Smoking Cessation
Leadership Center

University of California
San Francisco

Navigating the Intersection of Tobacco and Opioid Use Disorder

Shadi Nahvi, MD, MS, Professor, Departments of Medicine, and of Psychiatry & Behavioral Sciences, Albert Einstein College of Medicine / Montefiore Health System

March 5, 2024

Moderator

Catherine Bonniot

Executive Director

Smoking Cessation Leadership Center
University of California, San Francisco

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- For our California residents, SCLC offers regional trainings, online education opportunities, and technical assistance for behavioral health agencies, providers, and the clients they serve throughout the state of California.
- For technical assistance please contact (877) 509-3786 or Jessica.Safier@ucsf.edu.

- New CDC Tips Campaign 2024
- Tips From Former Smokers Motivational Cards:

  https://www.cdc.gov/tobacco/campaign/tips/resources/motivational-cards/index.html

- Find resources at: https://www.cdc.gov/tobacco/campaign/tips/index.html

The African American Tobacco Control Leadership Council (AATCLC) and the **Smoking Cessation Leadership Center** (SCLC) of the University of California, San Francisco have joined forces to promote Spiral Up Lite (©2024 EBT, Inc.).

Click here for more information: **https://online.fliphtml5.com/negtk/osvt/#p=1**

Today's Presenter

Shadi Nahvi, MD, MS,

Professor, Departments of Medicine, and of Psychiatry & Behavioral Sciences

Albert Einstein College of Medicine / Montefiore Health System

Navigating the intersection of tobacco and opioid use disorder

Shadi Nahvi, MD, MS

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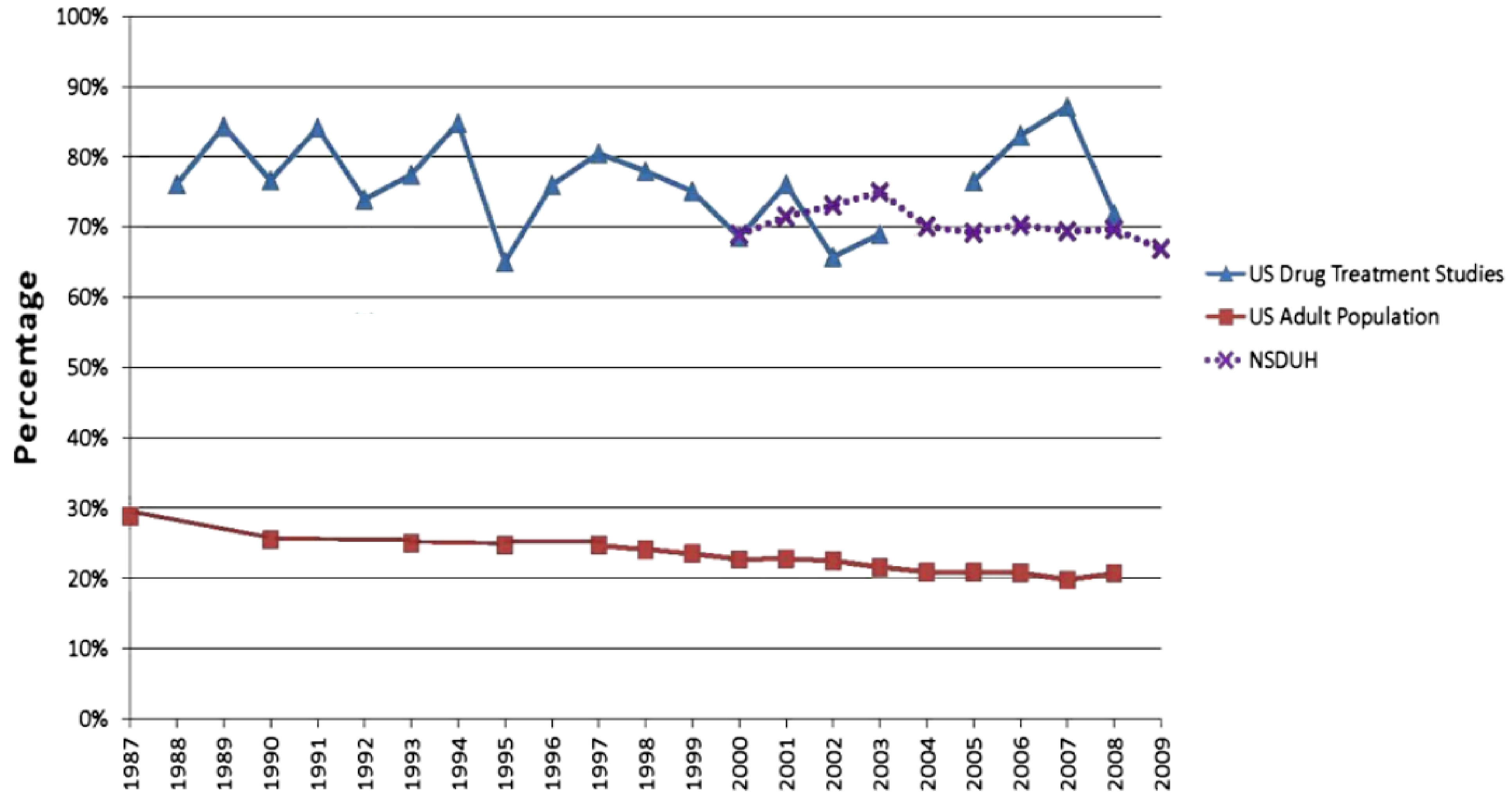
Defibrillator

DISPROPORTIONATE PREVALENCE



Guydish et al., 2011

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Tobacco-related mortality

- Tobacco-related illness is a major cause of death:
  - 51% died of tobacco-related causes
  - Death rate of smokers 4x that of non-smokers

Hurt et al, JAMA, 1996; Hser et al, Preventive Medicine, 1994

Smoking threatens recovery; cessation promotes it

Study	Findings
National epidemiologic study (Weinberger et al, 2017)	Tobacco use initiation or continuation increases risk of SUD relapse
Meta analysis of 19 RCTs (Prochaska et al, 2004)	25% increased likelihood of long term abstinence from alcohol and drugs
RCT (Shoptaw et al, 2002)	Smoking cessation correlated with opiate and cocaine abstinence

How can we help smokers with opioid use disorder to quit?

OVERARCHING RESEARCH QUESTIONS

IDENTIFY AND TREAT TOBACCO USE

EFFICACIOUS TREATMENTS

OPTIMIZE TREATMENT EFFECTS

HOW WELL ARE SUD TREATMENT PROGRAMS DOING?

- Multiple surveys of SUD treatment programs
  - 18 - 45% of programs provide smoking cessation counseling
  - 12 - 33% of programs provide cessation pharmacotherapy
  - Number of treated patients is low
  - Declines in treatment provision over time

Richter et al., Psych Serv, 2004;
Friedmann et al., JSAT, 2008; Hunt et al., JSAT, 2012; Eby et al., JSAT, 2015

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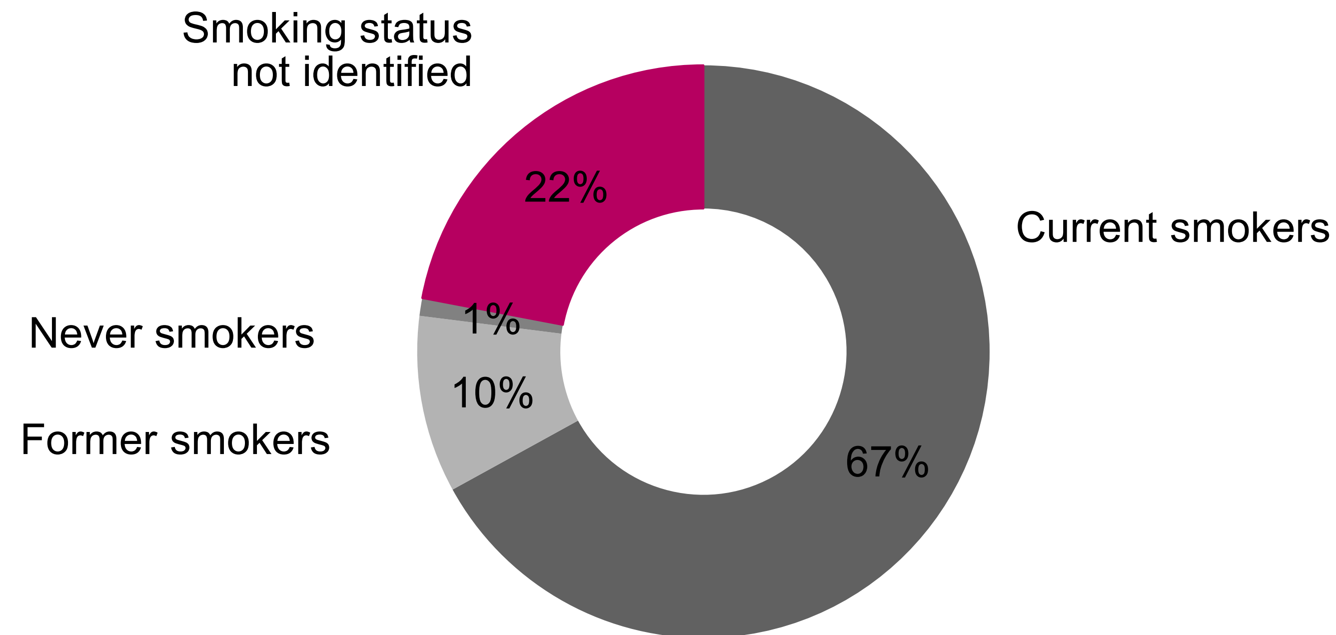
IDENTIFICATION OF TOBACCO USE



Nahvi et al., JSAT 2014

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Telephone quitline barriers

n=112 methadone maintained smokers enrolled in a clinical trial

Baseline telephone access	n (%)
Does not own a cellphone	15 (14%)
Cellphone service lapse	31 (32%)
Problems charging cellphone	15 (15%)
Running out of cellphone service minutes	28 (27%)
Does not have a landline	57 (51%)

Griffin et al., NTR, 2016

Telephone quitline barriers

- Competing life demands:
  - “I’m hardly home. I’m in the meth program…”
  - “Shelter is too hectic.”
- Skeptical of quitline efficacy:
  - “I just don’t believe in it. I want to do it on my own.”
  - “I really don’t need any encouragement to quit.”

Griffin et al., NTR, 2016

Telephone quitline referral

- n=112 methadone maintained smokers enrolled in a clinical trial
- All offered telephone quitline referral
- 22% utilized telephone quitline counseling
  - Comparable to quitline referral in primary care
  - Much higher than population-based utilization

Griffin et al., NTR, 2016

DOSE RESPONSE BETWEEN NUMBER OF CLINICIAN TYPES OFFERING COUNSELING AND CESSATION SUCCESS

Counselors

- Frequent patient contact
- Skills to address substance use disorders

INTERVENTIONS

Category: Biomedical Conditions

Problem: Da

Patient reports current conditions of asthma, diabetes, and high chole

Diagnosis: Tobacco use disorder, moderate

Long Term Goal: "I know I should quit smoking but I'm not ready".

