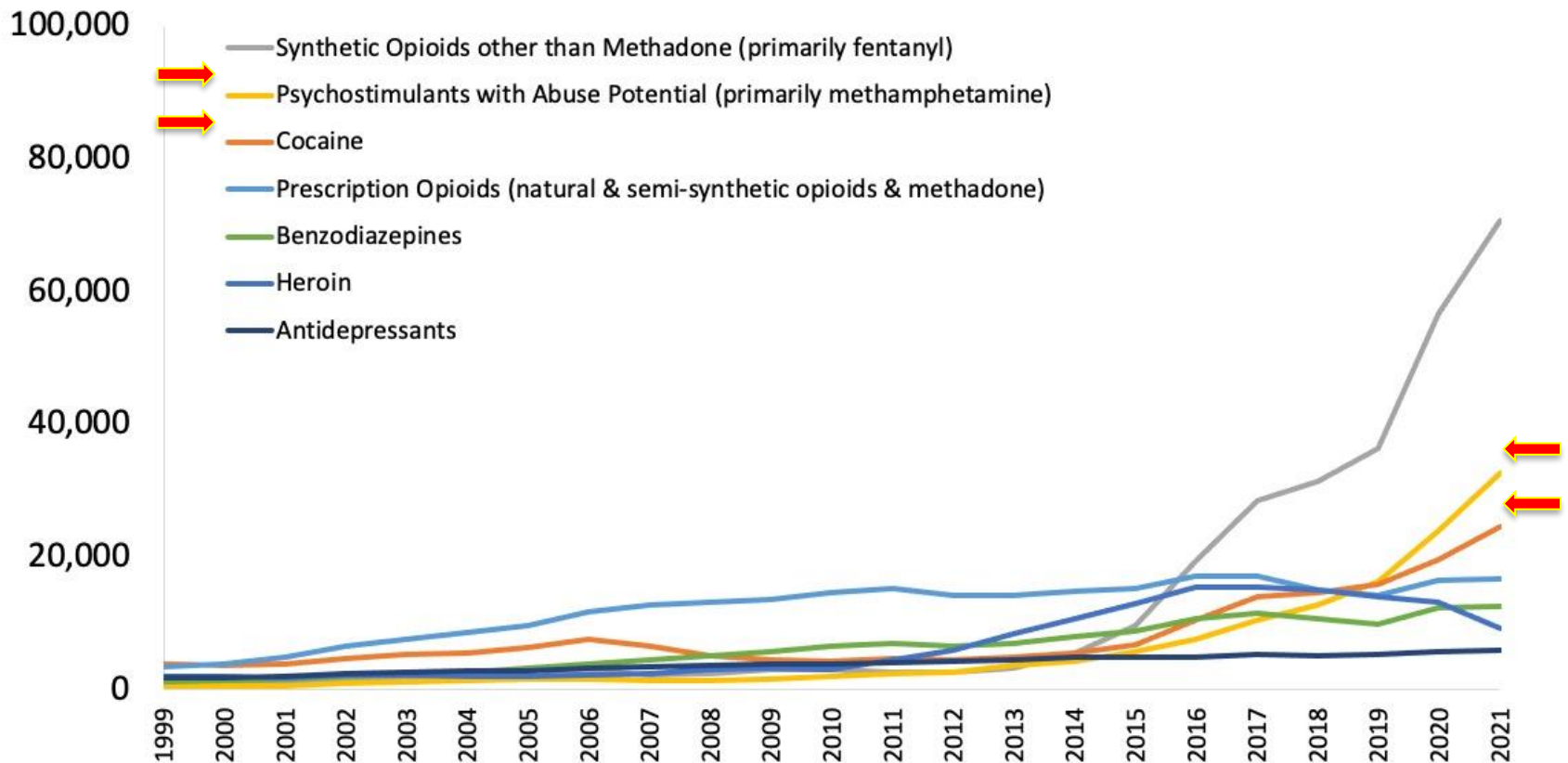
- End-stage definitions of “Recovery” are harder to define for OUD across all individuals given variations in treatment goals and life circumstances

OUD Cascade of Care



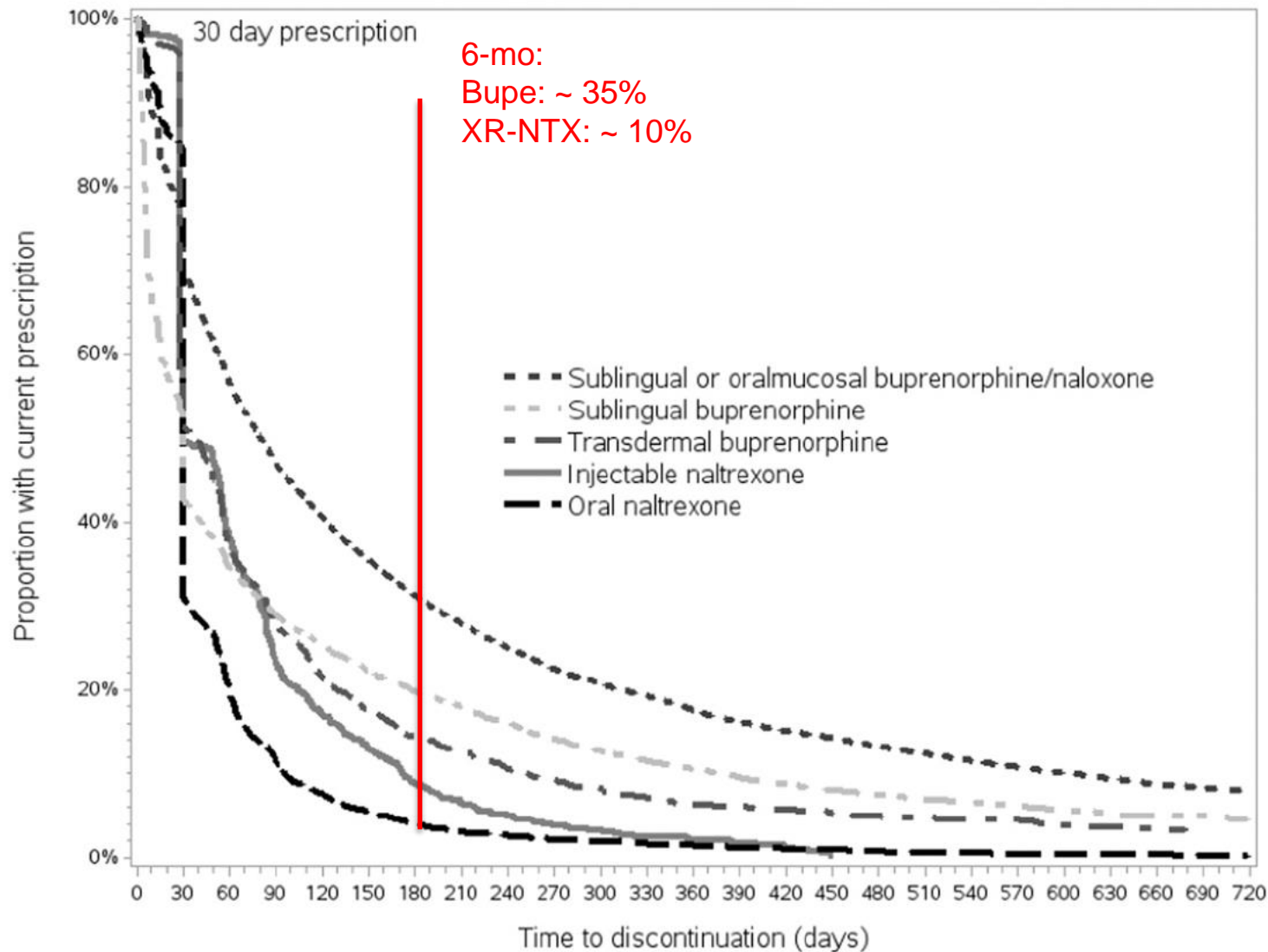
Williams AR, Nunes EV, Bisaga A, Levin FR, Olfson M (2019). Development of an Opioid Use Disorder Cascade of Care to Address the Addiction Treatment Gap. *Am J Drug Alc Abuse*; (45)1: January 2019.

Figure 2. National Drug-Involved Overdose Deaths*, Number Among All Ages, 1999-2021



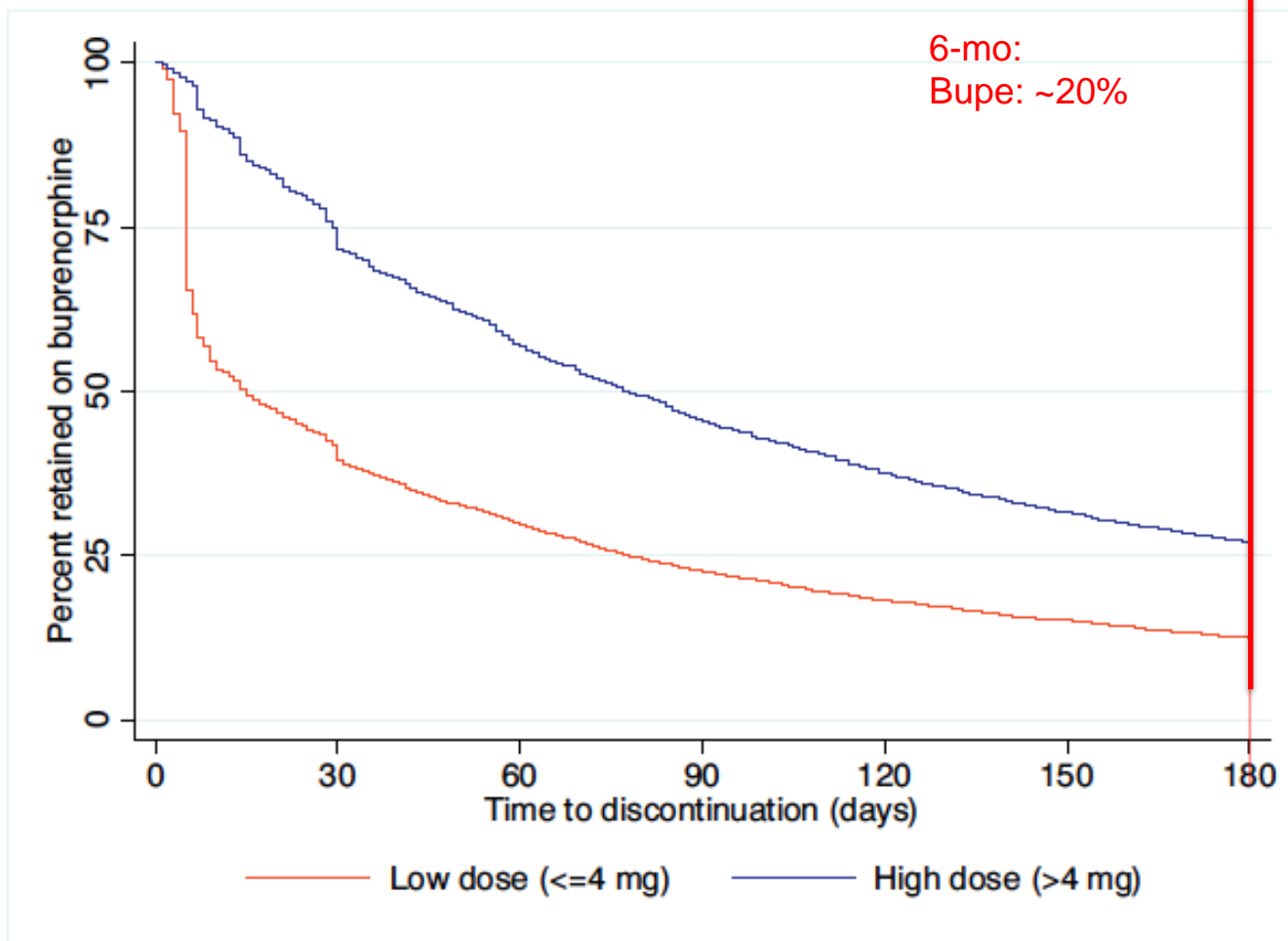
*Includes deaths with underlying causes of unintentional drug poisoning (X40–X44), suicide drug poisoning (X60–X64), homicide drug poisoning (X85), or drug poisoning of undetermined intent (Y10–Y14), as coded in the International Classification of Diseases, 10th Revision. Source: Centers for Disease Control and Prevention, National Center for Health Statistics. Multiple Cause of Death 1999-2021 on CDC WONDER Online Database, released 1/2023.

