

Subthreshold Opioid Use Disorder Prevention (STOP) Trial CTN-0101



Lead Investigators

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Disclosure Information

NIH HEAL Initiative: Results from Selected NIDA Clinical Trials Network Studies

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☀ No disclosures



Learning Objectives

- ☀ Describe the elements of a collaborative care model for patients with subthreshold opioid use disorder, and
- ☀ Understand its potential for managing patients with risky opioid use and medical/psychiatric comorbidities in primary care.

Funding Sources

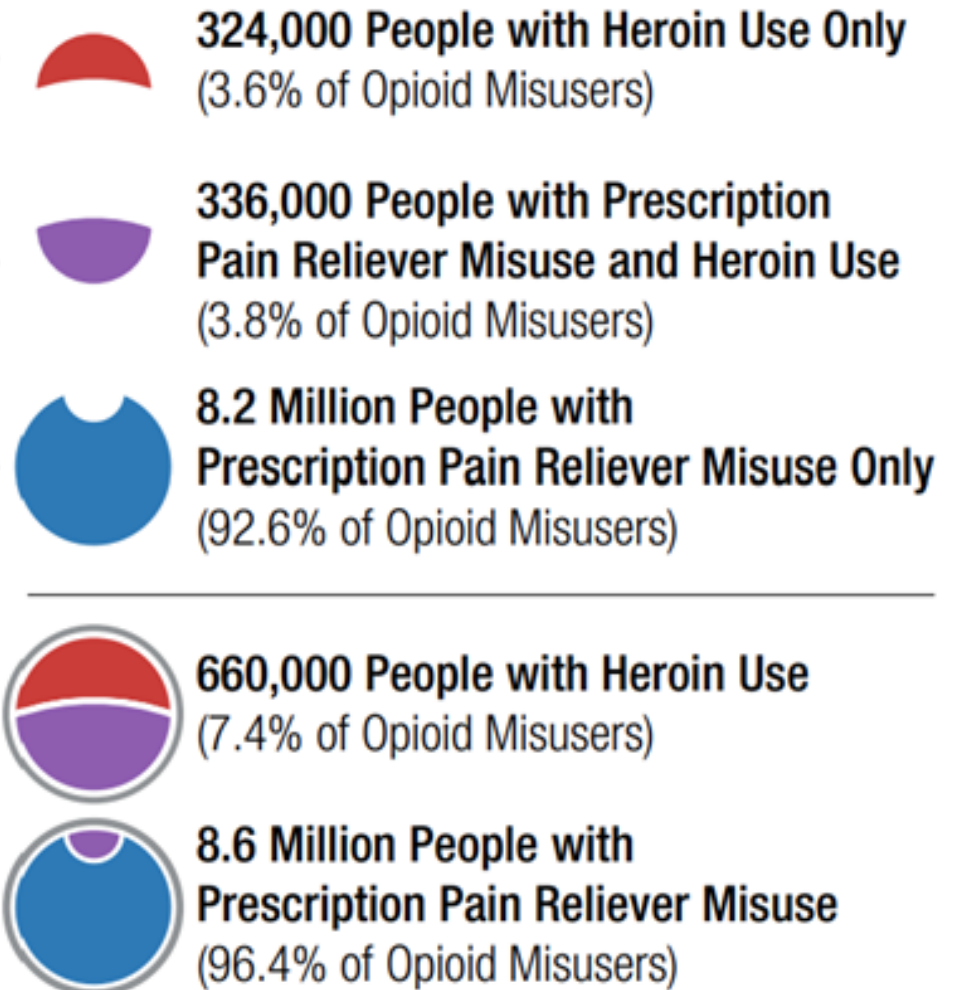
- CTN Grant awards 5UG1DA013035, 5UG1DA015815, 5UG1DA049436
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Prevalence of Unhealthy Opioid Use and OUD

