

Updates in Tobacco Recovery in Opioid Use Disorder

Jill M Williams, MD

Professor Psychiatry

Director, Division Addiction Psychiatry

Robert Wood Johnson Medical School

Do You Know the Difference?

COMMERCIAL TOBACCO
IS A KILLER

CANCER

STROKE

HEART DISEASE

EMPHYSEMA

IMPOTENCE

INFERTILITY

DEATH



TRADITIONAL TOBACCO
IS A HEALER

WISDOM

LOVE

RESPECT

BRAVERY

HONESTY

HUMILITY

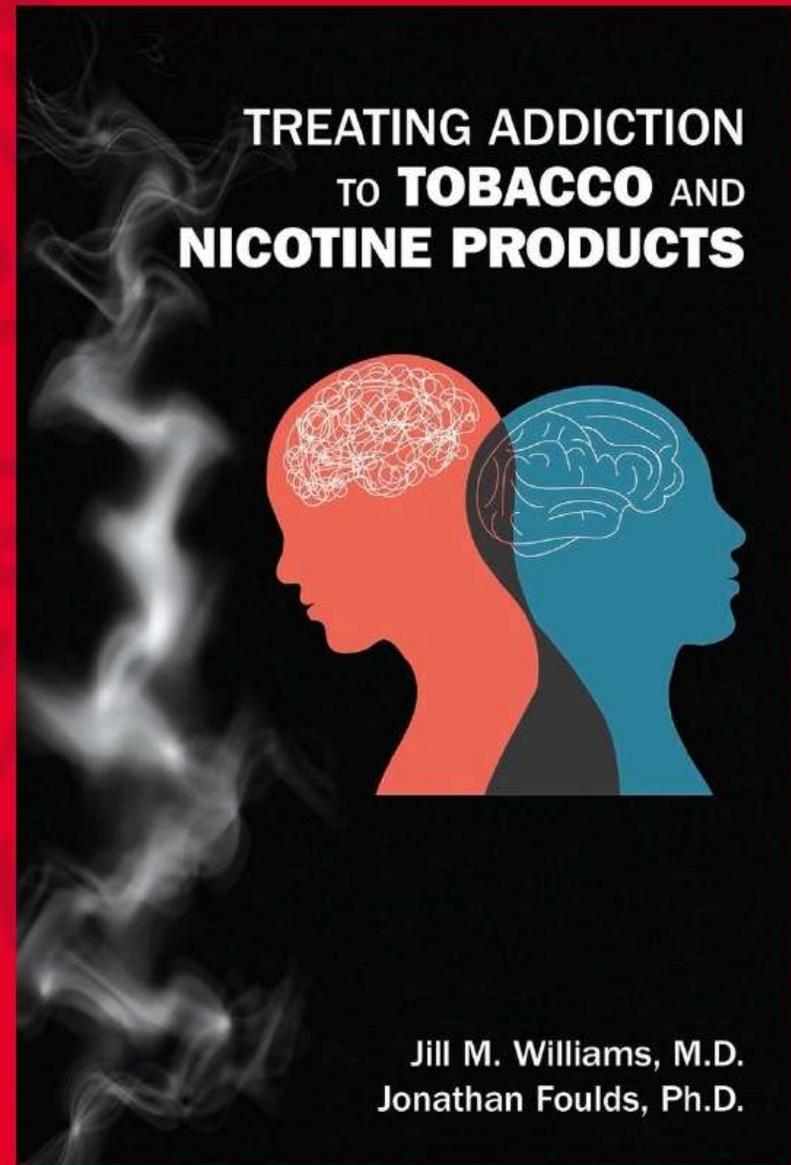
TRUTH



Image source:
tobaccowise.com

keepitsacred.org

- Comprehensive and up-to-date resource for a wide range of health care professionals.
- Sections on electronic cigarettes, biology of nicotine addiction, and evidence-based treatments.
- Sections highlighting addressing tobacco use among those with mental health and other substance use problems.



<https://www.appi.org/Products/Addiction-Psychiatry/Treating-Addiction-to-Tobacco-and-Nicotine-Product>

Learning Objectives

Definitions:

OUD= Opioid Use Disorder

SUD= Substance Use Disorder

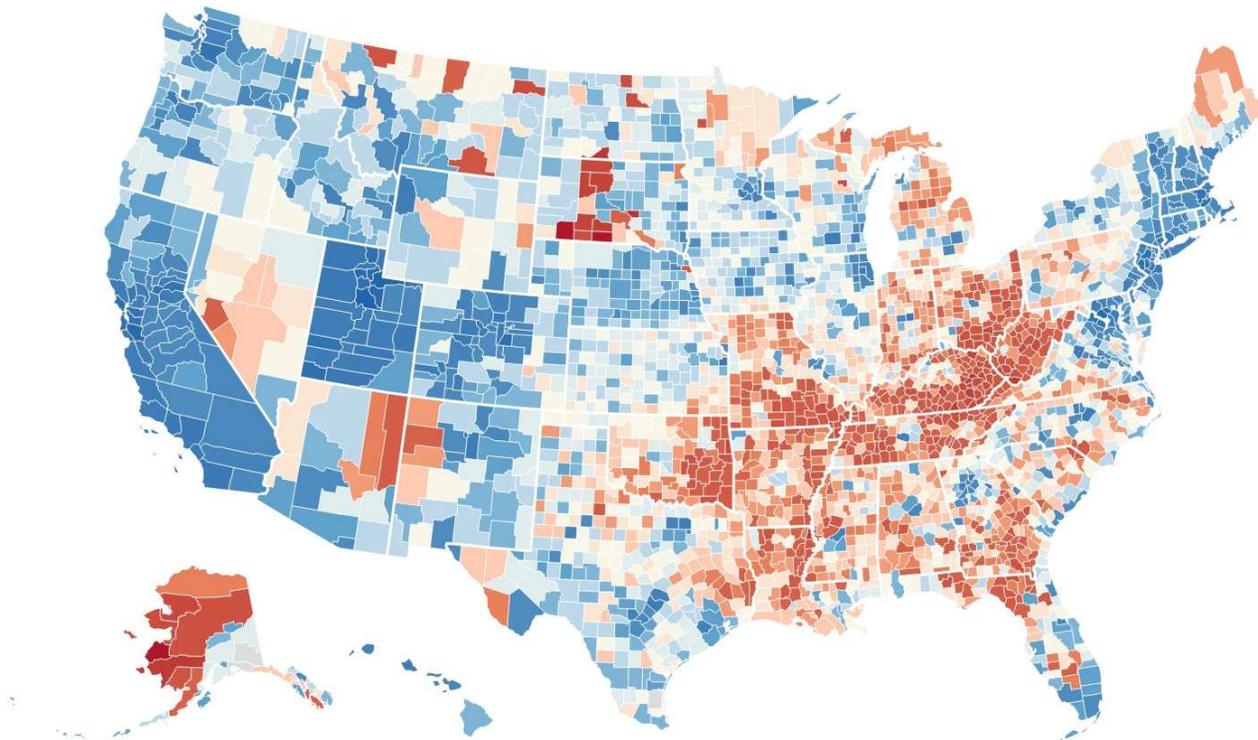
Learning Objectives:

1. Discuss how individuals with OUD are a key disparity group for addressing tobacco and suffer many consequences from this addiction.
2. Discuss challenges and opportunities for treating tobacco use in individuals with OUD and the benefit of integrated approaches.
3. To review brief updates in tobacco treatment with an emphasis on individuals with OUD.

EPIDEMIOLOGY

Disparities Exist Despite Declines in Smoking

% Adults Smoking



**US Cigarette
Smoking Rate**

US 11%

in 2022; NHIS

E cigs ~ 8%

Mental Health ~ 30%

SUD ~ 40-60%

SUD Staff ~ 30%

ODD ~ 80%

2023

Map: Jeremy Ney @AMERICANINEQUALITY • Source: Behavioral Risk Factor Surveillance System • Created with Datawrapper

Factors: Income, education, targeted advertising

Sources: Pagano et al., NTR 2016; Guydish et al., JSAT, 2017; Kalman et al., 2005

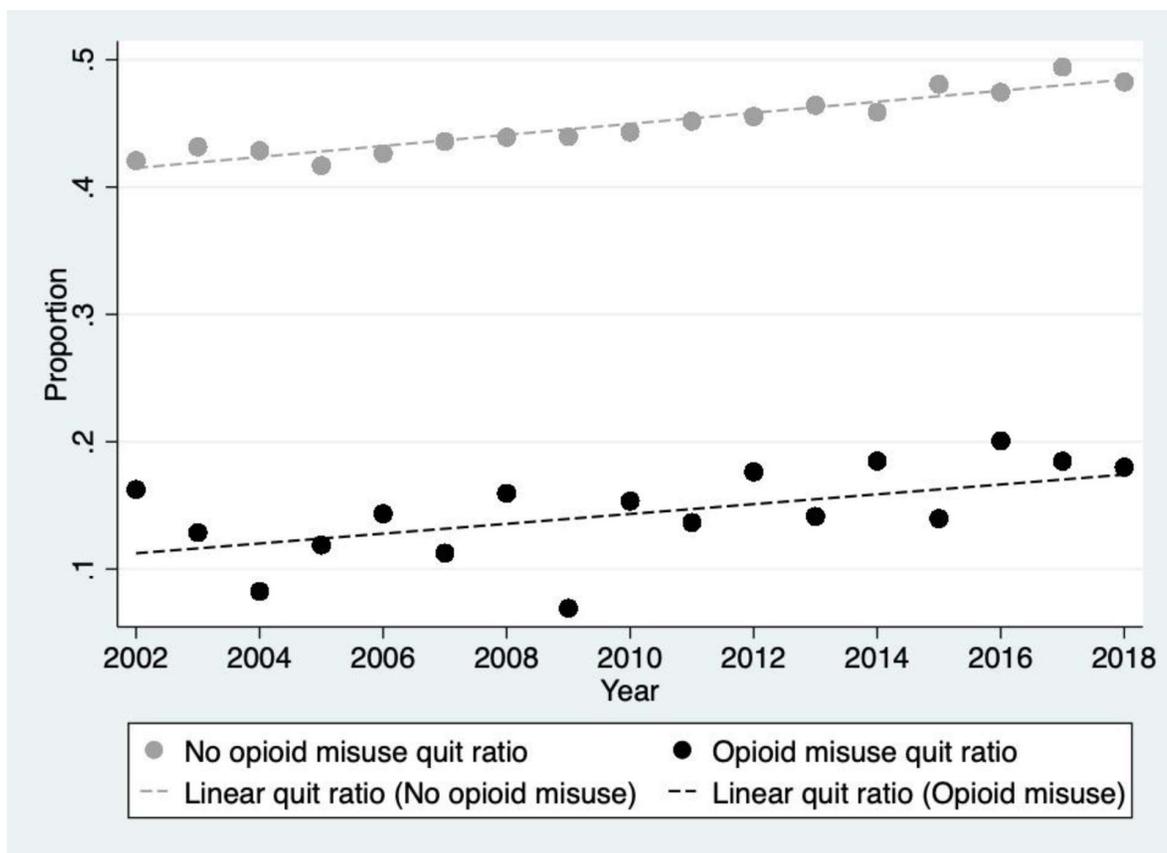
Smoking Behavior in Individuals Receiving Methadone