Retention on MOUD: Commercial



Morgan et al
JSAT 2018

Retention on Bupe: Medicaid



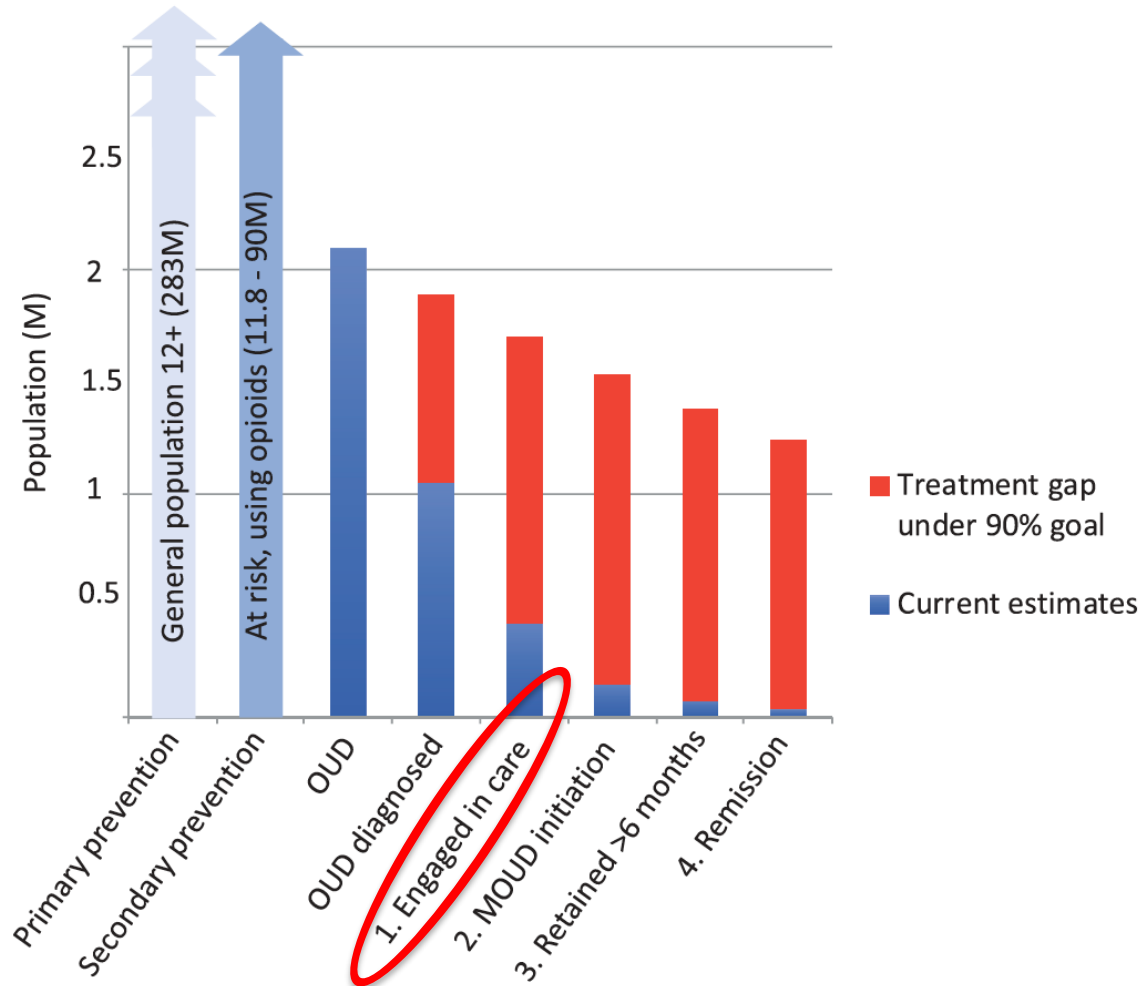
Samples H, Williams AR, Olfson M, Crystal S: Risk factors for premature discontinuation of buprenorphine treatment for opioid use disorders in a multi-state sample of Medicaid enrollees. *J Subst Abus Treat* 2018; 95:9-17.

Original Research

Studies related to:

- Predictors of engagement and subsequent outcomes
- Predictors of retention
- Outcomes following treatment discontinuation

OUD Cascade of Care



Williams AR, Nunes EV, Bisaga A, Levin FR, Olfson M (2019). Development of an Opioid Use Disorder Cascade of Care to Address the Addiction Treatment Gap. *Am J Drug Alc Abuse*; (45)1: January 2019.

Is “Engagement” Necessary to Retain?

- 49,000 patients across 11 states in a specialty bupe clinic setting
- 2011-2019 data (Massachusetts first, largest state)
- ~80% of patients are Medicaid beneficiaries
- UDS/drug test at *every* clinical visit
- Initially seen 1-2 times *per* week
- As stabilize, patients seen weekly, then biweekly, monthly...
- Patients are not discharged for drug use, but practice varies
- Evaluated new intakes with 90-day lookback/washout period

Performance Measurement for Opioid Use Disorder Medication Treatment and Care Retention

Arthur Robin Williams, M.D., M.B.E., Christine M. Mauro, Ph.D., Tianshu Feng, M.S., Amanda Wilson, M.D., M.A., Angelo Cruz, B.S., Mark Olfson, M.D., M.P.H., Stephen Crystal, Ph.D., Hillary Samples, Ph.D., Lisa Chiodo, Ph.D.

- HEDIS* Engagement measure: 2+ visits within 34 days of an intake for SUD care
- Outcome: 180-day Retention

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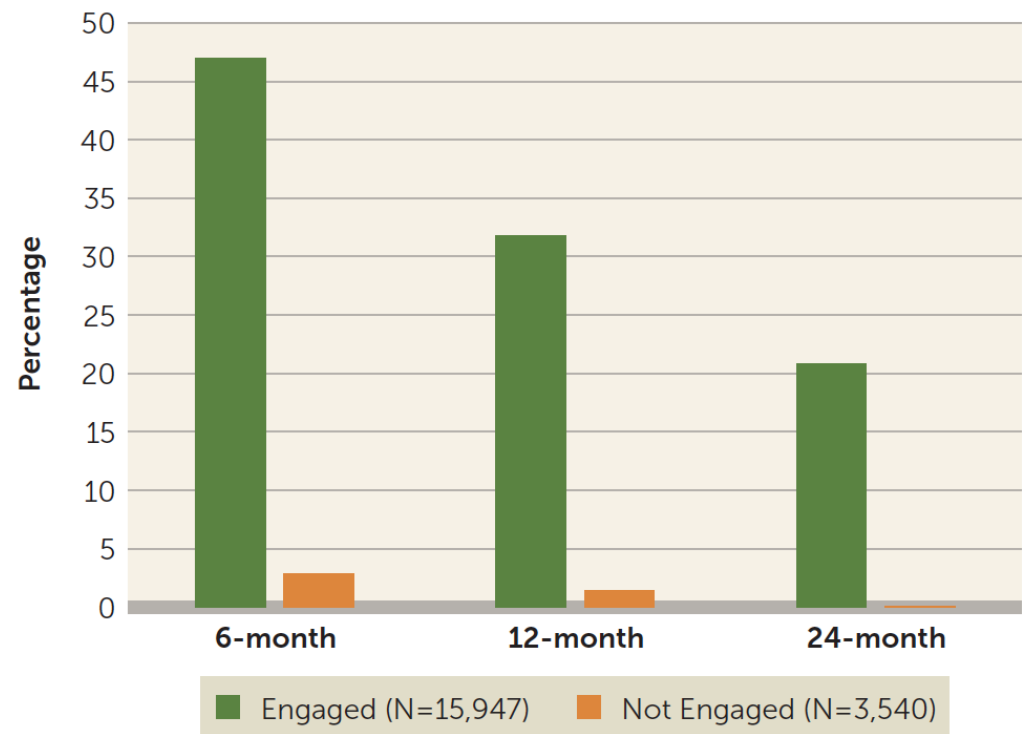
HEDIS Engagement
measure: 2+ visits
within 34 days of an
intake for SUD care

Outcome: 180-day
Retention

47% v. 2.9%

OR= 29.1

FIGURE 1. Retention rates at 6, 12, and 24 months among patients initiating buprenorphine, by engagement^a

