

Welcome

Please stand by. We will begin shortly.

Opportunities for Interventions:
Tobacco use among populations experiencing
homelessness

Tuesday, April 26, 2016. 1pm ET (120 minutes)



SMOKING CESSATION
LEADERSHIP CENTER

Disclosure

Dr. Maya Vijayaraghavan and Christine Cheng have disclosed no financial interest/arrangement or affiliation with any commercial companies who have provided products or services relating to their presentation or commercial support for this continuing medical education activity.

Moderator



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INSPIRING TOBACCO-FREE LIVES



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Today's Speaker



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OPPORTUNITIES FOR INTERVENTIONS – TOBACCO USE AMONG POPULATIONS EXPERIENCING HOMELESSNESS

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DISCLOSURES



None

OBJECTIVES



- Understand the epidemiology of tobacco use among populations experiencing homelessness
- Describe current interventions and policies that address tobacco use among homeless adults and youth
- Identify opportunities for interventions in clinical and non-clinical settings

HIGH PREVALENCE OF TOBACCO USE AMONG POPULATIONS EXPERIENCING HOMELESSNESS

- Prevalence of smoking in the general population is 16.8%
- Certain populations have very high prevalence of smoking
- Prevalence of smoking among homeless populations is between 60% and 80%
- Targeted by the tobacco industry
- Homeless adults spend a third of their monthly income on tobacco
- Tobacco control in homeless populations is a social justice issue

MORTALITY AMONG HOMELESS ADULTS

Homelessness cuts life short.



LIFE EXPECTANCY AT AGE 25:

AVERAGE CANADIAN MAN: 77 YEARS

AVERAGE CANADIAN MAN WHO LIVES IN A SHELTER: 64 YEARS



Source: Hwang SW, Wilkins R, Tjepkema M, O'Campo PJ, Dunn JR. Mortality among residents of shelters, rooming houses, and hotels in Canada: 11 year follow-up study. *BMJ*. 2009 Oct 26;339:b4036. Centre for Research on Inner City Health, St. Michael's Hospital.

Homeless adults are 2 to 5 times more likely to die prematurely

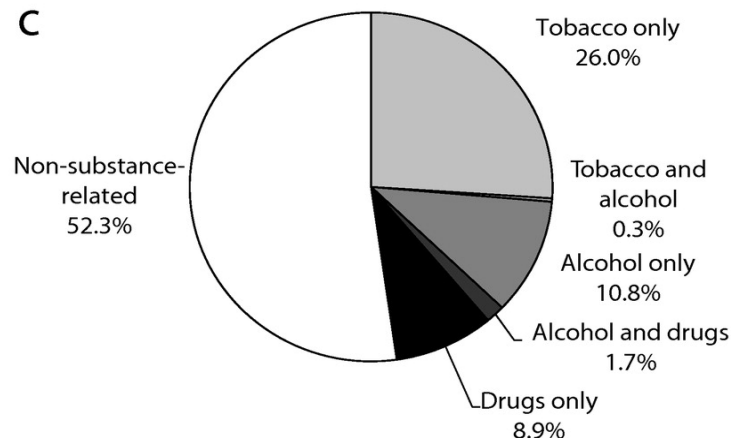
CAUSES OF MORTALITY – SMOKING RELATED DISEASES

☐ Substance abuse

☐ Cancers

- Cancers of the trachea, bronchus and lung comprise over a third of the malignancies

☐ Cardiovascular disease



Cancer and heart disease are the leading causes of death among 45–64 year old homeless adults

DEFINITION OF HOMELESSNESS



THE HOMELESSNESS EMERGENCY AND RAPID TRANSITION TO HOUSING ACT DEFINES HOMELESSNESS....

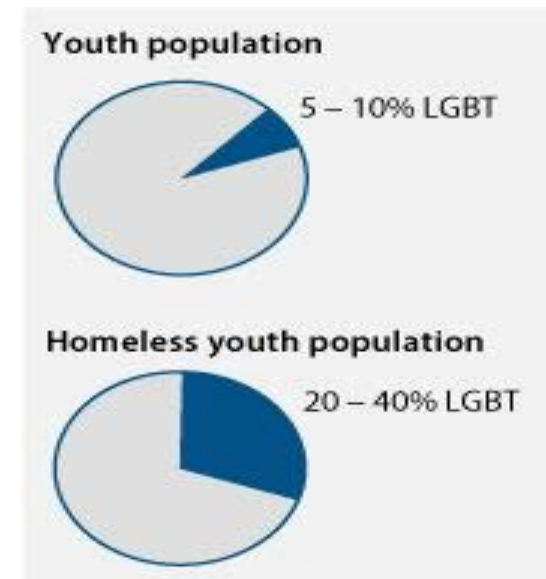
- Individuals who lack a fixed, regular, adequate nighttime residence, including those living in emergency shelters
- Individuals and families who are at imminent risk of losing their primary nighttime residence
- Unaccompanied youth (12-25 years) and families with children and youth who meet other definitions of homelessness
- Individuals or families who are fleeing domestic violence, dating violence, sexual violence