- Heavy smoking
 - 18 to 28 cigarettes per day
- Early onset
 - 13.6 years average age for initiation
 - 53% by age 13 or younger
- Highly dependent
 - 78% smoke within 30 minutes of waking
 - Average expired breath carbon monoxide 13.9 to 20.3
 - Mean Fagerstrom Tolerance Questionnaire scores from 7.1 to 7.5
- More difficulty quitting

(Nahvi, Richter, Li, Modali & Arnsten, 2006; Clemmey, Brooner, Chutuape, Kidorf & Stitzer, 1997; Richter, Gibson, Ahluwalia & Schmelzle, 2001; Best et al., 1998)

Those with Opioid Misuse : More Smoking and Reduced Quitting

Quit ratios : former smokers/ lifetime-smokers



Past-month smoking prevalence

None	25.7%
Opioid misuse	64.6%
OUD	73.3 %

In 2018, smoking quit ratios for individuals with opioid misuse (18.0 %) or OUD (10.0 %) were less than half of those without opioid misuse or OUD (48 %)

Barriers in SUD Programs

Rationale Not to Treat Tobacco in SUD Patients

- Not a real drug
- Fewer consequences / Not as disruptive to patients' life
- Disruptive to SUD treatment
- Patients don't want tobacco treatment
- Patients can't quit smoking successfully
- Jeopardizes recovery from other substances

Source: Hurt & Slade 2001; Williams et al., 2003

BARRIERS

- SUD recovery culture
- Low stakeholder engagement/ client resistance
- Organizational culture
- Lack of reimbursement for smoking cessation services
- Staff smoking
- Lack of workforce expertise/ lack of resources
- Beliefs that clients need to smoke to relieve the stress of recovery
- Patients are disinterested in quitting
- Fears that concurrent treatment would jeopardize substance use
- Limited education/ training resources

Source: Fokuo et al 2022; Pagano et al., 2016

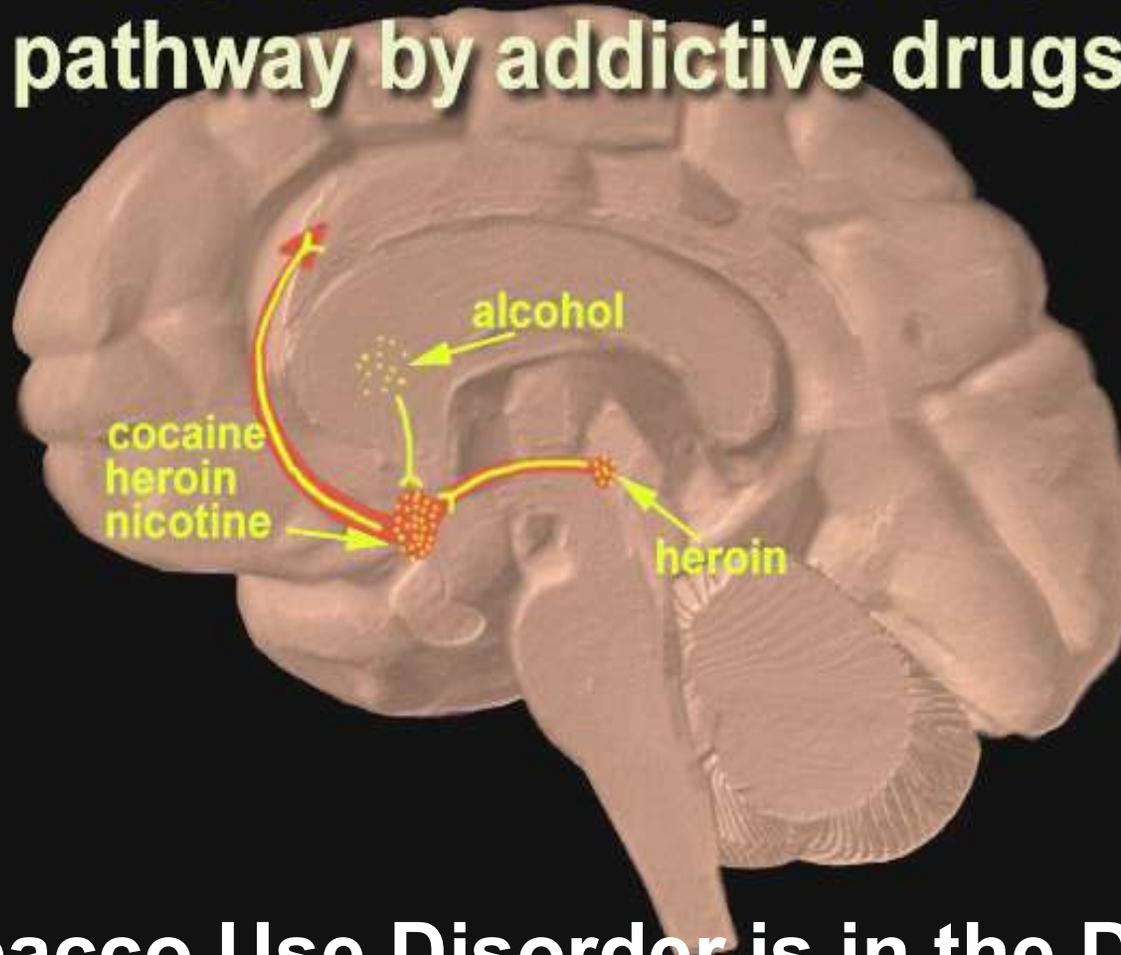
Source: Britton et al., 2023

Barriers to Treating Tobacco in OUD

- Higher severity of nicotine addiction
- Lower motivation to quit
- Perception of smoking as less harmful
- Limited access to treatment
- Concerns about opioid relapse
- Poor treatment adherence
- Chronic pain

It is a Real Drug

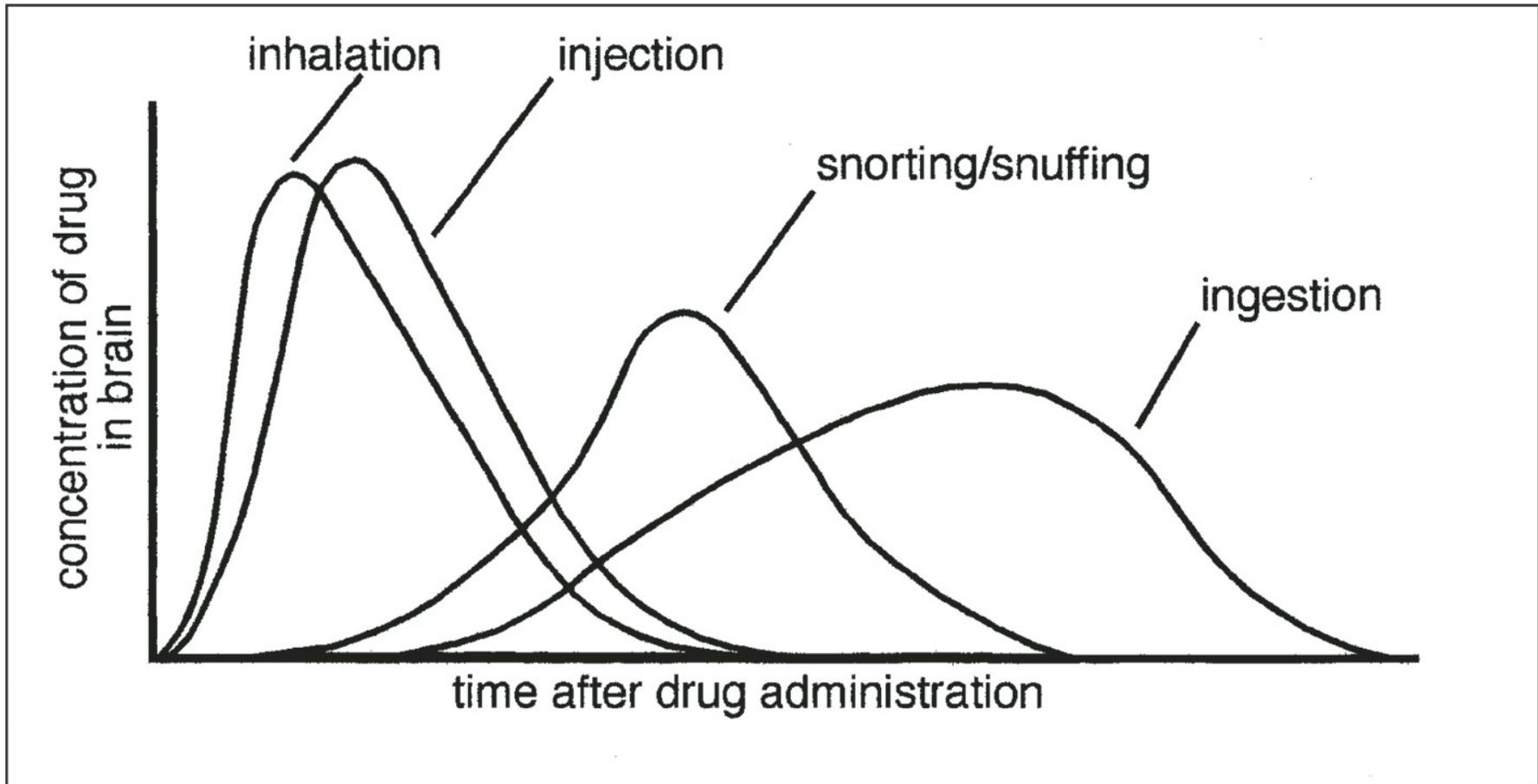
Activation of the reward pathway by addictive drugs



Tobacco Use Disorder is in the DSM-5



Smoking is Fastest Route of Drug Administration



Are Drug Use Behaviors Related?

How does tobacco use behavior pattern *mimic* or *maintain* drug use behaviors?

