Tobacco Cessation from Evidence to Practice

December 7, 2023

NATIONAL HEALTH CARE for the HOMELESS COUNCIL

NCHPH
National Center for Health in Public Housing

Housekeeping

- Please remember to mute yourselves if you are not speaking

- Engage with us in the chat
  - Name, organization, where are you joining us from

- This webinar is being recorded and materials will be emailed to all registrants

- We would love to hear your feedback – please fill out our brief evaluation at the end of the session!

HRSA Disclaimer

Hosts

Alaina Boyer, PhD
Senior Director of Programs

Grounded in human rights and social justice, the National Health Care for the Homeless Council's mission is to build an equitable, high-quality health care system through training, research, and advocacy in the movement to end homelessness.

Jose Leon, MD
Chief Medical Officer

The mission of the National Center for Health in Public Housing (NCHPH) is to strengthen the capacity of federally funded Public Housing Primary Care (PHPC) health centers and other health center grantees by providing training and a range of technical assistance.

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Guest Speaker: Dr. Maya Vijayaraghavan

Associate Professor of Medicine
Director, Smoking Cessation Leadership Center
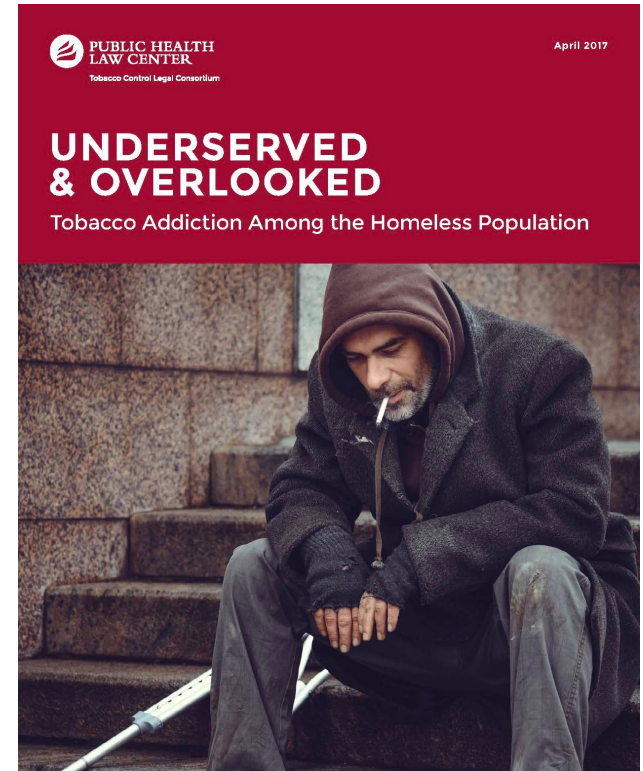University of California, San Francisco

Objectives

- Describe the epidemiology of tobacco use behaviors
- Describe tobacco-related inequities
- Discuss examples of culturally-relevant tobacco use interventions

Approaches to treating tobacco use among people experiencing homelessness

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Staggering rates of tobacco use

- Prevalence 70% compared to 11% nationally
- Homelessness is an independent risk factor for tobacco use
- Smoking rates are higher among
  - People with mental illness
  - Justice-involved populations
  - Identify as sexual and gender minority

PUBLIC HEALTH LAW CENTER
Tobacco Control Legal Consortium

April 2017

UNDERSERVED & OVERLOOKED
Tobacco Addiction Among the Homeless Population

Kerry Cork, Tobacco Control Legal Consortium; Kushel at al., CASPEH study

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Epidemiology of tobacco use
Approaches to treating tobacco use among people experiencing homelessness

- Initiate smoking before age 16
- Average daily cigarette consumption 10 to 13 cpd
- Majority are daily smokers
- More than one-third smoke within 30 minutes of waking
- High risk smoking practices – sharing cigarettes, discarded cigarette butts
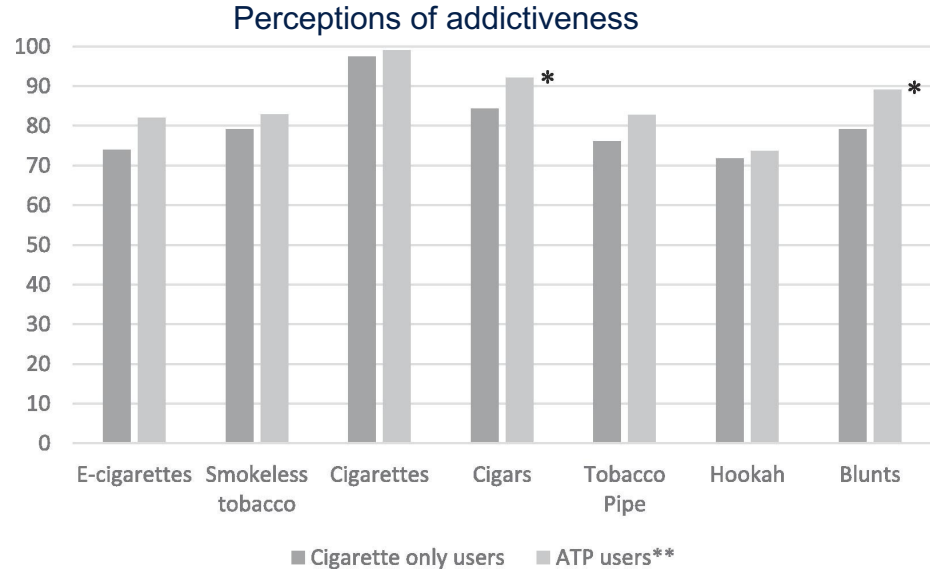