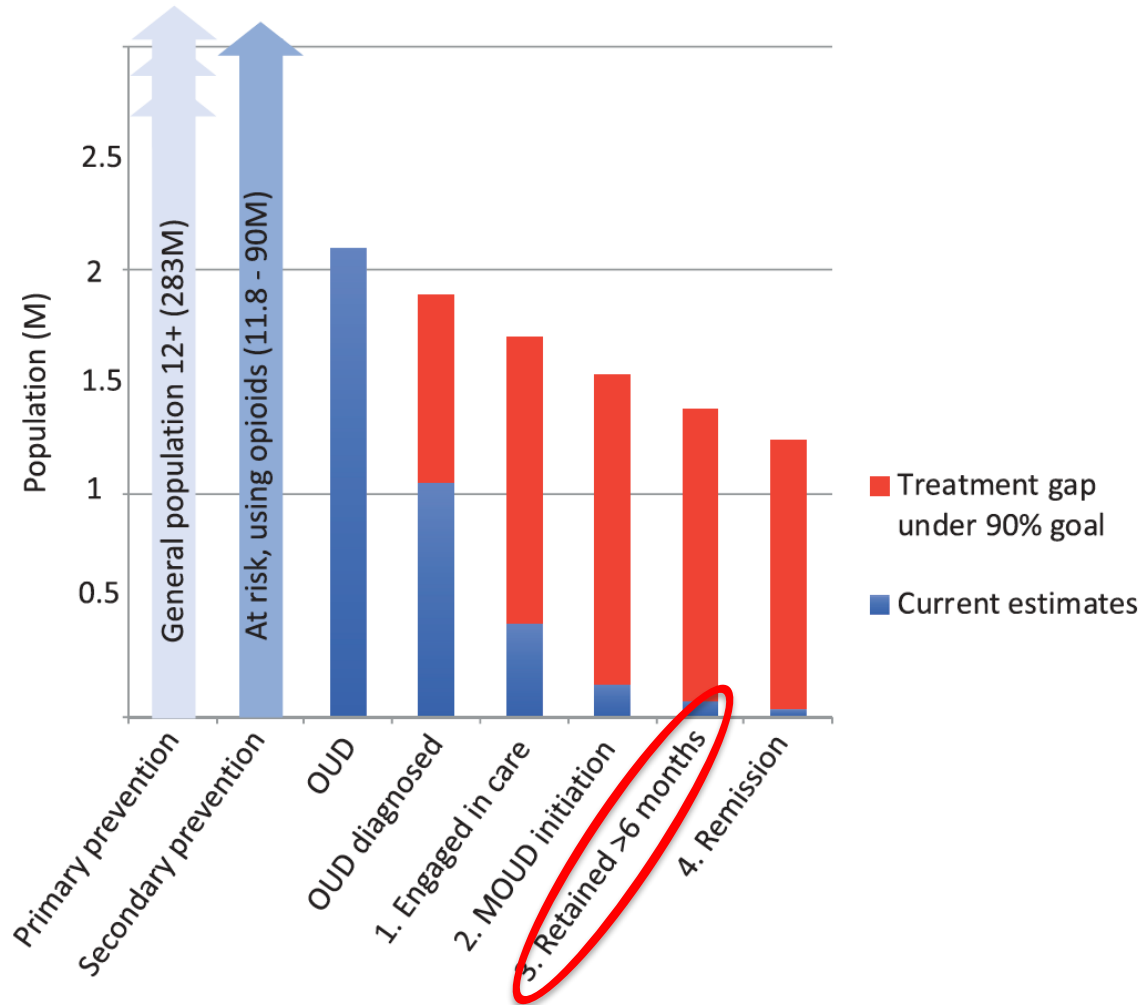


^a Two additional in-person outpatient clinical visits within 34 days of the intake visit.

Key Takeaway

- The first month of care is critical to future success
- Patients who stop showing up in the first few weeks typically drop out

OUD Cascade of Care



Williams AR, Nunes EV, Bisaga A, Levin FR, Olfson M (2019). Development of an Opioid Use Disorder Cascade of Care to Address the Addiction Treatment Gap. *Am J Drug Alc Abuse*; (45)1: January 2019.

Baseline Patient Characteristics

Covariate	Overall sample <i>n</i> = 971 (%)	
Demographics		
Age		
- 18-29	296	30.5%
- 30-49	550	56.6%
- 50-64	118	12.2%
- >65	7	0.7%
Sex		
- Male	566	58.3%
- Female	405	41.7%
Drug results (positive) at intake		
- Opioids	353	36.4%
- Cocaine	197	20.3%
- Amphetamine	53	5.5%
- Benzodiazepines	130	13.4%
- Cannabis	327	33.7%
Manual coding of HPI field for history of:		
- IDU	517	53.2%
- Heroin use	747	76.9%
- Cocaine use	519	53.5%
- Benzodiazepine use	371	38.2%
- Criminal justice involvement	299	30.8%
Comorbidity		
Hepatitis C	225	23.2%
HIV	5	<1%

Can Baseline Patient Data Predict Retention?

Covariate	Overall sample <i>n</i> = 971 (%)	
Demographics		
Age		
- 18-29	296	30.5%
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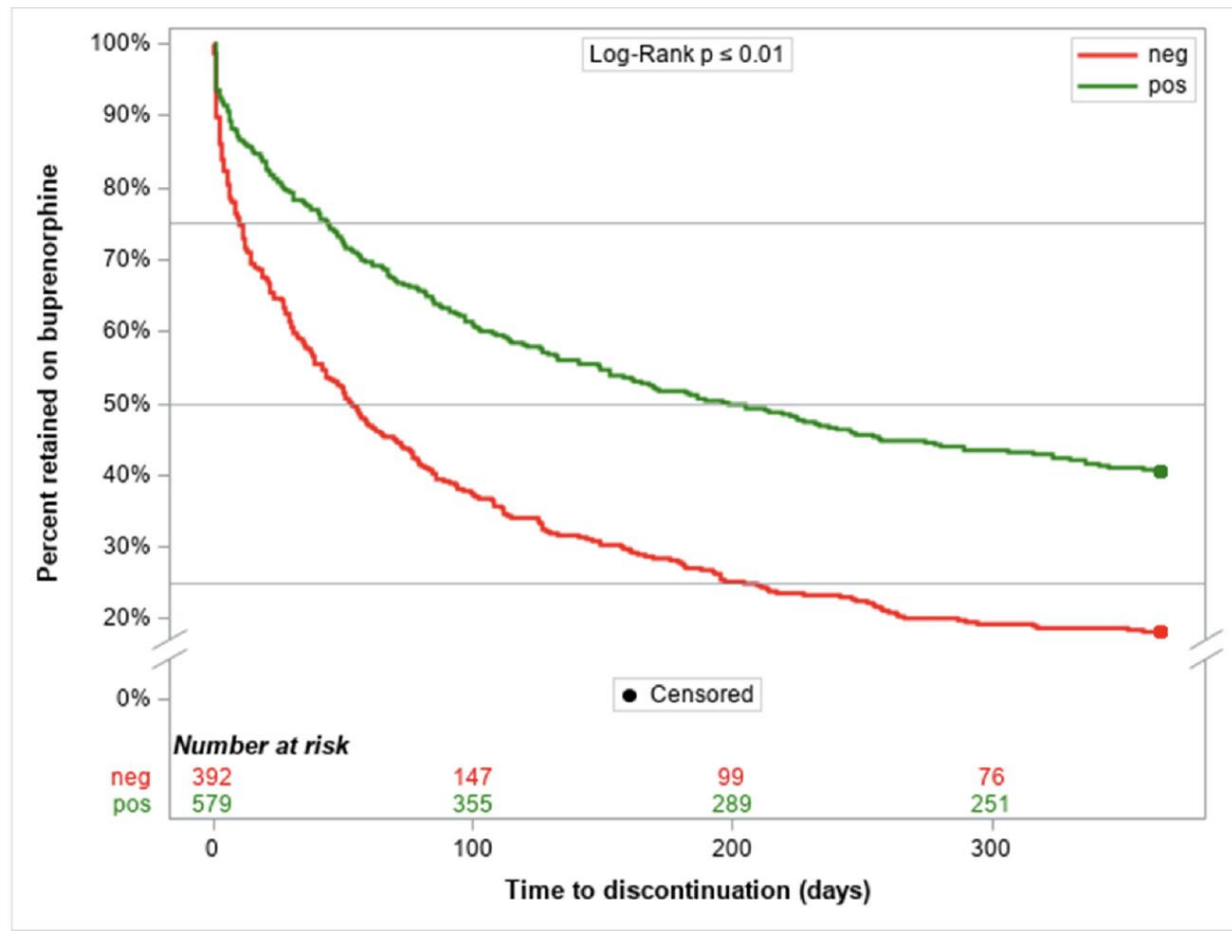
Straw Poll:

What baseline patient characteristic is most predictive of successful retention?

- Age
- Sex
- Race/Ethnicity
- Drug use/drug of choice
- Injection history
- Hepatitis C/HIV status

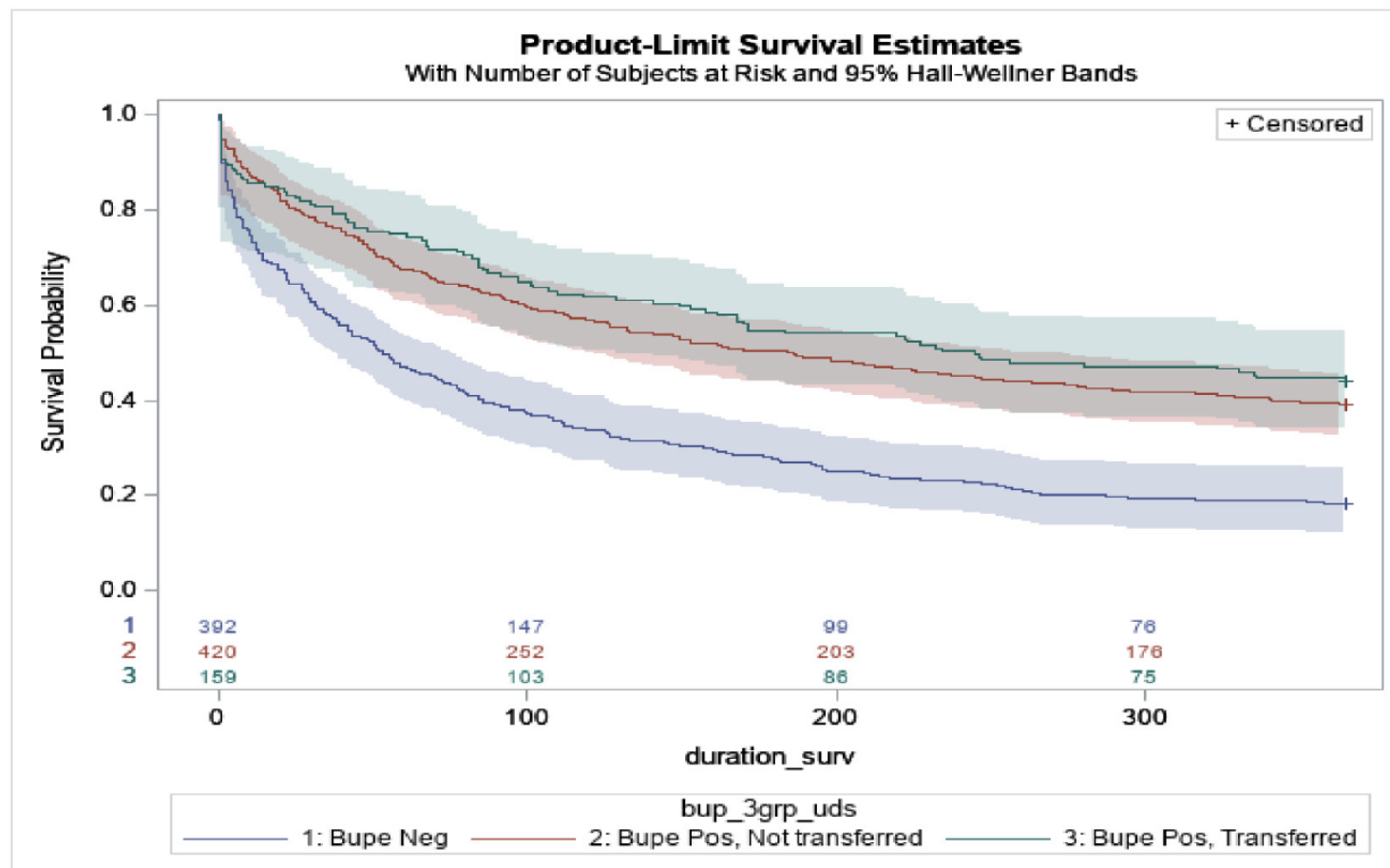
- Something else?