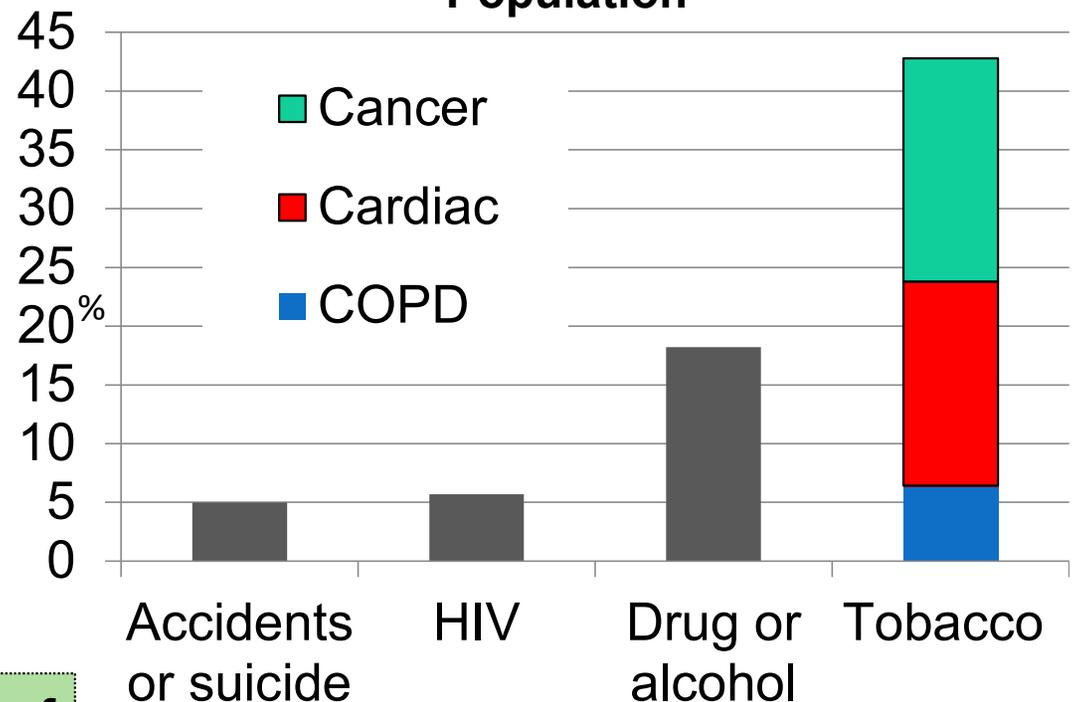
It Causes Real Consequences: Tobacco is Number One Cause of Death

Tobacco Caused Diseases
accountable for 50% of all
deaths in:

- Schizophrenia
- Depression
- Bipolar Disorder

More with alcohol use disorder die of
smoking (caused diseases) than die
of alcohol (caused disease)

Causes of Death in Opioid Using
Population



N=68,066 hospitalized in CA for opioid 1990-2005

Less Than Half of US Mental Health Treatment Facilities Screen for Tobacco Use

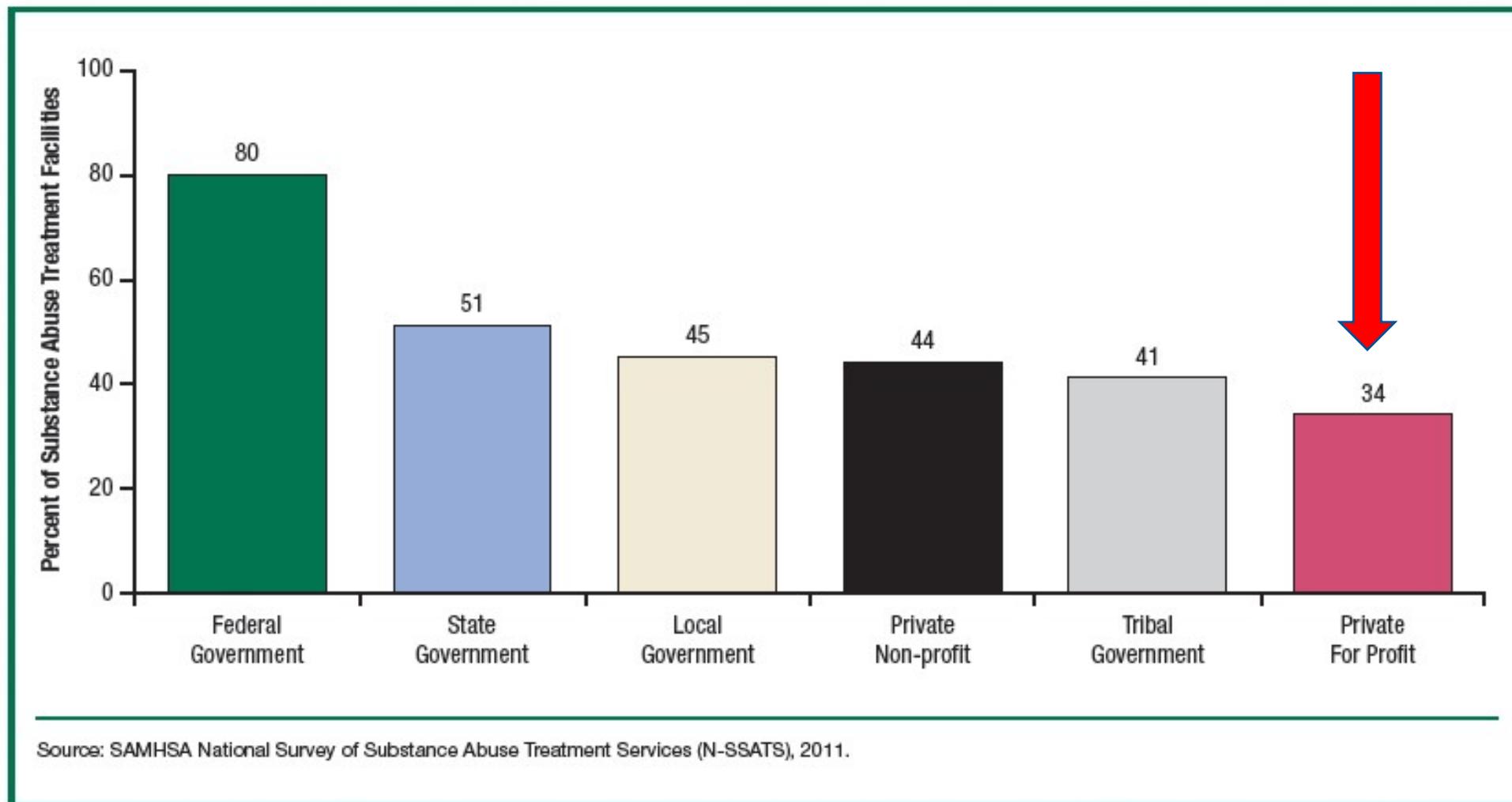
Source: Marynak et al., MMWR, 2018

National Mental Health Services Survey (N-MHSS)

Year	Mental health treatment facilities (%)	Substance abuse treatment facilities (%)	
2016	48.9	64.0	Reported screening patients for tobacco use
2023	69.2	82.3	
2016	37.6	47.4	Offered tobacco cessation counseling
2023	53.1	69.9	
2016	25.2	26.2	Offered nicotine replacement therapy
2023	35.0	40.2	
2016	21.5	20.3	Offered non-nicotine cessation medications
2023	33.6	35.3	
2016	48.6	34.5	Had a smoke free campus policy
2023	54.6	34.9	

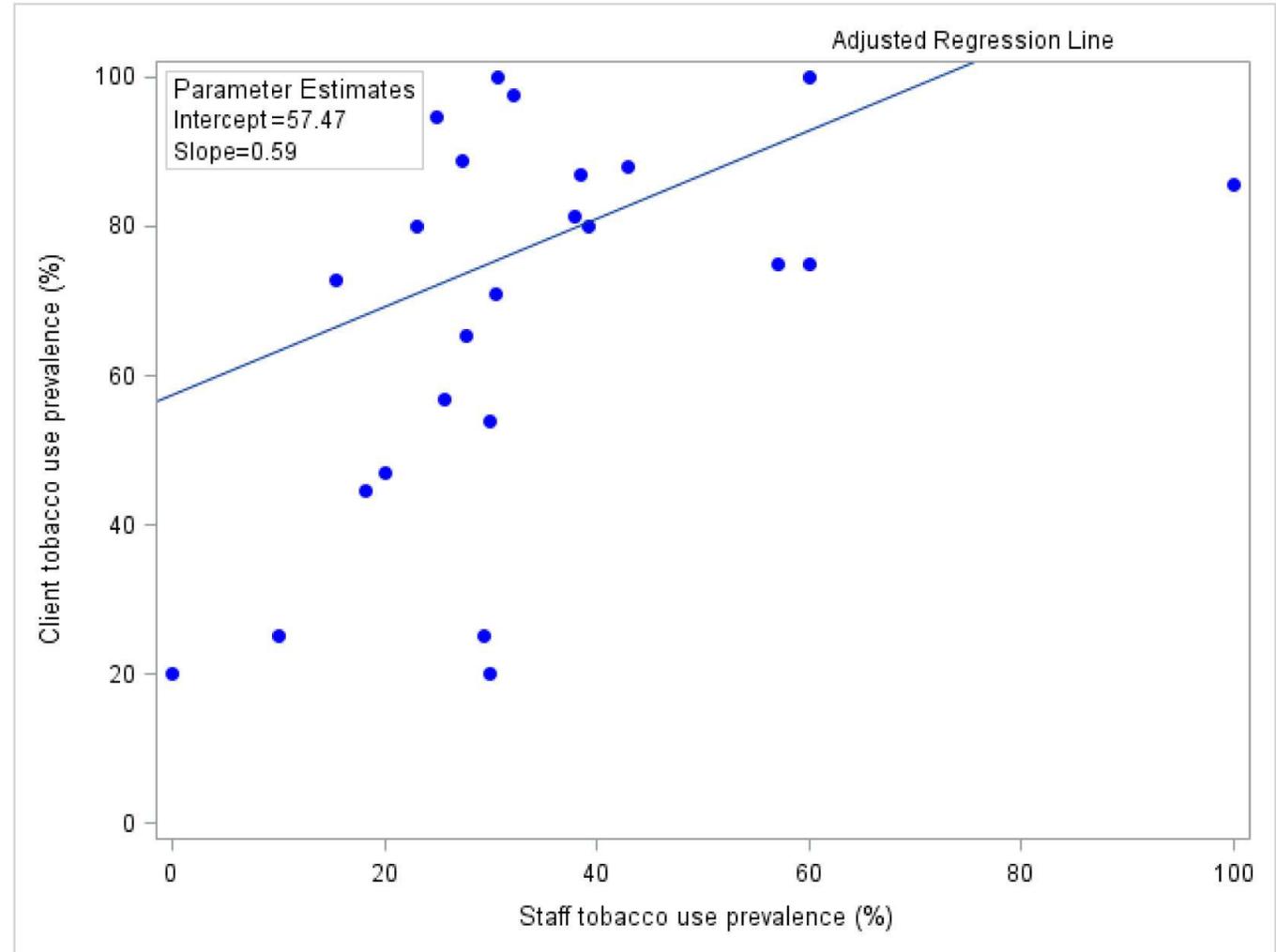
Least Tobacco Treatment in *Private/ For Profit* Substance Abuse Treatment facilities

Figure 3. Substance Abuse Treatment Facilities Offering Tobacco Cessation Services, by Facility Operation: 2011



Staff Smoking Correlated with Client Smoking

Prevalence of past month tobacco use among both staff and clients in 24 SUD programs in California.