8.9 Million people with opioid misuse

2/3 of them have opioid use disorder

8.9 Million People Aged 12 or Older with Past Year Opioid Misuse



Significance

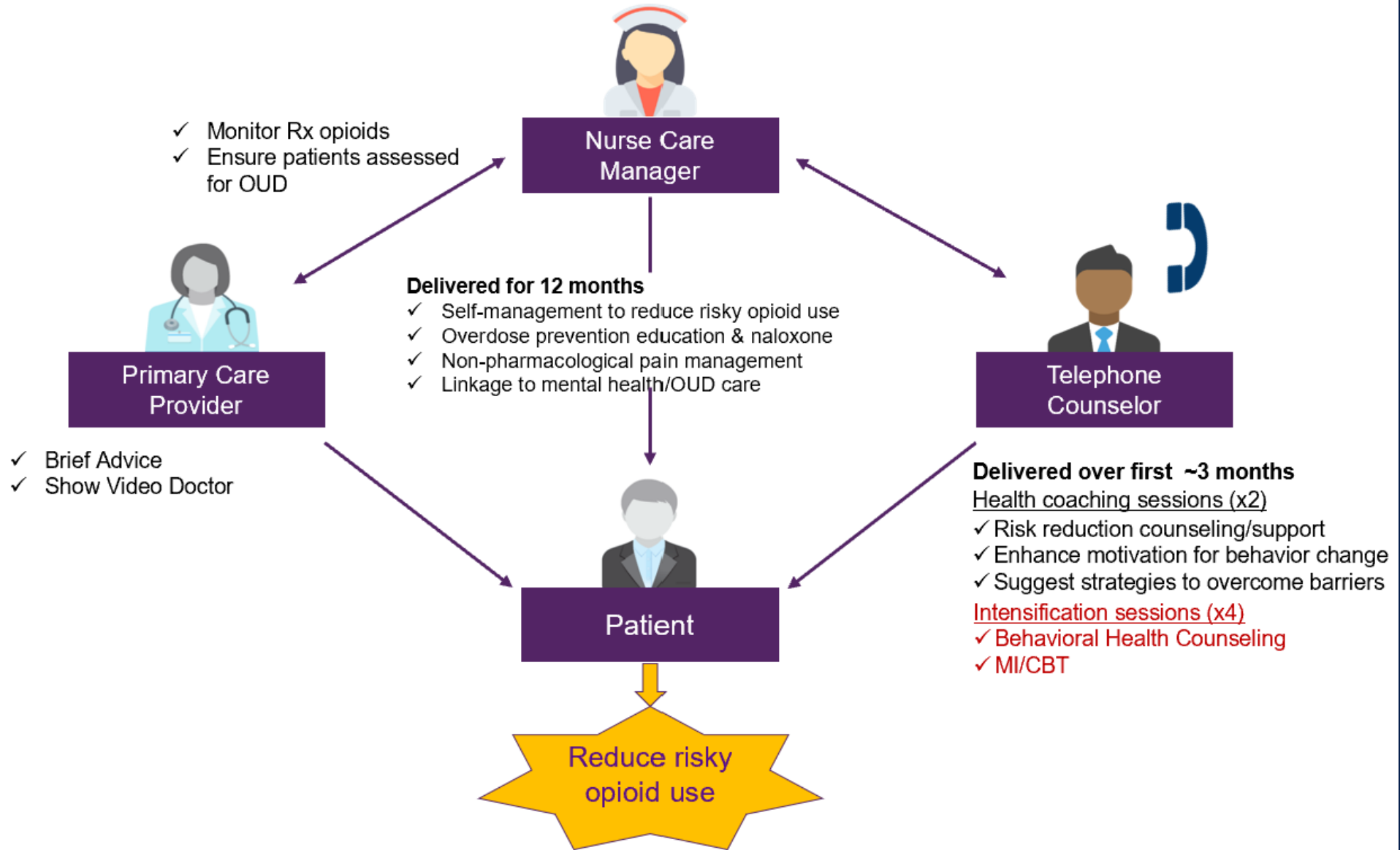
- **Subthreshold Opioid Use Disorder Prevention (STOP)** Trial tested a collaborative care intervention in primary care patients with subthreshold OUD
- *Subthreshold OUD*: Risky opioid use behavior that does not meet the diagnostic criteria for moderate or severe OUD
 - At risk for developing moderate-severe OUD, overdose, or other consequences of opioid use
 - Little is known about the health and demographic characteristics of this population
 - Lack of evidence-based prevention and treatment interventions

Collaborative Care for Substance Use

- Primary care providers lack the time, knowledge, and resources to effectively address substance use
- Collaborative care models have improved quality and reach of depression treatment in primary care
- Limited research on collaborative care for SUD
 - Only 2 studies for drugs other than alcohol



STOP collaborative care intervention



Central research question

Can a collaborative care intervention reduce risky opioid use in adult primary care patients with subthreshold OUD?