Vijayaraghavan et al., 2013; De Los Reyes et al., 2022

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Epidemiology of tobacco use

Concurrent tobacco product use

- **>50% use other forms of tobacco**
  - Cigars/little cigars and e-cigarettes most common
- **Motivations for use include**
  - Lower cost
  - Quitting smoking
  - Less harmful to health
  - Using it in places where cigarettes are not allowed

Perceptions of addictiveness

Neisler et al, 2018; Alizaga et al, 2020

Approaches to treating tobacco use among people experiencing homelessness

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Epidemiology of tobacco use

Concurrent tobacco product use

- Younger
- Male
- More cigarettes per day
- Higher stress levels
- Higher levels of substance use
- More homelessness episodes
- Higher perceived risk of smoking
- More attempts to quit

Perceptions of harmfulness
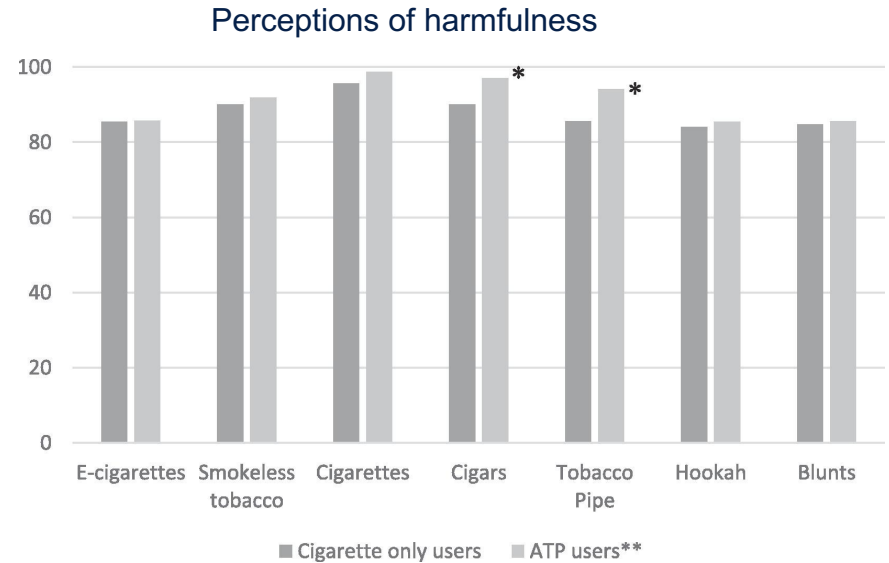
Neisler et al, 2018; Alizaga et al, 2020; Baggett et al., 2016

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Tobacco-related inequities: Health Impact

- 3 to 5 times more likely to die prematurely

- Smoking-caused illness are the leading preventable cause of morbidity and mortality

  - Substance use: Tobacco use comprises half of the substance use related deaths

  - Cancers: Bronchus, Lung and Trachea are the most common cancers

  - Cardiovascular disease

- Among those < 45 years, incidence of tobacco-related conditions is 3 times higher

Baggett et al.,2013; Baggett et al., 2015

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Tobacco-related inequities: Economic impact

- **In a study of adults experiencing homelessness in Dallas, TX**
  - 55.3% spent >$20/week on cigarettes
  - 31% of their yearly income on cigarettes
- **Formerly homeless adults in supportive housing in San Francisco, CA**
  - 12% to 30% of their monthly income on tobacco
  - Interfered with ability to pay rent

Vijayaraghavan et al., 2019; Petersen AB et al., 2020

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Tobacco-related inequities: Structural factors

Tobacco Industry Targeting

RJ Reynolds targeting PEH, recognizing their vulnerability to
nicotine dependence

Apollonio et al., 2005

Tobacco-related inequities: Structural Factors

Structural and systemic racism and discrimination

- Racism and discrimination associated with high levels of stress and tobacco use
- Systemic targeting of racial/ethnic minority groups by the industry
  - Price promotions, sponsorships, give aways, corporate responsibility
  - High tobacco retail density
  - Marketing of flavored tobacco and menthol