- The program at bottom left had 0% of staff and 20% of clients reporting recent use of tobacco products.
- **The program at far right had 100% of staff and 86% of clients reporting use of tobacco products.**

Staff Smoking

Higher staff smoking in SUD Programs

- More client smoking
- Lower client receipt of tobacco counseling
- Worse staff beliefs about having clients quit while in SUD treatment
- Lower staff belief in their ability (self-efficacy) to assist clients with quitting.

Predictors of Quality Tobacco Treatment

National survey of tobacco practices in US Drug Treatment Facilities

- Our facility has a **policy** that requires staff to offer treatment for clients' tobacco dependence
- Our staff has dedicated **time** for treating clients tobacco dependence
- Our staff has the **skills** to treat clients tobacco dependence
- Our staff has received **training** specifically for treating tobacco dependence

Commitment and Resources

Survey of SUD Program Directors

Several factors that would support tobacco treatment in SUD:

- Financial support
- Enhanced leadership
- **State mandates** against smoking in addiction treatment programs.

Tobacco Treatment is Not Disruptive to SUD Treatment and Improves Other Abstinence Outcomes

- vs TAU (Winhusen et al., JCP 2016) in stimulant use disorder
 - Increased abstinence from stimulants at 6 months
 - More quitting smoking
 - Does not contribute to patient dropouts
- Does not negatively effect drinking or drug outcomes (Romano 2021; Apollonio 2016)
- Associated with 25% **increased** likelihood of long-term abstinence from alcohol or drugs (Prochaska 2004)
- No increase in irregular discharges when residential SUD settings went Tobacco Free (NJ; Williams 2005)



OASAS
Improving Lives.

NEW YORK STATE
OFFICE OF ALCOHOLISM & SUBSTANCE ABUSE SERVICES
Addiction Services for Prevention, Treatment, Recovery

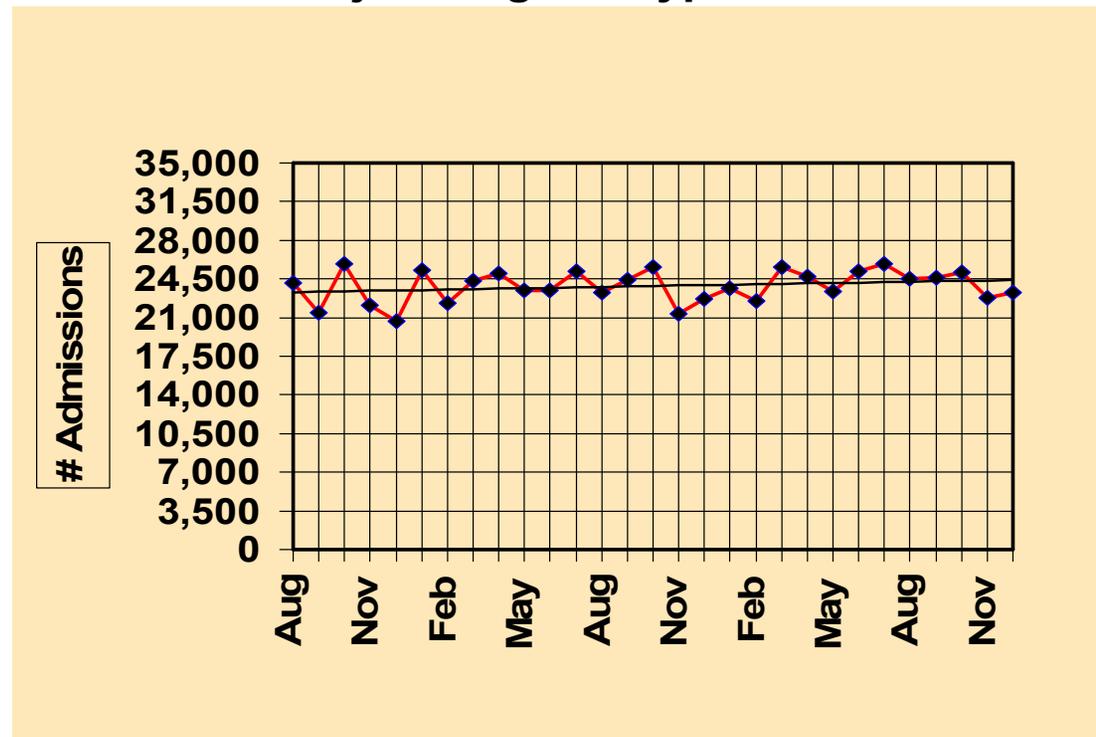
- All 1419 substance abuse treatment sites tobacco-free since 2008
- No reduction in admissions
- More than 80% in compliance (2010)
- Positive behavior change

Less smoking,

↑ Intentions to quit,

↑ Awareness about smoking

Tobacco-Free Implementation- OASAS NY - July 2008 Total For All Major Program Types



No Reduction in SUD Program Admissions

Quitting Smoking and SUD Recovery

PATH (Population Assessment of Tobacco and Health Study) 2652 adults; Assessed annually for 4 years

- Within-person change from current to former smoking was positively associated with SUD recovery
- Year-to-year change to former cigarette use was associated with a 30% increase in odds of recovery

Quitting Smoking Reduces Anxiety and Depression

Meta-analysis 26 studies

Table 1 | Effect of smoking cessation on mental health. Sensitivity analysis after removal of studies of low quality (medium-Newcastle-Ottawa scale)

Outcome	No of studies included	No of studies excluded	Standardised mean difference (95% CI)	
			Effect estimate	Original effect estimate
Anxiety	4	0	-0.37 (-0.70 to -0.03)	-0.37 (-0.70 to -0.03)
Depression	9	1	-0.29 (-0.42 to -0.15)	-0.25 (-0.37 to -0.12)
Mixed anxiety and depression	4	1	-0.36 (-0.58 to -0.14)	-0.31 (-0.47 to -0.14)
Psychological quality of life	4	4	0.17 (-0.02 to 0.35)	0.22 (0.09 to 0.36)
Positive affect	1	2	0.68 (0.24 to 1.12)	0.40 (0.09 to 0.71)
Stress	2	1	-0.23 (-0.39 to -0.07)	-0.27 (-0.40 to -0.13)

Smoking and Anxiety

- Smoking  Panic
- Smokers 3X panic attacks/
disorder
- Anxiety Disorder reduced success
quitting and more withdrawal
symptoms
- More negative affect (smoking to
improve mood), anxiety sensitivity,
more withdrawal symptom
sensitivity

Tobacco Withdrawal

Depressed mood
Insomnia
Irritability, frustration or anger
Anxiety
Difficulty concentrating
Restlessness
Increased appetite or weight gain
Craving

Treatment for Tobacco Use Disorder Works

**Call it Treatment,
Not Cessation**

**Tobacco Use is a
Co-Occurring Disorder**

Treatment that works:

- Brief Assessment
- Work with all Motivational Levels
- Engagement/ Motivational Approaches
- Counseling + Medications

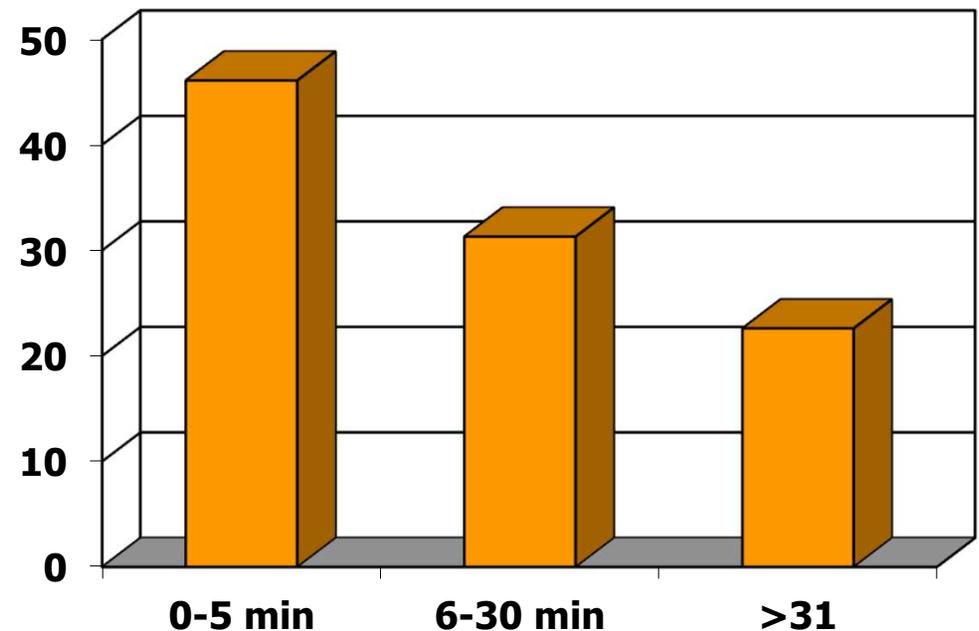
Heaviness of Smoking Index: Best Measure of Dependence

Time to first cigarette (TTFC) – After waking

≤ 30 minutes = moderate

≤ 5 minutes = severe

Smokers in SUD Treatment are Moderately to Severely Tobacco Dependent



- Implications for Treatment Outcome
- Need for Medications
- Implications for Dose

Source: Heatherton 1991

N=1882 smokers in addiction treatment,
Source: Williams et al., 2005

Tobacco Withdrawal

Withdrawal symptoms:

Emerge hours after last cigarette

Can last up to (4) weeks

- Depressed mood
- Insomnia
- Irritability, frustration or anger
- Anxiety
- Difficulty concentrating
- Restlessness
- Increased appetite or weight gain
- Decreased heart rate

First Line Treatments

Counseling + Medication= Best treatment plan

Medication	No. Studies	OR	95% CI
Nic. Patch (6-14 wks)	32	1.9	1.7-2.2
Nic. Gum (6-14 wks)	15	1.5	1.2-1.7
Nic. Inhaler	6	2.1	1.5-2.9
Nic. Spray	4	2.3	1.7-3.0
Bupropion	26	2.0	1.8-2.2
Varenicline (2mg/day)	5	3.1	2.5-3.8

Results from meta-analyses comparing to placebo (6 month F/U)

Counseling

- Brief Counseling
 - ⑩ Ask, Advise, Refer
 - ⑩ Medication Education
- Intensive Counseling (Group or Individual)
 - ⑩ Telephone
 - ⑩ Relapse Prevention/ CBT
 - ⑩ Social Support
 - ⑩ Acceptance & Commitment Therapy

Best Practices Current Recommendations

Varenicline* or combination NRT +
behavioral support should be considered
first line

Behavioral counseling (including web/phone-based) with FDA-approved medication is the most effective way to quit smoking.