Risky opioid use includes:

- Non-medical use of prescribed opioids
- Any use of illicit opioids

Methods



★ Study design: Cluster randomized trial

- ★ Primary care providers (PCPs) randomized to intervention or enhanced usual care
- ★ Enrolled adult patients of PCPs
- ★ Assessments for 12 months
- ★ Enrollment March 2021-May 2023

★ Setting: 5 US primary care sites

- ★ Baltimore, MD
- ★ Columbus, OH
- ★ Manchester, NH
- ★ Salt Lake City, UT
- ★ Annville, PA



Patient eligibility criteria:

- ★ Adult patients (≥ 18 years)
- ★ Current illicit or non-medical opioid use
- ★ Not meeting DSM-5 criteria for moderate-severe OUD

Primary outcome measure:

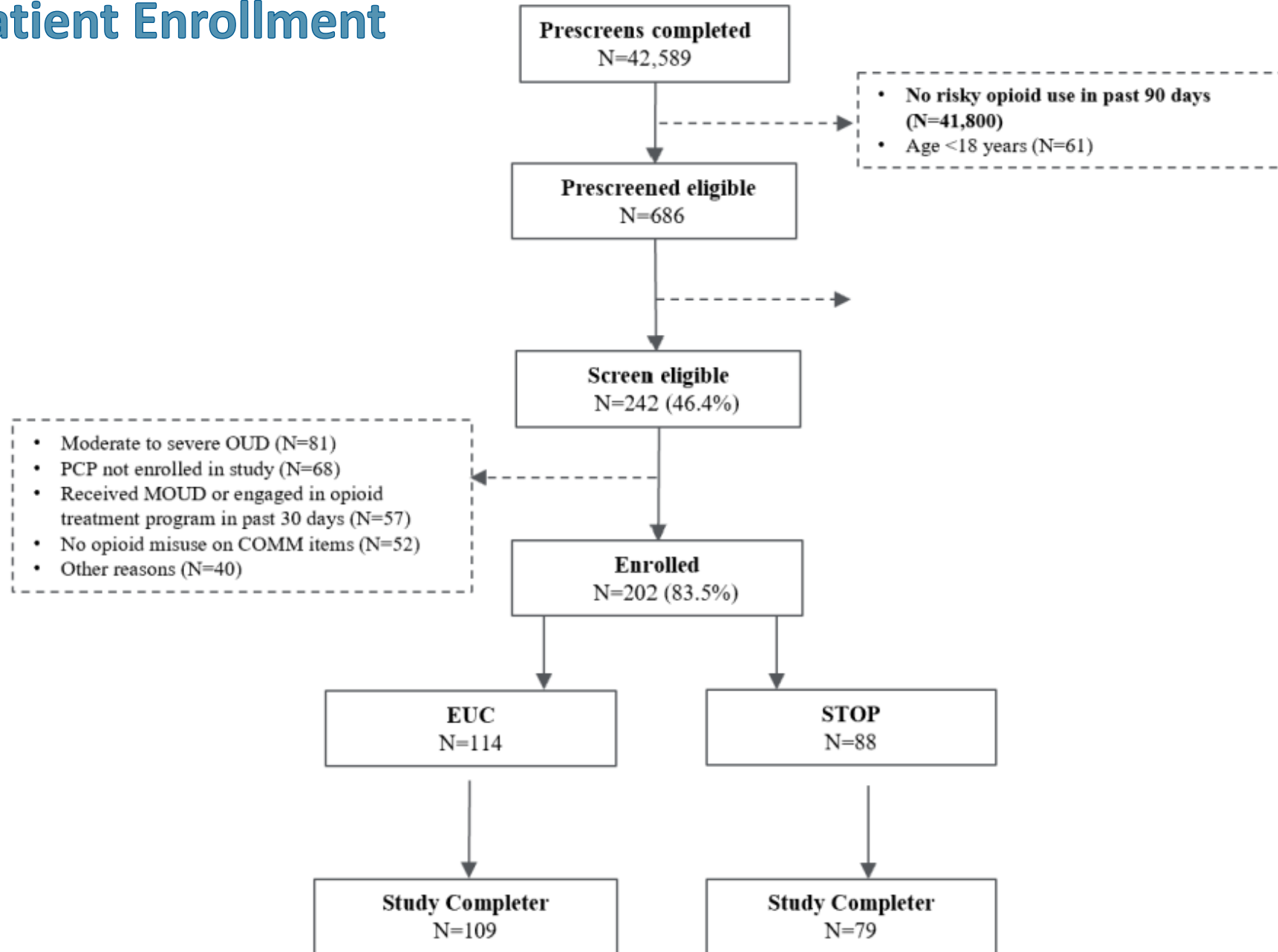
- ★ *Days of risky opioid use in the past 180 days*
- ★ Collected via monthly self-completed survey: days of use in past 30 days