Miller et al., 2023; Apollonio et al., 2005; Yerger et al, 2007; Pearson et al., 2021

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Tobacco-related inequities: Structural factors

High rates of trauma

- >80% have had lifetime experiences of trauma
- Adverse childhood experiences doubles risk of nicotine dependence
- Trauma linked with PTSD, high-risk behaviors
- Lack of opportunities limit structures for coping and recovery

The Pair of ACEs
Adverse Childhood Experiences

Maternal Depression
Emotional & Sexual Abuse
Substance Abuse
Domestic Violence
Physical & Emotional Neglect
Divorce
Mental Illness
Incarceration
Homelessness

Adverse Community Environments

Poverty
Discrimination
Community Disruption
Lack of Opportunity, Economic Mobility & Social Capital
Poor Housing Quality & Affordability
Violence

Milken Institute School of Public Health
THE GEORGE WASHINGTON UNIVERSITY

Ellis W., Dietz W. BCR Framework *Academic Peds* (2017)

Building Community Resilience

Estey D et al., 2021; Roberts et al., 2008; Ellis et al., 2017

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Tobacco-related inequities: Behavioral factors

Mental illness and substance use disorders

- **Stress relief**
- **Treatment for anxiety**
- **Co-occurring substance use**
- **High rates of PTSD**
- **Major depressive disorder**
- **Serious mental illness**

"The one element let's say, one element is like, you know, the cigarette would be the land and then the alcohol would be like the ocean, you know, like the other element, and they go, they go great together, you know, like one after the other. **So when the opiates are wearing off a cigarette will bring the opiates back a little bit.** Yeah, the alcohol was a little different, it was, yeah, **with alcohol it just seems, it just seemed right, it just seems to go hand-in-hand**. With opiates it was more like a tool."

Miller et al., 2023

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Tobacco-related inequities: Social norms

Normative experience of smoking

- Forced quit attempts while incarcerated and resuming smoking after release

"**I got out of prison, and I wasn't smokin' when I got out**. And so when I got out…a lot of homeless people on the street, and I was homeless, too, …what I did, **I went to the homeless shelters, and started – everybody around there smokin**', smokin'. And I didn't like the smell. But one day I was at this homeless camp and said, give me a pack of cigarettes. That's how I started again. Boredom… And maybe the second-hand smoke ...dragged me again, and so bein' around the smoke, and I just asked for a puff and it started in."

Petersen AB et al., 2020

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Tobacco-related inequities: Organizational and systems-level factors

Limited opportunities for services

- Limited access to cessation services

- Limited access to smoke-free housing

- Myths around tobacco use in this community

  - Not interested in quitting

  - Quitting smoking is a barrier to substance use recovery

- Limited access to integrated tobacco and substance use services

- Interventions need to consider intersectionality

Porter et al., 2011; Prochaska et al., 2017

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Viewing tobacco from an intersectionality lens

Adapted from Sylvia Duckworth's Wheel of Power/Privilege.
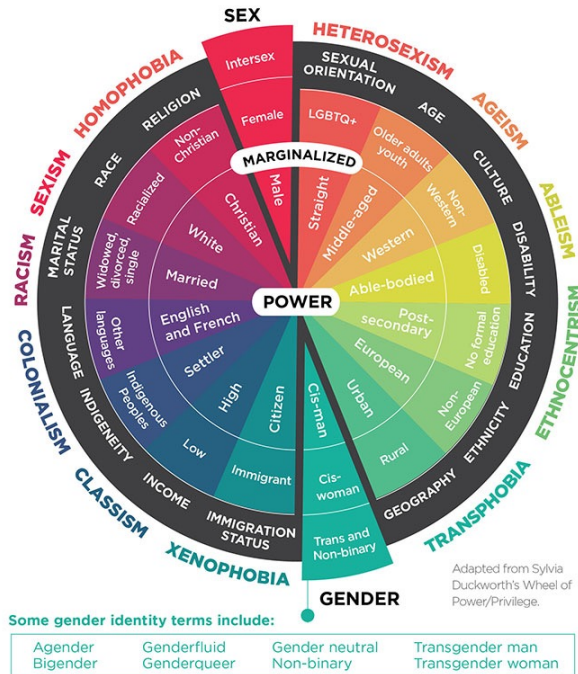
- Intersectionality seeks to understand tobacco-related inequities from the perspective of social identities
  - Race, gender, SES, sexual orientation, nationality, religion
  - Interact together are associated with power and privilege
  - Create unique influencers of tobacco use and cessation
  - "Understand how multiple marginalized social statuses interact at the micro level of individuals' lived experiences to create structures of power and oppression"

Fagan et al., 2022; Canadian Institute of Health Research; Sheffer et al., 2022; Alvidrez et al., 2022