Short Term Goal: "I want to cut down on my smoking".

Progress Since Last Plan:

LTG: "I know I

STG: "I want tc

Patient Form Screen

Report Name Heavy Smoking Index

Form Type Medical

Enter Report Body Text

1: How many cigarettes does the patient smoke each day?
N/A 31 plus (1.5 pack plus) = 3 Points
[X] 21-30 plus (1 - 1.5 packs) = 2 Points
N/A 11-20 plus (1/2 - 1 pack) = 1 Point
N/A 1-10 plus (1/2 pack or less) = 0 Point

2 How soon after waking does the patient smoke the first cigarette?
N/A Within 5 minutes = 3 points
N/A From 6 -30 minutes = 2 points
[X] From 30 minutes ? 1 hour = 1 point
N/A More than one (1) hour = 0 point

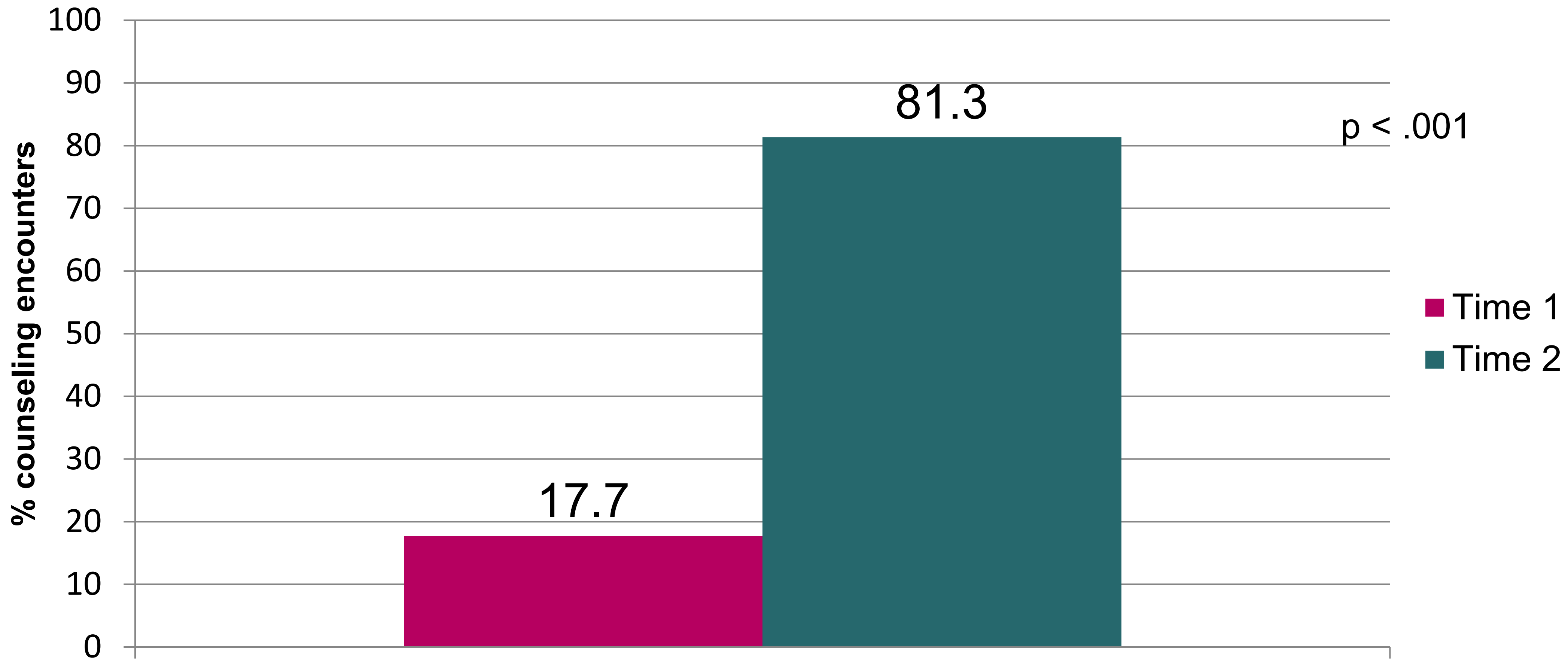
Heavy Smoking Index Score (add points 1 & 2 above):
N/A 0 - 1 = Light Smoker
[X] 2 - 3 = Moderate Smoker
N/A 4 - 6 = Heavy Smoker

Heavy Smoking Index Score =3.0

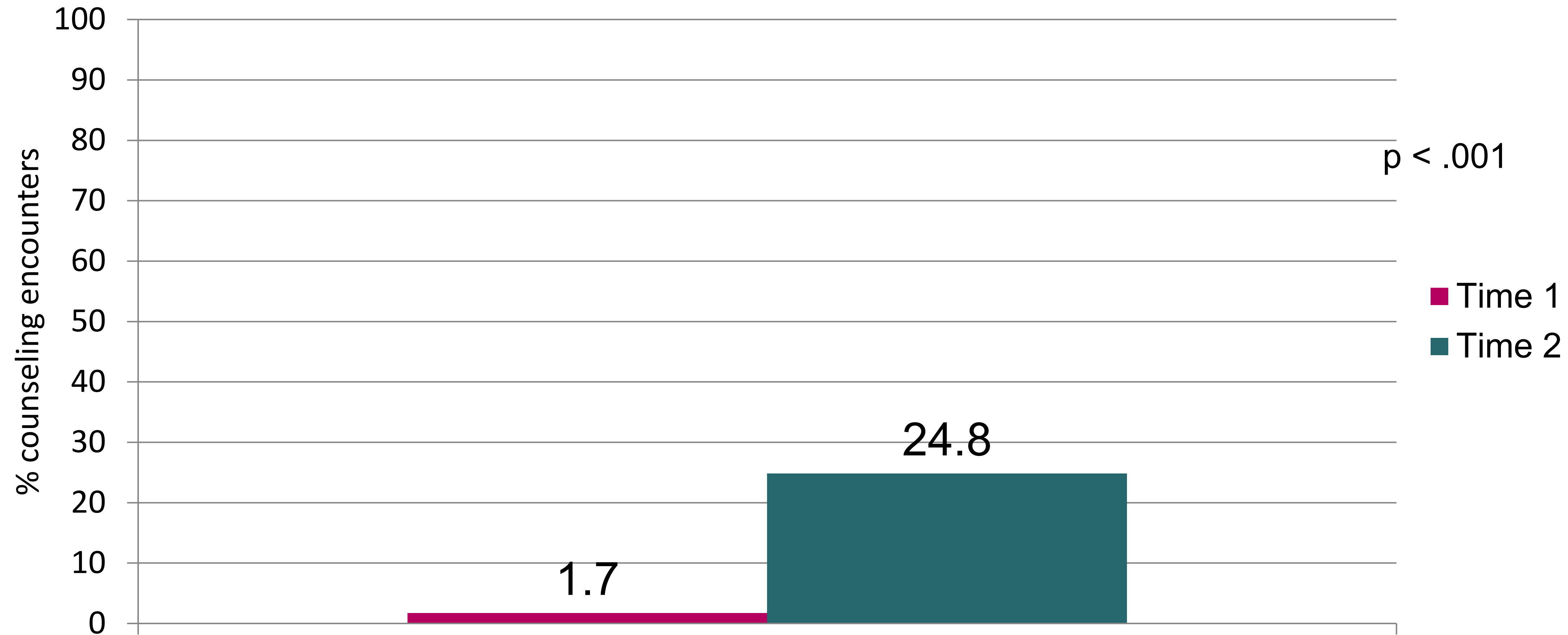
Finish Later | Save Complete | Redo | Print
Delete | Patient Inquiry | Close

- Electronic health record forms
- Counselor training and supervision

Identification of tobacco use



Tobacco counseling



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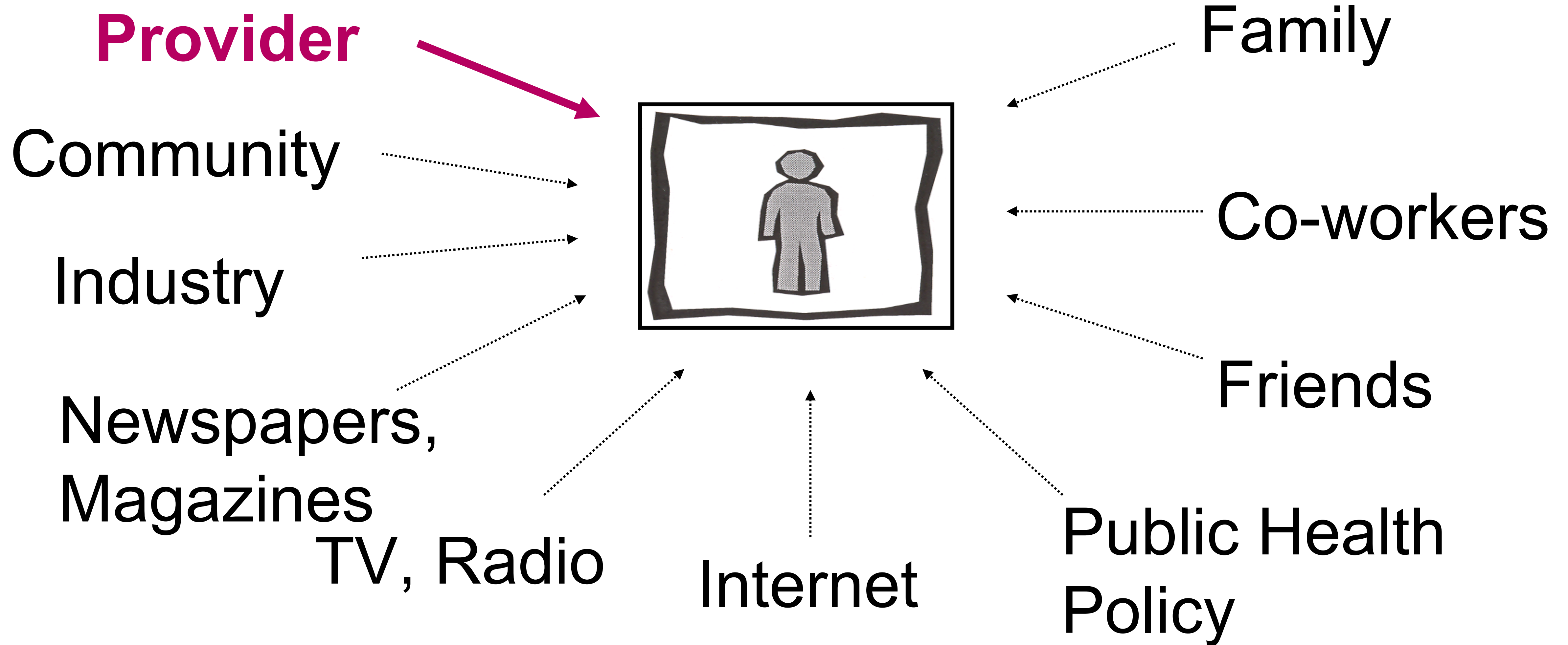
LOW INTENSITY HEALTH-SYSTEM LEVEL INTERVENTION

- Increased documentation of tobacco use
- Increased counseling for tobacco use

If not us, who provides cessation information?