Primary care provider (PCP) enrollment

- 119 enrolled and randomized
 - Enhanced Usual Care (EUC): N=61
 - STOP Intervention: N=58
- 64 PCP clusters had patients enrolled in the trial



Patient Enrollment



Patient demographic characteristics

Characteristic		Overall N=202 N (%)	EUC N=114 N (%)	STOP N=88 N (%)	P-value
Age (years)	Mean (SD)	55.7 (12.7)	56.9 (12.0)	54.09 (13.3)	0.12
Sex	Female	128 (63.4)	63 (55.3)	65 (73.9)	0.01
Race	White	143 (70.8)	83 (72.8)	60 (68.2)	0.65
	Black/Afr Am	43 (21.3)	22 (19.3)	21 (23.9)	
	Other race	14 (7.0)	7 (6.1)	7 (8.0)	
Ethnicity	Hispanic	7 (3.5)	--	--	0.67
Employment	Working	68 (33.7)	33 (29.0)	35 (39.8)	0.15
	Retired	62 (30.7)	41 (36.0)	21 (23.9)	
	Disabled	39 (19.3)	24 (21.1)	15 (17.1)	
	Other	33 (16.3)	16 (14.0)	17 (19.3)	

Substance use characteristics at baseline

Days of use in past month, Mean (SD)	Overall N=202	EUC N=114	STOP N=88	P-value
Opioids (nonmedical, illicit)	3.76 (6.24)	4.05 (6.64)	3.37 (5.68)	0.47
Tobacco	3.80 (9.3)	3.90 (9.2)	3.60 (9.6)	0.82
Alcohol (heavy drinking)	2.96 (7.03)	3.3 (7.47)	2.52 (6.42)	0.43
Cannabis	5.50 (10.13)	5.62 (10.54)	5.34 (9.64)	0.84
Benzodiazepines	0.74 (2.88)	0.73 (3.08)	0.75 (2.61)	0.96
Stimulants	0.42 (3.09)	0.13 (0.66)	0.80 (4.6)	0.18
	N (%)	N (%)	N (%)	
Opioid prescription	151 (75.8)	86 (75.4)	65 (73.9)	0.93
High opioid risk	79 (39.1)	48 (42.11)	31 (35.23)	0.41