Viewing tobacco from an intersectionality lens

Adapted from Sylvia Duckworth's Wheel of Power/Privilege.
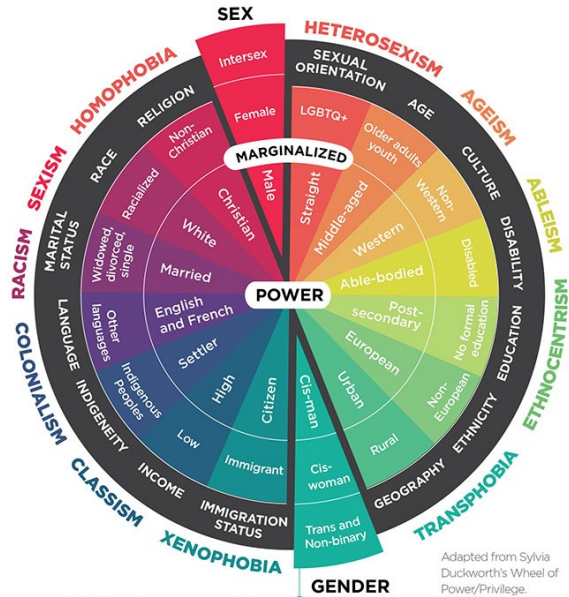
Some gender identity terms include:

Agender	Genderfluid	Gender neutral	Transgender man
Bigender	Genderqueer	Non-binary	Transgender woman

- Helps us move from the biomedical and the individual level determinants

- Help us understand how structures of power such as systemic racism may influence health behaviors

- Community-based approaches and mixed methods

- To develop interventions, we need to recognize that there is no one size fits all interventions

Fagan et al., 2022; Canadian Institute of Health Research; Sheffer et al., 2022

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Despite barriers to quitting, people experiencing homelessness are interested in quitting

- 40%-50% make a quit attempt in the past year

- Most quit attempts are unassisted

- Quit ratio 9% compared to >60% in the general population

- Spontaneous yearly quit rate without treatment is 4%-6%

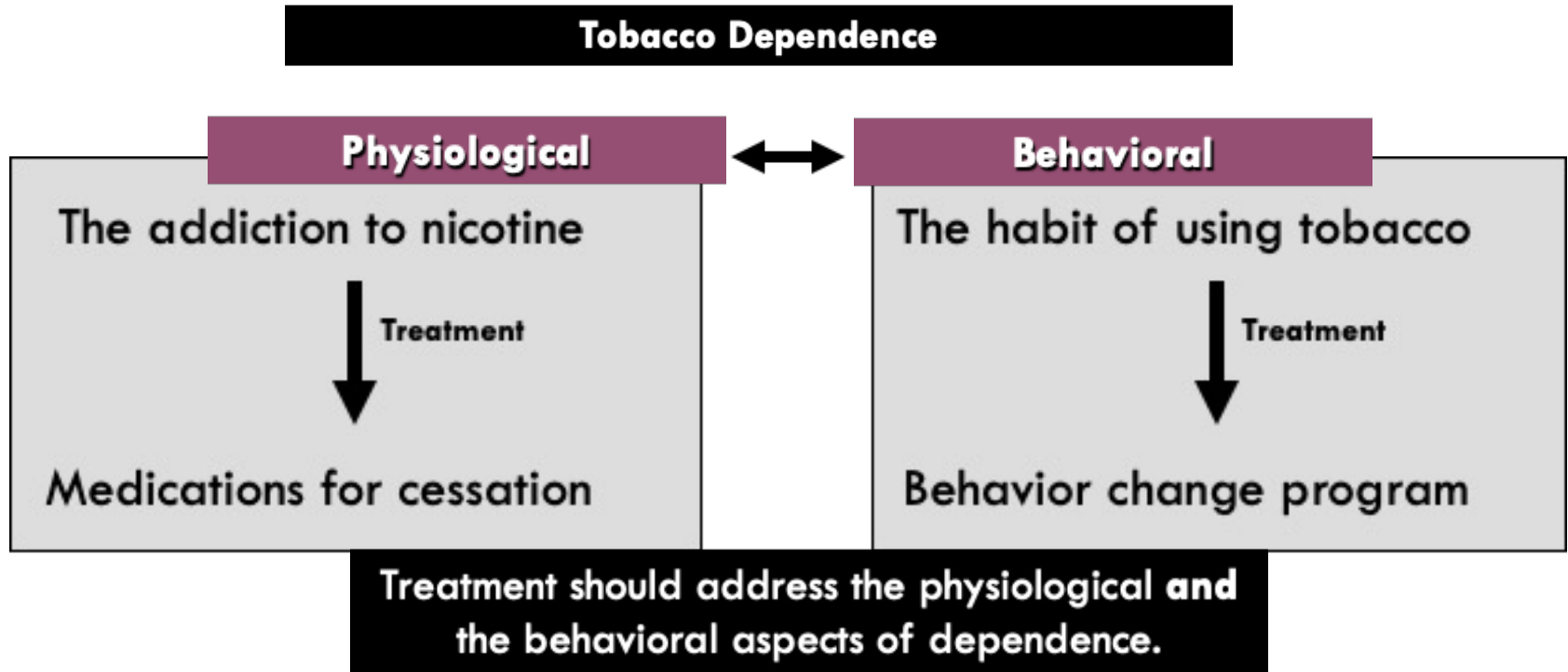- Urgent need for cessation treatment in service settings