How can we help smokers with opioid use disorder to quit?

OVERARCHING RESEARCH QUESTIONS

IDENTIFY AND TREAT TOBACCO USE

EFFICACIOUS TREATMENTS

OPTIMIZE TREATMENT EFFECTS

WHAT IS THE EVIDENCE BASE?

Drug and Alcohol Dependence 169 (2016) 180–189

Contents lists available at ScienceDirect

Drug and Alcohol Dependence

journal homepage: www.elsevier.com/locate/drugalcdep

Review

Selection criteria limit generalizability of smoking pharmacotherapy studies differentially across clinical trials and laboratory studies: A systematic review on varenicline

Courtney A. Motschman[a], Julie C. Gass[a], Jennifer M. Wray[a,b], Lisa J. Germeroth[a], Nicolas J. Schlienz[a,c], Diana A. Munoz[a], Faith E. Moore[a,d], Jessica D. Rhodes[a,e], Larry W. Hawk[a], Stephen T. Tiffany[a,*]

Common eligibility criteria eliminate ~50% of daily smokers

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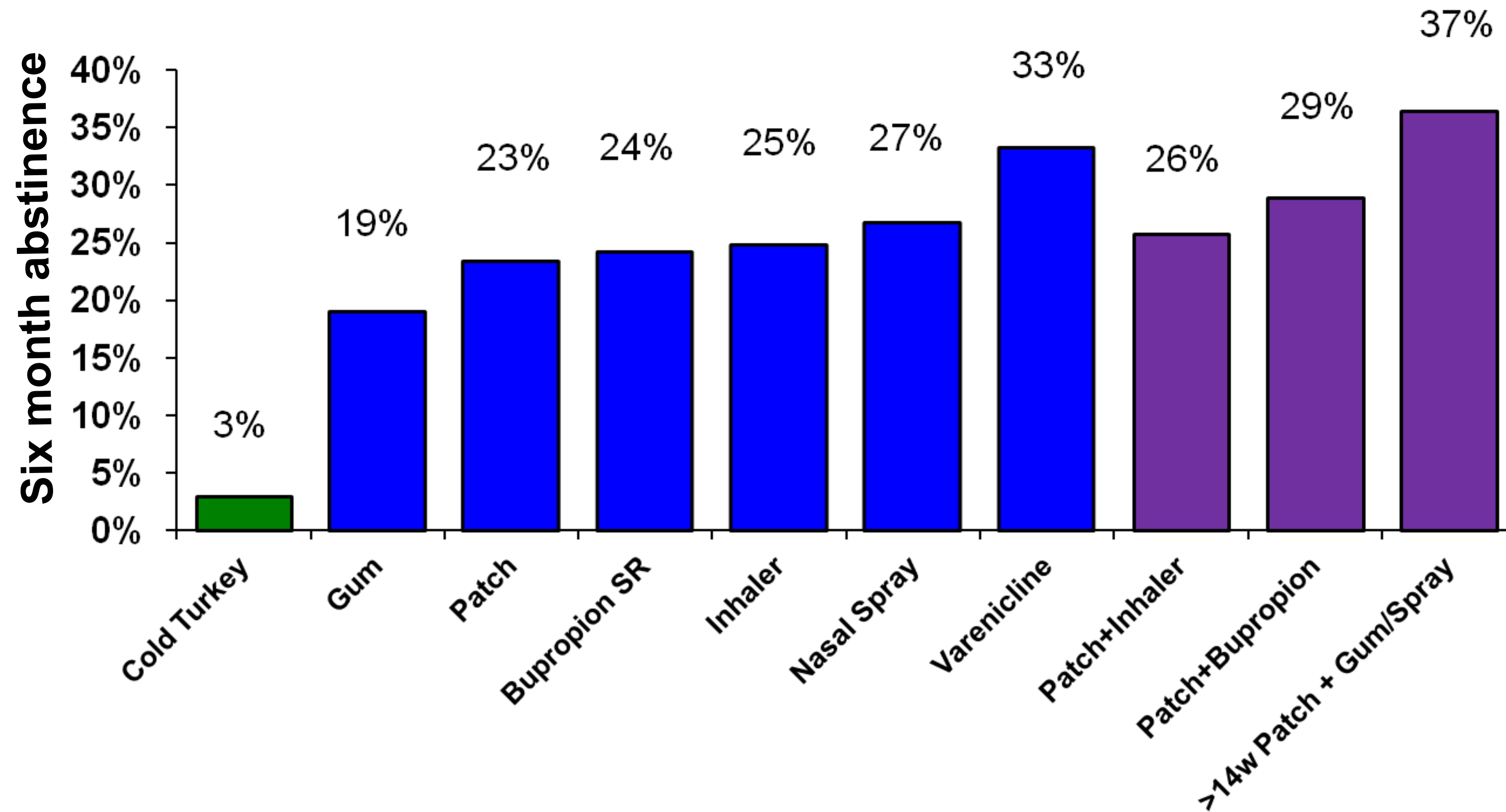
Maria is a 56 year old woman living with HIV. She has been hospitalized multiple times for pneumonia. She comes in with a productive cough x 3 days. She is sick of smoking and wants to stop.

SMOKING CESSATION MEDICATIONS



Hughes 2004; Fiore 2008

Nicotine & Tobacco Research, 2015, 955-
doi:10.1093/ntr/ntv
Commen

Commentary

Are Pharmacotherapies Ineffective in Opioid-Dependent Smokers? Reflections on the Scientific Literature and Future Directions

Mollie E. Miller PhD,[1] Stacey C. Sigmon PhD[2,3,4]

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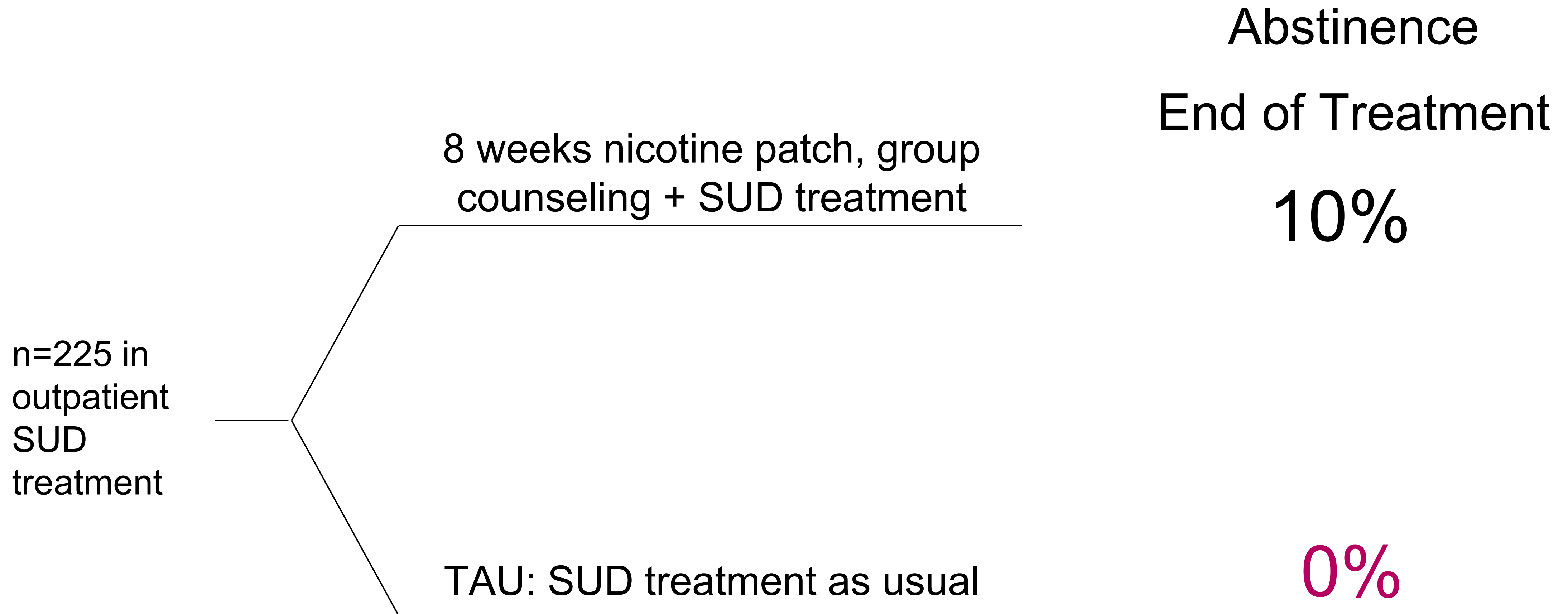
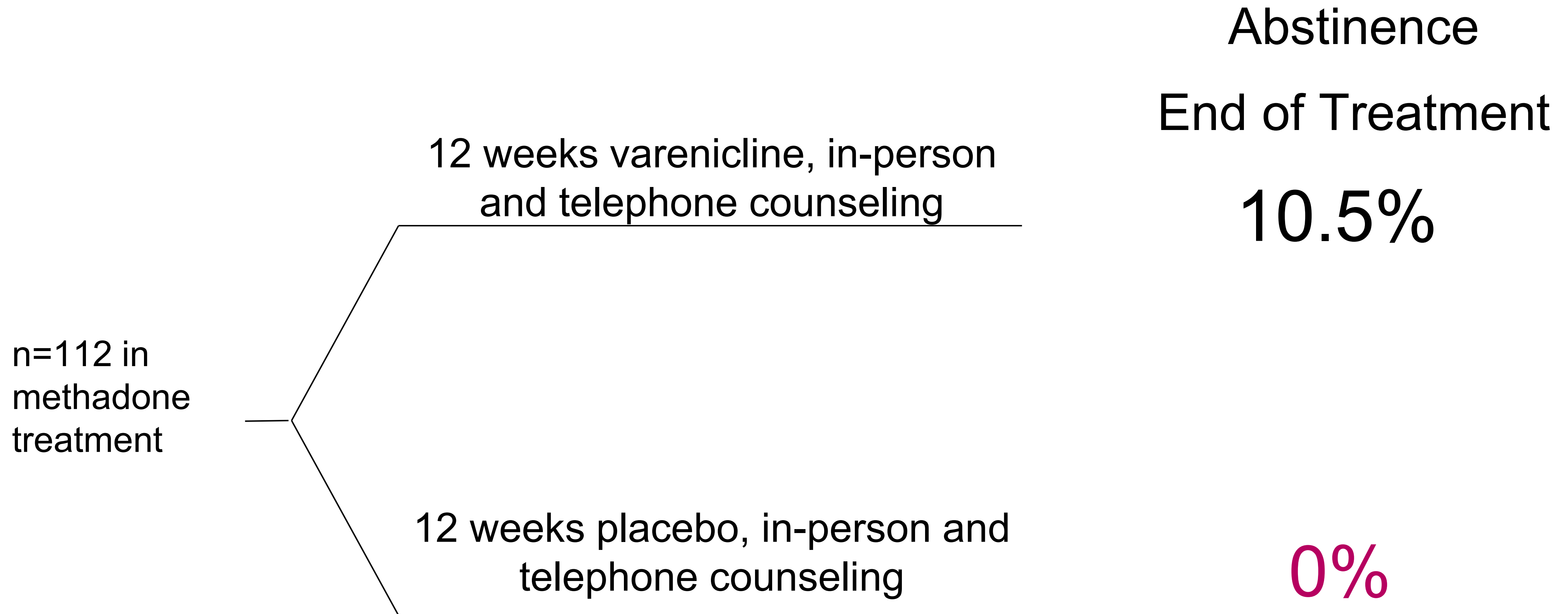
Treatments help