*American Thoracic Society (2020) (including for psychiatric patients)
Surgeon General's Report *Smoking Cessation (2020)*

Nicotine Medications (NRT)

- Use high enough dose
- Use all day long, not just for cravings
- Use long enough time period
- Can be combined with bupropion
- Can be combined with each other
- Have almost no contraindications
- Have no drug-drug interactions
- Safe enough to be OTC
- Safe in cardiac disease

FDA Labeling Updates

- No significant safety concerns associated with using more than one NRT
- No significant safety concerns associated with using NRT at the same time as a cigarette.
- Use longer than 12 weeks is safe

Available over the counter, covered by Medicaid, and many commercial insurance plans.

<https://www.lung.org/policy-advocacy/tobacco/cessation/state-tobacco-cessation-coverage-database/states>

Nicotine Medications (NRT)

NICOTINE PATCH

- Slow onset of action
- Continuous nicotine delivery
- 24 or 16 hour dosing
- Usual dose 21 mg/day
- Easy, good compliance
- No strict tapering or timeline
- Side effects – skin reaction, insomnia
- Skin is clean, dry, hairless, and not irritated
- Apply patch to different area each day

NICOTINE GUM, LOZENGE OR NASAL SPRAY

More immediate action (buccal)

Better cravings

Rescue medication

Dose frequently – every 1-2 hours

Titrate to dose

Higher dose (4mg if TTFC<30)

Acidic foods decrease absorption

Mild side effects- mouth burning

GI upset/ hiccups if swallowed

Nasal spray- highest cost, side effects, discontinuation

Recommendations for NRT

1. Combination NRT better than only one type

- Long acting (patch) + short acting (gum/lozenge)
- Delivers higher dose
- Immediate withdrawal and craving relief
- Enhances outcomes

2. Use of “Pre-Quit” NRT

- Rationale: get used to dose/ side effects, familiarize, less enjoyment smoking
- Usual 2 weeks before QD
- Not all studies show effect (patch)
- Well tolerated

Sources: Lindson, et. all 2019.
Theodoulou, 2023.

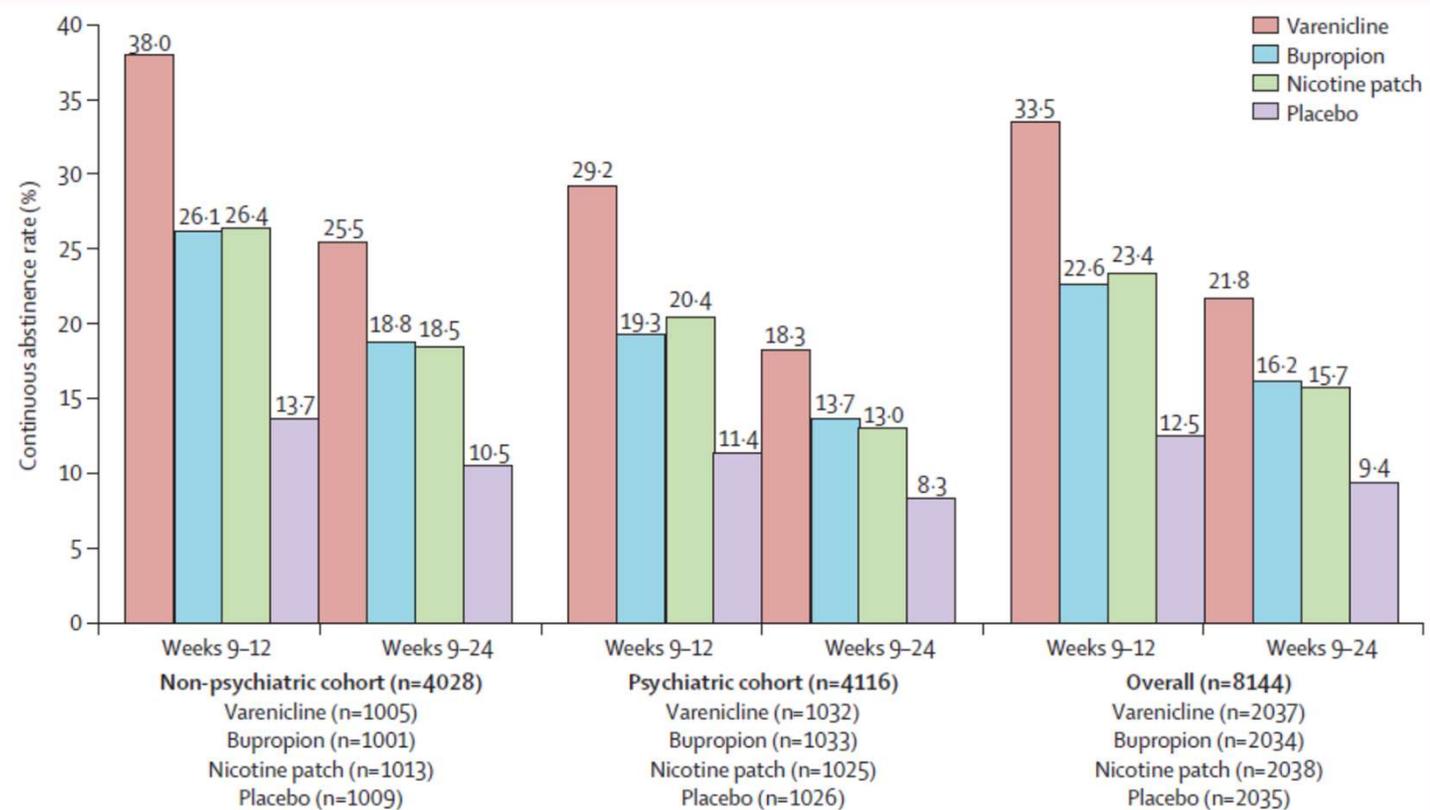
Bupropion SR

- Effective at 150 to 300mg daily
- Nonsedating, activating antidepressant with effects on NE and DA systems
- Start 10-14 days prior to quit date
- Side effects- headache, insomnia
- Contraindicated in h/o seizures or bulimia/ anorexia
- Noncompetitive nicotinic receptor antagonist
- Similar efficacy to NRT (monotherapy)
- Effect independent of depression
- Less weight gain with 300mg than placebo

Neuropsychiatric Safety and Efficacy Varenicline, Bupropion, Nicotine Patch Smokers with and without Psych Disorders (EAGLES)

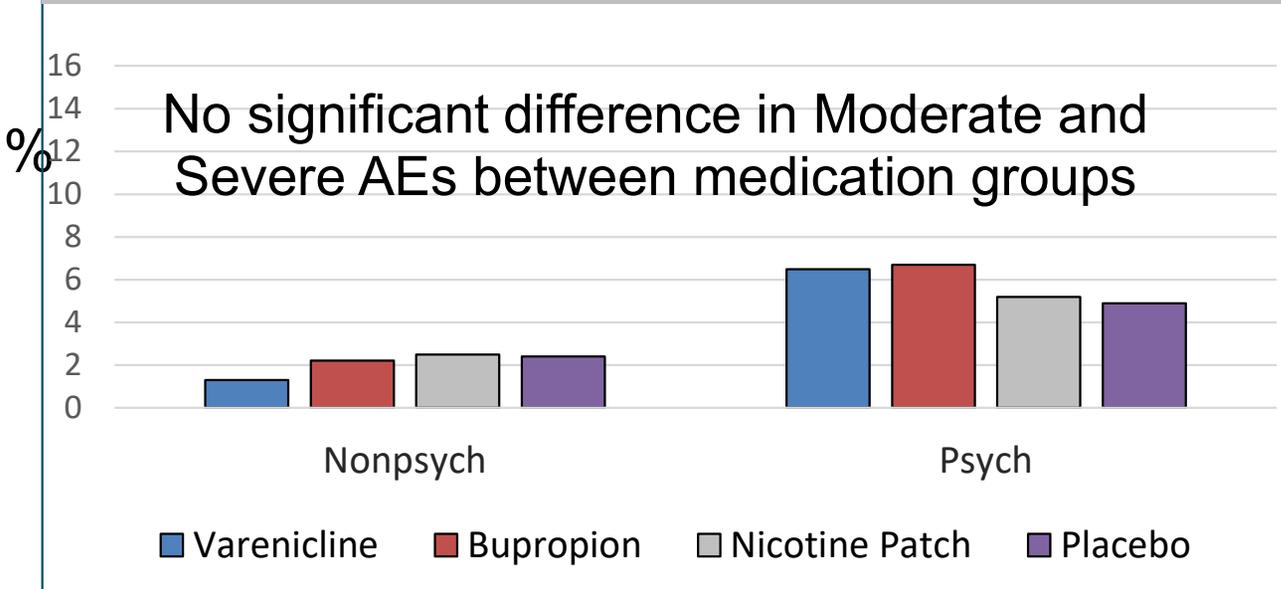
Varenicline superior to BUP and NP in psych and nonpsych cohorts

- 8144 (4416 psych and 4028, non psych by SCID)
- Triple dummy
 - Varenicline 1mg BID
 - Bupropion 300mg
 - 21mg Nicotine patch
 - 3 placebos
- Largest smoking cessation study



Neuropsychiatric Safety Varenicline

FDA Approves Removal of Boxed Warning Regarding Serious Neuropsychiatric Events from CHANTIX® (varenicline) Labeling



- **Meta analysis**
39 RCT (10,761 participants)
 - **No** increased risk of suicide, suicidal ideation, depression, irritability, aggression
- **RCT MDE, Bipolar Schizophrenia,**
 - No worsening illness (MADRS, PANSS)

Varenicline Side effects: Nausea, insomnia, abnormal dreams, headaches

Tobacco Treatment in SUD

- 35 studies , 5796 participants
- **Pharmacotherapy appeared to increase tobacco abstinence**
 - (RR 1.60, 95% CI 1.22 to 2.12, 11 studies, 1808 participants)
- **Combined counseling and pharmacotherapy increased abstinence**
 - (RR 1.74, 95% CI 1.39 to 2.18, 12 studies, 2229 participants,) at follow-up, 6 weeks to 18 months.
- **Counseling interventions did not significantly increase tobacco abstinence**
 - (RR 1.33, 95% CI 0.90 to 1.95)
- Interventions worked for both people in **treatment** and people in **recovery** and for **alcohol** and **other drug** dependencies
- Offering tobacco cessation therapy to people in treatment or recovery for other drug dependence **does not reduce other abstinence.**