Vijayaraghavan et al., 2016

Approaches to treating tobacco use among people experiencing homelessness

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Factors associated with quitting and quit attempts

- **Staying in shelters or transitional housing with smoke-free policies**

- **Quitting smoking does not interfere with quitting other substances**

- **Participating in a smoking cessation program in shelters**

Reitzel et al., 2014; Hartman-Filson et al., 2020

Approaches to treating tobacco use among people experiencing homelessness

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Tobacco dependence

Tobacco Dependence

Physiological	Behavioral
The addiction to nicotine	The habit of using tobacco
↓ Treatment	↓ Treatment
Medications for cessation	Behavior change program

Treatment should address the physiological **and** the behavioral aspects of dependence.

Rxforchage.edu

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Guideline recommended smoking cessation treatment

- **Counseling using cognitive behavioral therapy or motivational interviewing or other approaches**

- **Pharmacotherapy to address physiologic dependence**
  - Nicotine replacement therapy
  - Bupropion
  - Varenicline

- **Combination treatment is preferred over monotherapy**

- **Extended duration of treatment preferred**

- **Medications to prime cessation attempts**

USPST 2021 guidelines

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Tobacco Cessation – Behavioral Intervention

The 5 As
to help patients quit

ASK about tobacco use
ADVISE to quit
ASSESS readiness to quit
ASSIST in the quit attempt
ARRANGE follow-up

Ask-Advise-Refer
to help patients quit

ASK about tobacco use
ADVISE to quit
REFER to outside help

Ask-Advise-Connect
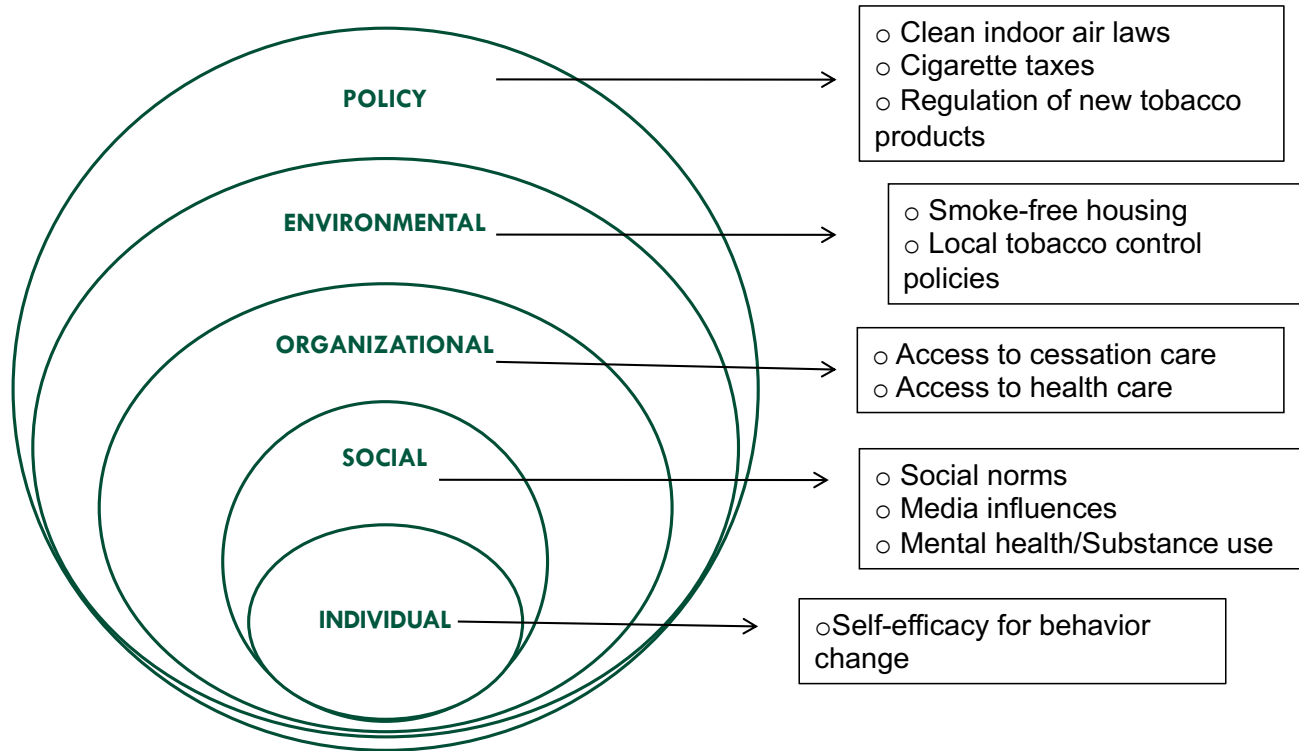to help patients quit

ASK about tobacco use
ADVISE to quit
CONNECT to resources

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How do we intervene?