Use of Buprenorphine Preceding Intake



2
X

Buprenorphine Source Did Not Matter



2
X

Buprenorphine Source Did Not Matter

Example language

“was able to get street bupe,”

“getting illicit Suboxone,”

“has been buying street Subx,”

“about 2 months ago started using street suboxone
- anywhere between 4 mg and 8 mg daily”

Use of Buprenorphine preceding Intake

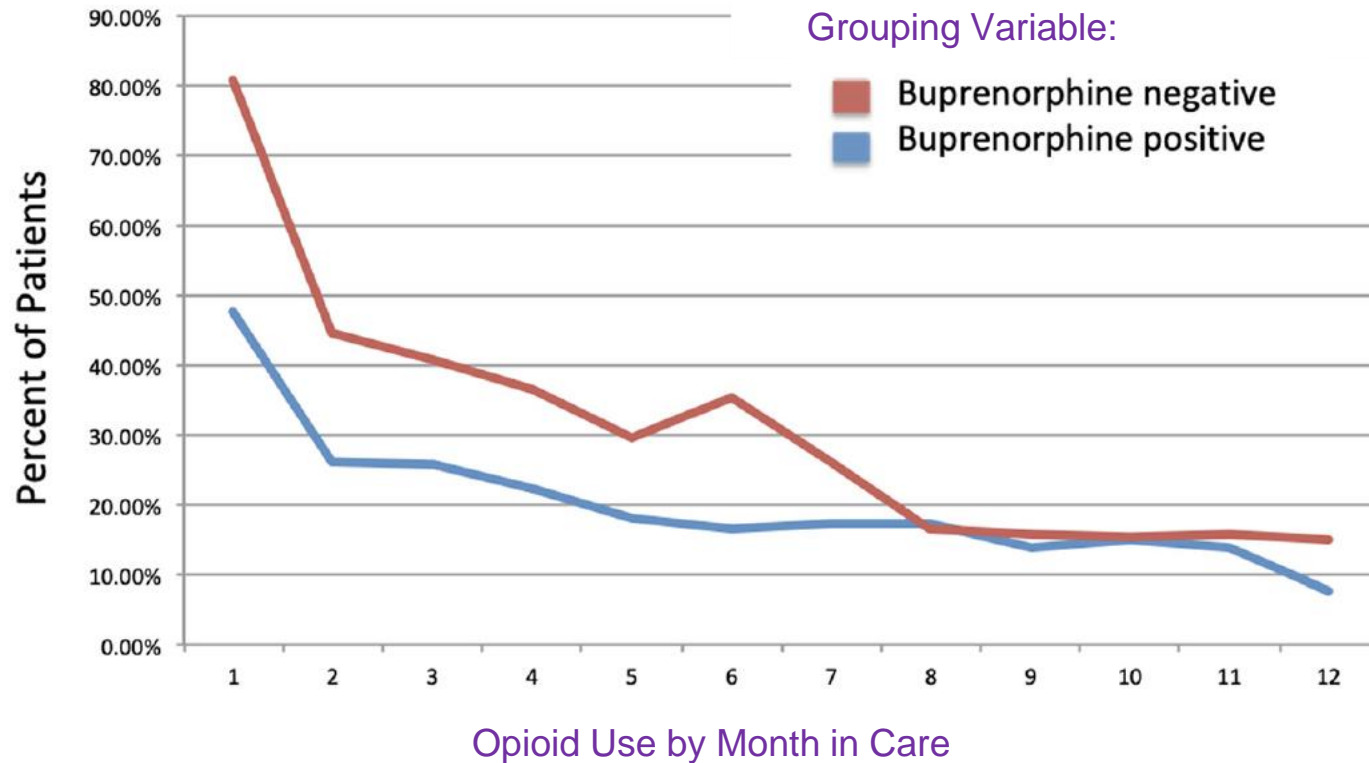


Fig. 3. Percent of patients with any opioid use, by month retained in care.

Use of Buprenorphine preceding Intake

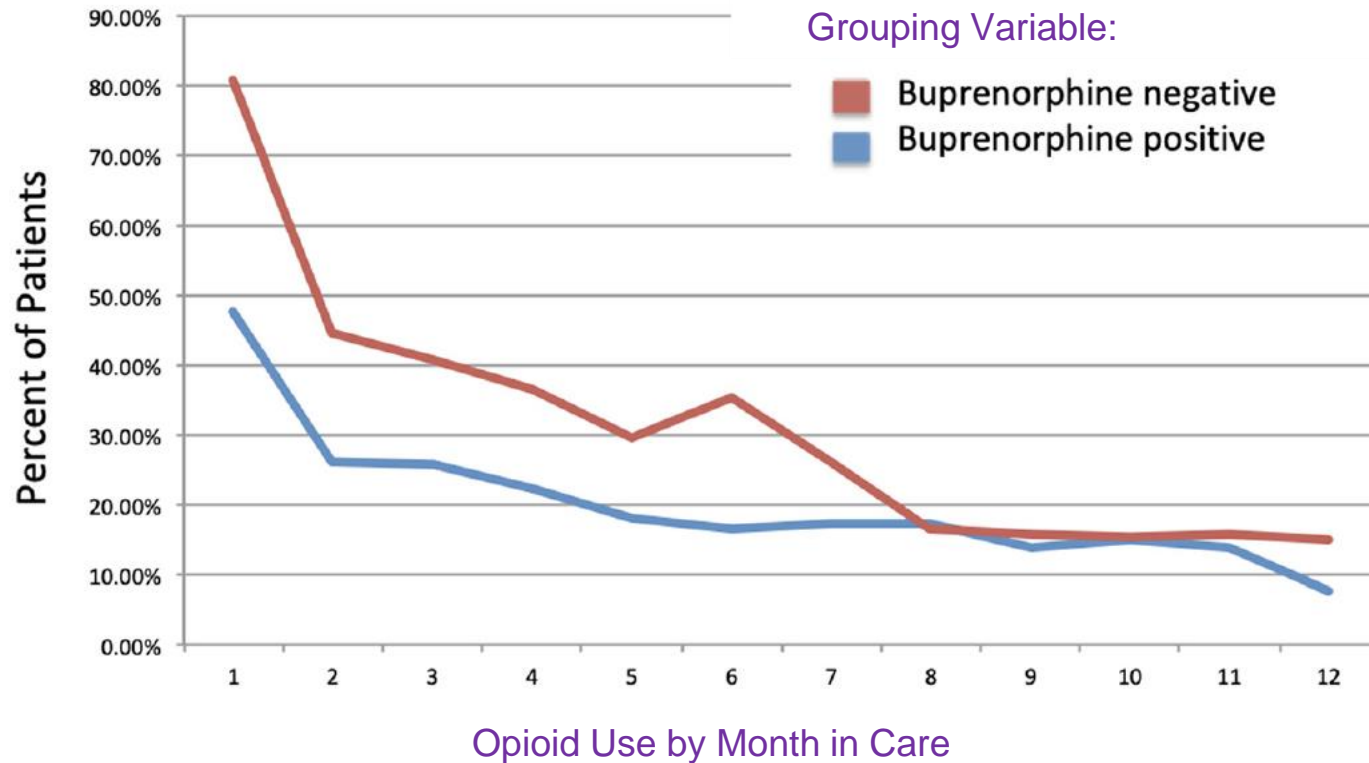


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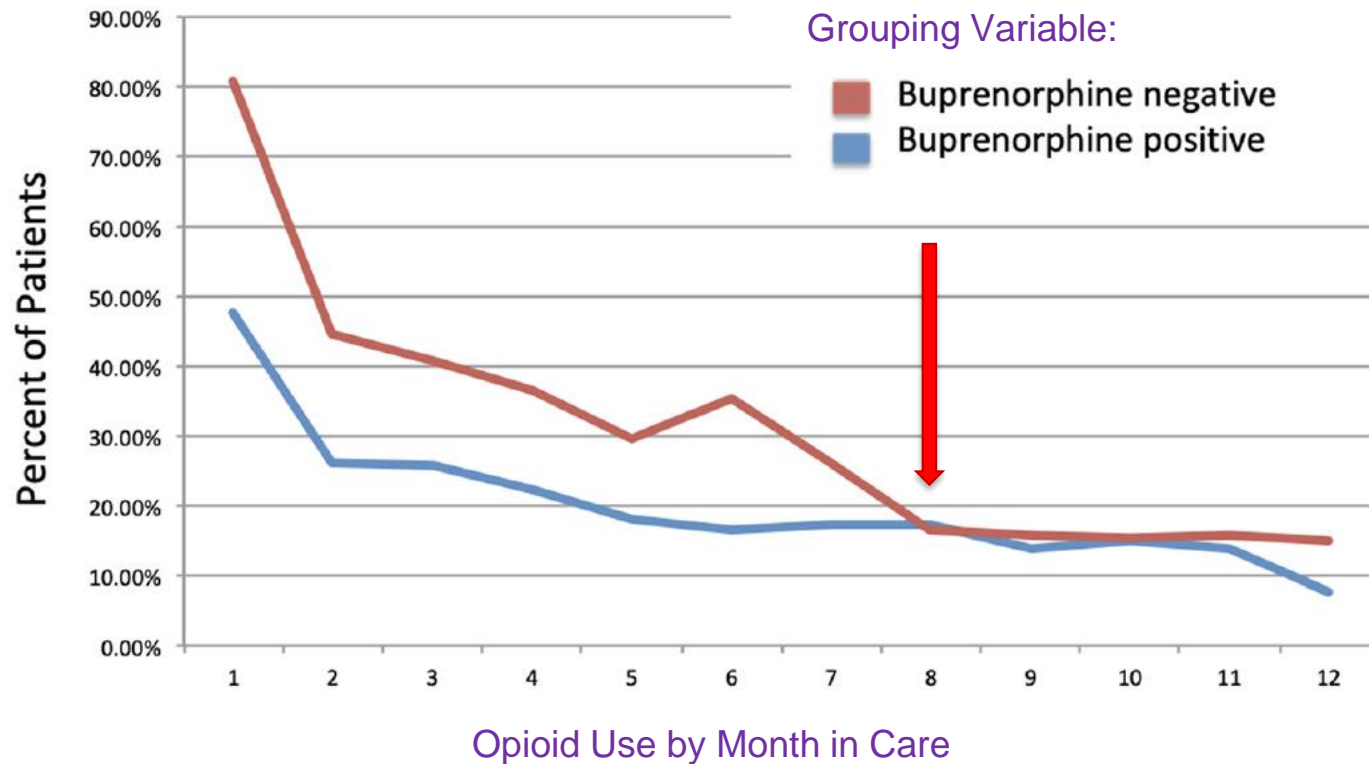
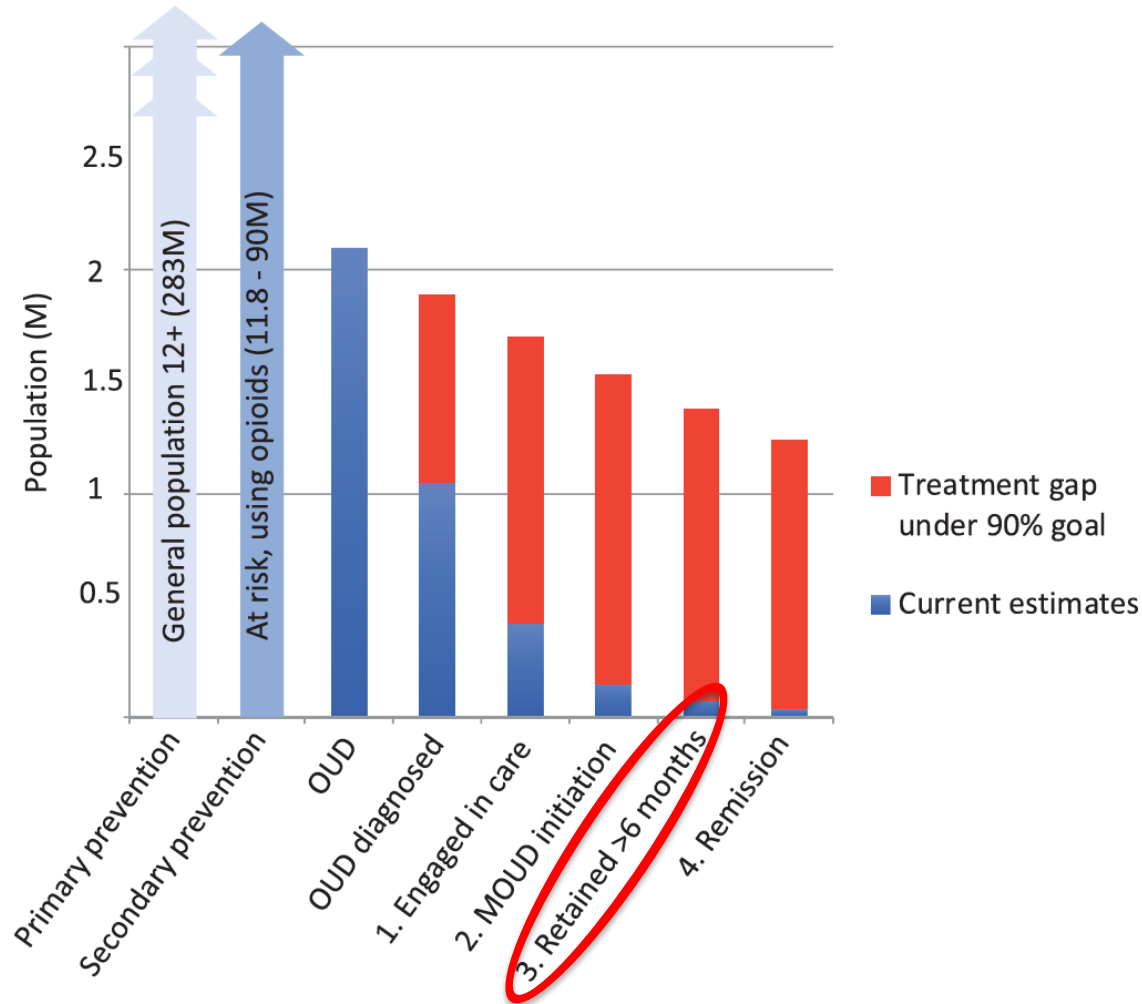