NO CESSATION WITHOUT TREATMENT



Reid, JSAT, 2008

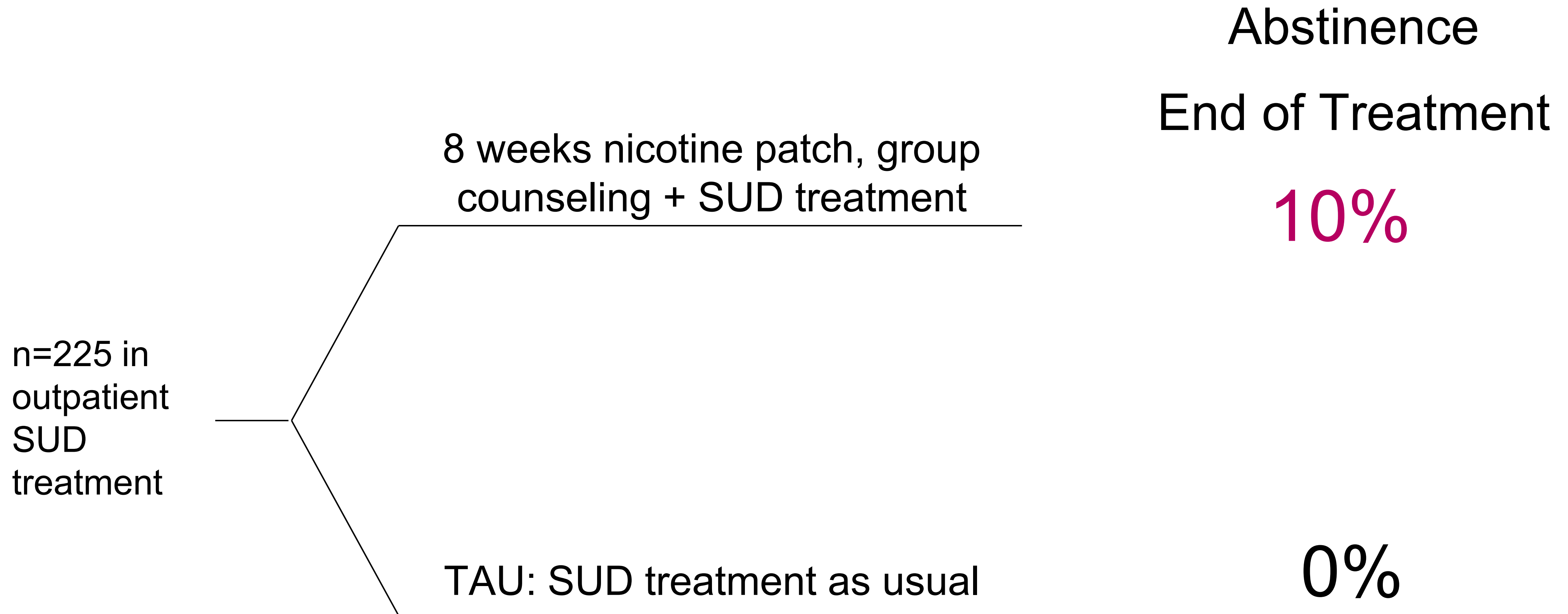
NO CESSATION WITHOUT TREATMENT



Nahvi et al, Addiction, 2014

Treatments help, but effects are modest

CESSATION EFFECTS ARE MODEST



Reid, JSAT, 2008

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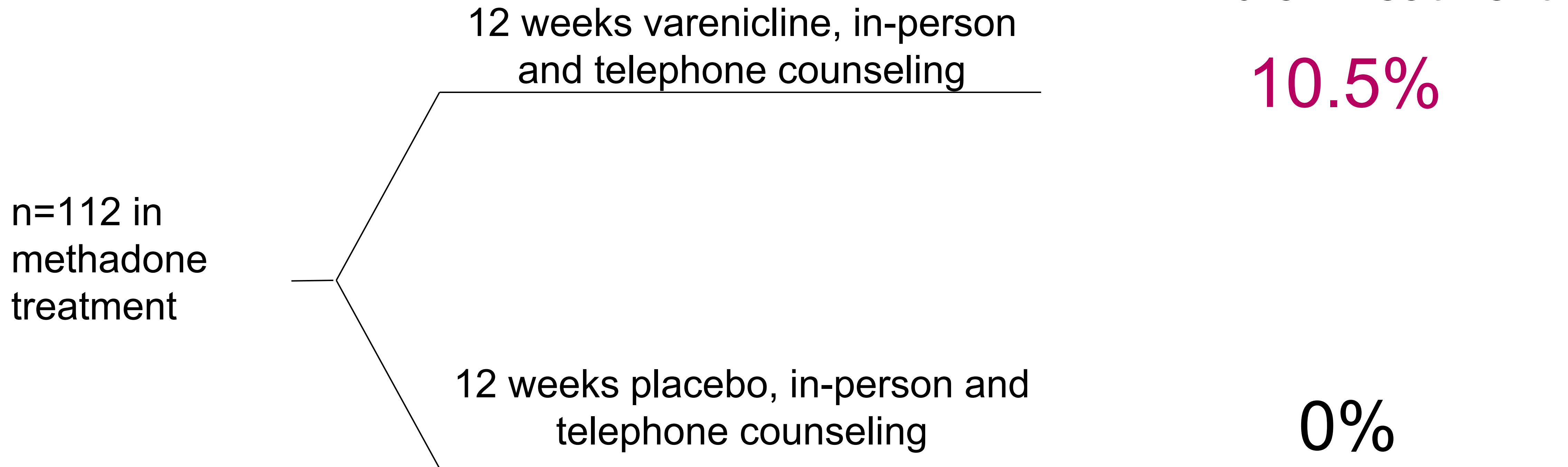
CESSATION EFFECTS ARE MODEST



Nahvi et al, Addiction, 2014

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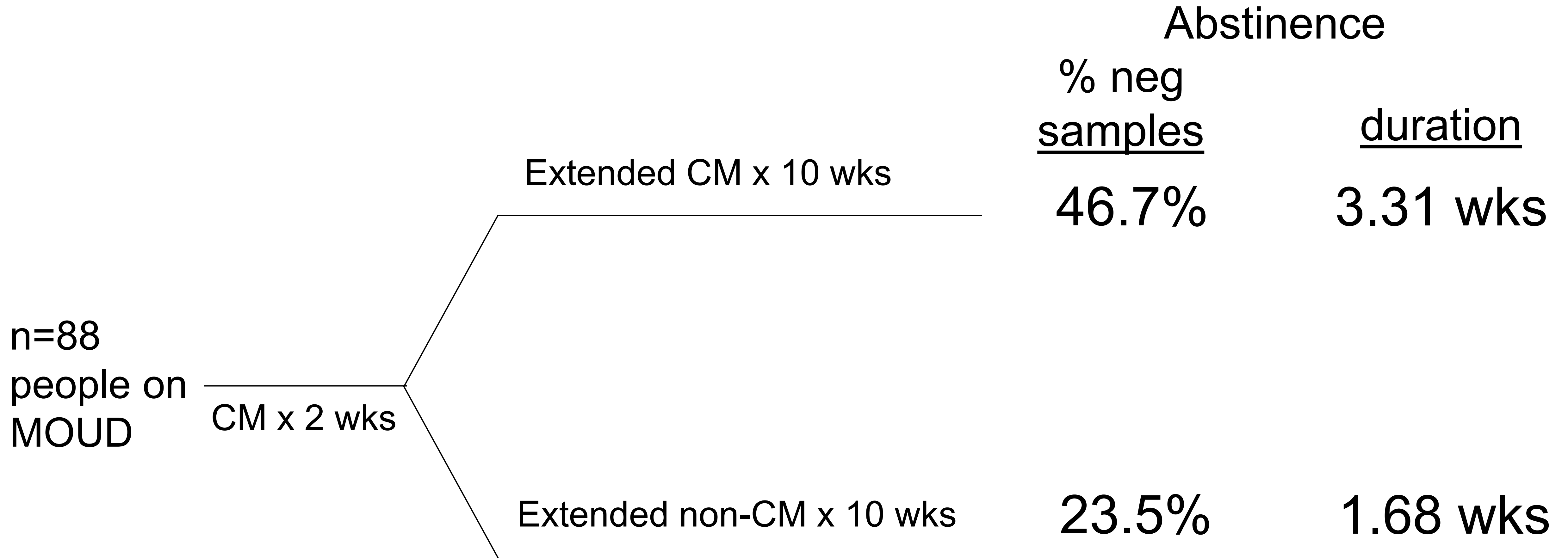
Contingency management increases cessation

CONTINGENCY MANAGEMENT



Sigmon, Addiction, 2016

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Why are cessation rates so low?

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OVERARCHING RESEARCH QUESTIONS

IDENTIFY AND TREAT TOBACCO USE

EFFICACIOUS TREATMENTS

OPTIMIZE TREATMENT EFFECTS

Why are cessation rates so low?