- Biomedical framework: Guideline-recommended smoking cessation treatment is counseling and pharmacotherapy

Multi-level interventions- Social-Ecological Model

POLICY

○ Clean indoor air laws
○ Cigarette taxes
○ Regulation of new tobacco products

ENVIRONMENTAL

○ Smoke-free housing
○ Local tobacco control policies

ORGANIZATIONAL

○ Access to cessation care
○ Access to health care

SOCIAL

○ Social norms
○ Media influences
○ Mental health/Substance use

INDIVIDUAL

○ Self-efficacy for behavior change

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Culturally-relevant tobacco use screening and intervention considerations

- Strong support for interventions that provide guideline-recommended smoking cessation care

- Higher intensity or longer interventions may be better than brief interventions
  - Longer duration of the intervention
  - Higher intensity per visit (e.g., 1 hour vs. 15 minutes)

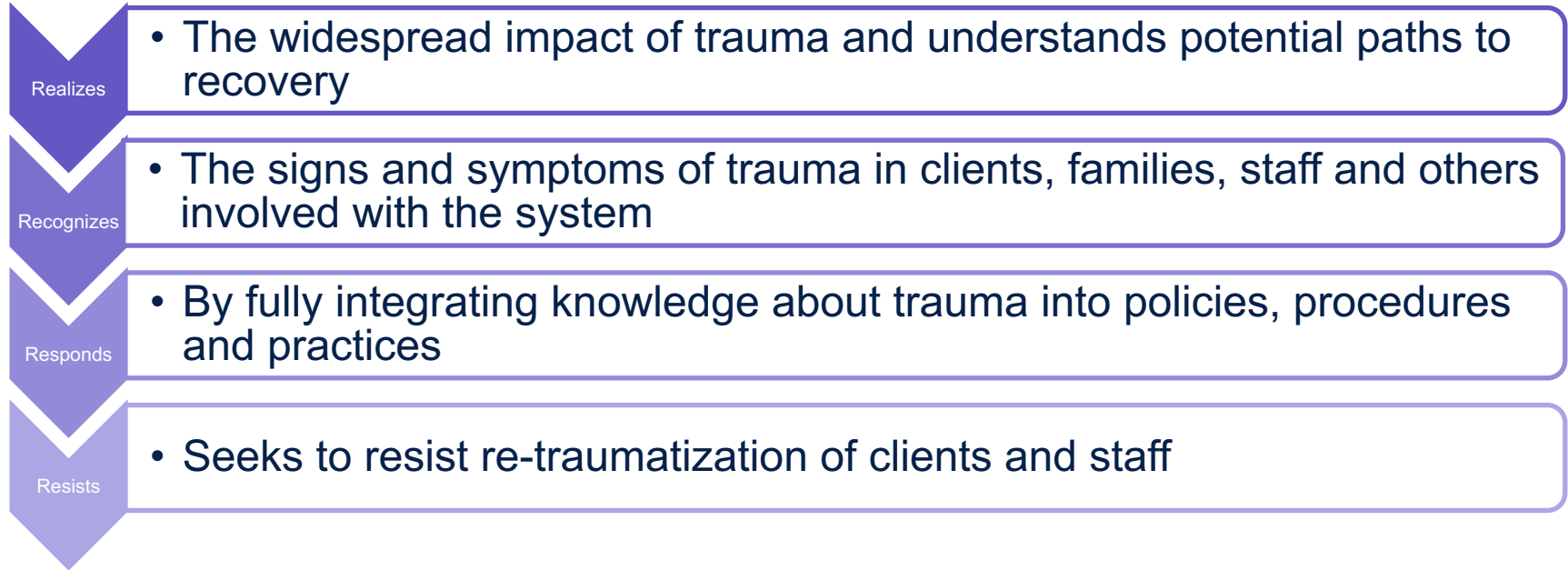- Interventions that also focus on substance use may be better than interventions that just focus on tobacco use

Vijayaraghavan et al, 2020

Culturally-relevant tobacco use screening and intervention considerations

Cochrane Library

- Contingency management interventions were found not to be effective overall

  - Limited by small sample size

  - Highest abstinence rates with this type of intervention

  - Holds promise for the future

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Culturally-relevant tobacco use screening and intervention considerations

Trauma-informed care

Realizes	• The widespread impact of trauma and understands potential paths to recovery
Recognizes	• The signs and symptoms of trauma in clients, families, staff and others involved with the system
Responds	• By fully integrating knowledge about trauma into policies, procedures and practices
Resists	• Seeks to resist re-traumatization of clients and staff