Fig. 3. Percent of patients with any opioid use, by month retained in care.

Key Takeaway

- Patients presenting to care already using buprenorphine have much better clinical outcomes

OUD Cascade of Care



Williams AR, Nunes EV, Bisaga A, Levin FR, Olfson M (2019). Development of an Opioid Use Disorder Cascade of Care to Address the Addiction Treatment Gap. *Am J Drug Alc Abuse*; (45)1: January 2019.

Acute Care, Prescription Opioid Use, and Overdose Following Discontinuation of Long-Term Buprenorphine Treatment for Opioid Use Disorder

Arthur Robin Williams, M.D., M.B.E., Hillary Samples, Ph.D., Stephen Crystal, Ph.D., Mark Olsson, M.D., M.P.H.

Objective: Although buprenorphine treatment reduces risk of overdose and death in opioid use disorder, most patients discontinue treatment within a few weeks or months. Adverse health outcomes following buprenorphine discontinuation were compared among patients who were successfully retained beyond 6 months of continuous treatment, a minimum treatment duration recently endorsed by the National Quality Forum.

Methods: A retrospective longitudinal cohort analysis was performed using the MarketScan multistate Medicaid claims database (2013–2017), covering 12 million beneficiaries annually. The sample included adults (18–64 years of age) who received buprenorphine continuously for ≥ 180 days by cohorts retained for 6–9 months, 9–12 months, 12–15 months, and 15–18 months. For outcome assessment in the post-discontinuation period, patients had to be continuously enrolled in Medicaid for 6 months after buprenorphine discontinuation. Primary adverse outcomes included all-cause emergency department visits, all-cause inpatient hospitalizations, opioid prescriptions, and drug overdose (opioid or non-opioid).

Results: Adverse events were common across all cohorts, and almost half of patients (42.1%–49.9%) were seen in the emergency department at least once. Compared with patients retained on buprenorphine for 6–9 months ($N=4,126$), those retained for 15–18 months ($N=931$) had significantly lower odds of emergency department visits (odds ratio=0.75, 95% CI=0.65–0.86), inpatient hospitalizations (odds ratio=0.79, 95% CI=0.64–0.99), and filling opioid prescriptions (odds ratio=0.67, 95% CI=0.56–0.80) in the 6 months following discontinuation. Approximately 5% of patients across all cohorts experienced one or more medically treated overdoses.

Conclusions: Risk of acute care service use and overdose were high following buprenorphine discontinuation irrespective of treatment duration. Superior outcomes became significant with treatment duration beyond 15 months, although rates of the primary adverse outcomes remained high.

Am J Psychiatry 2019; 0:1–8; doi: 10.1176/appi.ajp.2019.19060612

Data Source: Medicaid Insurance Claims

- Large numbers in usual care across states
- Enrollment information, insurance plan type
 - Fee for service v Managed
 - Disability v low-income eligibility
- Demographic characteristics (age, sex, race)
- Diagnostic codes
 - Not sensitive or consistent
 - Primary/secondary/tertiary, setting, etc.
- Billing codes across all services billed to plan
 - Inpatient, outpatient, and emergency services
 - Prescription drugs/pharmacy

Data Source: Medicaid Insurance Claims

- MarketScan multi-state Medicaid claims
 - An estimated 5-8 states, anonymous
 - Covering 12 million beneficiaries annually
 - Disability v. low income
 - Removed those dually eligible for Medicare

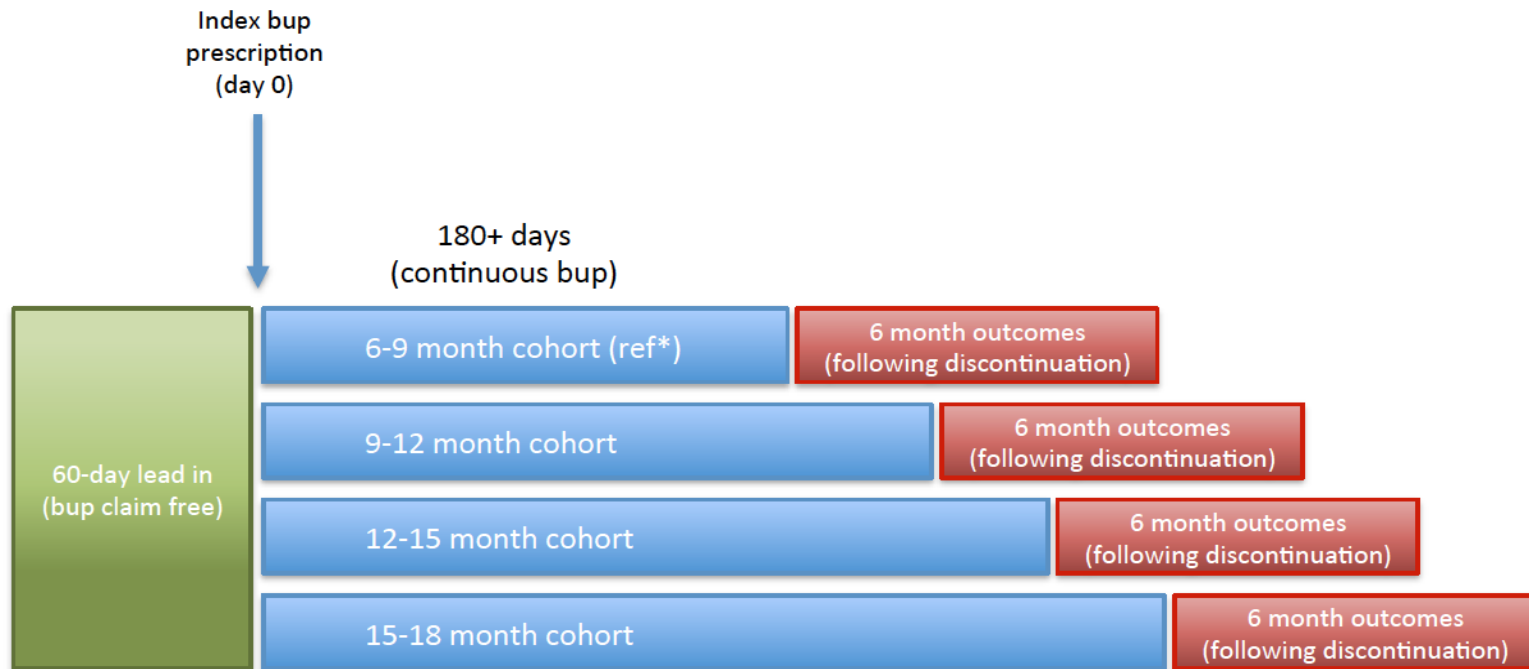
Objective

- Among Medicaid beneficiaries who were successfully retained beyond six months minimum
- Assess 4 adverse health outcomes
 - ED visits (all cause)
 - Inpatient hospitalizations (all cause)
 - Receipt of opioid prescriptions
 - Medically-treated overdose
- Following buprenorphine discontinuation (6 months after)