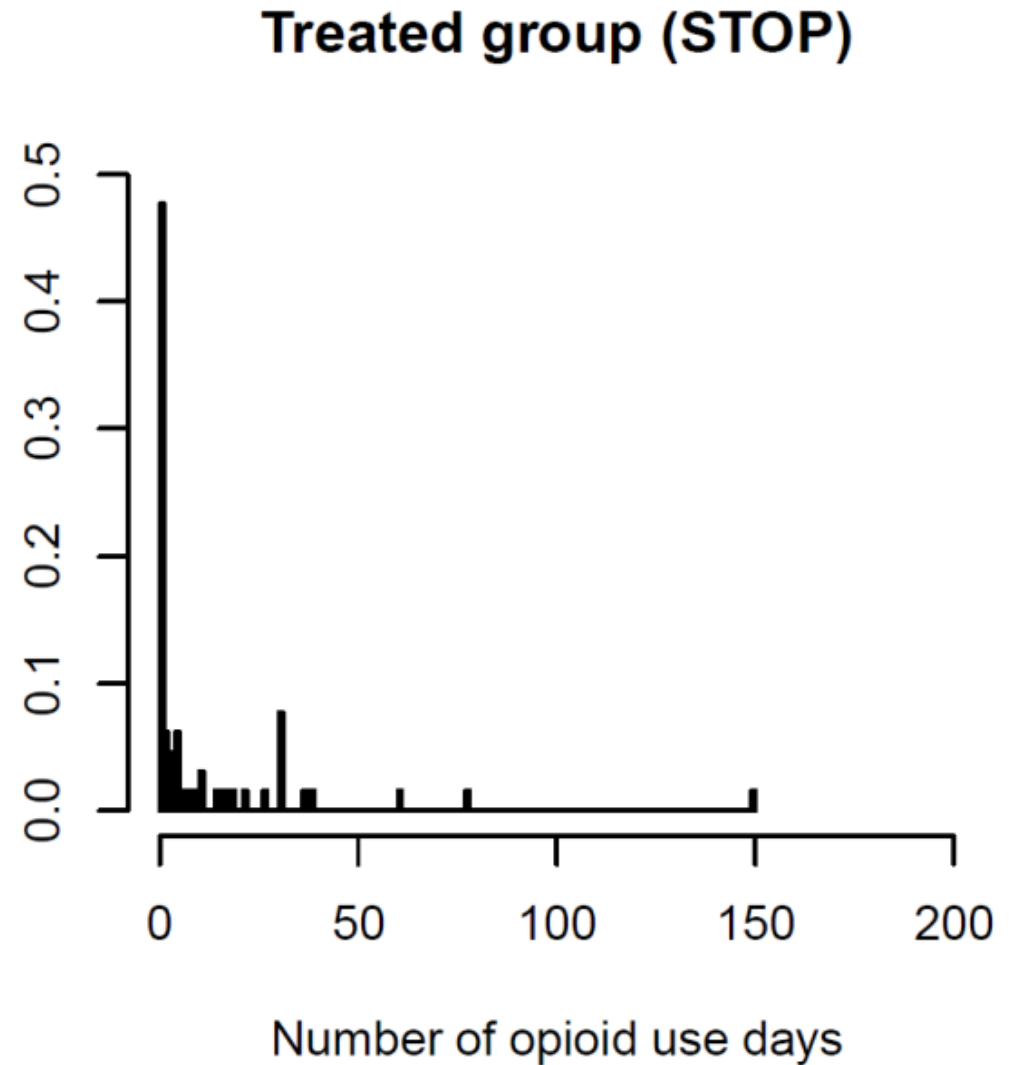