Limited treatment provision

Limited social support

Short-term treatment

Adherence challenges

Opioid nicotine interactions

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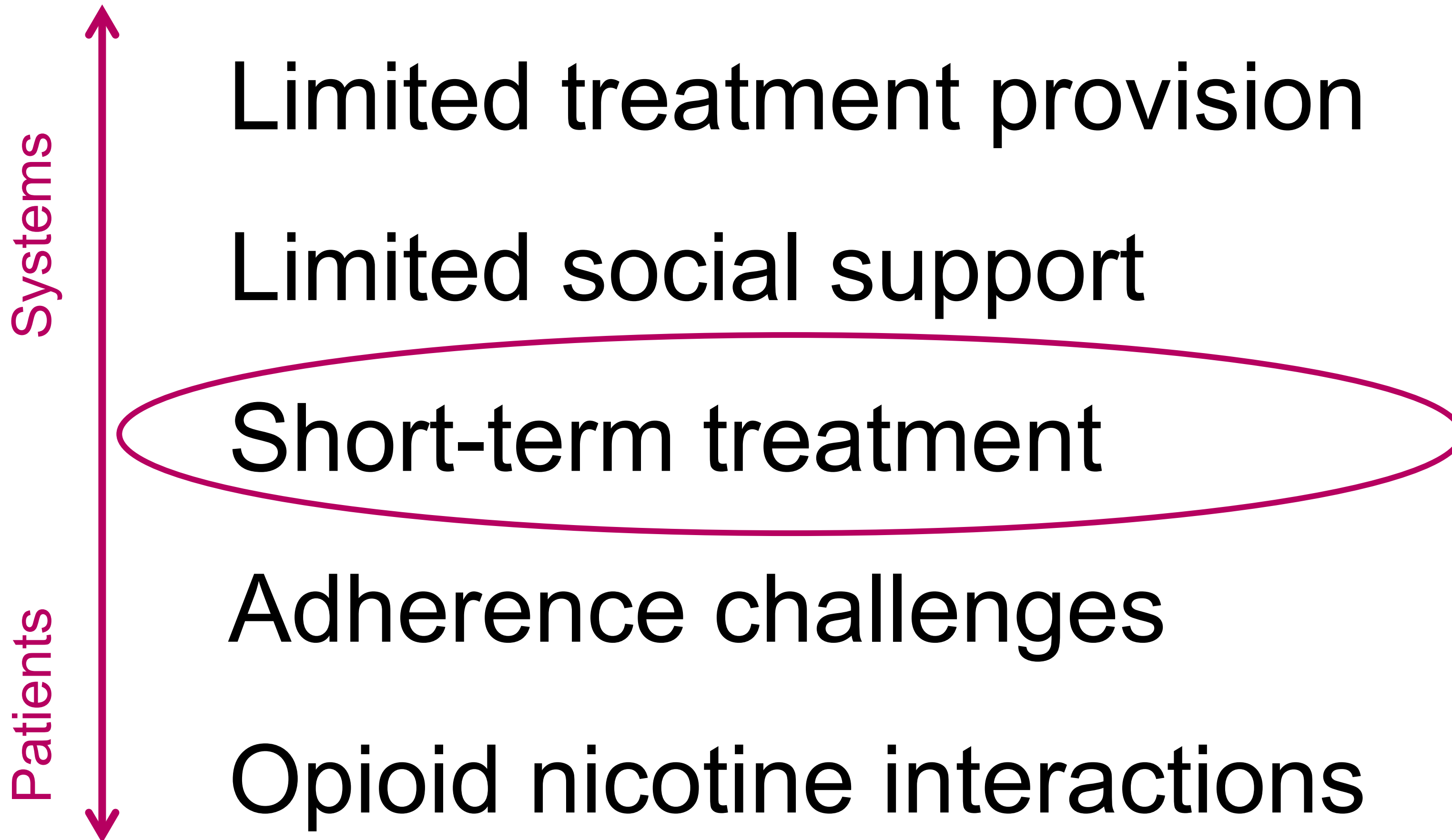
Why are cessation rates so low?



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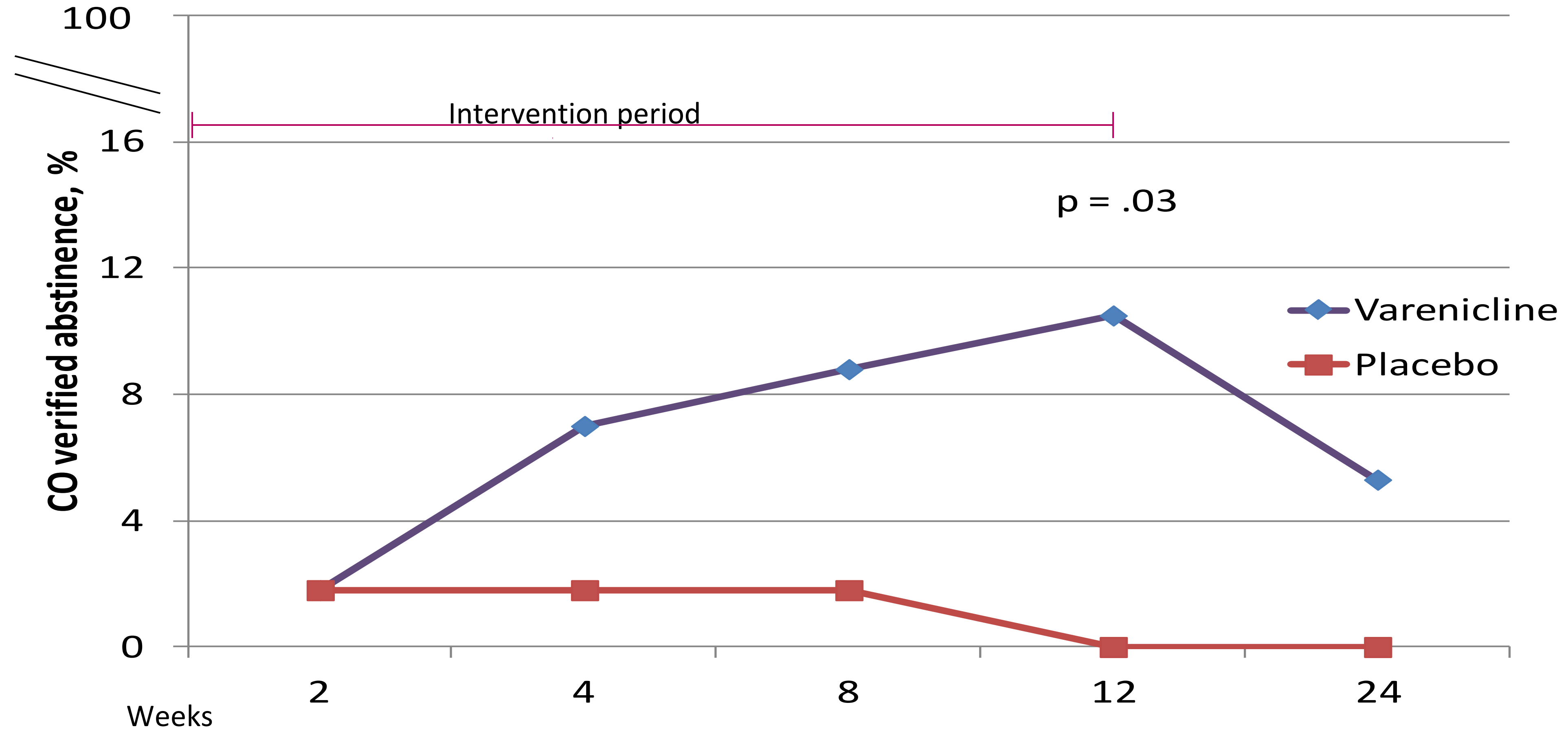
Short-term treatments may be inadequate

Limited initial abstinence



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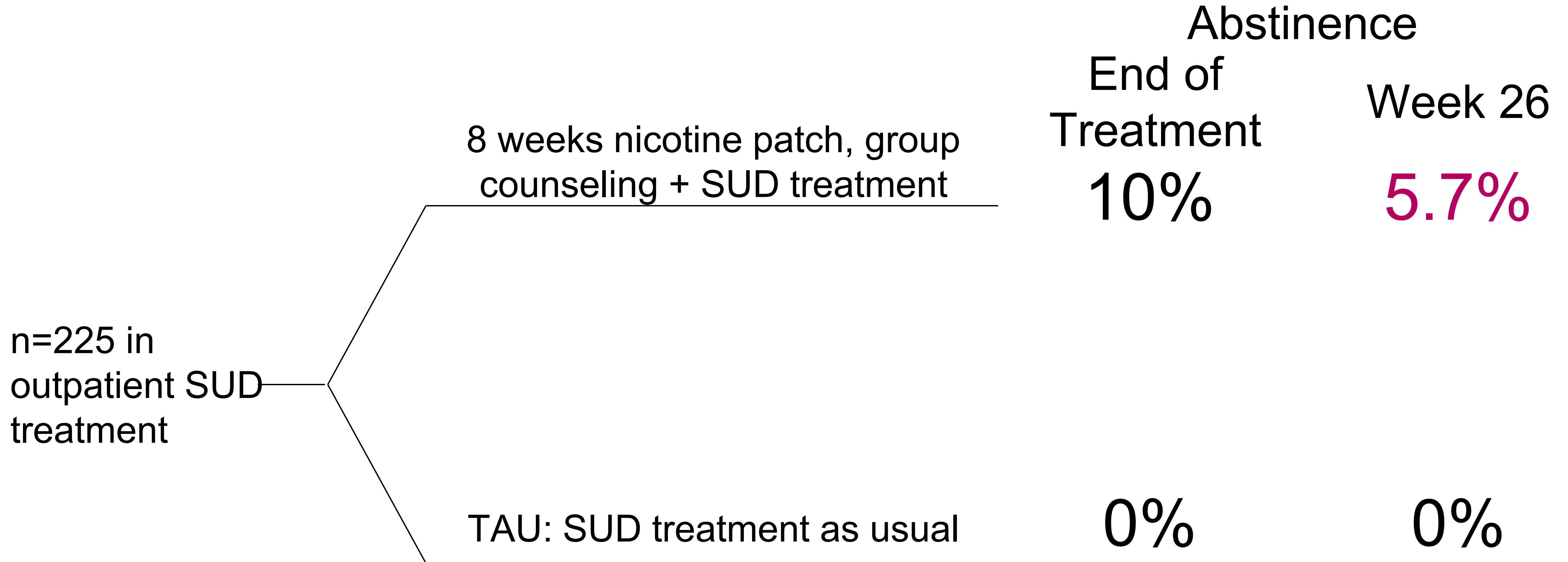
“But you know, even when I’ve quit before, I’ve gone back to smoking a month later.”