PATTERNS OF HOMELESSNESS

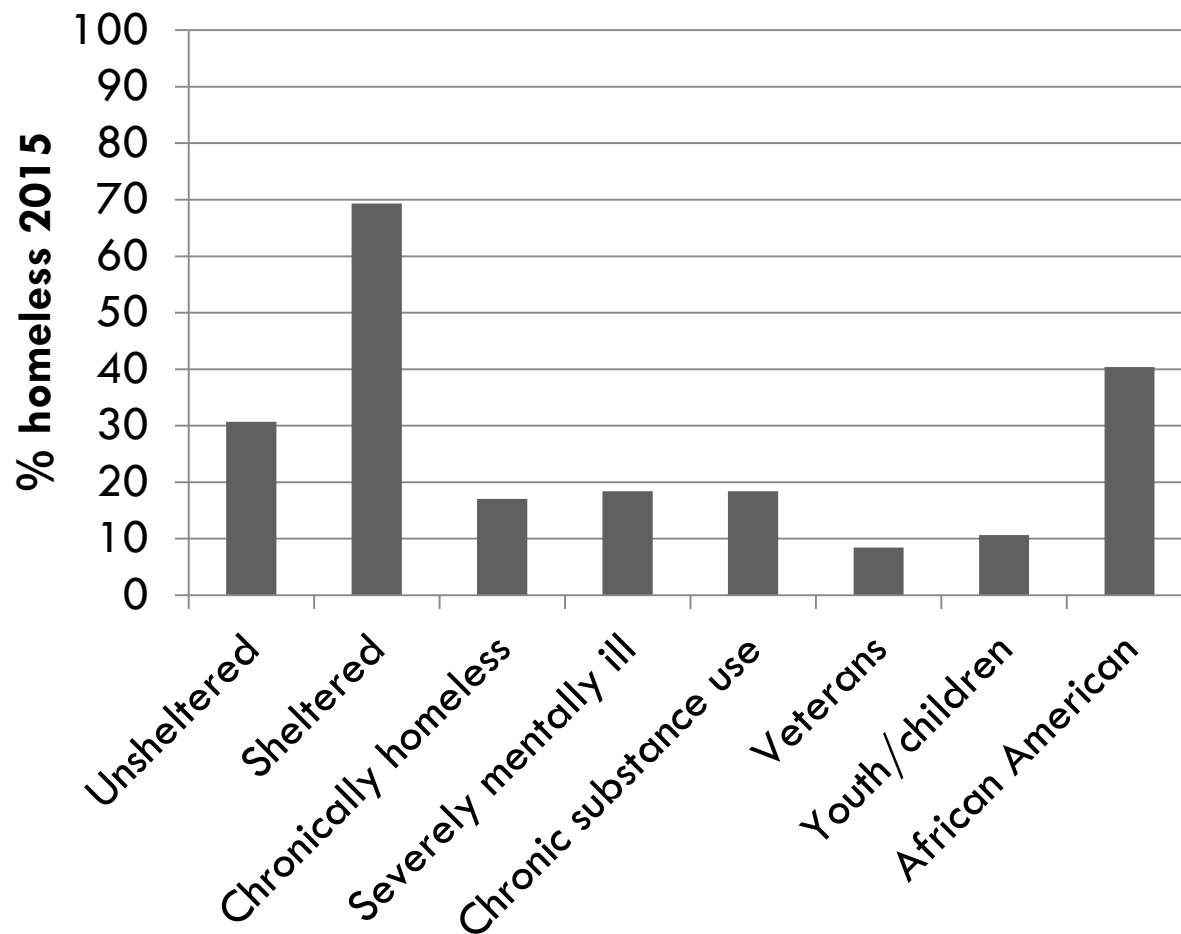
- Chronic homelessness
 - ▣ Continuously homeless over the past year
 - ▣ Having 4 or more episodes off and on in the past 2 years
- Intermittent homelessness
 - ▣ Cycle in and out of homelessness
- Crisis or transitional homelessness
 - ▣ Experience homelessness once or twice after an economic, political or personal crisis

CAUSES OF HOMELESSNESS – ADULTS and YOUTH

- Individual factors
 - ▣ Poverty
 - ▣ Early childhood adverse experiences: victimization, child welfare system
 - ▣ Severe mental illness
 - ▣ Substance abuse problems
 - ▣ History of violence
 - ▣ Criminal justice involvement
 - ▣ Gender and sexual minority
- Structural factors
 - ▣ Lack of affordable housing
 - ▣ Lack of employment opportunities
 - ▣ Income inequality



SUBPOPULATIONS OF HOMELESS ADULTS AND YOUTH



- Aging homeless population
 - Median age is 50 years

SUMMARY



- The homeless population is comprised of diverse subpopulations
- Risk factors for homelessness are also risk factors for tobacco use
- These groups have been systematically neglected in tobacco control efforts
- Disparities in tobacco related morbidity and mortality is one of the biggest public health challenges of our time