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What are some ways to introduce smoking cessation interventions in community-based sites

Pharmacy-linked cessation intervention

- Connecting shelter residents to a pharmacist to provide cessation counseling and free delivery of medications for 3 months

- Weekly follow-up for 3 months

- Measured quit attempts and consumption

- Funded by San Francisco Cancer Initiative

Hartman-Filson et al., 2020; De Los Reyes et al., 2023

Decline in cigarette consumption

Ave. number of cigarettes per day during previous week

>50% decline in cigarette consumption

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Quit attempts

Percentage reporting quit attempts during previous week
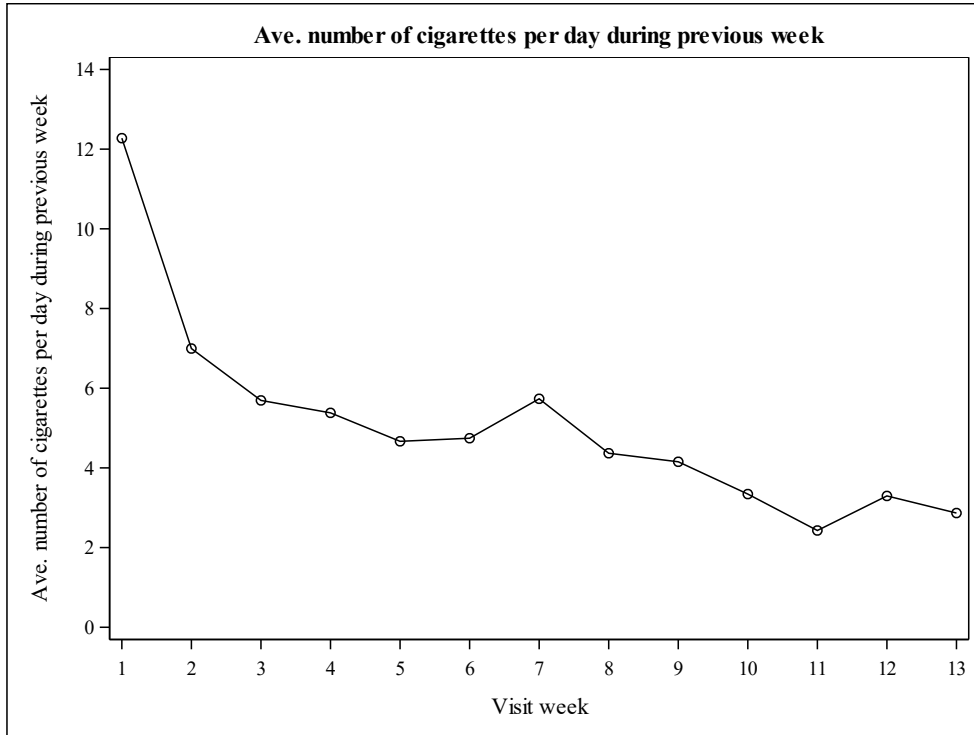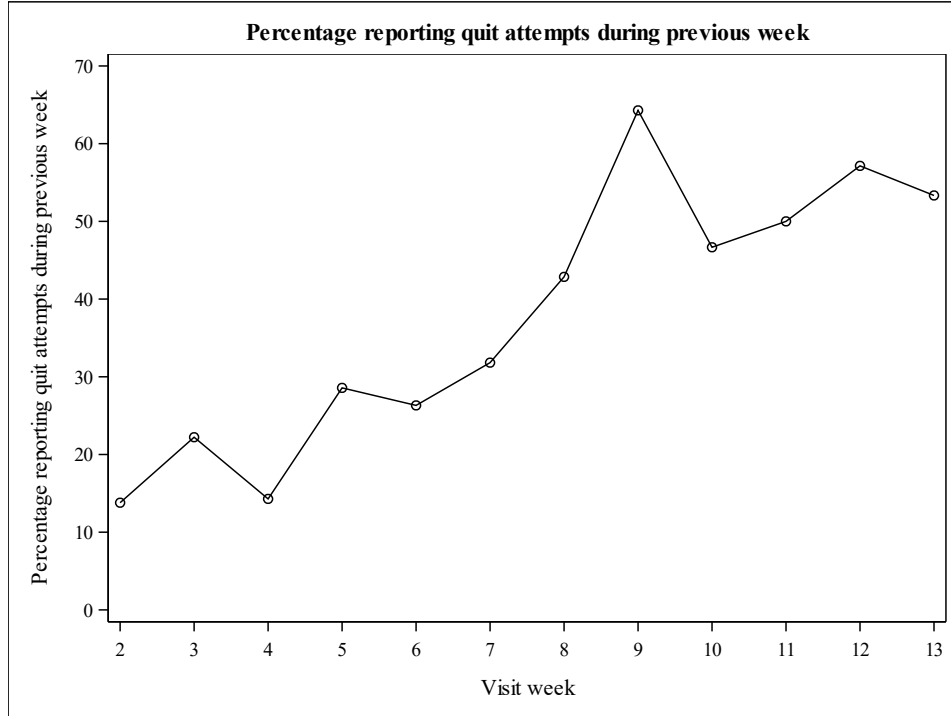
Average quit attempt rate is 33%