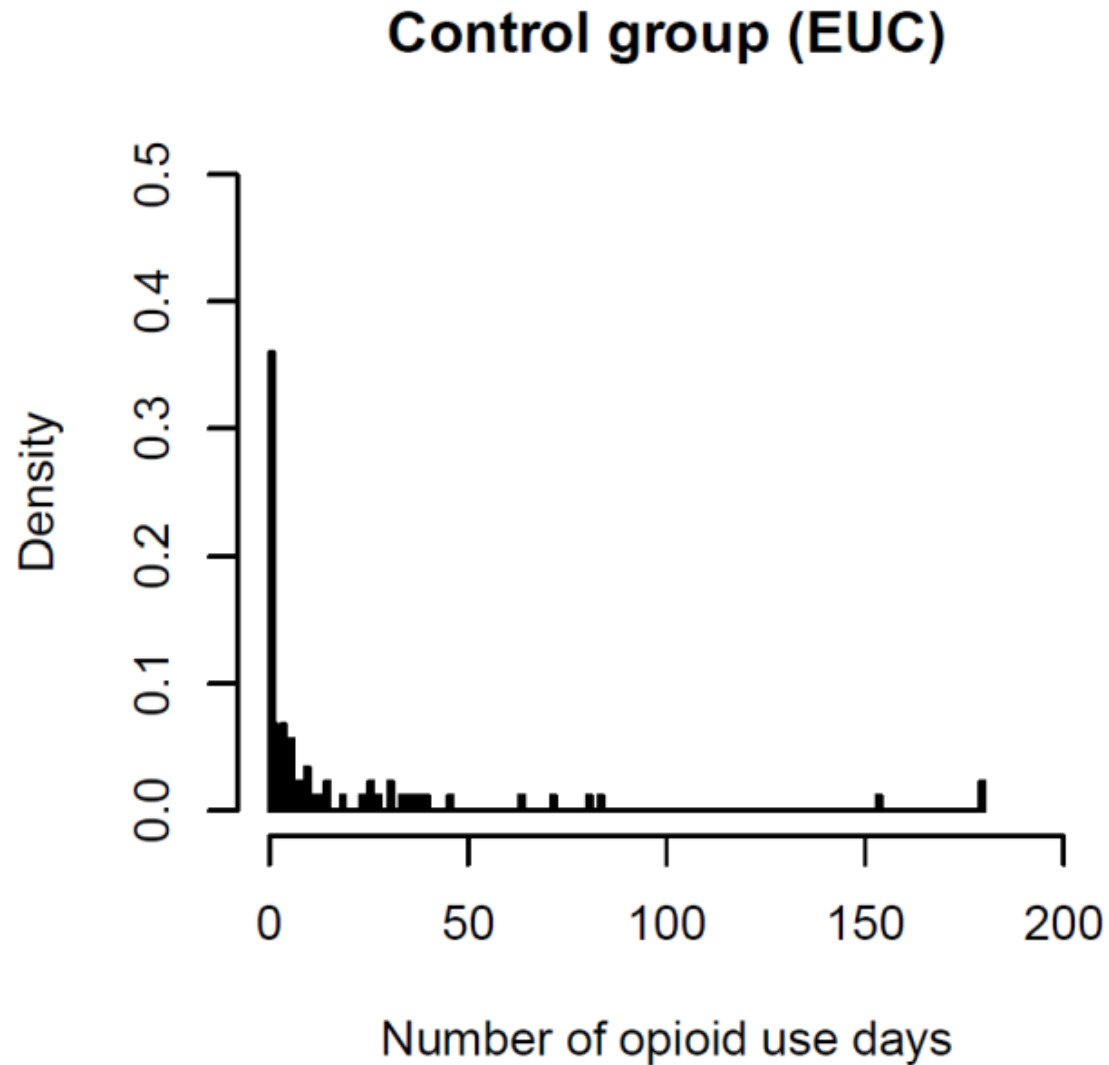
Pain and general health at baseline