EPIDEMIOLOGY OF TOBACCO USE AND CESSATION

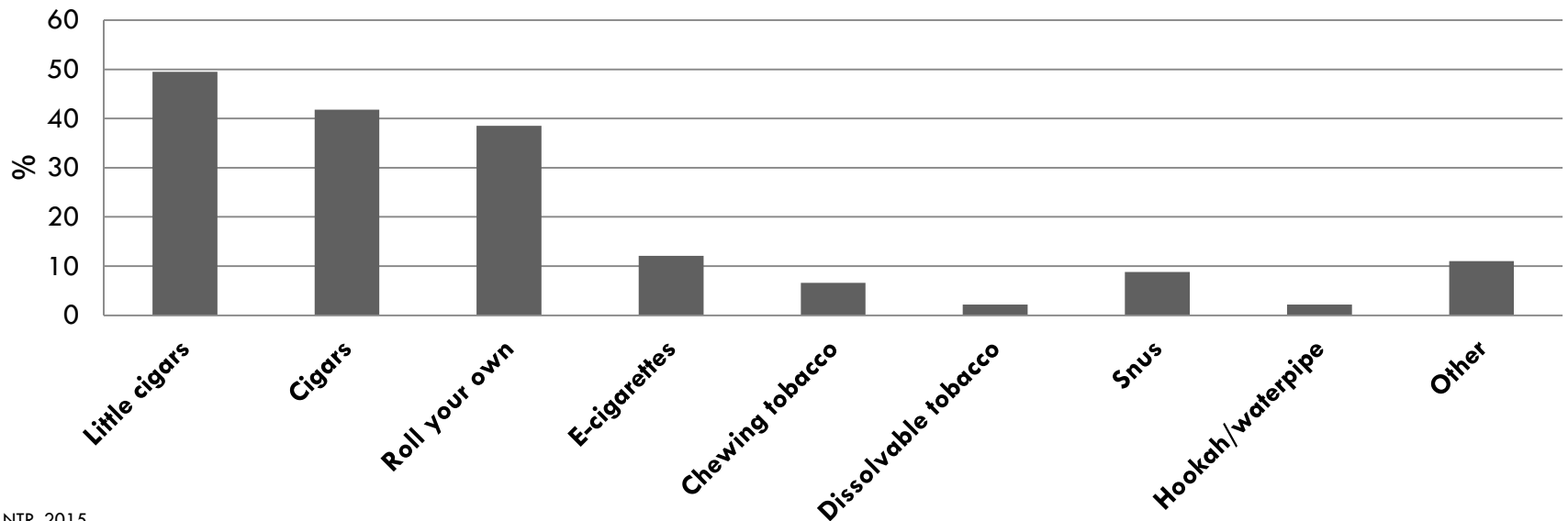


PATTERNS OF TOBACCO USE AMONG HOMELESS ADULTS

- Initiate smoking at younger ages – average age 15
- Daily cigarette consumption
 - 10 to 13 cigarettes per day
- Half are daily, heavy smokers (> 10 cigarettes per day)
- More likely to smoke within 30 minutes of waking
- More likely to rely on high-risk smoking practices
 - Sharing cigarettes
 - Smoking discarded cigarette butts or filters

ALTERNATIVE TOBACCO PRODUCT USE IS COMMON

- In a sample of sheltered homeless English speaking current smokers in Dallas, Texas (N=178)
 - ▣ Data collected in August 2013
 - ▣ Average age 46 years
 - ▣ 51% had used other tobacco in the past 30 days



PERCEPTIONS OF E-CIGARETTE USE AMONG HOMELESS ADULTS

- In 1 study among sheltered adults in Dallas, TX:
 - ▣ E-cigarette use was less common
 - ▣ Associated with little perceived harm
 - ▣ Used to cut down or quit cigarette smoking
- In 2 independent studies of sheltered homeless adults in San Diego, CA:
 - ▣ Data collected in 2013-2014
 - ▣ More than half reported interest in using electronic cigarettes
 - ▣ Perception that it is safe to use indoors
 - ▣ Smoking cessation aid
 - ▣ Flavors/novelty

QUIT RATES LOWER THAN THE GENERAL POPULATION

- Homeless adults are interested in quitting smoking
- Make quit attempts at the same rate as the general population
 - 40%-50% attempt to quit smoking in the past year
- Less successful at quitting smoking
 - Quit ratio (former/ever smoker) 9% to 13% compared to 51%
- The majority of quit attempts are unassisted