Review of Studies Opioid Maintained

Table 1. Randomized Trials of Smoking Cessation Pharmacotherapy in Opioid-Dependent Smokers

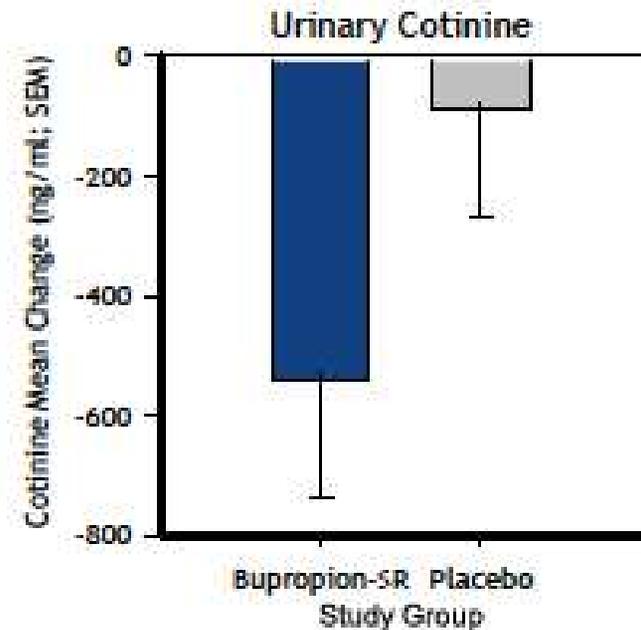
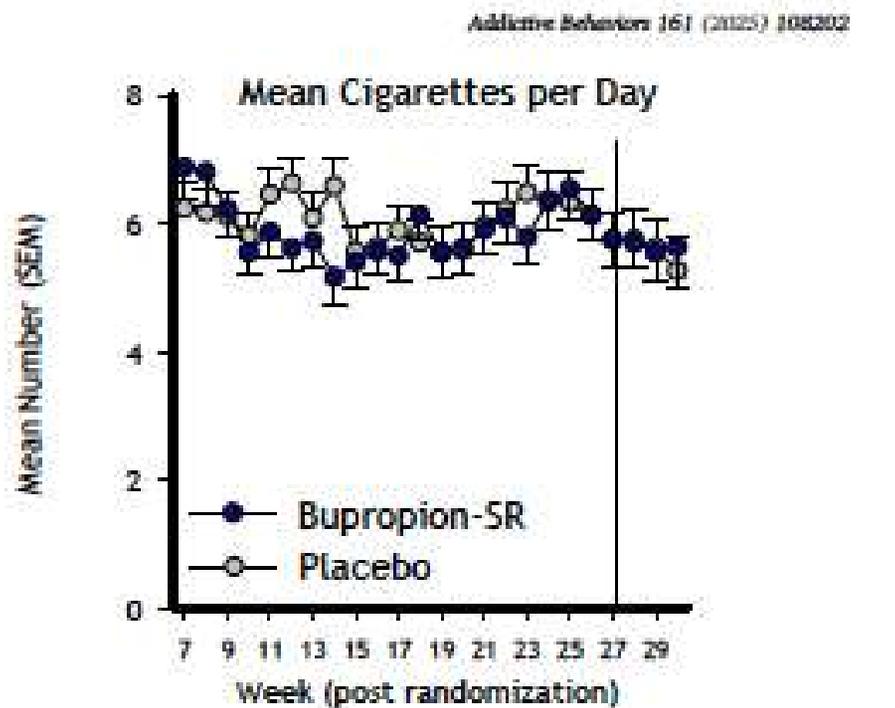
Reference	N	Opioid medication	Pharmacotherapy	Adjunct treatments	Primary outcomes ^a	Effect sizes ^b
Reid et al. ⁹	225	Methadone	Nicotine patch (14 mg or 21 mg) vs. treatment as usual	Mood management and cognitive behavioral therapy	1	$d = 0.39$
Mooney et al. ¹⁰	40	Buprenorphine	Bupropion (300 mg) vs. placebo	Skills training; contingency management	2	$d = 0.17$
Stein et al. ¹¹	315	Methadone	Varenicline (2 mg) vs. placebo vs. nicotine patch (21 mg or 42 mg)/gum (4 mg)	National Cancer Institute's 5A's	2	$d = 0.07-0.21$
Nahvi et al. ¹²	112	Methadone	Varenicline (2mg) vs. placebo	Brief individual counseling	1	$d = 0.48$

^a1 = Significantly better smoking abstinence outcomes in pharmacotherapy condition versus control, 2 = No different in smoking abstinence outcomes in pharmacotherapy versus control.

^bEffect sizes for primary smoking outcomes based on Cohen's d .

- Few studies
- Many negative trials
- Medication adherence for tobacco treatment medications poor

Bupropion Reduced Smoking in OUD



- N = 72 smokers enrolled in methadone
- Not motivated to stop
- Bup 150 BID v placebo

- Decreased cig per day
- Greater reduction in cotinine
- Less dependence

NRT in OUD

Nicotine Replacement Therapy

- Added to standard Opioid agonist treatment
- 16-week integrated NRT with brief counseling; Germany
- N=259 participants
- Significant reduction in cig per day
- OR 2.07 (95% CI, 1.14-3.75) in the NRT group

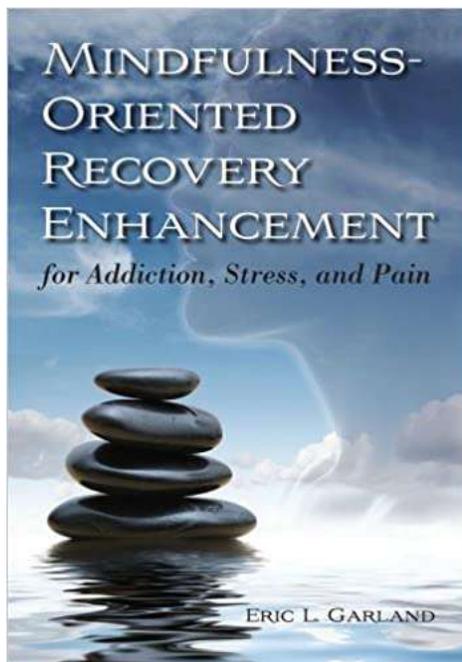
XR Naltrexone (XR-NTX)

- Monthly injections
- Opioid antagonist
- XR-NTX associated with 29% decline in smoking
- ↓ from 14.4 to 9.8 cpd ($p < 0.001$) after one month and 8.6 cpd after two months

Mindfulness Oriented Recovery Enhancement (MORE)

Mindfulness Oriented Recovery Enhancement:

8-Session Group intervention with training in mindfulness, cognitive reappraisal, and positive emotion regulation skills



Outcomes:

- In Chronic Pain Patients
 - Reduced Opioid Use and Misuse
 - Improved chronic pain and emotional distress
- In Methadone Programs
 - Reduced heroin and other drug use
 - Less pain, depression, and anxiety
 - Reduced craving

Should we use medications for people who aren't ready to quit?

YES

- Lessen dependence
- Minimize withdrawal
- Less enjoyment smoking
- Smoke less/ harm reduction
- Higher OR for future quitting
- Reduce to Quit

Results of 2019 review:

- 51 trials with 22,509 participants
- Low-certainty evidence that reduction-to-quit interventions may be more effective when pharmacotherapy is used as an aid, particularly fast-acting NRT or varenicline (moderate-certainty evidence)
- Reduction-to-quit may be equivalent to abrupt quitting for fast-acting NRT or varenicline but not for nicotine patch, combination NRT or bupropion (abrupt quitting may be better)

Incentives

- **High-certainty evidence** that incentives improve quitting at long-term follow-up
 - Effectiveness **sustained** after the withdrawal of incentives .
No association between amount and outcome
 - **High-certainty evidence** improve quitting at the end of pregnancy and postpartum
-
- Financial incentives (monetary or vouchers)
 - 43 studies (N> 23k participants)- High and low value USD 45 to 1185; quitting validated with CO
 - OR 1.57 quitting with incentives at longest follow-up (6 months or more)
 - 14 studies of ~ 4300 pregnant women
 - RR at longest follow-up (up to 6 months post-partum) of 2.13 pregnant

Medication Interactions: Tobacco and Treatments

Substance	Activity	Interactions
Nicotine	CYP2A6	None
Bupropion	CYP2B6 CYP2D6 inhibitor	Many
Varenicline	Excreted in urine	None
Tobacco Smoke	CYP1A2 inducer	Reduces level of olanzapine, clozapine, tricyclic ADs, caffeine, duloxetine, mirtazapine, flvoxamine

Comprehensive Table (Rx for Change)

https://smokingcessationleadership.ucsf.edu/sites/smokingcessationleadership.ucsf.edu/files/2026-01/SCLC_RxforChange_Drug%20Interactions_7.7.25_accessible.pdf

Learn about Healthy Living: Tobacco and You

Learning About Healthy Living

TOBACCO AND YOU

Edited & Revised 2024
Rutgers RWJMS Division of Addiction Psychiatry

Contributors:
Jill M Williams, MD
Reba Mathern-Jacobsen, MSW
Patricia Dooley Budsock, MA, LPC
Halie Pratt, MPH
Pat McKone

Free treatment manual

- **Created for Mental health settings**
- **Group format**
- **Education on range of topics**
 - Healthy eating
 - Increasing activity
 - Awareness of tobacco addiction

Updates in 2024 revised edition

- ✓ Recovery Language
- ✓ Harm Reduction Topics
- ✓ E-cigarettes
- ✓ Up to Date Pharmacotherapy
- ✓ Up to Date Nutrition/ Exercise Recommendations
- ✓ Mindfulness Meditation Exercise
- ✓ Expanded Track 2/ Tobacco Recovery Sessions

TABLE OF CONTENTS

Section		
1	 Introduction to Learning About Healthy Living	9
2	 General Structure of a Treatment Group	15
3	 Using Pharmacotherapy to Treat Tobacco Use Disorder	21