Characteristic	Overall N=202 N (%)	EUC N=114 N (%)	STOP N=88 N (%)	P-value
Pain moderate-severe	128 (63.4%)	73 (64.0)	55 (62.5%)	1.00
Pain interference (range 1-10) Mean (SD)	4.4 (3.2)	4.41 (3.2)	4.44 (3.2)	0.96
General health, self-rated				0.07
Excellent or Good	76 (37.6)	48 (42.1)	28 (31.8)	
Fair or Poor	122 (60.4)	64 (56.2)	58 (65.9)	

Mental health at baseline

Characteristic	Overall N=202 N (%)	EUC N=114 N (%)	STOP N=88 N (%)	P-value
Anxiety mod-severe	72 (35.6)	36 (31.6)	36 (40.9)	0.20
Depression mod-severe	63 (31.2)	32 (28.1)	31 (35.2)	0.35
Suicide attempt in lifetime	41 (20.3)	22 (19.3)	19 (21.6)	0.82
Suicidal thoughts in past 2 weeks	12 (5.9)	6 (5.3)	6 (6.8)	0.85

Days of risky opioid use by arm



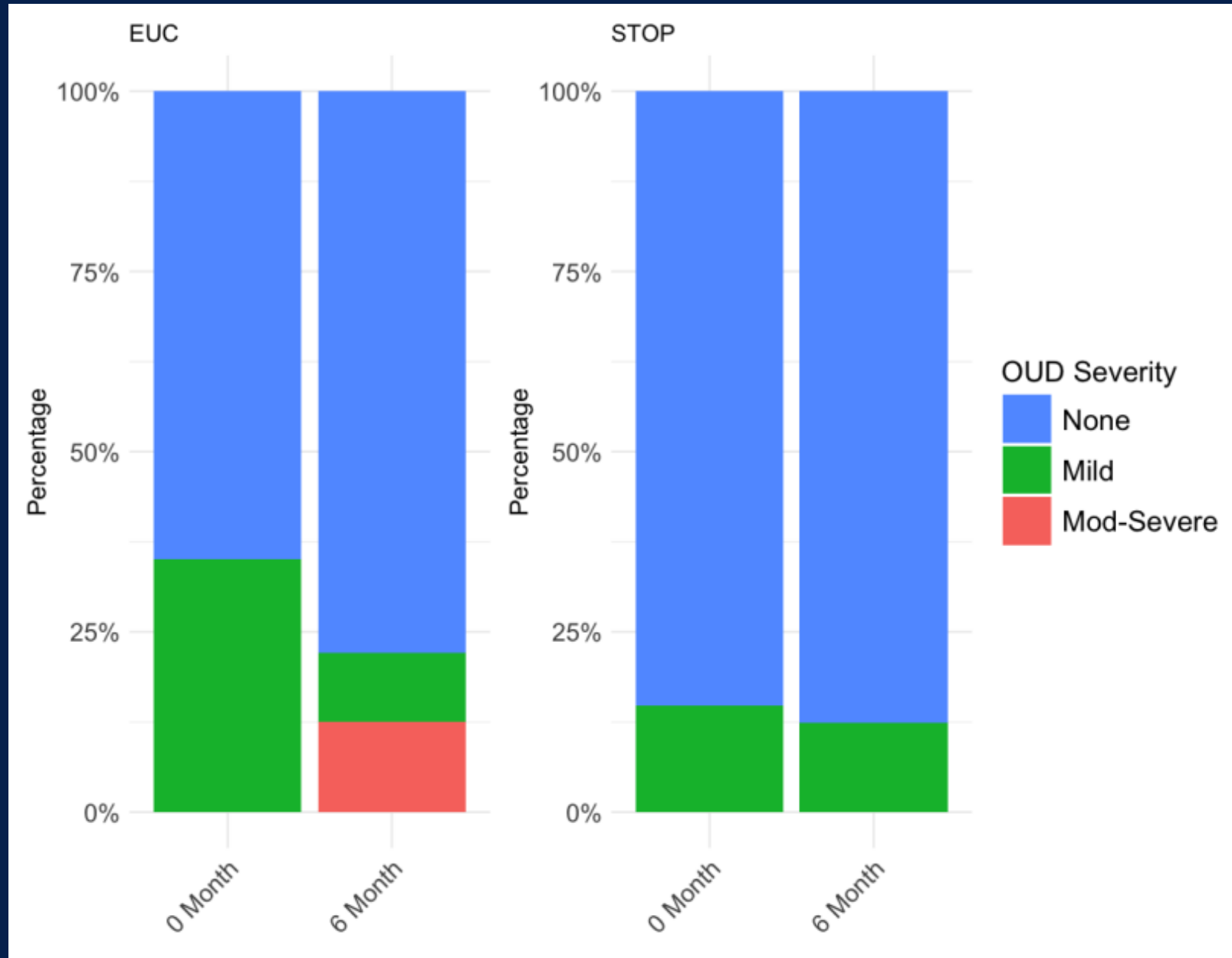
Primary outcome analysis by arm (N=202)

Treatment Arm	Number of Participants enrolled	Days of risky opioid use in the 180 days from baseline (Mean (SD))
Enhanced Usual Care	114	15.5 (32.64)
STOP	88	12.2 (27.73)
Total	202	14.1 (30.61)

Results			
Rate Ratio	95% Lower Confidence Limit	95% Upper Confidence Limit	P-value
0.95	0.52	1.74	0.866

- ☀ Negative binomial model with log link to estimate difference in means
- ☀ Adjusted for site and baseline days of risky opioid use

Opioid use disorder at baseline and 6 mos



Engagement with the intervention



Intervention Components

Primary Care Provider

Brief advice received	%	62%
Time (Minutes)	Mean Range	4.5 3.4-10.0



Nurse Care Manager

Number of visits	Mean Range	23.4 0-161
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Telephone Health Coach

Any session	%	98%
Number of sessions completed	Mean Range	4.6 0-6
Completed 6 sessions (max allowed)	%	57%

Discussion

- Over **42,000 prescreens completed** to enroll a sample of **202 patients** with subthreshold OUD
- High burden of **pain, physical health, and mental health** symptoms
- Substance use characterized by problem use of **alcohol** and **cannabis**
- Days of risky opioid use was low at baseline, and many participants had zero days of use during the follow-up period
- No significant difference in the mean adjusted days of risky opioid use over the first 180 days
- Observed more progression to moderate-severe OUD in the control group

Conclusions

- High patient engagement suggests that collaborative care is an acceptable approach in this non-treatment seeking population
- Co-Care trial (CTN-0139) is testing a collaborative care model for primary care patients with moderate-severe SUD (opioid, stimulant, alcohol)
- Future longitudinal studies could inform the trajectories of substance use and impact of interventions to prevent moderate-severe OUD and related health outcomes that may take longer to manifest