CORRELATES OF CESSATION BEHAVIORS AMONG HOMELESS ADULTS

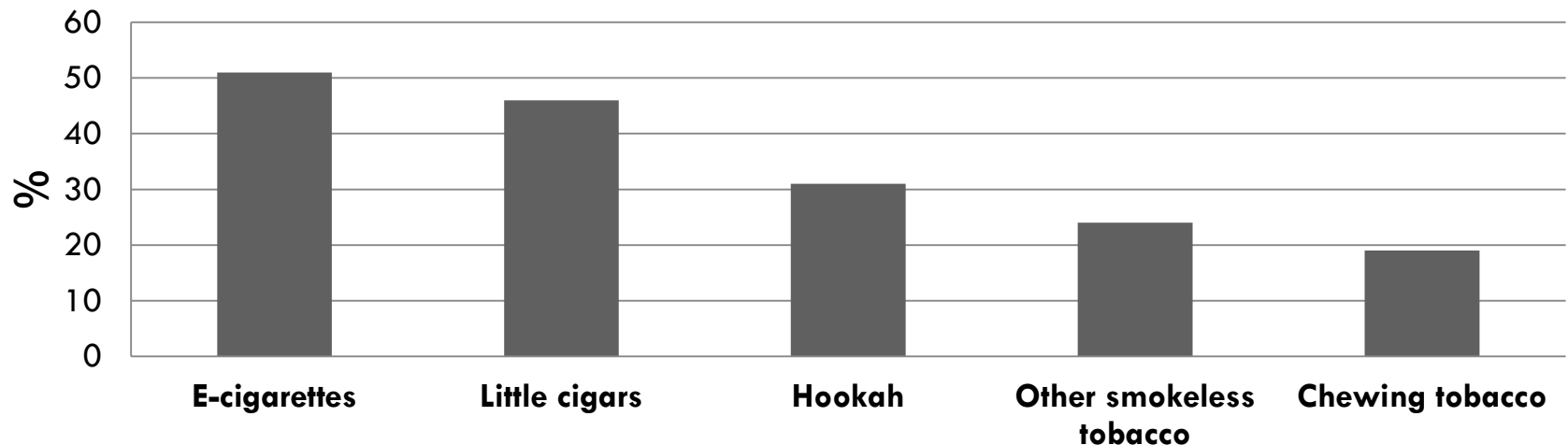
- Nicotine dependence
 - ▣ High nicotine dependence associated with decreased quit attempts
- Quit attempts
 - ▣ Previous quit attempts associated with subsequent quit attempts
- Social network
 - ▣ Knowing quitters associated with quit attempts
- Residential history
 - ▣ Time spent in shelters (vs. outside) associated with quit attempts
 - ▣ Proximity to shelters during the week post quit attempt associated with greater risk of relapse
- Substance abuse
 - ▣ Substance use associated with cigarette smoking, but not with quit attempts
 - ▣ Cigarette smoking cessation associated with decreased alcohol consumption

70% of HOMELESS YOUTH SMOKE

- Probability-based, community-recruited sample of 292 homeless youth ever smokers in Los Angeles, California
- Data collected in 2013
- Most common high risk smoking practices in the past 30 days:
 - Sharing cigarettes – 97%
 - Smoking discarded cigarette butts – 73%
 - Smoking discarded cigarette filters – 29%

ALTERNATIVE TOBACCO PRODUCT USE AMONG HOMELESS YOUTH

- 72% had used some other form of tobacco in the past 30 days



- E-cigarettes was more common among those who slept outdoors
- Chewing tobacco or snuff was more common among males
- Little cigars was more common among African Americans

PERCEPTIONS OF E-CIGARETTE USE AMONG HOMELESS YOUTH

- Among 83 youth current smokers who had ever tried e-cigarettes:
 - ▣ About half viewed e-cigarette as less harmful
 - ▣ The most common reasons for use:
 - “To avoid having to go out to smoke”
 - “To deal with situations or places when I cannot smoke”

QUITTING AMONG HOMELESS YOUTH

- Two-thirds had made a quit attempt in the past year
 - ▣ Most quit attempts were unassisted
- Half were motivated to quit smoking in the next 30 days
- Motivation to quit was higher among:
 - ▣ Older youth
 - ▣ African Americans
 - ▣ Youth who were asked about smoking by their health care providers
 - ▣ Youth who were not sleeping outdoors
- Other tobacco use was associated with decreased motivation to quit smoking in the next 30 days

SUMMARY



- High level of interest in quitting among homeless adults and youth
- The vast majority of quit attempts are unassisted
- Quit rates significantly lower
- Increasing access to cessation treatment may increase efficacy of quit attempts

INTERVENTIONS AND POLICIES FOR TOBACCO USE





TOBACCO CESSATION TRIALS

TOBACCO DEPENDENCE TREATMENT

- Smoking cessation counseling
- Pharmacotherapy:
 - ▣ Nicotine replacement therapy
 - ▣ Wellbutrin
 - ▣ Varenicline
- Combined counseling and pharmacotherapy more effective than either alone

ENGAGING HOMELESS ADULTS IN CESSATION TRIALS

- 6 studies have demonstrated the feasibility of engaging homeless adults in cessation trials
- Barriers to conducting studies with this population are recruitment and retention
 - ▣ Substance use
 - ▣ Male gender
 - ▣ Irregular use of health services
 - ▣ Poor physical and mental health
 - ▣ High stress

ENGAGING HOMELESS ADULTS IN CESSATION TRIALS

- Recent studies have demonstrated retention rates of 75%-80%
 - ▣ Conducting study visits at community-based sites
 - ▣ Flexible visit schedule
 - ▣ Use of community mobilizers to assist with recruitment
 - ▣ Providing multiple forms of contact including places that participants spent time
 - ▣ Scheduling weekly/monthly check in visits

ENGAGING HOMELESS ADULTS IN CESSATION TRIALS

□ Factors associated with enrollment and retention in a large randomized controlled trial of homeless adults:

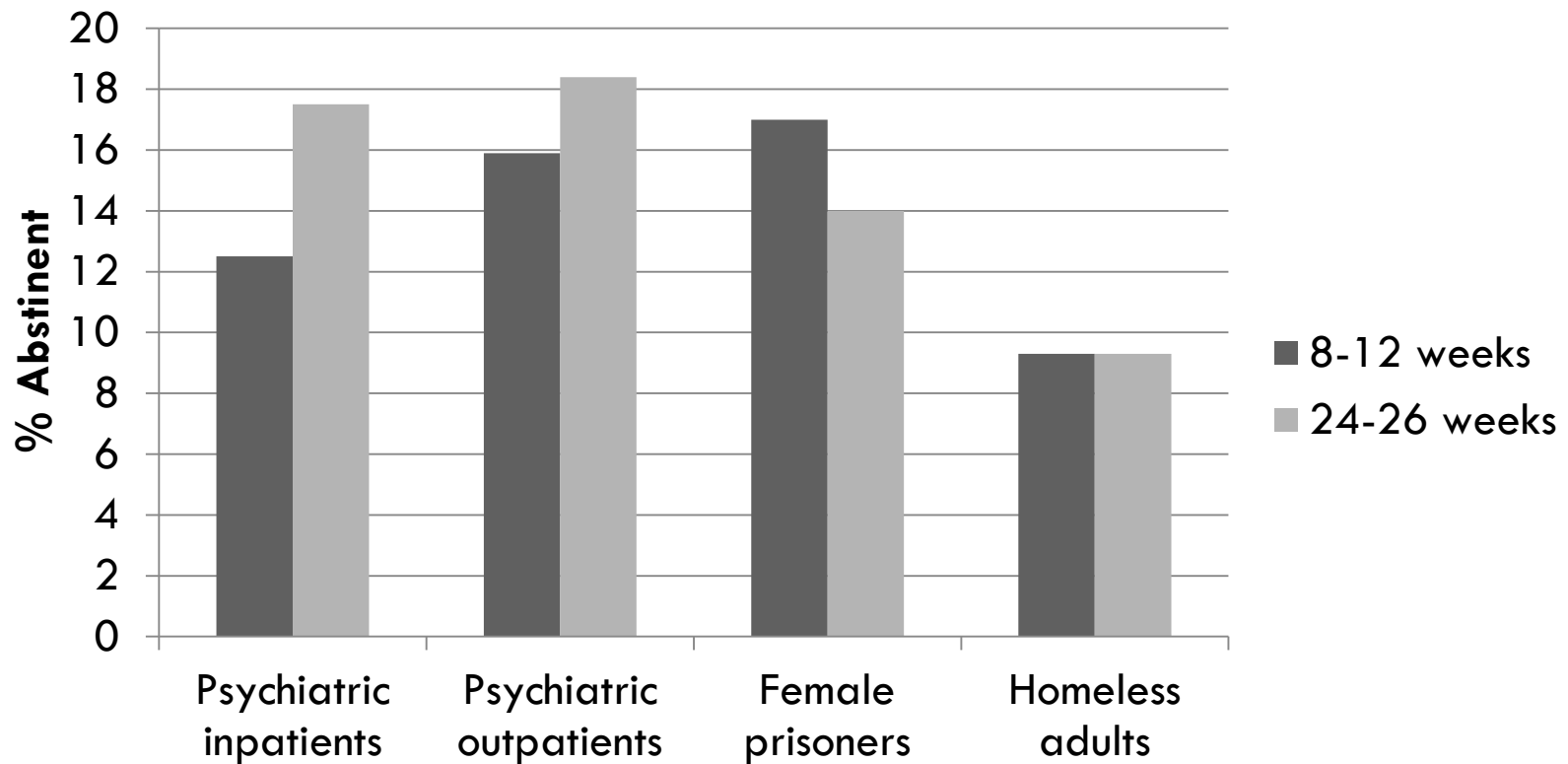
- Older age
 - Having healthcare coverage
 - Lower stress level
 - History of multiple homeless episodes
 - Alcohol and substance use
- Increased retention
- Decreased retention
-
- ```
graph LR; A[Older age] --- B{ }; B --- C[Increased retention]; D[Having healthcare coverage] --- B; E[Lower stress level] --- B; F[History of multiple homeless episodes] --- B; G[Alcohol and substance use] --> H[Decreased retention];
```