Section		Guide	Handout
4	 Track 1: Learning About Healthy Living - Facilitator's Guide	33	
5	 Track 1: Handouts	67	
	Introduction	34	
	Session 1: Welcome and starting on the road to Healthy Living	35	68
	Session 2: Why is smoking dangerous?	37	72
	Session 3: What's in cigarette smoke?	38	74
	Session 4: Why do so many people with a mental illness or other addiction smoke?	39	76
	Session 5: What is carbon monoxide?	40	78
	Session 6: How much does it cost to smoke?	42	80
	Session 7: Have I been targeted by the tobacco industry?	43	84
	Session 8: What is secondhand smoke?	44	87
	Session 9: How are my medications affected by smoking?	45	89
	Session 10: Why are cigarettes addictive?	47	91
	Session 11: How can I better manage stress?	49	94
	Session 12: How much physical activity do I need?	50	97
	Session 13: How can I make healthier food choices?	51	100
	Session 14: Should I try to quit smoking?	52	104
	Session 15: Is it really possible for me to quit smoking?	53	107
	Session 16: What happens when I quit smoking without help (cold turkey)?	54	109
	Session 17: How can medications help me quit smoking?	55	111
	Session 18: Which medications should I use?	60	112
	Session 19: How can I reduce my harm from smoke (Part 1)?	62	116
	Session 20: How can I reduce my harm from smoke (Part 2)?	63	119

Section		Guide	Handout
6	 Track 2: Tobacco Recovery - Facilitator's Guide	123	
7	 Track 2: Handouts	155	
	Introduction & Individual Pre-Session	124	
	Session 1: Planning and making preparations	129	156
	Session 2: Attempting abstinence	132	161
	Session 3: Managing withdrawal symptoms and weight gain	136	165
	Session 4: Managing cravings and triggers	139	169
	Session 5: Seeking support while quitting	143	174
	Session 6: Dealing with setbacks and slips	145	176
	Session 7: Saying no to tobacco/keeping your guard up	149	180
	Session 8: Celebrating a tobacco free lifestyle	151	184
8	Forms and Resources	187	
	Participant Self-Report Tobacco Assessment	188	
	Tobacco Use Disorder Treatment Plan	190	
	Instructions for Carbon Monoxide (CO) Monitoring	192	
	Learning About Healthy Living / Group Record Sheet	193	
	Group Reminder Sheet	194	
	Resources	195	



What is Carbon Monoxide?

One of the most deadly chemicals found in cigarette smoke is carbon monoxide (CO).

Carbon monoxide is a poisonous gas that has no color or smell. All forms of tobacco that burn (cigarettes, cigars, pipes and even hookah) produce carbon monoxide gas.

Carbon monoxide is found in air pollution but the levels absorbed by the body are very low compared to the amount in tobacco smoke.

Carbon monoxide takes the place of oxygen in your blood. The body needs oxygen to survive and anything that decreases the amount of oxygen causes strain on the heart and body.

Over time, the heart has to work harder to deliver oxygen. This puts smokers at greatly increased risk for having heart attacks and other circulation problems.



Carbon Monoxide: The Good News

Although it is very deadly, carbon monoxide (CO) lasts only a short time in your body. Carbon monoxide can be eliminated within 2-3 days AFTER you quit smoking, and CO levels will go back down to the same level of somebody who never smoked.

This means it is never too late to quit smoking. Anyone who quits gets these health benefits, at any age!



Carbon Monoxide Meter

A carbon monoxide meter measures the amount of carbon monoxide in your body.



0 - 8	Normal or very low smoking
8 - 12	Concern
12 - 25	Warning
25 - 40	Danger
Over 40	Severe Danger

My carbon monoxide level is:

If I quit smoking, my carbon monoxide level will go down to:



How can I reduce the harm from smoke?

(Part 1)

Quitting smoking is always the best option, but if you feel unable or not ready to quit, you may be asking, “should I try to smoke less?”

Now that you are more aware of your smoking patterns and the risks caused by nicotine or other tobacco use, you can begin to make choices about when, why and how much you smoke. Although you may not be ready to quit right now, you may want to think about reducing your current tobacco usage. This can make quitting in the future easier for you. Successfully reducing the number of cigarettes per day that you smoke may help you lower your addiction to tobacco and help you to feel more confident about trying to quit.



While the safest option is always to quit completely, reducing your tobacco usage (smoking fewer cigarettes per day) can be a step towards quitting, for some people.

You may have tried this in the past and been unable to reduce how much you smoke. You may have experienced uncomfortable nicotine withdrawal symptoms when you tried to smoke less. This might have made you feel frustrated or disappointed.

Reducing the amount that you smoke *while using* nicotine replacement or other tobacco treatment medications can help you to be more successful and feel better.

Using nicotine replacement medications like nicotine patch, gum or lozenge would still be the safest way to deliver nicotine to the body.

E-cigarettes, have positive and negative aspects that are associated with their use.

Positive Effects of E-Cigarettes	Negative Effects of E-Cigarettes
Can be a step towards quitting for some people.	Contain nicotine
Don't burn so contain less toxins than cigarettes, cigars, pipes and hookahs (any tobacco that burns)	Maintain nicotine addiction
Don't contain carbon monoxide	Can be used to vape cannabis/ THC or other substances and may be a trigger for those trying to avoid other substance use
	Can be costly
	Not as safe as nicotine replacement medications or other tobacco treatment medications
	Long term effects are unknown
	Should not be used by young people or anyone who is pregnant

Participant Self-Report Tobacco Assessment

Name: _____

Gender: M F Date of Birth: _____ Age: _____ Today's date: _____

Tobacco Use

1. Please check the appropriate box for each type of tobacco:

Tobacco Type	Never Used	Used in the Past	Currently Use
Cigarettes			
E-Cigarettes/Vape			
Pipe/Hookah			
Cigars			
Chewing Tobacco			

2. What age were you when you first tried tobacco? _____

3. Age when you started using tobacco on a regular basis? _____

4. How many cigarettes do you smoke each day? _____

5. How often do you use e-cigs/vape each day? _____

6. How many minutes after you wake up do you smoke your 1st cigarette (or use other tobacco products)? _____

7. Do you sometimes awaken at night to smoke or use other tobacco products?
 No Yes

8. Who uses tobacco in your household? *Check all that apply:*
 No One Parents Brothers/Sisters Significant Other Roommates

9. Do you smoke indoors at home? No Yes

10. How important is it to you to stop tobacco use now?

1	2	3	4	5	6	7	8	9	10
Not at All			Average Importance				Extremely Important		

Tobacco-Related Illness

11. Have you in the past or do you now have any of the following? *Check all that apply:*

- Arrythmia/ Irregular Heart Beat
- Asthma or Chronic Bronchitis
- Cancer
- List type: _____*
- Circulatory Problems
- Diabetes
- Early Menopause
- Emphysema
- Halitosis/Bad Breath
- Heart Attack/Disease
- Impotence
- Infertility
- Influenza/Frequent Flu
- Obesity/Overweight
- Peptic Ulcer
- Pneumonia
- Seizures
- Stroke
- Wrinkles
- Other: _____

Desire to Quit

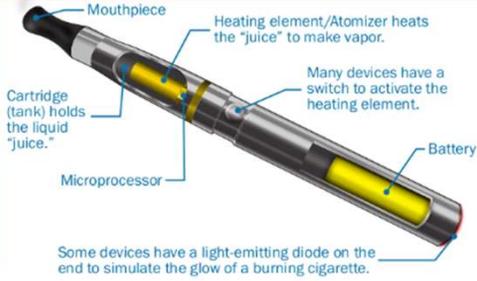
12. Please check the statement that best describes your current situation:

- I currently smoke/use tobacco and I do not want to quit in the next 6 months.
- I am seriously considering quitting in the next 6 months, but not in the next 30 days.
- I am interested in drastically reducing the number of cigarettes I currently smoke (reduce by half or more), but am not interested in quitting totally.
- I am interested in quitting smoking/tobacco use in the next month, and I would be interested in any assistance I could get.

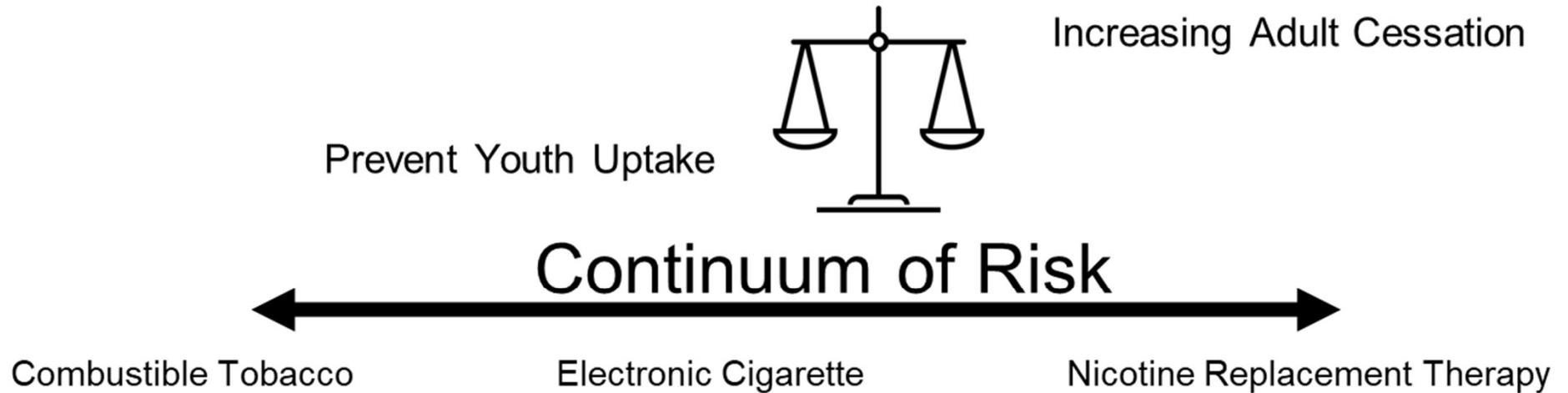
13. How confident are you that you will succeed in stopping your tobacco use now?

1	2	3	4	5	6	7	8	9	10
Not at All Confident			Average Confidence				Extremely Confident		

Parts of an Electronic Cigarette

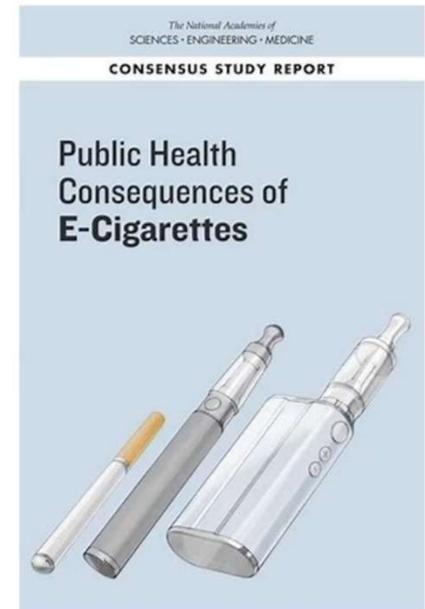


E cig Controversies



Policy Agenda

- ✓ Toxicity Including Addiction
- ✓ Youth Initiation of Combustible
- ✓ Adult Cessation of Combustible



How do we navigate through helping people who may choose to use an e-cigarette to reduce their use?