Methods: Approach

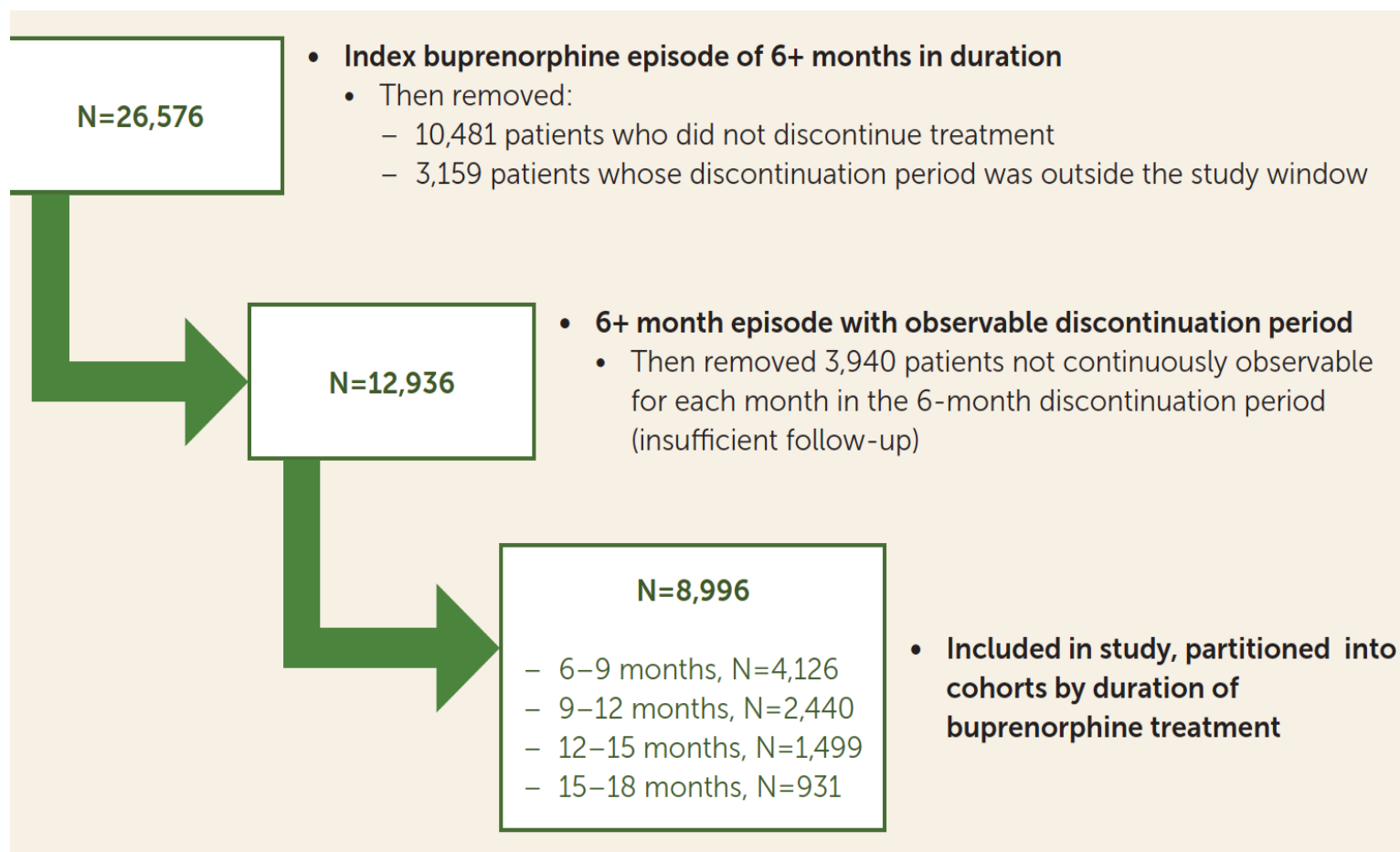
- Retrospective longitudinal cohort analysis
- Continuously enrolled through 6 months following buprenorphine discontinuation
- Calendar years: 2013, 2014, 2015, 2016, 2017
- Adults 18-64 years
- Received buprenorphine continuously for ≥ 180 days
- Discontinuation defined as gap > 60 days
- Cohorts retained for 6-9 months (ref.), 9-12 months, 12-15 months, and 15-18 months

Figure: Methods



*6-9 month cohort was used as a reference group for the 9-12 month, 12-15 month, and 15-18 month cohorts. Bup = buprenorphine medications FDA-approved for treatment of OUD. An index buprenorphine prescription was defined by a single buprenorphine prescription with no buprenorphine claim in the preceding 60 days in attempt to capture new episodes. Discontinuation was determined following a 60-day lapse between refills and defined by the last day of medication coverage. Four primary outcomes in the six-month period following discontinuation were analyzed: all-cause emergency department visits, all-cause hospitalizations, opioid prescriptions, and medically treated overdoses

Sample Construction (2013-2017)



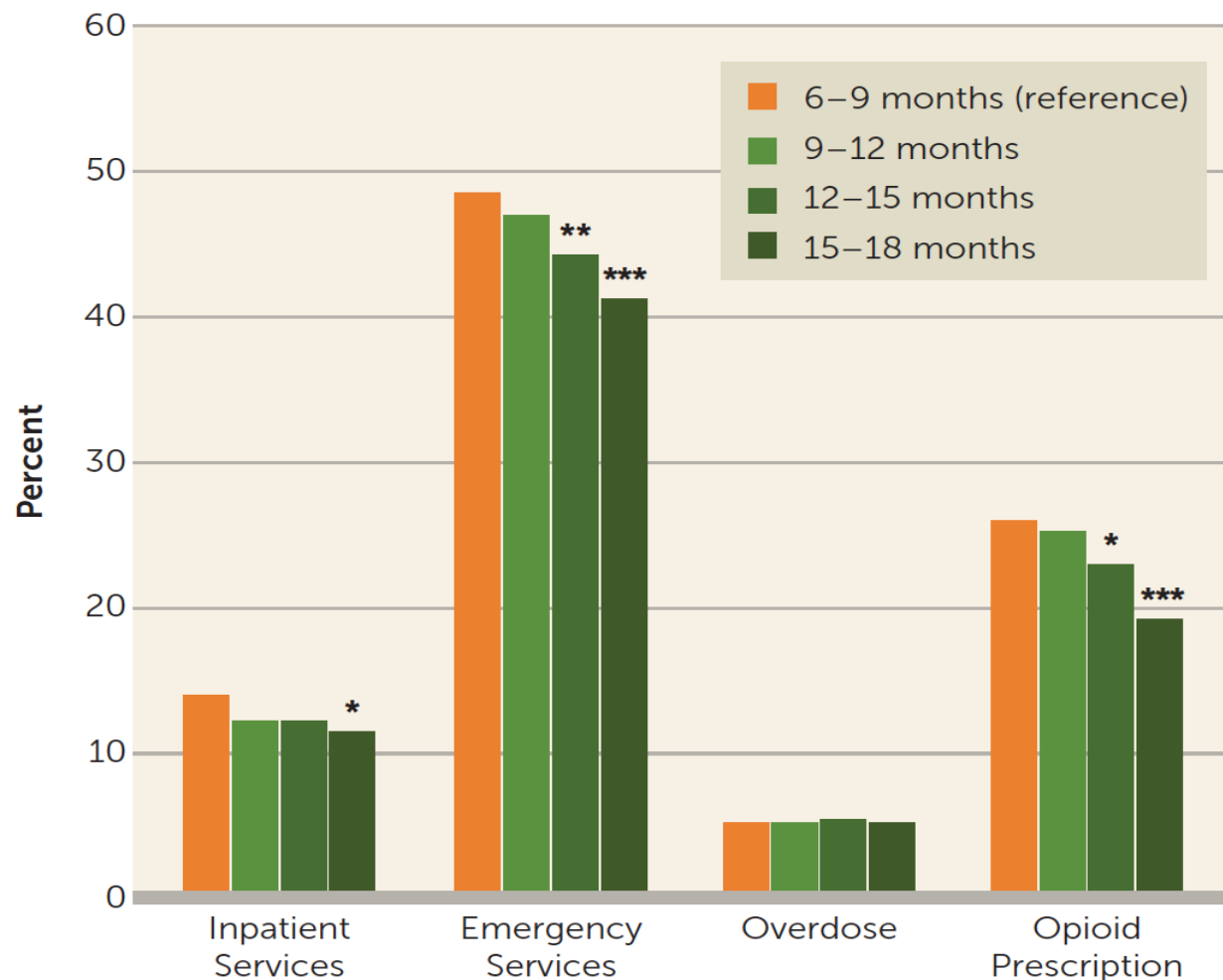
Baseline Characteristics

Characteristic	Total	Treatment Duration Cohort							
		6–9 months		9–12 months		12–15 months		15–18 months	
		N	%	N	%	N	%	N	%
Sex	8,996	4,126	45.9	2,440	27.1	1,499	16.7	931	10.3
Male	3,512	1,641	39.8	934	38.3	583	38.9	354	38.0
Female	5,484	2,485	60.2	1,506	61.7	916	61.1	577	62.0
Age group (years)									
18–24	966	462	11.2	258	10.6	157	10.5	89	9.6
25–34	4,473	2,072	50.2	1,210	49.6	718	47.9	473	50.8
35–44	2,400	1,079	26.2	654	26.8	418	27.9	249	26.7
45–54	856	375	9.1	241	9.9	151	10.1	89	9.6
55–64	301	138	3.3	77	3.2	55	3.7	31	3.3
Race/ethnicity									
White	8,234	3,772	91.4	2,220	91.0	1,372	91.5	870*	93.4
Nonwhite	762	354	8.6	220	9.0	127	8.5	61*	6.6
Medicaid plan type									
Fee for service	2,681	1,237	30.0	762	31.2	409*	27.3	273	29.3
Capitation	6,315	2,889	70.0	1,678	68.8	1,090*	72.7	658	70.7
Psychiatric diagnosis	2,777	1,273	30.9	764	31.3	454	30.3	286	30.7
Substance use diagnosis									
Alcohol use disorder	430	205	5.0	107	4.4	77	5.1	41	4.4
Nonopioid drug use disorder	1,951	931	22.6	517	21.2	308	20.5	195	20.9
	Mean	Mean	SD	Mean	SD	Mean	SD	Mean	SD
Initial buprenorphine dosage (mg/day)	8.0	7.9	2.3	8.0	2.3	8.2**	2.4	8.2**	2.4

^a Data are from the multistate MarketScan database of Medicaid claims, 2013–2017.

*p<0.05. **p<0.01.

Results Post-Discontinuation of Buprenorphine



Williams AR, Samples H, Crystal S, Olfson M (2019). Retention on buprenorphine beyond six months and risk of acute care service utilization, opioid prescription use, and overdose, *Am J Psych* 2019

^a All comparisons are with the reference group (the 6- to 9-month cohort).
* $p < 0.05$. ** $p < 0.01$. *** $p < 0.001$.