# QUIT RATES FROM CESSATION TRIALS AND INTERVENTIONS

| Study                    | Design                                              | Intervention                                                            | N         | Measures                                     | Outcomes                                              |
|--------------------------|-----------------------------------------------------|-------------------------------------------------------------------------|-----------|----------------------------------------------|-------------------------------------------------------|
| Okuyemi et al., 2006     | Uncontrolled, Randomized to 2 counseling conditions | 5 MI session (2 forms)+ 6 group counseling+ NRT (8 weeks)               | 46        | CO-verified<br>7-day PPA                     | 8 weeks: 13% vs. 17% (ns)<br>26 weeks: 8 vs. 17% (ns) |
| Shelley et al., 2010     | Uncontrolled                                        | 12 group counseling, NRT, patch or bupropion                            | 58        | CO-verified<br>7-day PPA                     | 12 weeks: 15%<br>24 weeks: 13%                        |
| Okuyemi et al., 2013     | 2-group RCT                                         | 6 week individual MI+ 8 weeks NRT vs. 1 session of brief advice to quit | 430       | CO-verified and salivary cotinine, 7-day PPA | 26 weeks: 9.3% vs. 5.6% (ns)                          |
| Segan et al., 2015       | Uncontrolled                                        | 12-week nurse-led counseling, meds., quit line referral                 | 49        | CO-verified<br>24 hr. PPA                    | 12 weeks: 6%<br>24 weeks: 4%                          |
| → Businelle et al., 2014 | Uncontrolled but with usual care comparison group   | Shelter based smoking cessation counseling + CM vs. shelter counseling  | 10 vs. 58 | CO-verified<br>7-day PPA                     | 4 weeks: 50% vs. 19%<br>8 weeks: 30% vs. 1.7%         |
| → Carpenter et al., 2015 | Uncontrolled (veterans)                             | 4 week mobile contingency mgmt., NRT+bupropion                          | 20        | CO-verified<br>7-day PPA                     | 4 weeks: 50%<br>12 weeks: 55%<br>24 weeks: 45%        |

# QUIT RATES – COMPARISON WITH OTHER HIGH RISK POPULATIONS

## Cessation trials with behavioral counseling and pharmacotherapy



**Quit rates slightly lower than other high risk populations**



**TOBACCO CESSATION CAPACITY  
BUILDING INTERVENTIONS IN HOMELESS  
SHELTERS**

# TOBACCO DEPENDENCE INTERVENTIONS IN HOMELESS SHELTERS

- Little data on the provision of cessation services in shelters
- Among 12 emergency and 40 transitional shelters in San Diego County (62% response rate):
  - ▣ One-third offered on-site resources for smoking cessation: classes, wellness initiative, public health nurse
- Among 23 shelters and day centers serving homeless youth in Los Angeles County:
  - ▣ Majority did not provide on-site cessation services

# BARRIERS TO CAPACITY BUILDING

- ❑ Lack of resources: money and staff to enforce smoke-free policies and implement cessation programs
- ❑ Staff training
- ❑ Staff smoking
- ❑ Perceptions among staff that smoking cessation is not a priority among clients

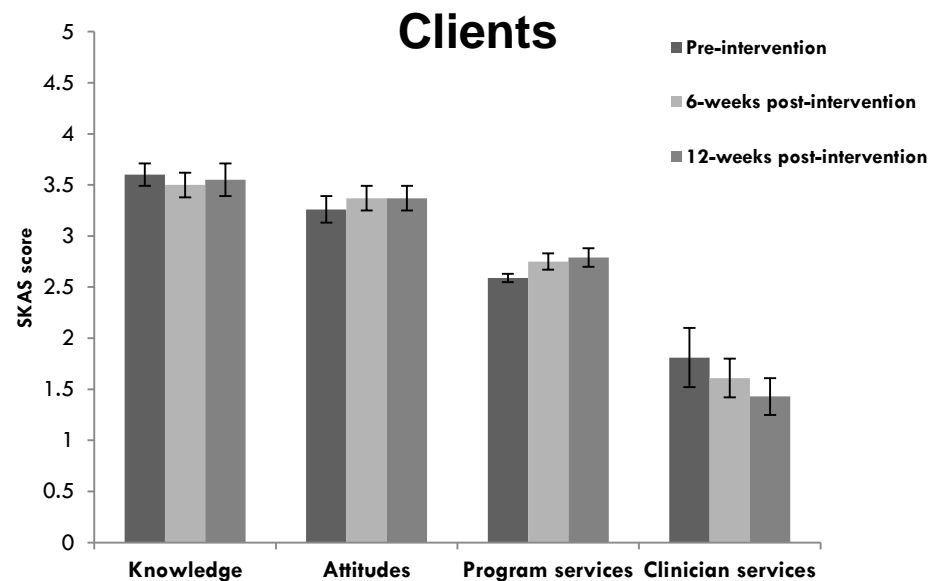
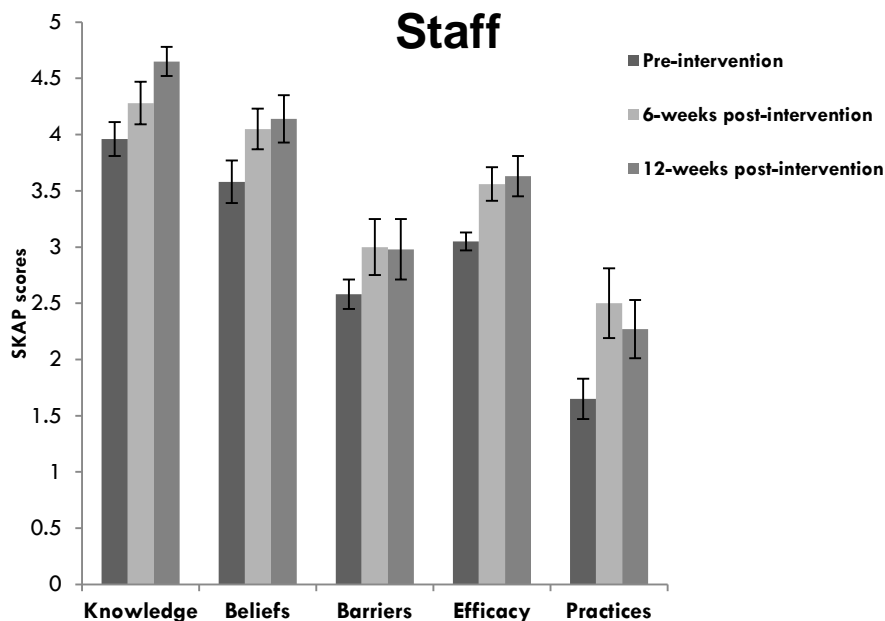