Effects are not sustained



Reid, JSAT, 2008

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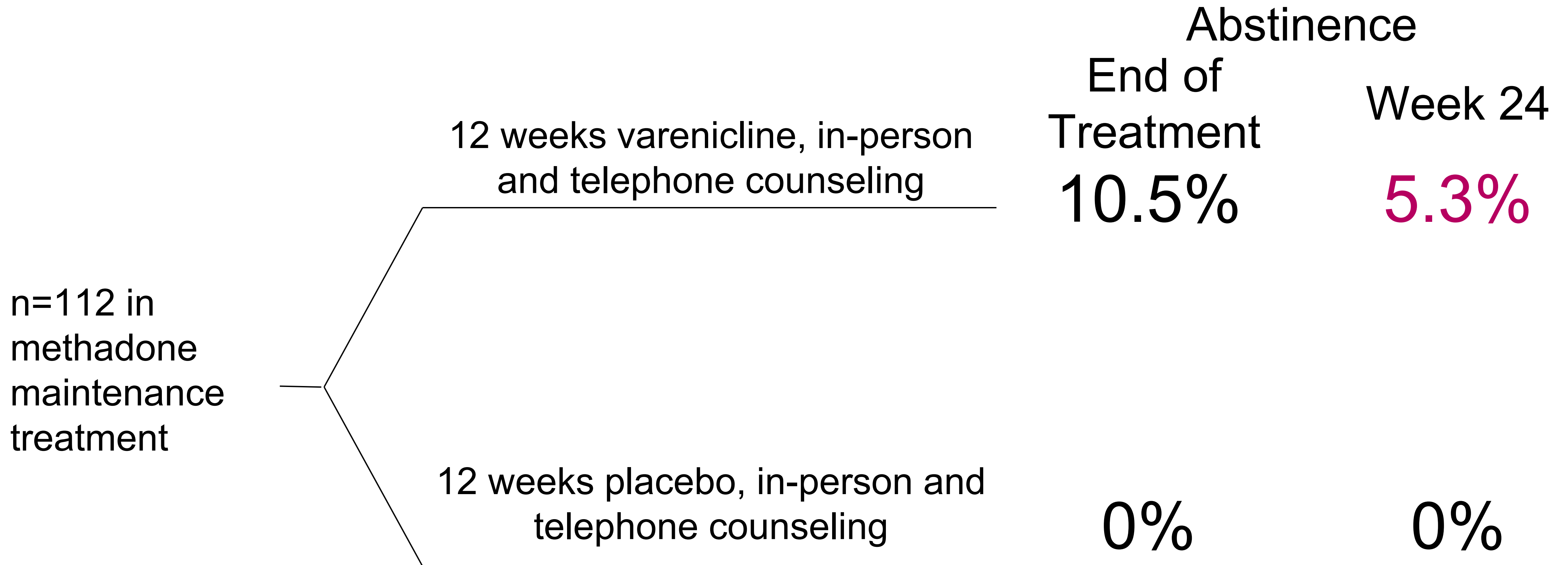
Effects are not sustained



Nahvi et al, Addiction, 2014

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EXTENDED TREATMENT

Trial	n	Intervention	Findings
Schnoll et al, 2010	568	Nicotine patch 2 v 6 months	Extended treatment significantly •Increases abstinence •Increases time to relapse
Hays et al, 2001	784	Bupropion 7 v 52 wks	
Tonstad et al, 2006	1210	Varenicline 3 v 6 months	
Evins et al, 2014	203	Varenicline 3 v 6 months	
Schnoll et al, 2015	525	Nicotine patch 2 v 6 v 12 months	

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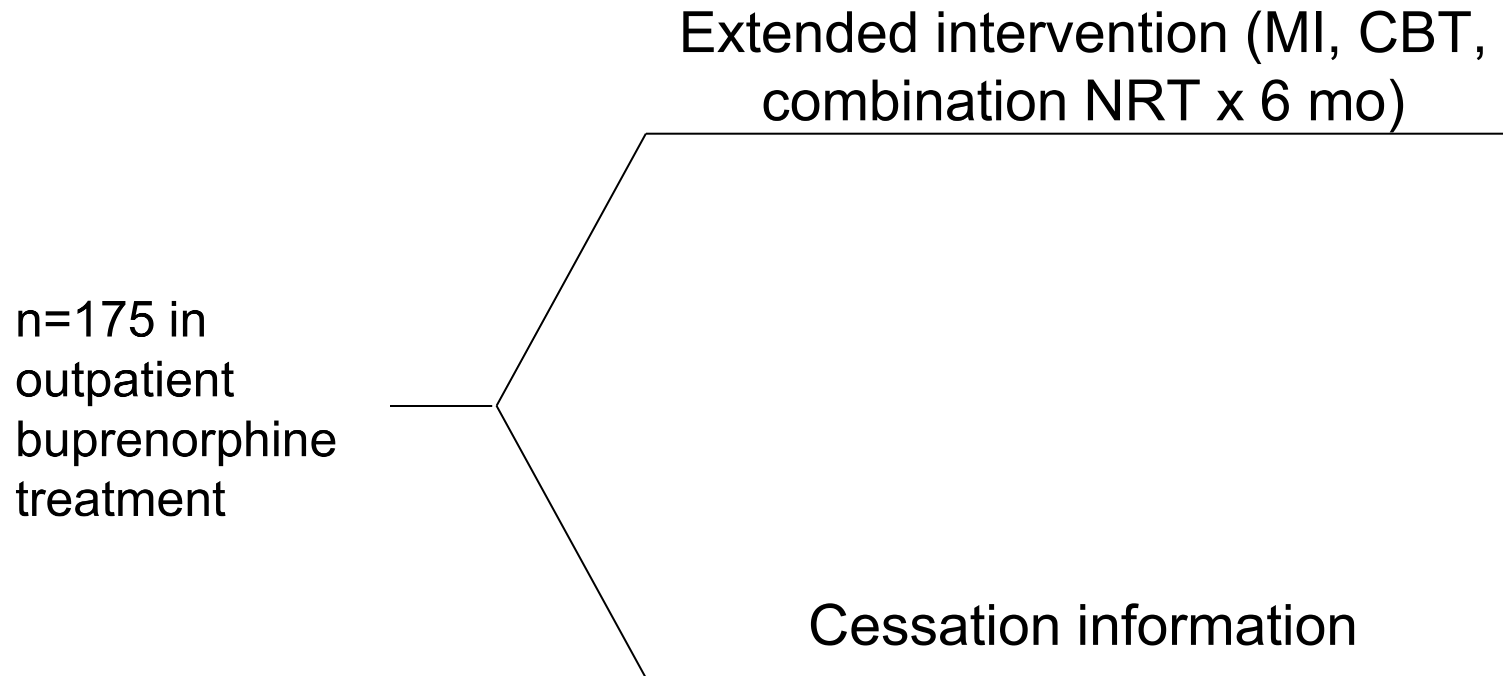
EXTENDED TREATMENT



Hall et al., NTR, 2018

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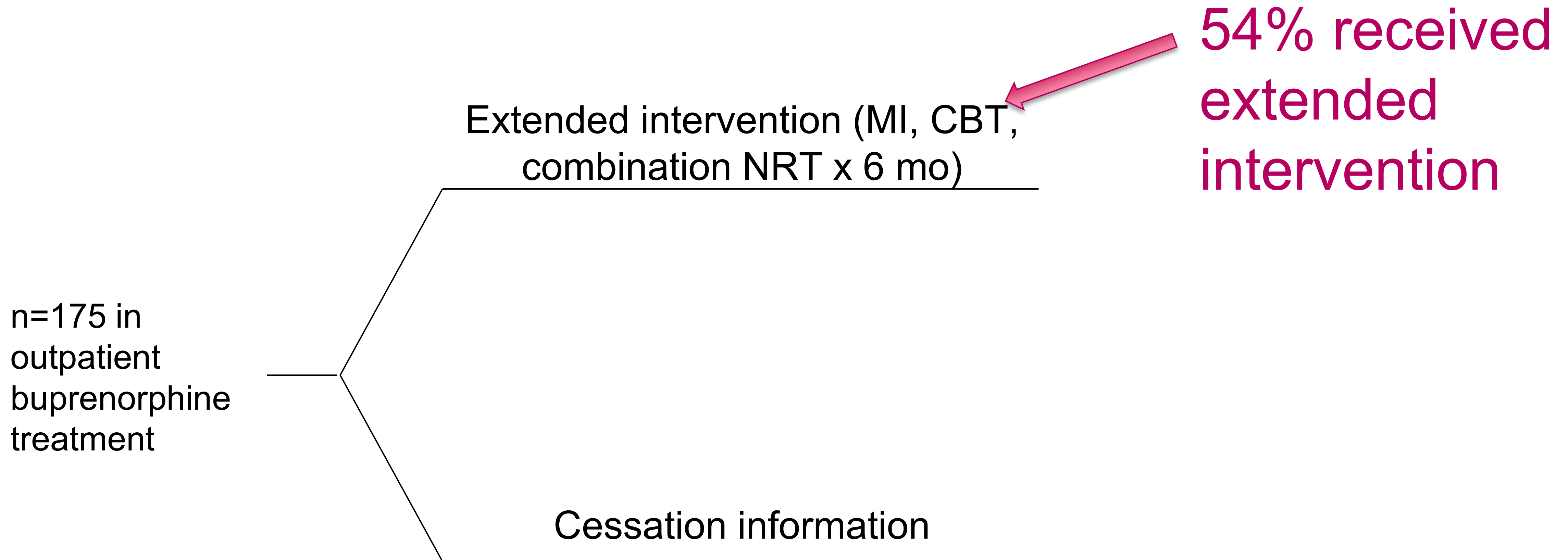
EXTENDED TREATMENT



Hall et al., NTR, 2018

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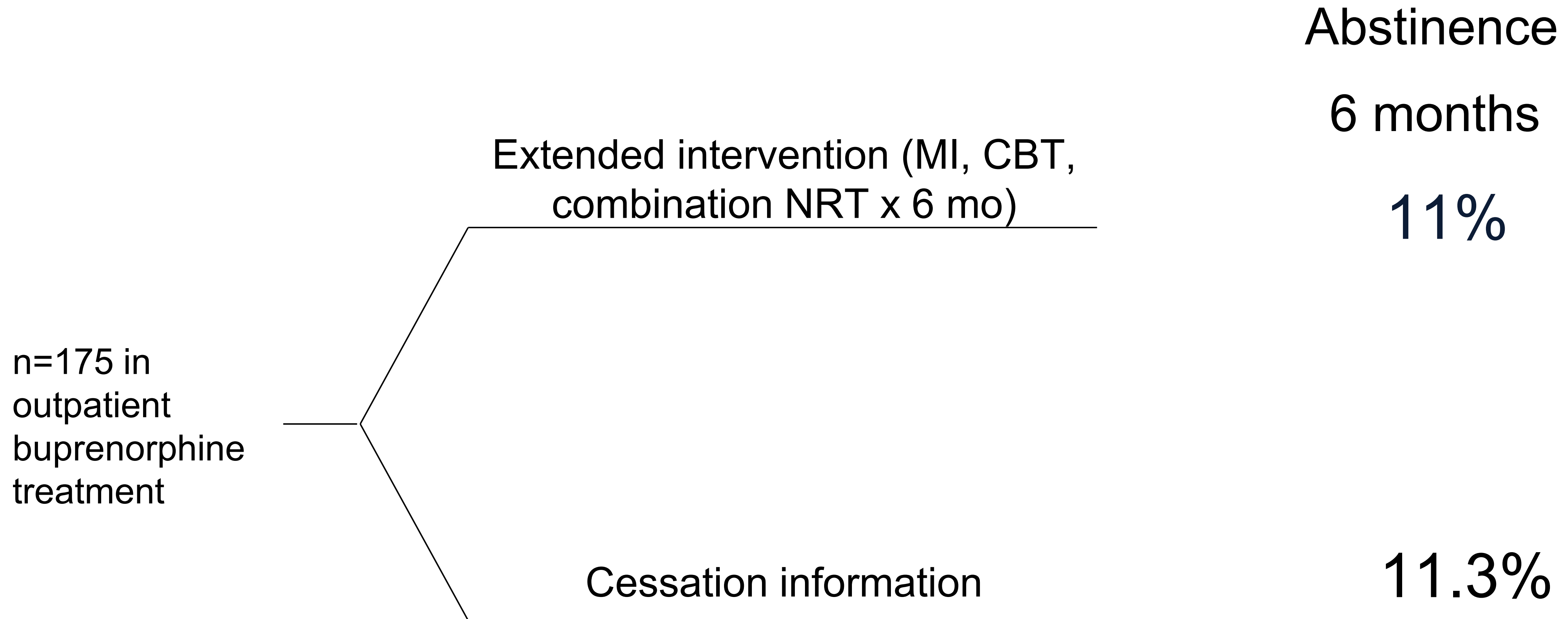
EXTENDED TREATMENT