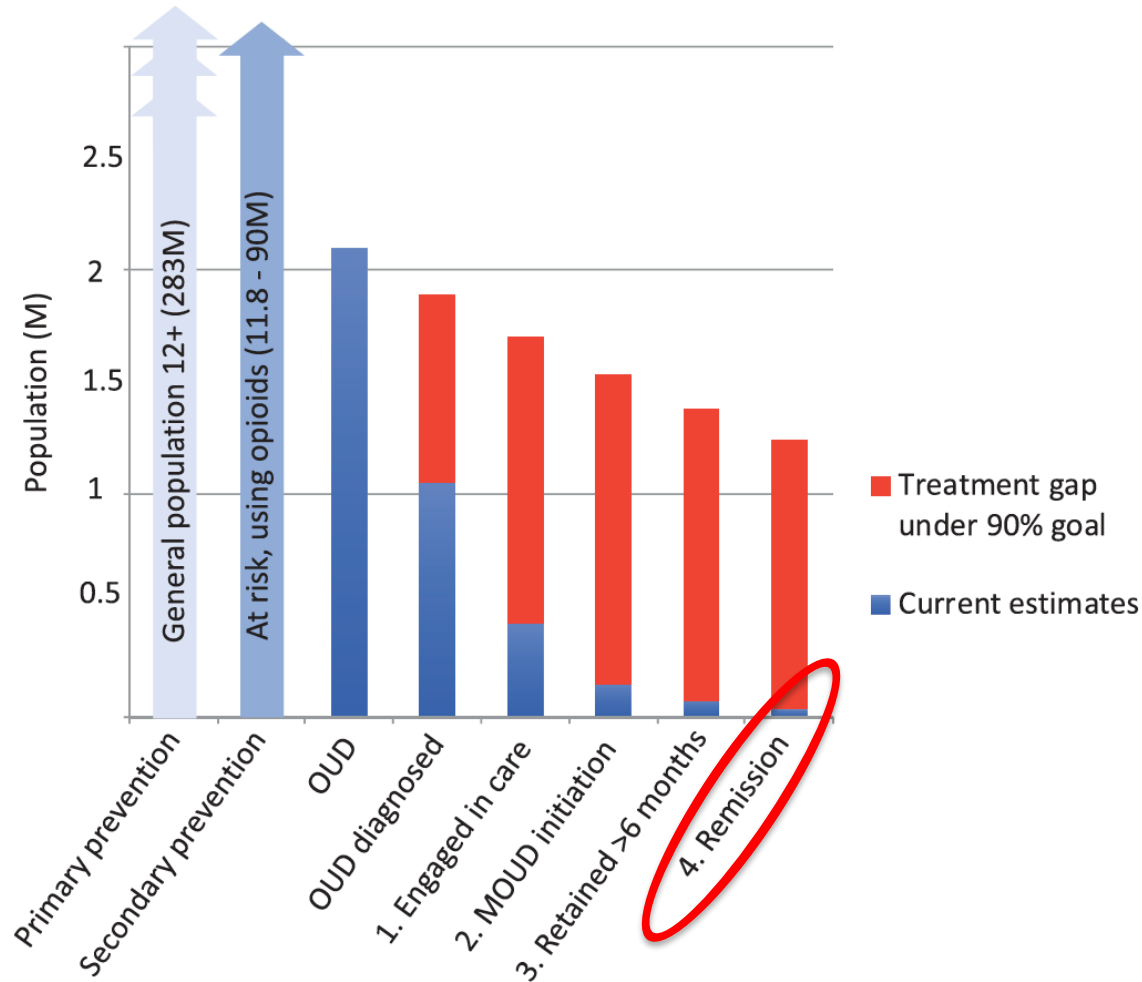
Limitations

- Residual confounding, unmeasured variables, may not generalize
- Not possible to ascertain indicators of addiction severity or response to treatment from claims data
 - However, covariates associated with addiction severity were included in all analyses (e.g. comorbid substance use disorder, mental illness)
- Lack of data regarding vital status
- Unable to detect *fatal* overdose events
 - Given that overdoses occurred at similar rates across cohorts, it is unlikely that fatal overdoses were differentially distributed across the study cohorts
- Beneficiaries who experienced fatal overdoses in the field would have lost Medicaid eligibility and would therefore have been ineligible for analysis in this study
- Sample likely represents relatively stable patients
 - A *minority* of Medicaid patients reach 6 months
 - Likely differ from early drop-outs

Key Take-Aways

- Empirically, 6-months of care is insufficient for buprenorphine
- Even 15-18 months is inadequate
- Medication discontinuation is life-threatening
 - 5% with 1+ OD event (not including fatalities)

OUD Cascade of Care



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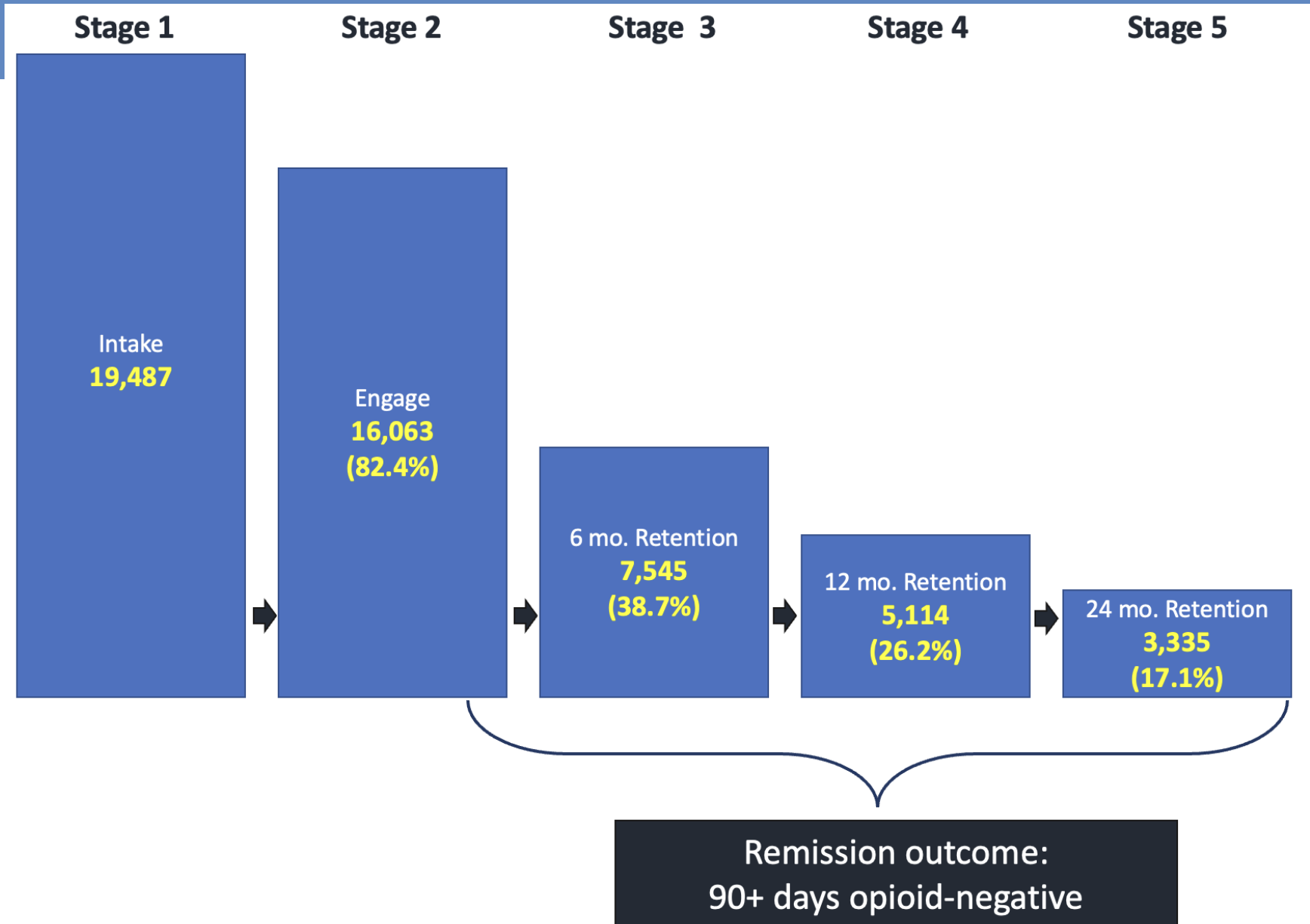
How to define Remission?

- Per DSM-5:
 - “Early Remission” = no longer meeting criteria
(aside from cravings) for 90+ days
 - Full sustained remission = not meeting criteria for 12+ months
- How can this be reflected in an EHR?

How does Opioid Use in Care affect Retention?

- Patients entering care 2011-2019
- Multi-state office-based buprenorphine clinic system
- 5-stage Cascade
- Cox proportional hazards regressions adjusted for baseline patient characteristics and intake drug test results, including an interaction between buprenorphine and opioids
- Estimated time to achieving continuous abstinence (90+ days)
 - proxy for DSM-5 Early Remission criteria
- Remission further assessed as a predictor of stage progression (i.e. retention at 12 and 24 months)
- Linked to National Death Index to account for mortality

Opioid Use in Care and Retention



Opioid Use in Care and Retention

Table 3: Adjusted Probability of 12- and 24-Month Retention, Based on Remission Status and Opioid Use at 6 Months

Achieved Remission at Any Point Prior to 6 Months
Yes
Yes
No
No
Achieved Remission at Any Point Prior to 6 Months
Yes
Yes
No
No

* Based on logistic models with interaction between opioid tests and remission, and controlling for age, gender, cocaine, and amphetamine use. Urine drug screen result closest to 180 days: the mean number of days in care for a drug test result attributed to the 6-month mark was 187.2 (+/- 8.4) days for those testing negative and 191.9 (+/- 15.2) days among those testing positive..

Opioid Use in Care and Retention

Table 3: Adjusted Probability of 12- and 24-Month Retention, Based on Remission Status and Opioid Use at 6 Months

Achieved Remission at Any Point Prior to 6 Months	6-Month Opioid Result*
Yes	Negative
Yes	Positive
No	Negative
No	Positive
Achieved Remission at Any Point Prior to 6 Months	6-Month Opioid Result*
Yes	Negative
Yes	Positive
No	Negative
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* Based on logistic models with interaction between opioid tests and remission, and controlling for age, gender, cocaine, and amphetamine use. Urine drug screen result closest to 180 days: the mean number of days in care for a drug test result attributed to the 6-month mark was 187.2 (+/- 8.4) days for those testing negative and 191.9 (+/- 15.2) days among those testing positive..

Opioid Use in Care and Retention

Table 3: Adjusted Probability of 12- and 24-Month Retention, Based on Remission Status and Opioid Use at 6 Months

		12-month retention		
Achieved Remission at Any Point Prior to 6 Months	6-Month Opioid Result*	Mean Adjusted Probability	95% CI Lower Mean	95% CI Upper Mean
Yes	Negative	0.66	0.62	0.71
Yes	Positive	0.41	0.35	0.49
No	Negative	0.43	0.38	0.48
No	Positive	0.16	0.13	0.20
		24-month retention		
Achieved Remission at Any Point Prior to 6 Months	6-Month Opioid Result*	Mean Adjusted Probability	95% CI Lower Mean	95% CI Upper Mean
Yes	Negative	0.44	0.39	0.49
Yes	Positive	0.23	0.18	0.29
No	Negative	0.24	0.20	0.28
No	Positive	0.08	0.06	0.11

* Based on logistic models with interaction between opioid tests and remission, and controlling for age, gender, cocaine, and amphetamine use. Urine drug screen result closest to 180 days: the mean number of days in care for a drug test result attributed to the 6-month mark was 187.2 (+/- 8.4) days for those testing negative and 191.9 (+/- 15.2) days among those testing positive..