# TOBACCO CESSATION CAPACITY BUILDING IN SHELTERS – SUMMARY OF RECOMMENDATIONS

| <b>Smoke-free policies</b>                                                                                                                               |
|----------------------------------------------------------------------------------------------------------------------------------------------------------|
| <ul style="list-style-type: none"><li>• Restrict smoking outdoors to designated smoking zones at least 25 feet away from exits/entrances</li></ul>       |
| <ul style="list-style-type: none"><li>• Have separate smoking zones for staff and clients.</li></ul>                                                     |
| <ul style="list-style-type: none"><li>• Consider broader restrictions on outdoor smoking in the property</li></ul>                                       |
| <b>Smoking cessation programs</b>                                                                                                                        |
| <ul style="list-style-type: none"><li>• Modifying beliefs and attitudes among staff on the importance of addressing nicotine addiction</li></ul>         |
| <ul style="list-style-type: none"><li>• Improving knowledge among staff on clients' interest in smoking cessation</li></ul>                              |
| <ul style="list-style-type: none"><li>• Discouraging staff smoking with clients</li></ul>                                                                |
| <ul style="list-style-type: none"><li>• Training staff to provide brief cessation counseling</li></ul>                                                   |
| <ul style="list-style-type: none"><li>• Incentivizing staff to participate in cessation training and to enforce policies.</li></ul>                      |
| <ul style="list-style-type: none"><li>• Partnering with local tobacco control organizations to increase capacity to provide cessation services</li></ul> |

# BUILDING TOBACCO CESSATION CAPACITY IN HOMELESS SHELTERS – A PILOT STUDY

- Setting – 2 transitional homeless shelters
- Trained shelter staff to provide brief cessation counseling
- Assessed provision and receipt of cessation services





# **SMOKE-FREE POLICIES**

# SMOKE-FREE POLICIES IN HOMELESS SHELTERS

- Evolving field, earliest study in 2007
- Homeless shelters in California and Texas
  - ▣ Restrict smoking indoors
  - ▣ Differ in outdoor restrictions on smoking, with some having campus wide bans and others no outdoor restrictions
- Most homeless adults are supportive of such policies



# SMOKE-FREE POLICIES AND ASSOCIATION WITH CIGARETTE SMOKING CESSATION

- In 2 studies of sheltered homeless smokers in San Diego County, we found that:
  - Smoke-free policies were associated with anti-tobacco norms
    - Clients staying in shelters with indoor and outdoor smoke-free policies were more likely to not smoke with staff
  - Smoke-free policies were associated with self-reported:
    - Decreases in consumption
    - Interest in short-term quit attempts
    - Interest in smoking cessation
  - A minority (< 10%) expressed interest in leaving the facility because of smoke-free policies

# SMOKE-FREE POLICIES IN PUBLIC HOUSING

HUD proposed a rule that recommended Public Housing Authority-Housing to voluntarily restrict indoor smoking

- 2009
- 20% implemented voluntary smoke-free policies

HUD proposed a new rule for all Public Housing Authority - managed housing to restrict smoking of combustible tobacco in living areas, indoor common areas, and all outdoor areas within 25 feet of the building.

- 2015

**Smoke-free policies in 3100 PHA-housing will impact 1.2 million low-income housing units in the United States**

# SMOKE-FREE POLICIES IN PUBLIC HOUSING – BENEFITS

- Improve the health of very low-income tenants by reducing secondhand smoke exposure
- Reduce tobacco use among low-income smokers if policies are combined with treatment
- Save over \$15 million dollars/year in maintenance costs
- Save about \$500 million dollars/year in health care costs

# SMOKE-FREE POLICIES IN PUBLIC HOUSING – REPERCUSSION FOR HOMELESS POPULATIONS

- Does not apply to mixed finance developments or supportive housing for formerly homeless adults
  - ▣ Contribute to disparities in exposure to secondhand smoke
  - ▣ Contribute to disparities in access to cessation treatment
- Potential for increase in unsheltered homeless due to evictions
  - ▣ Case studies have demonstrated few occurrences of evictions
  - ▣ Provision of cessation services may minimize risk
- Does not include e-cigarettes and marijuana