Acknowledgements



Executive Committee

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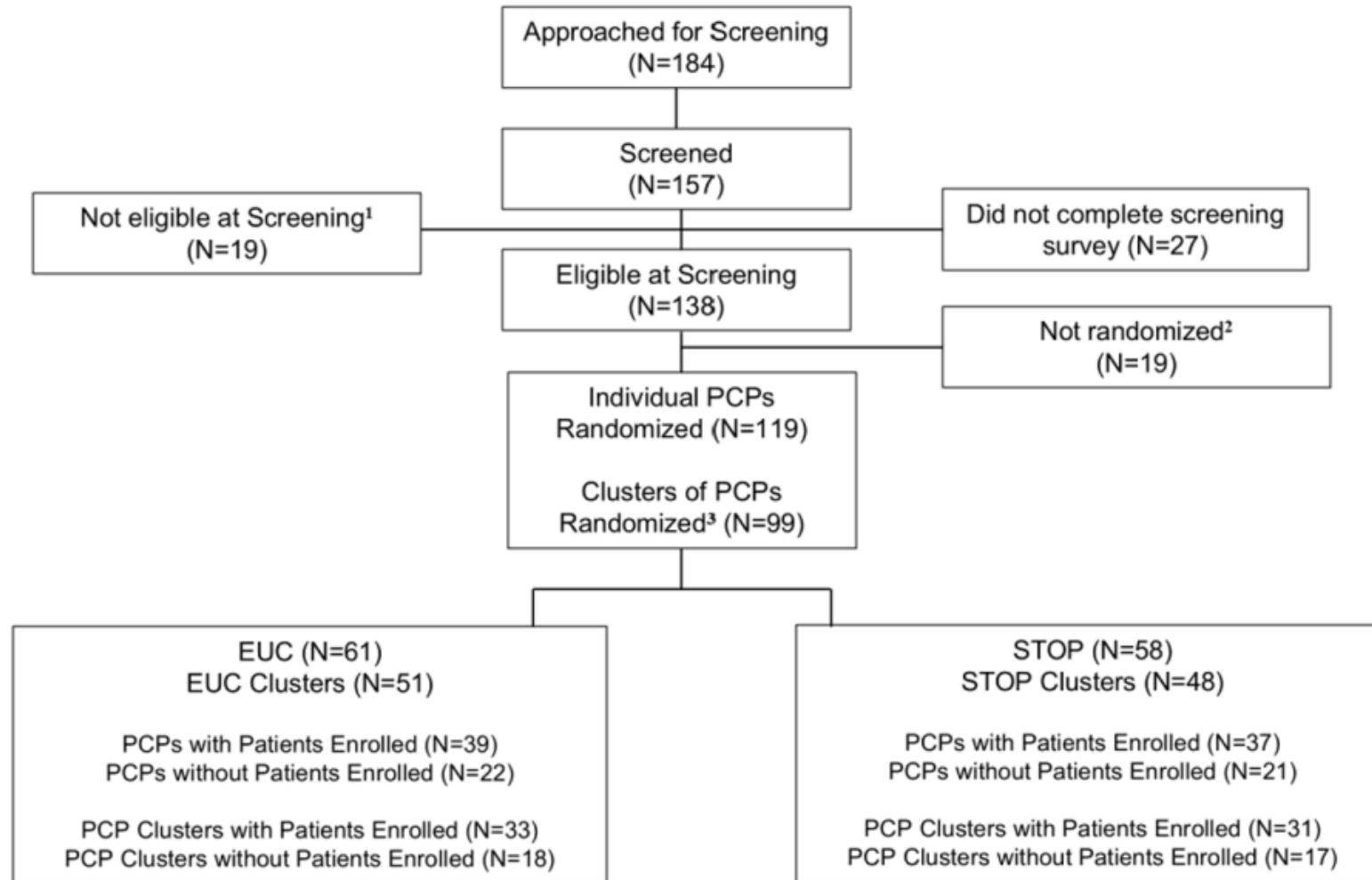
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2. Substance Abuse and Mental Health Services Administration. *Key Substance Use and Mental Health Indicators in the United States: Results from the 2022 National Survey on Drug Use and Health*. Vol. Publication No. EP23-07-01-006, NSDUH Series H-58. Center for Behavioral Health Statistics and Quality SAaMHSA; 2023. November 2023. <https://www.samhsa.gov/data/report/2022-nsduh-annual-national-report>

Additional Slides

PCP Enrollment



Limitations

- Self-reported measures
- Limited racial and ethnic diversity in the study sample
- Reliance on remote screening (due to COVID-19) may have limited reach of recruitment