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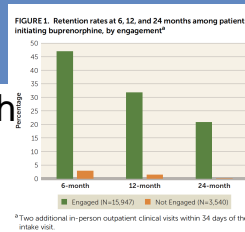
		12-month retention		
Achieved Remission at Any Point Prior to 6 Months	6-Month Opioid Result*	Mean Adjusted Probability	95% CI Lower Mean	95% CI Upper Mean
Yes	Negative	0.66	0.62	0.71
Yes	Positive	0.41	0.35	0.49
No	Negative	0.43	0.38	0.48
No	Positive	0.16	0.13	0.20
		24-month retention		
Achieved Remission at Any Point Prior to 6 Months	6-Month Opioid Result*	Mean Adjusted Probability	95% CI Lower Mean	95% CI Upper Mean
Yes	Negative	0.44	0.39	0.49
Yes	Positive	0.23	0.18	0.29
No	Negative	0.24	0.20	0.28
No	Positive	0.08	0.06	0.11

4x

* Based on logistic models with interaction between opioid tests and remission, and controlling for age, gender, cocaine, and amphetamine use. Urine drug screen result closest to 180 days: the mean number of days in care for a drug test result attributed to the 6-month mark was 187.2 (+/- 8.4) days for those testing negative and 191.9 (+/- 15.2) days among those testing positive..

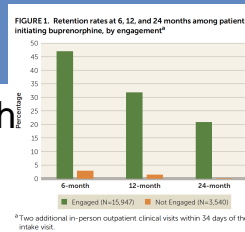
Piecing together an empiric OUD Cascade

Engagement/first month
is critical

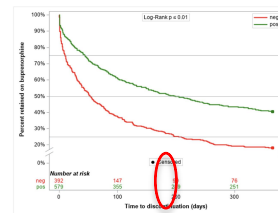


Piecing together an empiric OUD Cascade

Engagement/first month
is critical

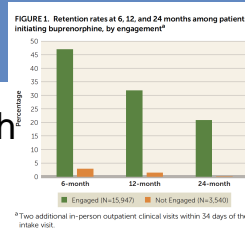


Buprenorphine at entry >>>
demographics, severity, etc.

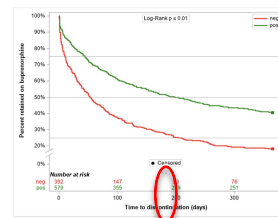


Piecing together an empiric OUD Cascade

Engagement/first month is critical



Buprenorphine at entry >>> demographics, severity, etc.



Early remission from OUD highly predictive

Table 3. Adjusted Probability of 12- and 24-Month Retention, Based on Remission Status and Optimal Use at 6 Months

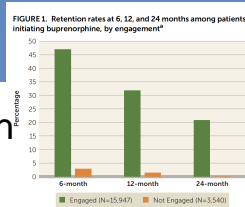
Achieved Remission at Any Point Prior to 6 Months	6-Month Optimal Result ^a	Mean Adjusted Probability	Retention	
			12-Mo Upper Bound	24-Mo Upper Bound
Yes	Negative	0.65	0.52	0.33
Yes	Positive	0.52	0.39	0.26
No	Negative	0.52	0.39	0.26
No	Positive	0.52	0.39	0.26

Achieved Remission at Any Point Prior to 6 Months	6-Month Optimal Result ^a	Mean Adjusted Probability	Retention	
			12-Mo Lower Bound	24-Mo Lower Bound
Yes	Negative	0.65	0.39	0.26
Yes	Positive	0.52	0.26	0.17
No	Negative	0.52	0.26	0.17
No	Positive	0.52	0.26	0.17

^a Patients who remain on buprenorphine for 6 months without achieving remission are not included in the analysis. The mean adjusted probability of 12- and 24-month retention for patients who did not achieve remission at any point prior to 6 months is 0.39 and 0.26, respectively.

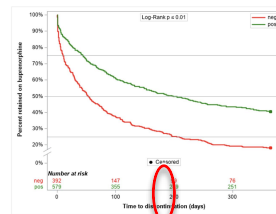
Piecing together an empiric OUD Cascade

Engagement/first month is critical



^a Two additional in-person outpatient clinical visits within 34 days of the intake visit.

Buprenorphine at entry >>> demographics, severity, etc.



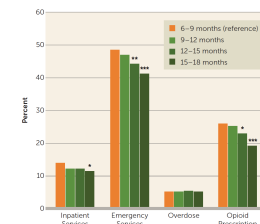
Early remission from OUD highly predictive

Table 3. Adjusted Probability of 12- and 24-Month Retention, Based on Remission Status and Optimal Use at 6 Months

Achieved Remission at Any Point Prior to 6 Months	6-Month Optimal Result ^a	Mean Adjusted Probability	12-Month Retention		24-Month Retention	
			95% CI Lower	95% CI Upper	95% CI Lower	95% CI Upper
Yes	Negative	0.65	0.52	0.77	0.48	0.71
Yes	Positive	0.75	0.68	0.82	0.60	0.84
No	Negative	0.24	0.19	0.29	0.15	0.28
No	Positive	0.14	0.10	0.20	0.07	0.20

^a Positive and negative results are defined as follows: Positive result indicates that the patient was not receiving any buprenorphine at the time of the assessment, and the patient was not receiving any buprenorphine at the time of the assessment. Negative result indicates that the patient was receiving buprenorphine at the time of the assessment.

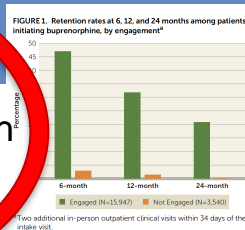
Drop out is a high-risk event, even after 18+ mo. in care



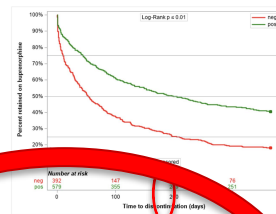
^a All comparisons are with the reference group (the 6- to 9-month cohort). ^b p < 0.05. ^c p < 0.01. ^d p < 0.001.

Piecing together an empiric OUD Cascade

Engagement/first month is critical



Buprenorphine at entry >>> demographics, severity, etc.



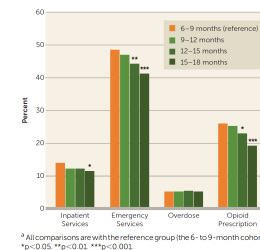
Early remission from OUD highly predictive

Table 3. Adjusted Probability of 12- and 24-Month Retention, Based on Remission Status and Optimal Use at 6 Months

Achieved Remission at Any Point Prior to 6 Months	6-Month Optimal Result ^a	Mean Adjusted Probability	Retention	
			12-Mo CI Upper Bound	24-Mo CI Upper Bound
Yes	Yes	0.65	0.52	0.31
Yes	No	0.45	0.30	0.18
No	Yes	0.25	0.15	0.08
No	No	0.15	0.08	0.04

^aOptimal use is defined as: (1) taking buprenorphine daily at the recommended dose, and (2) attending at least one group session. All comparisons are with the reference group (the 6- to 9-month cohort). *p<0.05. **p<0.01. ***p<0.001.


Drop out is a high-risk event, even after 18+ mo. in care



Next Steps: Opportunities

- Add additional years for even longer analyses, rare events
- Clinical Decision Support Tools at treatment entry
- Risk calculators during episodes for possible planned discontinuation
 - *“Doc, when can I come off of this?..”*

Tailoring OBOT Care Pathways



Intake: Based on empiric evaluations of multi-site OBOT patients, those who present to care already on bupe and no longer using opioids are **3x** more likely to stay in care through 180 days (6 months), a critical period per CMS quality measures.

6-Months: Among patients who stay in care for 6+ months, those who achieve “remission,” with 90+ days opioid free, and who remain opioid free are **4x** as likely to stay in care through 12 months and **6x** as likely to stay in care through 24 months.

Enhanced services may help stabilize high-risk patients, while reducing requirements via **convenient care** may facilitate retention for stable patients

Case: Tailoring Care Pathways

- A 39-year-old male returns for buprenorphine treatment after having been out of care for a few years. He reports his use escalated in the interim to 10-12 bags of heroin a day but he thinks it is mostly fentanyl. Sometimes he uses methamphetamine for energy as well. He reports a friend gave him leftover Suboxone she found in her house and he's managed to go for a few days now without using any heroin while using the Suboxone to treat withdrawal over the past month, but that he is running out.
- Is this patient likely to stay in care?
- What other information would you like to know?
- How can his care pathway be tailored to optimize outcomes?
- How would you re-evaluate his status at the 6-month mark in care?

Intake: Tailoring Care Pathways

HIGHER RISK PATIENT

- Requires buprenorphine induction
- Using street opioids (e.g. fentanyl)
 - No-show/rescheduled intake
- Alcohol and/or methamphetamine use



Enhanced Services

- Higher bupe dose (24+mg)
- Ancillary meds for a month
- More frequent visits/check-ins
 - Care coordination
- Troubleshoot pharmacy & insurance issues

LOWER RISK PATIENT

- Already taking buprenorphine regularly
 - Opioid-negative UDS
- No delay in treatment intake



Convenient Care

- Shorter intake
- Less frequent visits
- Patient-centered use of UDS

At 6 months re-evaluate: Care Pathways

HIGHER RISK PATIENT

- Has not achieved Remission
- Opioid-positive UDS at 6mo



Enhanced Services

- Higher bupe dose (24+mg)
 - Stabilize psychiatric comorbidities
- Care coordination
- Troubleshoot pharmacy & insurance issues

LOWER RISK PATIENT

- Achieved Remission (90+ days opioid-negative)
- Opioid-negative UDS at 6mo



Convenient Care

- Less frequent visits
 - Allow refills
- Patient-centered use of UDS
- Accommodate remote visits

Summary

- **Patients presenting to care, not on buprenorphine, using street drugs are at the highest risk for drop out**
 - Add interventions and wraparound services
 - Adjunctive medications
 - Higher buprenorphine target dose
 - Contingency management
 - Care coordination
 - Address pharmacy barriers
- **Patients who enter care already on buprenorphine (prescribed or non-prescribed) tend to be more stable**
 - Streamline care to minimize any barriers to retention
 - Reduce visit frequency

Thank you

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PCSS-MOUD Mentoring Program

- PCSS-MOUD Mentor Program is designed to offer general information to clinicians about evidence-based clinical practices in prescribing medications for opioid use disorder.
- PCSS-MOUD Mentors are a national network of providers with expertise in **addictions, pain, and evidence-based treatment including medications for opioid use disorder (MOUD)**.
- 3-tiered approach allows every mentor/mentee relationship to be unique and catered to the specific needs of the mentee.
- No cost.

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Addiction Technology Transfer Center*	American Dental Association
African American Behavioral Health Center of Excellence	American Medical Association*
American Academy of Addiction Psychiatry*	American Orthopedic Association
American Academy of Child and Adolescent Psychiatry	American Osteopathic Academy of Addiction Medicine*
American Academy of Family Physicians	American Pharmacists Association*
American Academy of Neurology	American Psychiatric Association*
American Academy of Pain Medicine	American Psychiatric Nurses Association*
American Academy of Pediatrics*	American Society for Pain Management Nursing
American Association for the Treatment of Opioid Dependence	American Society of Addiction Medicine*
American Association of Nurse Practitioners	Association for Multidisciplinary Education and Research in Substance Use and Addiction*
American Chronic Pain Association	Coalition of Physician Education
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Black Faces Black Voices	

Columbia University, Department of Psychiatry*	Partnership for Drug-Free Kids
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Faces and Voices of Recovery	Project Lazarus
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National Association of Drug Court Professionals	Society of Teachers of Family Medicine
National Association of Social Workers*	The National Judicial College
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National Council of State Boards of Nursing	Voices Project
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