# **MEDIA CAMPAIGNS**

# MEDIA AS MOTIVATOR OF CESSATION – ANTI-TOBACCO GRAPHIC WARNING LABELS



- Not approved by the FDA in U.S., but other public health campaigns exist
  - ▣ CDC Tips from Former Smokers
- Data from other countries suggest that labels:
  - ▣ Raise awareness about harms of tobacco to self and others
  - ▣ Motivate cessation behaviors
- In our study among older homeless adults:
  - ▣ Perceived as more effective for motivating cessation behaviors
- Media campaigns could serve as effective adjuncts to cessation interventions for older homeless smokers

# SUMMARY

- It is feasible to engage homeless adults in cessation
- Group counseling and pharmacotherapy alone may be insufficient for successful cessation
- Policy-level interventions are critical to reducing tobacco use
  - ▣ Smoke-free policies in shelters and housing for homeless adults
  - ▣ Policies that mandate provision of cessation services in homeless services settings
  - ▣ Media can motivate cessation behaviors among certain homeless populations

# CURRENT THINKING in TOBACCO DEPENDENCE TREATMENT

## CONTEXT

Homeless population

## INTERVENTION

Behavioral counseling and pharmacotherapy

## OUTCOMES

Marginal reductions in tobacco use

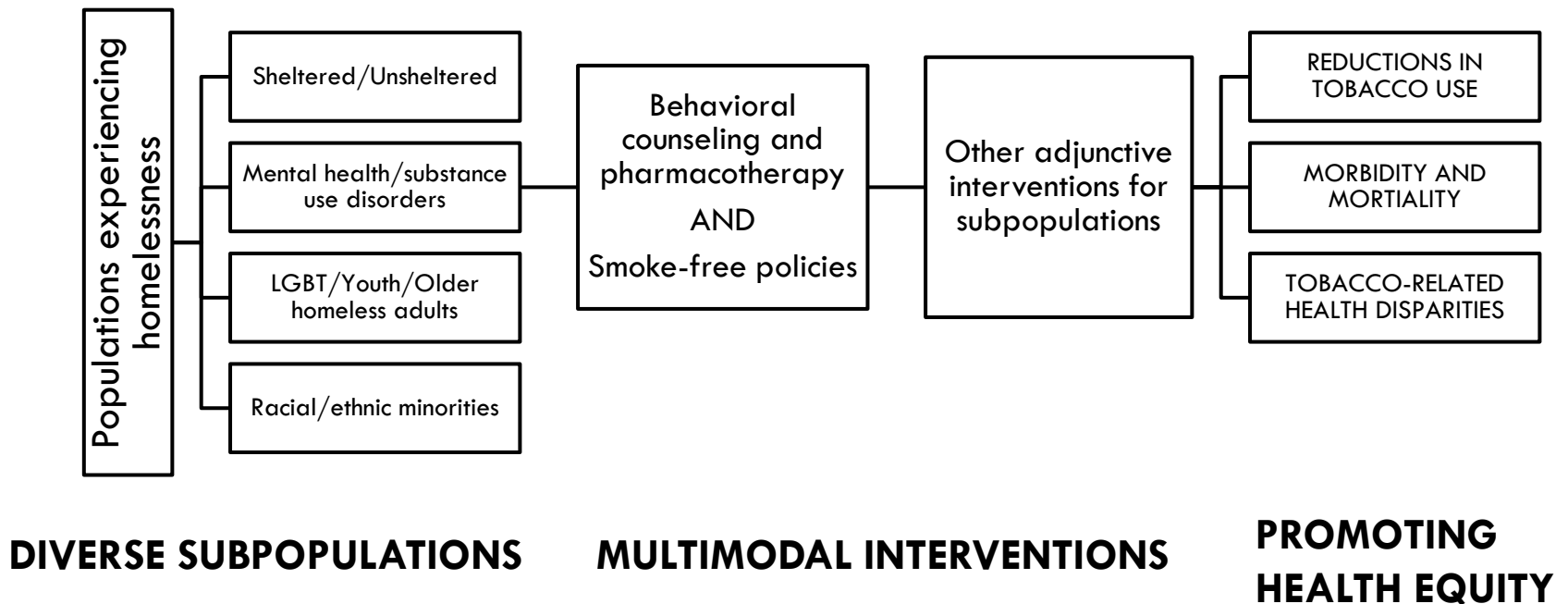


# SHIFT IN PARADIGM

## CONTEXT

## INTERVENTIONS

## OUTCOMES



# MANY UNANSWERED QUESTIONS

- What interventions would benefit homeless subpopulations?
- What interventions would benefit homeless youth?
- What interventions would lead to improved quit rates?
- What are the ways to increase access to smoke-free environments?
- What are the ways to eliminate early childhood exposure to tobacco and nicotine products?

# TAKE HOME MESSAGES

- Ask everyone about tobacco use
- Advise to quit tobacco use
- Provide access to or refer to cessation services
- Ask about e-cigarette and marijuana use and counsel against use
- Integrate counseling for substance use with counseling for tobacco use
- Ask everyone about exposure to secondhand smoke
- Support interventions to:
  - ▣ Increase access to tobacco-free housing and homeless service settings
  - ▣ Implement policies to increase delivery of cessation services

# Questions and Answers



- Submit questions via the **chat box**



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**5 FREE CME/CEU certificates**  
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**SCLC mug**

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