Hall et al., NTR, 2018

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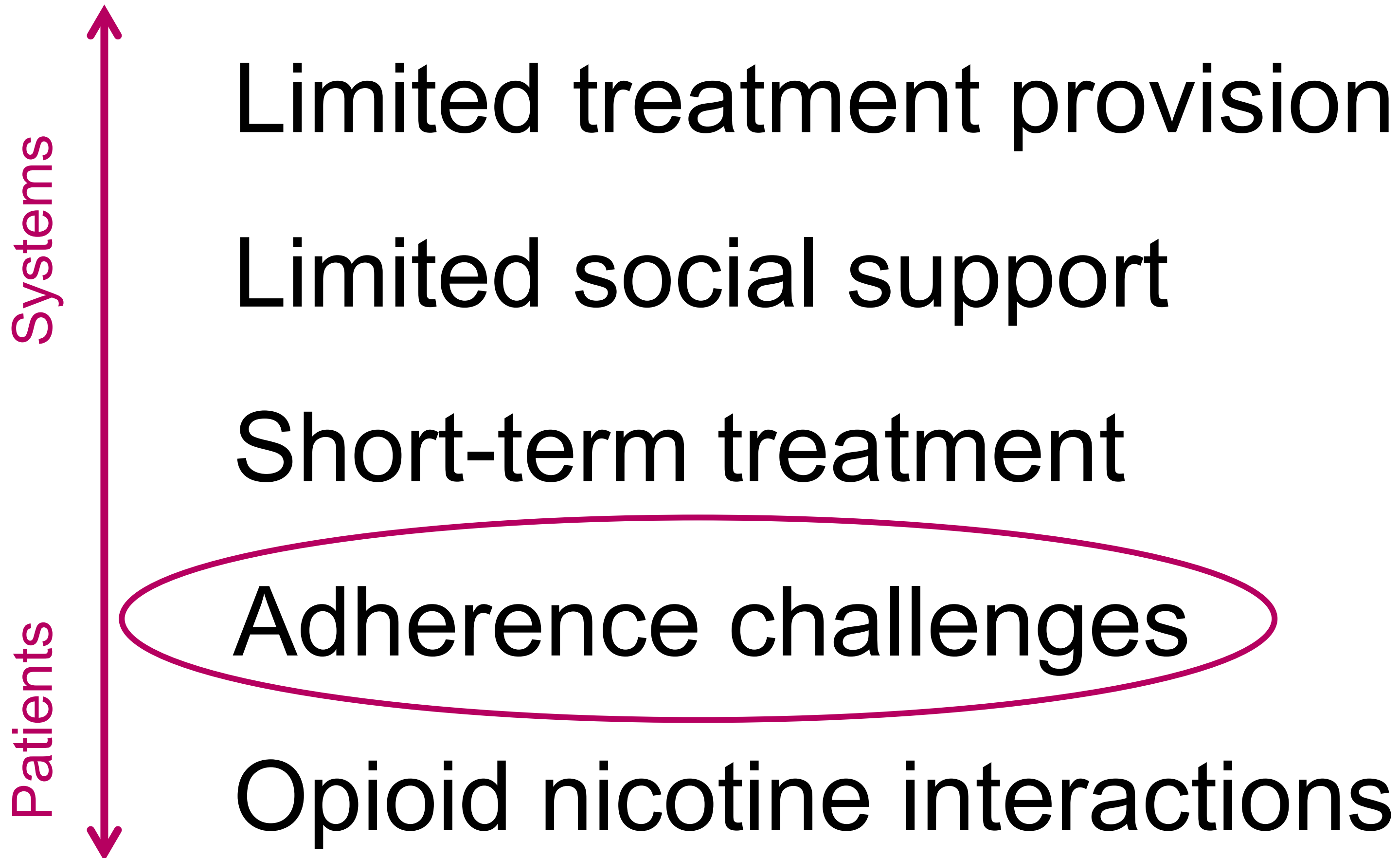
WHY ARE CESSATION RATES SO LOW?



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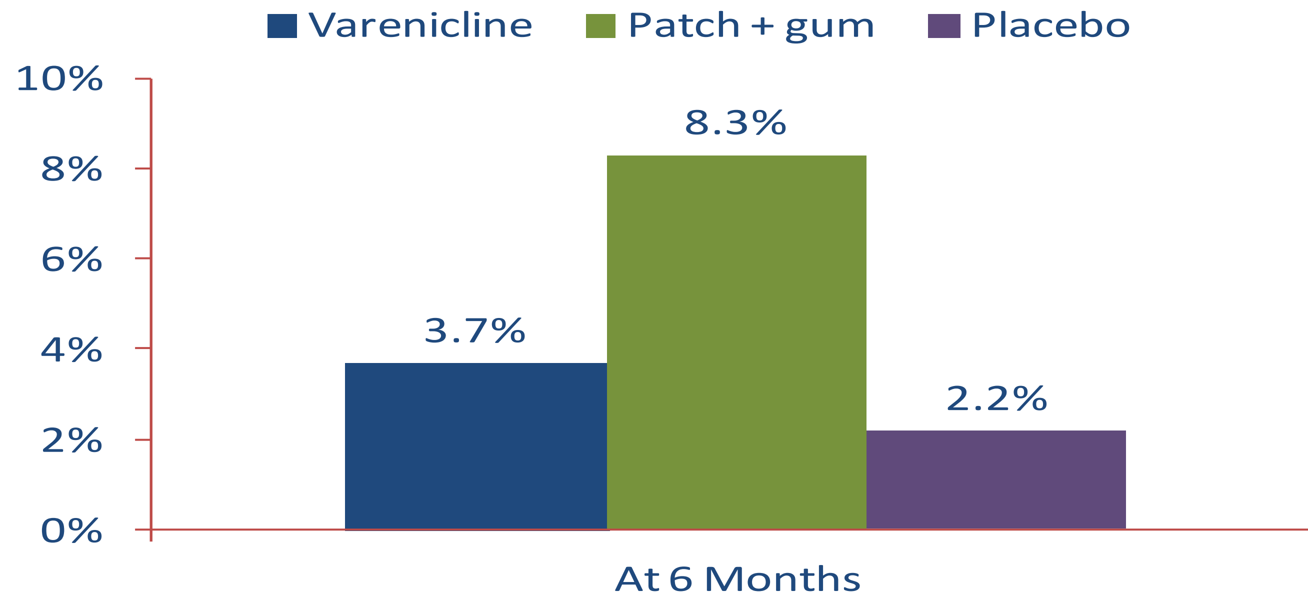
LOW ADHERENCE, LOW CESSATION



Adherence at 6 months: 34.2 % 48.8 % 34.4 %

Stein, Drug Alc Dep, 2013

Adherence improves outcomes

ADHERENCE IMPROVES OUTCOMES

Participants	Findings
n= 225 smokers with SUD	# weeks abstinent correlated with: Counseling adherence ($r=.31$, $p<.001$) Nicotine patch adherence ($r=.15$, $p<.05$)
n= 383 smokers with OUD	44.1% nicotine patches used On days nicotine patches were used: 7.1x higher smoking abstinence ($p<.001$) Fewer cigs/d (15 v 5, $p<.001$)

1. Reid et al, JSAT, 2008; 2. Stein et al, JGIM, 2006

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ADHERENCE MATTERS

FEW ADHERENCE INTERVENTIONS TESTED

DIRECTLY OBSERVED THERAPY IMPROVES ADHERENCE AND CLINICAL OUTCOMES

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OBJECTIVES

- To evaluate, in a randomized trial, whether methadone clinic-based varenicline directly observed therapy is efficacious at improving adherence and smoking cessation among smokers in OUD treatment

SETTING

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INTERVENTIONS

N=100 methadone maintained smokers

Directly observed (DOT) varenicline x 12 w

Self-administered (SAT) varenicline x 12 w

Nahvi et al, Addiction, 2021

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DOT IS PROMISING

SIGNIFICANTLY HIGHER ADHERENCE

CESSATION RATES NEARLY DOUBLE

Nahvi et al, Addiction, 2021

INTERVENTION EFFECTS

UNASSISTED CESSATION RATES 0%

CESSATION RATES WITH TREATMENT ARE MODEST

SHORT-TERM TREATMENTS ARE INSUFFICIENT

ADHERENCE MAY IMPROVE OUTCOMES

CURRENT RESEARCH

	Directly observed therapy +	-
Long-term varenicline -	DOT/LT	SAT/LT
+	DOT/ST	SAT/ST

NIDA R01 DA042813

How can we reduce tobacco-related harms?