Contingency management study

Randomized controlled trial

- Objective: Increase long-term tobacco cessation by providing incentives for smoking cessation
- Eligibility criteria: Currently homeless and current smoker
- Receiving financial incentives for cessation
- Abstinence at 3,6, and 12-months
- 83 people recruited, follow-up for 1 year
- Funded by Tobacco Related Disease Research Program

Molina et al., 20232 Miller et al., 2022

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Intervention vs. Control

	Visit frequency	# of visits	Intervention group potential earnings	
			Total for time period	Average per visit
Week 1	Daily	7 ($13.00-16.00)	$101.50	$14.50
Weeks 2 – 4	Twice weekly	6 ($16.50-19.00)	$106.50	$17.75
Weeks 5 – 13	Weekly	9 ($19.50-23.50)	$193.50	$21.50
Weeks 14– 24	Monthly	3 ($24.00-25.00)	$73.50	$24.50
Total (6 months)		25	$475	

Control participants get a fixed $5.00 incentive for attending each visit

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Abstinence Outcomes at 6-months

Total no. of negative CO samples/total no. of possible visits (missing=not abstinent)

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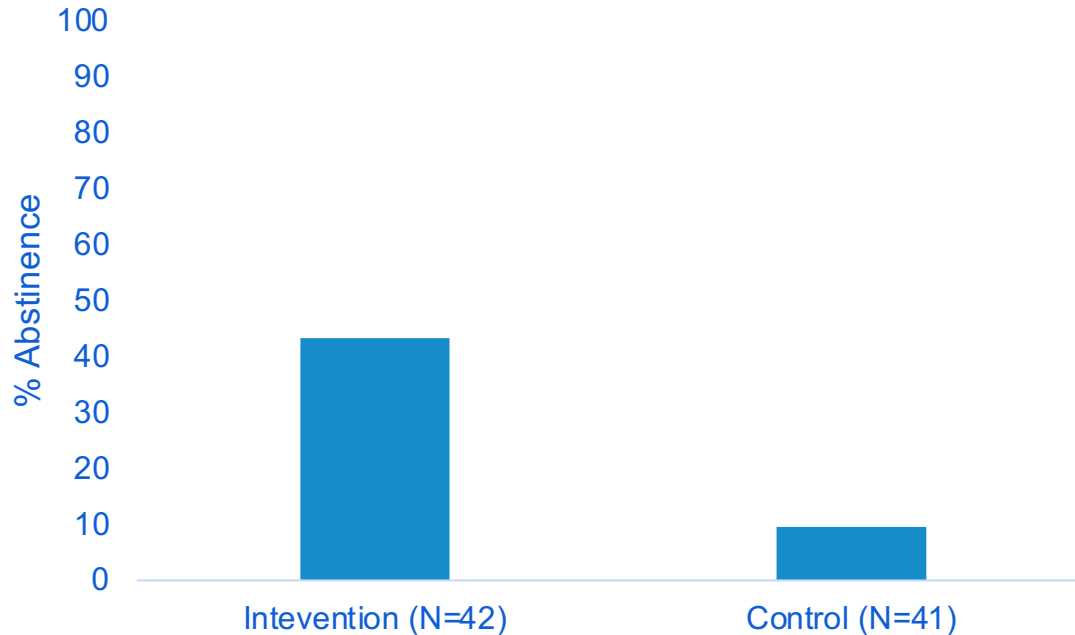
Smoke-free home intervention

Wait-list controlled cluster-randomized controlled trial

- Among formerly homeless adults living in permanent supportive housing
  - Encouraging voluntary adoption of smokefree homes
- 38 sites
- 400 residents and 100 staff
- Resident and staff counseling

Interventions

Vijayaraghavan & King 2020; Odes et al, 2022

Integrating interventions into services sites

- Place-based interventions integrated into service models of shelters and housing

- Offered for extended duration

- Address multilevel influences of tobacco use

  - Stress, trauma and addiction

  - Environmental influences – smokefree housing

  - Social influences

- Engaging people experiencing homelessness as peers

- Incentivizing engagement and behavior change

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Take home message

- Ample opportunities in primary care and behavioral health to address tobacco use

- Ask about tobacco use and treat tobacco use at every encounter

- Saves lives and improves financial stability

- Help reverse the structural inequities that have led to high rates among people experiencing homelessness

Approaches to treating tobacco use among people experiencing homelessness

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