- Alternative products (i.e. E-cigarettes) should not be the end point but using them to reduce or quit is better than not doing anything at all.
- FDA approved medications are always a safer and better option. E-cigarettes are not classified as cessation aids
- Let people know that e-cigarettes can help some people to stop smoking. (Good evidence. Cochrane review network meta-analysis)
- They don't seem to have too many risks in the short term. We're not sure about the long term, but in the short term, it could be ok.
- They need to switch completely, because using both products means they're still exposed to a lot of smoke.
- The second step is to stop using e-cigarettes.
- E-cigarettes are not all the same. There are many different types of e-cigarettes. Refer to FDA website for current products with marketing approval.

Electronic Cigarette Dependence

Penn State Electronic Cigarette Dependence Index

Client/patient name _____

Date _____

Question	Answer	Score
1. How many times per day do you usually use your electronic cigarette? (assume that one "time" consists of around 15 puffs or lasts around 10 minutes)		
<i>Scoring: 0-4 times/day = 0, 5-9 = 1, 10-14 = 2, 15-19 = 3, 20-29 = 4, 30+ = 5</i>		
2. On days that you can use your electronic cigarette freely, how soon after you wake up do you first use your electronic cigarette?		
<i>Scoring: 0-5 mins = 5, 6-15 = 4, 16-30 = 3, 31-60 = 2, 61-120 = 1, 121+ = 0</i>		
3. Do you sometimes awaken at night to use your electronic cigarette?		
<i>Scoring: Yes = 1, No = 0</i>		
4. If yes, how many nights per week do you typically awaken to use your electronic cigarette?		
<i>Scoring: 0-1 nights = 0, 2-3 nights = 1, 4+ nights = 2</i>		
5. Do you use an electronic cigarette now because it is really hard to quit (electronic cigarettes)?		
<i>Scoring: Yes = 1, No = 0</i>		
6. Do you ever have strong cravings to use an electronic cigarette?		
<i>Scoring: Yes = 1, No = 0</i>		
7. Over the past week, how strong have the urges to use an electronic cigarette been?		
<i>Scoring: None/Slight = 0, Moderate/Strong = 1, Very Strong/Extremely Strong = 2</i>		
8. Is it hard to keep from using an electronic cigarette in places where you are not supposed to?		
<i>Scoring: Yes = 1, No = 0</i>		
When you haven't used an electronic cigarette for a while or when you tried to stop using...		
9. Did you feel more irritable because you couldn't use an electronic cigarette?		
<i>Scoring: Yes = 1, No = 0</i>		
10. Did you feel nervous, restless, or anxious because you couldn't use an electronic cigarette?		
<i>Scoring: Yes = 1, No = 0</i>		
Total		

Total scoring: 0-3= not dependent,
4-8 low dependence,
9-12 medium dependence,
13+ = high dependence.

Foulds, J et al. Development of a Questionnaire for Assessing Dependence on Electronic Cigarettes Among a Large Sample of Ex-Smoking E-cigarette Users. *Nicotine & Tobacco Research*, 2015, 186-192 doi:10.1093/ntr/ntu204

MaineHealth
Center for Tobacco
Independence

CTIMaine.org Last Revised: 10/21/19

Roswell ENDS Nicotine Dependence Scale (Roswell eND Scale)

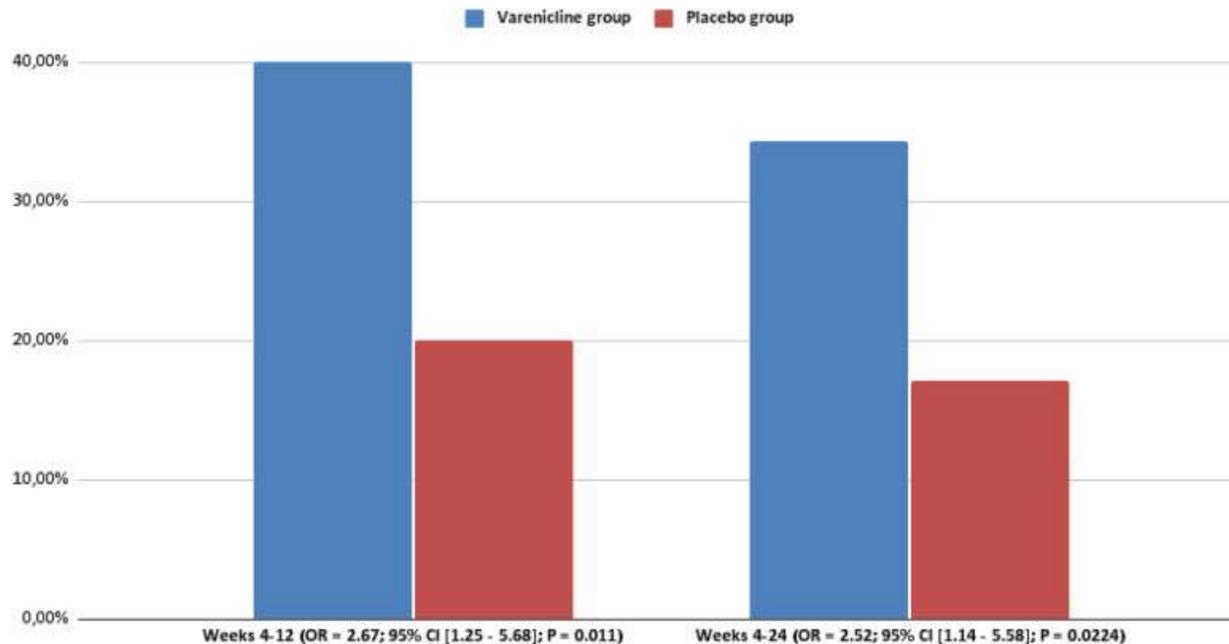
- Do you vape more frequently during the first few hours after awakening than during the rest of the day?
 - Yes < 1 >
 - No < 0 >
- How soon after you wake up do you vape?
 - 0 - 5 m < 3 >
 - 6 - 30 m < 2 >
 - 31 - 60 m < 1 >
 - 61+ m < 0 >
- Of all the times that you vape, which time would you hate most to give up?
 - 1st of Day < 1 >
 - All Others < 0 >
- How many pods, cartridges, or refills do you typically use each week?
 - Less than 1 per week < 0 >
 - 1 - 4 per week < 1 >
 - 5 or more per week < 2 >
- How often do you vape?
 - 1 day or less each week < 0 >
 - 2 - 3 days each week < 1 >
 - 4 - 6 days each week < 2 >
 - 7 days each week < 3 >

Score 0-10

Source: Sheffer et al., Drug Alc Dep, 2023

Quitting E Cigs

- Varenicline 1BID vs PI (both 15 min weekly counseling)
- DB-PC; N=140; motivated to stop ecigs
- Daily ecig only for ≥ 1 year
- Living with vapers and having high baseline anxiety reduced abstinence



Conclusions

- Individuals with OUD suffer many consequences from this addiction
- Despite challenges there are opportunities
- It's the smoke that kills.
- Tobacco negatively effects health and other aspects of recovery
- Varenicline OR combination NRT two very good medication options
- More harm reduction strategies emerging

Lung Mind Alliance

*A commercial tobacco-free future for Minnesotans with
mental illness or substance use disorders*

Who We Are

The Lung Mind Alliance is a statewide coalition with the goal of **reducing disparities related to the impact of commercial tobacco* on people with mental illness and/or substance use disorders.**

The Lung Mind Alliance is led by the American Lung Association in Minnesota and includes partners from mental health, substance use treatment, and public health organizations, as well as the Minnesota Department of Health and the Department of Human Services.

LungMindAlliance.org

Free Resources/ Technical Assistance
Webinars



American Lung Association | Lung Mind Alliance

How to Address Tobacco Use in Mental Health and Substance Use Disorder Services:

Tips From the Field

Public behavioral health supports the health and well-being of our community.

For mental health and substance use disorder professionals

Tobacco-Free Grounds Provide Healthy Facilities

Myths and facts about commercial tobacco-free grounds for your mental health and substance use disorder program.

Myth	Facts
"Clients will go elsewhere if we go tobacco-free."	<ul style="list-style-type: none"> There is a growing movement within mental health and substance use disorder (SUD) treatment programs to address the whole health of staff and clients by making their facilities tobacco-free. Data and experience show that census numbers do not drop when a site goes tobacco-free. In fact, clients and staff have used the implementation of a tobacco-free policy as a motivation to quit smoking themselves.
"There is no benefit for our organization to address tobacco right now."	<ul style="list-style-type: none"> Adopting tobacco-free grounds policies for staff and clients increases their chance of quitting tobacco use, increases productivity, and saves your organization money. Tobacco-free grounds promote a cleaner and healthier environment for staff members and people that receive services at your organization. Tobacco-free policies help clients integrate into other community tobacco-free spaces like housing, workplaces, and social gathering venues.
"As a staff person, smoking is the only thing that can help me cope with stressful work situations."	<ul style="list-style-type: none"> It's part of our job to model appropriate coping skills in our work environment and using tobacco is not a healthy coping skill. Positive coping mechanisms can include a walk break, meditation, or talking to a co-worker. Mental health improves after quitting smoking and anxiety, depression, and stress significantly decrease in those who stop using tobacco.

For mental health and substance use disorder professionals

Tobacco Treatment Help Your Clients Get Healthy

Myths and facts about offering commercial tobacco treatment as part of your mental health and substance use disorder program.

Myth	Facts
"If someone is struggling with mental health issues and substance use disorder, quitting tobacco is the least of their worries."	<ul style="list-style-type: none"> Addressing tobacco at the same time as other substances actually improves the odds of success. People who receive tobacco treatment while engaged in substance use treatment have a 25% greater likelihood of long-term recovery from alcohol and other drugs. Tobacco-mental illnesses often more than eight times as many fees as alcohol, drug, and legal drug use combined. Treating tobacco dependence not only helps improve overall health but mental health as well. When people quit tobacco, their mental health improves, including significant decreases in anxiety, depression, and stress. Tobacco dependence is in the DSM-5.
"Our clients don't want to quit."	<ul style="list-style-type: none"> Most clients do want to quit, and you can provide them the resources they need to be successful in leaving their tobacco addiction. 89% of people seeking services who smoke said they want staff to ask them about quitting. 82% of people felt that avoiding tobacco was very important for them to be healthy. * These savings data in left are consistent with savings in other states.
"People with mental health or substance use disorders can't quit smoking on top of everything else they are going through."	<ul style="list-style-type: none"> Yes they can! People can and do address smoking in addition to other treatment efforts. They may need more intensive support and a longer period of treatment. Quitting smoking can help participants remain abstinent from other substances and improve mental health.