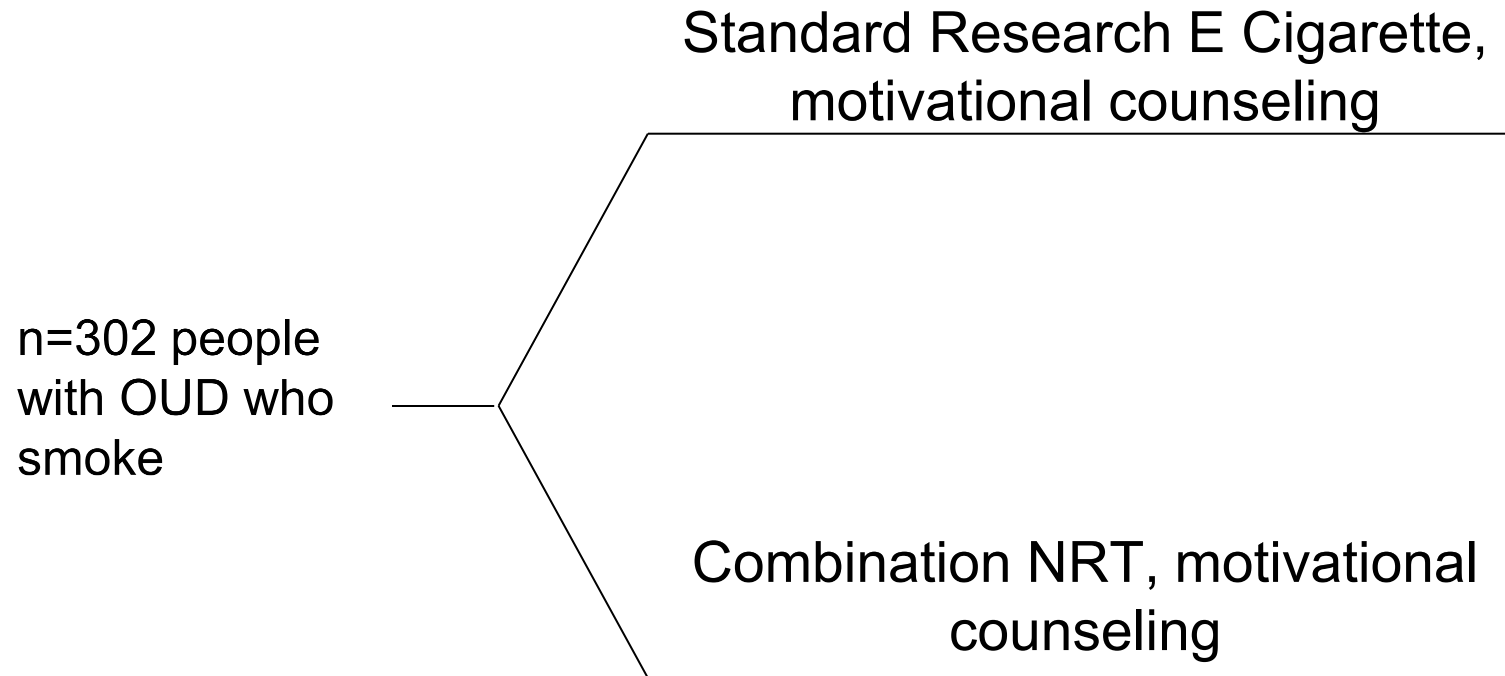
SMOKING REDUCTION

- Enhance cessation
  - ≥ 50% reduction: predictor of cessation
- Improve health
  - Decreased cardiovascular risk
  - Decreased respiratory symptoms
  - Decreased lung cancer risk
- Engage people not yet ready to quit smoking

REMAINING QUESTIONS

- Best strategies to reduce tobacco use?
- Can reductions be sustained?
- Can we reduce toxicant exposure and harm?

ELECTRONIC CIGARETTES



Outcomes

- Switching
- Reduction in smoking
- Reduction in toxicant exposure

El Shahawy, R01DA055675

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Multiple intervention targets

Limited treatment provision

Limited social support

Short-term treatment

Adherence challenges

Nicotine opioid interactions

WHAT DO WE KNOW?

- SIGNIFICANT BURDEN OF TOBACCO USE
- IDENTIFY TOBACCO USE
- PROVIDE EVIDENCE-BASED TREATMENT
- OPTIMIZE TREATMENT
- EXPAND ACCESS

QUESTIONS?

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Treatment emergent adverse effects, n (%)

	Varenicline n = 57	Placebo n = 55	p value*
Change in taste	18 (32)	14 (25)	
Dry mouth	27 (47)	23 (45)	
Change in appetite	29 (51)	18 (35)	
Nausea	29 (51)	14 (27)	.01
Vomiting	11 (19)	8 (16)	
Gas	19 (33)	15 (29)	
Constipation	23 (40)	9 (18)	.01
Headache	11 (19)	18 (35)	
Insomnia	15 (26)	13 (24)	
Vivid/frequent dreams	18 (32)	22 (43)	

* $p \geq .05$ except as indicated

Psychiatric outcomes, n (%)*

	Varenicline n = 57	Placebo n = 55
Incident major depressive episode	2 (4)	1 (2)
Incident manic episode	0	0
Incident psychotic disorder	1 (2)	3 (6)
Suicidal ideation	3 (5)	4 (8)

* $p \geq .05$ for comparison between groups

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EAGLES trial neuropsychiatric outcomes

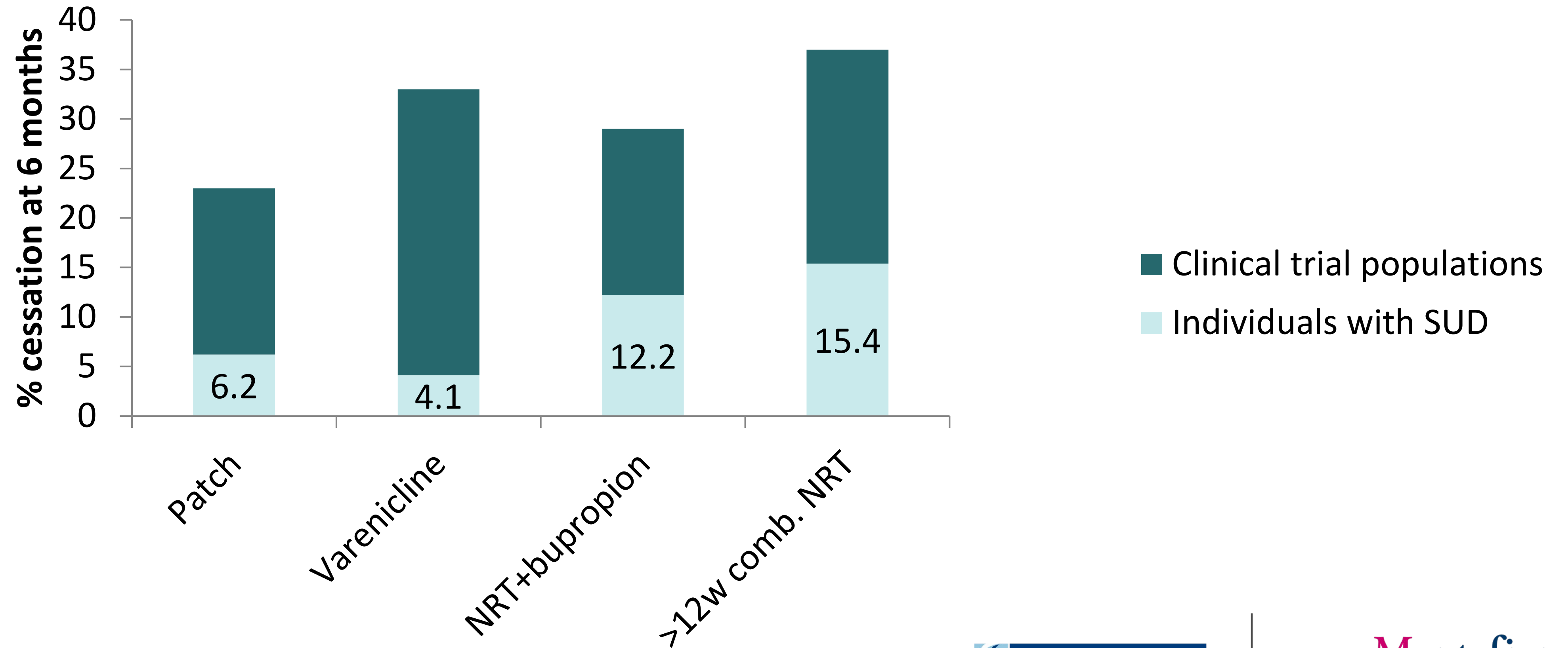
- RCT, n=8144 (4116 psychiatric cohort, 4028 non-psychiatric cohort)

- Moderate - severe neuropsychiatric adverse events (psychiatric cohort)
    - Varenicline 6.5%
    - Bupropion 6.7%
    - Nicotine patch 5.2%
    - Placebo 4.9%

    - Varenicline – placebo risk difference 1.59 (95% CI -0.42 to 3.59)
    - Varenicline – nicotine patch risk difference 1.22 (95% CI -0.81 to 3.25)

Anthenelli et al, Lancet, 2016

SMOKING CESSATION MEDICATIONS



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Submit questions via the **‘Q & A’ box**

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Physician Assistants: The National Commission on Certification of Physician Assistants (NCCPA) states that the *AMA PRA Category 1 Credit™* are acceptable for continuing medical education requirements for recertification.

California Pharmacists: The California Board of Pharmacy accepts as continuing professional education those courses that meet the standard of relevance to pharmacy practice and have been approved for *AMA PRA category 1 Credit™*. If you are a pharmacist in another state, you should check with your state board for approval of this credit.

California Psychologists: The California Board of Psychology recognizes and accepts for continuing education credit courses that are provided by entities approved by the Accreditation Council for Continuing Medical Education (ACCME). *AMA PRA Category 1 Credit*™ is acceptable to meeting the CE requirements for the California Board of Psychology. Providers in other states should check with their state boards for acceptance of CME credit.

California Behavioral Science Professionals: University of California, San Francisco School of Medicine (UCSF) is approved by the California Association of Marriage and Family Therapists to sponsor continuing education for behavioral health providers. UCSF maintains responsibility for this program/course and its content.

Course meets the qualifications for 1.0 hour of continuing education credit for **LMFTs, LCSWs, LPCCs, and/or LEPs** as required by the California Board of Behavioral Sciences. Provider # 64239.

California Addiction Counselors: The UCSF Office of Continuing Medical Education is accredited by the **California Consortium of Addiction Professional and Programs (CCAPP)** to provide continuing education credit for California Addiction Counselors. UCSF designates this live, virtual activity, for a maximum of 1.0 CCAPP credit. Addiction counselors should claim only the credit commensurate with the extent of their participation in the activity. Provider number: 7-20-322-0724.

Free CME/CEUs will be available for all eligible California providers, who joined this live activity thanks to the support of the California Tobacco Prevention Program (CTPP)

For our California residents, SCLC offers regional trainings, online education opportunities, and technical assistance for behavioral health agencies, providers, and the clients they serve throughout the state of California.

For technical assistance please contact (877) 509-3786 or Jessica.Safier@ucsf.edu.

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- You will receive the following in our post webinar email:
  - ✓ Webinar recording
  - ✓ Instructions on how to claim FREE CME/CEUs
  - ✓ Information on certificates of attendance
  - ✓ Other resources as needed

➢ All of this information will be posted to our website at https://SmokingCessationLeadership.ucsf.edu

SCLC next live webinar is “*Empowering Change: Using Brief Motivational Interviewing for Tobacco Cessation in Oral Cancer Prevention, co-hosted by the American Dental Hygienists’ Association*”

- **Wednesday, April 17, 2024**
- **1:00 pm – 2:00 pm EDT**
- **Registration opens today**

Contact us for free technical assistance

- **Visit** us online at **smokingcessationleadership.ucsf.edu**
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- **Provide Feedback** - complete the evaluation, which you will see at the end of this webinar

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